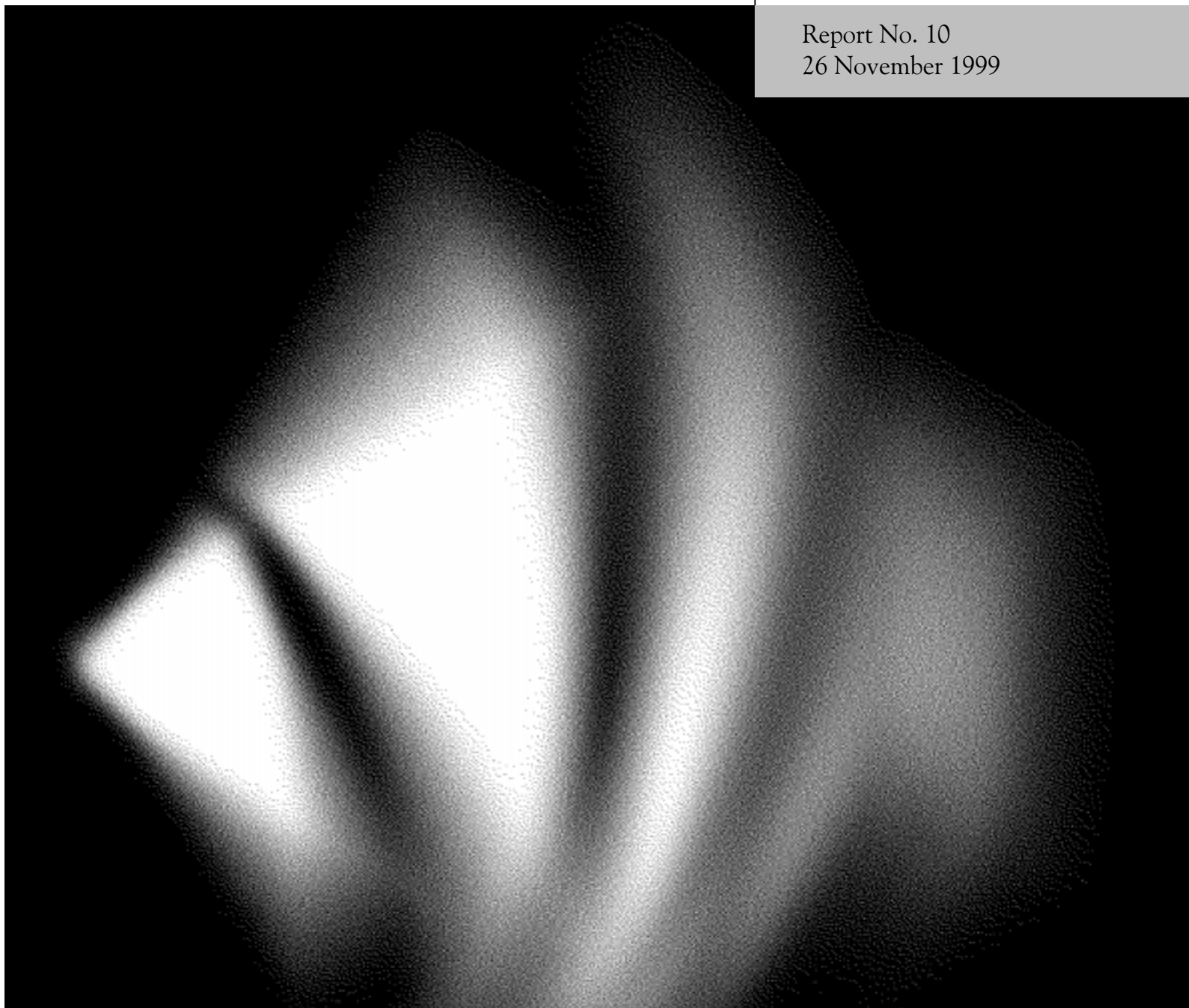




Australia's Gambling Industries

Inquiry Report
Volume 1: Report (Parts A-C)

Report No. 10
26 November 1999



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The Productivity Commission

The Productivity Commission, an independent Commonwealth agency, is the Government's principal review and advisory body on microeconomic policy and regulation. It conducts public inquiries and research into a broad range of economic and social issues affecting the welfare of Australians.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Information on the Productivity Commission, its publications and its current work program can be found on the World Wide Web at www.pc.gov.au or by contacting Media and Publications on (03) 9653 2244.

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**PRODUCTIVITY
COMMISSION**

26 November 1999

The Honourable Peter Costello MP
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

In accordance with Section 11 of the *Productivity Commission Act 1998*, we have pleasure in submitting to you the Commission's report on *Australia's Gambling Industries*.

Yours sincerely

Gary Banks
Chairman

Robert Fitzgerald AM
Associate Commissioner

Acknowledgments

In conducting its inquiry, the Commission has benefited greatly from the participation of a wide range of people and organisations. The Commission is grateful to all those who provided written submissions or gave freely of their time to discuss issues in various forums.

Commissioners would also like to express their gratitude for the efforts and commitment of their inquiry team, in what has proven to be a major and challenging research exercise.

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Glossary

DSM-IV	The Diagnostic and Statistical Manual of Mental Disorders, fourth edition, of the American Psychiatric Association (DSM-IV) contains a set of questions that is used to determine whether a person is a problem gambler (see also SOGS). Questions include whether they are preoccupied with gambling, need to gamble more each time in order to get the desired excitement or use gambling as an escape.
EGM	Electronic gaming machines (see gaming machines).
Expenditure	The net amount lost by gamblers (the amount staked by gamblers less their winnings).
Gambling	Staking money on uncertain events driven by chance. The major forms of gambling are wagering (racing and sports) and gaming (casinos, gaming machines, keno and lotteries).
Gaming	All legal forms of gambling other than wagering — including lotteries, gaming machines, casino table games and keno.
Gaming machines	Machines used for gaming purposes (sometimes referred to as poker machines or ‘pokies’). Come in two main types: where the player makes no strategic decisions after starting the game, and where the player can make strategic decisions (for example, drawcard machines).
Gross profit	Used in Australia to denote the return to the gambling operator — total wagering less prizes. Also known as gross winnings. Conversely, this the same as the amount lost by gamblers (expenditure).

Gross revenue	Used in the United States to denote the return to the gambling operator — total wagering less prizes. Also known as adjusted gross receipts, adjusted gross proceeds, gross wager, net (casino) win, win, gross gaming revenue, or hold. In Australia, the equivalent term is gross profit (or conversely, gambler expenditure or losses).
Handle	Used in the Australian casino gaming industry to describe the value of money exchanged for gaming chips.
Incidence (of problem gambling)	The number of new cases of problem gambling developed over a fixed period. A measure of flow, rather than stock (compare with prevalence).
Keno	A game where a player bets that chosen numbers will match any of the 20 numbers randomly selected from a group of 80 numbers via a computer system or ball drawn device. It is an electronic form of bingo, and is typically played in clubs, casinos and hotels.
Linked jackpots and accelerators	Linked jackpots refer to gaming machines that are linked together and pay out a jackpot at some point in a spending interval, such as paying out \$1000 between \$20 000 and \$30 000. Accelerators are non-linked machines that pay out a jackpot over a similar spending interval. Thus, although wins on other types of gaming machines bear no relation to the amount gambled, specific wins on linked jackpot and accelerator machines relate specifically to the amount gambled.
Lotteries	Come in various forms, including lotto, pools and instant lotteries (or ‘scratchies’). Lotto is played by choosing numbers in anticipation that those numbers will be amongst the winning numbers selected randomly.
Minor gaming	The collective term given to art unions, raffles, lucky envelopes and the like.

Mutuality principle	The mutuality principle is that one cannot make a profit from selling to oneself, and an amount received from oneself is not income — and therefore not subject to tax. The concept has been extended to defined groups of people who contribute to a common fund, controlled by the group for common (not individual) benefit.
Odds	The average chances of winning. In racing, the odds are also an indication of the return to a gambler.
Outlay	The amount of money staked or bet by gamblers (see turnover).
Pathological gamblers	Used in the United States (for what is seen as a psychiatric condition) for those who score 5 or more using the DSM-IV criteria or SOGS. A DSM-IV score of 5 does not have simple equivalence to a SOGS score of 5, but tends to identify the same groups of gamblers.
Payout ratio	The average return to a player from a given turnover.
Pools	A numbers game of chance where the winning numbers are based on the results of the United Kingdom or Australian soccer matches.
Prevalence (of problem gambling)	The total number of problem gamblers in a population. A measure of stock, rather than flow (compare with incidence). The Commission has used the South Oaks Gambling Screen, self-assessment questions and other indications by gamblers of harm to try to estimate the prevalence.
Problem gambling	Problem gambling is a continuum — some people have moderate problems and others have severe problems. The Commission has used various thresholds and approaches to measure this group, depending on the purpose of the analysis (see chapter 6 for more details).
Recreational gamblers	All non-problem gamblers.
Regular gamblers	Those gamblers who engage in some form of gambling, on average, once a week (other than those who are solely regular lottery or lotto players).

Severe problem gamblers	Used by the Commission to indicate problem gamblers as identified by Dickerson’s approach to prevalence (chapter 6).
SOGS	The South Oaks Gambling Screen (SOGS) is a particular set of questions that is used to determine whether a person is a problem gambler (see also DSM-IV). Questions include whether they chase losses, have problems controlling their gambling, gamble more than intended or feel guilty about gambling.
Turnover	The cumulative amount of money staked or wagered by gamblers, including recycled winnings.
Wagering	Legal gambling on racing and sports.

Terms of reference

I, Peter Costello, Treasurer, under Parts 2 and 3 of the Productivity Commission Act 1998, hereby refer Australia's gambling industries for inquiry and the provision of an information report within twelve months of receiving this reference. The Commission is to hold hearings for the purpose of the inquiry.

Background

2. There is a need for a better understanding of the performance of the gambling industries and their economic and social impacts across Australia, including their impact on the retail, tourism and entertainment industries and on Commonwealth and State/Territory Budgets. Little is known about the social impacts of the rapid growth in gambling.

Scope of Inquiry

3. In particular, the Commission should examine and report on:
- (a) the nature and definition of gambling and the range of activities incorporated within this definition;
 - (b) the participation profile of gambling;
 - (c) the economic impacts of the gambling industries, including industry size, growth, employment, organisation and interrelationships with other industries such as tourism, leisure, other entertainment and retailing;
 - (d) the social impacts of the gambling industries, the incidence of gambling abuse, the cost and nature of welfare support services of government and non-government organisations necessary to address it, the redistributive effects of gambling and the effects of gambling on community development and the provision of other services;
 - (e) the effects of the regulatory structures – including licensing arrangements, entry and advertising restrictions, application of the mutuality principle and differing taxation arrangements – governing the gambling industries, including the implications of differing approaches for industry development and consumers;
 - (f) the implications of new technologies (such as the internet), including the effect on traditional government controls on the gambling industries;
 - (g) the impact of gambling on Commonwealth, State and Territory Budgets; and
 - (h) the adequacy of ABS statistics involving gambling.
4. The Commission should take account of any recent relevant studies undertaken or under way and have regard to the economic, social, and regional development objectives of governments.

PETER COSTELLO

[Reference received on 26 August 1998]

The Commission's key findings

- Gambling provides enjoyment to most Australians, over 80 per cent of whom gambled in the last year — spending about \$11 billion — with 40 per cent gambling regularly.
- Gambling is a big and rapidly growing business in Australia, with the industries currently accounting for an estimated 1.5 per cent of GDP, and employing over 100 000 people in more than 7000 businesses throughout the country.
- The main source of national benefit from the liberalisation of gambling has been the consumer gains from access to a service that gives people enjoyment.
 - Net gains in jobs and economic activity are small when account is taken of the impact on other industries of the diversion of consumer spending to gambling.
- The principal rationales for regulating the gambling industries any differently than other industries relate to:
 - promoting consumer protection;
 - minimising the potential for criminal and unethical activity; and
 - reducing the risks and costs of problem gambling.
- Around 130 000 Australians (about 1 per cent of the adult population) are estimated to have *severe* problems with their gambling. A further 160 000 adults are estimated to have *moderate* problems, which may not require 'treatment' but warrant policy concern.
 - Taken together, 'problem gamblers' represent just over 290 000 people, or 2.1 per cent of Australian adults.
- Problem gamblers comprise 15 per cent of regular (non-lottery) gamblers and account for about \$3.5 billion in expenditure annually — about one-third of the gambling industries' market.
 - They lose on average around \$12 000 each per year, compared with just under \$650 for other gamblers.
- The prevalence of problem gambling is related to the degree of accessibility of gambling, particularly gaming machines.
- The costs include financial and emotional impacts on the gamblers and on others, with on average at least five other people affected to varying degrees. For example:
 - one in ten said they have contemplated suicide due to gambling; and
 - nearly half those in counselling reported losing time from work or study in the past year due to gambling.

The Commission's key findings (cont.)

- The adverse impacts on individuals and the community, help explain the ambivalence of most Australians about the gambling industries, despite their widespread involvement:
 - around 70 per cent of people surveyed believed that gambling did more harm than good; and
 - 92 per cent did not want to see further expansion of gaming machines.
- Quantification of the costs and benefits of the gambling industries is hazardous. Uncertainty about key parameters constrained the Commission to providing low and high estimates. For the gambling industries as a whole, estimates of their *net* contribution to society, ranged from a net loss of \$1.2 billion to a net benefit of \$4.3 billion.
 - This masks divergent results for different gambling modes, with lotteries revealing clear net benefits, whereas gaming machines and wagering include the possibility of net losses.
- Policy approaches for the gambling industries need to be directed at reducing the costs of problem gambling — through harm minimisation and prevention measures — while retaining as much of the benefit to recreational gamblers as possible.
- The current regulatory environment is deficient. Regulations are complex, fragmented and often inconsistent. This has arisen because of inadequate policy-making processes and strong incentives for governments to derive revenue from the gambling industries.
- Restrictions on competition have not reduced the accessibility of gambling other than for casino games. With the possible exception of casinos, current restrictions on competition have little justification.
- Venue caps on gaming machines are preferable to state-wide caps in helping to moderate the accessibility drivers of problem gambling. However, more targeted consumer protection measures — if implemented — have the potential to be much more effective, with less inconvenience to recreational gamblers.
- Existing arrangements are inadequate to ensure the informed consent of consumers, or to ameliorate the risks of problem gambling. Particular deficiencies relate to:
 - information about the 'price' and nature of gambling products (especially gaming machines);
 - information about the risks of problem gambling;
 - controls on advertising (which can be inherently misleading);
 - availability of ATMs and credit; and
 - pre-commitment options, including self-exclusion arrangements.

The Commission's key findings (cont.)

- In such areas, self-regulatory approaches are unlikely to be as effective as explicit regulatory requirements. In most cases, regulation can be designed to enhance, rather than restrict consumer choice, by allowing better information and control.
- Counselling services for problem gamblers serve an essential role, but there is a lack of monitoring and evaluation of different approaches, and funding arrangements in some jurisdictions are too short term.
- Services, awareness promotion and research activities related to problem gambling are likely to be most effectively funded from earmarked levies on all segments of the gambling industry, with the allocation of funds independently administered.
- Internet gambling offers the potential for consumer benefits, as well as new risks for problem gambling. Managed liberalisation — with licensing of sites for probity, consumer protection and taxation — could meet most concerns, although its effectiveness would require the assistance of the Commonwealth Government.
- On the basis of available information, there is not a strong or unambiguous case for significantly reducing gambling taxes, with the possible exception of lotteries. Any changes would need to be incremental and carefully monitored.
- The mutuality principle, combined with lack of constraints on gaming machine numbers, appears to be distorting the investment and pricing decisions of some clubs, with impacts on competitors. Of the options for dealing with it, only tax action at the state level appears feasible.
- Policy decisions on key gambling issues have in many cases lacked access to objective information and independent advice — including about the likely social and economic impacts — and community consultation has been deficient.
- An ideal regulatory model would separate clearly the policy-making, control and enforcement functions.
- The key regulatory control body in each state or territory should have statutory independence and a central role in providing information and policy advice, as well as in administering gambling legislation. It should cover all gambling forms and its principal operating criteria should be consumer protection and the public interest.

Summary of the report

Gambling has been a feature of Australian society and its economy since the arrival of the First Fleet. But even by Australian standards, the recent proliferation of gambling opportunities and the growth in the gambling industries have been remarkable. Liberalisation of access to innovative poker machines and casinos has led this expansion, fuelled in part by the revenue needs of state and territory governments.

With the rapid liberalisation and expansion of gambling, concerns have grown about the ‘downsides’ for society, and in particular the impacts on so-called ‘problem gamblers’ and those closest to them. Over the past few years, the debate about these issues has become increasingly polarised:

- On one side are those who support the expansion of gambling, as a source of economic benefits to the states or regions concerned and of entertainment value to consumers — who, it is argued, should be just as free to exercise choice in this area of their lives as any other.
- On the other side, are those who either deny that gambling yields any benefits to the economy or community, or who consider that the social costs and impacts on social values of the ‘new gambling’ outweigh any such benefits.

The polarity of views has been reinforced by a lack of consistent information and detailed analysis about the economic and social impacts of the expansion of gambling. The dearth of relevant information has also been an obstacle to good public policy, in an area with many complexities and uncertainties for decision-makers. This has resulted in a regulatory environment containing major inconsistencies and tensions, which have contributed to community concerns.

Against this backdrop, the Productivity Commission was asked to conduct Australia’s first independent national inquiry into:

- the economic and social impacts of the gambling industries, and
- the effects of the different regulatory structures that surround those industries.

The Commission was asked to provide an information report which can serve to enhance public understanding of the issues and assist government decision-making. While the report contains no policy recommendations requiring a formal

government response, it does provide a range of policy-relevant findings and assessments that should be of assistance to all governments. (The full terms of reference are reproduced on page 1.)

The inquiry's national scope has enabled an overarching perspective on the experiences of different jurisdictions, as well as providing an opportunity to obtain nationally consistent data. The Commission undertook three national surveys of its own, drawing on the expertise of leading Australian researchers, in addition to exploiting available information sources. That major undertaking has yielded much new and useful information.

This final report has benefited greatly from the feedback and further input of participants, including expert advisers, following the release of a draft report in July. The Commission is grateful to everyone who has taken part in the inquiry (appendix A).

1 The gambling industries

What are they?

Gambling has been formally defined as 'staking money on uncertain events driven by chance'. As some participants observed, this can encompass many activities, including the more speculative areas of commodity and financial markets. Nevertheless, gambling retains the distinguishing feature that, as a group, gamblers inevitably lose money over time — it is more like consumption expenditure than investment.

The Commission has focused predominantly on what are generally accepted to be the principal gambling forms — gaming, wagering and lottery products (see box 1). The gambling 'industries' accordingly encompass those organisations that provide these services — including casinos, clubs, hotels, TABs, sports betting enterprises and lottery organisations.

- 'Minor' gambling activities (art unions, raffles) have been taken into account only where most relevant, as have informal and illegal gambling.
- However, internet gambling, which is still in its infancy, is examined in some detail.
- The inquiry has also recognised, but not looked at in any detail, activities related to gambling such as the manufacture of poker machines or other equipment, horse breeding and racing, or other sports that are the subject of wagering activities.

Box 1 **Some key gambling terms**

Gaming comprises all legal forms of gambling other than wagering — including lotteries, gaming machines, casino table games and keno.

Minor gaming is the collective name given to art unions, raffles, lucky envelopes and the like.

Wagering is another name for betting — to stake something (usually money) on the outcome of a contest or any uncertain event or matter. The principal forms are racing and sports betting.

Lotteries come in various forms, including lotto, pools and instant lotteries (or ‘scratchies’). Lotto is played by choosing numbers in anticipation that those numbers will be amongst the winning numbers selected randomly through various means.

Gaming machines (electronic gaming machines or ‘poker’ machines) come in two main types: machines where the player generally can make no strategic decisions after starting the game; and machines where the player may make strategic decisions. An example of the latter is a drawcard machine, where after the game has started the player must decide whether to hold or receive cards.

Keno is a game where a player wagers that chosen numbers will match any of the 20 numbers randomly selected from a group of 80 numbers via a computer system or a ball drawing device. It is an electronic form of bingo, and is typically played in clubs, casinos and hotels.

Turnover is the amount of money staked or wagered.

Expenditure is the net amount lost, or the amount wagered less the amount won.

Odds are the average chances of winning. In racing, the odds are also an indication of the return to a gambler.

Payout ratios are the average returns to a player from a given turnover.

Evolution of gambling

Australia has a long association with gambling and has been at the forefront of many developments in the industry. The ‘totalisator’ used in racing around the world was invented here. Australia also has a longer history of legal gaming machines than most countries and leads the world in their technology. More recently, the first government regulated internet casino site in the OECD was established in the Northern Territory.

Until the last 10 to 15 years, however, legal gambling was confined to lotteries and racing in most states, with gaming machines being long established only in New South Wales clubs. The rapid transformation since then has been the result of legalisation (or liberalisation) and technological developments.

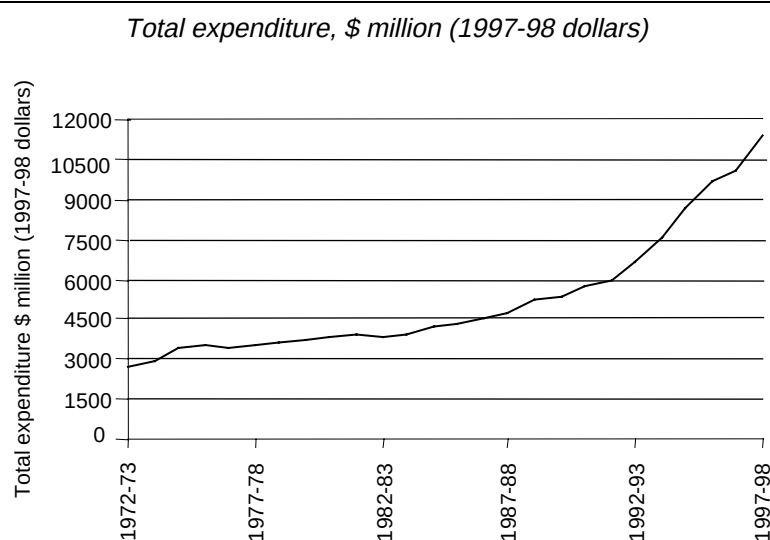
Some key features of this recent expansion of the gambling industries are:

- a proliferation of gambling forms, which commenced with the spread of casinos and then of electronic poker machines, with lottery products also becoming more diverse and sports betting expanding (including through the internet);
- increasing accessibility and ‘convenience’ of gambling, which in most jurisdictions is now part of the suburban scene;
- a more rapid ‘tempo’ of gambling, through electronic machines with much higher spending rates than the old ‘one arm bandits’, as well as more frequent race meetings and lottery draws;
- privatisation of the traditional government-run gambling forms — TABs and lotteries — with involvement of large corporations, and increasing concentration of ownership in some areas; and
- more pervasive advertising and promotion of gambling (including the use of gambling as a marketing tool for other products).

Growth industries

The Commission estimates that the gambling industries account for about 1½ per cent of Australia’s GDP. Total expenditure (losses) on gambling amounted to over \$11 billion in 1997-98, of which \$3.5 billion is paid in taxation from a turnover (money staked) of some \$95 billion (box 2). Expenditure is more than double what it was a decade ago in real terms — at least for legal gambling — and treble that of 15 years ago (figure 1).

Figure 1 **Rapid growth in gambling expenditure**



Data source: Tasmanian Gaming Commission 1999.

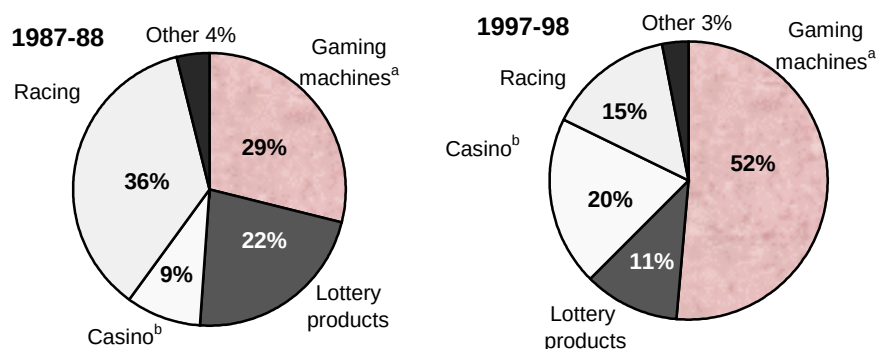
Box 2 Some facts about the gambling industries

- In 1997-98, net expenditure (or the amount lost) on gambling in Australia was around \$11.3 billion. Of this, \$10.8 billion was lost by Australians, the remainder being lost by overseas visitors. Turnover (or the amount wagered) was around \$95 billion.
- Around 7000 businesses provide gambling services throughout Australia, of which 2888 are pubs, 2408 are clubs, 13 are casinos, and the remainder are lotteries and other businesses.
- Over 37 000 people were employed in businesses where the predominant activity was gambling — around 20 000 were employed in casinos and more than 15 000 in totalisator betting, lottery and other gambling businesses. In addition, over 120 000 people were employed in clubs, pubs, taverns and bars where gambling is a secondary activity.
- Gambling taxation revenue has nearly doubled over the last ten years and accounted for just under 12 per cent of state and territory governments' own-tax revenue in 1997-98.
- Gambling is characterised by a mix of public and private ownership. For example, the Adelaide casino and most lotteries are publicly owned, whereas most gaming machine venues are commercially owned and operated or are in the not-for-profit sector.

- Much of this growth has come from gaming machines, which accounted for 52 per cent of expenditure in 1997-98 (outside casinos), compared with 29 per cent in 1987-88 (figure 2). About one-third of gaming machines are now in hotels and 6 per cent are in casinos, whereas 15 years ago licensed clubs accounted for almost all machines.
- While gaming machines' share of total gambling expenditure has risen, its growth appears not to have displaced other gambling modes — which have largely maintained their previous growth trends — but rather has been at the expense of other consumption items or saving (future consumption).
- It follows that gambling expenditure has grown most rapidly in those states which have legalised or liberalised access to gaming machines. For example, gambling expenditure in Victoria was under \$1 billion in 1987-88, 40 per cent of that in New South Wales; 10 years later, expenditure in Victoria was \$3 billion, over 70 per cent of that in New South Wales (see figure 3).

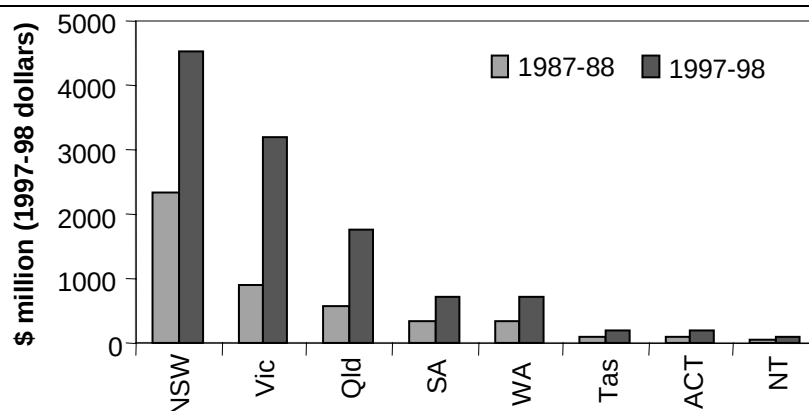
Employment in these industries has grown commensurately. In 1997-98 there were over 37 000 people employed in gambling businesses (17 per cent of total 'cultural and recreational' employment) with at least another 70 000 obtaining employment in clubs and pubs as a result of gambling activities there. The industries have above average rates of part-time and female employment.

Figure 2 Expenditure by type of gambling activity



^a Outside casinos ^b includes gaming machines which accounted for 6 percentage points in 1997-98.
Data source: Tasmanian Gaming Commission.

Figure 3 Gambling expenditure by state and territory



Data source: Tasmanian Gaming Commission 1999.

Table 1 Participation and frequency of gambling by adult Australians

Form of gambling	Total Participation (per cent)	of which:			
		Less than once a month	1-3 times a month	1-3 times a week	>3 times a week
Lotto or other lottery games	60	25	24	45	6
Instant scratch tickets	46	52	33	14	1
Poker or gaming machines	39	62	25	11	2
Racing	24	71	14	13	2
Keno	16	72	20	7	1
Casino table games	10	82	15	2	0
Sports betting	6	52	25	23	0
Bingo	5	49	23	27	2
Private gambling	5	68	23	7	2
Played an internet casino game	0.4	60	15	21	4
Any gambling activity	82	26	24	37	13

Source: PC National Gambling Survey.

Box 3 **Australia's innovative 'pokies'**

Reflecting the long history and widespread availability of gaming machines in this country, Australia's manufacturers have become world leaders in innovation and design. They are also ahead of many other Australian enterprises in this respect, exemplified by Aristocrat Leisure Industries' number one ranking in the Melbourne Institute's Innovation Index (Melbourne Institute 1998). AGMMA declared that:

Australian-style video gaming machines are the most exciting and popular 'state-of-the-art' gaming machines in the world ... (sub. D257, p. 22).

This view is widely shared. An industry commentator, writing in *Casino International* magazine, observed:

The Australian market is based on 'pokie' machines, the famed multi-line multipliers that have come to be known all over the world as Australian machines. They are as sophisticated as slot machines get. They have to be: almost all of them are to be found in clubs where repeat play is measured in visits per week, rather than visits per year as in resort destinations (Sorrill 1999, p. 20).

Australia has about 185 000 gaming machines, over half of which are in New South Wales. Data provided to the Commission since the draft report, together with other information, suggest that this amounts to about 20 per cent of the number of broadly *comparable* machines in the world (appendix N). These machines generally allow much more intensive play, posing potentially higher risks for problem gambling. On a per capita basis, Australia has roughly five times as many gaming machines as the United States, where their availability is more restricted.

But as the industry emphasised, Australia's share of the world market can be estimated at as low as 2.4 per cent, if a range of other devices, such as 'amusements with prizes' and Japanese pachinko (pinball-style) and pachislo machines, are included (AGMMA sub. D257, annexure 1). It would be lower still if illegal machines, or internet gaming on personal computers, were counted.

Of course, what matters for policy, is not the proportion of machines that are in Australia, but rather their potential to promote or exacerbate problem gambling, and how this might be countered. Clubs Victoria argued at the public hearings:

We believe it's quite irrelevant how many of the world's EGMs are in Australia. What is relevant is how many of the world's problem gamblers are in Australia, and we could end up with half the world's EGMs to no detriment if the product was delivered responsibly and so as to minimise harm (transcript, p. 1304).

2 Who gambles and how much?

According to the Commission's survey data, about 82 per cent of adult Australians engaged in gambling in 1997-98 (apart from raffles and sweeps), with 60 per cent participating in lotteries and 39 per cent playing gaming machines (table 1).

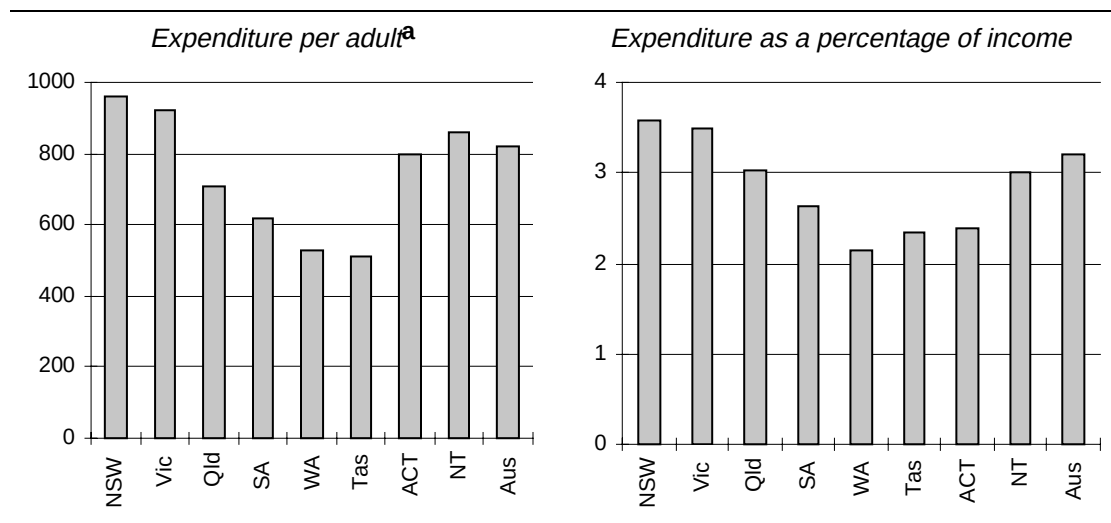
- Some 40 per cent of adults could be described as 'regular' gamblers (at least once a week), but
- only 20 per cent are regular *non-lottery* gamblers.

The skewed participation in gambling is reflected in spending patterns. On average, adult Australians currently spend (lose) about \$760 each year on gambling. That makes us among the heaviest gamblers in the world, spending at least twice as much on average on legalised gambling as people in North America and Europe.

- But just 10 per cent of gamblers accounted for around 70 per cent of total gambling expenditure in 1997-98.

Of the \$760 average 'spend' on gambling in 1997-98, about \$420 was lost on gaming machines. This helps explain the considerable gap in per capita spending between some jurisdictions — New South Wales, Victoria, the ACT and Northern Territory — where gaming machines are more established, and the others (see figure 4).

Figure 4 **Gambling expenditure by state, 1997-98**



^a in dollars; includes some spending by foreign tourists.

Data source: Tasmanian Gaming Commission.

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- The states where people have spent least on gambling — both in dollars and relative to household incomes — are Western Australia and Tasmania, which have also had the lowest access to gaming machines. (In Western Australia they remain banned outside the casino.)

A profile of Australian gamblers

With around 82 per cent of the adult population participating in gambling, it is to be expected that the socio-demographic profile of gamblers would resemble that of the population as a whole. However, there is some variation by mode of gambling:

- The profile of casino gamblers is biased towards males, people aged 18 to 24 and Asian communities.
- Unlike wagering, in which men predominate, the profile of gaming machine players has no gender bias (being relatively popular with women) but slightly favours younger people and middle income earners.
- Lottery players, with the highest participation rate, most closely resemble the general population (many of whom do not consider it to be real gambling).

Socio-demographic profiles are also more distinct for *regular* gamblers, where there is a greater participation of males, people aged 18 to 24 and those with lower levels of education.

3 Just another industry?

The gambling industries clearly play a significant role in our economy and in the lives of many Australians, whether as employees or consumers. We don't seek to assess the costs and benefits of most other industries, so why do so for these industries? What makes them special?

Some people representing the industries have argued that there is little that is special about them: they are just like other entertainment businesses competing for the consumer's dollar — and they are excessively burdened by government regulation and taxation. But this was not the predominant view. Even within the gambling industries themselves, many of those with whom the Commission met accepted that their industry was indeed 'special'; in the words of one senior executive, gambling was seen as a 'questionable pleasure'.

The perceived 'questionable' nature of the gambling industries reflects their ability simultaneously to provide entertainment that is harmless to many people, while being a source of great distress — and even of financial and personal ruin — to a

significant minority. The imbalance between the consequences for each group can be very marked, a feature not found in other entertainment industries. (Alcohol consumption provides a closer analogy.)

Furthermore, the benefits which many derive from gambling — to the extent that they include occasional winnings — are derived in part from the financial losses of others. This helps explain long-standing ethical or moral objections within the community to activities seen as involving the pursuit of ‘easy money’.

The Commission’s national survey, consistent with earlier state-based surveys, found widespread community concern about the expansion of gambling, despite the equally widespread community involvement in the activity. Indeed, around 70 per cent of Australians (including a majority of regular gamblers) consider that gambling does more harm than good (see box 4). This again is not typical of the pattern of consumer response to most leisure activities.

Box 4 **Community attitudes to gambling**

Despite the widespread participation in gambling in Australia, surveys have consistently found a high disapproval rating within the community. The Commission’s *National Gambling Survey* found the following:

	<i>Gambling does more good than harm</i>	<i>Gambling has provided more opportunities for recreational enjoyment</i>	<i>Should numbers of gaming machines be increased, decreased or stay the same?</i>	
	%	%		%
Strongly agree	3.8	7.0	A large increase	0.6
Slightly agree	11.2	25.5	A small increase	1.1
Neither agree nor disagree	11.9	11.0	Stay the same	41.1
Slightly disagree	23.9	20.9	A small decrease	17.1
Strongly disagree	47.4	33.7	A large decrease	33.5
Don't know/ can't say	1.8	1.9	Don't know/can't say	6.6

Thus governments through the ages have generally placed restrictions or outright bans on gambling activity. The gambling industries, more than many others, are creatures of government regulation. But social mores and community attitudes change over time, and gambling regulation can be expected to evolve as well. In addition to these broader influences, what should guide government policy?

The task for government policy towards these industries, as for any others, is to regulate them in ways which, by taking account of their special characteristics, will

help to bring the greatest net benefits to society. This does not mean eliminating their costs, but striking a balance such as to maximise the net benefits. In the Commission's view, such a balance has not always been sought or achieved in gambling policy, and the information required for that task has been lacking.

4 What are the benefits?

While the gambling industries have some important defining characteristics, they are also like other industries in seeking both to satisfy consumer demand and to expand that demand.

Many consumers enjoy gambling

The misconception that gambling generates no worthwhile benefits is based on the 'materialist illusion' that only tangible goods or services yield economic gain. This ignores the pleasure that people derive from some activities regardless of any tangible output. Thus many people gamble because of the enjoyment they get from the venue, the social interaction, the risk, the thrill of anticipation, or some combination of all of these (see table 2). Gambling venues such as casinos and clubs can also provide an accessible, comfortable and safe social environment, which many people — particularly women, elderly people and ethnic communities — have found appealing.

Table 2 **Why do people gamble?**

<i>Motivation</i>	<i>All gamblers % of respondents</i>	<i>Regular gaming machine/casino gamblers % of respondents</i>
Dream of winning	59	66
Social reasons	38	65
For charity	27	26
Beating the odds	9	14
Favourite activity	10	19
Atmosphere/excitement	13	19
Belief in luck	12	16
Boredom/pass the time	9	13

Source: Roy Morgan 1999.

The industry has rightly emphasised that many people who gamble are simply 'buying time' or seeking distraction, as with other forms of entertainment. A distinguishing feature of gambling, however, is that they are also buying hope of a win — in some circumstances, perhaps a life-transforming one. For recreational

gamblers, that anticipation is part of the enjoyment (which is an economic benefit); but for problem gamblers, it is a big part of their problem.

Thus an important task in evaluating the benefits of these industries is to estimate the extent to which consumers are better off, recognising their different characteristics.

‘Production-side’ gains from liberalisation are limited

Perhaps reflecting the popular misconceptions about intangible goods, even advocates for the gambling industries often underplay the gains to consumers from increased access to a valued or desired activity. Instead, they typically point to benefits in terms of the expenditure, incomes, jobs and trade associated with the expansion of their industry, both directly and indirectly.

These ‘production-side’ benefits from liberalising gambling have often been greatly exaggerated. In fact, they are modest compared with the economic benefits derived by consumers. This was the subject of apparent misunderstanding by some participants.

If these industries had not been permitted to expand, the money spent on gambling would have been spent elsewhere. And most of the resources that went into the gambling industries would have been employed in other uses, creating similar levels of income and jobs to gambling itself. For example, the skills required of personnel in gambling venues are very similar to those required in most entertainment and hospitality industries.

Thus while there may be instances where additional jobs or income may have been generated — say in depressed regions — most of the resources in the gambling industries will have been diverted from other industries. The vocal opposition of retail traders to the expansion of gambling outlets is a visible sign of this underlying economic reality. By the same logic, however, that diversion should not in itself be of concern to policy-makers, unless it *reduces* the efficient use of economic resources, rather than simply reshuffling them.

That is *not* to say, however, that the gambling industries as they have developed, make no contribution to the economy — or that the jobs involved are ‘worthless’ (as some have interpreted it). As already documented, the gambling industries currently generate substantial income and employ many people. And, reimposing prohibitions or cutbacks on these industries now could result in significant losses and transitional unemployment. Even in this case, it is likely that most of the people involved would find alternative employment. As the Australian Hotels Association submission

acknowledged, ‘in the long-term, industry policy affects the industry pattern of employment, not the total level’ (sub. D231, p. 22).

An economy-wide assessment of the contribution of the gambling industries can really only be gained with the aid of quantitative economic models, notwithstanding their particular limitations in dealing with the social costs of gambling. Such economy-wide modelling was conducted by the industry, as well as by consultants commissioned by the inquiry. The Commission’s analysis of these various studies, taking into consideration their different methodologies and assumptions, supports the qualitative reasoning about the industries’ likely net contribution to the economy. In short, the modelling indicates that changes in the size of the industry would have little impact on Australia’s GDP, consumption levels or labour market outcomes over the long term.

The real net contribution of the gambling industries thus depends on the extent to which consumers are better off through any enjoyment they obtain from gambling. But to gauge that requires some understanding of problem gambling.

5. The costs of problem gambling

Because the social and economic costs of these industries stem largely from those who are now generally referred to as ‘problem gamblers’, the Commission has devoted considerable effort to understanding the nature and extent of this phenomenon. In addition to conducting three surveys to supplement existing data sources, it has conferred with a range of specialists in this field (researchers and practitioners) as well as meeting with problem gamblers themselves.

What is ‘problem gambling’?

There are a variety of definitions of problem gambling (box 5), but most emphasise:

- a lack of control by the gambler over his or her gambling behaviour; and/or
- adverse personal, economic and social impacts which result from a gambler’s actions — particularly the financial losses (relative to the gambler’s means).

There is no clear point, however, at which a ‘recreational gambler’ becomes a ‘problem gambler’ and, for problem gamblers, there is a continuum of behaviour and impacts of escalating severity (see figure 5).

Box 5 Some definitions of 'problem gambling'

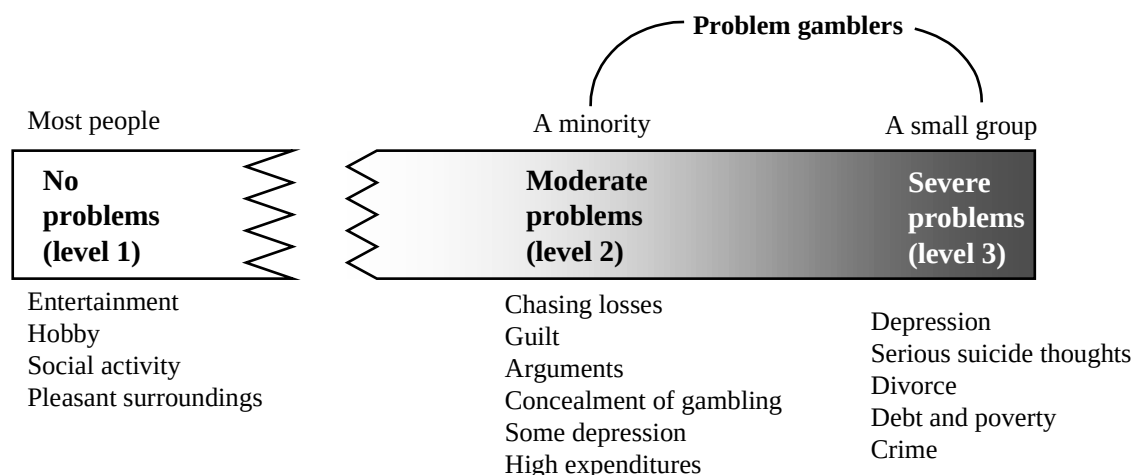
- The situation when a person's gambling activity gives rise to harm to the individual player and/or to his or her family, and may extend to the community (Market Solutions and Dickerson 1997, p. 2).
- Problem gambling encompasses all of the patterns of gambling behaviour that compromise, disrupt or damage personal, family or vocational pursuits (National Council on Problem Gambling (US) 1997).
- Problem gambling may be characterised by a loss of control over gambling, especially over the scope and frequency of gambling, the level of wagering and the amount of leisure time devoted to gambling, and the negative consequences deriving from this loss of control (Select Committee on Gambling, ACT, 1999, p. 12, based on Hrabá and Lee 1996).
- Problem gambling is any pattern of gambling behaviour that negatively affects other important areas of an individual's life, such as relationships, finances or vocation. The mental disorder of "pathological" gambling lies at one end of a broad continuum of problem gambling behaviour (Volberg et al. 1998, p. 350).
- ... we will use 'pathological' and 'compulsive' gambling in an equivalent sense to describe gamblers who display clear signs of loss of control. 'Problem' gambling is used to refer to the wider group of people who show some but not all signs of developing that condition (Błaszczynski 1998, p. 13).

These can be categorised under the following headings (not all of which need be present):

- *personal and psychological characteristics*, such as difficulties in controlling expenditure; thinking about gambling for much of the time; anxiety, depression or guilt over gambling and thoughts of suicide or attempted suicide;
- *gambling behaviours*, such as spending more time or money on gambling than intended, chasing losses and making repeated but failed attempts to stop gambling;
- *interpersonal problems*, such as gambling-related arguments with family members, friends and work colleagues; relationship breakdown and other family stresses;
- *job and study problems*, such as poor work performance, lost time at work or studying, and resignation or sacking due to gambling;
- *financial effects*, such as large debts, unpaid borrowings, and financial hardship for the individual or family members; and
- *legal problems*, such as misappropriation of money, passing bad cheques, and criminal behaviour due to gambling, which in severe cases may result in court appearances and prison sentences.

The main trigger for the problems of most problem gamblers is the financial loss — which then has a range of social and personal repercussions for the gambler, his or her family and contacts. Problem gambling is generally not regarded as a mental illness for the bulk of people affected, though some will need clinical assistance to resolve their problems.

Figure 5 **The gambling continuum**



Identifying the problem gamblers

The lack of precision in the definition of problem gambling poses difficulties for the identification of those affected. In particular, no single existing test instrument is perfect for measuring the extent ('prevalence') of problem gambling in the population. The dominant tool used to date has been the South Oaks Gambling Screen (or SOGS as it is commonly known), first devised in a clinical setting in the United States. The SOGS has some deficiencies which have prompted attempts to replace it. Having consulted experts in the field, the Commission nevertheless saw value in using the SOGS in its surveys, buttressed by self-assessment questions and other indicators of harm (see box 6). This three-way approach provides a more robust basis for assessing the prevalence of problem gambling. On the basis of this research:

- The Commission estimates that about 1 per cent of Australia's adult population (130 000 people) have severe problems with their gambling, with another 1.1 per cent (163 000) experiencing moderate problems (table 3).
 - Among a range of public health concerns, this prevalence rate is lower than the rates for excessive smoking or alcohol consumption, but greater than that for use of illicit injection drugs (chapter 6).

Box 6 **The SOGS and other screening instruments for measuring problem gambling**

Several measurement instruments or tests are used by researchers to try to determine whether a person is a problem gambler.

- One of the most common tests is the South Oaks Gambling Screen (SOGS). This test poses questions about a gambler's behaviour, such as whether they chase losses, have problems controlling their gambling, gamble more than intended, feel guilty about gambling and believe that they have a problem.
- Another test is the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association, fourth edition (DSM-IV). This shares many features of the SOGS, but has a greater emphasis on psychological aspects of problems, such as preoccupation, development of tolerance, irritability, and gambling as an escape.

The SOGS has been the most widely used and validated test around the world and has been applied in all past Australian prevalence studies. It has also been used in contemporary studies in New Zealand and Sweden to examine the prevalence of problem gambling.

Nevertheless, like all screening instruments, the SOGS has a number of limitations, including:

- Identifying some people as having severe problems when they do not, but missing out on others who do have severe problems; and
- perhaps not working well for all cultural groups in the population.

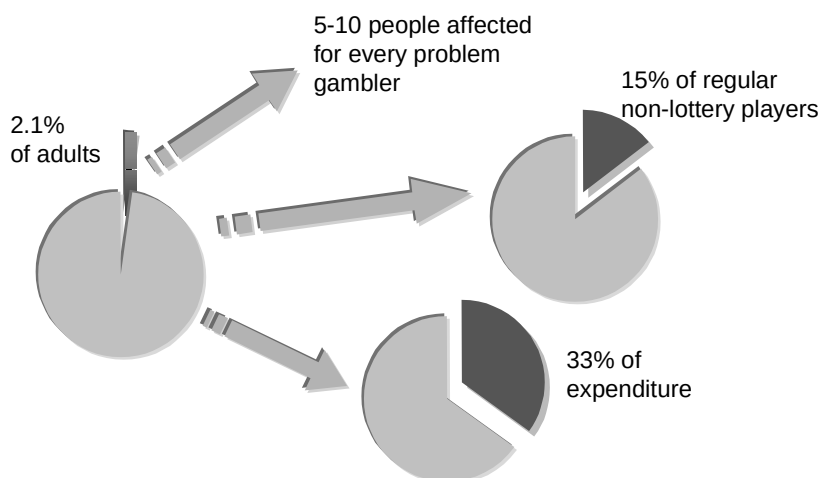
US, Canadian and Australian researchers are developing replacements for the SOGS that try to deal with some of these limitations — a move the Commission believes will be useful for the future measurement of the prevalence of problem gambling, and obtaining a better understanding of its wider impacts, beyond the more narrow concerns of existing tests.

However, having consulted experts in the field, the Commission employed the SOGS in its surveys, which enabled comparisons to be made with other Australian and overseas prevalence estimates using the same methodology. It should also be noted that the Commission:

- asked respondents many other questions about any harms associated with gambling (as well as detailed spending questions) to see whether people were likely to be problem gamblers; and
- has interpreted the SOGS as suggesting that problem gamblers lie on a continuum, with some having severe problems, but the bulk having moderate problems, and has been careful to distinguish these differing levels of harm in its results.

The Commission has used a threshold of 5 or more on the SOGS to indicate a problem gambler and has applied Dickerson's method (chapter 6) to estimate the number of severe problem gamblers.

Figure 6 **The share of problem gamblers**



Data source: PC National Gambling Survey.

Table 3 **Prevalence of problem gamblers and harm incidence in the adult population**

	<i>SOGS 5+</i>	<i>Severe problems</i> ^a	<i>HARM incidence</i> ^b
	%	%	%
NSW	2.55	1.25	1.96
VIC	2.14	0.82	2.05
QLD	1.88	0.76	1.79
WA	0.70	0.17	1.50
SA	^c	^c	1.44
TAS	0.44	0.09	0.12
ACT	2.06	0.73	1.32
NT	1.89	0.77	1.24
Australia	2.07	0.92	1.80

^a As measured by the Dickerson method (chapter 6). ^b A self assessed indicator of significant adverse impacts on the life of the gambler. ^c The numbers derived for SA are 2.45 per cent for SOGS 5+ and 1.38 per cent for severe problems. These results appear to be unrealistically high and are likely to reflect sampling error.

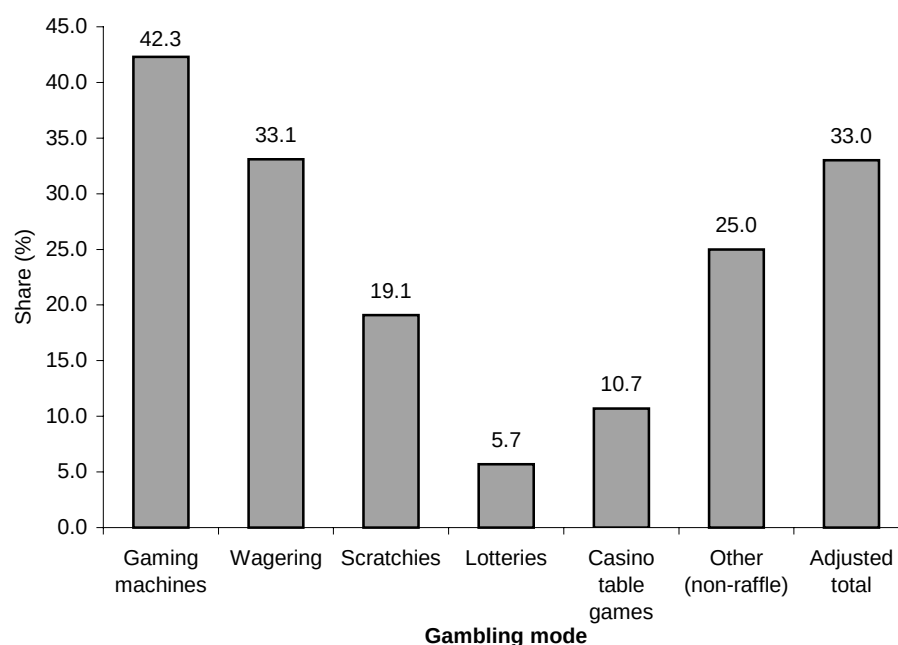
Source: PC National Gambling Survey.

- Problem gamblers are estimated to account for around one-third of total expenditure on gambling in Australia — about \$3.6 billion. Their annual losses average \$12 200, compared with just under \$650 for other gamblers (figure 7 shows this expenditure by mode).
- About 250 000 adults are estimated to have experienced significant harmful effects from gambling in the last 12 months.
- About 0.8 per cent of those surveyed (equating to 111 000 adults Australia-wide) indicated that they wanted help for gambling-related problems.

- The incidence of problem gambling varies by mode. It is highest for gaming machines and racing, and lowest for lotteries. The popularity and widespread availability of gaming machines has meant that they are associated with 65 to 80 per cent of those problem gamblers who are receiving counselling.
- The extent of problem gambling varies across the states and territories, with New South Wales having the highest rates and Western Australia the lowest — probably reflecting the relative availability of gaming machines.

The Commission’s review of the evidence also suggests that problem gambling is significantly greater in Australia than in North America.

Figure 7 Expenditure shares of problem gamblers



^a The adjusted total takes account of the fact that the *National Gambling Survey* underestimates total spending in some gambling modes, while overestimating others. Problem gamblers are defined as SOGS 5+ (see box 6).

Data source: PC *National Gambling Survey* and appendix P.

Some participants disputed these findings on the basis of perceived flaws in the screening instruments or other aspects of the survey. The Commission considers that its estimates are more likely to *understate* than overstate the number of people in Australia with severe gambling problems. (For one thing, many people are understandably reluctant to give honest answers to an interviewer about their gambling problems — see table 4.) A brief explanation of the survey methodology is contained in box 7.

Table 4 Do problem gamblers admit their problems?

The Commission asked 401 problem gamblers in counselling whether they would have participated in a survey prior to seeking help, and whether they would have revealed the true nature of their problems.

<i>Answer</i>	<i>%</i>
Would have:	
Answered honestly	28.9
Refused to answer the survey	23.7
Somewhat concealed any problems	13.7
Mostly concealed any problems	9.7
Completely concealed any problems	9.2
Exaggerated any problems	0.2
Told them you did not know	1.7
Don't know what they would have said then	12.7
Total	100

Source: PC Survey of Clients of Counselling Agencies.

Who are the problem gamblers?

There appear to be few socio-demographic factors that significantly affect the likelihood of someone being a problem gambler: neither gender, ethnicity, education nor income appear to be significant guides. The main exception is age, with younger people being significantly more highly represented (although less so among those in counselling).

What are the impacts?

The main cost impacts stem from the characteristics of problem gambling as classified above. They are depicted in figure 8. Importantly, many of these impacts are not confined to problem gamblers themselves, but involve the imposition of costs on family members, employers and other unrelated people (for example, through larceny and theft). The evidence suggests that 5 to 10 other people can be directly affected to varying degrees by the behaviour of a problem gambler. In addition, there are demands on the resources of community and public services.

Box 7 **The Commission's National Gambling Survey**

The Commission's *National Gambling Survey* was the first fully national survey on gambling patterns and behaviour to be carried out in Australia. It was implemented as a telephone survey, and covered the general adult population (18 years or older). The survey was conducted for the Commission by Roy Morgan Research — one of Australia's most experienced market research companies.

To ensure the representativeness of the sample, it was stratified by:

- area — all states and territories were included, with metropolitan and country areas separately identified (except in the ACT), resulting in 15 geographic areas;
- age — 4 age categories (18-24 years, 25-34 years, 35-49 years, and 50 years or older); and
- gender.

In determining the sample size and design necessary to achieve reliable estimates of gambling behaviour, the Commission was guided by the approach used by the Australian Bureau of Statistics in its *Household Expenditure Survey* (HES).

While the HES uses a sample of around 8,500 households, the Commission chose to use an even larger sample size for the *National Gambling Survey* — more than 10,600 participants completed screener interviews.

The distribution of the sample by area was also very similar to that used in the HES — roughly in proportion to population, with coverage in the smaller states/territories boosted to increase statistical precision.

The Commission's gambling survey is the largest ever conducted in Australia and one of the largest carried out anywhere in the world. There is a strong basis therefore for regarding its results as more reliable than earlier Australian studies.

The questionnaire was vetted by leading Australian researchers in the gambling field, and the use of the South Oaks Gambling Screen as the problem gambling measurement instrument was endorsed by the same panel of experts.

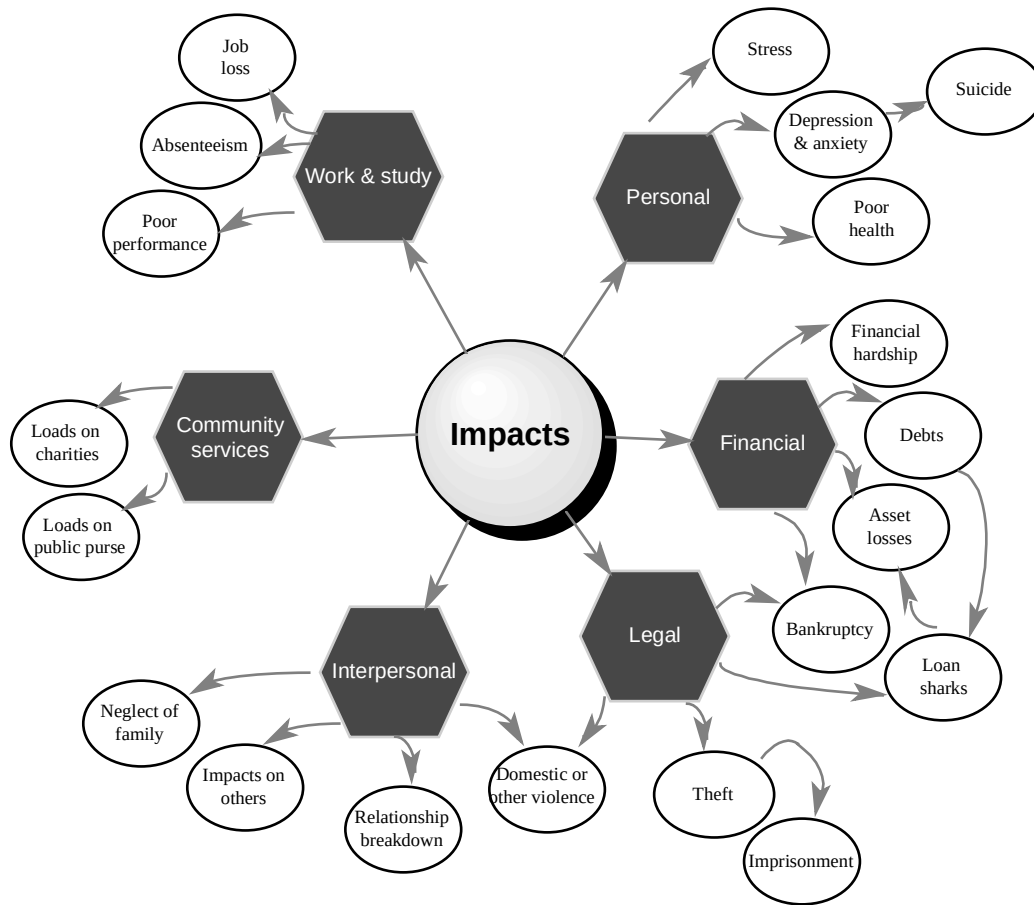
The resulting estimates of problem gambler prevalence derived by the Commission follow standard statistical practice. The sample data were post-weighted on the basis of area, age, gender, and household size, with an adjustment also for the random selection of 1 in 4 non-regular gamblers and 1 in 2 non gamblers.

The response rate achieved was equal to or better than previous Australian surveys and very similar to the recent survey undertaken in the United States for the National Gambling Impact Study Commission.

A reputable survey will inevitably find some outliers. The Commission has flagged instances where they arise (for example, in relation to prevalence of bankruptcy and divorce among problem gamblers) and in these cases supplemented the survey findings with other sources and information.

(For a detailed explanation of the survey methodology, see appendix F.)

Figure 8 **Impacts of problem gambling**



Among the Commission's survey findings:

- one-tenth of those with significant gambling problems — and 60 per cent of those in counselling — admitted seriously contemplating suicide as a result of their gambling;
- nearly one-half of those gamblers in counselling reported losing time from work or study due to gambling;
- gambling losses averaged around 20 per cent of *household* income for problem gamblers (compared with a little over 1 per cent for recreational gamblers), and
- one in five problem gamblers admitted 'borrowing money without paying it back', with one in two going into debt to finance their gambling.

Table 5 **Estimated number of gamblers experiencing adverse impacts^a**

<i>Adverse impact</i>	<i>Number of people affected</i>
Went bankrupt	300
Adversely affected job performance (sometimes to always)	49 200
Changed jobs due to gambling	5 600
Crime (excluding fraudulently written cheques)	9 700
Trouble with the police	6 300
Appeared in court	700
Prison sentence	300
Breakup of a relationship	39 200
Divorce or separation	3 200
Violence	700
Suffered from depression (often to always)	70 500
Seriously considered suicide	12 900
Attempted suicide	2 900
Completed suicides	35-60

^a The estimates mainly relate to questions asked in the *National Gambling Survey* about impacts ‘in the last 12 months’; or where they relate to a lifetime impact, they have been annualised.

Source: chapter 7, appendix J and appendix R.

Just ‘people with problems’?

One industry leader asked himself at the Commission’s public hearings:

Do problem gamblers exist? I am yet to be convinced of this; however I fully acknowledge that there are people with problems who gamble (sub. 161, p. 3).

ACIL’s submission on behalf of a number of members of the industry also suggested that ‘the alleged causal link may be quite spurious’ (sub. 155). This is clearly a threshold consideration in assessing the impacts of problem gambling and the policy implications. If gambling does not cause or contribute substantially to the observed problems, then a major source of cost vanishes.

The literature on problem gambling shows that, while prior problems *can* precipitate problem gambling for some people, there are many pathways which go the other way (see figure 9). In some cases, the problems stem from behaviour conditioned by the nature of the rewards offered by gambling. In others, problems stem from misperceptions about the chances of winning or recouping losses. In yet others, the problems occur because of boredom, social isolation, depression or cultural factors.

Box 8 Experiences of problem gamblers

... I had a wonderful life and was on top of the world. ... I don't know what drove me to seek diversion in poker machines. I just can't remember. ... So pretty soon I was going to play the pokies quite often and yes I was enjoying myself and sometimes even won a few dollars ... I lost interest in music, in my car ... dining out, friends, my girlfriend; everything ... except those reels spinning before my eyes, in my head, in my dreams. I was totally consumed and, in what seemed such a short time. Anyway the whole story is long and covers the last seven years and though I have tried to be unemotional I must say now that I have been through hell ... I have contemplated suicide many times, and many times, I've actually felt as if I was already dead (Comments from a gambler to the Productivity Commission's inquiry).

I know I was addicted and out of control, but I felt powerless to stop. I had tried many, many times to just stop, but the urges that had a grip on me always won. ...I ended up just as bad, and hating myself even...thinking that I deserved this pain because I was so stupid and knew what the outcome would be, but went anyway. ... So of course, my health suffered, my finances were in ruin, and yet I didn't have the so-called willpower to stop (Comments from a gambler to the Productivity Commission's inquiry).

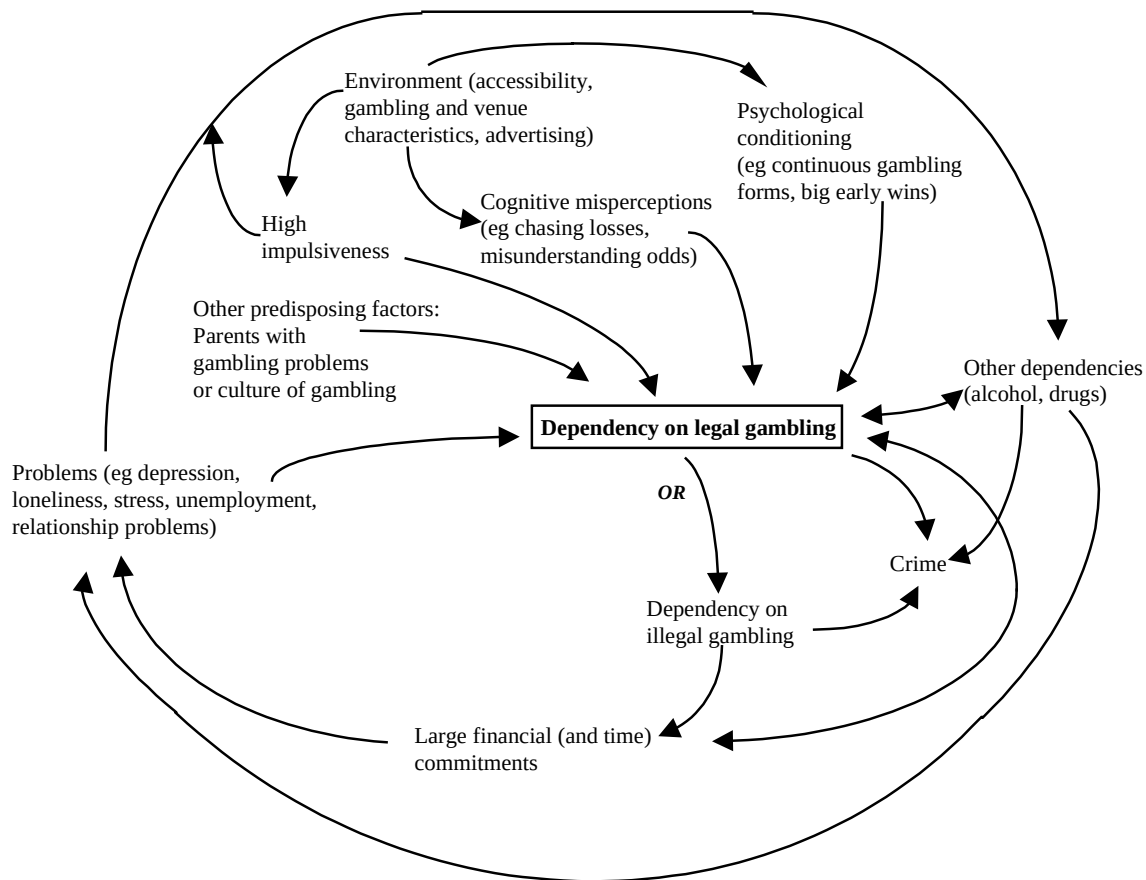
I have had gambling problems for the last nine years betting on horses. My gambling has caused me to appear before the courts on no less than four occasions. I have been homeless many times and my life has become unmanageable. When I am gambling, I do not think of the consequences, I don't care about anything else. I have readily blown my rent and food money to have one more chance to win. It doesn't worry me. My second wife has left with the two children, both under three years of age. Even so, all I can dream of is the big win which will turn my life around for the better (quoted in Blaszczyński 1998, p. 18).

Elaine is 48 years old ... and is from a wealthy Asian background. Elaine had never previously set foot in a club before. ... Elaine decided to go inside the club. ... While there she was fascinated by the flashing lights and sounds emanating from the poker machines. She cashed \$10 and began to play. She recalls she was instantly hooked. Some 3 years later and \$600 000 in liquid assets ... she eventually had to declare bankruptcy and ... faced the inevitable marriage breakdown ... she attempted to chase her losses, and embezzled a further \$30 000 from a family member. She was eventually charged and sentenced to 6 months jail (*BetSafeNews* April 1999, p. 3).

What seems clear, is that for those for whom prior problems or disorders are contributory factors, gambling appears to *exacerbate* their problems in ways that would be hard to achieve though alternative outlets (alcohol and drug abuse being the exceptions).

Having considered the evidence and analysis, the Commission's assessment is that while problem gambling may in some cases be precipitated by prior conditions or problems, many of the harms experienced by problem gamblers can be traced to gambling itself. (Nevertheless, the Commission has adjusted its estimates of the social costs of problem gambling to account for partial causality.)

Figure 9 Causal pathways and problem gambling



But are they ‘relevant’ costs?

The industry has also drawn on aspects of economic theory to argue that the adversities suffered by some gamblers and their families have arisen from informed choices and therefore do not warrant special policy measures, apart from the usual social safety nets.

The Commission has not found this theory of ‘rational addiction’ compelling, at least as it has been applied to problem gamblers.

- For one thing, it fails a basic reality check. It does not accord with the way problem gamblers describe their problems and it is not consistent with the way they attempt to stop gambling — such as having themselves excluded from gambling venues.

-
- There are also features of the activity which can lead to poorly informed decisions by many consumers, including the opacity of the odds and ignorance or misunderstandings about what determines gaming machine payouts.

Problem gambling is sometimes also trivialised as a public policy issue by referring to its low prevalence in the population. Apart from the point that even 2.1 per cent of the adult population equates to a significant number of people, the proportions loom larger with respect to regular gamblers and total gambling expenditure (figure 6 above).

6 Broader community costs?

There are other potential social costs from the gambling industries to consider, separate from those stemming directly from problem gambling.

More or less crime?

The gambling industry, particularly casinos, has always been associated in the public's mind with crime, dating from the time when gambling itself was largely an illegal and unsupervised activity. Drawing on limited research for Australia and information from participants (including at a special Roundtable on Crime and Gambling) the Commission has concluded that crime associated with the industry itself is no longer a significant issue — indeed the legalisation of gambling and associated probity and other controls may have *reduced* associated criminality.

- *Street crime in the vicinity* of gambling venues does not appear to be any greater and, if anything, is of less concern than in other public places.
- *Petty crime* does arise within gambling venues, but this is true of any forum with concentrations of people carrying money and valuables.
- *Loan sharking* is a serious issue and may be a more prominent feature, but whether this represents a cost of the gambling industries depends on what its incidence and effects would have been with illegal gambling.
- The potential for *money laundering*, a major issue for some participants, appears to have been greatly reduced by AUSTRAC processes; although it is inevitable that proceeds of crime will be spent in gambling venues — to the extent that criminals choose that form of recreation over others. (This would also serve to bring more of that illicit spending into the tax net.)
- *Organised crime* has little opportunity to get a foothold in Australia's casinos — given their strict probity controls — or in other public corporations involved in

gambling. The potential is greater in parts of the hotel gaming sector, but the Commission was provided no evidence of it happening.

Preying on disadvantaged regions?

Several submissions raised concerns about apparent targeting of low income and socially disadvantaged communities by gaming machine providers.

- Analysis of the data suggests that in Victoria, New South Wales and South Australia, gaming machines are more densely located in lower income areas, whereas there is no correlation in Queensland.
- One explanation for the difference may be in the distribution of hotels, although the analysis does not bear this out for Melbourne. In Victoria — where there are caps on machine numbers and duopoly control — there may be greater incentives to allocate machines to areas where they will be used most intensively. Indeed, the most likely explanation is that the potential returns are highest in lower income areas, reflecting consumers' preferences.
- Nevertheless, where it happens this can serve to concentrate the social costs in communities that are less able to bear them. It can be compounded by the withdrawal of income from such communities through the relatively high taxes on gaming machine expenditure.

Changing our society?

While most participants focused on the 'tangible' (though difficult to measure) social costs of gambling, some raised concerns about the undermining influence of those industries on more abstract dimensions of community life and the 'social fabric'.

- One manifestation of the expression of gambling has been the displacement of other entertainments (such as live music in long established venues). While this clearly has adverse impacts on some people, it reflects the preferences of others, and thus is hard to see as involving a net social cost.
- Similarly, some people will be affronted by the sights and sounds of gambling activities, just as others are attracted to them. While in principle such psychic 'externalities' can be regarded as a cost of the industries' existence, they are pervasive in society and generally only warrant government intervention where they are large and able to be reduced without incurring greater costs.
- On a wider canvas, are concerns about changes in behavioural norms and social ethics. Some also see government promotion or facilitation of gambling as

compromising its role, undermining the community's trust in public institutions. As noted previously, such considerations contributed to the much tighter controls on gambling in the past. If liberalised gambling has had wider impacts on the 'social fabric', this would involve costs that governments should take into account. However, their existence and valuation are not readily ascertained.

7 Judging the *net* impacts

As discussed, the benefits of liberalisation of the gambling industries largely comprise the increased satisfaction that consumers gain from having access to legalised gambling, whereas the costs relate mainly to problem gambling and its social repercussions.

Quantifying all these benefits and costs is a hazardous task, given the lack of information about key aspects. Attempting to estimate the costs of the gambling industries is especially problematic, as many of them involve impacts on individuals which are inherently difficult to measure. Nevertheless, in responding to its terms of reference, and because certain estimates by participants and others are being used in public debate, the Commission has attempted to quantify as many of the benefits and costs as possible, to help inform judgments about what the net impacts could be.

The psychic or emotional impacts on problem gamblers and their families are costs for which a value should be assigned, in the same way that the pleasure or entertainment from gambling has a value. The difference is that only the latter value is expressed through actual market prices — proxy values have to be found for the former (appendix J). That said, the range of estimated values for both the benefits and the costs is necessarily wide, given the uncertainties involved.

The net outcome, deducting estimated costs of problem gambling from net consumer benefits (including tax transfers), ranges in aggregate from a net loss of \$1.2 billion to a net benefit of \$4.3 billion for 1997-98. Box 9 explains how this was done.

These estimates differ somewhat from those in the draft report, as the Commission has refined its estimates of the individual components of costs and benefits. The estimates still leave out some potentially significant sources of cost which the Commission has not been able to quantify, including gambling-related suicides and potential community impacts unrelated to problem gambling.

Box 9 **'Ballpark' estimates of the benefits and costs of gambling**

There are two dimensions to the calculations: the first involves estimating net benefits to consumers; the second involves estimating the costs of problem gambling.

The consumer benefits

Consumer benefits are measured by economists as the extra value that consumers derive from a product — in this case, gambling — above what it costs. This is known as 'consumer surplus'. Estimates were based on current consumption levels, with the most critical assumptions being about:

- the sensitivity of gamblers to changes in the 'price' — information is very poor, so that a range of plausible estimates were used; and
- the value that problem gamblers place on their (excessive) consumption of gambling; where it was assumed that they would spend on average an amount equal to that of a regular recreational gambler and get similar satisfaction levels (a generous assumption compared to US studies).

On this basis, the estimates of net benefits from consumption (including tax revenue) ranged from \$4.4 billion to \$6.1 billion per annum for 1997-98.

The costs of problem gambling

The surveys asked respondents about a range of impacts from their gambling. Using this and other information about impacts, and drawing on various sources in valuing them, the Commission came up with the following cost ranges:

<i>Impact</i>	<i>low (\$m)</i>	<i>high (\$m)</i>
Bankruptcy	1.3	1.3
Productivity loss	28	200
Job change	59	59
Police, court and jail	14	14
Distress of family and parents	756	2 933
Breakup, divorce and separation	417	1 120
Violence	2.8	8.3
Depression and suicide	502	1 230
Gambling counselling services	20	20

In total, these costs range from \$1.8 billion to \$5.6 billion. The wide range reflects the difficulty of putting dollar values on the intangible but important emotional impacts. (The methodology used, and differences from the estimates in the draft report, are explained in appendix J).

The net outcome

Deducting the estimated costs of gambling from the net consumer benefit numbers, yields a range from a net social cost of \$1.2 billion to a net benefit of \$4.3 billion for 1997-98. There are significant differences by gambling mode, however, with lotteries showing a clear net benefit, whereas gaming machines and wagering include the possibility of a net loss.

In addition, there are some distributional implications to consider. The benefits from gambling, for the majority of ‘normal’ gamblers, are individually very small relative to the costs borne by the minority of problem gamblers. Economists have tended to ignore such skewed distributional effects from policy changes, on the basis that if the gains in aggregate exceeded the costs, the ‘losers’ could in principle be compensated. This has not always occurred, raising questions in some cases about whether the community was better off in practice. But the notion of cash compensation *for a problem gambler* seems misplaced, even in principle.

But even putting these considerations aside, it should be emphasised that the highly aggregated numbers are of limited usefulness for policy.

- For one thing, they mask significant variation among different gambling modes. Using estimates of the incidence of problem gambling to assign social costs reveals, for example, that lotteries yield a clear net gain, whereas the range of numbers for gaming machines and wagering includes the possibility of a net loss.
- Similarly, there are likely to be considerable differences in net outcomes among the states and territories and, in particular, at the regional or local government levels, especially when tax flows are taken into account.
- Thirdly, as many participants observed, the disparity between the low and high estimates of net benefits limits their usefulness for policy purposes, especially given lack of knowledge about the probability of different outcomes across the range (the low and high points are unlikely to be equally probable).
- But even a single aggregate number would not necessarily give adequate guidance for a policy decision involving incremental change in the industry.

Nevertheless, what can be concluded from this quantification exercise, with all its limitations, is that the social costs as well as the benefits of the gambling industries are likely to be substantial. This demonstrates the importance of care in regulating the conditions of access to gambling and, in particular, the need to focus on policy measures — such as harm minimisation and prevention — which can effectively limit costs from problem gambling, without significantly reducing the benefits for recreational gamblers.

8 An incoherent regulatory environment

The current regulatory environment falls short of that regulatory ideal. Policies for the gambling industries lack coherence: they are complex, fragmented and often inconsistent.

For example:

- Governments are participants in and promoters of gambling activity, while also attempting to reduce the social harms from gambling.
- Governments monitor the probity of gambling to protect consumers, but neglect other important aspects of consumer protection, such as informed consent.
- Probity requirements are inconsistently applied across gambling modes and venues — being particularly stringent for casinos.
- While clubs differ in some respects from hotels, the basis for the widely differing treatment in their access to machines and in taxation is unclear, and has varied greatly over time and across jurisdictions.

These and other apparent anomalies have arisen in part because of poorly defined policy rationales and because of the uncoordinated way in which policies have been developed for the different gambling modes, compounded by the multiple jurisdictions and institutions involved.

They also reflect tensions between different policy objectives of government. The most fundamental of these has been the incentive to exploit gambling as a source of taxation revenue, in the context of the states' increasing dependence on Commonwealth revenue and a perceived lack of alternative state taxes.

Which policy rationales?

Revenue raising has not only influenced approaches to taxation, but also how access to gambling services has been regulated, or de-regulated. But the key underlying rationales that should guide government regulation for these industries relate to:

- amelioration of the social costs of gambling;
- the need to ensure that consumers are adequately informed, and
- probity controls — both to protect consumers and to reduce potential criminal activity.

Other apparent government objectives in this area, such as the promotion of tourism or assisting particular groups or activities, appear not to have a strong basis.

The main features of the regulatory environments in the different states and territories include licensing criteria for operators, probity controls, technical standards, restrictions on under-age access, and taxation and community levy arrangements. But two central aspects in all jurisdictions are restrictions on competition and the regulation of access to gambling. It is important to assess what these are achieving.

Are constraints on competition justified?

In contrast to most other industries, the gambling industries are typically protected from competition. For example:

- Lotteries have monopolies in nearly all jurisdictions.
- TABs also have monopolies, and they can accept phone bets from interstate, but not ‘solicit’ them.
- Casinos have acquired exclusive licences for lengthy periods within specified market boundaries. The extensiveness of licences in some states has constrained governments’ options in relation to gaming machines and internet provision.
- Several jurisdictions have allocated the rights to own, distribute and /or monitor gaming machines to a limited number of operators.

This anticompetitive regulation is subject to scrutiny under the current legislative review program of the National Competition Policy. Some reviews have already taken place in particular jurisdictions, and more are in prospect. The Commission has attempted to contribute a broad perspective on the key public benefit issues under consideration. A key point, with problem gambling in mind, is that restraints on competition are generally not necessary to restrict the accessibility of gambling.

- *Revenue raising?* Notwithstanding the states’ imperatives, this is not in itself a sound rationale for restricting ownership. Governments have generally rescinded the practice of selling monopoly privileges to most goods and services, because of the costs imposed on consumers through higher prices and restricted choice. Such effects also arise in the gambling industries. The likely overall outcomes are clouded, however, by regulatory controls on prices and availability, and the presence among consumers of problem gamblers.
- *Reduce social costs?* In practice, ownership restrictions have not served to reduce the accessibility of gambling, other than for casino table games. And monopoly rights are unlikely to facilitate harm minimisation strategies for problem gamblers.
- *Facilitate probity checks?* Economies are likely to be gained with fewer operators to monitor. But the costs of probity regulation should in any case be borne by venues and this would partly determine their appropriate size.
- *Some efficiency benefits?* Scale is important to lotteries, but with the ability to pool across lotteries, does not necessitate exclusivity. There is a case for government intervention to address potential market failures for wagering on horse racing, but monopoly TABs do not appear necessary for this.

Competition is also constrained through restrictions on the venues permitted to provide gambling services. For example, the preferential access to gaming machines afforded to clubs over hotels is hard to justify on either harm minimisation or economic grounds. However, any regulatory change now to allow hotels equal access would have a significant impact on the availability of gaming in some jurisdictions.

In sum, with the possible exception of casinos, current restrictions on competition within the gambling industries have little justification.

Regulating access to gambling

In addition to constraints on competition, there are direct restrictions on the ‘quantity’ or availability of gambling. Apart from casinos, these are most evident in relation to gaming machines.

There are caps on the number of machines — at a venue level or jurisdictional level or both — in all states and territories. For example, Victoria currently has a state-wide cap of 27 500 machines (excluding Crown Casino), with hotels and clubs limited to 105 machines each. In New South Wales, where legalised gambling has a much longer history, caps apply only to hotels and the casino (table 6).

Table 6 **Gaming machine access varies across jurisdictions^a**

	<i>Total machines</i>	<i>Global cap?</i>	<i>Casino cap?</i>	<i>Global cap on clubs and hotels?</i>	<i>Cap on individual clubs?</i>	<i>Cap on individual hotels?</i>
New South Wales	99 672	-	1 500	-	unlimited	30
Victoria	29 611	30 000	2 500	27 500	105	105
Queensland	32 394	-		-	280	35
Western Australia	1 180	-		no gaming machines permitted		
South Australia		-		-	40	40
Australia	12 912					
Tasmania	2 492	-	-	-	25	15
ACT	5 013	5 200	no gaming machines permitted	5 200	unlimited	13
Northern Territory	1 252	-	-	target of 680 (indicative maximum)	45	6

^a For more details and qualifications to the figures, see table 13.4.

Both the concept of caps and the levels at which they are set are contentious issues. In the Commission's view, supply restrictions can only be justified to the extent that they can reduce social costs sufficiently to warrant any adverse impacts on recreational consumers.

Is there a causal link between access and problem gambling?

There are a number of dimensions to accessibility. They include not only the number and distribution of gambling opportunities among the population, but also opening hours and conditions of entry to venues, ease of use of a gambling form and the degree of social acceptance. Among the major gambling forms, gaming machines and lottery products are the most accessible, followed by TABs and lastly, casinos.

While a link between the extent of problem gambling and the accessibility of gambling might seem self-evident, it is possible that most problem gambling could emerge with only limited opportunities to gamble (including 'informal' or illegal gambling) and not rise much further with increased access. Nevertheless, the evidence from Australian surveys and other sources does confirm a significant connection, other than for lotteries.

- Problem gambling rates are higher in those states where per capita expenditure on (non-lottery) gambling is higher, such as New South Wales and Victoria, and lowest where such expenditure is lowest — namely, Tasmania and Western Australia (figure 10).
- Patterns of help-seeking by problem gamblers are also strongly associated with accessibility.
- There has been a sharp rise in the involvement of women in gambling, which is correlated with the increased access to poker machines.
- And survey data indicate that problem gambling rises more than proportionately with the number of regular gamblers.

Impacts of state-wide (or regional) caps

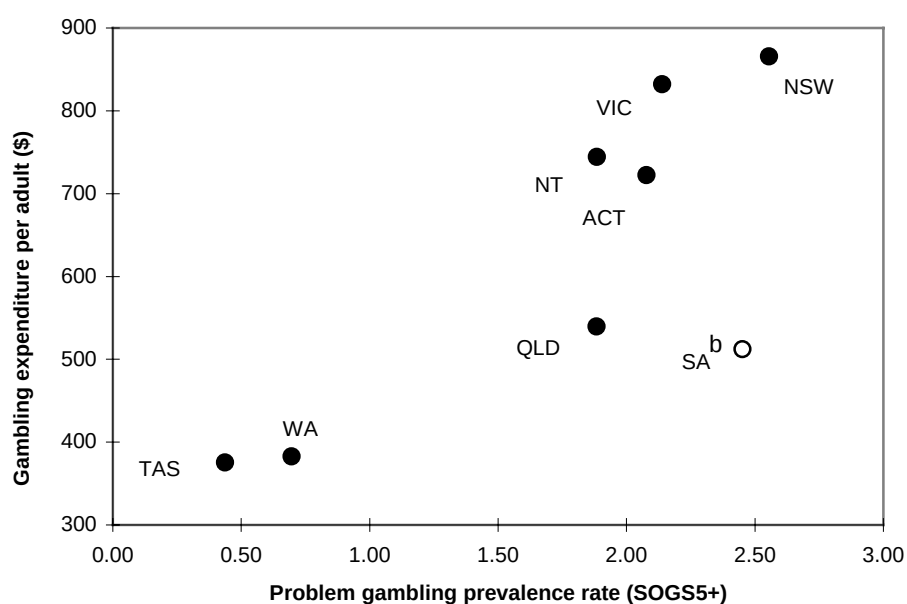
Assessing the impact of caps is complex, as it depends not only on how tightly they are 'binding' (demand exceeding supply), but also on other aspects of the regulatory environment (such as price controls and governance) and on the way consumers and venues respond to constraints.

- For one thing, once demand pressures mount there will be incentives on operators and gamblers for the more intensive use of machines, which could

exacerbate problem gambling. (Machine intensity is much greater in Victoria, where there are caps, than in New South Wales.)

- To the extent that venues can raise ‘prices’ (reduce the odds or payout ratios) in response to demand pressure on scarce machines, this is also likely to increase the spending of existing problem gamblers (although possibly deterring some new ‘recruits’).
- However, to the extent that venues cannot raise prices, sheer congestion and queuing could be expected eventually to constrain the scope for problem gambling.
- But all this would come at a significant cost to the majority group of recreational gamblers.

Figure 10 Problem gambling prevalence also varies across states
Results from the Commission's National Gambling Survey^a



^a The spending is per capita gambling expenditure for 1997-98 where gambling includes racing, EGMs and casino gambling, but not lotteries or minor forms of gambling. ^b The South Australian prevalence rate is outside expected bounds and is likely to reflect random sampling error.

Data source: The spending data is from the 1997-98 Tasmanian Gaming Commission dataset, while the prevalence data are from the Commission's *National Gambling Survey*.

Venue caps?

Similar considerations apply in assessing the likely effects of venue-based caps. Caps with controls on payout ratios are likely to be preferable — taking account of

effects on problem gambling — than without them. However, venue caps have potential advantages over global caps with respect to problem gambling.

- There would be less scope to reduce payouts where venues face nearby competition.
- Smaller concentrations of machines confine them to a role of being just one element among a mix of social activities within a venue.
- Problem gamblers may be inhibited by their greater conspicuousness in a smaller, and more mixed social environment.

By the same token, larger venues may be better placed to implement effective harm minimisation strategies, to the extent that there are significant fixed costs involved.

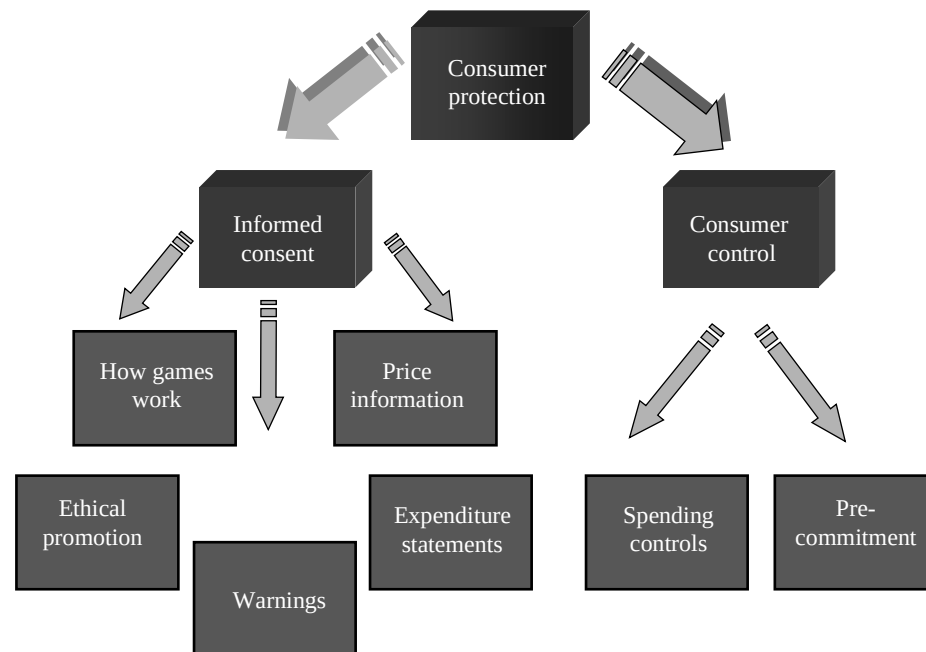
More generally, venue capping can enable a more controlled expansion of gambling, while impacts are monitored. However the introduction of venue caps ‘after the event’ would face the practical difficulties of higher machine numbers than may be desirable in some venues and adjustment costs of imposing a lower limit.

On balance, venue caps can play a role in moderating the accessibility drivers of problem gambling from gaming machines — and are preferable to global caps for this purpose. But more targeted mechanisms for harm minimisation would involve less collateral disadvantage to recreational gamblers and would be more effective in reducing social costs.

9 A key role for consumer protection

The principle of informed consent should apply with particular force to the gambling industries, given the potential for consumer losses. But the Commission found a lack of basic information about the price and nature of some gambling products, let alone the potential dangers from ‘excessive consumption’. Effective consumer protection measures are needed in a number of areas (figure 11). Individually they may not have a major impact, but collectively they could make a significant contribution in ameliorating social costs. That said, most would first require pilot testing or experimentation to determine their cost effectiveness and most appropriate design.

Figure 11 **Consumer protection measures**



Meaningful ‘price’ information

The industry has emphasised that consumers are buying ‘time’ or entertainment when they gamble. However, unlike many other consumption items, there is little basis for consumers to know the expected ‘price’ of their purchase. Many people have little understanding of the expected return on a lotto ticket, for example. And minimum payout ratios for gaming machines convey little information about likely spending rates.

- While there are complexities involved, the Commission sees considerable scope for providing more meaningful information about the effective ‘price’ of playing poker machines and lotteries, including the likelihood of receiving high paying winning combinations. For example, how many poker machine players would appreciate that the chances of getting say ‘five rhinos’ would be only one in ten million — even less than winning the lottery (box 10).
- Apart from other considerations, the absence of adequate price information in this area provides some justification for the statutory minimum payout ratios.

The prime objective of better information is simply to empower consumers, not to deal with problem gambling. However, better information about the odds and average costs of gambling might help reduce the false perceptions that sometimes underlie problem gambling.

Box 10 **Communicating the price of gambling**

Displaying the mathematical odds of different outcomes on a gaming machine may be informative for many people, but may do little for those consumers who find odds hard to interpret. But there are more evocative ways of representing the odds that may be more understandable. For example, in the case of Black Rhinos (a popular gaming machine), consumers could be told that (as confirmed by the manufacturer), if they bet one line per button push, in order to have just a *50 per cent chance* of getting 5 rhinos:

- it would take them 6.7 million button presses; or
- at ordinary rates of playing, it would take them 188 years of playing or 392 days of absolutely continuous play (24 hours a day); or
- it would cost them nearly \$330 000.

(Of course, this is an extreme example of a general point. Clearly, this machine also pays out many smaller prizes with much higher probabilities.)

The best measure of the effective price of playing poker machines is the expected loss (one minus the return rate). Together with information on the odds of different payouts, this could be shown in real time on the poker machine screen. Machines already have versatile displays which provide graphics and information to players. They are effectively computers with an in-built colour monitor. Incorporating such further information would involve no radical re-design of the machines (and therefore should not pose high compliance burdens).

Indeed, AGMMA (sub. D257, p. 7) suggested a display card format that could be usefully employed — reproduced in chapter 16 (box 16.4).

However, the Commission considers that trials with consumers would need to be conducted to assess:

- the exact form in which information should be provided;
- the usefulness of complementary information pamphlets to consumers that help explain how poker machines work, including information on how to interpret any posted 'prices'; and
- the extent to which consumer behaviour changes as a result of this information.

How games work

Erroneous beliefs about what determines 'success' in gambling are legion. Apart from leading to poor decision-making by the average consumer, psychologists see these false perceptions as major contributors to problem gambling (table 7).

Table 7 Beliefs about gambling
per cent

<i>Belief</i>	<i>Agreeing</i>
The chances of winning a substantial amount of money at the casino are quite high	15.5
I think I'll win a good prize in Tattslotto (over \$10 000) one day	16.6
One day I'm going to strike it lucky at gambling	13.7
Sometimes I think I might have the power to 'will' my numbers to come up in gambling games	8.4
To win at gambling you have to think positively	19.0
If I concentrated hard enough I might be able to influence whether I win when I play the pokies	6.9
I'm more likely to win at lotto/gambling if I use my 'lucky numbers'	10.0
You can win at the pokies if you adopt the right system	10.1
You can 'beat the system' at the casino if you know how	11.1

^a Based on a survey of gambling attitudes among 1017 Victorian young people.

Source: Moore and Ohtsuka (1998).

One of the most widespread misconceptions (evident in problem gamblers' frustrated 'chasing of losses') is the notion that gaming machine payouts depend on previous outcomes from a machine (box 11).

Box 11 Some facts about pokies

- The payout tables on poker machines indicate the winnings that are associated with certain combinations. They do not tell the player the probability of the combination occurring.
- In most jurisdictions, operators must return at least 85 per cent of turnover to players as winnings. It will usually take hundreds of thousands of games for a machine to come close to this average 'set' return.
- Each game played on a machine is independent of results from past games —machines which have not paid out for some time have no higher chance of paying out now or in the near future (and vice versa).
- Actual outcomes on machines are extremely volatile, with player returns and the amount of time that it takes to lose a set amount of money varying between sessions.
- If a gambler 'reinvests' the winnings, he or she will eventually lose the lot.

Information in this area is essential to inform consumer choice and could help prevent the development of gambling habits and attitudes that lead to problem gambling. Such information could be made readily available through pamphlets and signs (in a range of languages) — as is done now in casinos to introduce people to the rules of table games.

Statements of expenditure

Many gamblers appear to have poor awareness (or biased recollections) of their losses relative to their wins. This has been borne out by surveys. (For example, the *ABS Household Expenditure Survey* indicates gambling expenditure in 1993-94 was about one-quarter of the actual level.) As a result, a potential early-warning signal about problem gambling is muted.

One advantage of the internet as a gambling medium is that it provides a gambler with ready access to comprehensive information about his or her spending pattern and levels. There is scope to provide more such information within other gambling forms. This has been facilitated by the advanced information technology in gaming machines. Accounts could already be made regularly available to existing holders of ‘loyalty cards’ in casinos and clubs, and to TAB account holders. If information is collected by the industry on consumer spending patterns, it is only reasonable that it be divulged to consumers themselves.

‘Health (or wealth) warnings’

As noted, a variety of people within society can become problem gamblers. The continuum of impacts and the costs which each problem gambler can impose on others, define it as a public health issue. That in turn implies the need for better and more readily available information for consumers about:

- the risks and consequences of excessive gambling;
- the signs of an emerging problem; and
- sources of assistance and advice.

Such information needs to be disseminated within the general community, as well as at gambling venues — where it needs to be much more accessible than is currently the case in many venues. For example, the effectiveness of many warning signs currently provided by venues is doubtful. As box 12 illustrates, they are rarely as explicit as in other areas of public health.

Advertising and promotion

As with other products, gambling advertising generally accentuates the positives and ignores the negatives, so as to simulate consumer demand. In this case, that can be hazardous. As one former industry leader commented at the public hearings, ‘all advertising for gaming is misleading because it only shows people winning. That is not the experience of most people in gaming’ (transcript, p. 25). The message is that

everyone can be a winner. This can help foster the sorts of erroneous beliefs about gambling that lead to problems. As noted, unlike most other products, it is difficult for many consumers to learn the truth for themselves.

This provides grounds for going beyond existing trade practices restraints. The voluntary codes examined by the Commission are useful, but none requires the ‘warnings’ that apply to other public health issues, or targets the misconceptions.

Box 12 Gambling ‘health warnings’ compared

Used in other areas of public health

‘Speed Kills’

‘Hot water burns like fire’ (Queensland scalds prevention campaign)

The Australian National Tobacco TV ad campaign shows pictures of blackened lungs and a smoke-damaged aorta oozing yellow fluids (www.quitnow.info.au).

A Road Safety Campaign TV ad shows a weeping man who has run over a child while drunk.

Used in gambling venues

‘Have fun, but play it safe’ (Tattersall’s)

‘Bet with your head, not above it’ (Star City Casino)

‘Gambling can be addictive’ (Canberra Club)

A Victorian responsible gambling TV ad pictured a group of quirky people having fun with gambling, ending with the slogan ‘If it’s no longer fun, walk away’

‘If you play with real dollars, play with real sense’ (awarded best slogan, American Gaming Association, www.americangaming.org)

Not used in gambling venues but suggested to the Commission

‘If you think you can win, you’re a loser!’

Access to cash and credit

It is generally illegal for venues to provide credit to gamblers and many do not cash cheques. That the underlying principle is widely supported within the industries further illustrates their special nature. By similar logic, casinos have taken a lead by situating their ATMs away from the gambling floor. The Commission’s *National Gambling Survey* found that problem gamblers were more likely than non-problem players to withdraw money from an ATM at a venue whilst playing the pokies (table 8). Among other evidence, problem gamblers surveyed by the Commission ranked ATM location as one of the most important issues for effective harm minimisation.

Table 8 How often do you withdraw money from an ATM at a venue when you play the poker machines?

	<i>Never or rarely</i>	<i>Often or always</i>
	%	%
Recreational players	90.0	4.6
Problem gamblers (SOG 5+)	47.0	37.8
Problem players (SOGS 10+)	25.2	58.7

Source: PC National Gambling Survey.

Outright bans on ATMs in venues with gambling may inconvenience recreational gamblers and other patrons. But more targeted and potentially cost-effective options include restrictions on the location of ATMs and lower withdrawal limits in gambling venues.

Exclusion and self-exclusion

The ability of establishments to exclude problem gamblers and for problem gamblers to exclude themselves, can play a useful role in reducing social costs. Such arrangements appear to have operated most effectively in casinos, where there are statutory provisions protecting the venue from liability and enabling relatively simple contractual arrangements. There is a case for extending statutory cover to all venues, while making it mandatory to advertise the facility and for venue management to act on all requests for self-exclusion.

Modifying game features and design

Evidence from surveys and counselling services suggests that gaming machines are a major source of problem gambling. In addition to their wider availability, sources of risk include their continuous nature, the ability to increase the size of successive bets and the structure of payouts. An important question is whether changes could be made to the machines which would temper the ‘hazards’, without significantly diminishing recreational gamblers’ entertainment.

The Commission has canvassed a variety of options. Many of these could be programmed into the machines to allow interaction with the gambler. They include:

- precommitment strategies and mechanisms, whereby a gambler could in advance place self-imposed limits on gambling duration or expenditure;
- curtailing or eliminating the use of ‘bill acceptors’ on machines;
- limitations on spending rates;

-
- enforced breaks in play at convenient intervals (such as after a significant win); and
 - big payouts being made only by cheque (as currently occurs on leaving a casino).

While such measures appear likely to have a beneficial effect for problem gamblers, their impacts on recreational gamblers are unclear and would need to be assessed. The Commission considers that mechanisms which allow gamblers to pre-commit to certain spending limits offer the most promise, and are potentially applicable to most gambling modes. Their effectiveness would be enhanced by being widely available among venues. They should be an essential feature of any move to smart card technology in gambling. Some other measures proposed by participants, such as altering the lighting and sound effects for machines, are unlikely to be effective.

A listing of the options and a summarised indication of their effects on different groups is included in table 9, along with measures applicable to other gambling forms.

What level of enforcement?

Reflecting different motivations, many gambling providers have already developed codes of practice covering such areas as advertising, signs about risks and counselling services, the training of staff and responsible serving of alcohol to gambling patrons. Most of these are recent (or yet to be implemented) and their efficacy is largely untested. In some cases compliance is clearly inadequate.

The question arises as to whether introducing a legislative duty of care involving broad standards, leaving the detailed approach to patron care as part of a self-regulatory model would be more effective. In a gambling context, however, enforcement of such a broad duty of care could prove more difficult than in other situations — because of the scope to shift the ‘blame’. The incentive to comply is also likely to be compromised by the substantial proportion of takings derived from problem gamblers.

On these grounds, the Commission considers that there is a strong case for mandatory regulations, rather than simply relying on voluntary codes of practice. Since the Commission completed its draft report, regulatory initiatives have been signalled in a number of jurisdictions, including the New South Wales *Gambling Legislation Amendment (Responsible Gambling) Act 1999*.

Table 9 Options for harm minimisation and prevention^a

	<i>Relevant modes^b</i>	<i>Aids consumer consent?</i>	<i>Impacts on recreational gamblers</i>	<i>Possible benefits for problem gambling</i>	<i>Overall rating</i>
A ban on gambling	A	×	×	✓	×
Information on odds of losing	G,L	✓	✓	✓	✓
Odds on payout tables on gaming machines	G	✓	✓	✓	✓
Information on the nature of games	A	✓	✓	✓	✓
Regulation of payout ratios	A	?	✓	✓	✓
A record of transactions	G,R	✓	✓	✓	✓
Awareness of the risks of problems	A	✓	✓	✓	✓
Restrictions on advertising	A	?	✓	✓	✓
Risk warnings on advertising	A	✓	✓	✓	✓
Opening hour restrictions	A	×	×	?	×
Quantity restrictions	A	×	×	?	?
Limiting social accessibility	A	×	×	?	×
Increasing the initial outlay	A	×	×	?	×
More stringent entry conditions	A	×	×	?	×
Limiting access to ATMs and credit	A	?	×	✓	✓
Simple system of self-exclusion	A	✓	✓	✓	✓
Player controls (eg card systems)	G, R, C	✓	✓	✓	✓
No bill acceptors	G	?	×	✓	✓
Limits on the rate of loss	G,R,C	×	×	✓	?
No linked jackpots	G	×	×	✓	?
Enforced breaks	G	✓	×	?	?
Cheque payouts for wins > \$250	G,C	×	×	✓	?
Longer times between button pushes	G	×	×	?	×
Less lights and sounds	G	×	×	?	×

^a A tick denotes a likely positive or at least benign effects, a cross an adverse effect and a ? an uncertain or mixed effect. The overall rating provides an initial judgement about the priority for assessment of regulatory options, with ticked items having the highest priority for policy evaluation. Options for harm minimisation of internet gambling are separately considered in chapter 18. ^b A denotes all gambling forms, G denotes gaming, R denotes racing, L denotes lotteries and C denotes casino table games.

Probity regulation

This is an area where existing regulation is highly prescriptive, although the strictness of the regulations varies considerably among the states and between modes. It is applied most stringently to casinos in all jurisdictions. The imbalance in probity regulation between casinos on the one hand and clubs and hotels on the other is difficult to justify, especially given the significant overlap in their gambling activities. While risk management is important to cost-effective probity regulation, there is a good case for consistency of treatment according to the gambling mode as well as the venue.

10 Problem gambling counselling services

All jurisdictions have problem gambling strategies in place. Some are more comprehensive than others, but most involve the provision of funding for problem gambling counselling and support agencies, as well as a community education strategy and research into the impacts of gambling. This funding is generally a small proportion of government taxes or levies on the industry.

- In most states, the government funded counselling agencies are organised as a geographically-based network called Break Even.
- 24-hour telephone crisis counselling services operate in all states, and are an important first point of contact for problem gamblers seeking help. Typically between 20 and 40 per cent of clients seeking help at counselling agencies have been referred by these services.

A rapidly growing clientele

The number of people presenting for help with gambling problems appears to have been increasing rapidly. The Commission's *Survey of Counselling Services* reveals a 33 per cent increase in caseloads over the past twelve months. Overall, 79 respondent agencies reported counselling or helping around 11 600 problem gambler clients and other clients affected by someone else's problem gambling during the past year.

- But this excludes the significant numbers participating in Gamblers Anonymous and other group support sessions, as well as those who may obtain help from generic community service, financial or relationship counselling agencies.
- Moreover, there is evidence that only a small proportion of those with gambling problems seek help, and less than half of those in the Commission's *National Gambling Survey* who admitted that they wanted help had actually sought it. Those gamblers who *do* seek help have generally reached a crisis, which may involve legal proceedings, job loss, family break-up, or attempted suicide.

The majority (65 to 80 per cent) of those receiving assistance have problems related to their involvement with gaming machines, with horse racing and casino gaming accounting for most of the rest. This is a consistent finding across most agencies and jurisdictions.

- The exception is Western Australia, which has relatively few people seeking help and much more limited access to gaming machines.

Effective treatment?

Treatment methods appear to vary considerably, from self-help at one end to ‘cognitive’ therapy (designed to correct misperceptions) and ‘medical’ treatment at the other. However, there is little reliable information on which approaches work best.

Given the importance of ensuring effective treatment — and the outlays already involved — some additional expenditure on monitoring and evaluation would be a good investment.

- This should include follow-ups conducted 6 to 12 months after the cessation of treatment (there are indications that earlier follow-ups may greatly understate the extent of relapses) and clinical research on best practice treatments.

There is also a need for some minimum, nationally consistent data set on the numbers and key characteristics of those being treated, as well as treatment methods and durations. The data that are available tend to be fragmented. And data that have been collected should be made widely available.

- Lack of evaluative information is also an impediment to the development of appropriate training and accreditation schemes (which desirably should be national) and, potentially, to future funding.

Funding arrangements for counselling

There are a variety of funding sources and mechanisms for gambling counselling across jurisdictions. Some have a statutory basis, derived from gambling taxes or special levies, and some are voluntary industry-based arrangements.

- Given the potential for conflicting incentives, there would seem to be an advantage in the former over the latter, with decisions about allocation of funds being made independently of industry interests.

The contributors to problem gambling funding within the gambling industries also vary by jurisdiction. For example, in South Australia the clubs and hotels make voluntary contributions, whereas in Victoria the hotels pay a prescribed amount. Funding should be derived from all gambling activities. While gaming machine revenue should be the predominant source, contributions should be derived from all gaming machine venues.

In most jurisdictions funding occurs on an annual basis. Agencies have raised concerns about the difficulties which this poses for planning and retention of skilled counselling personnel. There would be advantages in rolling triennial funding

arrangements, but these should be accompanied by a requirement for, and additional funding of, information on the performance of counselling agencies.

Funding levels are always hard to assess. There is evidence of excess capacity in some jurisdictions and waiting lists in others. Overall, the number of people in counselling is only a small proportion of those who wanted help, as indicated by the Commission's survey. Advertising, information collection and assessment activities appear under-funded in most jurisdictions.

11 Implications of the internet

Technological changes are having a rapid and marked impact on the delivery and nature of gambling services. The internet and interactive television allow the delivery of a wide range of gambling opportunities into everyone's home — the ultimate in 'convenience gambling'. These new technologies offer potential gains to many businesses and consumers, but also pose fresh challenges for regulation, harm minimisation and taxation.

State and territory governments have broadly agreed to a code for implementing interactive internet gambling, involving a range of probity and consumer protection requirements and specifying that taxation revenue will be repatriated to the jurisdiction of the gambler. A number of jurisdictions now have legislation in place, not all of which is consistent with this code.

In addition to the sports and racing betting that have been available over the internet (as an alternative to the telephone) for some time, Lasseters Casino, located in the Northern Territory, was the first online site offering interactive casino-style gambling. Others are poised to follow, including one on Norfolk Island.

Online gambling and interactive TV potentially represent a quantum leap in accessibility to gambling, and will also involve new groups of people. They will thus pose new risks and uncertainties for problem gambling. However, there are also some moderating features, such as the greater potential for proximity of family members, and scope for more effective consumer protection mechanisms and controls.

- Risks to minors, a major concern for many, are probably not significant for licensed sites — given screening requirements, ease of monitoring of accounts and the inability to gain access to any winnings.
- Supplier integrity can be monitored domestically, if not internationally, and could become largely self-enforcing to the extent that gamblers have access to

and are informed about preferred reputable sites where payment of any winnings is assured.

Approaches to regulation

Regardless of what regulatory approach is taken, there are strong grounds for governments to pursue ‘palliative’ measures, such as provision of information about suitable sites, gambling help services, and software for exercising greater control over online gambling.

There are also good grounds for the regulation of internet gambling along lines appropriate for other gambling forms. The Commission considers that there are ways of sufficiently inhibiting access to (foreign-sourced) unlicensed sites to make such regulation effective. It would also be considered fair and be complied with by most consumers — whereas complete prohibition may not. Moreover, prohibition would eliminate some potential benefits from the technology (including potential competitive advantages in trade).

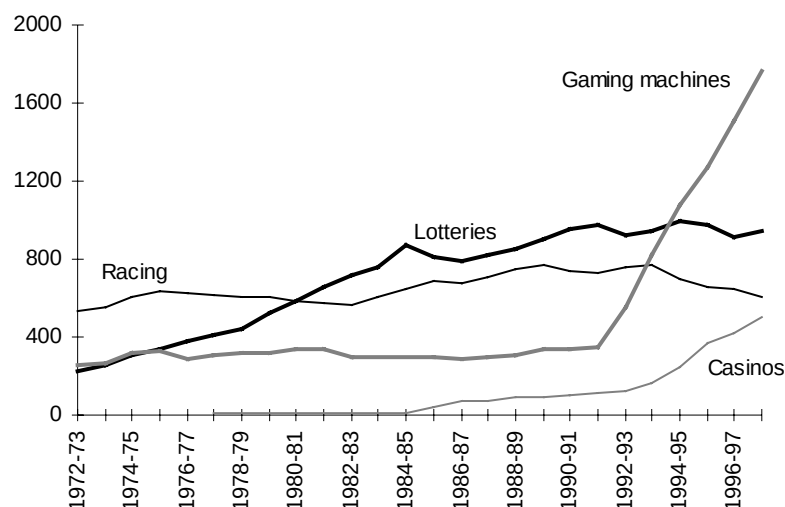
‘Managed liberalisation’ — with regulation of licensed sites to ensure probity and consumer protection — has the potential to meet most concerns, provided a national approach to regulation and taxation is taken. A Commonwealth role, in cooperation with the states, could be of significant benefit to all jurisdictions by (among other things):

- allowing a single control system for blocking access to unlicensed sites;
- providing one national site for information and problem gambling referrals;
- providing a single voice when negotiating international agreements relating to consumer protection and taxation issues; and
- enabling one effective system for tax collection, revenue distribution and rate setting that would preserve the tax base.

12 Taxing gambling

As noted, taxation has played a major role in the recent evolution of gambling policies. It is a sizeable proportion of the revenues of all states and territories and has grown significantly over the past decade, particularly following the introduction of gaming machines in Victoria, South Australia and Queensland. Tax rates are high in all jurisdictions, and vary considerably among gambling forms and venues (figure 12 and table 10).

Figure 12 New forms of gambling provide revenue growth
Total state and territory revenue from different forms of gambling: 1972-73 to 1997-98 (1997-98 dollars million)



Source: ABS Taxation Revenue, Cat. no. 5506.0, various issues and Commission estimates.

Table 10 Gambling taxes are a significant share of state tax revenue
Gambling tax revenue as a percentage of total own-tax revenue^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
1975-76	12.8	9.4	6.7	6.4	5.1	6.0	na	na	9.8
⋮									
1985-86	11.6	9.1	10.1	5.8	7.6	9.6	na	na	7.9
⋮									
1995-96	11.0	12.6	13.1	7.4	11.5	8.8	10.1	8.4	11.4
1996-97	10.2	13.0	12.8	6.4	13.0	9.8	8.6	9.4	11.2
1997-98 ^b	10.4	15.2	12.5	5.7	13.8	10.3	8.3	9.6	11.7

^a Tax includes licence fees and charges. ^b Figures for 1997-98 are preliminary.

Source: chapter 19.

The states' distorted incentives to use gambling as a revenue raiser — because of their lack of broad-based taxes and dependence on Commonwealth transfers — have been compounded by the distribution methodology of the Commonwealth Grants Commission, which penalises below average tax raising efforts.

Gambling taxes, like other taxes, need to be evaluated on efficiency, equity and social grounds.

Are the higher taxes justified?

High gambling taxes can be partly justified as appropriating for the community what otherwise would be excess profit from licensing or access restrictions. (There is some evidence of excessive returns even after tax — illustrated by the premium paid for additional poker machine licences under last year's auction in New South Wales.) This justification depends in turn on the (questionable) rationale for exclusivity and other restrictive ownership arrangements.

Effects on 'efficiency'?

Taxes generally change the behaviour of those who bear them. In general, the greater this distortion in behaviour, the less efficient the tax. So relatively high taxes can be efficient in this sense if demand is unresponsive to a resulting price increase.

Unfortunately there is very little reliable empirical information on the price responsiveness of 'recreational' gamblers. (Conclusions about efficiency cannot be based on the behaviour of problem gamblers.) If anything, the weight of evidence and other more qualitative considerations support the presumption of relatively insensitive demand.

In these circumstances, there would not necessarily be a payoff to efficiency from significantly reducing gambling tax rates. Lottery taxes may be an exception, however, being so high as to possibly outweigh the effects of inelastic demand.

Effects on problem gambling?

Normally there are grounds for taxing more heavily those activities with undesirable side effects, to reduce their production or consumption. But in this case, the adverse side effects stem from excessive *spending*. And it seems clear that, irrespective of any doubts about recreational gamblers, most problem gamblers are unlikely to be sensitive to price changes. So higher taxes generally make for greater financial burdens on existing problem gamblers.

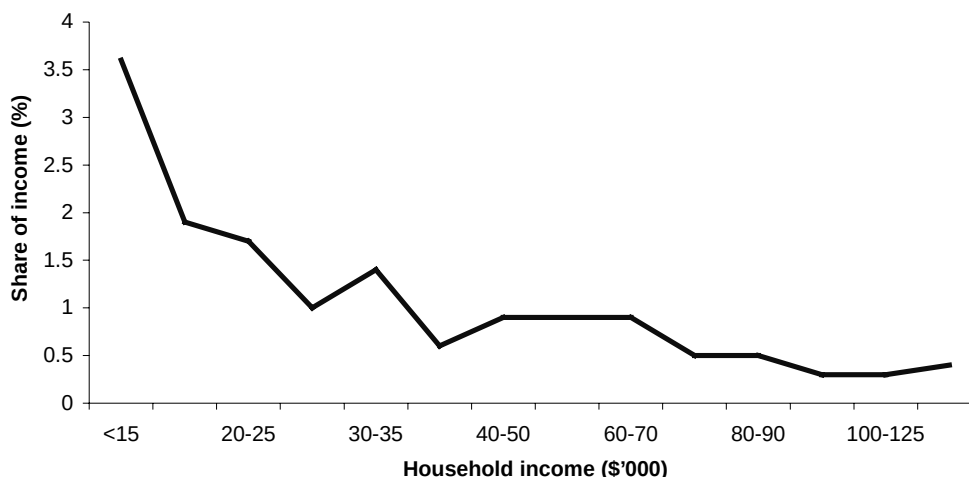
However, not enough is known about the behaviour of problem gamblers to predict the outcome for them from lower taxes. Also, lower taxes could serve to encourage increased gambling activity by people who are at risk of becoming problem gamblers. This and other complications have led the Commission to conclude that taxation is too blunt an instrument for reducing the social costs of gambling.

An inequitable tax?

It is well established that gambling taxation is regressive, with lower income groups generally spending proportionately more on gambling — and thus shouldering more of the burden (figure 13).

Figure 13 Gambling taxes are regressive

Tax as a percentage of gamblers' household income, by income groups.



Data source: PC National Gambling Survey.

The Commission's analysis suggests that taxes on lotteries and gaming machines are the main sources of this regressivity. The equity issues are heightened by the unevenness of the tax burden among the poorest households, with some paying much higher proportions of their income in gambling taxes than others.

However, equity outcomes from reducing gambling taxes would also depend on what alternative taxes were available to states and territories to replace lost revenue, and their degree of regressivity.

In sum, there are both efficiency and equity grounds for experimenting with lower lottery taxes. While the levels of other gambling taxes are unlikely to be optimal, on the basis of available information there is not a strong, or unambiguous, case for general reductions.

Preferential treatment of clubs?

Community clubs pay much lower taxes on their gambling revenue than other industry members. State taxes are generally lower than for hotels or casinos, and no Commonwealth income tax is paid on 'mutual' income, which can include proceeds

from gambling (table 11). This has been a major source of contention, with hotels and retailers arguing that the lack of competitive neutrality is hurting them and leading to excessive growth of clubs.

Table 11 Clubs' preferential gambling tax treatment, New South Wales
Electronic gaming machines

	<i>Clubs</i>	<i>Hotels</i>	<i>Casinos</i>
State tax			
Gaming machine tax:	Tax levied on annual profits from gaming machines: • up to \$100 000 (0%); • \$100 001 to \$200 000 (1%); • \$200 001 to \$1m (20%); • over \$1 000 001 (26.25%).	Tax levied on annual profits from gaming machines: • up to \$25 000 (15%); • 25 001 to \$400 000 (25%); • \$400 001 to \$1m (35%); • over \$1m (40%).	22.5% tax levied on gross revenue from slot machines.
Community contributions	Clubs will be permitted a tax rebate for expenditure on approved community programs, effectively reducing the top tax rate to 24.75%.		Community benefit levy of 2 per cent of gross gaming revenue.
Income tax:	None	Corporate or personal tax rate	Corporate tax rate

Source: NSW Treasury 1999, p. 29.

At the state level, preferential tax treatment has been based largely on the presumption of community benefits from clubs' operations which do not hold for hotels. Clubs not only provide benefits to their members, they also make contributions in kind and in cash to a range of community organisations and activities. However, it is not clear that these external contributions are of sufficient magnitude to warrant major differences in state taxes.

The 'mutuality principle'

At the Commonwealth level, the 'mutuality principle' has exempted club income from taxation. The principle holds that one cannot make a profit from selling to oneself, and an amount received from oneself is not income — and therefore not subject to tax. The concept has been extended to defined groups of people who contribute to a common fund, controlled by the group for common (not individual) benefit.

This longstanding principle has only raised concerns with the rapid expansion in gaming machine revenue and consequent changes in the nature and economic significance of clubs, the largest of which resemble casinos. Matters are complicated by the fact that in Victoria and Tasmania, where clubs do not 'own'

their machines, the income derived from them is taxable. The same applies to income from Club Keno and TAB outlets in all clubs.

How distorting?

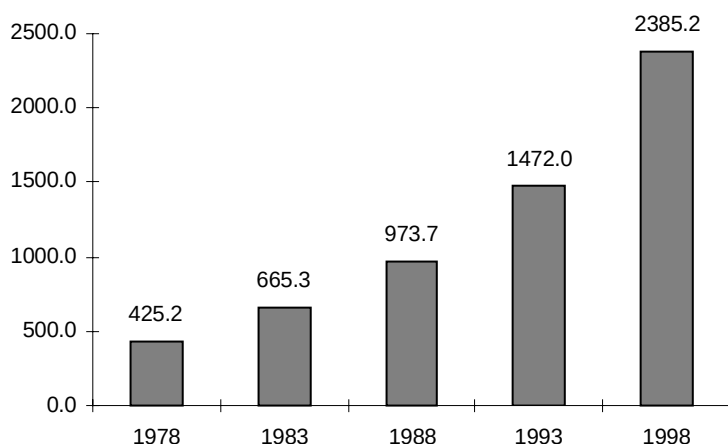
Club revenue from gaming machines has grown rapidly, as have clubs in those jurisdictions — such as New South Wales and the ACT — where the revenue is treated as mutual income and where there are no caps on machine numbers (figure 14).

Gaming machine revenue for some of the large New South Wales clubs ranges from 65 per cent to 88 per cent of their total revenue. These ‘super clubs’ have many of the characteristics of major commercial enterprises. While their income is derived largely from ‘members’, membership is generally readily granted at minimal expense.

A major distinction with other commercial enterprises is the inability of clubs to distribute any surpluses to ‘shareholders’. Together with the tax advantages, that has led to:

- cross-subsidisation of restaurant, hotel and other services, and
- major programs of capital expansion and upgrading of facilities.

Figure 14 New South Wales clubs – gaming machine revenue
\$million, current prices



Data source: NSW Department of Gaming and Racing.

These have clearly also been a source of benefit to those who use the tax sheltered facilities and services. But the potential for distortion in consumption and investment is significant where poker machine numbers are unrestricted. That said,

it is unclear how to deal with it, from the income tax side, in a way that would be effective and would not introduce new distortions or inequities.

Options for reform

A number of the proposed options have been examined in the report. They include:

- applying income tax to the surpluses derived from poker machines alone;
- increasing existing state taxes on clubs' gaming machine revenue;
- limiting maximum poker machine numbers in clubs (as already occurs in some jurisdictions); and
- demutualisation (changing clubs' corporate form).

While each has advantages and disadvantages, the Commission considers that the state tax option is likely to be the only effective one. (Any such move would need to involve phasing to minimise transitional losses on existing investments).

'Earmarking'

The hypothecation of government revenue from gambling for 'good works' or civic projects has a long history in Australia and overseas. About one-third of gambling revenue is currently 'earmarked', involving one or more of three mechanisms in most jurisdictions:

- *Hospital funds* are the largest category. They generally receive a fixed percentage of revenue from particular gambling activities, which is then reappropriated through budget processes to the hospital sector.
- *Community benefit funds* are a second form, with grants being made from the fund consistent with its objectives. They typically fund problem gambling services, but also many other activities.
- The third mechanism is the provision of *direct grants* from gambling organisations, such as the WA Lotteries Commission's program for funding community groups.

Earmarking of gambling revenue for problem related gambling services, gambling research and community awareness campaigns is appropriate, since gambling creates the need for such services. This tangible expression of the link may also have a public education role. And, without such pre-commitment, sufficient funding may not be forthcoming.

Earmarking for other purposes does not appear to have created major allocative distortions. However:

- direct grants generally escape budget scrutiny and prioritisation,
- there is evidence that fluctuations in gambling revenue have affected funding of health services, and
- accountability and transparency of funding decisions have not always met budgetary standards.

Such problems, together with the questionable basis for using the funding of ‘good works’ as a promotional and compensating vehicle for an activity generating significant social costs, are grounds for not earmarking gambling revenues beyond activities related to problem gambling (such as research, and harm minimisation). Instead, those other activities would be best funded through the budget process from the expanded consolidated revenue.

13 Improving regulatory and informational processes

Many of the deficiencies in current regulations are the legacy of the way policies have been made. While some jurisdictions have done better than others, the approaches of most have at times been characterised by:

- poorly specified and sometimes conflicting objectives and rationales for regulatory decisions;
- often ad hoc decisions that have not taken into account the industry-wide implications;
- lack of rigour in assessment of the costs and benefits of alternative options;
- lack of community consultation about attitudes to and the possible social and other consequences of regulatory decisions, and
- little systematic monitoring and evaluation of the consequences of such decisions, once implemented.

Good policy-making and regulatory processes require that decision-makers have the appropriate degree of independence and control; that their objectives are clear and their decisions well-informed, and that the basis for their decisions is transparent and publicly accessible. Such features are especially important in a policy area such as gambling, which is characterised by conflicting pressures and incentives for government — and the potential for major winners and losers, within business and the community, from different regulatory outcomes.

There are several distinct functions that need to be performed in any proper regulatory environment for the gambling industries, of which three key ones are policy development, ‘control’, and enforcement.

Policy development

Some policy decisions are properly the preserve of Parliaments, with Ministerial responsibility for their development. In the Commission’s view, these include threshold decisions bearing on the extent and accessibility of different gambling forms — including caps, allocation rules and ownership decisions. Some important ingredients of good process at this level include:

- a requirement for regulation impact statements and the procedural steps that underpin them (see box 13) with independent public reviews to identify costs and benefits of different options, and
- public consultation about any options under consideration.

Independent ‘Control Commissions’ in each jurisdiction

The resulting legislative standards within each jurisdiction need to be well administered. This involves such important decisions as who gets licences to offer different gambling activities, who may work in different venues, appropriate technical standards and when penalties apply for breaches of licence conditions and regulations (including any consumer protection and harm minimisation requirements).

Box 13 Regulation impact statements

These are used widely by Commonwealth, state and territory governments and by member nations of the OECD. A RIS sets out:

- the problem or issues which give rise to the need for action;
- the desired objective(s);
- the options (regulatory and/or non-regulatory) that may constitute viable means for achieving the desired objective(s);
- an assessment of the impacts (costs and benefits) on consumers, business, government and the community of each option;
- a consultation option; and
- a strategy to implement and review the preferred option.

Source: ORR 1998, p. xv.

Good process at this level demands substantive independence of the regulator, who must exercise any discretion in an impartial manner, without undue influence or

interference by industry, community or the government of the day. The control body, therefore, should itself be a statutory organisation, with authority vested in tenured commissioners who have no connection to the industry and report to Parliament through the relevant Minister(s) in each jurisdiction.

Other features should include:

- jurisdiction over the gambling industries as a whole (to allow more coherent decision-making in relation to the different modes);
- an advisory role to the Minister and Parliament on major public interest matters, including those requiring legislative change.

Regulatory enforcement

The enforcement function is about ensuring that venue operators comply with licensing conditions and other regulatory requirements. Under regulatory provisions for harm minimisation, compliance with these requirements would be part of this function.

This ‘policeman’ role is generally regarded as needing to be undertaken separately from the control function (the ‘judge’) — a principle embodied in the so-called New Jersey model of gambling regulation. IPART endorsed the principle in its recent review in New South Wales. The Commission can also see benefits in this separation, including from public confidence in the implied checks and balances.

What role for local government?

To the extent that decisions about gambling accessibility have their predominant impacts at the level of local communities, this would suggest the need for a collective say at that level. Local communities have generally had little such opportunity. Local government’s main influence has been confined to its planning approval powers for new establishments or extensions to existing ones. However, even these mechanisms have been overridden by state gambling legislation in some jurisdictions.

The principle of local communities being consulted has force. The control authority should at least be required to consult with local communities in making decisions about licence applications. This could include surveys or, on major issues, referenda.

What role for the Commonwealth?

While many issues are most appropriately dealt with at state level, there are a number of aspects with ramifications at the national level. For example:

- internet gambling can really only be effectively regulated and taxed with the assistance of the Commonwealth Government;
- to the extent that problem gambling leads to calls on Commonwealth welfare services, some cost shifting is involved; and
- there may also be economies in having a more national focus on key issues, such as the coordination and assessment of counselling services.

Commonwealth involvement could facilitate inter-governmental cooperation on issues of mutual importance, perhaps initially at Ministerial Council level.

There is also a need for a national research facility to provide a central focus for data collection and research, including achieving greater national consistency in information. While this could be a Commonwealth body, it would clearly require the cooperation of the states and territories and may need to be jointly funded.

Information needs

The Commission has sought to make this report as information rich as possible, to provide a better basis for public discussion and government policy on gambling. But the report also identifies many information gaps which could not be filled in this single national inquiry. These necessitate an ongoing commitment by all jurisdictions and a strategic, coordinated approach to research and data collection, which has been largely absent. The processes and allocation of responsibilities outlined in the report are integral to the longer term effectiveness of this important government role.

1 The inquiry

Gambling is a controversial issue. It provides enjoyment for many, problems for some, employment and income for thousands, and much taxation revenue for governments. But very little is known about the industry. What information we have is patchy, of variable quality and in some cases, quite dated — a particular problem for a rapidly growing and changing industry. Available data often sheds light on one jurisdiction only: detailed comparative analysis across states and territories (or between modes of gambling) is not possible. This dearth of quality information has been an obstacle to good public policy making in an area where the debate in the broader community has become increasingly polarised.

1.1 The reference

On 26 August 1998 the Treasurer asked the Productivity Commission to undertake a public inquiry into Australia's gambling industries. The Commission was asked to report on:

- the economic impacts of the gambling industries, including interrelationships with other industries such as tourism, leisure, other entertainment and retailing; and
- the social impacts of gambling industries, including the incidence of gambling abuse, the cost and nature of welfare support services, the redistributive effects of gambling and the effects of gambling on community development and the provision of other services.

Other matters to be examined included the effects of regulatory structures (including licensing arrangements, entry and advertising restrictions and differing taxation arrangements), the implication of new technologies such as the internet, the impact on Commonwealth, state and territory budgets and the adequacy of ABS statistics on gambling.

The Commission was asked to provide an information report which can serve to enhance public understanding of the issues and assist government decision-making. Some participants were unclear as to the implications of this, thinking it precluded the Commission from policy analysis. This is not the case: the report does provide a range of policy-relevant findings and assessments intended to be of assistance to all

governments. But it does not contain policy recommendations of a kind which require a formal response from government.

1.2 Inquiry processes

Contentious policy issues such as gambling lend themselves well to an independent public inquiry process. It provides an effective way of allowing the views of many diverse interests, including those who would not normally take part in a government inquiry, to be represented. To this end, the Commission advertised in the national press at the commencement of this inquiry, inviting public submissions. It established a website (at www.pc.gov.au), and prepared and released an Issues Paper to guide individuals and organisations wishing to take part — and many have done so. The Issues Paper was distributed widely, and placed on the website.

Visits and discussions

A round of visits and informal discussions commenced almost immediately, continuing until the end of the year. Over 60 meetings were held, some with groups of participants. In some cases, meetings were organised by, for example, government departments and agencies in several jurisdictions, counselling agencies and problem gamblers.

These discussions have helped the Commission come to grips with key issues and questions that it needed to address. The Commission is very grateful to all those who participated.

Submissions

The inquiry has attracted considerable public attention. The Commission received 290 public submissions, ranging from short letters to 200 page reports. In addition, there were 39 confidential submissions, many relating personal experiences from gamblers and their families.

Submissions have come from a wide range of interests: about 18 per cent have come from government agencies (including local government), 19 per cent from gambling providers, 29 per cent from welfare and community organisations and 21 per cent from individuals.

Copies of public submissions were placed on the inquiry's website, which has seen a high level of usage.

Public hearings

During November and December 1988, first round public hearings were held in all capital cities, to allow interested parties to discuss their submissions with the Commissioners. The hearings were advertised in the main newspaper in each location, by circular, and on the inquiry website. A supplementary public hearing was held on 30 March 1999 to consider key industry submissions deferred from the earlier scheduled hearings.

About 65 submissions were presented at the initial public hearings, and some 120 people took part in the discussions with Commissioners.

Following the release of the draft report on 19 July 1999, a further round of public hearings was held in Canberra, Melbourne, Sydney, Hobart and Brisbane to take submissions on the draft report. Fifty-six submissions were presented, and 86 people took part. Between July and November, some 120 submissions were received in response to the draft report.

Roundtables

The Commission held six formal roundtables, with the intent of tapping the expertise of well-informed people in particular areas to supplement its own research resources (box 1.1). Further details are provided in appendix A.

Box 1.1 Roundtable discussions

In addition to a variety of group meetings and consultations, six roundtables were initiated by the Commission:

- an initial roundtable of key people with a close interest in the issues, including from academia, industry and counselling services, to help the Commission identify questions for its Issues Paper;
- consultation with experts on survey methodology and data interpretation, to better inform the Commission's thinking about the nature and type of surveys which needed to be undertaken;
- two roundtables on the impact of gambling on regional areas, held in Goulburn and Port Augusta;
- a crime and gambling roundtable, held in conjunction with the Australian Institute of Criminology; and
- a roundtable discussion on assessing the incidence and costs of problem gambling.

More details, including names of all attendees, are provided in appendix A.

The information challenge

Lack of good information has been a problem, and an issue for this inquiry. It became apparent early on that some of the gaps could only be overcome by the Commission undertaking one or more surveys itself.

Three surveys were undertaken during the first half of 1999 (box 1.2). The methodology and results are discussed in detail in part C.

Box 1.2 **The Commission's gambling surveys**

Three surveys were undertaken:

- a *National Gambling Survey* of some 10 600 persons, looking at gambling preferences and spending, attitudes and impacts;
- a *Survey of Clients of Counselling Agencies* covering some 400 gamblers attend a counselling agency, to see who they are, examine the problems they face and the means they use to address the problem; and
- a *Survey of Counselling Services*, asking about their funding, caseload, methods of approach and outcomes.

In addition, the Commission had access to many other surveys — including, in many cases, unit record data — together with data provided by participants from their own activities. The Commission is grateful for the assistance it received.

However, there were several areas where the Commission was not able to contribute significantly. These include:

- the incidence and effects of gambling within ethnic communities. Some submissions on this matter were made to the inquiry, and are reflected in the discussion. And the Commission had discussions with principal researchers in that field, and was favourably impressed with the methodological approaches being undertaken (for example, interviewers from the same ethnic group were being used to undertake surveys to minimise misinterpretation of responses). But in the time allowed, the Commission has not been able to add significantly to this information base; and
- gambling in indigenous communities is another area where the Commission has not been able to advance currently available knowledge (appendix E).

Both of these areas are listed in chapter 23 in a discussion of matters for future gambling research.

Extension of the inquiry

The need to design and conduct the three national surveys listed in box 1.2, and the extensive public interest in the inquiry (requiring extra time for submissions and supplementary public hearings), led the Commission to seek additional time for the inquiry. The Assistant Treasurer agreed to extend the reporting date for the final report by three months, to 26 November 1999.

Response to the draft report

On 19 July 1999, the Commission released a draft of its report. This was widely disseminated — about 2300 copies of the full report, and about 800 of a shorter version comprising the Summary and Findings only, were made available to interested persons and organisations without charge. The report was also able to be read and downloaded from the Commission’s website, which received a high level of usage.

The Commission’s draft report evoked considerable media and public attention. As was inevitable for an independent inquiry into a controversial topic, there were a variety of responses, including from those who thought the draft report was too generous to industry, or gave insufficient attention to the ethics of gambling, or was too heavily focused on problem gambling.

Constructive criticism was received from umbrella organisations which account for the bulk of the spending on gambling (that is, lotteries, clubs and hotels). However, particular segments of the industry expressed strong concern at the report’s focus on the social impacts of gambling, arguing that an opportunity to ‘demystify’ the industry had been lost. A selection of responses is given in box 1.3.

The Commission has given careful consideration to all of these views in preparing its final report. In response, it has made significant changes to many areas, such as in respect of the industry’s importance in the economy, the social costs of divorce, the emotional costs of problem gambling to families and partners, and an analysis of the proportion of world gaming machines accounted for by Australia. In other areas, the Commission has attempted to make the discussion clearer, and new material has been added. Indeed, most chapters and appendices have been changed to a greater or lesser degree, and consequently, the report has increased in size by some 400 pages!

The Commission thanks all participants for their contributions.

Box 1.3 **Some reactions to the draft report**

The Queensland Government said that it broadly supported the views of the draft report regarding the benefits and costs of gambling. Those findings and analyses:

... broadly concur with those of the Queensland Government. The Draft Report has been a very useful resource to the Queensland Government and will support some of the recommendations of the Queensland Gaming Review (sub. D275, p. 3).

Representatives of local government, particularly from Victoria, saw the inquiry as an opportunity to publicly discuss the impact of gambling on their communities. And many interests from the counselling and welfare sectors saw it as providing firmer evidence on the nature and extent of the social costs of gambling. For example, the Interchurch Gambling Task Force said:

We were very, very impressed by your report that you've already issued and it told us far, far more than we thought it was going to ... We thought we knew an awful lot about it until we read that and discovered there was so much more we should be taking into consideration (transcript, p. 1122).

Similarly, Break Even Victoria said it acknowledged:

... the breadth and depth and the process of the inquiry which has been very thorough ... the thorny issues are well researched, such as the use of what kind of assessment tool, and why is it or is it not applicable in Australia ... The important thing is that focus has been not just on the money side of things but on what is problem gambling and ... how may it impact on people (transcript, p. 1099).

The response from the gambling industry was mixed. Aristocrat, while critical of aspects of the report, observed that:

The Commission's draft report has contributed to a better understanding of Australia's gambling industries and promoted discussion of policy options for consumer protection. At the same time the report has identified the need for continued research and consultation (sub. D266, p. 5).

Some lottery providers, and the national representatives of clubs and hotels (sectors which account for the bulk of gambling spending), made helpful suggestions and constructive criticisms. But others, while agreeing with parts of the draft report, were highly critical.

For example, the Australian Hotels Association (NSW) said the Commission exceeded its terms of reference by including policy analysis and what amounted to recommendations, and said the report reflected a 'jaundiced narrow-minded dismissal of a pleasure that most Australians enjoy' (sub. D208, p. iii). The AHA (NSW) said that the draft report employs:

... comments, assertions and statistics to reach conclusions that are not consistent with the truth about the industry and its contribution to the Australian economy ... the Commission's survey is fundamentally flawed, its assumptions are wrong and its expression of the numbers and survey results is political rather than statistical (sub. D208, pp. i, ii).

(continued)

Box 1.3 (continued)

ACIL, representing Tabcorp, Star City Casino, Tattersall's, TAB Ltd, Crown and Jupiters, was equally scathing:

... the Draft looks as if it wishes to portray the industry in the worst possible light ... the statistical analysis of access and risks ... is fraudulent ... [there are] serious factual errors in sensitive areas ... the PC's surveys are fundamentally flawed ... there is a lack of balance in the Draft Report (sub. D233, pp. 1, 2, 3, 5, 7, 9).

The Australian Casino Association referred to the 'considerable media and public attention' which 'has been largely unfavourable to the gambling industries':

While there are some positive aspects to the Draft Report, these have been overshadowed by negative impressions, arguments and quantitative material ... the Draft Report is not balanced, contains a number of incorrect 'facts' (some significant); is based on surveys which have serious faults; in effect presents policy recommendations (which were not part of the terms of reference) and then does not test the benefits and costs of these policy options (sub. D234, p. 1).

The Australian Gaming Machine Manufacturers Association, while endorsing some of the draft report's findings, criticised the Commission for 'unsupported claims' and its 'incorrect analytical approach'. It also:

...[took] exception to the Commission's view that "problem gambling" — in all its dimensions — is a public or community health issue similar to that of alcohol (sub. D257, p. 20).

In contrast, the Australian Medical Association said the draft report provided an:

... excellent overview of the beneficial and detrimental impacts that gambling has on Australian society ... The Draft Report's critical assessment of the anecdotal and empirical evidence surrounding such issues as the association between problem gambling and accessibility and the association between problem gambling and psychological disorders is extremely comprehensive. It presents evidence related to problem gambling in a fair and seemingly unbiased manner (sub. D204, p. 1).

And Prof Jan McMillen of the Australian Institute for Gambling Research said the draft report:

... provides the most comprehensive and detailed information on Australian gambling yet produced ... [it] effectively identifies the complexity and dynamic nature of Australia's gambling industries, the policy framework and their impacts. The Commission is to be commended especially for its attempt to relate the economic benefits to analysis of social costs ...

My principal concern is that the Commission's Inquiry will be portrayed by critics as an event staged to pander to a vocal minority. But the process of consultation and research undertaken by the Commission has been thorough, balanced and transparent ... the Commission has enabled the Australian community to voice its views on the extent and nature of contemporary gambling ... It would be irresponsible for industry and state governments to ignore these findings (sub. D216, p. 1).

1.3 Scope of the inquiry

Defining gambling

Gambling has been formally defined as ‘staking money on uncertain events driven by chance’. As some participants observed, this can encompass many activities, including the more speculative areas of commodity and financial markets. Nevertheless, gambling retains the distinguishing feature that, over time, for gamblers as a group, their gambling will inevitably cost them money — it is more like consumption than investment.

The Commission has focused predominantly on what are generally accepted to be the principal gambling forms — gaming, wagering and lottery products. The gambling ‘industries’ accordingly encompass those organisations that provide these services — including casinos, clubs, hotels, TABs, sports betting enterprises and lottery organisations.

- ‘Minor’ gambling activities (such as art unions and bingo) have been taken into account only where most relevant, as has informal and illegal gambling.
- The inquiry has also recognised, but not looked in any detail at, activities related to gambling such as poker machine or other manufacturing, horse breeding and racing, or other sports that are the object of wagering activities.

A changing industry

The growth of gambling reflects the liberalisation of previously illegal activities. While many forms of gambling have been around since the earliest days of European settlement, others — most importantly electronic gaming machines — are a relatively recent development in nearly all jurisdictions.

The uneven process of liberalisation has influenced the shape and direction of the industry. And it is reflected in the nature of the regulatory (and taxation) arrangements which have accompanied this growth.

The industry continues to change. New technologies such as the internet are emerging. Lotteries are becoming more regular, and changing character in the process. New gaming machines are continually being developed in response to the market (and, indeed, Australia’s manufacturers have become world leaders in gaming machine innovation and design). And sports betting is becoming more popular.

In such an environment, the Commission has sought to make its analysis and findings relevant to today while also taking account of future developments.

Many economic and social aspects to consider

The economic and social consequences of the increase in gambling types and opportunities are complex, difficult to measure, and subtle.

Generally, impacts which are seen as ‘social’ are often described, but not valued, while benefits which are seen as ‘economic’ are estimated but not examined qualitatively. In such circumstances, it is easy for social impacts to be given insufficient attention in analysis and in policy development.

The Commission’s report does not draw this artificial distinction, nor does it treat social impacts as less important, simply because they are harder to quantify. Economic analysis is about measuring the value of things for people, whether they have prices or not. Crime, relationship breakdown and emotional impacts have an economic dimension, even though they do not have obvious price tags. And there are techniques to investigate (and to some extent, measure) these impacts, notwithstanding their limitations. The Commission considers it better to make even rough estimates rather than none — which could be taken to imply that there are no costs associated with these impacts.

The report devotes more chapters to the costs than the benefits, as they have a particular policy importance. Without them, the gambling industry would be just like most other recreation and entertainment industries, and would seemingly require no different a set of policy, regulatory or taxation measures. But the social dimension, and in particular, problem gambling, makes the industry different. It is an area of clear policy relevance, and one where there have been significant information deficiencies.

To this end, the Commission invested considerable effort in examining methodological questions about, for example, how clinicians make a judgment about who is a problem gambler and how social statisticians estimate the prevalence of problem gambling in the general population. In so doing, it drew on the advice of a number of leading practitioners in these fields. All of this helped inform the Commission’s analysis and, in particular, the design of its surveys, for which the Commission is grateful.

In addition to providing information and analysis on the economic and social impacts of the gambling industries and the effectiveness of current regulatory frameworks, the Commission has explored a variety of measures for reducing the

social costs associated with problem gambling. Some are reasonably straightforward, and could be implemented on the basis of existing evidence as to their likely effectiveness and costs. But others would require further evaluation and possible trials before implementation. It is beyond the scope of this inquiry to undertake that more detailed work. However, it forms part of the wider research agenda proposed in chapter 23.

1.4 How to read this report

The issues surrounding gambling are complex. They have required detailed analysis of a wide range of issues — and the report reflects this. It covers much material which is controversial, difficult to interpret and often incomplete.

The overview at the front of the report attempts to go beyond just drawing out the main themes, to provide a summary of the report.

The report itself (contained in volumes 1 and 2) has been prepared in four parts, each of which can be read separately:

- part A contains information on the conduct of the inquiry, and a guide to the report;
- part B contains background information on the industry, its size and importance and its growth and changing character;
- part C analyses (and where possible, evaluates) the social and economic consequences of increased gambling in Australia; and
- part D covers a range of policy issues, including regulation, taxation and consumer protection.

Parts C and D include ‘framework’ chapters (chapters 4 and 12) which provide a guide and a framework for looking at the issues covered in that part of the report.

In addition, each chapter begins with a box of key messages, providing a guide to the key matters covered.

Volume 3 contains supporting material in 22 appendixes.

2 An overview of Australia's gambling industries

Box 2.1 Key messages

- Gambling is big business — over 7000 businesses provide gambling services throughout Australia.
 - The industries are estimated to have generated value added of about \$3.5 billion in 1997-98 and accounted for about 1.5 per cent of GDP.
 - In 1997-98 they had revenue in excess of \$11 billion.
- Gaming machines dominate gambling activity — they account for half the total business and taxation revenue collected from all forms of gambling.
- Australia's gambling industries are characterised by a mix of private and public ownership.
- Employment is significant — over 100 000 people are employed, both directly and indirectly in Australia's gambling industries.
- Gambling taxation represents a significant and rising share of state and territory governments' own tax revenue.
- Gambling is a growth industry.
 - Liberalisation (driven by governments' revenue needs and constrained tax bases) and new developments in technology have led to the proliferation of new gambling products. The range of gambling products has expanded from lotteries and racing to include gaming machines, scratch tickets, keno, and sports betting.
 - Gambling revenues have more than doubled over the last decade, driven primarily by growth in the gaming machine sector.
- A number of trends are emerging, including:
 - growth in internet gambling and sports betting and the prospect of Pay TV gambling;
 - increased competition between suppliers of gambling products; and
 - the development of safeguards to minimise the adverse social impacts of gambling.

This chapter looks at the structural characteristics and development of gambling industries. It presents information on the types and number of gambling businesses, their revenues and profit, employment, taxation and how the industry has grown over time.

What emerges is a major industry characterised by a diversity of products and a multitude of businesses. It is an industry with a long history, but it is also a growth industry.

2.1 Historical and social context

Gambling was imported into Australia with the new settlers, primarily from Britain but with some Asian and European influences. Settlers and soldiers organised card games such as *cribbage* and *all fours* and *pitch and toss*, an early form of two-up. These games thrived despite attempts by colonial administrators to stamp them out. By the mid 1800s turf clubs had been established in most regions of Australia and betting on horse races had become a popular recreational activity.

Selective legalisation of gambling was introduced. Gambling was permitted at racing clubs and gambling by the elite and army officers in private clubs was tolerated. At the same time, Asian gaming and public gaming such as two-up were regarded by many as immoral and were prohibited. In contrast to the blatant prohibitive regimes in Britain and the United States this was a relatively liberal approach. Racing became the most popular form of leisure activity for working-class men. Club facilities and racecourses were improved and a range of sweepstakes based on horse racing were set up (McMillen 1996a).

In 1916 a non-profit lottery was run in Queensland to raise revenue for war programs. This was followed by a number of lotteries that were so successful that the activity was taken over by the state government (box 2.2). Other states introduced their own lotteries and permitted charitable organisations to conduct minor gaming such as bingo, raffles and art unions. By the 1930s lotteries and minor gaming were legitimised throughout Australia and the association with welfare gave gambling a new respectability.

Poker machines began to appear in New South Wales clubs as early as the 1920s. Some machines were also operating in hotels, but in 1921 were declared illegal by the full bench of the Supreme Court. The ruling was ambiguous for clubs, where profits from the machines contributed to the club rather than an individual machine owner.

Box 2.2 **The Golden Casket**

The Golden Casket Art Union began in 1916 when the Queensland Patriotic Committee, a charitable organisation, approached the government for permission to run a lottery to raise money for the soldier repatriation fund. Its success prompted four more caskets in the following three years, raising £60 000 for the victims of war. Another casket was approved in 1919, this time to assist the Hospital for Sick Children in Brisbane.

In 1920 the Queensland Government assumed control of the Art Union, viewing it as a source of much needed revenue. Between 1920 and 1930 the Golden Casket expanded from drawing a casket twice a year to every ten days and by the 1960s a draw was held nearly every day.

Consumers were attracted to the Golden Casket by the size of its prizes. In 1916 a first prize of £5000 was offered — an extremely large prize considering that the average salary of an adult male at this time was between £2 and £3 per week. The odds of winning the Golden Casket were one in a million — whereas the odds of winning Gold Lotto today is one in eight million. Gamblers were willing to pay large amounts of money to win a life-altering prize. Tickets initially cost the equivalent of nearly half a day's pay. However to accommodate smaller punters, from 1932 one sixth share tickets were offered.

The Golden Casket was extremely successful as a revenue earner. Within only one year profits provided 2 per cent of government revenue and in the first 10 years over £2 million was raised. The Golden Casket remained a substantial contributor to government revenue up until its decline in popularity in the early 1980s.

The decline in the popularity of the Golden Casket was the result of a number of factors. These included a decline in the real value of prize money as the result of high inflation in the 1970s, the chances of winning decreased, profits were no longer seen as being beneficial to the community and other gambling alternatives were introduced.

The Golden Casket Lottery Corporation introduced new products as the popularity of the Golden Casket waned. Since the 1980s a number of new products have been marketed and today the corporation offers Saturday Gold Lotto, Oz Lotto, Powerball, The Pools, Super 66, Jackpot Casket and Instant Scratch Its.

The Golden Lottery Corporation continues to provide a source of revenue for the government. In 1996-97 for example, the Golden Casket Lottery Corporation earned an operating profit of nearly \$207 million dollars of which \$199 million was remitted to the Queensland Treasury.

Source: Selby (1996).

As a result, poker machines began to spread exclusively throughout clubs. When machines again began to reappear in hotels in the early 1930s they were removed from both hotels and clubs. However by 1939 the machines had returned to the

clubs under the 1921 ruling. Their use was not widespread, but clubs which operated them generated substantial revenue from the machines (O'Hara 1988).

By the 1940s legal gambling was thriving, but governments were becoming concerned at the growing illegal market comprising private gaming clubs and SP bookmakers. The illegal market created problems (such as corruption) for government in the control of gambling and deprived it of revenue. A solution to SP bookmakers was found in the establishment of government-run agencies for off-course betting — known as Totalisator Agency Boards (TABs). TABs not only reduced the problem of SP bookmaking but they generated new interest in racing and increased revenue for the development of the racing industry.

In the 1950s gaming machines spread throughout New South Wales. In 1956 the Government introduced the *Gaming and Betting (Poker Machines) Act* which formally gave registered clubs the exclusive right to operate gaming machines so that funds could be used for community benefit. This resulted in a rapid increase in the number of registered clubs and members. By 1959, there were over 7000 poker machines operating in about 1100 clubs throughout New South Wales (Wilkinson 1996).

By the 1960s, gambling in most states was characterised by liberalisation, government ownership (lotteries, TABs) and tight regulation of private operators (bookmakers, gaming clubs). The rationale behind the legalisation of gambling was to control the illegal gambling market and to raise funds for community services (McMillen 1995a).

In the 1970s and 1980s the rationale for expanding gambling opportunities shifted away from social considerations towards economic opportunities. A series of economic recessions and tightening government fiscal positions, compounded by narrow state tax bases, resulted in governments seeking new methods of raising revenue and facilitating economic growth. The first initiatives involved the development of casinos:

The two jurisdictions most vulnerable to the 1970s global economic slump (Tasmania and the Northern Territory), were the first to legalise casinos for regional development ... Australia experienced a second wave of casino legalisation during the 1980s global slump as the newly developing states (Queensland, Western Australia, South Australia) sought to expand into tourism to diversify their economies. A third period of casino expansion occurred as the previously affluent industrialised states, New South Wales and Victoria, suffered the consequences of the 1990s recession (McMillen 1995a, p. 14).

The current stage of development is characterised by market expansion, competition and privatisation. Continuing pressures for government revenue, and from private

enterprises looking for market opportunities, has resulted in the proliferation of modern forms of gambling. Today there are 13 casinos operating in Australia — with at least one in each state and territory. Gaming machines have also spread to hotels and clubs throughout Australia (except Western Australia) and there has been an expansion in lottery products to include lotto, soccer pools and instant *scratch-its*. Competition for the gambling dollar has in turn seen a transformation in horse racing, with innovations such as night racing and satellite telecasting. And new technological forms of gambling such as internet gambling, have emerged.

There has also been a marked shift from government to private ownership of TABs. In 1994 Victoria became the first state to privatise the TAB, which was commercialised as Tabcorp. New South Wales followed and other states are also considering the privatisation of TABs.

Today, gambling is big business, with providers earning net takings over \$11 billion annually. Along with the expansion in gambling, however, there have been growing community concerns about the social harm caused by gambling and this has begun to influence government programs and the practices of gambling establishments (chapter 16).

2.2 A snapshot of the industries

The gambling industry covers a wide range of activities, provided by a variety of organisations, including:

- keno and gaming machines in hospitality clubs, pubs, taverns and bars;
- lotto, lotteries or caskets, football pools and scratch tickets provided by lottery operators and agencies;
- casino games such as two up, roulette, blackjack, baccarat, poker, craps, mini dice and money wheel games;
- betting on horse and greyhound races and sporting events provided by on and off-course bookmakers and totalisators; and
- minor gaming including raffles, bingo and lucky envelopes.

This section examines the characteristics of Australia's major gambling *suppliers* — including industry structure, profitability, employment and taxation. A description of the various forms of gambling and the odds of winning is provided in box 2.3.

Box 2.3 **Forms of gambling**

Gaming machines are available in casinos, clubs and hotels throughout Australia — except in Western Australia where they are only available in the casino. In most jurisdictions operators must return at least 85 per cent of wagers to players as winnings, either by cash or a mixture of cash and product. Gaming machines have the capacity to be linked in order to offer jackpots such as cars, holidays, and mystery cash prizes up to \$1 million.

Keno is typically played in clubs, casinos and hotels. It is also offered by lottery agencies in some jurisdictions. Prizes and the odds of winning vary according to how many numbers are chosen and matched. In Tattersalls keno the probability of winning the jackpot is almost one in 9 million and the average jackpot is \$840 000.

Lotto games are conducted at both a state and national level. Oz-Lotto, drawn every Tuesday is the national lotto game. Saturday night Lotto conducted by the Australian Lotto Bloc, is similar to Oz-Lotto with all states except New South Wales participating in the draw (table below).

Saturday Lotto prize money and the chance of winning

<i>Numbers matched</i>	<i>Share of pool and average prize</i>	<i>Chance of winning</i>
6	shares 26% of pool (\$470 000)	1:8 145 060
5 & 1 supplementary	shares 7% of pool (\$10 000)	1:678 755
5	shares 12% of pool (\$1 000)	1:36 690
4	shares 21% of pool (\$34)	1:733
3 & 1 supplementary	shares 34% of pool (\$11)	1:298

Source: Tattersalls (1999).

At the state level a number of lotteries are run. For example, New South Wales Lotteries draws Lotto on Monday and Wednesday; South Australian Lotteries draws X-Lotto on Monday and the Queensland Golden Casket Lottery draws Gold Lotto on Wednesday.

Powerball is similar to lotto but its two draw structure means that the chance of winning the major prize (about one in 55 million) are significantly lower.

Football pools is a lotto style game, where the winning numbers are based on the outcome of English or Australian soccer matches. There are five prize divisions — the odds of winning division one (an average prize of \$450 000) are over one in a million while the chance of winning division five (an average prize of \$14) is 1 in 149.

Instant scratchies are tickets (ranging in price from \$1 to \$10) which are scratched to reveal symbols. Prizes are paid on a set return to players and are based on the number of tickets in a set, the cost to purchase the tickets and a set percentage retained by the operator for costs. Prizes range from \$1 to \$500 000. The chance of winning a prize varies with the type of ticket — The chance of winning a prize on a New South Wales ticket, for example, is about one in five.

(continued)

Box 2.3 (continued)

Lotteries (caskets) are drawn Australia wide by both government and commercial operators. For example, the Golden Casket Lottery Corporation in Queensland sells \$2 and \$5 casket tickets. Prizes range between \$10 and \$250 000 in the \$5 lottery and between \$5 and \$100 000 in the \$2 lottery. In addition, free tickets are awarded to every ticket holder that is one number away from a winning ticket. Over 7000 tickets in each draw win a prize.

New South Wales Lotteries conducts a similar style of lottery but also offers a jackpot prize. The \$2 jackpot starts at \$500 000 and grows by \$50 000 until it is won. And the \$5 lottery jackpot starts at \$750 000 and grows by \$100 000 until it is won. The odds of winning a prize in the \$2 lottery are 1 in 18, and 1 in 11 for the \$5 lottery.

Casinos offer a range of games. Some such as roulette and the money wheel are based entirely on luck. Others such as blackjack and poker require some skill. The average percentage of each bet that is retained by the casino varies with the table game. Blackjack for example has the lowest of all house percentages ranging from 0-1 per cent. In comparison, the average house advantage on the money wheel is 5 per cent, on two-up it is 3 per cent, on baccarat it is 1 per cent on player and banker bets and 14 per cent on tie bets, on craps it is 2.5 per cent and on other dice games such as mini-dice, sic-bo, heads and tails the average house percentage is 5 per cent.

Racing comprises betting on horse and greyhound races with on-course and off-course bookmakers and totalisators. At on-course totalisators and TABs betting is in the form of a “unit” wager (a unit being a multiple of 50c or \$1 depending on the jurisdiction). The operator deducts a percentage of the total units wagered and the remainder is returned as winnings to players in multiples of the unit wagered. Types of TAB betting include win and place betting, quinella betting, trifecta betting, doubles and treble betting and mystery betting.

Unlike totalisators, bookmakers offer win and place bets on racing events at fixed odds. A gambler can wager any amount above a set minimum and will receive the bookmaker’s odds at the time of making the wager. Those odds stand, irrespective of whether the bookmaker alters the odds at a later time.

Sports betting is wagering on local, national or international sporting events (other than horse and greyhound racing), with bookmakers, and TABs. Sports bets can be made at the betting agency, by telephone, or on the internet. Prize money and the odds on sports betting at TABs, (such as footy-bet) is dependent on the total amount wagered, while at bookmakers sports betting is based on fixed odds.

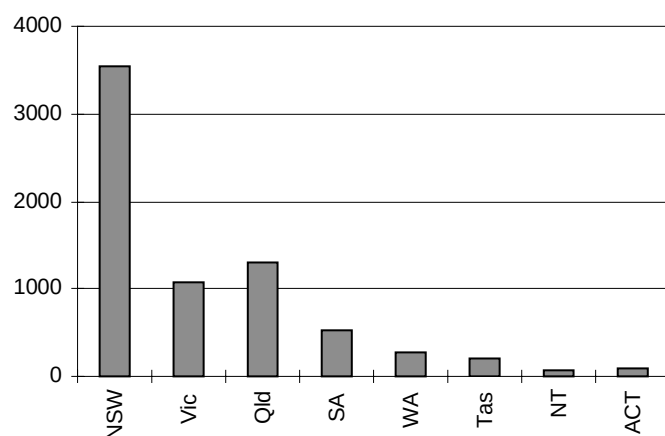
Bingo is a numbers game where each player has one or more cards with differently printed numbers (between 1 and 99) on which to place markers as numbers are called. The odds of winning and prize money vary with the number of cards sold to players. Other forms of minor gaming such as raffles and lucky envelopes are not within the scope of the inquiry.

Industry structure

Over 7000 businesses provide gambling services throughout Australia, either as their primary activity (for example casinos and TABs) or as secondary source of income (for example clubs, and hotels). The majority of gambling businesses are hospitality clubs, pubs, taverns and bars and totalisator agencies.

Half of Australia's gambling businesses are located in New South Wales, with Victoria and Queensland the next largest but with a significantly lower number of businesses (figure 2.1).

Figure 2.1 Number of gambling businesses by state and territory^a



^a Multi-state businesses are counted in each state which they operate, hence states do not sum to the Australian total.

Data source: ABS (1999b).

Gaming machines dominate gambling activity in Australia — as discussed later they account for about half the total revenue and taxation collected from all forms of gambling.

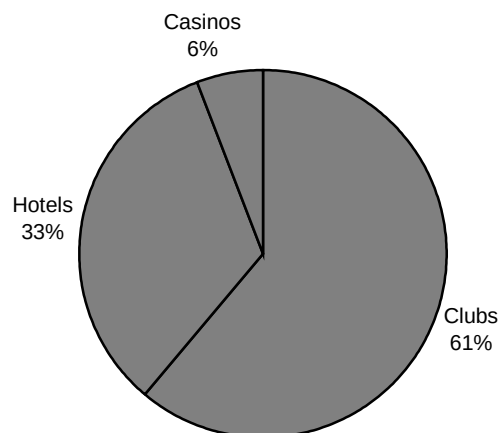
Australia currently has around 185 000 gaming machines, roughly half of which are located in New South Wales (figure 2.2).

In the draft report, the Commission used data from Aristocrat's 1998 Annual Report indicating that Australia had 21 per cent of the world gaming machine market, which the industry subsequently disputed. Further data on machine numbers and characteristics, from a variety of sources, indicates that Australia has about one-fifth of the most relevant market segment ('high intensity' machines). However, its share can be reduced to 2.5 per cent if a range of other machines are included (box 2.4).

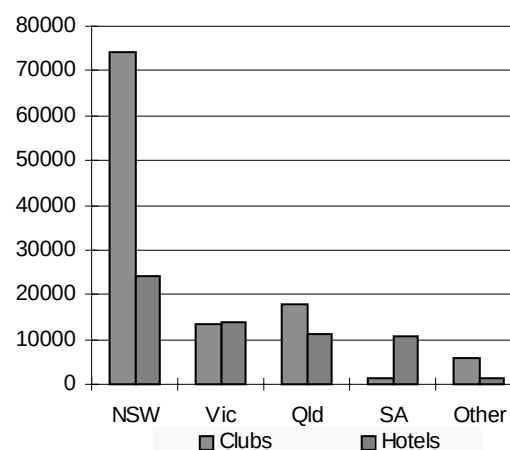
It is clear that Australia has a much wider dispersion of gaming machines than in North America. In per capita terms, there are roughly five times as many machines in Australia than in the United States or Canada, where their availability is more restricted.

Figure 2.2 Location of gaming machines

Location of gaming machines, Australia



Gaming machines in clubs and pubs, taverns and bars, by state/territory



Data source: State/territory gambling authorities, see chapter 13 for data table.

In contrast, Australia accounts for less than two per cent of world lottery sales — Europe and North American lottery sales comprise over 80 per cent of the world total (table 2.1).

Table 2.1 World lottery sales, 1998

<i>Region</i>	<i>US \$ million</i>	<i>Percentage of world total</i>
Africa	273	0.2
Australia and New Zealand	2 335	1.9
Asia & Middle East	13 391	10.8
Europe	61 247	49.3
Central, South America	4 115	3.3
North America	42 826	34.5
Total	124 185	100.0

Source: Lottery Insider (1999).

Box 2.4 **The world gaming machine market**

In its draft report the Commission reported data from Aristocrat's 1997-98 annual report which, consistent with earlier estimates, indicated that Australia had 21 per cent of the world's gaming machines.

A number of industry participants argued that this estimate was greatly overstated. Aristocrat (sub. D266) commented:

The figure used by the Commission ... refers only to the types of gaming machines Aristocrat produces, in regulated gaming jurisdictions. It is not an estimate of the total number of machines worldwide.

The world gaming machine market is highly fragmented. There are a great variety of machines which differ in terms of technology, turnover, prizes, payout rates and accessibility. This creates difficulty in defining and measuring the size of the world market, and different segments within it.

Professor Marfels, in a submission to the inquiry (D222) and in his consultancy report (through Marecon International Research) for Crown Casino, included casino gaming machines, pachinko, pachislo, video lottery terminals and amusement with prizes machines in his definition of the world gaming machine market. He found that Australia has less than 3 per cent of the world's gaming machines and ranks sixth after Japan, the United States, Great Britain, Germany and Spain.

Similarly, a study by Taylor Nelson Sofres, commissioned by the AGMMA (sub. D257, p. 4) which included the same styles of machines, found that Australia had less than 2.4 per cent of the world's gaming machines.

The aggregation of machines at this level is not very meaningful, however, because it does not allow comparison of like with like. Following closer examination of the various devices, the Commission considers that the gaming machine market can be divided into three relatively distinct segments:

- high intensity machines — where spending per game and the speed of play is high relative to all other gaming machines — these include Australian gaming machines, US slot machines and video lottery terminals;
- amusement with prizes machines — where spending and the speed of play is comparatively slower — these include UK amusement with prizes and club machines and Japanese pachislo machines; and
- Japanese pinball style pachinko and other machines (such as UK crane grab) — where the stakes and speed of play are the lowest and prizes are toys (for crane grabs) and biscuits, cigarettes and magazines for pachinko (although prizes can be exchanged outside the venue for money).

Appendix N describes these market segments and the variety of gaming machines worldwide in more detail.

(continued)

Box 2.4 (continued)

Australia's share of the gaming machine market varies considerably depending on how the market is defined. It can be as high as 20 per cent or as low as 2.6 per cent if pachislo, pachinko and other amusement with prize machines are included (table below).

Country shares of gaming machines^a, selected market segments (per cent)

	<i>High intensity machines</i>	<i>'Amusement with prizes' machines</i>	<i>Pachinko and other^b</i>	<i>Total</i>
Australia	20.4	0.0	0.0	2.6
United States	64.4	0.0	0.0	8.2
Canada	6.4	0.0	0.0	0.8
France	5.9	0.0	0.0	0.7
New Zealand	1.7	0.0	0.0	0.2
South Africa	1.2	0.0	0.0	0.2
United Kingdom	0.0	14.8	0.0	3.7
Germany	0.0	13.3	0.0	3.2
Spain	0.0	12.9	0.0	3.1
Japan	0.0	58.9	100	65.8
Other	na	na	na	12.9

^a Not including internet or illegal machines; ^b excludes 'UK crane grab', pinball and pusher machines.

Source: Appendix N.

The Commission considers that the 'high intensity' sector is the most appropriate benchmark for comparison of Australian style gaming machines with the world market. This grouping of machines has comparatively high turnover, credits, lines, speed of play and winnings. They also pose potentially a higher risks for problem gambling (see chapter 6 and appendix N).

Ownership

Australia's gambling industries are characterised by a mix of public and private ownership.

- All Australia's casinos are regional monopolies. Most are owned and operated by Australian companies and listed on the Australian Stock Exchange. The two exceptions are the Adelaide Casino, which is government owned and MGM Grand International Hotel Casino in Darwin, which is a subsidiary of MGM Grand in Las Vegas.
- Traditionally, TABs have been managed by government appointed boards. However Victoria and New South Wales have moved away from this structure with the privatisation of their TABs. Queensland and the Northern Territory are also in the process of privatising their TAB assets.

- Lottery operators are also predominantly government owned. The two exceptions are Tattersalls in Victoria and the Territory Lottery Company in the Northern Territory.

Contribution to national product

The conventional measures of an industry's contribution to the national economy is value added, and the share of its value added in Gross Domestic Product (GDP — notionally, the sum of value added for all industries). However there are no official estimates of value added for gambling.

Instead, table 2.2 lists ABS estimates of value added at *basic* and *producer* prices for industries where gambling is a primary or secondary activity. The ABS (sub. D290, p. 2) noted that at the industry level the preferred measure is value added at basic prices. However for a comparison with GDP (at market prices) value added at producers prices is the appropriate measure (sub. D290, p. 2).

Table 2.2 **Value added, industries that provide gambling services, 1997-98^a (\$ million)**

	<i>Lotteries</i>	<i>Casinos</i>	<i>TABs, bookmakers & other</i>	<i>Clubs</i>	<i>Hotels</i>	<i>Total</i>
Value added (basic prices)	342	744	764	2 663	2 497	7 010
Gambling taxes	1 321	426	903	715	352	3 717
Value added (producers' prices)	1 663	1 170	1 667	3 378	2 849	10 727

^a Estimates are approximations only — they are based on the assumption that gambling taxes is a reasonable proxy for taxes less subsidies in the gambling industries

Source: ABS (sub. D290, p. 4).

The above table provides estimates of value added for industries that provide gambling services, it does not provide estimates of value added from gambling. In the casino, club and hotel sectors, income is also sourced from accommodation and the sales of food and liquor. In casinos, 85 per cent of income is from gambling, in clubs 53 per cent of total income is from gambling and in hotels 16 per cent of income is derived from gambling (ABS catalogues 8687.0 and 8683.0). Using these shares, non-gambling services can be netted out of the ABS industry estimates of value added to provide approximations of value added from gambling.

The Commission estimates that total value added (at basic prices) from gambling in 1997-98 was \$3.5 billion. Clubs accounted for the majority, at about 40 per cent of total industry value added (table 2.3). Value added in producer prices was \$7.2 billion, which equates to about 1.5 per cent of GDP in 1997-98 .

Table 2.3 Estimated value added from gambling, 1997-98 (\$ million)

	<i>Lotteries</i>	<i>Casinos</i>	<i>TABs, bookmakers & other</i>	<i>Clubs</i>	<i>Hotels</i>	<i>Total</i>
Value added (basic prices)	342	632	764	1 411 ^a	400 ^a	3 549
Gambling taxes	1 321	426	903	715	352	3 717
Value added (producers' prices) ^b	1 663	1 058	1 667	2 126	752	7 266

^a Estimates do not take into account that gambling services may attract increased expenditure on non-gambling services such as meals and drinks. ^b Estimates in producers prices would be lower to the extent that there are any subsidies to deduct from taxation revenue (see ABS sub. D290, p.2).

Source: Commission estimates based on ABS (sub. D290, 1998b, 1999b).

The profitability of gambling industries

Gambling businesses can generate two sources of revenue from gambling — takings and commissions.

- Net takings are total gambling income less prize money.
- Gambling commissions are moneys paid to agencies with TAB operations, lotteries, keno, lotto-type games and to hotels and clubs with gaming machines (when the venue does not own the machines).

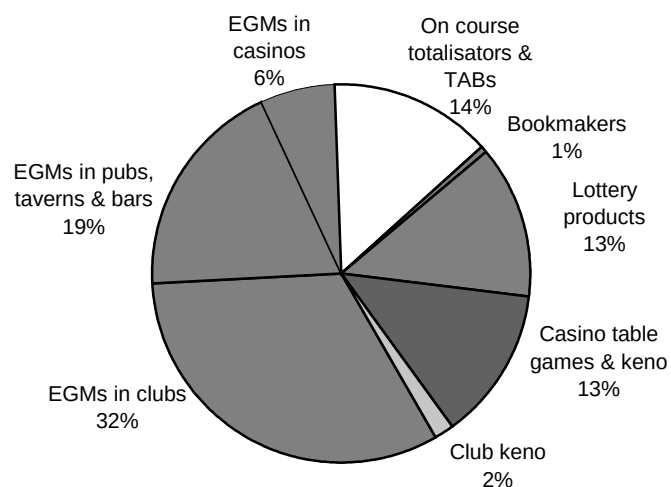
In 1997-98, gambling businesses generated over \$11 billion in net takings and \$650 million in commissions. The largest source of net takings was from gaming machines in clubs, pubs, taverns and bars which accounted for over 50 per cent or \$5.7 billion in total gambling net takings (figure 2.3).

New South Wales is the largest revenue earner, accounting for over \$4.5 billion or 40 per cent of Australia's total net takings and commissions from gambling. Victorian gambling businesses also generate significant revenue from gambling (figure 2.4).

Together, Australia's gambling businesses generated \$1.5 billion in profit (before tax) in 1997-98, or an average of \$217 000 per business.

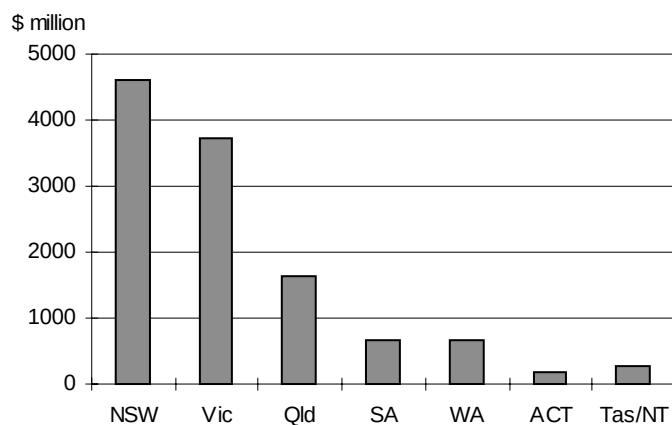
- The most profitable sector is that comprising clubs and hotels with gambling facilities. In 1997-98 the sector generated over \$1 billion in profit — an average profit of \$200 000 per business.
- In contrast, in 1997-98 the casino industry made an operating loss of nearly \$300 million — an average of \$22 million per casino (figure 2.5).

Figure 2.3 Net takings by type of gambling and venue, 1997-98



Data source: ABS (1999b).

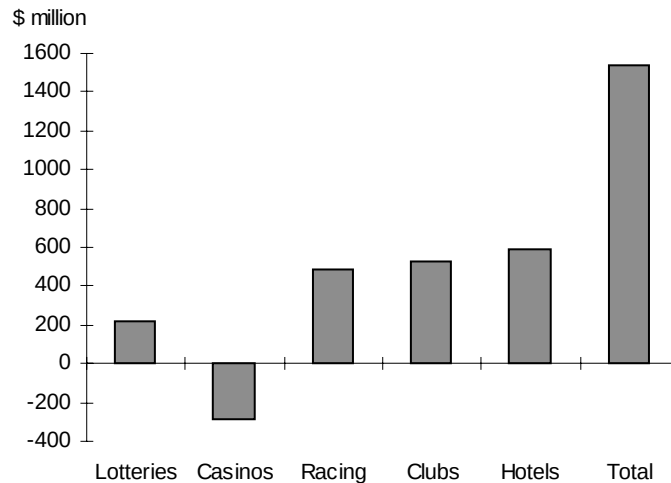
Figure 2.4 Gambling net takings and commissions by state and territory^a, 1997-98



^a The ABS did not publish separate net takings and commissions data for the Northern Territory and Tasmania, their total was calculated as the difference between the Australian total and sum of the other states and territories.

Data source: ABS (1999b).

Figure 2.5 Operating profit of gambling businesses^a, 1997-98



^a Profit is measured as operating profit before tax; the racing sector includes TAB and totalisator operators, TAB agencies, bookmakers and sports betting shops.

Data source: ABS (1999b, 1999a).

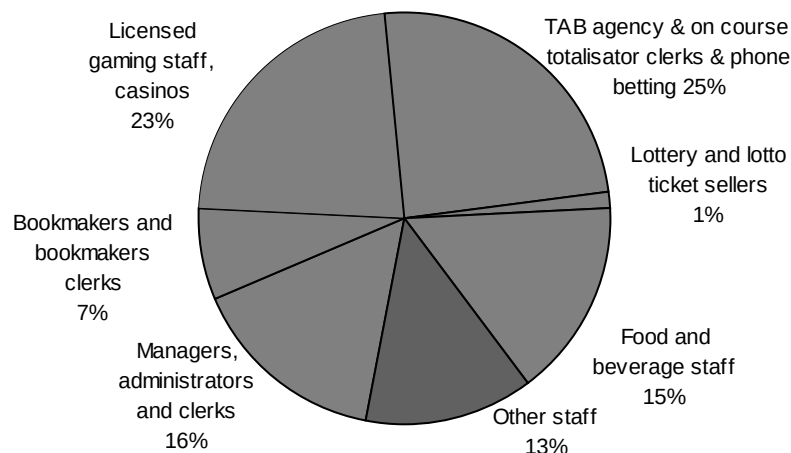
Employment is significant

The gambling industry employs large numbers of people, both directly and indirectly. In 1997-98 it is estimated that over 107 000 people, or one per cent of Australia's workforce were employed directly in Australia's gambling industries (see below). Its significance is demonstrated by comparison with employment of 75 000 in mining, 67 000 in electricity, gas and water supply, and 114 000 in sport and recreational services (noting that the relative importance of gambling employment would diminish if employment was measured as full time equivalents).

In 1997-98 over 37 000 people were employed in businesses where the predominant activity was gambling. This represents about 17 per cent of total cultural and recreational employment.

- Over 20 000 were employed in casinos, more than 13 000 at TABs, sports betting shops and bookmakers and nearly 3 000 in lottery businesses.
- Their main occupations were licensed gambling staff in casinos, TAB agency clerks and on-course clerks and managers, administrators and clerks (figure 2.6).

Figure 2.6 Occupations of staff in gambling industries^a, 1997-98



^a Other staff includes maintenance, security and computer service staff.

Data source: ABS (1999b).

In addition, about 120 000 people were employed in clubs, pubs, taverns and bars with gambling facilities in 1997-98. As gambling is a secondary activity in these businesses, it is difficult to estimate how much of this employment was generated by the provision of gambling services. Indeed, the main occupations in clubs, pubs taverns and bars are bar managers, attendants, waiters and waitresses. In 1997-98, on average, clubs and hotels with gambling facilities employed 23 people, compared with an average of 9 people employed in clubs and hotels without gambling facilities. This suggests that more than 70 000 people are employed in clubs, pubs, taverns and bars as a result of gambling.

The Commission has taken a broad interpretation of the members of staff associated with gambling in clubs and hotels. If staff classified as 'gaming staff and cashiers' was the only category included, gambling employment in clubs would be 9200 and in hotels 6400, a total of 15 600. On the other hand, the Commission has not included other businesses which employ staff directly in the gambling industry for example, gaming machine manufacturers such as Aristocrat and parts of the racing industry.

Gambling businesses are characterised by a high proportion of part time, casual and female employment.

- In 1997-98, in businesses where gambling was the primary activity, over 50 per cent of employment was on a part time or casual basis and women were employed in 51 per cent of the positions.
- In pubs taverns and bars, 74 per cent of employees were part-time or casual and 54 per cent were women.

- Similarly, in clubs 65 per cent of employees were part-time or casual and 49 per cent were women.

High levels of part-time employment are characteristic of the cultural and recreation services sector (of which gambling is a segment). Over 50 per cent of people employed in the cultural and recreational sector are employed on a part time basis compared with about 30 per cent for all industries.

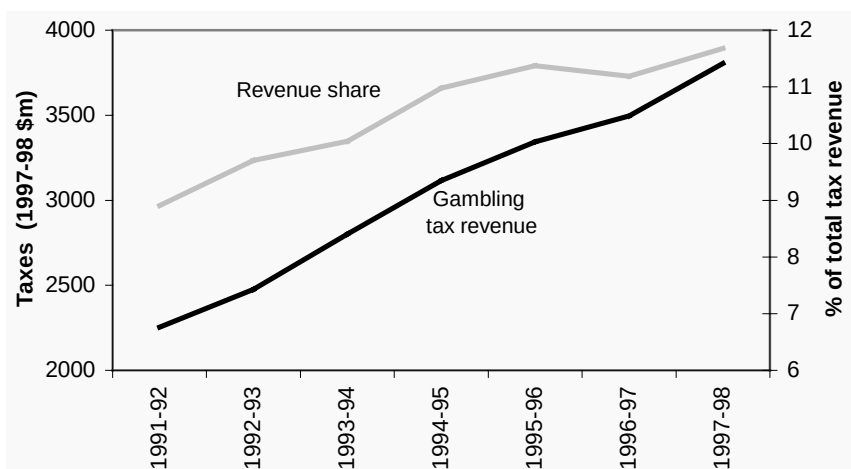
The gambling industry also employs people indirectly in a diverse range of fields and professions. For example, it employs technicians to manufacture and maintain gaming machines and totalisator systems; veterinarians and hospitality workers in the racing industry and construction workers to build casinos.

Taxation revenue from gambling

As noted, the liberalisation of gambling has in part been driven by governments' revenue needs and constrained tax bases. A variety of taxes and fees are levied on the gambling industry by state and territory governments. In 1997-98 state and territory governments collected over \$3.8 billion in taxation revenue from gambling.

Gambling taxation represents a significant and rising share of state and territory governments' own-tax revenue. In 1991-92, states and territories raised about 9 per cent of taxation revenue from gambling. In 1997-98, taxes on gambling accounted for about 12 percent of taxation revenue (figure 2.7).

Figure 2.7 Taxation revenue from gambling, 1991-92 to 1997-98^a

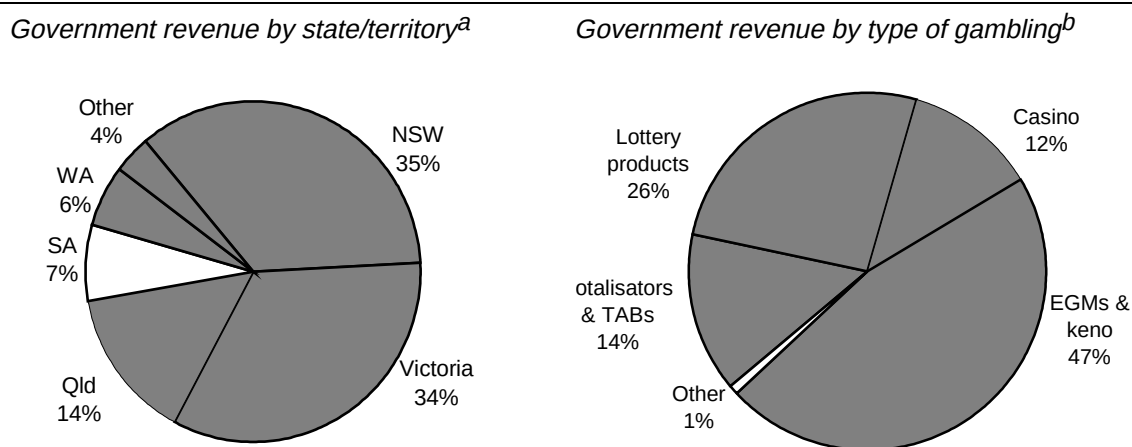


^a 1997-98 data are preliminary; taxation revenue was converted to 1997-98 prices using the CPI deflator reported in Tasmanian Gaming Commission (1999).

Data source: ABS (1998c).

Nearly 70 per cent of gambling taxation revenue is collected in two jurisdictions — New South Wales and Victoria — and the largest source of revenue is from gaming machines (figure 2.8). The importance of gambling taxes as a source of revenue, and the differences between jurisdictions is discussed further in chapter 19.

Figure 2.8 Government revenue from gambling, 1997-98



a Other includes Tasmania, the Northern Territory and the ACT. **b** Other includes bookmakers, sports betting and minor gaming.

Data source: Tasmanian Gaming Commission (1999).

2.3 Gambling is a growth industry

The changing pattern of gambling

Two decades ago the main forms of gambling in Australia were betting on horse racing, lotteries and raffles. Since then liberalisation has led to the proliferation of gambling products. Today, the range of gambling products have expanded to include keno, casino games, scratch-tickets and gaming machines. We are also seeing the emergence of internet gambling.

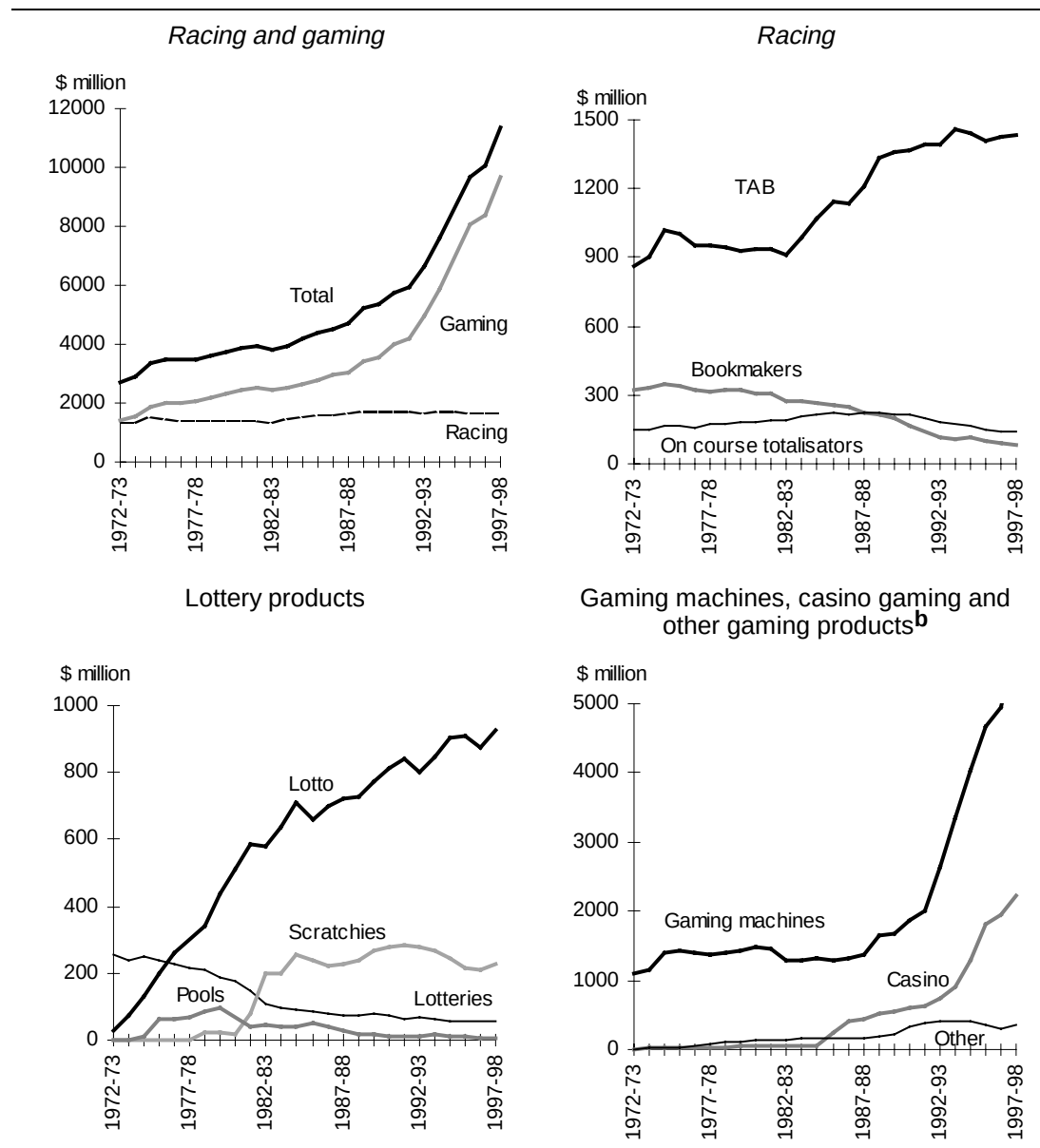
Gambling revenues have doubled over the decade and this is reflected in expenditure data. Growth has been driven by the gaming sector, where expenditure has grown from \$1.3 billion in the early 1970s to over \$9 billion in 1997-98 (figure 2.9).

The legalisation of gaming machines in hotels and clubs has created the largest area of growth in the gambling industry. Expenditure on gaming machines has increased

from \$1 billion in 1972-73, (when only New South Wales had gaming machines and only in clubs) to \$6 billion in 1997-98.

The expansion of gaming into hotels and clubs has yielded a considerable boost in profit for those establishments with gambling facilities.

Figure 2.9 **Expenditure^a by type of gambling activity, 1972-73 to 1997-98**



^a Expressed in 1997-98 values. ^b Other includes minor gaming sports betting (gaming) and keno.

Data source: Tasmanian Gaming Commission (1999).

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- In 1991-92 clubs operating profit before tax was \$178 million — in 1997-98 it exceeded \$530 million.
 - Similarly, in pubs, taverns and bars, operating profit before tax increased from less than \$100 million in 1991-92 to \$590 million in 1997-98.

Revenue from casinos has also increased significantly over the period. Casino gaming has increased from expenditure levels below \$60 million a year prior to 1984-85 (when only Tasmania and the Northern Territory operated casinos) to over \$2 billion in 1997-98 (with all states and territories operating at least one casino) (figure 2.9).

Competition for the gambling dollar and a fall in the popularity of lottery tickets has resulted in the development of new lottery products, going well beyond the traditional weekly draw.

- Lotteries now sell instant scratch tickets, lottery or casket tickets and a range of lotto products.
- Lotto draws are conducted nearly every day of the week. For example, NSW Lotteries sells tickets in Lotto (drawn Monday and Wednesday nights), Oz Lotto (drawn Tuesday nights), Powerball (drawn Thursday nights) and 6 from 36 pools (drawn Saturday nights).

Expenditure on traditional lottery tickets has declined from over \$250 million a year in the early 1970s to \$57 million today. In contrast, expenditure on lotto products has increased steadily over the period (figure 2.9).

Despite innovations in racing products (such as increased numbers of meetings, night racing and mystery bets), the racing industry has seen its market share decline in recent years. Nevertheless, total expenditure on racing has increased over time.

- In 1972-73 gambling expenditure on racing was about \$1.3 billion (in today's prices) and it had a 49 per cent share of the market.
- In 1997-98 racing expenditure was higher at \$1.7 billion, but its market share was much lower — about 15 per cent.

Within the racing sector, TAB revenue has increased from \$865 million in 1972-73 to more than \$1.4 billion in 1997-98. In contrast, expenditure at the race track (on bookmakers and on-course totalisators) has declined marginally (figure 2.9).

2.4 Technological change and future trends

Clearly, the last few decades have seen rapid change in Australia's gambling industries. Gambling has evolved from an industry which offered race betting and lotteries, to one which offers a multitude of gambling products and opportunities. The growth of Australian gambling industries has been made possible by liberalisation — as subsequent chapters show regulations have influenced the structure, profitability and development of the industry — but technological change has also shaped the industry and contributed to its growth. Indeed, Australian industries have been at the forefront of technological innovation world wide.

- Technological advances have enabled gambling suppliers to improve their services and increase the entertainment experience for consumers. For example, gaming machines are continually being updated with new graphics, feature games and linked jackpots to maintain consumer interest.
- Technological change has also created much greater access to gambling products — so called *convenience gambling*. Gaming machines are available in pubs and clubs throughout Australia; and the proliferation of interactive gambling products such as internet gambling and telephone betting, mean that consumers no longer have to leave home to gamble.
- Technological developments have also increased the tempo of gambling. The traditional forms of gambling (lotteries and racing) were non-continuous — there was a time delay between when a ticket or bet was purchased and the event took place. Today, the trend is toward continuous forms of gambling. For example, a new keno game starts every five minutes; it takes only a few seconds for each spin on a gaming machine; and the introduction of bill acceptors on gaming machines, in some jurisdictions, has meant that players do not have to leave their machine to get change.
- Further, technology has created higher levels of security for players and service providers. For example, Star City Casino (sub. 33, p. 34) has introduced Pitcam (small cameras located on each gaming table to record play) to resolve disputes, deter criminal behaviour, and ensure the integrity of gaming operators. It also has a computer system to monitor gaming machines and more than 1000 cameras providing perimeter surveillance.
- Finally, advances in information technology have enabled gambling providers to collect considerable detail on their clients. For example, many casinos and clubs provide gamblers with membership cards which when inserted into gaming machines can earn consumers free prizes or money. The cards simultaneously collect information about each consumer's expenditure pattern and level.

Regulation and technological advances are bound to further shape the gambling industry in the future. A number of new developments are already becoming apparent:

- One is growth in internet gambling, bringing a range of interactive gambling products directly into the homes of consumers (chapter 18). With the spread of broadband cable throughout Australia, a new technological form of gambling is also set to emerge — gambling through Pay TV. Indeed, products for this medium are already being developed in Australia.
- A particular area of growth likely to be driven by new technologies is sports betting. In 1997-98, Australians lost over \$20 million on sports betting products and expenditure is expected to increase significantly in the future.
- Competition for the gambling dollar has intensified. In recent years a number of new lottery and racing products have been introduced to compete with the newer forms of gambling such as gaming machines. Competition within the gambling industry is likely to increase further. Indeed, the advent of internet gambling would mean that gambling providers will not only compete with interstate products, but with gambling products from all over the world.
 - The National Lotto Bloc (sub. 158, p. 11) for example, see their major competition in the future coming from jackpot linked gaming machines, TAB mystery bets (especially if they are offered through TV or the internet) and sports betting.
- In the past, gambling products have not been highly substitutable. For example, when gaming machines were first introduced in Australia, racing industry revenues remained unchanged. However, in recent years gambling products have converged. For example, the TAB mystery bet is similar to the *luck bet* on a scratch ticket or a gaming machine; casino games on the internet are the same as those in physical casinos; and keno and lotto products are similar numbers type games. Clearly, gambling products are becoming more substitutable over time.
- Some participants have also suggested that a development in the gambling industry will be the use of new payments mechanisms. The Adelaide Central Mission for example cite further growth in the use of ATMs and EFTPOS, in addition to the development of new payments mechanisms such as smart cards (credit cards incorporating a micro-chip which is able to store information and value) (sub. 108, p. 22). Indeed, moves to a cashless society could see pressures to have such facilities incorporated in gaming machines — a major issue in problem gambling.
- A number of new trends in the ownership of gambling businesses are also emerging.

-
- Share ownership (including Tabcorp, Star City Casino, Aristocrat and Jupiters Casino) is becoming more mainstream throughout the community.
 - Some companies, previously unrelated to gambling, are acquiring gambling assets. For example, Publishing and Broadcasting Limited is currently being merged with Crown Casino and Fosters Brewing has purchased Austotel (a Queensland hotel chain) and hotels throughout New South Wales, making it one of the largest gaming machine operators in Australia.
 - Companies with existing gambling operations are expanding into other forms of gambling. For example, Jupiters Casino has moved into sports betting and internet gaming with the purchase of Centrebet and Tabcorp is currently finalising its takeover of Star City Casino.
 - Recent growth in the gambling industry has brought with it increasing community concern about adverse social impacts. This is likely to lead to the development of new safeguards to reduce adverse social impacts from gambling. Indeed, internet gambling legislation introduced in some states and territories involves a number of safeguards that go further than ever before in allowing gamblers control over their play including limits on losses, duration of play and the prohibition of credit betting (chapter 18).

3 Consumption of gambling

Box 3.1 Key messages

- In 1997-98 Australians lost \$10.8 billion on commercial gambling. A further \$500 million was lost by foreigners in Australian casinos.
- This equates to an average loss of \$760 per Australia adult, or 3 per cent of household disposable income.
- In 1997-98 residents of New South Wales and Victoria spent the most on gambling.
- Gaming machines are the most popular form of gambling, comprising more than 50 per cent of total gambling expenditure (outside casinos).
- Over the last decade, gambling expenditure has increased strongly in all states and is absorbing an increasing share of household income.
- About 80 per cent of Australian adults participate in gambling — but the majority gamble less than once a week.
- It follows that the socio-demographic profile of gamblers as a whole reflects that of the population. However, the profile of gamblers varies by gambling mode. For example:
 - the profile of gaming machine players is slightly biased towards middle income earners and those aged between 18 and 24;
 - the profile of lottery gamblers reflects that of the general population with a small bias towards people aged between 50 and 64 and incomes over \$35 000; and
 - the profile of casino and sports gamblers is strongly biased towards males, and people aged between 18 and 24.
- Socio-demographic profiles are more distinct for regular gamblers, and non-gamblers.
 - Regular gamblers are strongly biased towards males, people aged between 18 and 24, pensioners, people with lower levels of education, and people living in non-metropolitan regions.
 - Non-gamblers are biased towards females, people over 65, people with higher levels of education and people living in metropolitan regions.

This chapter examines spending on gambling in Australia, why people gamble and who participates in gambling. It begins by looking at how much is spent on various gambling products by state and territory, and how expenditure has changed over time. It then looks at evidence on the motivation for gambling and factors that influence consumers' decisions. Lastly, evidence from the Commission's *National Gambling Survey* is presented on the socio-demographic profiles of gamblers and non-gamblers.

3.1 How much do Australians spend on gambling?

The \$10.8 billion that Australians spent on gambling in 1997-98 equates to about \$760 per Australian adult or 3 per cent of household disposable income (box 3.2). Its significance is demonstrated by a comparison with annual household expenditure of \$6 billion on energy, \$9 billion on household appliances and \$13 billion on alcohol.

While international gambling statistics are patchy, evidence suggests that Australians are amongst the biggest gamblers in the world.

- International Gaming and Wagering Business (1996) estimated that gambling expenditure per capita (not per adult) in Australia was \$400, significantly higher than \$170 in the United States and \$370 in Hong Kong.
- Gambling activity is also lower in New Zealand — International Gaming and Wagering Business (1997) estimated that turnover in New Zealand was about \$3 billion, much lower than the \$61 billion estimated in Australia. This equates to expenditure per capita in New Zealand of about \$170.

Box 3.2 Expenditure and turnover data

Some reports cite gambling activity at between \$70 and \$95 billion each year, while others cite levels around \$11 billion. The discrepancy arises from the difference between expenditure and turnover. Turnover is the sum of all money staked on gambling. Expenditure is turnover less winnings and prize money — in short, losses.

To understand the distinction between expenditure and turnover assume that a poker machine player wagers \$20 on a machine and receives back \$17 in winnings, which is again wagered and \$15 returned. At this stage the gambler has spent \$5 but turnover or amount wagered is \$37. On average, when a poker machine player has spent \$20, about \$150 will have been turned over or wagered (assuming a return of 87 per cent).

It is thus more meaningful to use expenditure as a measure of actual gambling activity.

(continued)

Box 3.2 (continued)

The \$10.8 billion expenditure figure cited in the text is an estimate based on ABS statistics (see appendix P). It excludes foreign gambling in casinos, private games and raffles. This measure of expenditure is not available over time — ABS gambling statistics have only been collected for the years 1994-95 and 1997-98. In addition, ABS estimates of expenditure by foreigners in casinos are not publicly available at the state level.

To analyse trends in gambling expenditure by state and over time this chapter uses data sourced from the Tasmanian Gaming Commission's annual gambling statistics.

There are two major deficiencies in the data series that should be taken into account when interpreting the statistics presented in this chapter.

- The data includes expenditure on gambling in Australia by overseas visitors — the main component being foreign expenditure in casinos. Tasmanian Gaming Commission statistics estimate that in 1997-98, Australian adults on average spent about \$820 on gambling — significantly higher than the \$760 estimate based on ABS statistics (when foreign gambling in casinos is excluded).
- The data does not include an estimate of total expenditure on gaming machines — gaming machine expenditure in hotels and clubs is included in the gaming machine sector while gaming machine expenditure in casinos is included with casino table games and keno in the casino sector.

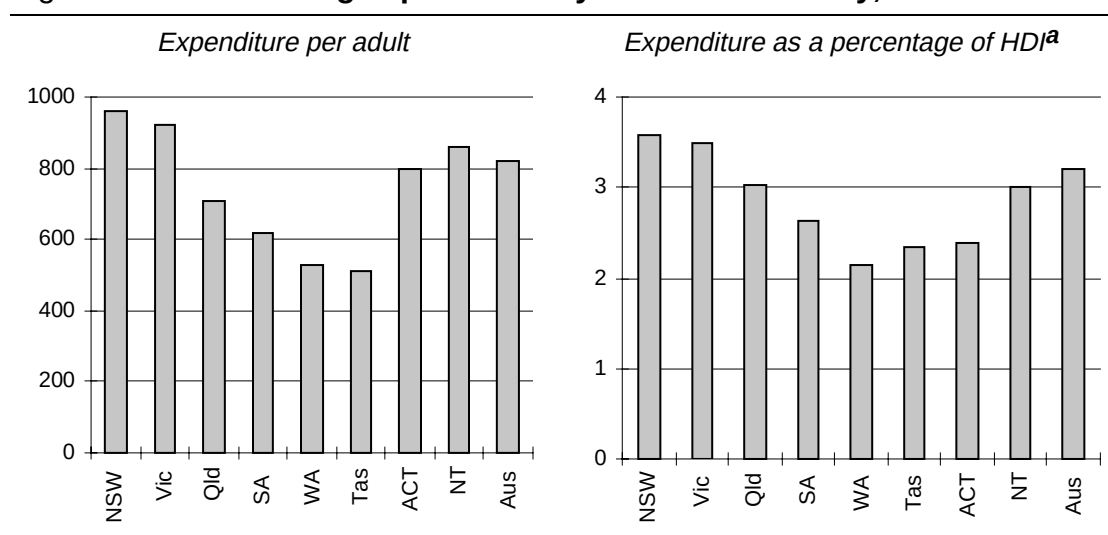
While not perfect, the data is the best available to make comparisons in expenditure by state and over time.

At the state level residents of New South Wales spent the most on gambling in 1997-98 — \$963 per person over the age of 18 or about 3.6 per cent of household disposable income. Residents of Victoria and the Northern Territory also spent relatively large amounts on gambling. In contrast, Tasmanians and Western Australians spent the least on gambling. And because of its high income levels, the ACT ranked fourth in per capita spending, but sixth in relation to expenditure as a percentage of household disposable income (figure 3.1).

Expenditure by product

As noted in the previous chapter, the gaming sector dominates gambling activity. About 75 per cent of gambling expenditure is directed to the gaming sector. Within the gaming sector, gaming machines are the most popular form of gambling, capturing over 50 per cent of total gambling expenditure (outside casinos) or nearly \$6 billion each year (figure 3.2).

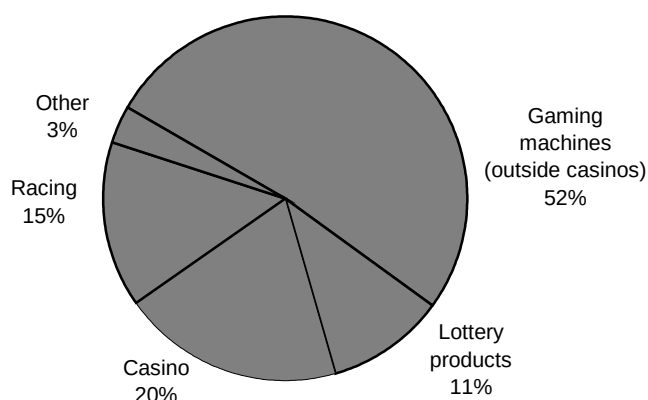
Figure 3.1 Gambling expenditure by state and territory, 1997-98



^a Household disposable income — household net income (after the deduction of direct taxes).

Data source: Tasmanian Gaming Commission (1999).

Figure 3.2 Expenditure by type of gambling activity, Australia 1997-98^a



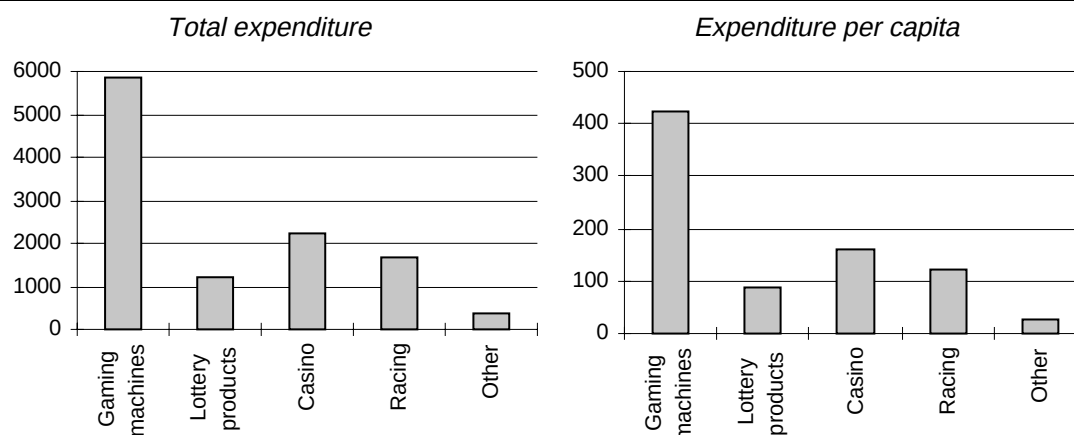
^a Lottery products include lotteries, lotto, pools and instant scratch-its; casino gaming includes wagers on table games, gaming machines and keno systems; other includes keno, bingo and minor gambling;

If expenditure data from appendix P is used (ie. casino gaming machine expenditure is included in gaming machine expenditure outside casinos and foreign expenditure, private games and raffles are excluded) shares are gaming machines 59%, lottery products 13%, racing 15%, casino 8% and other 4% (other includes keno, bingo and internet casino games).

Data source: Tasmanian Gaming Commission (1999).

In per capita terms, on average each Australian over the age of 18 spends over \$420 a year on gaming machines outside casinos. This compares with \$160 on casino products, \$120 on racing products and less than \$100 a year on lottery and other gambling products (figure 3.3).

Figure 3.3 Gambling expenditure by product, Australia 1997-98^a



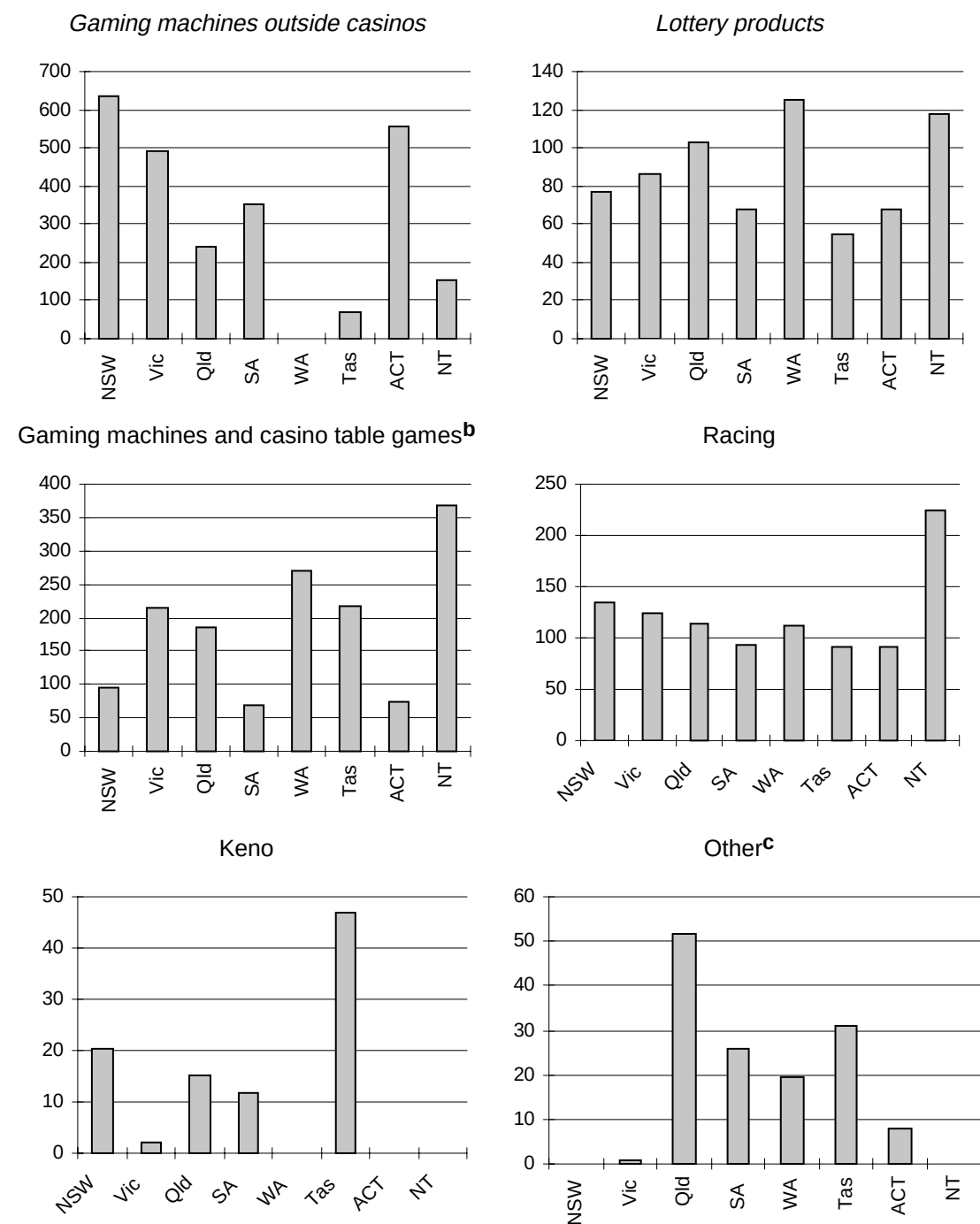
^a Gaming machines include gaming machines outside casinos; casino includes gaming machines and other casino gambling; other includes bingo and minor gaming.

Data source: Tasmanian Gaming Commission (1999).

A number of differences are apparent between state/territory expenditures across gambling products (figure 3.4).

- Residents of New South Wales and the ACT spend the most on gaming machines — in excess of \$500 per person over the age of 18 each year.
- Casino gambling is most popular in the Northern Territory where on average, a person over the age of 18 spends over \$350 each year. Per capita expenditure in Western Australia at the casino is also over \$250. However, a significant proportion of expenditure at casinos is by overseas visitors. The Burswood Casino (sub. 113, p.8) for example, estimates that about 50 per cent of its gambling revenue is from high rollers (compared with an average of 25 per cent for Australian casinos calculated using ABS statistics) implying that Western Australians spend \$135 per capita each year at the casino.
- Western Australians spend the most on lottery products — an average of \$122 per person over the age of 18 each year. This largely reflects a lack of other gambling alternatives — gaming machines are prohibited in clubs and hotels.
- In the Northern Territory, expenditure on racing surpasses that in any other state — residents spend an average of \$200 a year on gambling products compared with a national average of \$120.
- Keno operates in New South Wales, South Australia, Victoria, Tasmania and Queensland. It is most popular in Tasmania where residents over the age of 18, spend an average of \$45 each year on this product.
- Expenditure on bingo and minor gaming is relatively low, with Queenslanders spending the most — over \$50 a year.

Figure 3.4 Gambling expenditure per capita^a by state and territory and product, 1997-98



^a Per capita represents persons over the age of 18. ^b Caution should be taken in reading casino data, which includes expenditure by overseas high rollers. ^c Other includes minor gaming and sports betting (gaming only); minor gaming statistics were not available for New South Wales, the ACT, Victoria and the Northern Territory.

Data source: Tasmanian Gaming Commission (1999).

An aside: interpreting the ‘price’ of gambling products

Unlike say consumer durables, the price, or monetary cost, of gambling services are not always apparent. The gambler is aware of the amount risked — \$2 on a lottery ticket or \$10 on a favourite horse. But only after the lottery is drawn, the race is run, and the winnings have been paid does the net cost to the gambler become apparent.

For gambling services there are two distinct measures of price:

- the initial outlay in placing a bet; and
- the net outlay or cost to a consumer when winnings are taken into account.

So, for a \$2 instant scratch ticket the initial outlay or price is \$2 but if say, on average \$1 is returned to the gambler as winnings, the real price (or *net* outlay) is \$1.

Similarly, for a \$5 bet on a gaming machine the initial outlay or price is \$5 but if say, \$2 is returned on average as winnings, the real price (or *net* outlay) is \$3.

For gambling services, the more meaningful measure of price is thus the net outlay. But for some modes of gambling this price is not readily apparent. For example, when playing gaming machines the frequency of playing and the regularity of payouts makes the net outlay reasonably clear. For lotteries, where payouts are much less frequent for the individual player, the price is less apparent.

The average net outlay or price of a gambling service can be calculated as the ratio of the amount spent to the amount outlaid (expenditure to turnover) or the percentage of each dollar that on average is lost. For example, if the average price of a gambling product is 12 per cent, for every dollar wagered 12 cents on average is lost.

Table 3.1 lists the prices of various forms of gambling on this basis. Gaming machines, casino games and racing products are relatively low in cost compared with pools, bingo and minor gaming, lotto and instant lotteries.

It is important to note that these prices are representative for gamblers as a group and over time. For an individual gambler this measure of price is highly imprecise. For example, the Australian Gaming Machine Manufacturers Association (sub. 50, p. 8) in a discussion on returns from gaming machines stated:

- Except by some colossal fluke, no single player will experience the average during a play session.
- Statistically, half the playing population will get less, and half will do better than the average.
- It takes millions of games for a machine to closely tend to its ‘setting’.

Table 3.1 The price of gambling, by product, 1997-98

	<i>Expenditure \$m</i>	<i>Turnover \$m</i>	<i>Imputed price %</i>
<i>TAB</i>	1 437	9 116	16
<i>On-course totalisator</i>	143	900	16
<i>On-course bookmakers</i>	83	1 595	5
<i>Off-course bookmakers</i>	0.2	2	8
<i>Sports betting</i>	20	266	8
<i>Total racing</i>	1 684	11 861	14
<i>Lottery</i>	57	162	35
<i>Lotto</i>	923	2 316	40
<i>Pools</i>	8	15	50
<i>Bingo and minor gaming</i>	195	373	52
<i>Gaming machines</i>	5 867	57 676	10
<i>Casino^a</i>	2 232	20 942	11
<i>Instant lottery</i>	225	585	38
<i>Keno</i>	171	701	24
<i>Sports betting (gaming)</i>	4	73	6
<i>Total gaming</i>	9 643	82 692	12
<i>Total all gambling</i>	11 327	94 553	12

^a Caution should be taken in interpreting casino data. The casino turnover figure represents casino handle (the amount of money exchanged for chips) rather than true turnover. As a result casino turnover in column two is likely to be underestimated and the price of a casino bet overestimated.

Source: Expenditure and turnover data was collected by the Tasmanian Gaming Commission (1999) and imputed price was calculated as the ratio of expenditure to turnover.

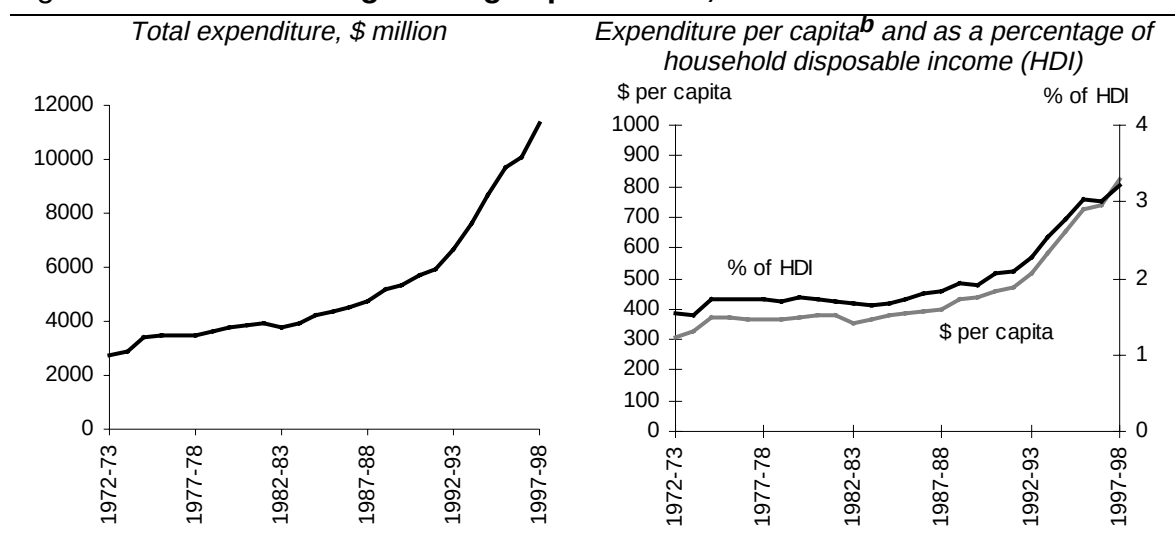
3.2 The increasing share of gambling in household expenditure

Gambling is absorbing an increasing share of household income.

- In 1972-73, Australians spent \$2.7 billion (in today's prices) or 1.6 per cent of household disposable income on gambling.
- In 1997-98 over \$11 billion was spent on gambling in Australia— equivalent to 3 per cent of household disposable income.

Moreover, average annual gambling expenditure per person (over the age of 18) has increased from \$300 (in today's prices) in 1972-73 to over \$800 in 1997-98 (figure 3.5).

Figure 3.5 Trends in gambling expenditure^a, Australia 1972-73 to 1997-98



^a Expressed in 1997-98 values. ^b Per capita represents persons over the age of 18.

Data source: Tasmanian Gaming Commission (1999).

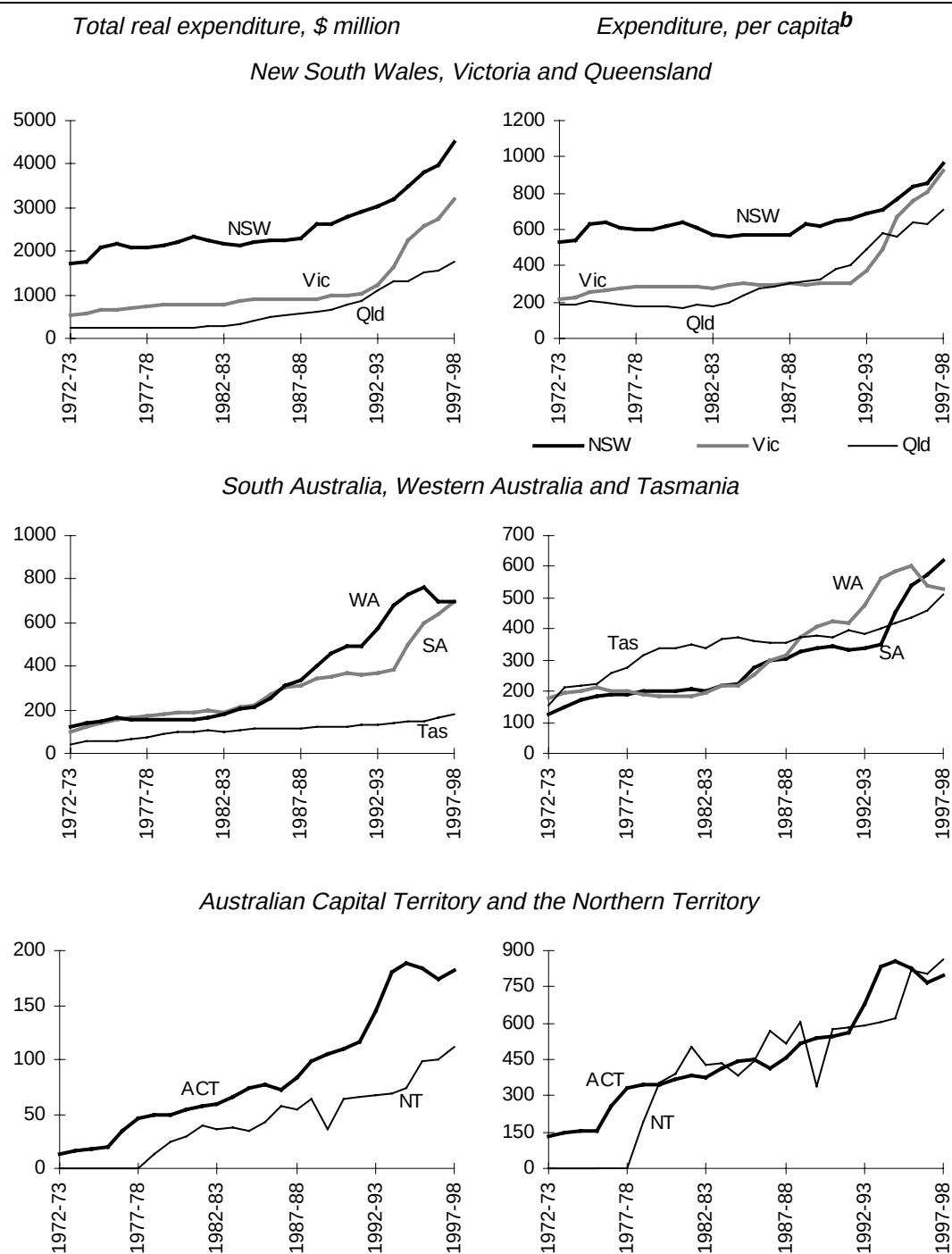
Gambling expenditure has increased strongly in all states in the last decade (figure 3.6).

Victoria has experienced the sharpest rise, with gambling expenditure more than doubling. Queensland and South Australia have also had sharp increases in gambling expenditure over the same period. In contrast, in New South Wales and Tasmania, gambling expenditure has risen more slowly.

Disparities in growth rates in gambling expenditure over time reflect differences in the timing of legalisation or liberalisation of gambling. For example, New South Wales has had gaming machines for over 40 years. In contrast, this form of gambling has only recently been introduced in Victoria, South Australia and Queensland and is prohibited in Western Australia. Hobart has had a casino for over 25 years, whereas casinos are still a recent development in New South Wales and Victoria.

Moreover, there were sharp increases in gambling expenditure in the early 1990s in Victoria when gaming machines were first introduced, and in 1994-95 in South Australia when gaming machines were first legalised in hotels and clubs. In contrast, in New South Wales, where gaming machines have been available for some time, gambling expenditure has increased by 40 per cent over the period 1990-91 to 1996-97 compared with a national average increase of 75 per cent.

Figure 3.6 Trends in gambling expenditure^a by state and territory 1972-73 to 1997-98



^a Expressed in 1997-98 values. ^b per capita represents persons over the age of 18.

Data source: Tasmanian Gaming Commission (1999).

3.3 Why do people gamble?

The motivations for gambling

The average recreational gambler gambles for entertainment — as a way of spending leisure time. Centrebet (sub. 75, p. 6) for example, said that some consumers gamble to add interest and excitement to a sporting event:

Although we have not surveyed our clients, the overwhelming impression formed from years of accepting bets is that a modest investment enhances the enjoyment the person gains from watching sport - in person or on television.

For some consumers, gambling is a means of social interaction — gambling venues provide a social setting to meet people. Other gamblers are motivated mainly by the dream of winning — they gamble with the hope of paying off a mortgage, to buy a new car or meet financial commitments. It is this prospect of winning that distinguishes gambling from other recreational activities.

Some consumers gamble to exercise skill or accumulate knowledge. For example, racing punters study form guides and place wagers to test their skill at picking winners; some casino blackjack players develop counting systems to test their skills against the casino and professional gamblers believe that their skills will enable them to earn a living from gambling.

Clearly, the motivations for gambling differ according to the form of gambling.

... people playing Lotto and Instant Tickets are motivated mainly by the dream of winning while it appears that people involved in other forms of gambling (such as TAB and casino) are motivated by a complex combination of a desire for entertainment, excitement, the application of knowledge or skill, along with the dream of winning and the potential of being seen as a winner (Lotteries Commission of Western Australia, sub. 25, p. 14).

For the majority of gamblers, as a recent survey in Victoria found, the primary motivation for gambling for all gamblers and regular gamblers is the dream of winning and to socialise (table 3.2). However, the motivations for problem gamblers differ from those for recreational gamblers (see chapter 6).

Table 3.2 Motivations for gambling in Victoria, 1998

<i>Motivation</i>	<i>All gamblers % of respondents</i>	<i>Regular gaming machine/casino gamblers % of respondents</i>
Dream of winning	59	66
Social reasons	38	65
For charity	27	26
Beating the odds	9	14
Favourite activity	10	19
Atmosphere/excitement	13	19
Belief in luck	12	16
Boredom/pass the time	9	13

Source: Roy Morgan Research (1999).

What are the determinants of demand for gambling?

The attributes of gambling such as prize money, accessibility of product and the odds of winning can influence a consumer's decision on whether to gamble, how much to gamble and which product to choose. These are discussed below.

- *the price of the product* — some gambling products are more sensitive to price than others. Lotteries which have a low ticket cost combined with a low chance of winning are likely to be insensitive to price. Other factors such as the size of the prize (discussed below) are likely to be a more significant determinant of demand. In contrast, the demand for continuous forms of gambling such as casino table games and gaming machines (where prices or losses are easily observable) are likely to be more sensitive to prices (appendix D).
- *the odds of winning* — can also influence a consumer's decision on whether to gamble, how much to gamble and which product to choose. However, the majority of gamblers do not tend to choose products with the best odds. For example, participation rates in gambling are higher for lotto (where the probability of winning the jackpot is one in eight million) than casino table games such as blackjack (where the chances of winning are much greater).
- *the size of the prize* — this is a significant determinant of demand for jackpot gambling products such as lotteries, lotto and lotto-type games, keno and linked gaming machines. Many participants commented on how expenditure on gaming machines increases as the jackpot reaches its upper limit. And when the New South Wales \$2 lottery reached \$10 million early this year, expenditure more than doubled, resulting in the drawing of a new lottery 3 times a day in comparison to once a day when the jackpot was \$5 million.
- *the extent to which odds can be changed by skill* — while this may influence the choice of gambling product for consumers who gamble on skill-based products,

it does not appear to be a determinant of demand for the majority of consumers. Spending on racing, sporting events and casino table games, where skill and knowledge is required, comprises less than 30 per cent of total gambling expenditure. The most popular gambling products, gaming machines and lottery products, are based entirely on luck. Indeed, TABs have recognised this feature of demand and have introduced their own luck-based product — Mystery Betting.

- *accessibility of the product* — the accessibility of gambling has increased significantly over the last two decades. Today, there is at least one casino in every state and territory, and gaming machines are available in hotels and clubs throughout Australia (except Western Australia). As discussed in detail in chapter 8 increased accessibility has lowered the cost of gambling and generated higher levels of demand for gambling products.
- *the experiences associated with the venue* — many consumers combine gambling with other social activities such as dining out, drinking with friends or watching live entertainment. As such, the demand for venue based forms of gambling, can be influenced by other services provided by the venue. Indeed, many venues offer cheap meals and drinks, subsidised by gambling revenue, to attract gamblers. Moreover, a recent survey (Roy Morgan Research 1999) found that the majority of gaming machine gamblers combine gambling with other social activities.
- *social acceptability of the activity* — community attitudes towards gambling have changed over time, impacting upon the demand for gambling services. From once being considered a vice by the general community, today gambling is an accepted social activity, although ambivalent attitudes remain.
- *the reliability of the activity* — consumers prefer gambling products that are free from fraud or malfunctions. For example, some gamblers have indicated an initial unwillingness to gamble on the internet for fear that payments mechanisms may not be secure or that the game may be biased.

3.4 Who are the gamblers?

Drawing on participants' profiles and the Commission's *National Gambling Survey* this section examines the socio-demographic profiles of gamblers by gambling form. Characteristics examined include gender, age, income, personal status and location. It presents the profiles of average gamblers as distinct from the profiles of problem gamblers which are discussed in chapter 6.

Participants' profile of gamblers

A number of industry participants commented on the average profile of their clientele. Some commented on what they perceived as their typical client while others based evidence on market research.

Centrebet (sub. 75, p. 6), have a clear perception of the profile of their average sports betting customer. It states that their typical client is:

... a male, aged 25-36, who will bet \$20-50 per bet on his favourite Australian sport, 10-12 times per year.

In contrast, research by the Golden Casket Lottery Corporation (sub. 145, p. 6) found that the socio-demographic profiles of consumers of lottery products are broadranging and generally representative of the population as a whole. Their survey found that:

- about 55 per cent of lottery consumers are female;
- over 40 per cent of lottery consumers are between 25 and 39 years of age;
- 28 per cent of lottery players have annual incomes between \$21 000 and \$40 000; and
- over 50 per cent of lottery players have no post school qualifications.

Research on participation profiles by casinos also found that gamblers come from a wide range of socio-demographic backgrounds. Burswood Casino for example, (sub. 113, p. 27) said:

... casino patrons in general come from a wide range of backgrounds. All age groups are well represented and there is an even distribution between male and female casino patrons. The majority of casino patrons are married and come from a blue or white collar background. Unemployed, home duties, students, pensioners and retirees are less represented.

Similarly, Star City Casino (sub. 33, p. 8) stated:

There is no "typical" gambler although there may be a preponderance of type in certain forms of gambling which may relate to preference, cost and availability.

An analysis of their data found that:

- 60 per cent of customers are male and 40 per cent female;
- 39 per cent are broadly from Asian backgrounds and 61 per cent non-Asian;
- 71 per cent visit Star City with a friend and 29 per cent visit alone;
- 44 per cent are aged under 35, 21 per cent are aged 35-44 while 35 per cent are aged over 45; and

-
- mature singles and older couples are the most likely to visit the casino and young families are least likely.

In addition, data from the Australian Casino Association (sub. 124, pp. 9,12) found that:

- over 80 per cent of visitors to casinos are from local areas, 14 per cent are from other regions of Australia and 3 per cent are international players; and
- the largest spenders are ‘premium international players’ which represent less than one per cent of total visitors to the casino but account for between 25 and 35 per cent of industry revenue or expenditure.

Industry research, while useful in providing a snapshot of the socio-demographic characteristics of gamblers, is limited to specific forms of gambling and based on small population samples.

Access Economics, ran a model for Tattersall’s (sub. 156) using 1993-94 ABS Household Expenditure data (HES) to assess the socio-demographic characteristics of gamblers. Its major findings on participation profiles include:

- over the two week survey period 39 per cent of the population gambled — females had a slightly higher gambling participation rate than males;
- females are more likely to participate in lotteries and lotto and males in gaming machine betting, casino table games and TAB and on-course betting;
- participation in gambling increases with income and age;
- unemployed persons have significantly lower participation rates;
- two-adult income households are more likely to gamble than single income households; and
- households with children are less likely to participate in gambling — particularly in TAB, gaming machine and casino gambling.

The strength of the HES is that it is a national survey of around 8400 households and it provides expenditure data for different forms of gambling by a range of demographic characteristics. However, it has two weaknesses when used to analyse gambling data.

- Firstly, the data is outdated. Real gambling expenditure in Australia has increased by almost 50 per cent — from \$7.6 billion to \$11 billion — since 1993-94, when the last HES was conducted. Moreover, it predates the latest expansion of casinos and the expansion of gaming machines in Queensland, South Australia, Victoria and Tasmania.

- Secondly, the data is understated. The 1993-94 survey found that the average household spends \$269 each year on gambling. This corresponds to an estimated expenditure of \$1.8 billion for Australia — significantly less than the \$7.6 billion estimate by the Tasmanian Gaming Commission.

Findings from the Commission's survey

The Commission's *National Gambling Survey* conducted in April 1999, suggests that 82 per cent of Australian adults participated in at least one gambling activity in the last 12 months (table 3.3).

- Of those that gamble, 26 per cent gamble less than once a month, 24 per cent gamble one to three times a month, 37 per cent gamble one to three times a week and 13 per cent gamble more than three times a week.
- The highest participation rates were recorded for lotteries — 60 per cent of adults purchased lottery products in the last 12 months. Participation rates were also high for scratch tickets (46 per cent) and gaming machines (39 per cent).

Table 3.3 Participation and frequency of gambling (per cent)

<i>Form of gambling</i>	<i>Total participation</i>	<i>Less than once a month</i>	<i>1 to 3 times a month</i>	<i>1 to 3 times a week</i>	<i>More than 3 times a week</i>
Played poker or gaming machines	38.6	62.1	24.5	11.4	2.0
at a club	30.1	63.7	23.8	11.9	0.7
at a hotel/pub	17.8	66.2	23.9	9.5	0.3
at a casino	16.8	87.1	11.3	1.7	0.0
Bet on horse or greyhound races	24.3	70.9	13.6	13.4	2.2
on-course	13.4	84.2	10.7	4.9	0.2
off-course	19.0	73.0	11.8	13.9	1.3
by phone	3.3	45.3	24.9	28.2	1.6
via the internet	0.1	34.7	42.7	21.8	0.8
Played lotto or other lottery game	60.0	25.4	23.9	44.5	6.2
a weekly lottery game	57.0	26.4	23.4	45.6	4.6
a daily lottery game	12.5	38.9	30.2	29.0	1.9
Bought instant scratch tickets	46.2	51.9	33.4	14.0	0.7
Played keno at club/hotel/casino/other	15.9	72.2	19.6	7.1	1.1
Played table games at a casino	10.3	82.3	15.2	2.3	0.2
Played bingo at a club or hall	4.6	48.5	22.8	27.3	1.5
Bet on a sporting event	6.3	52.4	24.6	23.0	0.0
Played an internet casino game	0.4	60.3	15.2	20.9	3.6
Played games privately for money	5.3	68.1	22.5	7.4	2.0
Played any other gambling activity	0.6	70.9	10.2	18.9	0.0
Participated in any gambling activity	81.5	26.4	24.1	36.6	13.0

Source: PC National Gambling Survey.

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- Lottery gamblers have the highest frequency of gambling — 51 per cent of lottery gamblers purchase lottery products once a week or more. And casino gamblers have the lowest frequency of play — only 2 per cent of casino gamblers play casino games once a week or more.

The Commission's survey found that the socio-demographic profile of gamblers as a whole generally reflects that of the general population. For example, females are just as likely as males to participate in gambling and the participation of gamblers in varying age groups is similar to their representation in the population. However, socio-demographic profiles vary by gambling mode — although biases are generally small. For example, the survey found:

- gaming machine players have no gender bias but are slightly biased towards middle income earners (\$25 000 to \$35 000) and those aged between 18 and 24;
- racing punters are slightly biased towards males, middle income earners and those aged between 18 and 34;
- the profile of lottery gamblers reflects that of the general population with a small bias towards people aged between 50 and 64 and people with incomes over \$35 000;
- keno players are strongly biased towards people aged between 18 and 24 and middle income earners;
- gamblers on casino table games have one of the most distinct profiles — there is a strong bias towards males, singles, and those aged between 18 and 24;
- bingo gamblers are biased towards females, pensioners, people aged between 18 and 24 and over 65 and people with incomes less than \$10 000;
- sports gamblers are strongly biased towards males, people aged between 18 and 24, people with income over \$50 000, and singles; and
- gamblers that play games privately for money are biased towards males, people aged between 18 and 24, and singles.

Detailed data tables on the socio-demographic profiles of gamblers are presented in appendix B and the profiles of internet gamblers is discussed in chapter 18.

Socio-demographic profiles are more distinct for regular gamblers, and non-gamblers (table 3.4).

- Regular gamblers are strongly biased towards males, people aged between 18 and 24, people with lower levels of education, age and invalid pensioners and people living in non-metropolitan regions.

- Non-gamblers are biased towards females, people over 65, people with higher levels of education, and people living in metropolitan regions.

In contrast, the profile of non-regular gamblers reflects that of the general population. For example, 67 per cent of non-regular gamblers are married, similar to their 66 per cent representation in the population.

Table 3.4 Socio demographic characteristics of gamblers and non gamblers^a, 1999

Per cent

<i>Characteristic</i>		<i>All</i>	<i>Non gamblers</i>	<i>Non-regular gamblers</i>	<i>Regular gamblers</i>
Gender	Male	49.1	45.0	48.6	60.4
	Female	50.9	55.0	51.4	39.6
Age	18-24	13.3	11.2	13.2	17.8
	25-34	20.4	17.4	21.4	18.2
	35-49	30.1	30.0	31.0	24.0
	50-64	23.3	22.7	23.2	25.4
	65+	13.0	18.7	11.3	14.7
Marital status	Married	66.1	66.3	66.9	60.2
	Separated or divorced	5.7	4.6	5.7	7.5
	Widowed	4.1	6.5	3.3	5.7
	Single	23.8	21.9	23.9	26.7
Household type	Single person	8.6	10.8	7.7	11.5
	One parent family with children	4.8	4.0	5.0	5.1
	Couple with children	50.0	48.5	51.2	43.9
	Couple with no children	22.3	23.7	22.1	22.7
	Group household	11.0	9.8	11.1	12.2
	Other	3.0	2.9	2.8	4.6
Education	Up to 4 th year high school	28.6	24.6	28.1	39.3
	Finished high school	27.7	24.0	28.3	30.3
	TAFE/technical education	10.5	7.8	11.3	10.5
	CAE/University	33.2	43.7	32.3	19.8
Income (\$'000)	<10	19.7	21.5	19.7	17.7
	10-25	24.7	27.9	24.1	23.9
	25-35	18.6	16.1	18.9	20.4
	35-49	18.5	15.9	19.0	18.6
	50+	18.5	18.5	18.3	19.5

(continued)

Table 3.4 (continued)

<i>Characteristic</i>		<i>All</i>	<i>Non gamblers</i>	<i>Non-regular gamblers</i>	<i>Regular gamblers</i>
Work status	Working full-time	47.2	41.9	48.2	49.7
	Working part-time	15.9	15.3	16.4	13.4
	Home duties	10.0	9.2	10.7	6.4
	Student	5.6	6.6	5.4	5.1
	Retired (self supporting)	9.6	12.8	8.5	11.8
	Pensioner	7.5	9.3	6.6	10.8
	Unemployed/looking for work	2.8	2.4	2.9	2.6
	Other	1.2	2.0	1.1	0.3
Main income source	Wages/salary	61.6	52.8	64.0	60.8
	Own business	14.6	18.2	14.2	10.7
	Other private income	3.2	4.4	3.0	2.8
	Unemployment benefit	2.2	2.0	2.4	1.9
	Retirement benefit	4	5.1	3.6	5.1
	Sickness benefit	0.2	0.3	0.2	0.1
	Supporting parent benefit	1.3	0.5	1.5	1.5
	Aged/invalid pension	9.2	12.5	7.8	13.3
	Other	2.5	2.1	2.5	2.7
Location	Metropolitan	64.7	70.1	64.0	59.8
	Non-metropolitan	35.3	29.9	36.0	40.2
Country of birth	Australia	76.7	72.1	77.4	80.2
	Elsewhere	23.4	27.9	22.6	19.8
Aboriginal or TSI	Yes	1.5	1.0	1.5	2.5

^a Regular gamblers are those who participated in any single gambling activity (apart from lottery games or instant scratch tickets) at least once per week in the last 12 months, or whose overall participation in gambling activities (apart from lottery games or instant scratch tickets) was the equivalent of weekly (that is, at least 52 times per year). Non-regular gamblers includes those who participated in any single gambling activity less often than weekly in the last 12 months, but also includes those who only played lottery games and instant scratch tickets weekly. Non gamblers are those who did not participate in any gambling activity (apart from raffles) in the last 12 months.

Source: PC National Gambling Survey.

4 Impacts of gambling: a framework for assessment

Following widespread liberalisation, the gambling industries — in particular, gaming machines and casinos — have experienced rapid growth in Australia over the last two decades. For many consumers, this liberalisation has widened entertainment and recreational opportunities. For them, gambling has been largely a positive experience. Notwithstanding this, popular perceptions of the impact of the liberalisation of gambling have been ambivalent. The fast pace of the change, combined with the increased accessibility of continuous forms of gambling, the strong promotion of gambling and an increased awareness of problem gambling, has led to concerns about the negative impacts.

Part C of this report contains a detailed examination of many of the competing positive and adverse impacts of gambling. In doing this, the Commission has two main goals:

- to identify and provide a general understanding of as many of these impacts as possible; and
- to highlight and more deeply explore those impacts which are most relevant for the formulation of government policy.

To this end, the Commission has used a broad framework that allows the analysis and comparison of tangible and intangible impacts and provides scope to incorporate the insights and findings of other academic disciplines, such as psychology, psychiatry and sociology. In other words, contrary to many popular conceptions, this broad economic approach is not simply about ‘money, markets and materialism’.

The first steps in the approach involve:

- identifying the impacts associated with the industry or activity in question;
- differentiating between those impacts which are ‘private’ in nature, and those which are ‘social’ — see box 4.1;
- categorising the effects of the impacts as either ‘benefits’ or ‘costs’; and
- as far as practicable, assessing the magnitude of the benefits and costs, particularly the social benefits and costs, either qualitatively or quantitatively.

Box 4.1 **Private impacts versus social impacts**

Private benefits and costs are those impacts of an activity which:

- are borne by those who were party to a decision to undertake the activity (called 'internal' impacts); and
- were rationally considered when they decided to undertake the activity.

Social benefits and costs are:

- the proportion of the 'internal' benefits and costs which an individual did not rationally take into account when deciding to undertake the activity; plus
- all 'externalities', which are those effects of an activity which are imposed involuntarily on others in society.

Different definitions of private and social costs (and benefits) are found in the economics literature. Often, private costs are used to refer to those incurred by the individual decision-maker, while social costs are defined to include those costs plus external costs – in other words, all costs. The definitions used in this report are based on those in Markandya and Pearce (1989).

Ultimately, what matters is not the particular definitions chosen, but rather that the definitions are used in the right way for the matter at hand. In the present context, this means ensuring that the right sub-set of benefits and costs is identified as being 'policy relevant'. As discussed in box 4.2, 'social costs and benefits' as defined in this report are the benefits and costs that are relevant as a basis for possible government intervention in private decisions.

This distinction between 'private' impacts and 'social' impacts is important because the private benefits and costs associated with an industry or activity generally do not justify government action to modify the private decisions of individuals and the businesses that supply goods and services to them (see box 4.2).

Where social costs or benefits exist, however, there is a potential rationale for government to act to improve on market outcomes. This is because most people will not properly 'account for' social costs and benefits in their daily life decisions. Of course, it is still important to weigh up the pros and cons of government action against the size of the imperfections identified in the private market. But the identification and assessment of social costs or benefits is a key step in this process.

Box 4.2 Private impacts and public policy

Why are private benefits and costs often of little relevance for determining whether government action to encourage or regulate an industry or activity may be needed?

Not because they are unimportant — in fact, often they are far more significant than the social benefits and costs of an activity.

Rather, they generally do not justify government action on the basis that:

- individual actions based on adequately informed and rational decision-making will generally accord with the best interests of the individual concerned;
- if there are no impacts on other people resulting from those actions which are not accounted for*, then what is in the individual's best interests will also be best for society; and
- if this is the case, there is no way that governments could intervene in individuals' decisions that would improve the welfare of either the individuals concerned or society more broadly.

While private benefits and costs do not normally provide a justification for government policy, an exception is that governments may want to take into account the distribution of private benefits and costs among members of society for equity or fairness reasons. Governments have several broad measures to address equity, such as the progressive taxation and social security system. However, in some cases, the fairness of a particular potential policy change on the distribution of private benefits and costs may be relevant. Indeed, it is one matter that the Commission has considered in its assessment of taxes applying to gambling (see chapter 19).

Further, when considering an action to address the social benefits and/or costs of an activity, it is also important for governments to consider any impacts such actions might have on private benefits and costs.

* Of course, many actions — from saying 'hello' to an acquaintance to driving a car — involve at least some impact on other people, but often these impacts are effectively 'internalised' through implicit or explicit agreements (or contracts) between the people involved. Where such agreements exist and have been voluntarily entered into, the costs and benefits entailed will again be of a 'private' nature. They would only be 'social' costs in these cases if one or other of the people concerned had insufficient information or for some reason made an irrational choice to enter the agreement.

Subsequent steps in the Commission's approach — relating to the development, assessment and, where appropriate, implementation of policy options for dealing with social impacts — are set out in chapter 12 of Part D.

In this chapter, the Commission provides a framework for understanding the assessments of the impacts that follow. It:

- lists the various impacts;
- identifies which impacts, or sources of impacts, are most likely to generate social costs;

-
- examines the nature of the benefits that flow from the liberalisation of gambling and whether there are likely to be any ‘social’ benefits; and
 - outlines its approach to assessing and quantifying the impacts.

4.1 The impacts of gambling: a listing

Like most industries or activities, gambling has an array of impacts. Some apply directly to people who work in the industry, some apply indirectly to people in other industries, some affect those who consume gambling products and the people with whom they interact, and some of the impacts operate at the community-wide level.

Within the industry itself, land, labour and capital resources are used in providing gambling services.

- The industry is thus a source of income and job satisfaction for its workers, rent for the owners of gambling venues, and profits (or sometimes losses) for its investors, as well as taxes for governments.
- At the same time though, these resources all come at a cost to the economy, in that their use in the gambling industry means that they are unavailable for use elsewhere.

Another set of impacts within the gambling industry itself is that the growth of some forms of gambling, such as (legal) casinos and gaming machine venues, may come at the expense of other parts of the industry, such as horse racing and illegal gaming. These impacts will in turn affect people who work or invest in these different industry segments.

The growth of the gambling industry also affects the economic performance of other industries.

- It boosts jobs and profits in related industries which either supply the gambling industry’s needs (like gaming machine manufacturers or the horse racing industry), or which receive their own flow-on boost because they complement gambling. Taxis and restaurants, for example, may gain custom from the growth of gambling.
- On the other hand, the gambling industry competes against other suppliers of goods and services for the consumers’ dollar, so growth in gambling inevitably has an impact on the jobs and investments in these other industries, and the taxes the government earns from them. Retailers are one group that would be expected to lose from the growth of gambling.

Gambling naturally also affects the people who do it — gamblers.

- It requires time, money and some concentration to gamble, and gambling also provides an array of feelings, from great joy for some people to great despair for others.
- It may also affect the day-to-day mood of people who, for example, rather than remaining at home as they once may have, now get ‘out of the house’ to attend gambling venues.

Where gamblers exhibit ‘problem gambling’ behaviours, they will have impacts on others.

- Problem gambling may bring grief not just to gamblers but also to their families, friends, people they work with, and their employers who may get less productive effort for the wage they pay.
- Problem gambling also necessitates expenditures by governments or welfare agencies, and sometimes the court or prison system, on measures to deal with and ameliorate the impacts of problem gambling.

More broadly, the growth of gambling can affect aspects of the nature and ‘feel’ of community life, such as:

- the array of services provided by community clubs funded with revenue from pokies;
- the nature and provision of entertainment venues and recreational activities, and the type of interaction people in the community experience;
- people’s day-to-day feelings about the community they live in; and even
- people’s behavioural norms and social ethics, and through them, the way people act in their relationships with others in all aspects of life. This can show up in matters such as the level of volunteerism and community-mindedness in society, and the level of basic trust between people.

Gambling can also have different local and regional impacts, depending on its prevalence in different areas and the nature of the areas themselves.

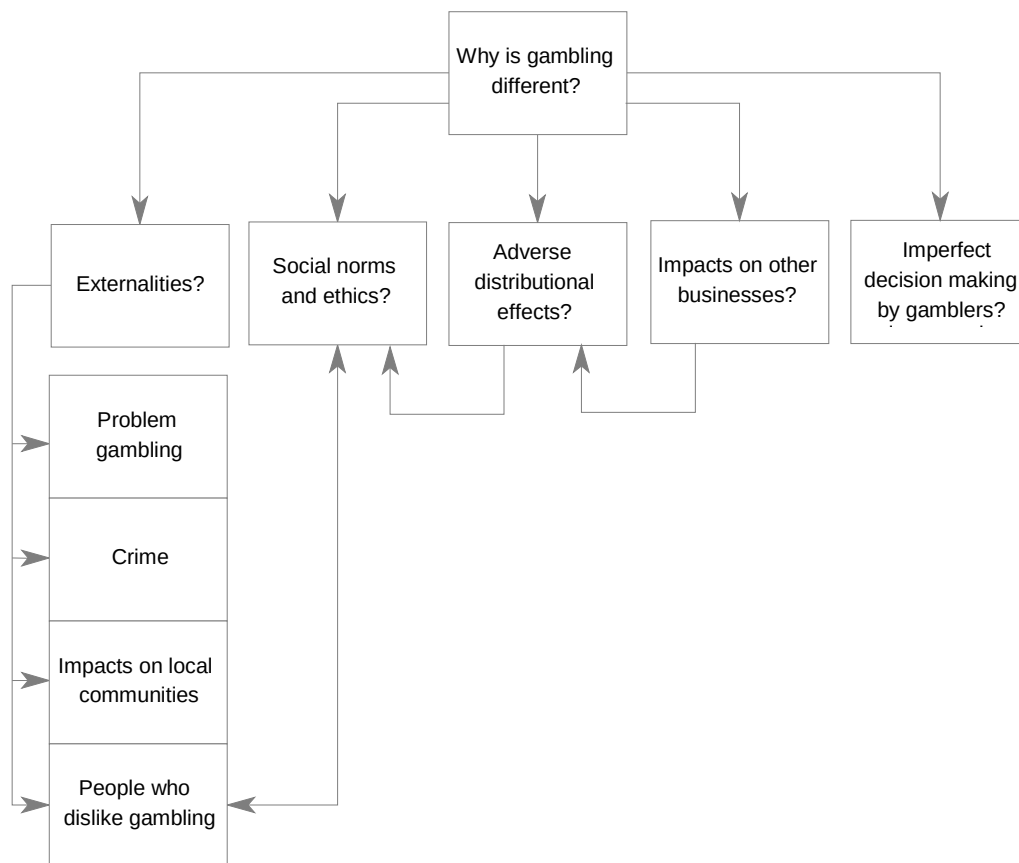
Finally, the growth of gambling provides a new source of interest for people and the media, and of activity for consultants, lobby groups, governmental bodies and policy advisers, and, ultimately, Ministers and Parliaments.

4.2 The sources of gambling-related social costs

Which of these impacts are of a private nature and which are social? Some submissions have sought to identify a range of social benefits accruing from gambling. These are discussed in section 4.4. However, most submissions have focussed on the wide range of social costs that it is claimed that gambling brings.

The possible sources of these social costs, or of other negative impacts that participants have suggested are relevant for government policy, are summarised in figure 4.1 and discussed in turn below.

Figure 4.1 **Why might gambling be different?**



Decisions made by gamblers

A key issue for this inquiry is the extent to which the gamblers' decisions to gamble can be considered appropriately informed and rational¹ and, thus, that the personal costs and benefits flowing from their decisions to gamble are 'private' matters.

Rationality?

Normally, what people undertake voluntarily is regarded as a reasonable revelation of their preferences, and any anticipated costs from their actions are not considered, therefore, to constitute social costs.

This seems to be a reasonable depiction of the vast majority of gamblers who are able to control their expenditure and engage in gambling as a form of entertainment or of passing time. This is not to say that the majority of gamblers base their decision to gamble on accurate information or perceptions about gambling, nor that their preferences are not influenced by external factors such as advertising (which are matters addressed further below). Rather, it is to say that, *given their perceptions*, there is no obvious indicator that their decisions to spend time and money gambling derive from anything other than the rational fulfilment of their preferences.

However, some gamblers encounter severe difficulties controlling at least some forms of gambling. Such people say that they often feel guilty or depressed about their gambling, and sometimes engage in 'problematic' behaviour, such as chasing losses, stealing and lying. At the extreme, their gambling problems can lead to poverty, relationship breakdown, depression and suicide. Many of these people say that they wish they could stop gambling, but cannot do so.

These people exhibit psychological traits and behaviours that do not appear to accord with conventional notions of rational decision-making. To the extent that their decisions are irrational, it would be appropriate to classify the costs these gamblers suffer from as 'social' rather than 'private' costs, and thus matters about which governments ought to concern themselves.

¹ There is no such thing as a perfectly informed and fully rational person. All human beings may suffer from 'bounded rationality' or 'cognitive limitations' to some degree and rarely have 'perfect information' about the matter they are considering. However, as government decision-makers are also hampered by these same problems and have highly imperfect knowledge of the preferences of different individuals, economists classify costs as private costs unless there is a *significant* divergence from the criteria of rationality and full information (and no externalities – a matter discussed later in this section).

Against this view, the submission prepared for key members of the gambling industry by ACIL (sub. 155, pp. 71-105) argues that problem gamblers can in fact be seen as ‘rational’ agents whose decisions are, on average, intended to make them as happy as possible. Under this theory of ‘rational addiction’, problem gamblers would carefully calculate the tradeoffs between, on the one hand, the personal satisfaction they get from gambling (and the anticipated difficulties of giving up gambling) and, on the other hand, its costs (such as the money they pay out, the arguments with their family, and the risk of job loss or criminal prosecution). The fact that some gamblers end up in dire straits would not, under this approach, necessarily indicate that they had acted irrationally — just that they had taken a calculated gamble, and lost.

If problem gambling were a truly rational phenomenon in this sense, any problems faced by problem gamblers would not involve net costs either to themselves or the economy. If they did, the gambler would stop gambling.

As part of its assessment of the nature and costs associated with problem gambling in chapters 6-9, the Commission critically examines the theory of rational addiction and its application to gambling to determine to what extent problem gambling entails social rather than private costs.

In short, while the rational addiction model can provide useful insights, the Commission does not consider the rational addiction model an appropriate framework for the analysis of problem gambling. The Commission has thus concluded that most of the costs incurred by problem gamblers are social costs, and has sought to quantify these costs accordingly.

Information problems and misperceptions?

Quite apart from problem gambling, there are a number of other potential consumer problems posed by the gambling environment. These mainly relate to poor information, misperceptions by consumers and persuasive and misleading advertising.

These aspects of the gambling environment have the potential to cause consumers to overestimate the benefits they are likely to gain from gambling and may lead to an excessive level of consumption of gambling or, at least, of certain gambling forms. Such over-consumption would entail a social cost. Viewed alternatively, it would mean that the benefits that consumers gain from gambling are less than implied by their willingness to pay for it (chapter 5).

That said, there are of course many goods and services with attributes as complex as gambling, and strong promotion is not isolated to the gambling industries. The question then arises as to whether a case exists that the consumer issues and impacts arising from gambling are distinctive enough to warrant special regulatory and legislative approaches, or whether they should be dealt with via the generic mechanisms developed by government (such as through the Trade Practices Act).

Nevertheless, these areas remain relevant for policy analysis as potential sources of social costs and, by implication, potential areas where policy changes could reduce the social costs of gambling.

Externalities

‘External’ costs and benefits (called externalities) are one form of social costs and benefits. An externality is said to occur when the consumption or production of a good by one person affects the welfare of another. Pollution is a common example, but there are many others.

Several sources of possible externalities arise in the gambling context.

Costs to problem gamblers’ families?

Problem gambling affects not only the gamblers themselves but also those with whom their lives are entwined, particularly their families. These costs can include impoverishment, psychological problems including stress, loss of trust and depression, relationship breakdown and violence in the home.

These costs are significant and the Commission explores them in chapters 7 and 9.

Without suggesting that these impacts are not costs to the people involved, in its initial submission ACIL argued that many of these costs are not genuine externalities:

Another externality candidate which is not altogether convincing is when gambling causes budget problems within the gambler’s household and disadvantages some family members relative to some prior position or norm. The difficulty here is that, viewed strictly from an economic standpoint, the spillovers between members of a household are usually covered by a web of ‘implicit contracts’ (sub. 155, p. 92).

It elaborated on this in its submission on the draft report as:

Our reasoning is that the spillover costs of problem gamblers’ activities are predominantly confined within their families or household. In these domains one would expect any such impacts to be covered by implicit contracts with the gambler which

would internalise them. Indeed, it is very difficult to imagine a family or household where the spillovers were not substantial or where there were not mutual agreement on the sharing of the costs and benefits between those involved follows (sub. D233, p. 28).

The Commission agrees that family relationships necessarily involve a range of social norms and implicit rules or agreements governing the behaviour of family members and that, for many circumstances, ACIL's argument has merit.

However, relationships governed by informal arrangements only work well if those involved abide by the informal agreements. By their very nature, informal agreements are difficult to enforce in extreme situations.

Problem gambling is a clear case of where such behavioural norms and informal agreements break down. It is difficult to see how informal family 'contracts' can be enforced in the face of persistent deception, the disproportionate use of the family's resources and often theft, among other things, that characterise the behaviour of a problem gambler.

Indeed, the Commission received a number of submissions highlighting the inability of individuals to make family members with gambling problems comply with previously accepted behavioural norms and understandings. As the Sunshine Coast Community Services Council (transcript p. 1528) commented:

I think the social reality that we live in today is that when people have an alcohol problem or they have a drug problem or a gambling problem, the family often is unable, or not resourced enough, or perhaps unskilled enough to respond effectively to that problem. To isolate gambling out as a problem that can be dealt with in the family ignores several symptoms and several aspects of gambling, which is its often a very hidden problem and by the time the problem has emerged the family may well have lost their house... When people are under considerable financial strain, whether that's from unemployment, underemployment or a gambling problem, the family will be under enormous pressure and can possibly disintegrate. So with the best will in the world I don't believe that families can be expected to deal with a gambling problem on their own.

Overall, the Commission considers that the costs to family members flowing from problem gambling are genuine social costs.

Costs to others from problem gambling?

As well as affecting their families, people's problem gambling can also affect their friends, employers and the wider community.

Costs incurred by governments in providing welfare or counselling services are clearly externalities.

Reduced productivity in the workplace is less so.

Employers enter explicit agreements with employees, and the potential of declining performance due to any one of a variety of reasons, of which problem gambling is only one, is one of the risks that employers accept when hiring workers. There are also some penalties in place to deter poor performance, or to terminate employment arrangements where performance falls substantially. Hence, to some extent the costs of lost productivity are ‘internalised’ between the employer and employee.

That said, employers do not have perfect employee performance monitoring mechanisms, and there may be lags between the time that performance starts declining until when this is discovered. This reduces the extent to which the costs to the employer are efficiently ‘internalised’.

In any case, since these costs of poor workplace performance derive originally from problem gambling then, irrespective of how they are shared between employer and employee, they remain social costs.

Crime?

Worldwide, there is a strong perception of a link between crime, particularly organised crime, and gambling. For example, Margolis and Grey (1997, p. 4) commenting on the US situation said:

The legend of 1920’s gangster Bugsy Siegel and the subsequent rise of Las Vegas as the premier gambling location in the world is almost American folklore today. This story established an image of the gambling industry in the minds of many Americans and it was not unusual or unwarranted at the time.

The popular perception of the link is based on three separate concerns:

- organised crime may control gambling because of its apparent inherent profitability, use legal gambling to launder money, or act as loan sharks for people desperate for gambling funds;
- gambling venues and their precincts may become ‘honey-pots’ for other criminal acts, such as theft and assault; and
- problem gamblers may commit crimes to finance their gambling.

While some such crime may bring genuine externalities, it is important to separate transfers (such as stolen money) from the real economic costs (such as the costs of disruption, fear, or of heightened security). It is also important, as in the case of problem gambling, to consider the counterfactual. If governments had not legalised gambling, what would the extent of crime be? Prohibition often leads to the illegal

and secretive supply of the prohibited goods by organised crime, with none of the safeguards for the consumer provided under a legal regime. It may be that criminal impacts under prohibition would be greater than under a legal regime. While that might, by itself, point to a legalised regime, it would still leave open the question of what sort of legalised regime minimised the costs of gambling-related crime.

The Commission examines evidence of criminal activity associated with problem gambling in chapter 7, and the other aspects of crime sometimes associated with the gambling industry in chapter 10 and appendix O.

Psychological costs of living in a society that ‘condones’ gambling?

When economists talk of goods, they don’t just mean what people buy. They are really talking about anything that an individual feels they value in some way. So a sunny day, freedom of expression, and a nice view are all ‘goods’ (at least to some people) with the same legitimacy as more tangible products like toothpaste and cars.

Once it is recognised that goods (and bads) are so broadly defined, it is easy to see that externalities are very common. One person’s pretty garden also provides pleasure for the neighbours, even though they have made no payment for it. Similarly, if a person has a phobia about the colour red, then someone else’s red dress inadvertently causes distress. Indeed, other potential sources of externalities nominated by one participant include “traffic, conspicuous consumption, television programs we don’t like, the buildings on Circular Quay, SOCOG, Pauline Hanson, and the dentist” (sub. D217, p. 6).

So too with gambling. Whatever the origin of their preferences, some people do not like aspects of the gambling environment (whether it be glitzy venues, gambling advertising, or what they may see as pandering to greed or evidence of a degenerating society). Economists generally do not judge the validity of preferences. A preference which is strongly averse to gambling is as valid as one which is strongly in its favour.

The pragmatic problem with trying to assess this sort of externality is quantification. Externalities based on intangibles are all around us, but most are not considered relevant to policy because too few people are affected, they are hard to identify, they are often of minor impact and the costs of correcting them are too high. Any restrictions on red dresses would be misplaced unless the bulk of the population have this aversion. But in some cases, the grounds for action to limit the externalities arising from the consumption choices of individuals are more clearcut — for example, as in the case of passive smoking.

There is evidence that many people do feel significant disquiet about Australia's gambling industries, stemming not so much from its existence as from its emerging pervasiveness.

Of course, any attempt to restrict gambling on this basis not only affects those who enjoy gambling, but may in turn produce negative externalities for those with more libertarian ideals.

Even so, the concept of a negative externality stemming from the widespread visibility of gambling has some validity. The Commission examines the issue in chapter 10.

Adverse community impacts?

The liberalisation and widened accessibility of gambling may have had a number of adverse impacts on local communities, which might be viewed by some as externalities. The nature of local facilities may change in ways that some people regret. Hotels may no longer employ bands, small community facilities may close as patronage falls below some critical mass, volunteering may decline and the 'character' of the community may change.

Some of these effects are not in fact externalities, and those that are remain hard to measure or to ascribe to any particular causes, among which gambling may only be one. For example, declines in volunteering may be due to other pressures, such as the growing participation rates of Australians in the labour market and increased average working hours.

As well, there may be unforeseen *positive* outcomes, with people using gambling venues as safe and accessible de-facto community facilities.

Possible beneficial and adverse community effects are discussed in chapter 10.

Adverse impacts on other businesses?

The expansion in gambling must come at the expense of current or future reductions in spending on other goods. People who increase their expenditure on gambling appear likely to spend less than otherwise on cafes and restaurants, theatres and general retailing. Accordingly, some non-gambling businesses will not grow as fast as they would have done and some may contract or close, shedding labour and capital. A number of submissions to the inquiry have naturally seen these as adverse impacts, implicitly requiring governments to moderate the process of gambling liberalisation:

Spending on gambling continues to impact negatively on traditional areas of retailing expenditure and continues to place great strain on the viability of once profitable businesses (sub. 93, p. 7).

Gambling industry proponents put a different perspective on these apparent adverse effects:

Structural change due to changing tastes and new technologies or changes in regulation is a fundamental part of Australian economic life. There are many examples of this: the decline in the carriage and blacksmith industries due to the motor car, the shutting down of petrol stations due to the new independent retailers like Woolworths entering the market, the decline of drive-ins as a result of the video revolution (VHS not Beta!) and so on. Resources will flow to those activities which consumers prefer (sub. 124, p. 12).

From this viewpoint, business closure and employment shifts are part of the process by which resources are reallocated to higher value uses — the essence of a well operating economy, not of market failure.

There are a few qualifications to this argument, but they are relatively minor and tend to disappear over time. Not all resources are allocated to higher value uses instantaneously — for example, people lose jobs and don't get new ones immediately, and capital may lay idle. And some businesses and employees clearly lose income relative to what they had before, raising possible equity and distributional issues.

To the extent that there are potential social costs² arising from such structural change, they are:

- realised only if the rate of unemployment and business closure is higher because of the growth of the gambling industries than it would have been — a much harder test; and
- largely temporary, as resources are matched to new uses.

Moreover, in recognition that such impacts are the general consequences of change throughout the economy, governments tax all activities and income to fund measures to address such frictions (eg re-training and labour market search institutions). It would be hard to mount a case that the growth of the gambling

² These costs are not the income lost by the businesses nor the wages forgone by the worker. However, they may include the cost of idle resources, the personal costs of unemployment and business closure, the costs of matching the unemployed with a new job, additional congestion in search markets for jobs, and the reduced scope for a bankrupt entrepreneur to own another business (under the bankruptcy provisions). Other possible 'costs' arise if directly unaffected people feel bad about any social impacts of unemployment or business closure, although these costs are extremely difficult to measure.

industries required measures *beyond* those applying to change generally. Any argument, therefore, that governments should restrict or slow the liberalisation of gambling on the grounds that it has some negative effects on other businesses, appears to have a weak foundation.

However, it is still important to look more closely at evidence on the effects of gambling liberalisation on other businesses:

- to test the hypothesis that the impacts are small relative to the scale of background change facing all businesses; and
- to provide independent assessment of effects which may be underestimated by some interest groups and overestimated by others.

This issue forms a part of chapter 10.

Adverse distributional effects?

Survey evidence suggests that people on lower incomes spend a proportionately greater amount on gambling than people on higher incomes gamble.

Some commentators see this pattern as inherently problematic, since they see poor people getting poorer as a result of gambling expenditure. Some lower income people may be problem gamblers or suffer from systematic misperceptions about gambling (issues dealt with above). For them, one aspect of their problem with gambling would be its impact on their income.

But for the majority of lower income gamblers, it is plausible to see them making rational choices amongst competing expenditures. The implicit view of those who see these expenditures as wasteful for this group is a value judgement about gambling itself, rather than an objective analysis about the welfare of lower income people.

There is a second strand of concern about distributional effects of gambling which does not rely on value judgements about the worth of gambling. Gambling is subject to high tax rates. This implies that poorer people pay higher levels of gambling tax as a share of their income than richer people do. This issue of tax regressivity is an important impact of the *combination* of growing liberalisation of gambling and the taxation regime. But because it stems from the policy environment, rather than inherently from gambling, the Commission defers discussion of this potentially significant impact to part D and chapter 19 of the report.

Social and ethical norms: a ‘questionable pleasure’?

All societies have ethical and social norms, some strongly enshrined in legislation, which go beyond the individual preferences of some of its citizens. For example, we deem it wrong to appear naked in public, or to be cruel to animals. These norms affect and reflect what the community at large thinks is right, and are still enforced even if they run counter to personal preferences.³

Gambling is sometimes represented as a recreational and entertainment pursuit like others — such as going to a film or a fun park. This implies that the regulatory and taxation environments should be ‘normalised’ to be like those for other industries (sub. 155, p. 157).

On the other hand, other people feel that community norms are eroded by having ‘too much’ gambling. This includes concerns that the close connections between government and gambling, fuelled partly by revenue needs, undermines the confidence that people have in the institution of government altogether.

As the Commission observed in the draft report, gambling tends to be perceived by the public as a ‘questionable’ pleasure, an expression offered by a senior industry figure. The Australian ambivalence to gambling persists in a number of ways.

- Children are not able to gamble for money like adults, and no one is advocating that they should. Why is this so? If gambling were like ice creams or board games, then children would be able to gamble. The fact that there is no gradation in the legal availability of minors’ gambling in Australia (as is the case for films and computer games) suggests that many Australians are uncomfortable about making gambling legally accessible to children in any form, which in turn implies a judgment about gambling.
- Gambling, while highly accessible in many jurisdictions, is still far less accessible than many ‘normalised’ goods. If a person wants to sell an ice-cream, he or she can do so almost anywhere. They can (with a licence) sell ice-creams in the park, from a vehicle, from a newsagent, a supermarket and a hundred other places. No one, including the gambling industry, has suggested that it should be as accessible as ice-cream. But if gambling is a perfectly normal good, like ice cream, why aren’t people and businesses advocating that it be sold on an equivalent basis?

³ There is an economic literature about the interaction of norms and consumption. Where people are compelled to consume goods ‘for their own good’ (such as elementary education and safety belts), these are referred to as merit goods. The flip side of the coin are merit ‘bads’ where governments introduce restrictions for the apparent welfare of the individual consumers or to uphold social norms (sub. 155, p. 91).

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- In jurisdictions where gambling is not highly accessible, such as Western Australia, the only lobbying for an expansion in the accessibility of gambling appears to come from gambling providers, not the potential customers. This again would be consistent with people having norms that accept some degree of control over access to gambling in their communities.

In response to the draft report, Star City stated:

Australians do want to gamble. Nor for the most part do they feel that there is any stigma at all attached to this activity. We do not think it is a questionable pleasure. They are aware that excessive gambling can be a problem and there may be a stigma attached to that just as there is to any form of personal excess. We believe that we have matured sufficiently as a society not to have any religious or ethical hang-ups about gambling (sub. D217, p. 2).

While there is some validity in this view and while Australians *are* among the world's greatest gamblers, surveys of community attitudes suggest that they do not regard gambling as just like any other good. The surveys (including the Commission's *National Gambling Survey*) reveal an unease about 'too much' accessibility to gambling. The process of gambling liberalisation may, therefore, have adverse effects if people see that process as contrary to their norms.

Of course, it is hard to define 'too much', and norms can change over time. Generally adverse community attitudes to casinos prior to their legalisation seem to have declined after their legalisation. Measuring norms is also difficult, with people having dual attitudes about personal freedom and the sort of society they would like to live in. Nevertheless, given that social attitudes to gambling clearly distinguish it from many other goods and services, it is legitimate to gauge the social acceptability of differing regulatory approaches to gambling — an issue taken up in chapter 10.

4.3 The benefits of gambling

While the costs of gambling often attract the greatest attention, the fact is that most Australians gamble in some form, and clearly derive benefits from this activity.

Consumer benefits

The notion that the activity of gambling yields consumer benefits irrespective of any winnings — and abstracting from problem gambling — has not gone uncontested. Paul Samuelson (1970), a Nobel prize winning economist, wrote that gambling added nothing to the economy because winners were matched by losers:

There is a substantial economic case to be made against gambling. It involves simply sterile transfers of money or goods between individuals, creating no new money or goods. Although it creates no output, gambling does nevertheless absorb time and resources.

This is the ‘materialist’ illusion — it is not the weight or tangibility of a good which produces value, but the extent to which individuals like or dislike what they consume or do. Gambling engages people for a host of reasons (VCGA 1997, pp. 64-5). They enjoy the (usually safe) environment of risk, the venue, the dream or actual thrill of winning, the social activity or the event being gambled on:

A day (or night) at the races presents a magnificent spectacle. There is colour, movement, the vitality of the racing animals, the pre-race parade, the expectation, the thrill of “they’re racing”, the changes in running, the arrival at the winning post, the salute to the winner, and the satisfaction of collecting a payout. In short, racing is a total entertainment (Windross 1996, p. 9).

Similarly, the Australian Hotels Association (NSW) commented:

A great many people obviously enjoy gambling and do regard it as an enjoyable pastime. For example, the history of racing extends over thousands of years and a day at the races is obviously viewed and remembered by many people as an enjoyable day. Many retired people enjoy a club or hotel outing, including investment in the ‘pokies’ as their major social activity (sub. D208, p. 13).

In this sense, it is not true to say that the gambling industries ‘do not produce anything’. Nor is it true to say that because gamblers lose money on gambling over time, the industry does not contribute to the well-being of gamblers. Gambling, like other entertainment industries, such as cinemas and theatres, provide their consumer benefits as experiences rather than as tangible goods.

The Commission assesses these consumer benefits in chapter 5. Economists refer to these as ‘consumer surplus’: the difference between what *is* paid and what people would be *willing* to pay for their gambling experiences (chapter 5).

Production-related benefits

Perhaps reflecting the popular misunderstandings about intangible goods such as gambling, advocates for the gambling industries often largely ignore the consumer gains when quantifying the economic benefits of their industries. Instead, they point to other benefits from gambling, such as the value-added, new jobs, multiplier effects on other activities and trade.

Employment and small business enjoy both direct and indirect advantages as a consequence of racing and betting activity. As regards employment, independent

studies have concluded that some 50,000 full-time equivalent positions exist as a consequence of racing in NSW (Windross 1996, p. 3).

Golden Casket's revenue also makes a direct contribution to the economy through an estimated Gross Industry Product in Queensland of \$225.5 million (1995-96). Golden Casket directly employs over 200 people with a further 1,600 jobs indirectly dependent on lotteries in newsagencies and other small businesses. Agents, printers, advertising agencies, transport and distribution workers all benefit from the operation of golden Casket and pass money back to the economy (sub. 145, p. 5).

However, these other 'benefits' to the economy from liberalisation and additional gambling activity are unlikely to be significant.

At the individual business level, a new TAB agency, gaming venue or casino clearly employs people, orders inputs, such as food and paper, and may sell to tourists. It seems quite natural to suppose that the economic benefits of these activities are the activity, jobs, downstream effects and trade they provide.

But this intuitively attractive idea suffers a number of limitations.

First, the value-added, trade and job creation arguments need to be considered in the context of the economy as a whole. Resources in an economy are not stamped 'to be used only for the gambling industry' — they have alternative uses. If liberalisation of gambling had not occurred, then people would have spent their money elsewhere, and jobs and investment would have flowed to these activities rather than gambling. And since gambling is still relatively small compared with the economy at large, the next best uses of these resources would create nearly the same levels of value-added as gambling itself.

Second, apparent increases in trade as a result of gambling (casinos for high rollers, tourist use of gambling in hotels, sportsbetting on the internet by foreigners) can similarly be overstated. Income from trade uses real resources, which could have been employed to generate benefits elsewhere. However, there may be gains from shifting resources to an area where Australia has a competitive advantage, and this may apply to parts of the gambling industries.

These arguments do not mean that jobs, trade and activity are unimportant in an economy. To the contrary, they are critical to people's well-being. However, any *particular* industry's contribution to these benefits is much smaller than might at first be thought, because substitute industries could produce similar, though not equal, gains.

The idea of multiplier effects — whereby a new project multiplies its benefits by increasing demand in associated industries — is similarly flawed. ACIL, in its

submission on behalf of six gambling service providers, questions the relevance of such multipliers for the gambling industries:

The main problem with equating multiplier or flow-on effects with true economic benefits is that no regard is paid to the costs involved in generating them. The cost side often goes unnoticed because perceptions of benefits created are sharper than perceptions of benefits sacrificed. The issue was explained recently as the “broken window fallacy”. The story goes that a hoodlum tosses a brick through a baker’s window. The baker is furious at having to pay the glazier \$250 for repairs, but observers console themselves that the glazier will then have to \$250 to spend on the wares of other merchants, who in turn will have money to buy things they would not otherwise have demanded. Through this kind of thinking the hoodlum can be seen not as a public menace, but a public benefactor. This is because it is easier to notice the benefits of the new window and its flow-ons, than to recognise that the unfortunate baker has been deprived of \$250 to spend on other things (such as a new suit), which also would have produced benefits for third parties (sub. 155, pp. 64-5).

Only if the growth of an industry stimulates otherwise idle resources are such multiplier gains real. It is possible that a gambling venue may employ someone who had been formerly unemployed (or employ a formerly part time worker for longer hours). But it would also need to be shown that some other business would not have employed that person if the gambling venue had not been there. Employees in new firms tend to be displaced from other employment options. Thus, while there may be instances where new jobs are generated in some depressed areas, multiplier effects are mainly like shuffling the economy’s cards.

These arguments were the source of some apparent misunderstanding among industry participants following release of the draft report.

The Commission emphasises that this reasoning does not imply that the gambling industries as they have developed have made no contribution to the economy, or that the jobs involved are ‘worthless’ (as some have interpreted it). In fact, the industries generate considerable benefits, as documented in chapter 5. Nor should the Commission’s conclusions be taken to imply that reimposing prohibitions or cutbacks on these industries now would not lead to significant losses and transitional unemployment.

Rather, as discussed further in chapter 5, the important message is that measures of an industry’s size (denoted by such things as investment, turnover, employment etc) are not measures of the net contribution of an industry to the economy, but a measure of the amount of the community’s resources that are used in the industries, in response to the spending of consumers. There are alternatives available for consumer spending and, thus, alternative uses for the resources used in the gambling industry. These alternatives would also ‘contribute’ to the economy in terms of the use of labour and capital, and the benefits people derive from consumption. It is the

extra benefits consumers gain from their consumption of gambling products, rather than less preferred alternatives, that hold the key to the benefits that the industry provides (chapter 5).

4.4 Measuring the impacts

For a variety of methodological and data reasons, rather than conceptual ones, impacts which are seen as ‘social’ are often described in qualitative terms, but not valued quantitatively, while benefits which are seen as ‘economic’ are expressed in quantitative terms, but not given a qualitative dimension.

Economics is concerned with the value of things for people, and this extends beyond things which have observed market prices. A night of hot passion is not necessarily of any less value to an economist than a roll of bank notes. Likewise, such things as crime, relationship breakdown and weakened communities are social impacts which are amenable to economic analysis — it’s just that they do not have price tags that are revealed by markets. There is a range of techniques to investigate these ‘invisible’ prices so that at least some social impacts can be measured (chapter 9).

The approach taken in part C of this report does not draw an artificial distinction between the ‘social’ and ‘economic’ effects of gambling, nor does it subordinate the former to the latter because they are harder to quantify.

Chapter 5 and parts of chapter 10 assess the qualitative and quantitative benefits of gambling. In looking at the *net* consumer benefits, chapter 5 takes into account the price people pay to gamble.

The costs of gambling are covered in chapters 6 to 10. Chapters 6 to 8 look closely at some key adverse social impacts of problem gambling, with chapter 9 providing quantification to the extent practicable. Chapter 10 examines some of the broader community costs (and benefits) flowing from the growth of gambling.

While the Commission thus devotes more chapters to the costs than the benefits, this should not be taken to imply that the benefits are less important, simply that in some respects they are conceptually less complex than the costs. Moreover, as discussed above, many of the costs have a particular policy importance. It is important to know a lot about the nature and magnitude of the social costs because, as alluded to above, without those costs the gambling industry would be just like most other recreation and entertainment industries, and would seemingly require no different a set of policy, regulatory or taxation measures — matters discussed in Part D.

Beyond seeking to legitimise some important impacts which might otherwise be deemed unimportant, the Commission has gone through the (hazardous) process of attempting to estimate the costs and benefits of current gambling activity to illuminate certain policy issues. For example:

- the fact that consumers gain substantial benefits from gambling suggests that any government actions to simply curtail gambling activity would come at a considerable cost; and
- the fact that there are such significant ‘social costs’ associated with problem gambling appears to justify at least an examination by governments of means of addressing problem gambling and its effects.

In chapter 11, the Commission also brings together its estimates of the consumer benefits of gambling with the less tangible and harder-to-measure costs, to try to assess the overall impact of gambling liberalisation in Australia. The Commission’s focus is on the net benefit of the gambling industries. It is equivalent to seeking to answer the question: what have been the benefits of making gambling legally available?

Importantly however, this exercise needs to be treated with caution. Information gaps and quantification quandaries mean that any estimates can at best be considered ‘ball park’ figures — indeed, the Commission has chosen to provide a range of estimates, rather than just one figure. Further, the use of an aggregate net impact figure (or range) for the entire gambling industry can obscure differences in the distribution of benefits and costs between different parts of the industry and between different regions. Finally, while net benefit or net cost figures can help raise community awareness of both the costs and the benefits of gambling, from a policy viewpoint the more relevant issue is whether there are means of increasing the net benefits or reducing the net costs, *whatever they may be at present*.

For these reasons, the Commission also explains in chapter 11 how its net impact figures should *and should not* be interpreted. In particular, it gives greater attention to the net impacts of the different gambling modes, which helps focus attention on those areas of gambling which may be of greater concern to policy.

4.5 Important aspects of the impacts

So far, the focus has been on which possible impacts of the expansion of gambling have policy significance, and which have a dubious or mythical basis. That forms a useful preliminary to the detailed analysis of the impacts which follow in the remaining chapters in part C, and explains why the Commission concentrates on particular impacts.

There is, however, another set of important issues that is relevant to the analysis of the impacts of gambling — the range of questions that need to be addressed when looking at any given impact. These include:

- What research methodologies and data are appropriate for analysing the impacts?
- Who is affected? What are the types of people (income, socioeconomic status, family status, age, gender) of people who are adversely or beneficially affected by gambling?
- What factors need to be present for gambling to have an impact? Could an apparent causal link be illusory, with other ‘hidden’ factors really explaining the impact?
- How do the impacts vary by the type of gambling and by the type of venue offering the gambling?
- What are impacts of small changes in gambling compared to the impact of big changes in gambling?
- How uncertain are the impacts?
- What are the duration of any impacts?

Where information is available, the Commission has applied these sorts of questions in the analyses which follow.

5 Assessing the benefits

Box 5.1 Key messages

- The benefits from liberalisation of the gambling industries come primarily from the satisfaction that consumers obtain from the ability to access what for many is a desired form of entertainment.
- The gambling industries employ a large number of people in Australia, but the net production-side benefits of liberalisation have been small when account is taken of substitution effects and the alternatives available for gambling spending. Benefits in terms of employment and activity in the gambling industries are largely offset by declines in industries that have lost the consumers' dollar to gambling.
- Even when discounted for excessive spending by problem gamblers, the value of the consumer benefit remains substantially positive — estimated to be at least \$4.4 billion (and possibly as high as \$6.1 billion) each year.
- This overall positive benefit has three components: a benefit of \$2.7 billion to \$4.5 billion for recreational gamblers; a transfer of \$4.3 billion principally to government in the form of tax revenue, licence fees and community contributions; and a loss for problem gamblers of around \$2.7 billion.
- In assuming that problem gamblers do not get 'value for money' for their very high level of spending, the Commission has nonetheless assumed that they do gain some benefit.

5.1 Introduction

In many respects the gambling industries are like any other industry. People are employed, investment is undertaken, export revenue earned and taxes paid. As would be expected in a growing industry, there is also considerable R&D dedicated to improving the attractiveness of the product to consumers. The Australian gambling industries are acknowledged to be among the most innovative in the world (particularly in the area of gaming machines and the development of internet gambling).

The benefits that an industry provides are usually taken for granted. If producers provide and consumers purchase a product or service, we presume that they do so because the benefit from that activity is greater than the alternatives available.

The key feature that makes the gambling industries different is the existence of problem gambling and its attendant costs. Without this, the gambling industries would be like most other recreation and entertainment industries, and the extent of their contribution to the economy would not be an issue. Critics of the industries who call for reductions in the availability of gambling, or bans on some forms, consider the costs to be high, implicitly higher than any benefits the industries generate.

Thus, as the CIE commented in a submission prepared on behalf of Aristocrat (sub. 111, p. 22):

This estimate [of the contribution of gambling to the economy] is used to establish a threshold or reference value against which the social costs, such as those arising from problem gambling, may be assessed.

Another reason for focussing on the benefits relates to basic misunderstandings about their nature.

- Many regard the main benefits as being the jobs and economic activity associated with the gambling industries. But when the impacts on other industries of the shift in consumer spending to gambling is taken into account, these benefits are, on balance, much reduced.
- Others argue that the gambling industries provide no benefits to consumers because gamblers as a group lose money (box 5.2). However, this misunderstands the nature of gambling, which is more appropriately viewed as entertainment for which a cost or price is appropriate, rather than as an investment with a positive expected rate of return.

Box 5.2 An ‘industry’ that produces nothing?

Misperception about the benefits that the gambling industry provides is typified by the editorial in the *Canberra Times* on 21 July 1999, following release of the Commission's draft report. The editorial titled ‘An ‘industry’ that produces nothing’, observed:

The Productivity Commission is wrong when it says the gambling industry in Australia produces a benefit... Gambling creates no wealth for anyone: it merely shifts wealth from some people to other people. There is no value-adding in the gambling “industry”.

A letter to the editor of that paper on the 26th of July expressed a similar view, saying:

I buy lottery tickets. I get no enjoyment from this. I buy them to win. If I do not, I only get disappointment. There is no consumer benefit. But the commission assumes: I buy, therefore I benefit. This is nonsense. What if the product is heroin, or alcohol or cigarettes? Then, according to the commission, the cheaper the price, the greater the consumer surplus. Does anyone out there in the real world believe this?

That said, most would accept that, in this industry, not all spending is rationally made or provides commensurate benefits, particularly for those with significant problems arising from their gambling.

The chapter examines:

- the nature and size of the benefits for consumers that result from being able to purchase gambling products;
- the impact that problem gamblers may have on this benefit; and
- the broader benefits for consumers and the economy as a whole, including the benefits cited by those in the industry (employment and activity) and drawing on a number of studies which have used models of the Australian economy to assist our understanding of the wider economic effects of the industries.

The impacts on particular industries, communities and regions, including the impact on retailing and the growth of local clubs, are discussed in chapter 10.

5.2 What benefits do consumers gain from gambling?

Many people purchase gambling products. The Commission's national survey indicates that just over 80 per cent of the adult population gamble at some time each year, and almost 40 per cent of adults are regular gamblers (playing, on average, at least weekly). Problem gamblers — ranging from those with mild to severe problems — are estimated to comprise only 2.1 per cent of the adult population (although they account for a much larger share of gambling expenditure). Liberalising access has resulted in a significant switch of consumer spending to gambling products, with expenditure by Australians averaging just over \$760 per adult in 1997-98. In addition, the demand for gambling appears to respond little to changes in price, indicating that consumers place a high value on the opportunity to play.

What is the nature of this benefit? Certainly gamblers as a whole, and the vast majority of them individually, lose money by gambling over any extended period of time. Because of this, gambling cannot realistically be viewed as a form of investment, other than for a tiny minority of professional gamblers and in only a very limited range of gambling products (box 5.3). Rather, gambling is best characterised as a form of entertainment, albeit one where a major element of that entertainment is the *chance* of winning some money¹.

¹ Indeed, a key source of gambling problems arises when people see gambling as a means of realistically increasing their wealth, rather than as a form of entertainment that is, on average, going to cost them money.

Box 5.3 **Gambling vs investment**

The boundary between gambling and investment is often blurred. Many approach traditional forms of gambling as an investment activity — indeed, it is often described as such in the industry. In a very few forms of gambling some gamblers may make money over time². Conversely, some activities traditionally classified as investment may be approached as a gamble, and some particularly risky business investments (often referred to as ‘speculation’) are described as such. So is there an essential characteristic that leads society to classify one form of activity as gambling and one as investment?

A key characteristic of an investment, even a risky one, is that it can realistically be expected to offer a positive rate of return over time. This return may vary from time to time, but with enough transactions, and over a reasonable period of time, the expected rate of return is positive, even after tax and commissions for the providers. This is true for investors as a group and also typically for each individual investor. This is not to say that investors are ‘guaranteed’ a positive return. There is always a risk of loss, but with traditional investments, there is a realistic expectation of a positive return over time. Similarly, someone could certainly approach an investment such as the stock market as a pure gamble — some people do — but this is not fundamental to that activity.

For products traditionally classified as gambling, while the return may vary from time to time, with enough transactions, the expected rate of return to the *venue* is positive but that for the *gambler* is negative. Other than for a small minority of ‘professional’ gamblers in a very limited range of products (for example, wagering on racing and sports), this negative expected rate of return holds true for individual gamblers and gamblers as a group.

It is this fundamental difference in the expected rate of return that differentiates gambling from investment, even when both activities involve ‘staking’ money where there is an element of risk, or uncertain outcomes.

Even where some gamblers win over time — such as in wagering on races — the wider group of players as a whole must lose, with the few ‘professional’ gamblers relying on the losses of the others to pay for their wins.

As Barrett (sub. D251, p. 3) observed:

Secondly, investment does not entail that anyone loses; betting does... Although investors may “lose”, their “winning” does not typically depend on others losing. Investing is not a zero-sum game.

The value of the service provided by gambling is essentially the enjoyment or entertainment from playing and having access to a *chance* of winning some money, not a positive expected return on the funds employed.

² Blackjack is one area where skillful play can create a small advantage over the casino. However, casinos generally will ban such skilled players or severely restrict their play (see BJ Masters Professional BlackJack School, sub. D285, p. 3).

The fact that gamblers lose money does not mean that they derive no benefit, nor does it mean that the industries do not make a contribution to the economy. Many other activities (such as sport, theatres etc) represent consumption rather than investment, with the net cost to the consumer representing a payment for the entertainment provided.

Thus, ACIL (sub. D233, p.11) commented:

The expected financial return is only one of the variables that enters into an individual's estimation of the utility of the transaction. It is not even the most important variable to the gambler.

The dream of winning appears to loom large in the minds of gamblers, as indicated by a 1999 survey in Victoria (table 5.1). But it is clear that a range of other reasons also influence the decision to gamble, highlighting its role as a form of entertainment.

Table 5.1 Why do people gamble?

(Victoria, survey of 1326 gamblers conducted in 1998)

<i>Motivation</i>	<i>All gamblers</i>	<i>Regular gaming machine/Casino gamblers</i>
	% of respondents	% of respondents
Dream of winning	59	66
Social reasons	38	65
For charity	27	26
Beating the odds	9	14
Favourite activity	10	19
Atmosphere/excitement	13	19
Belief in luck	12	16
Boredom/pass the time	9	13

Source: Roy Morgan Research (1999).

Similarly, survey evidence in New South Wales indicates that winning ranks highly with players, but the entertainment aspects of gambling again appear important (table 5.2).

While most gamblers report positive factors associated with their gambling activities, their level of satisfaction has been questioned. Critics of the gambling industries express concerns about the degree of satisfaction that gamblers receive from their gambling activities. For example, at the public hearings Anglicare commented:

I would ask anybody to go into a pokie venue and look around at people sitting playing the machines and see the joy and pleasure on their face, and I'll tell you something, it doesn't exist. To me, something which is a happy experience or an entertaining experience or a good time causes you pleasure and there are signs that human beings

can sort of put out to show that. I find an awful lot of people in there are sitting frozen (transcript, p. 772).

Table 5.2 Motivational aspects of gambling
(per cent of respondents answering in the affirmative)

	<i>Lotto only^a</i>	<i>Other gambling</i>
	%	%
I daydreamed of getting a big win	75.7	79.9
Gambling has given me pleasure and fun	72.1	87.4
Gambling has been a hobby and interest for me	53.6	78.0
When I was gambling I felt excited	52.1	79.2
When I gambled I felt relaxed	37.1	72.3
I am more likely to gamble for celebration	29.3	56.6

^a The 'Lotto only' group comprise respondents who played lotto/lottery/instant lottery weekly or more often, but no other form of gambling weekly or more often.

Source: Drawn from Table 20 in Dickerson et al (1996a, p. 43).

However, appearances can be misleading. Star City observed (sub. D217, p.2) that:

Football fans do not expect their team to win every match. At the match they will be engrossed and generally not laughing. And they can look very unhappy when and after they lose. Yet, they go again the following week and no one suggests that even losing a game is a net disbenefit. Joggers and bush walkers are notoriously solemn. Concertgoers rarely laugh.

The Commission's *National Gambling Survey* asked regular gamblers to rate their gambling experience according to the extent to which it made their life more enjoyable. The survey results indicated that most (67 per cent) considered that it made no difference, and only 24 per cent considered that it made their life a little more enjoyable (chapter 6).

A survey of gamblers in inner city municipalities in Melbourne (Melbourne Institute et al 1997), asked gamblers to rate the satisfaction derived from their gambling experiences. The report commented (p. 58):

The vast majority of males and females, gamblers and non-gamblers, EGM users and non-EGM users report that they do not find EGM gambling appealing, i.e. they responded in the 1-5 range on a 1-10 scale from "not at all appealing" to "extremely appealing". EGM users find EGM gambling slightly more appealing than do other individuals, but surprisingly, not by much.

Similarly, a survey of gamblers in regional Victoria (Deakin Human Services Australia and The Melbourne Institute, 1997), found that 90 per cent of gamblers considered playing gaming machines to be an unappealing leisure activity. However, the study also found that 83 per cent were satisfied with their gambling life generally.

In contrast to the other studies, Tabcorp, (sub. D232), concluded on the basis of AMR Quantum survey of 262 patrons of gaming machine venues that:

... 85 per cent of customers — even those who lost money — enjoyed their visit to a gaming venue ... (p. 1);

and that this level of satisfaction was higher than that of alternative forms of entertainment. Tabcorp also said:

In addition, the survey confirmed that gaming machine players consider that gaming venues provided comparable value for money to other entertainment options (p. 4).

Tabcorp subsequently provided the Commission with a copy of the survey, which provided more detail on the patrons' responses (tables 5.3 and 5.4). This indicated that, while the overall enjoyment of the visit to the venue, and the overall perception of value for money, were similar to that stated for alternatives, both the level of satisfaction and perception of value for money were noticeably lower for gaming machine play than for other forms of entertainment.

While the sample is small, and is likely to involve an element of self-selection, the two tables indicate that players' perceptions of value for money from gaming machines are significantly lower than their perception of enjoyment.

Table 5.3 Enjoyment by venue patrons^a, 1999
Survey of 262 patrons of gaming machine venues

	<i>Very enjoyable</i>	<i>Quite enjoyable</i>	<i>Not very enjoyable</i>	<i>Not enjoyable at all</i>
	%	%	%	%
Visit to the venue	27	58	10	4
Playing the gaming machines	21	58	14	7
Having a meal or snack in the bistro or restaurant	67	29	2	2
Using the bar	35	62	1	1
Using the TAB/sportsbet	32	68	-	-
Going to the cinema/movies	41	38	9	8
Watching live sport at a venue	38	24	15	21
Going to opera theatre or a rock concert	27	26	16	27
Playing bingo	13	15	21	45
Going to a restaurant or café	64	29	4	2
Going to a once a year sporting event	44	23	10	20
Going to an exhibition or show	35	37	14	13

^a Rows may not add due to rounding. In a few areas a small percentage of respondents did not provide an answer.

Source: sub. D286.

Table 5.4 Perceptions of value for money^a, 1999

Survey of 262 patrons of gaming machine venues

	<i>Very good value</i>	<i>Quite good value</i>	<i>Not very good value</i>	<i>Not good value at all</i>
	%	%	%	%
Visit to the venue	23	41	21	13
Playing the gaming machines	14	38	24	23
Having a meal or snack in the bistro or restaurant	71	20	6	2
Using the bar	31	51	1	10
Using the TAB/sportsbet	36	44	12	4
Going to the cinema/movies	32	44	13	7
Watching live sport at a venue	26	39	18	13
Going to opera theatre or a rock concert	22	33	18	19
Playing bingo	16	18	16	40
Going to a restaurant or café	45	48	4	3
Going to a once a year sporting event	33	32	13	15
Going to an exhibition or show	30	40	19	7

^a Rows may not add due to rounding. In a few areas a small percentage of respondents did not provide an answer.

Source: sub. D286.

The importance of winning on reported perceptions about satisfaction is demonstrated in table 5.5 using data from the same survey. Those who reported their experience as being ‘not very enjoyable’ or ‘not enjoyable’ were predominantly people who perceived that they were ‘down’ (had lost money) in their gambling activities.

Table 5.5 Relationship between perceived gambling outcome and reported of satisfaction^a, 1999

Survey of 262 patrons of gaming machine venues

<i>Satisfaction</i>	<i>Perceived outcome</i>				<i>All respondents</i>
	<i>Winning</i>	<i>Losing</i>	<i>About even</i>	<i>Not sure</i>	
	%	%	%	%	%
Very enjoyable	58	26	16	0	100
Quite enjoyable	22	57	19	1	100
Not very enjoyable	6	94	0	0	100
Not enjoyable at all	0	100	0	0	100

^a Rows may not add due to rounding. In a few areas a small percentage of respondents did not provide an answer.

Source: sub. D286.

Information on ex-post perceptions of enjoyment and value for money from a product such as gambling should be treated with some caution. Gambling involves two aspects, the chance of winning money and the entertainment in playing. The potential for winning money is an attribute that exists only so long as play continues. As most players lose money by the end of a gambling session, perceptions of value and satisfaction after gambling has occurred need not give an accurate picture of the value of that activity to consumers. In much the same way, asking someone at the end of the year whether they have got value for money from their insurance would be misleading when, in most cases, claims had not been made. The insurance is nonetheless valued and can be expected to be renewed into the next year. The fact that most people continue to spend significant amounts on gambling products means that, notwithstanding some reservations about consumption by problem gamblers, the industry does provide services that consumers value.

5.3 How can we measure the benefits to consumers?

The benefits that consumers gain from the consumption of any good or service is commonly measured within an economic framework as ‘consumer surplus’ — a measure of their preparedness to pay over and above the cost of purchasing the product (box 5.4).

Box 5.4 What is consumer surplus?

Consumer surplus is a term used in economics to refer to the difference between what a consumer pays for any particular quantity of a product and the maximum amount which he or she would be prepared to pay rather than do without it.

Take, for example, water. Water for drinking is highly valued, and consumers would be prepared to pay a very high price for that essential use. Other uses are less important and consumers would pay less for water for such uses. However, water is abundant and quite cheap to provide. Its high value uses are readily supplied, with considerable excess left over for lower value uses. Consumers pay for water at the low price reflecting its additional (or marginal) lower value uses. This same price typically applies to all the water consumed, even that (for drinking) with a very high value to the consumer. Consumers are thus paying less for the water than its value to them. That difference is the consumer surplus.

This preparedness to pay reflects the value that consumers place on a product in comparison with alternative products and thus indicates the gain to consumers from

that product or service being available³. Consumer surplus is measured by looking at the level of current consumption, and the extent to which this consumption would change if the price were to change. For example, if the price of a product were to rise significantly, but consumers continued to buy almost as much, we would say that they value the product highly. The way in which consumption changes when prices change is referred to as the ‘price elasticity of demand’ (box 5.5 and appendix C).

- Typically the less change there is in the quantity purchased when prices change (a lower price elasticity), the higher will be the estimate of consumer surplus; and
- conversely, the greater the change in the quantity purchased when prices change, (a higher price elasticity), the lower will be the estimate of consumer surplus.

Box 5.5 What is the ‘price elasticity of demand’?

The price elasticity of demand (referred to sometimes as the ‘own’ price elasticity of demand or just the elasticity of demand), measures the extent to which the quantity consumed of a particular good changes when its price changes. A product is said to have more elastic demand (that is, be more price sensitive) when the quantity purchased changes proportionately more than the price. For example:

- if the price halves, but consumers purchase three times as much, demand is said to be elastic; and
- if the price halves and consumers purchase only 10 per cent more, demand is said to be relatively inelastic.

A product will typically have more elastic demand (a higher price elasticity) if there are close substitutes, or if it is viewed as a discretionary item. That is, if the price were to rise, people could readily purchase something else as a substitute, or just more easily do with less of it. If there are few substitutes, or the product is a necessity of life, consumers may not be able to reduce the quantity purchased, even if the price were to rise considerably. Such products are said to have inelastic demand, or a low price elasticity.

³ In measuring the consumer surplus from gambling liberalisation, pre-existing illegal gambling is ignored. To the extent that some consumers gambled prior to liberalisation (albeit at higher cost) some of the measured surplus already existed. Conversely, there are some gains for consumers and society from the displacement of illegal gambling which are also not measured (appendix O).

5.4 Measuring consumer benefits from the gambling industries

Estimates of consumer surplus for the Australian gambling industries are scarce. The Commission has come across one conducted for New South Wales (box 5.6), and ACIL (sub. 155) made an indicative estimate in its original submission to this inquiry (box 5.7).

Box 5.6 A consumer surplus estimate for New South Wales

In estimating the consumer surplus resulting from the introduction of the Casino in New South Wales, Swan (1992) said:

When the Sydney Casino is introduced, a kind of gambling service that is presently not available (or at least only illegally) becomes available. Not only does it compete to some extent with existing types of gambling such as poker machines but, more importantly, those who enjoy gambling in casinos receive a considerable benefit. This benefit is over and above what they pay for the service. What they will pay has been estimated ... at between \$450 and \$550 million p.a. in 1997.

The benefit which gamblers will receive is estimated ... to be of the order of \$162 million per annum for 1996-97 This represents 29% of the anticipated casino revenue (gambler's casino expenditure) [\$550 million].

In assessing the estimated benefit of \$162 million p.a. it must be acknowledged that the magnitude of the benefit could be influenced by the assumptions of the model, in particular the CES specification and the fairly arbitrary way in which a prohibitively high 'price' was assigned to the casino prior to its introduction.

Source: Swan (1992, pp. 55-57 and p. 86).

Box 5.7 ACIL's consumer surplus estimate for Australia

Using a linear demand curve, three numerical examples have been calculated:

1. If price elasticity of demand equals $-1\frac{1}{2}$, the rule is: "*multiply total expenditure by 0.3*"
2. If price elasticity of demand equals -1.0 , the rule is: "*multiply total expenditure by $\frac{1}{2}$* "
3. If price elasticity of demand equals $-\frac{1}{2}$, the rule is: "*multiply total expenditure by 1*"

Broadly speaking these statements explain the relationship between consumer surplus and total expenditure. Since we believe price elasticity of demand for gambling as a whole is between $-\frac{1}{2}$ and -1 , but closer to -1 , it seems we can support a general statement along the lines of: "consumer surplus is likely to be more than half the cash outlay."

On this basis, in 1996-97, when according to the Tasmanian Gaming Commission the net outlay on gambling in Australia was \$10,037 million, a gambling consumer surplus estimate of greater than \$5,000 million but less than \$10,000 million seems reasonable.'

Source: Extracts from sub. 155, p.91.

The Commission's estimates

There are essentially three components of the Commission's estimates of the benefits derived from the availability of gambling:

- the benefits accruing to the majority group of recreational gamblers (measured as their consumer surplus retained after consumption taxes);
- the revenue accruing to government through taxes on gambling (essentially a transfer of part of the consumer's potential surplus to government); and
- the estimated shortfall in value-for-money for problem gamblers as a result of their excessive level of spending on gambling.

Of these, the third represents a significant departure from the normal presumptions in economic modelling of consumer sovereignty and rational consumption behaviour.

Should problem gamblers be treated differently?

This question is central to the approach used by the Commission to 'discount' the benefit that problem gamblers gain from their consumption of gambling products.

Chapter 4 looks briefly at the literature on 'rational addiction', and chapter 6 looks in some detail at people with gambling problems and their behaviour. These indicate that problem gamblers (particularly those with more severe problems) behave quite differently from the vast majority of recreational gamblers. In particular, they demonstrate an impaired capacity to control their gambling expenditure.

On the basis of this, the Commission has concluded that problem gamblers should be treated differently from other consumers when estimating the benefit they derive from their gambling activities. The Commission's estimate of the 'discount' to the benefit that this group receives, however, is considerably less than that implied in many other studies — which typically count all the expenditure by problem gamblers as a cost for which they receive no benefit. This is one of the reasons why some estimates of the social costs of gambling, particularly in US studies, are so high.

The Commission considers that it is unrealistic to presume that problem gamblers gain no benefit at all from the money that they spend. Among other things, survey evidence suggests the contrary. Consequently, the Commission has included some benefit for problem gamblers in its estimates. This is explained in more detail in appendix C and summarised later in this chapter.

ACIL (sub. 155), in presenting their indicative estimate of (at least) \$5 billion per annum for the consumer surplus generated by the gambling industries in Australia (box 5.7), took a different approach in the treatment of consumption by problem gamblers. They said (p. 61):

Quite apart from the very approximate nature of the estimate, it will be noted that we see no need to make any downward adjustment to account for the claim that part of the consumption of gambling is addictive... In our view, there are no credible grounds for doubting that expenditure on gambling reflects the true preferences of consumers. In other words, we contend that the willingness to pay in excess of costs is, in this case as in others, a *genuine* addition to the welfare of the consumers involved.

The Commission maintains that it would be misleading to treat demand by problem gamblers in the same way as the majority of recreational gamblers. In particular, it is unrealistic to believe that problem gamblers (who spend a very high share of their income on gambling, and suffer a range of other financial, family and personal costs) are not only receiving benefits equivalent to their spending, but are also receiving a significant consumer surplus. The behaviour of many problem gamblers — reporting an inability to control their gambling despite a desire to do so, and their use of self exclusion policies and other devices to constrain their behaviour — strongly suggests that they are not making consumption decisions in this area in the same way as recreational gamblers (see chapter 6).

There may also be reservations about the nature of preferences for gambling products for consumers in general, which, if accepted, would have significant implications for the long-run cost to society of any significant reduction in the availability of gambling opportunities (box 5.8). While this is an interesting area for speculation, the Commission has not included it in its analysis.

Box 5.8 What if tastes change over time?

There are many apparent inconsistencies in community attitudes towards, and values placed on, access to gambling.

- Revealed demand indicates that consumers value the product highly, yet the majority of the same consumers say that the industry does more harm than good, and typically they report low levels of satisfaction after consuming.
- At the same time, those opposed to the expansion of gambling point to the fact that in the remaining jurisdiction without extensive access to gaming machines (Western Australia) the pressure for expansion comes not from consumers 'deprived' of an apparently highly valued product, but from the suppliers.

(continued)

Box 5.8 continued

If the consumers' taste for gambling is not as high or as stable as assumed by the standard economic analysis underpinning the estimates of benefit, this could have significant implications for the balance of costs and benefits for society over time.

The estimate of consumer surplus measures the value to consumers from the availability of gambling. It also indicates what could be lost if gambling were unavailable. Were the industry to be banned, consumers would suffer a net loss equivalent to their consumer surplus each year in perpetuity. But this assumes that consumers' tastes for products and services are unchanging over time — an assumption that underpins neo-classical economic analysis, though one that is not universally accepted.

If preferences were not stable, and the preference for gambling declined over time with the lack of availability, the costs in terms of lost consumer satisfaction would reduce as the years went by, but the gain from restricted access in terms of gamblers who do not become problem gamblers in the future would be a permanent and ongoing benefit. In time, the balance of costs and benefits would well change to one where the benefits of restricting access to gambling exceeded the costs.

The implications for policy, however, are problematic. Accepting that exogenous preferences are an important component of consumer demand could lead to calls for the banning or restricting of a whole range of products and services, from X rated videos to fatty foods, on the grounds that consumers will, in time, no longer miss the product. The danger is that a range of, at best paternalistic, and at worst intolerant and authoritarian, restrictions could evolve. Nevertheless, it does suggest that some caution should be exercised when using estimates of consumer surplus derived for the gambling industries.

Key data required to make these estimates are:

- the share of expenditure accounted for by problem gamblers;
- the sensitivity of the demand for gambling to changes in its price, for each category of consumer; and
- the level of tax collected.

What is the share of expenditure by problem gamblers?

The Commission's *National Gambling Survey* indicated that an estimated 2.1 per cent of the adult population are experiencing significant problems associated with their gambling. This is equivalent to 293 000 people. The extent of problems faced by those in this group are, however, quite varied, and in estimating the benefits derived by problem gamblers, the Commission has distinguished between two broad groups of problem gamblers — 'moderate', and 'severe' problem gamblers. The basis for identifying the two groups of problem gamblers is outlined in appendix P.

Of the estimated 293 000 problem gamblers, the Commission estimates that 163 000 have moderate, and 129 000 severe problems. While problem gamblers are a small percentage of the number of adults in Australia, their expenditure on gambling is high. As a group, they accounted for an estimated 33 per cent of the money spent on gambling in 1997-98 (table 5.6).

Table 5.6 The number and spending of problem gamblers^a

		<i>Moderate</i>	<i>Severe</i>	<i>All problem gamblers</i>
Number	No.	163 388	129 348	292 736
Per cent of adults	%	1.2	0.9	2.1
Per cent of gambling expenditure	%	8.3	24.8	33.0
Per person spending	\$	5 443	20 662	12 168

^a The number of people involved, and the shares of expenditure are from the Commissions' 1999 *National Gambling Survey*. The dollar values of expenditure are based on annual gambling expenditure for 1997-98.

Source: PC *National Gambling Survey* and PC estimates.

The significance of problem gambling varies considerably among the different modes of gambling (table 5.7)

Table 5.7 Share of spending (loss) accounted for by problem gamblers by different gambling products, 1997-98

	<i>Annual spending (\$ million)</i>			<i>Share of spending (per cent)</i>		
	<i>Australians (1997-98)^b</i>	<i>Moderate problem gamblers</i>	<i>Severe problem gamblers</i>	<i>Moderate problem gamblers</i>	<i>Severe problem gamblers</i>	<i>All problem gamblers</i>
	\$m	\$m	\$m	%	%	%
Wagering	1 600	152	377	9.5	23.5	33.1
Lotteries	1 179	43	24	3.7	2.1	5.7
Scratchies	246	28	19	11.3	7.8	19.1
Gaming machines ^a	6 401	554	2 156	8.7	33.7	42.3
Casino games ^b	895	73	22	8.2	2.5	10.7
Other	449	38	74	8.5	16.5	25.0
All gambling^b	10 771	889	2 673	8.3	24.8	33.0

^a Includes gaming machine expenditure in casinos. ^b Excludes tourist expenditure.

Source: PC *National Gambling Survey* and appendix P.

Shares for the individual forms of gambling should be treated as indicative only. For some forms of gambling — particularly ‘casino gaming’ and ‘other gaming’ — the number of survey respondents who were regular players or who were problem gamblers in that mode were relatively low, leading to significant standard errors

associated with the averages used. The estimates are more robust for gaming machines and lotteries, where the number of players is much greater.

Overall, the Commission is confident that its estimates of expenditure shares for the gambling industry in aggregate are robust, given the size of the Commission's *National Gambling Survey* and the similarity of the result with those generated by earlier studies in Australia (chapter 7).

How sensitive is the demand for gambling products to changes in price?

Most studies have generated relatively high estimates for the price elasticity of demand for gambling. They imply that, as the price rises, the quantity of gambling (that is, the amount staked) falls by significantly more than the increase in price, and thus the amount of money spent (lost) falls. As discussed in appendix D, the Commission has reservations about the robustness of these estimates and considers that they overstate the sensitivity of gambling demand to changes in price.

This view was implicitly shared by those undertaking modelling work on behalf of the industry (notably the CIE and ACIL). These participants commented on, but did not use, the literature results, preferring to use numbers implying considerably more inelastic demand for gambling products. That is, they considered that, with any rise in the price of gambling, the quantity consumed would fall, but by significantly *less* than the price rise, resulting in consumers spending more on gambling than they did previously.

A number of participants questioned the value of estimating consumer surplus when there is some uncertainty about the responsiveness of gamblers to changes in price. The AHA (NSW) (sub. D208, p. 14) said:

Given the range, our view is that the elasticity concept employed is explaining nothing about the behaviour of gamblers when prices change. It follows that if elasticity cannot be measured within a meaningful range then consumer surplus cannot be measured.

Uncertainty about the elasticities of demand for gambling does not mean that consumer surplus does not exist, or that consumers do not benefit from access to gambling products. It does mean that some caution should be exercised in using estimates of consumer benefit. Such estimates can only be indicative. However, as the subsequent analysis by the Commission shows, the benefit to consumers is found to be substantial, and remains so when using a wide range of elasticities.

In estimating consumer surplus, the Commission has treated problem gamblers differently from the majority of recreational gamblers. In addition, to reflect the fact

that problem gamblers are not a homogeneous group, a distinction has been drawn between moderate and severe problem gamblers.

- Recreational gamblers are likely to be more sensitive to changes in the price of gambling products. For these consumers, gambling is just one of a range of recreational activities and thus it is reasonable to consider that they could more readily shift to alternatives if the price of gambling increased. This category would thus have a higher price elasticity of demand than other gamblers.
- Moderate problem gamblers are considered to be less sensitive to price changes. Such gamblers report some problems with control of their gambling activity, and thus a lower price elasticity is assumed for this group.
- Severe problem gamblers are a more difficult category. They could be expected to be the least sensitive to price changes, as the need to continue gambling is so great. But some may already be gambling with all the money that they have at their disposal, thereby constraining their ability to respond to price changes. It is likely, however, that this situation only arises at the extreme end of the problem gambling spectrum. The Commission has therefore assumed that severe problem gamblers are the least sensitive to changes in the price of gambling products.

Because of the lack of certainty about the way individual groups of gambling consumers react to price changes, the Commission has used a high and a low elasticity for each of the identified groups. These elasticities have been chosen to reflect a reasonable range of the likely responses of gambling consumers. The range of elasticities for the demand for gambling used in estimating consumer surplus for each category of gamblers are shown in table 5.8.

Table 5.8 Price elasticities of demand for gambling used in the Commission's estimates of benefits^a

	<i>Low demand elasticity</i>	<i>High demand elasticity</i>
Recreational gamblers	-0.8	-1.3
Moderate problem gamblers	-0.6	-1.0
Severe problem gamblers	-0.3	-1.0

^a Percentage change in expenditure on gambling given a 1 per cent change in the price of gambling.

An estimate of recreational gamblers' surplus

For most consumption (that undertaken by recreational gamblers), the presumption that the surplus represents a *genuine* addition to the welfare of consumers is a reasonable one. While the Commission has identified widespread and persistent misperceptions about the nature of gambling products in the general community (chapter 16) which may imply some 'overconsumption' of gambling products, even

by recreational gamblers, no adjustment has been made to the estimate of consumer surplus for this group.

The Commission has estimated that, for the two thirds of expenditure on gambling accounted for by recreational gamblers, the consumer surplus is some \$2.7 billion to \$4.5 billion each year. The higher estimate results from the low elasticity assumption, the lower estimate represents the higher elasticity situation. This represents the consumer surplus retained by recreational gamblers after tax has been paid to government (table 5.9). The total benefit should include the tax paid, and this is presented in the following section.

Table 5.9 Estimated consumer surplus retained by recreational gamblers, 1997-98

<i>Consumer surplus for recreational gamblers</i>	
	\$ million
Wagering	410 — 666
Lotteries	427 — 693
Scratchies	77 — 124
Gaming machines	1 404 — 2 281
Casino games	305 — 495
Other	129 — 210
All gambling	2 745 — 4 460

Source: PC estimates: appendix C.

Tax revenue, licence fees and community contributions

State and Territory governments collected \$3.8 billion in tax revenue from the gambling industries in 1997-98. In addition, gambling providers have paid a range of gambling licences to the various state and territory governments, some as up-front fees at the time of the granting of the licence, and some as an annual payment. The Commission has estimated an annual value for these licence payments of \$233 million. Clubs, particularly those in New South Wales, make a range of community contributions (for which, in part, they receive concessional tax treatment). In these estimates of benefits, an annual figure of \$246 million has been used as the community contribution of clubs from their gaming machine revenues (chapter 21).

These payments represents a transfer of some of the consumer surplus potentially available to consumers to the government, or to others in the community via community contributions. That is, in the absence of the tax, the estimated consumer surplus retained by consumers would be higher to the extent of the tax revenue collected (together with a small amount representing the impact that the high prices have on the level of consumption), and thus the tax collected should be included in

estimates of the consumer benefits generated by the availability of gambling products.

For simplicity, the Commission has assumed that all the tax revenue collected from the gambling industries is ultimately borne by consumers, and thus the full value of taxes is included with other consumer benefits estimated here. In practice, not all of the tax may be borne by consumers, some may be carried by the gambling industries. The extent to which tax falls on consumers and producers depends on the nature of the demand and supply conditions associated with the industry. Box 5.9 presents an estimate made by ACIL of the distribution of tax between consumers and producers).

Box 5.9 Industry estimate of the distribution of taxes between consumers and producers

“Revenue from product taxation is sometimes not regarded as part of producer surplus (or consumer surplus). Yet here taxation is very high, and unquestionably producers bear a proportion of it. Their burden depends on the tax rate and the ratio of the supply and demand elasticities.”

“Assume for illustrative purposes a supply elasticity of 2.5, a demand elasticity of -0.7 (which is the lower bound of the PC’s preferred range of demand elasticities), and a tax rate of 40 per cent. Of the total of almost \$4 billion in gambling taxes collected last year, the producers’ share of the taxation burden would be one-seventh, or \$0.6 billion.”

“This figure would represent a lower bound of the producer surplus measured according to our preferred methodology. First, the total tax estimate excludes the annualised equivalent of the substantial lump sum licence fees that have been paid by most operators. Second, to reflect traditional producer surplus, any earnings above cost earned by producers (such as those with special skills, or sites) should be added.”

Source: Excerpt from sub. D233, pp 34-35.

This allocation of the tax burden between consumers and producers does not, however, have any impact on the estimate of the total benefit derived from the availability of gambling in Australia. The total of the tax revenue collected, including that from licence fees, would be included in such an estimate of benefits whether borne by consumers or producers. Nonetheless, the Commission considers that it is more appropriate to allocate the tax revenue to consumers as there are few signs that costs in the gambling industries would go up as the industry expands. Indeed, in many areas, economies of scale are an important factor. This implies that a supply elasticity of 2.5 (box 5.9) is too low. A higher elasticity would result in a greater share of the tax being borne by consumers.

Table 5.10 below presents information on the total of tax revenue collected, licence fees paid and community contributions for gambling as a whole and for the different forms of gambling.

Table 5.10 Gambling tax revenue, licence fees and community contributions, 1997-98 (\$ million)

	<i>Estimated tax revenue paid by recreational gamblers</i>	<i>Estimated tax revenue paid by moderate problem gamblers</i>	<i>Estimated tax revenue paid by severe problem gamblers</i>	<i>Estimated revenue from tourist spending</i>	<i>Tax revenue collected 1997-98</i>
Wagering	409	58	144	-	611
Lotteries	784	31	17	-	832
Scratchies	140	20	14	-	174
Gaming machines	1 364	205	797	-	2 365
Casino games	170	16	5	89	280
Other	38	4	8	-	51
All gambling	2 826	349	1 048	89	4 312

Source: PC estimates: appendix C.

Estimates for problem gamblers

As noted, in making its estimates, the Commission has assumed that problem gamblers benefit only from part of their gambling expenditure. The part from which they derive a benefit is the level of spending that they are assumed to have undertaken had they not become subject to compulsive gambling behaviour. The Commission has estimated this non-compulsive or 'recreational' level of spending based on the expenditure by regular recreational gamblers in each mode of gambling (table 5.11).

Problem gamblers are estimated to be spending an average of \$12 200 each on their total gambling activities in 1997-98. Based on the level of spending by regular non-problem gamblers, the Commission has assumed that, in the absence of their compulsive behaviour, problem gamblers would have spent \$1496 per head, some 13 per cent of their current level of spending, but more than twice that of the average for recreational gamblers as a whole.

In relation to this smaller level of expenditure, problem gamblers are treated in the same way as recreational gamblers, with their consumer surplus being confined to the smaller level of consumption that would occur in the absence of their compulsive behaviour.

Table 5.11 Spending by recreational gamblers and a ‘recreational’ level for problem gamblers, 1997-98 (all gambling)

<i>Type of gambler</i>	<i>Current spending</i>	<i>Current spending per head</i>	<i>Alternative ‘recreational’ spending</i>	<i>Alternative ‘recreational’ spending per head</i>
	\$ million	\$	\$ million	\$
Recreational	7 209	644	-	-
Moderate problem	889	5 443	244	1 496
Severe problem	2 673	20 662	194	1 496
All problem	3 562	12 168	438	1 496

Source: appendix P.

Spending in excess of the estimated ‘recreational’ amount for problem gamblers is assumed not to provide them with ‘value for money’. That is, the benefit they receive is less than the amount of money spent. Overall, the lack of value for money on their excess spending exceeds the consumer surplus from the ‘normal’ level of spending, resulting in a ‘negative’ consumer surplus or ‘deficit’ for this group of consumers.

This is not to say that problem gamblers get *no* benefit out of the spending in excess of the recreational level. In its response to the draft report, the Australian Casino Association (sub. D234, p. 13) wrongly concluded that ‘... the PC arbitrarily applies an expenditure cap, above which it is assumed that problem gamblers receive no benefit’. Problem gamblers do get a benefit, but this benefit declines progressively as expenditures increase and is less than the amount that they pay for the higher consumption.

In making its estimate of the level of spending by problem gamblers that would occur in the absence of their compulsion, the Commission has taken the hypothetical situation where those concerned had not progressed to problem gambling — a situation that could exist if effective harm minimisation and prevention measures were in place in the gambling industry. Under this scenario, it is reasonable to presume that such gamblers would be more enthusiastic players than most, and thus the level of play of *regular* non-problem players is considered a more appropriate benchmark than the level of play of all non-problem players.

As with other assumptions in this analysis, this is a contestable point. Were, for example, the alternative level of spending chosen on the basis of the level of spending that problem gamblers would undertake were they to be ‘cured’ of their compulsive gambling habit, the level of spending is likely to be considerably lower than that used by the Commission. Some 80 per cent of gamblers in counselling say that they wish to quit gambling completely rather than continue at ‘managed’ levels. Assuming a lower level of spending for problem gamblers in the absence of their

compulsion would increase the ‘loss’ attributed to the problem gambling group and decrease the level of benefit estimated for the gambling industries.

The Commission has also assumed that, at the ‘recreational’ level of consumption, the demand characteristics would be the same as for recreational gamblers; that is, a range of demand elasticities of -0.8 to -1.3, rather than the more inelastic demand assumed to apply to their level of consumption as problem gamblers. This is consistent with the Commission’s treatment of the alternative level of spending for problem gamblers as the level of spending that they would have undertaken had they not developed problems.

On this basis, problem gamblers would be spending \$438 million a year on gambling activities, rather than their current expenditure of some \$3.6 billion. The ‘loss’ (lack of value for money) on their spending in excess of this \$438 million, is considerably greater than any consumer surplus on the lower consumption amount. The net ‘consumer surplus’ for this group thus becomes negative — estimated to be a shortfall of \$2.7 billion each year (table 5.12)⁴.

Table 5.12 Estimated loss for problem gamblers, 1997-98 (\$ million)

	<i>Annual spend by moderate problem gamblers</i>	<i>Annual spend by severe problem gamblers</i>	<i>Loss for moderate problem gamblers</i>	<i>Loss for severe problem gamblers</i>
Wagering	152	377	76 — 77	315
Lotteries	43	24	20	7
Scratchies	28	19	19	13
Gaming machines	554	2 156	244 — 245	1 908 — 1 910
Casino games	73	22	18 — 19	(15) ^a
Other	38	74	18	59
All gambling	889	2 673	404 — 406	2 288 — 2 290

a Note that for casino games, severe problem gamblers are estimated to receive a positive benefit rather than a loss.

Source: PC estimates: appendix C.

In contrast, Blandy and Hawke (subs. D193 and D211) considered that the inelastic demand observed from current consumption by problem gamblers should be retained when estimating the benefit and loss in relation to their assumed ‘recreational’ level of spending. The Commission does not consider this appropriate

⁴ Note that, despite the significant difference in the elasticities used in relation to problem gamblers’ ‘recreational’ level of consumption (-0.8 and -1.3), there is very little difference in the estimates of the losses they face. This is because there are two competing factors at work. When a lower elasticity is used, the surplus on their ‘recreational’ level of spending is greater, but conversely, the estimated loss on their excess spend also increases. Because the two elasticities chosen are symmetrical around an elasticity of -1, this results in a very close offsetting result.

as both the high level of spending by problem gamblers and their insensitivity to price changes compared to other players are the result of their compulsive behaviour. In looking at spending in the absence of this compulsive behaviour developing, it seems reasonable that both the level of spending and the sensitivity to price changes would need to be modified.

Blandy and Hawke's assumption is more relevant to an alternative scenario of regarding the alternative consumption situation as relating to problem gamblers' likely behaviour *after being 'cured'*. To be consistent, however, it would also be necessary to impute a zero value for this alternative level of consumption (see above), which means that problem gamblers would be assumed to derive no benefit at all. As noted, the Commission does not regard this as reasonable.

Box 5.10 Alternative view on the treatment of problem gamblers

In a submission on behalf of the Hon. Nick Xenophon and others, Professor Richard Blandy and Dr Anne Hawke questioned the assumption that problem gamblers, in the absence of their compulsion, would have the same demand characteristics as recreational gamblers. Blandy and Hawke (sub. D193) described the Commission's analysis of the consumer surplus for gamblers as "clear and innovative", but considered that, for problem gamblers, the elasticity of demand used in the analysis should be lower than that used by the Commission, (0.3 rather than the Commission's lower estimate of 0.5) and the elasticity of demand for recreational gamblers should be higher (1.7 rather than the Commission's high estimate of 1.3). Blandy and Hawke further considered that, even as relates to the assumed level of recreational spending by problem gamblers, the very low price elasticity for compulsive consumption should be used.

Using these elasticities, and the Commission's methodology as outlined in Appendix C of the Draft Report, Blandy and Hawke (sub. 211) estimated that the consumer surplus would be \$3.2 billion. This compares to the Commission's current lower estimate of \$4.3 billion.

The choice by Blandy and Hawke of a price elasticity at the high end of the range for recreational gamblers and at the low end of the range for problem gamblers even for the assumed 'non-problem' level of consumption, serves to minimise the estimate of consumer surplus. For example, if the Commission were to use an elasticity of -1.7 rather than the -1.3 chosen for its 'high elasticity' estimates, the estimated consumer benefit would be \$599 million lower. At the hearing in Brisbane, Chris Murphy of ECONTECH was critical of Blandy and Hawke's choices of elasticities, noting that there was no hard evidence based on people's actual behaviour.

The Commission acknowledges that there is no hard evidence either way, but considers its own elasticity range to be more tenable for the ball park estimates provided here.

The overall benefits from consumption

Despite the net ‘loss’ for problem gamblers, the consumer benefits from the gambling industries are positive overall, estimated at between \$4.4 billion and \$6.1 billion each year. This benefit is made up of:

- between \$2.7 billion to \$4.5 billion of satisfaction or entertainment value (consumer surplus) for recreational gamblers;
- \$4.3 billion of tax revenue for government, licence fees and community contributions; and
- a loss of \$2.7 billion for the 2.1 per cent of the adult population classified as problem gamblers (table 5.13).

Table 5.13 The value of benefits for gambling consumers, 1997-98
(\$ million)

	<i>Consumer surplus for recreational gamblers</i>	<i>Tax, licences and community contributions 1997-98</i>	<i>Consumer loss for problem gamblers</i>	<i>Net total benefit/surplus</i>
Wagering	410 — 666	611	391 — 392	629 — 885
Lotteries	427 — 693	832	27	1 232 — 1 498
Scratchies	77 — 124	174	32	219 — 266
Gaming machines	1 404 — 2 281	2 365	2 152 — 2 155	1 617 — 2 491
Casino games	305 — 495	280	3 — 4	580 — 769
Other	129 — 210	51	77	103 — 184
All gambling	2 745 — 4 460	4 312	2 692 — 2 696	4 365 — 6 076

Source: PC estimates: appendix C

The adjustments to the consumer surplus estimates to account for the lack of value-for-money received by problem gamblers relate only to the direct dollar amount spent on gambling by the problem gambler. They do not include the other costs that problem gamblers face, nor the costs imposed on families or the community by problem gambling. These additional costs are estimated in chapter 9.

The treatment by the Commission of consumption by problem gamblers differs from that of many other studies (which have assumed that all of the money spent by problem gamblers represents a loss to both the gambler and society) and from the view of many in the industry (which is that all of the spending by problem gamblers should be treated in the same way as spending by any other consumer). While the Commission does not accept these views, a comparison of the results based on them is presented in table 5.14.

Table 5.14 Comparison of alternative benefit estimates (\$ million)

	<i>All spending by problem gamblers is a loss</i>	<i>All spending by problem gamblers is a gain</i>	<i>Productivity Commission estimate</i>
High elasticity	3 495	8 497	4 365
Low elasticity	5 210	12 613	6 076

Source: PC estimates.

The Commission also examined how the estimates of the benefits from gambling would differ if moderate problem gamblers were treated in the same way as recreational gamblers, and were thus allocated the full apparent benefit from their consumption.

Table 5.15 Results if moderate problem gamblers are treated as recreational gamblers: all gambling, 1997-98 (\$ million)

	<i>Benefit if adjusting only the consumption of severe problem gamblers</i>	<i>Productivity Commission estimate</i>
High elasticity	5 176	4 365
Low elasticity	6 444	6 076

Source: PC estimates.

As can be seen from table 5.15, treating moderate problem gamblers as recreational gamblers goes only a little way towards the estimated benefits using the industry's assumption that all problem gamblers gain the full benefit from their consumption. This is because severe problem gamblers account for the bulk of gambling expenditure by all problem gamblers. While the extent to which moderate problem gamblers benefit from their expenditure may be debatable, it is difficult to accept that severe problem gamblers are gaining full consumer benefits from their excessive levels of spending.

5.5 What other benefits are there for the Australian economy?

Contribution to economic activity

The gambling industries are now a significant part of the Australian economy. Some 20 000 people were employed in casinos, 13 000 at TABs, sports betting and bookmakers, and nearly 3000 in lottery businesses. In addition, about 120 000 people were employed in clubs and hotels with gambling facilities in 1997-98, although this includes employees associated with non-gambling aspects of these

organisations. Based on data supplied by the ABS, the Commission has estimated that the value added in the gambling industries amount to some \$3.5 billion, or about 1.5 per cent of GDP in 1997-98 (chapter 2).

Gambling has links to other sectors of the economy, including the suppliers of gambling equipment, which rely on the demand generated by gambling. In some regional locations, establishments providing gambling services have become major players in the local recreational and entertainment sector. In the gaming machine manufacturing sector a successful and growing export business has been developed, with Australian machines recognised as among the most sophisticated in the world (see appendix N).

Industry representatives typically identify the employment and activity of the gambling industries as the principal benefit they provide to the Australian economy. ACIL (sub. D233 p. iv) said:

if government were to treat the industry more like other industries, its GDP and job contribution would be bigger than these figures suggest.

Similarly, the Council of Community Clubs of Australia and New Zealand (sub. D226, p.3) said:

The Club Movement is a significant generator of economic activity and wealth creation. There are some 3,868 licensed clubs in Australia (ABS 1999b). The majority of clubs are located in regional Australia. Country clubs are a major local hub of economic activity. Clubs are important in terms of capital expenditure and expenditure on training. Total employment for all clubs in 1997-98 was 67,272. In addition there are a substantial number of voluntary workers that do not appear in the ABS figures. Club directors alone are estimated to provide over 3 million hours annually in voluntary labour.

In looking at the contribution of an industry to the economy, it is important to distinguish between measures of an industry's size and measures of its net contribution, especially when considering liberalisation. It is also important to distinguish between the net economic impacts associated with the policy-induced expansion of an industry and that of policy-induced contraction.

Industry size and net contribution

Some \$11 billion was spent by Australians on gambling in 1997-98. Spending on gambling has also grown rapidly as more jurisdictions have legalised an increasing range of gambling opportunities. However, in the absence of gambling, this spending would largely have occurred elsewhere (the impact of changes to the rate of savings is discussed later in this chapter). In the absence of gambling those other industries that would have received the consumers' dollar would have grown,

invested, employed people, and produced value added in much the same way as the gambling industries have done.

The important message is that measures of an industry's size (denoted by such things as investment, turnover, employment etc) are not measures of the net contribution of an industry to the wellbeing of the community or the economy. They are essentially a measure of the amount of the community's resources that are used in the industries, in response to the spending of consumers. In the absence of any particular industry, including gambling, neither the consumer spending, nor the resources of labour, capital, land etc, would disappear. There are alternatives available for both the consumer spending and for the resources used in the industry. While consumers prefer these alternatives less, they would nevertheless also have contributed to the economy in terms of their use of capital and labour, had gambling not been liberalised.

The AHA (NSW) expressed reservations about the ability of resources used in hotel gambling to move to other uses. They said (sub. D208, p. 15):

There is not prima facie evidence that capital would flow to other industries in Australia...

Specifically, the Commission's arguments on full employment of resources would, if taken to their conclusion, mean that no individual industry creates an economic benefit for the Australian economy. The sum of all industry's economic value would be nil which is absurd.

The AHA (NSW) comment raises a number of points. First, full employment is not essential to the argument that, over time, labour and other resources will shift to alternative uses in response to the redirection of consumer spending, only that the level of unemployment is largely unchanged by such developments. While there is considerable debate over the causes of systematic levels of unemployment, there is little evidence that unemployment rates are significantly affected by policies assisting particular industries. In its report on *Telecommunications Equipment, Systems and Services*, the Industry Commission (1998b, p. 93) noted:

Empirical studies of unemployment among different countries suggest that industry policy does not have a large roll to play in ameliorating the problem [unemployment] (Layard, Nickell and Jackman 1991; Nickell 1997). Factors such as employment programs, industrial relations laws and institutions, and the social security and tax system are much more important long run determinants.

Similarly, Chris Murphy, in work presented by the Australian Hotels Association (sub. D231, p.22), said:

In the long-term, the unemployment rate depends on labour market policy rather than industry policy. That is, in the long-term, industry policy affects the industry pattern of employment not the total level. Thus the PC [Productivity Commission] is correct in

arguing that the gambling industry, like any other industry, does not affect the unemployment rate in the long term.

This is not to say that there cannot be some regional effects from development projects. The existence of high rates of unemployment, which can persist for long periods of time at the regional level, together with other rigidities in markets that limit the ability for price signals to reflect the availability of such underutilised resources, means that there may be gains from some regional development policies. For the economy as a whole, the effect is more questionable. However, subsidised growth in one region can still be at the expense of a more efficient location elsewhere.

There can also be significant regional impacts where the location of gambling changes the pattern of consumption. For example, the Queensland Government (sub. D275, p. 5) pointed to the increase in Queensland club and hotel revenues and associated declines in revenues for clubs in Northern New South Wales which previously relied heavily on the patronage of Queenslanders.

Second, the fact that there are alternative uses for resources does not imply that the sum of all industries' contribution to the economy is nil. Obviously if the government stopped production in all industries the resources would be idle and there would be little left of the Australian economy. But this is not the comparison in question. The comparison is between the use of the resources in one particular industry compared to the many alternatives available, not between the use of the resources in an industry and not using them at all.

Third, to say that there is no evidence that capital would flow to other industries is clearly at odds with the history of the growth of the Australian economy. Over the last 50 years or more there have been huge changes in Australia's industrial structure. And the aggregate level of unemployment, while it has varied over time has been remarkably robust in the face of these structural changes.

The comment by the AHA (NSW) does, however, raise an important distinction between what would have been had the gambling industries not been liberalised, and the situation that would occur if those industries were now to be significantly curtailed. While in time resources would shift to other uses, there would be adjustment costs in the short-term. Skills and knowledge may be specific to the industry and staff may need to be retrained. The AHA (NSW) (sub. D208, p.ii) said that '... resources ... would not flow seamlessly to other uses in the absence or contraction of the gambling industries.' and:

The vast majority of hoteliers are in the business because it is their work as well as their investment. Their skills and experience would not be transferable to other industries. ... Obviously, in long business cycles there will be periods of greater and lesser

profitability and participants will stay in an industry waiting for better times rather than lose their intangible investment (i.e. their knowledge of the industry) and have to pay for capital movement, adjustment costs and imperfect resource mobility. (p. 15)

In addition to industry-specific skills, much capital equipment is unique to the gambling industries and could not be converted to other uses (though some could be exported). Too rapid a contraction would mean that gambling enterprises could sustain significant capital losses.

The CIE (sub. 111) explored these adjustment costs by modelling (on behalf of Aristocrat) the impact of a tax increase that reduced activity in the gambling industry by 1 per cent. They undertook this analysis by using a general equilibrium model using 'short-run' conditions which include limits on the ability of labour and capital to adjust to changes in the industry. The model showed a reduction in GDP of \$105 million and an increase in unemployment of 2539 people in the short-run as the result of a 1 per cent contraction in the gambling industries. However, the long-run modelling yielded only minor changes (see below).

In this chapter the Commission has measured the benefits that have resulted from the growth of the gambling industries in Australia, not the costs of dismantling them. In so doing, it has not 'discounted' its estimate of the benefits to take account of the adjustment costs to other industries that were associated with the growth of gambling. In the same way that the benefits are not 'discounted' by the adjustment costs for other industries, they are not 'inflated' by estimates of the adjustment costs that would result from the contraction of gambling.

Measuring changes in the economy

The Australian economy contains a complex network of linkages between industries, consumers, governments and the international economy. Some industries are suppliers to others, some are in competition for the consumers' dollar. Some are labour intensive, some are not. The general equilibrium model is the tool that has been developed to assist in understanding the impacts that a change in one industry can have elsewhere in the economy.

A number of such modelling studies have been undertaken to look at the impact of the gambling industries on the Australian economy (NIEIR 1997a; CIE, sub. 111; ACIL, sub. 155). ECONTECH also undertook economy-wide modelling for the Commission to help it to understand the effects of the expansion of gambling on the

economy, and to assist in understanding other modelling results presented by participants in the inquiry⁵.

A summary of the studies and their findings are presented below.

Table 5.16 Economy-wide impacts from modelling changes to the gambling industries.

<i>Model and simulation</i>	<i>Change to the gambling industries</i>	<i>GDP</i>	<i>Employment</i>	<i>Real wages</i>	<i>Private consumption</i>	<i>Exports</i>	<i>Retail trade</i>
NIEIR (rise in gambling from 1992-93 to 1995-96)	\$1 500m 150% rise	\$1 143	20 200	na	\$829m 1%	na	na
CIE (1 per cent reduction in gambling industry)	(-\$100m)	-\$106m	-2,539	fixed	-\$133m	na	0.2%
ACIL (50 per cent cut in gambling taxes)	2.09 (\$209m)	0.00%	fixed	0.36%	0.03%	-0.11%	0.00%
ECONTECH (reduction in gambling to 1993-94 level)	gaming machines (-19%) casino (-55%)	0.0%	fixed	-1.9%	0.0%	0.1%	0.2%
(1 per cent reduction in gambling industry)	-1%	0.0%	fixed	0.0%	0.0%	0.0%	0.0%

Sources: NIEIR (1997a); CIE, sub. 111; ACIL, sub. 155; ECONTECH (1999).

What do these results tell us?

While each of the models presented in table 5.16 above have been structured in different ways, and have modelled the results of different changes to the gambling environment, they all indicate that there is a benefit to Australia from the liberalisation of the gambling industries. The overall gains are small, reflecting the fact that general equilibrium models take into account the range of alternative goods and services on which consumers can spend their money, and the range of activities in which resources can be used in response to the change in consumption patterns. It is important to note, however, that none of the models include any of the external or

⁵ A copy of the ECONTECH report *Taxation and Regulation of the Australian Gambling Industries*, July 1999, is on request from the Productivity Commission, and is available from the Commission's internet site www.pc.gov.au/inquiry/gambling.

social costs of problem gambling, which can be expected to offset some proportion of the estimated benefit (chapters 9 and 10).

That aside, other aspects of the models also raise questions about the scale and nature of the impacts estimated.

- The NIEIR modelling generated significant net gains for Victoria because it assumed that the increased spending on gambling was all new spending. That is, other than some minor substitution between different forms of gambling, consumers did not reduce their spending on other goods to finance the increased spending on gambling. Increased spending was drawn from savings, and thus there was little offsetting contraction in other consumption industries. (The likely role of savings is discussed in the following section.)
- The CIE estimated the impact of an increase in the tax rate on gambling and the subsequent contraction in gambling activity. Importantly, as already noted, the CIE ran the general equilibrium model in short-run mode, which severely limits the extent to which resources leaving the gambling industries can find alternative uses in the economy. These unemployed resources thus show up as a significant loss to the economy. While the results tell us something about the short-term effect of a shock to the gambling industry and the economy, they tell us little about the contribution of an industry to the economy, which is more appropriately evaluated over the longer term when investment and other decisions can change in response.
- The ACIL and ECONTECH results presented above are run in a more traditional fashion and over the longer term. ACIL modelled the impact of a reduction in gambling taxes, while ECONTECH modelled the effect of industry re-regulation and an increase in gambling taxes. Both indicate that the gambling industries make a positive net contribution to the Australian economy. Both models assume that, over the longer term, real wages adjust to maintain the same level of employment in the economy.

That said, ACIL's results involved tax reductions for gambling that were not offset by increased tax revenue elsewhere in the economy, but were offset by increased productivity in the public sector. These results have not been presented in table 5.16, as they tell us more about the potential gains from increased efficiency in government than about the gains to the economy from the gambling industries.

While general equilibrium models can help us understand the likely effects of a change throughout the economy, they are necessarily simplifications of the real world, and the results are presented in quite an aggregated form. Significant changes can be occurring at lower levels, notwithstanding even a quite small net effect. Nonetheless, general equilibrium models do allow us to take into account alternative

uses for the consumers' dollar and alternative uses for the employment and capital in an industry. Importantly, they allow us to avoid the misleading impression of large gains that are indicated by the often used (but inappropriate) input-output based multiplier analysis.

What is the role of savings?

An issue that has arisen in the debate over the impact of the growth of gambling is whether the expansion of gambling expenditure has come from a decline in the rate of savings in Australia, or has come from consumers switching their expenditure from other forms of consumption. The issue is important because if expenditure in the new industry were to come from consumers running down their levels of savings — that is, they do not reduce their consumption of other goods — it is possible to have increases in the overall level of activity in the short-run.

The proposition that increases in consumer spending on gambling have been derived largely from savings, originated in a report by NIEIR and Spiller Gibbins Swan Pty Ltd (1997). This study concluded:

The decline in household savings between 1990 and 1996 funded increased outlays on gambling, retail and services in Australia and Victoria. (p. iii)

and:

The funding of increased gambling expenditure at the state level from savings is supported by empirical analysis at the state-wide level and some industry perceptions (p. v).

The conclusion of this study was used by the NIEIR in its modelling of the effect of gambling on employment in Victoria. It said:

... the fundamental position adopted is that up to 1995-96, at least new gaming expenditure largely represents new expenditures in the Victorian economy that would not otherwise have been made. This is in contrast to earlier methodologies applied by NIEIR in gambling studies which argued that expenditures of Victorian residents on new gambling activities would largely represent displacement of other forms of expenditures (NIEIR 1997a, p. 79).

The consequence of this assumption is that little displacement occurred and the model indicated that the expansion of gambling in Victoria increased employment by 34 700, and that this was sufficient to have reduced the Victorian unemployment rate by 1 percentage point in 1995-96 (p. i).

The extent to which the increased expenditure on gambling is drawn from reductions in savings is debatable. ACCESS Economics, in a submission for

Tattersall's (sub. 156), reviewed trends in gambling expenditure and savings and concluded:

The overall conclusion from this material is that changes in gambling expenditure have been only one of a number of substantial changes in household expenditure over the last decade or so. There is no reason to single out changes in gambling as having in any way a "special" impact on savings (p. 15).

In addition, as much gambling expenditure is undertaken by people with low incomes and little discretionary savings, it is hard to see how the increase in gambling expenditure could be funded by a fall in savings.

The Commission's *National Gambling Survey* asked regular gamblers the following question: 'if you hadn't spent the money on gambling, could you please tell me in what other ways might you have used it?' The results, presented in chapter 6, indicated that only 15 per cent would have saved the money, while one third indicated that they would have spent it on other forms of entertainment.

Other studies have generated similar results (box 5.11).

Even without these reservations, any benefits to employment and output are short term. Savings are essentially deferred consumption. If savings are reduced to increase consumption in the present, consumption in the future must be lower. Drawing additional expenditure from savings does not, in the longer-term increase the level of activity in the economy, and to the extent that savings are essential for investment and growth, it is likely to generate a larger reduction in future consumption.

Box 5.11 Alternative uses of gambling expenditures

A number of surveys have asked gamblers about the alternative uses for gambling expenditure, either in terms of where the current spending has come from or what the money would be used for if gambling were not available. One survey of community gambling patterns and perceptions (Roy Morgan Research 1999, p. 65) said:

Respondents were also asked where the money they used to gamble with came from. Most (38%) said they used money from their wage/job or pension. While 32% of respondent used 'pocket money' to gamble with, 9% said they took money from their entertainment budget. Money for transport, food or other bills, from general savings or from a special gambling budget were each the source of gambling outlay for 2% of gamblers ...

Another survey, (Melbourne Institute et al. 1997), conducted as part of a report on the impact of gaming venues on inner city municipalities in Melbourne, asked gaming machine users what they would do with the money and time that they spend on gaming machine gambling if they could not use it on gaming machines.

(continued)

Box 5.11 continued

The study commented (p. 65):

... 65.1 per cent of respondents indicated that they would not devote any of the money they devote to EGMs to savings. On the other hand 13 per cent indicated that they would devote all the money to savings. The remainder said that they would devote some of the money to savings. On average it emerges that respondents indicated that they would devote about 21 per cent of the money to savings.

The response for “other entertainment” were very similar, indicating that on average about 21 per cent of the funds would be devoted to “other entertainment”. A smaller proportion, about 15 per cent would be devoted to household necessities and much the same again to other personal items.

Other gambling would not increase much at all with nearly 90 per cent saying that they would not spend any of the money on other gambling and under one half of one per cent saying that they would spend it all on other gambling.

Spillovers

A number of participants also referred to ‘spillover’ or multiplier effects from their activities. The Council of Community Clubs of Australia and New Zealand (sub. D266 p.3) said:

‘The Club Movement provides spin off benefits to other industries, particularly the tourism sector. The Club Movement supports campaigns that promote tourism activity nationally, statewide and in regions to the benefit of a wide range of non-contributing businesses.’

Others pointed to the purchase of a range of goods and services by their businesses and the employment and activity associated with their supply. These links are generally referred to as multipliers, and these multiplier ‘benefits’ — the activity and employment in supplier industries — are often added to the employment and activity in the particular industry in question.

But these multipliers just compound the fallacy that an industry’s net contribution to the economy is the amount of resources it uses. As consumer spending shifts to other areas, they too employ people and invest, and equally ‘generate’ employment and activity in supplier and associated industries. There is no reason to believe that these links or multipliers are any greater or smaller than those of the gambling industries. Multipliers are simply measures of the links that an industry has in the economy, not a measure of the net benefits that it generates (chapter 4).

How important are tourists to gambling revenues?

Gambling facilities, particularly casinos, are often established with the objective of gaining significant revenues from tourists, typically out-of-state visitors, but also overseas visitors. The South Australian Government (sub. D284, pp. 7-8) said:

However, although it [regional development] may be a zero sum game nationally, there may be some benefits from a regional perspective if South Australia can preserve a stake in the national tourism market.

The Australian Casino Association (sub. 124, p. 13) said that, in 1996-97, 13.6 per cent of casino visitors were from outside the local region, 0.4 per cent were international commission players, and a further 2.8 per cent were other international players. While international visitors are a very small percentage of the number of visitors, they represent a much more significant percentage of casino revenues. The ABS estimated that, in 1997-98, overseas visitors accounted for \$536.5 million (or 25 per cent) of casino revenue.

The deregulation of gambling has enabled Australia to offer new or better tourist packages for overseas visitors and, to the extent that this generates additional tourist spending, there are likely to be benefits for the economy as a whole. At the same time, the provision of gambling locally is likely to reduce the number of local residents travelling overseas to gamble, though the extent of this is unknown. Deregulation has an effect similar to the discovery of new mineral resources for the export market. While there will be some offsetting adjustments to other export activities to maintain Australia's overall balance of payments, there is nonetheless a net gain to the economy. However, the modelling conducted for the Commission, and by others in submissions to the inquiry, indicate that the net benefits are small.

Box 5.12 Does the level of foreign equity matter?

Tabcorp (sub. D232, pp. 6-7) referred to the low level of foreign equity in the Australian gambling industries, reporting that cinema distribution results in a much greater share of funds flowing offshore (23.8 per cent, presumably as a return on foreign equity) than the gambling industries (1.5 per cent). Given the high level of foreign investment in the Australian economy (and increasing investment by Australians overseas), it is inevitable that some industries will have a higher share of foreign equity than others. In much the same way Australians' overseas investments may be concentrated in particular industries. The fact that Australians have chosen to invest in the gambling industries rather than cinema distribution does not in any way mean that one industry in some way provides greater benefits for the Australian economy than the other. Were Australians to sell their shares in the gambling industries and purchase shares in cinema distribution, this would have no impact on the relative worth of the two industries to the Australian economy.

Summing up

The gambling industries generate a significant net benefit to consumers, even when discounted for the likely shortfall in value received by problem gamblers. This overall benefit is estimated at between \$4.4 and \$6.1 billion a year.

The gambling industries also account for substantial employment and value added in the economy. However, the net gain in employment and activity from the (policy-induced) expansion of the gambling industries are small at the aggregate level when account is taken of the impact on other industries that lose the consumers' dollar to gambling.

6 What is problem gambling?

Box 6.1 Key messages

- Problem gambling has many impacts — such as relationship breakdown, financial problems and crime.
- There are a number of frameworks for understanding problem gambling, but problem gamblers often share a common set of characteristics, such as 'chasing' losses, lying about their gambling and lack of control.
- Problem gambling is generally not regarded as a mental illness for the bulk of the people who are affected by it, but some will need clinical assistance to resolve their problems.
- It is not useful to look at problem gambling as a 'rational' addiction — the evidence does not support the view that problem gamblers' decisions are well informed or always rational.
- It is difficult to measure problem gambling among populations, and no existing single test instrument is perfect. The Commission has used the South Oaks Gambling Screen, self-assessment questions and other indications of harm from gambling to try to estimate the prevalence of problems. This three-way approach is better than relying on a single measure.
- Problem gambling is *not* only about people with severe problems or those needing counselling help. It is very important to see problem gambling as a continuum — with some people having moderate problems and others more severe ones. Public policy is appropriately directed at those who need help to resolve their problems, those whose lives are adversely affected without needing clinical or counselling intervention, and those who are at risk of developing problems.
- The Commission estimates that about 130 000 people have severe problems with their gambling, or about 1 per cent of the adult population. But a further 163 000 people are estimated to have moderate problems, which while not requiring 'treatment', warrant policy concern. In sum, around 293 000 people or 2.1 per cent of adults, are estimated to be experiencing significant problems with their gambling. And still others are at risk.
- On the basis of self-assessment questions, the Commission estimates that 250 000 adults (or 1.8 per cent of the adult population) have experienced significant harms as a result of gambling in the past year.
- Gamblers were also asked to self-rate whether they experienced problems with their gambling. On this basis, about 6.3 per cent of adults experienced some problems with their gambling — though it should be stressed that these were mainly minor.
- The prevalence of problem gambling varies by the mode of gambling, with higher prevalence for regular players of gaming machines, racing and casino table games. For example, around one in five weekly gaming machine players have significant problems. The prevalence of problem gambling is much lower among lotteries.
- The average duration of gambling problems is around 9 years.
- Problem gambling varies by state, with New South Wales having the highest rate — probably reflecting the greater availability of gaming machines.
- There are few clear socio-demographic factors that pre-dispose people to a higher likelihood of developing problems, with the exception that younger people (aged 18 to 25 years) are disproportionately represented among problem gamblers.

6.1 Introduction

While gambling is a pleasurable recreational pursuit for many, for a few it gives rise to problems. Those people spend increasing amounts of time and money on gambling, may lie about their gambling, find it difficult to control the impulse to gamble, and engage in socially destructive behaviour to continue to gamble (from relationship breakdown to crime).

This and the next two chapters examine aspects of problem gambling. In this chapter, we initially consider its definition and scope (section 6.2 and 6.3). The notion that problem gamblers are wholly rational — which has been proposed by some — is also examined. The Commission then considers some of the limitations in existing methods for trying to decide who is a problem gambler (section 6.4 to section 6.8). In particular, an obstacle to interpreting prevalence rates of problem gambling is that the level of gambling-related harms associated with scores on tests of problem gambling remains relatively unexplored. Section 6.6 therefore looks at these associations as a way of appraising the appropriate thresholds for measuring the prevalence of problem gambling.

Having developed an understanding about how to test for the presence of problem gambling, the Commission presents evidence on the prevalence of gambling problems (section 6.9). Section 6.10 then examines the socio-demographic characteristics of problem gamblers to help establish which groups are most vulnerable, while section 6.11 looks at the duration of gambling problems.

In the following chapter (chapter 7) the nature of impacts of problem gambling are discussed, including the extent to which these impacts reflect problem gambling, or pre-existing problems. Chapter 7 also examines empirical evidence on the financial impacts of problem gambling; the effects of problem gambling on the personal lives of problem gamblers, others and on Australian workplaces; and the issue of crime related to problem gambling.

Finally, chapter 8 examines evidence on the link between gambling accessibility and problem gambling — a link clearly relevant to government measures aimed at ameliorating problem gambling.

6.2 Defining problem gambling

There are a variety of definitions of problem gambling, from those that emphasise psychological features, such as loss of control, to those that list the variety of harms facing gamblers (box 6.2).

Box 6.2 **Some definitions of problem gambling**

The situation when a person's gambling activity gives rise to harm to the individual player and/or to his or her family, and may extend to the community (Market Solutions and Dickerson 1997, p. 2).

Problem gambling encompasses all of the patterns of gambling behaviour that compromise, disrupt or damage personal, family or vocational pursuits (National Council on Problem Gambling [US] 1997).

Preparedness to spend heavily, combined with frequent participation, implies that some gambling activities are strongly desired, and potentially habit forming. If the habit can become so strong that it leads to serious social consequences, then that is grounds for community concern about the regulation of gambling, and the measures in place to deal with its consequences (Tattersall's, sub. 156, p. 6).

Problem gambling may be characterised by a loss of control over gambling, especially over the scope and frequency of gambling, the level of wagering and the amount of leisure time devoted to gambling, and the negative consequences deriving from this loss of control (Select Committee on Gambling, ACT, 1999, p. 12 based on Hraba and Lee, 1996).

We use the term "normal" to define gambling behaviour over which the individual has control — that is, the person knows when to stop, having set pre-determined loss limits or having other work, family, or social commitments to attend to. On the other hand, we define "problem gambling" as gambling behaviour over which the person does NOT have control or which the person finds very hard to control and which contributes to personal, economic and social problems for the individual and family (Mental Health Association of Australia, sub. 51, p. 4).

Problem gambling is any pattern of gambling behaviour that negatively affects other important areas of an individual's life, such as relationships, finances or vocation. The mental disorder of "pathological" gambling lies at one end of a broad continuum of problem gambling behaviour (Volberg, Moore, Christiansen, Cummings and Banks 1998, p. 350).

...we will use 'pathological' and 'compulsive' gambling in an equivalent sense to describe gamblers who display clear signs of loss of control. 'Problem' gambling is used to refer to the wider group of people who show some but not all signs of developing that condition (Blaszczynski 1998b, p. 13).

Problem gambling is defined as a chronic failure to resist gambling impulses that results in disruption or damage to several areas of a person's social, vocational, familial or financial functioning.... Excessive gambling is used to describe a level of gambling expenditure that is considered to be higher than can be reasonably afforded relative to the individual's available disposable income and as a result produces financial strain (Blaszczynski, Walker, Sagris and Dickerson, 1997).

There is no concrete equation which formulates the sum of when gambling becomes a problem ... (Tasmanian Gambling Industry Group, sub. 120, p. 6).

Pathological gambling is a progressive disorder characterised by a continuous or periodic loss of control over gambling; a preoccupation with gambling and with obtaining money with which to gamble; irrational thinking; and a continuation of the behaviour despite adverse consequences (Richard Rosenthal quoted in Ferris 1995, p. 1).

There are a number of features widely recognised as characteristics of problem gambling, although not all of these aspects have to be present in a person who is

regarded as being a problem gambler (for example, see Dickerson, Baxter et al. 1995, p. 97). The aspects include:

Personal and psychological characteristics, such as difficulties in controlling expenditure; anxiety, depression or guilt over gambling; thoughts of suicide or attempted suicide; use of gambling as an escape from boredom, stress or depression; thinking about gambling for much of the time; and giving up formerly important social or recreational activities in order to gamble. As one gambler put it to the Commission:

My feeling of head spinning and confusion stops me from resisting the clubs and pubs with those gaming machines which are located so conveniently close to my home and shopping stores. There is always a ghost pushing me to sit in front of those very attractive gaming machines and encouraging me to put all my money into the machine to see the magnificent magic it does to my money (telephone comments from a gambler to the Productivity Commission — translated from Mandarin).

Gambling behaviours, such as chasing losses, spending more time or money on gambling than intended and making repeated but failed attempts to stop gambling.

Interpersonal problems, such as gambling-related arguments with family members, friends and work colleagues; relationship breakdown, or lack of time with the family.

Job and study problems, such as poor work performance, lost time at work or studying, and resignation or sacking due to gambling.

Financial effects, such as large debts, unpaid borrowings, and financial hardship for the individual or family members (either in the present, in the case of high gambling commitments out of current earnings, or in the future, in the case of assets that are liquidated to finance gambling).

Legal problems, such as misappropriation of money, passing bad cheques, and criminal behaviour due to gambling. In severe cases, these may result in court cases and prison sentences.

The primary, though not only, source of the problem associated with problem gambling is the financial loss (and the context in which these have been made) — which then has a range of repercussions for the social and personal life of the gambler. This is unlike alcohol or tobacco, where the harms appear to stem mainly from the *quantity* consumed. This aspect of gambling has two ramifications:

First, affordability becomes very important. As Blaszczynski, Walker, Sagris and Dickerson (1997) note:

Level of expenditure and time spent are in themselves inadequate criteria because they are relative to each person's available leisure time and disposable income, factors which are found to vary enormously across socioeconomic classes.

A high income gambler who loses \$10 000 a year out of an income of \$200 000 will probably not suffer significant adverse consequences, whereas the same expenditure out of an income of \$20 000 will probably entail highly problematic outcomes. This could be contrasted with alcohol, where high income is not an antidote to the ill-effects of high consumption.

Second, changes in the price of gambling (the odds) — whether brought about by altered tax arrangements or market developments — have their primary impact on problems through the change in expenditure they generate, not through the change in quantity consumed (cf alcohol or tobacco).¹ This is an issue taken up further in the taxation chapter (chapter 19).

6.3 A framework for assessing 'problem' and 'pathological' gambling

The *characteristics* of problem gambling — such as chasing losses, preoccupation, and conflict over gambling — are relatively easy to pinpoint and agreed on by many psychologists and psychiatrists. Different combinations of these characteristics form the basis for tests of whether a person is likely to be a problem gambler or not. However, the conceptual framework in which these problems are to be understood remains somewhat elusive. There remain disagreements over its causes, definition and framework. As noted by Star City Casino:

Analysis of the phenomenon is made more difficult by the various behavioural, psychological, medical and sociological explanations for it... Outside the pathological,

¹ This has an implication for the way the effect of price changes are considered. In a product where there are some harms from consumption (like tobacco and alcohol), policymakers are interested in the price elasticity of demand — the extent to which a proportional increase in price affects the proportional level of demand:

$$\epsilon = \left| \frac{p \cdot \partial q}{q \cdot \partial p} \right|$$

For gambling, interest centres on expenditure, and policymakers are now interested in:

$$\mu = \left| \frac{p \cdot \partial(pq)}{pq \cdot \partial p} \right| = \epsilon - 1$$

So the responsiveness of gambling expenditure to price increases is much less than the responsiveness of the quantity of gambling (eg time spent playing). Clearly, if the demand for gambling is inelastic for a given problem gambler (ie $\epsilon < 1$) then an increase in prices raises expenditure (and thereby probably harms).

addictive behaviour the definition of what is a gambling problem is even more difficult. Every person would have their own opinion on what constituted a level of gambling that is a “problem” (sub. 33, p. 16).

What is the appropriate model?

It is customary, for example in the United States, New Zealand and many other countries — as well as Gamblers Anonymous throughout the world — to see problem or ‘pathological’ gambling as a psychiatric disorder, in which problem gamblers are categorically distinct from other gamblers. In the United States, pathological gambling (the term given to what is seen as a psychiatric condition) is routinely tested using a series of questions from the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, (DSM-IV) of the American Psychiatric Association. However, this ‘medicalised’ perspective of gambling has been questioned, particularly by Australian researchers² and also by those who prefer a broader epidemiological model that includes the impact of the environment in which gambling takes place (Politzer, Yesalis and Hudak 1992). For example:

I see pathological gambling as probably non-existent as a discrete entity. Evidence ... suggests that people who gamble may at times exceed certain arbitrarily defined limits... They may reflect little excesses, large excesses, episodic behaviour, frequent behaviour, accepted behaviour in a sub-culture, not accepted behaviour in a family culture (Allcock 1995, p. 114).

The concerns over the medicalised model arise because:

- the pattern of behaviours exhibited by problem gamblers do not consistently fit with typical conceptions of a genuine mental illness and ‘pathological’ gamblers do not appear to suffer a set of clearly defined mental symptoms which suggest a distinctive mental illness;
- the mental disease model tends to see problem gambling as a progressive disorder which can only be stemmed through lifetime abstinence, rather than as a continuum of problems of varying severity and duration;
- it tends to ignore the ways in which the social environment in which gambling takes place (including its promotion, education of users and machine design) affects prevalence rates and harm. A medicalised model tends to concentrate on ill people, rather than social processes which lead to harm;
- gambling has much greater social acceptability in Australia than in the United States or a number of other countries, and a wider spectrum of gambling behaviours are regarded as perfectly normal. It is argued that the use of

² For example, Walker (1995); Allcock (1995); Dickerson, McMillen, Hallebone, Volberg and Woolley (1997); and Dickerson (1997).

judgements about problematic behaviour based on another country's norms runs the risks of mislabelling some people as ill when they are not; and

- a concern that some of the nomenclature customarily used to describe the problem — such as the term 'pathological' gambler — may be perceived as pejorative and work against resolution of the problem (for example, Elliot Stanford and Associates 1998, p. 10).

However, some have noted that the avoidance of the psychiatric nomenclature in Australia may reflect a concern to downplay the significance of harmful impacts generated by gambling. The Commonwealth Department of Health and Aged Care noted:

Some researchers, however, consider that the process of re-definition can create a benign image for a potentially addictive activity while ensuring that responsibility for gambling-related problems is seen to rest with the individual rather than the gambling industry (sub. 163, p. 8).

Problem gambling sounds less severe than pathological gambling. More recent Australian nomenclature, which is couched in terms of departures from 'responsible' gambling, further weakens the perceived severity of these gambling behaviours, and thereby the motivation to intervene.

As well, there is a concern that if problem gambling is defined too imprecisely then it may lead to poorer outcomes for the people who are most affected. Walker (1998b, pp. 47-8) notes:

Interestingly, government policies in Australia and New Zealand differ in their stances towards gambling problems and their genesis. Excessive gambling in New Zealand is regarded as pathological, whereas in Australia a more pragmatic stance is taken. In Australia, whether or not excessive gambling is an illness is regarded as essentially irrelevant. Rather, excessive gambling causes problems for some people and it is those problems which must be addressed... In developing a coherent policy on the treatment of problem gamblers, this pragmatic stance constitutes a stumbling block.

Walker's concern is that because problem gambling is not seen as an illness, help services have mainly been oriented towards general counselling services, rather than the sort of therapies customarily used by psychiatrists or clinical psychologists in treating control disorders. Ralph Gerdelan, representative on the New Zealand Committee on Problem Gambling Management, echoed this viewpoint:

During 1997 the Compulsive Gambling Society, when it was running this service, ran an incidents book where there were some 411 suicide attempts out of a population of 1200 pathological gamblers engaged in treatment over the period of that calendar year. That's a very significant ratio... For that reason we see this disorder as fitting within mental health services where trained and registered clinicians working to best practice diagnostic standards are predominantly involved (transcript, p. 458).

As well, some expressed concern that because ‘compulsive’ gambling is not recognised as a psychiatric condition, certain legal recourses are not available for affected family members:

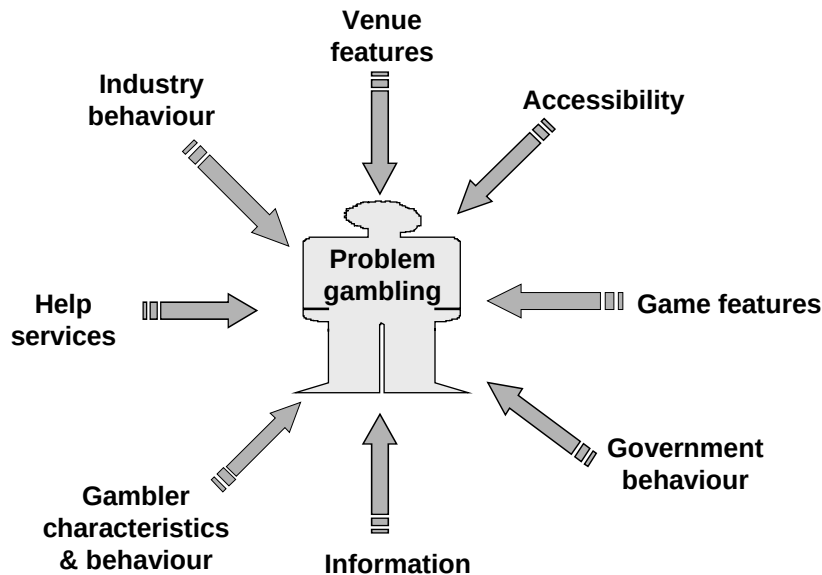
A gambler may present three or four criteria for scheduling under the Mental Health Act, ie, be jeopardising their financial security, damaging their reputation and destroying their family relationships. In compulsive gamblers, it is obviously gambling which is jeopardising their financial security. However, under the NSW Mental Health Act, gambling is not recognised as a psychiatric condition, so therefore it is not possible to force a compulsive gambler to have a psychiatric assessment... This failure to deal with gambling as a possible psychiatric condition means that if compulsive gambling is an extension of some other underlying disorder such as manic depression or chronic depression, this disorder goes untreated because it is not possible to have a psychiatric assessment (sub. C16, p. 1).

However, most Australian research and policymaking concerning gambling has avoided the psychiatric nomenclature and framework for problem gambling, in favour of *wider*, but less precise, definitions of harm (such as that of MS-D 1997 in box 6.2). The problems are typically couched in terms of harms experienced or perceived by the gambler or ‘significant others’ (people close to the gambler). The virtue of this approach is that it admits aspects of problem gambling that are ignored by the previous framework — such as problems that arise within certain ethnic or cultural groups over gambling, systematic misperceptions consumers may have over gambling, and risks posed by the venue in which gambling takes place (for example, alcohol and gambling) — without straightjacketing the concept into a single category of medical illness. This has implications for social policy, for example, by placing an emphasis on considering issues of informed consent, venue and gambling design, education and community awareness and other harm minimisation strategies.

The two divergent frameworks can be somewhat reconciled if it is accepted that problem gamblers are a heterogeneous group (Blaszczynski 1996; Dickerson 1995, p. 100; O’Connor in sub. 105) and that the problems emanate from a multiplicity of environmental, social and psychological facets (figure 6.1). O’Connor, noted that:

The genesis of problem gambling is multi-factorial ... Many excessive gamblers have a monetary motive (with faulty beliefs as to the likelihood of winning and/or pressing debts), and some are seeking relief from boredom. Yet others seem to use gambling as a means of escape from low mood, stress and anxiety, sometimes associated with intolerable life circumstances (sub. 105, p. 2).

Figure 6.1 **An epidemiological framework for problem gambling**



Thus, in some cases, the problems may stem from behaviours conditioned by the nature of the rewards offered by gambling. In others, problems may stem from a false understanding of gambling (the cognitive model). In others, the problems occur because of boredom, social isolation, depression or cultural factors. And if the reasons for problem gambling vary, so do the impacts, from relationship breakdown to financial and legal problems to depression and suicide. Given that problem gambling is multi-dimensional in this sense, it would seem appropriate to consider *some* problems as inherently medical (requiring treatment by associated experts). Equally, however, other problems may require different models of help and resolution. This is taken up in greater detail in chapter 16.

Is problem gambling a 'rational' addiction?

The bulk of the literature concerned with problem gambling takes a sociological, psychological or a psychiatric approach to problem gambling. Whatever their disagreements, these approaches are based on observations on the experiences of large groups of problem gamblers, and see problem gambling behaviour as clearly adverse for the individual affected.

However, a submission by ACIL (sub. 155, pp. 91–6), on behalf of some major gambling providers, argues that these conceptual frameworks are faulty and rely on the questionable assumption of consumer irrationality. Instead, ACIL proposed that gambling addiction could be persuasively seen as forward-looking rational

behaviour³ — the so-called ‘rational’ addiction model. The rational addiction approach provides an internally consistent approach to ‘addiction’ that does not require unstable preferences. The assumption that agents are generally rational and systematic in their patterns of behaviour is a generally attractive feature of models of human behaviour — and a strength of the rational addiction approach.

The rational addiction model is an economic theory, based on the idea that ‘forward looking’ compulsive gamblers (or indeed ‘addicts’ of heroin or alcohol) weigh up the pleasure of their consumption of gambling (now and in the future) against its costs. In this model, they are habituated to gambling, not because of irrationality, but because what they have consumed in the past increases the pleasure of current consumption. The model does not ignore the harms that are posed by the addiction. It posits that rational addicts weigh these harms against both the forgone pleasure of current and future consumption, and the trauma of cutting down or ceasing consumption.

However, unlike alternative frameworks for addictive behaviour, the model assumes that people act rationally at all points, so that their decisions always reflect their preferences. This has the implication that problem gamblers are better off with their addiction than without it:

Some critics claim that the model ... is unsatisfactory because it implies that addicts are “happy”, whereas real-life addicts are often discontented and depressed... Although, our model does assume that addicts are rational and maximise utility, they would not be happy if their addiction results from anxiety-raising events, such as a death or divorce, that lower their utility. Therefore our model recognises that people often become addicted because they are unhappy. *However, they would be even more unhappy if they were prevented from consuming the addictive goods* (our italics) (Becker and Murphy 1988, p. 691).

Indeed, under this model, the concept of a genuinely *problem* gambler (alcoholic or drug abuser) virtually vanishes altogether, because any problems faced by the gambler must, by definition, be outweighed by some offsetting personal benefits to explain the decisions that are observed. The model has major implications for the enumeration of the costs and benefits of gambling; namely:

- that none of the personal costs of gambling should be counted in cost-benefit analysis (which the Commission does in chapter 9); and
- that it would not be correct to discount the consumer surplus of problem gamblers in any way (as done in chapter 5).

³ However, the ACIL submission also describes problem gamblers as a ‘small number of people with deep seated personality disorders’ (p. 71), with the seeming implication that they are not perfectly rational. In any case, there is little evidence that problem gamblers could be generally characterised as having personality disorders.

However, the theory has a number of limitations, and it has not entered mainstream thought about addictions:

- The literature on rational addiction is relatively sparse. No empirical test appears to have been conducted applying the model to gambling in the economics literature.⁴ The tests that have been conducted — predominantly of tobacco and alcohol — do not adequately distinguish the rational addiction hypothesis from other possible explanations for the phenomena observed. They also suffer from other methodological limitations (Ferguson 1996).
- It is not clear why a person would choose to pre-commit to zero consumption (for example, via self-exclusions) if, at all times, consumption reflects personal preferences. Pre-commitment implies that a person wishes to bind future consumption because they are concerned about what their future selves may do (O'Donoghue and Rabin 1999).
- The model does not fit with the lived experiences of people with gambling problems, or the persistent misconceptions they have about winning (which are the object of cognitive therapies).
- It also ignores the substantial literature on impaired control that seems to be a consistent feature of many people with severe gambling problems (Baron, Dickerson and Blaszczynski 1995).⁵

It should be emphasised that if problem gamblers are not rational addicts, this does not imply that there is no rationality in their decision making. The alternative to 'rational addiction' is not 'insanity' as ACIL implies (sub. 155, p. 96). People may be boundedly rational when making consumer choices, and may suffer from misperceptions and periodic impaired control. They may, nevertheless, still exercise some controls over their gambling. For example, they may commence gambling close to the last race, take a certain amount of money to a venue and avoid going alone when gambling. The fact that problem gamblers remain rational about some of their gambling decisions and that problems emerge as a result of periodic and partial lack of control offers some hope for harm minimisation measures (as noted in chapter 16). It may be that one of the contributions of the rational addiction literature is to give greater weight to the ability to provide useful information and reasoning tools to people when they are making decisions about their gambling — but without taking this to the extreme level posited in the formal model.

While the Commission does not consider the rational addiction model an appropriate framework for analysis of problem gambling, it is important to note that

⁴ Using the EconLit database of economic literature.

⁵ While some aspects of what appears to be impaired control may not be inconsistent with rational addiction models (eg impulsivity could reflect high discount rates) others appear to be.

even if it were viewed as a credible model, it has far fewer implications for policy than read into it by ACIL. They posited the rational addiction approach as a justification for a minimalist government role in regulating gambling:

... since compulsions of various kinds are readily explainable as behaviour within rational bounds, we believe governments are not entitled to treat compulsive gamblers as insane people whose habits warrant paternalistic intervention to force them to desist (sub. 155, p. 96).

However, it is not certain that this conclusion follows from the model, once information imperfections and externalities are considered. The rational addiction model does not necessarily rule out government action:

- While people are forward looking, they do not have perfect information about the risks of problem gambling or the harms that it can involve.⁶ There may be public good grounds for providing information about the risks — and indeed Becker and Murphy (1988, p. 687) point out the efficacy of government provided information in stemming tobacco use in the United States.
- The model does not preclude government involvement in trying to research better ways of helping people who develop gambling problems or (on equity grounds) providing general assistance to problem gamblers and their families.
- Since significant costs associated with problem gamblers fall on others as externalities — such as family members or crime victims — this still justifies potential government actions to prevent problem gambling.

The most important policy-relevant conclusion from the rational addiction model is that prices can, counterintuitively, have substantial long-run effects on the level of addictive demand (Becker and Murphy 1998, p. 695):

Permanent changes in prices of addictive goods may have a modest short-run effect on the consumption of addictive goods. This could be the source of the general perception that addicts do not respond much to changes in price. However, we show that in the long-run, demand for addictive goods tend to be more elastic than the demand for non-addictive goods.

Once it is accepted that there are externalities from problem gambling, the rational addiction model would appear to justify high taxes on gambling as a measure to control problem gambling — although empirical models to confirm whether price elasticities conform with the pattern predicted by the model have not been estimated.

⁶ A point that Orphanides and Zervos (1995) develop.

What evidence can be used to illuminate problem gambling?

ACIL (sub. 155, p. 71) argued that ‘casual empiricism and folklore dominate most commentaries on problem gambling’ which raises the question of what sort of evidence should be adduced when looking at a phenomenon like problem gambling. The Commission does not consider that any one type of evidence is sufficient, and has considered a multiplicity of sources:

- the opinions of experts on gambling — such as sociologists, psychologists and psychiatrists;
- studies of people who have sought help for their gambling problems (and of associated significant others);
- surveys of special groups — such as prison populations;
- surveys of the general population;
- statistical techniques, which match data on problem gambling prevalence with social impacts — such as suicide and bankruptcy; and
- the personal anecdotes of problem gamblers and of counsellors and others who deal with problem gambling.

The use of personal anecdotes requires some comment, because they are sometimes rejected as sources of evidence.⁷ In the Commission’s view, while they cannot be used to *measure* impacts, such anecdotes can cumulatively provide scientifically useful information about problem gambling. They better illuminate how problem gamblers see their world and what sort of problems are posed by their behaviours. It is easy to understand the distress caused by a broken leg, because we can quickly identify with the nature of the problem. With psycho-social problems like problem gambling, we need to understand the dimensions (or the categories) of harm and the control mechanisms used by problem players — and anecdotes can help do this. Anecdotes also have the virtue that they provide evidence about the plausibility of some explanations for problem gambling, such as ‘rational’ addiction, which seem inconsistent with the lived experiences of those affected.

As well as reviewing the available Australian research, the Commission has also examined relevant overseas research, mainly in the United States, Canada and New Zealand. Overseas research is examined because:

- where Australian research results are not extensive (for example, adolescent gambling, expenditure shares of problem gambling, co-morbidities), it is common for Australian commentators to use overseas research as a guide to

⁷ For example, O’Neill, acting as a consultant for ACIL, considered that the anecdotes were ‘not scientific’ (ACIL, sub. D233, p. 91).

social impacts in Australia. In some cases this strategy may be appropriate, but in other instances, differences in gambling availability, demographics and social norms may render it inappropriate. By looking at comparisons of social impacts where both Australian and overseas data are available, it is possible to get an understanding of how valid it will be to use overseas data for circumstances where Australian data are thin;

- it provides scope for corroboration of Australian results. For example, if an Australian measure of a social impact of problem gambling is very different to that found overseas, and no obvious cultural, demographic or other factor seems to explain the difference, then it might suggest survey bias;
- it provides scope for better understanding the processes that underlie problem gambling. From an epidemiological perspective, it is desirable to have a variety of environments in which to measure risks. This is particularly important when looking at the question of the link between accessibility and problem gambling; and
- it may provide a guide to methodologies and data collection which should be undertaken in Australia.

In addition to already published research and existing databases (both in Australia and overseas), the Commission conducted three surveys to look more closely at problem gambling: the *National Gambling Survey*, the *Survey of Clients of Counselling Agencies* and the *Survey of Counselling Services*. Of these, we use the first two intensively in this chapter (box 6.3, appendix F and G).

6.4 How can problem gambling be tested?

In order to try to estimate how many Australians have gambling problems, a test is required. A range of tests are used by researchers to try to measure whether a person is a problem gambler, of which the two most common are:

- the South Oaks Gambling Screen (SOGS). This test — which has produced many minor variants — was developed by Lesieur and Blume (1987). The test poses questions about a gambler's behaviour, such as whether they 'chase' losses, have problems controlling their gambling, gamble more than intended, feel guilty about gambling and believe that they have a problem (box 6.4). Its prime focus is on the financial aspects of gambling; and

Box 6.3 The Commission's national and problem gambling client surveys

The National Gambling Survey

This survey was the first fully national survey into gambling behaviour and problem gambling prevalence to be carried out in Australia (appendix F). The survey was also the largest prevalence survey conducted in Australia and one of the largest carried out anywhere. It was implemented as a telephone survey of the general adult population (18 years or older). The sample of about 10 600 telephone interviews was stratified by area, age and gender. The sample was distributed across state/territory and metropolitan/country regions roughly in proportion to population, using the latest available Australian Bureau of Statistics (ABS) census data. However, coverage in the smaller states/territories was boosted to allow comparisons across jurisdictions to be made with reasonable statistical precision.

A sampling strategy was developed as a two stage approach. In *Stage 1*, a brief questionnaire (or 'screener') was completed by 10,600 adults, for the purpose of identifying whether a respondent was a non-gambler, a regular (weekly) gambler or a non-regular gambler. In *Stage 2*, a more detailed questionnaire was completed by respondents on the basis of a selective interviewing strategy: *all* respondents classified as regular gamblers were interviewed; 1 in 2 respondents classified as non gamblers were interviewed; and 1 in 4 respondents classified as non-regular gamblers were interviewed. Survey protocols were put in place to maximise the contact rate and to minimise non-response (refusals). The response rate achieved was equal to or better than previous Australian surveys and very similar to the recent survey undertaken in the United States for the National Impact Gambling Study Commission.

The questionnaire was vetted by leading Australian researchers in the gambling field.

The Survey of Clients of Counselling Agencies

This survey was implemented as a structured face-to-face survey (appendix G), with counsellors from counselling agencies acting as paid interviewers, using detailed instructions and random selection of candidate clients. It asked questions about expenditure, the nature of gambling, and comprehensive questions about the impacts of gambling (including some positive effects). It also included a standard set of socio-demographic questions.

The survey was implemented throughout Australia, and the results presented here are based on 404 returns, though in some cases, some respondents did not answer some questions. A non-response survey was also implemented for those clients who refused to participate at all, so as to confirm whether the sample of respondents who replied were statistically different from those who refused.

The survey went through a process of professional appraisal by Australian experts in the gambling field, and also obtained approval from the Ethics Committee of the Commonwealth Department of Health and Aged Care (since it amounted to human subject research).

Box 6.4 **The South Oaks Gambling Screen: the lifetime version**

1. When you gamble, how often do you go back another day to win back money you lost? (never; some of the time [less than half the time] I lost; most of the time I lost; every time I lost)
 2. Have you ever claimed to be winning money gambling but weren't really? In fact you lost? (never or never gamble; yes, less than half the time I lost; yes, most of the time)
 3. Do you feel you have ever had a problem with gambling? (no; yes, in the past, but not now; yes)
 4. Did you ever gamble more than you intended to? (yes, no)
 5. Have people criticised your gambling? (yes, no)
 6. Have you ever felt guilty about the way you gamble or what happens when you gamble? (yes, no)
 7. Have you ever felt like you would like to stop gambling, but didn't think you could? (yes, no)
 8. Have you ever hidden betting slips, lottery tickets, gambling money, or other signs of gambling from your spouse, children or other important people in your life? (yes, no)
 - 9a. Have you ever argued with people you live with over how you handle money? (yes, no)
 - 9b. If you answered yes to the previous question: Have money arguments ever centred on your gambling? (yes, no)
 10. Have you ever borrowed from someone and not paid them back as a result of your gambling? (yes, no)
 11. Have you ever lost time from work (or school) due to gambling? (yes, no)
- If you borrowed money to gamble or pay gambling debts, who or where did you borrow from? (check 'yes' or 'no' for each).
12. From household money? (yes, no)
 13. From your spouse? (yes, no)
 14. From other relatives or in-laws? (yes, no)
 15. From banks, loan companies, or credit unions? (yes, no)
 16. From credit cards (yes, no)
 17. From loan sharks? (yes, no)
 18. You cashed in stocks, bonds or other securities? (yes, no)
 19. You sold personal or family property? (yes, no)
 20. You borrowed on your checking account (passed bad checks)? (yes, no)

Scores are as follows. On question 1, score 1 if most of the time or every time I lost. On question 2, score 1 if less than half the time I lost or yes, most of the time. On question 3, score 1 if yes, in the past, but not now or yes. Ignore question 9a. On all remaining questions score 1 if a yes. A score of 5 or more suggests a person is 'probable pathological gambler' using the US nomenclature, and a problem gambler in Australia.

Source: Lesieur and Blume (1987, p. 1188).

-
- the DSM-IV. This shares many features of the SOGS, but has a greater emphasis on psychological aspects of problems, such as preoccupation, development of tolerance, irritability, and gambling as an escape (box 6.5).⁸

A variant of the SOGS (that asks about current rather than lifetime problems) has been applied in all past Australian problem gambling prevalence studies. The SOGS (or close derivatives) has been the most widely used test around the world. For example, it has recently been used by the New Zealand official statistics agency to investigate the prevalence of gambling problems there. It was also employed in the recent Swedish national prevalence study, and will be used in a UK prevalence study also being undertaken in 1999. Of recent national prevalence studies, only the national US study did not employ a variant of the SOGS.

However, just because the Commission used a variant of the SOGS does not mean that it considers that the test is without faults or that it is not worth devising and testing new instruments. Other tests have been, or are being, developed — an issue to which we return in section 6.8.

The SOGS is used to identify a more narrow range of problems than is encapsulated by the broad definition of harm that is now often used by Australian policymakers. This suggests that the SOGS will tend to miss some of the broader set of gambling problems that interest Australian researchers. The Australian approach has been a pragmatic hybrid between one based on accepting that the community and personal dimensions of problem gambling are broader than a clinical problem, and using a US ‘clinical test’ approach to measure some aspects of the problem.

The Commission used a variant of the SOGS in which people were asked about behaviours over the last 12 months associated with gambling. This is different to the original SOGS which asks about behaviours associated with gambling *ever* experienced by the respondent.⁹ The screen was used by the Commission in its *National Gambling Survey* and the *Survey of Clients of Counselling Agencies* so as to produce prevalence estimates of problem gambling which could be compared with others (although the Commission also used a number of other approaches to assess some of the prevalence of, and harms associated with, gambling).

⁸ Questions 1,2,3,4 and 5 on the DSM-IV have no counterpart in the SOGS, while item 3 matches SOGS question 7, item 6 matches SOGS question 1, item 7 matches SOGS question 8, item 8 matches SOGS questions 10 and 20, item 9 has weak associations with SOGS questions 5, 9b and 11, and item 10 has associations with SOGS questions 12,13,14,15,16 and 17. SOGS questions 3,4,6,18 and 19 have no counterparts in the DSM-IV.

⁹ It is also different to the SOGS-R which asks the SOGS questions on both a lifetime and a current period basis.

The original SOGS was validated by Lesieur and Blume in a clinical setting using a known group of client gamblers who satisfied the DSM-III criteria for ‘pathological gambler’. In the United States, a SOGS score of 3 or 4 is taken to indicate a ‘problem’ gambler; and a score of 5 or more a ‘probable pathological’ gambler (although these thresholds are hotly contested in Australia, as is the validity of using the test at all by some). In its development phase, the SOGS has been subjected to a range of validity and reliability testing — involving some 1616 subjects (Lesieur 1994). However, the original SOGS has been changed in many ways — from slight wording changes, to revisions for adolescent use, to changes in the period under investigation — and these versions have not been subjected to extensive validity tests.

There are a range of issues about how to interpret the results from any test of problem gambling. These seemingly esoteric academic issues are in fact crucial to policy analysis, since very different social impacts from gambling may be discerned depending on how the tests are interpreted. We turn to these issues next.

6.5 Problem gambling lies on a continuum

Ultimately, precise tests of problem gambling are impossible, because, as noted by Shaffer et al. (1997, p. ii-iii), the phenomenon itself lies on a continuum of differing degrees of severity (figure 6.2) from no problems (level 1 gambling) to severe problems (level 3 gambling). Therefore, constructing a threshold depends on *judgements about what levels of severity are policy relevant*. For example, some gamblers report that they gamble to make up for past losses — ‘chasing losses’. Given the odds, this is a self-defeating strategy, which in itself points to a consumer awareness problem of some sorts and which conceptually can be counted as part of the costs of gambling.

Box 6.5 The DSM-IV

A. Persistent and maladaptive gambling behaviour is indicated by *five (or more)* of the following:

1. is preoccupied with gambling (eg preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble),
2. needs to gamble with increasing amounts of money in order to achieve the desired excitement;
3. has repeated unsuccessful efforts to control, cut back, or stop gambling;
4. is restless or irritable when attempting to cut down or stop gambling;
5. gambles as a way of escaping from problems or relieving a dysphoric mood (eg feelings of helplessness, guilt, anxiety, depression);
6. after losing money gambling, often returns another day to get even ("chasing one's losses");
7. lies to family members, therapists or others to conceal the extent of involvement with gambling;
8. has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling;
9. has jeopardised or lost a significant relationship, job or educational career opportunity because of gambling;
10. relies on others to provide money to relieve a desperate financial situation caused by gambling.

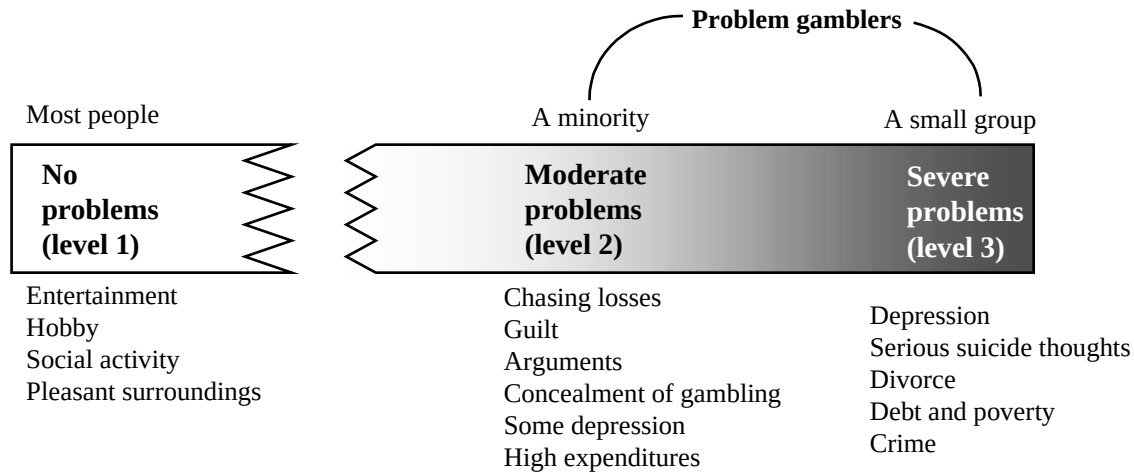
B. The gambling behaviour is not better accounted for by a manic episode.

The DSM-IV is a set of clinical criteria. On some occasions it has been implemented as a prevalence test. For example, the National Gambling Impact Study Commission used the criteria in a set of questions — the NORC DSM-IV Screen. The screen was implemented for people who has lost more than \$100 in a one day or across a year. A person getting a score of 1-2 is termed 'at risk, a person scoring 3-4 is termed a problem gambler, while a person scoring 5 or more is termed a 'pathological' gambler.

Source: Dickerson et al. (1997, p. 14), National Gambling Impact Study Commission Report (1999, p. 4-6).

The difficulty of identifying the 'right' threshold for problem gambling stems from the fact that 'cases' are not clearly defined where the severity of the problems varies along a continuum. In some areas of public health it is easy to define a case. For example, someone either has HIV or they do not. But with problem gambling (and a range of other possible areas, such as obesity and diabetes) it is not clear where along the continuum people can be said categorically to have a 'problem'. If the threshold for defining problems is set low then obviously a lot of people are said to be 'problem' gamblers, in the same sense that there will be a lot more 'obese' people if obesity is defined as being 10 per cent overweight rather than 20 per cent overweight.

Figure 6.2 **The gambling continuum**



How cutoffs for the SOGS (or for that matter a test of any problem which lies along a continuum) should be selected, depends on the purpose of the test. There are many possible purposes of tests, but we consider four in particular.

A test for determining who needs help

In some instances the purpose of the test is to calculate (from an epidemiological study of a national population) the number of cases of people who have problems relating to their gambling that require *intervention by help services* (level 3 problem gamblers). This number will be used to help estimate the resources needed to deal with the problem. Typically, in this instance a high threshold will be selected.

The method for rigorously determining this threshold is to examine how the harms associated with problem gambling vary as the test score rises. This is how thresholds are selected for other public health tests — such as diabetes and obesity.¹⁰ At some point, public health officials decide that the risks of costly morbidities (or mortality) justify the identification of a group of people who need active help. While single thresholds may be chosen as rules of thumb (such as the notion of a score of 30+ on the Body Mass Indicator for obesity), it is often recognised that different thresholds are required for different groups of people (for example, males versus females).

The important point is that determining the threshold for direct intervention should be based on evidence, rather than arbitrarily selected.

¹⁰ See for example, the evidence-based approach for diagnosis and treatment of obesity (http://www.nhlbi.nih.gov/nhlbi/cardio/obes/prof/guidelns/ob_home.htm).

A test of public health risks in the general population

In other instances the purpose of tests, like the SOGS, is to identify the number of people with public health or other risks which are significantly higher than the average — clearly a larger group than the one identified above (level 2 problem gamblers in figure 6.2).

Dickerson et al. (1996a) have usefully developed the notion of the ‘at risk’ gambler.¹¹ People identified in this at-risk group may experience harms from gambling, but not at levels which justify specific individual interventions. However, such groups may have large policy significance — being the target for public health campaigns, information provision and preventative strategies (either intended to cut the number of people in this at-risk group or to prevent the likelihood of people moving to the group which do need individual interventions).¹² If tests reveal large numbers of people in this group, governments may consider regulations or other policy instruments to deal with the problems.

A screening test in clinical and counselling settings

A test may be used as a screen to discriminate between people in a particular group who do not need ‘treatment’ and those who probably do. Screens are always intended to over-diagnose a problem, because it is recognised that the costs of under-diagnosis are often severe (for example, missing a genuine case of breast cancer because of poor screening is likely to be more costly than initial over counting of possible cases). Thus the thresholds set for screens are usually too low to be useful for epidemiological assessments of prevalence — and may generate excessively high prevalence rates.¹³

The SOGS had its origin as a screening tool — and this is one reason that some researchers have been concerned that it over-estimates the prevalence of problem gambling. In fact, there are some offsetting factors (see below) that suggest that the SOGS may still be useful for counting the number of people affected by gambling problems in the general population.

¹¹ Again an analogy is the concept of being overweight cf obesity.

¹² In the same way that government strategies aimed at limiting the excessive use of alcohol — especially when driving a car or using machinery — are not targeted at alcoholics, but at people whose consumption of alcohol is excessive for the context in which they find themselves.

¹³ As noted by Culleton (1989), Abbott and Volberg (1992, p 83), and Dickerson (1993, 1997), what may be a useful and efficient screen in a group where problem gamblers form a sizeable group will perform less efficiently where problem gamblers comprise only a small group — the ‘base’ problem.

A test to estimate costs

A test may be used to help estimate the costs of a potential public health problem. Once a problem lies on a continuum, the costs need to be assessed by looking at the magnitude of problems for *all* people who are adversely affected by gambling, not just those people whose risks identify them as a ‘case’ under definitions of level 2 or 3 gambling above (box 6.6).

When a test like the SOGS can have at least four different purposes, it is possible to have a confused debate about where thresholds should be set. Someone trying to identify the resources needed to provide help services will use a higher SOGS score than someone trying to identify the number of at-risk cases for public health reasons. Someone trying to identify the costs of gambling will look at harms that span all SOGS scores. *Unless each researcher clearly indicates the purpose for which the SOGS (or any other test of problem gambling) is being used, then they may appear to be at loggerheads when they are not.*

Unfortunately, many of those who use the SOGS do not state the purpose for which they are using the test.¹⁴ A claim that it is being used to identify the prevalence of problem gambling in the general population is not a clear-enough statement of purpose unless the term ‘problem gambler’ is unambiguous, which it is not. Moreover, unlike diabetes or weight problems, where substantial evidence about the costs associated with differing diagnostic test scores have been used to calibrate the tests, the level of harms associated with gambling have not been used to set threshold levels.

It should be emphasised that a test of problem gambling does not *itself* have to measure the harms associated with gambling (though the SOGS does in fact do this partially), nor does it need to establish a causal process for harms (for example, by trying to find a set of psychological processes underlying problematic behaviours). It only has to suffice as a predictive tool, where scores are sufficiently correlated with harms that it is useful. This in turn implies that the fact that SOGS only incompletely documents the harms from problem gambling is not necessarily a limitation of the test, rather that more information is needed to interpret any score on the test. An analogy is the ‘pinch test’ for body fat. It says nothing about the causes underlying the accumulation of fat, nor anything about the harms caused by being overweight. It just establishes a yardstick for measuring fat.

Before estimating the prevalence rates of problem gambling in section 6.9, we look at how the adverse impacts of gambling vary with differing SOGS scores. That

¹⁴ Dickerson and Baron (1994) represents one attempt to differentiate the various purposes of such tests and to discuss criteria for setting thresholds.

information is used by the Commission to assess the now commonly employed 5+ and 10+ thresholds, as well as a range of possible alternatives.

Box 6.6 Tests designed to measure social/economic costs: an illustration

Suppose that out of a population of 1 million there was:

- a 'need treatment' (level 3) group of 0.5 per cent (ie 5000) and that 40 per cent of these engaged in a crime relating to gambling every year;
- an 'at risk' group (level 2) of 1.5 per cent (ie 15 000) and that 5 per cent of these engaged in a crime relating to gambling each year; and
- a residual 'least harm' group (level 1) — comprising 98% of the population (980 000) — and that 0.25 per cent of these engaged in a crime related to gambling.

The number of crimes committed because of gambling is therefore the sum of the three — 2000 plus 750 plus 2 450.

For convenience of exposition, suppose that the cost of each crime was identically \$2000. In this illustrative case the total cost of problems associated with gambling-related crime in this population is \$10.4 million. Of this cost, 38 per cent is accounted for by the 'need treatment' group, 14 per cent by the 'at risk' group and a very large 47 per cent by the residual 'least harm' group. Whether, in fact, the 'least harm' group accounts for such a significant share of the economic costs of problem gambling is examined in chapter 9 — but the point is that conceptually it is important to look at the costs of harms across all groups of people, not just those which are determined as 'cases' for other public health policy purposes.

6.6 Getting the thresholds right to identify problem gamblers

Defining the problem

Few tests are perfect. A major problem in many tests is that they fail to classify people correctly:

- If a test score falsely indicates that someone is a problem gambler this is known as a 'false positive'.
- Conversely, if a test score falsely indicates a problem gambler as a non-problem gambler then this is known as a 'false negative'.

False positives are decreased for any given test by raising the threshold required to score positive, whereas false negatives are reduced by lowering the threshold.

A central concern in Australian studies has been that many people with SOGS scores of between 5 and 10 may, in fact, be highly motivated regular gamblers who face little real risks from their gambling (Dickerson et al. 1996a, p. 61) and would, therefore, scarcely require individual intervention to help them. Most Australian surveys have tried to reduce the false positive problem by raising the threshold of the test score or by reducing the timeframe relevant for the test. This has led to the routine adoption of two variations in the implementation of the SOGS:

- the use of a higher cutoff SOGS score (10 or more) to indicate problem gambling.¹⁵ In contrast, researchers in New Zealand, who have undertaken large scale multi-stage studies of problem gambling, advocate using the SOGS with a score of 5 or more as indicative of a problem, as do most other countries; and
- asking people to make judgements about their gambling over the last 6 or 12 months rather than over a lifetime. This revision to the SOGS recognises that someone who once had a problem may not have one currently¹⁶ — and is now in routine use around the world (Delfabbro 1998, p. 122).

The Commission examined the extent to which different definitions of problem gambling were prone to false positives and negatives using a variety of methods. A threshold on the SOGS is too low if there is a low prevalence rate of harmful impacts in the identified group of ‘problem’ gamblers and a high prevalence of beneficial impacts. In contrast, a threshold on the SOGS is too high if the identified group of problem gamblers account for a small share of people experiencing adverse impacts.

How big are false positives and negatives for SOGS 10+ and SOGS 5+ measures?

The Commission’s *National Gambling Survey* not only used SOGS questions (in a 12 month timeframe) but, as in some past Australian studies, it also included:

- a scale on the SOGS questions about the frequency of any behaviour;
- questions about the possible harmful effects of gambling (such as relationship breakdown and illegal acts) on both a lifetime and a last year basis;

¹⁵ Most of the Australian studies have judged the 10 or more SOGS measure as the most reliable and appropriate measure of problem gambling prevalence — a judgement which had its genesis in the excessively high apparent prevalence rate suggested by using the traditional SOGS 5+ rating in the first major Australian prevalence study (where the apparent rate of problem gambling — at 6.6 per cent — lacked credibility). However, none of the subsequent surveys have revealed problem gambling rates at anything like that suggested by the first survey.

¹⁶ This is also consistent with the largely behaviourist view of problem gambling adopted in Australia and in contrast with the view that it is a progressive disease (Ferris 1995, p. 1).

- self-perception questions about the extent of any problem; and
- questions about the need for and attempts to obtain help for gambling problems.

This information allowed the Commission to assess whether differing scores on the SOGS were highly associated with self-perceptions of harms associated with gambling — providing the ability to examine what SOGS thresholds might be useful in our analysis. There seems little doubt that the group identified by a SOGS score of 10 or more represent people with severe problems (tables 6.1 and 6.2):

Table 6.1 Responses to separate SOGS items
For definitions of problem gambler and harm incidence^a

<i>SOGS item — what gamblers said</i>	<i>All gamblers</i>	<i>SOGS 0-2</i>	<i>SOGS 3-4</i>	<i>SOGS 5-9</i>	<i>SOGS 5+</i>	<i>SOGS 10+</i>	<i>In couns-elling</i>	<i>HARM</i>
	%	%	%	%	%	%	%	%
Chasing losses often or always	3.5	1.0	3.6	20.0	27.5	66.7	64.2	27.3
Claimed to be winning when lost	10.0	4.0	21.6	47.4	52.7	80.6	58.1	32.7
Problem with gambling	8.9	2.5	12.0	63.6	67.6	88.7	96.5	62.6
Gambled more than intended	35.1	20.7	92.6	98.3	98.5	100.0	99.5	83.4
People criticised gambling	10.8	2.5	31.4	63.3	64.5	70.8	84.9	49.6
Felt guilty about what happens when gambling	19.2	5.8	64.3	87.7	89.7	100.0	99.0	88.8
Like to stop but can't	9.4	1.0	24.9	65.1	70.3	97.0	97.0	64.7
Hidden signs of gambling	5.8	0.6	17.5	33.2	39.7	73.9	76.5	37.6
Money arguments over gambling	7.7	2.2	22.8	35.4	46.2	96.7	73.6	50.4
Borrowed without paying back	2.6	0.8	3.9	14.1	18.7	42.9	53.3	13.2
Lost time from work or study	2.8	1.2	2.4	13.2	18.9	50.3	49.7	14.9
Borrowed from household money	5.8	0.6	18.0	32.5	41.0	87.0	85.7	34.5
Borrowed from partner	5.8	2.1	11.3	29.2	34.9	64.2	57.7	26.2
Borrowed from other relatives	2.2	0.4	3.4	13.1	18.7	47.8	53.6	12.6
Obtained cash advances using your credit card	4.9	1.1	10.7	28.8	34.6	64.5	63.6	29.3
Borrowed from banks etc	1.0	0.0	0.2	6.1	11.7	40.9	42.2	12.6
Borrowed from loan sharks	0.5	0.0	0.0	3.7	5.8	16.7	8.4	4.9
Cashed in shares	0.6	0.0	0.4	6.9	6.3	3.2	16.9	7.2
Sold property	1.0	0.0	0.9	5.2	11.0	40.8	36.7	10.3
Passed a bad cheque	0.4	0.0	0.4	2.2	4.1	14.2	21.2	2.9

^a The in-counselling group are people who sought counselling from specialist problem gambling counselling agencies (based on the PC *Survey of Clients of Counselling Agencies*). The HARM group are people who said they had experienced at least one clearly problematic behaviour in the last 12 months (box 6.7). The data here and for other SOGS items are different from the Commission's draft report due to a coding error and some minor amendments to the weighting procedure.

Source: PC *National Gambling Survey* and PC *Survey of Clients of Counselling Agencies*.

- All of them feel guilty about their gambling.
- Most lie about or conceal their gambling.

-
- The overwhelming majority have felt they would like to stop gambling, but did not think they could.
 - Nearly all (88 per cent) perceive themselves as having a gambling problem.
 - A significant number suffer serious personal consequences, with the bulk suffering severe financial difficulties, over 80 per cent depressed as a result of their gambling, and more than one in five seriously contemplating suicide.
 - Around 70 per cent are chasing losses often or always.

The SOGS 10+ group have a very similar pattern of SOGS responses to those gamblers who seek help from specialist problem gambling agencies — evidence that the SOGS 10+ threshold provides a measure of people suffering severe problems requiring assistance.¹⁷ They also have similar responses for clearly adverse harms (table 6.2) except that the group seeking help have a higher prevalence of job loss, suicide ideation and crime. The false positive rate among SOGS 10+ is probably very small.

The SOGS 5+ group has a lower prevalence of self-assessed harmful impacts than the SOGS 10+ group, but nearly all of such gamblers suggest that they spend more than they intended, around 90 per cent say they feel guilty about their gambling, about 70 per cent feel they have a problem and *70 per cent indicate that they have control problems*. But there is evidence of false positives among the SOGS 5+ group:

- there is a sub-group that report that they derive considerable pleasure from gambling (table 6.3).¹⁸ However, they account for only 5.7 per cent of the SOGS 5+ group, and so make a negligible difference to any calculated prevalence rate;
- regular gamblers were asked whether they had a problem and to rate that problem from 1 (not a problem) to 10 (a severe problem). Around 15 per cent of people in the SOGS 5+ group denied having any problem (table 6.4),¹⁹ whereas all people in the SOGS 10+ group said that they had a problem.

¹⁷ A statistical test (a chi-square test) was used to see if the overall set of answers provided by the counselling group and the SOGS 10+ group could be regarded as being drawn from the same population. The result was a chi square of 25.9 with 20 degrees of freedom. The null hypothesis that they are drawn from the same population could not be rejected at the 5 per cent level. At the level of individual answers, however, there was a statistically significant difference between acceptance of a problem by those in the counselling group and the SOGS 10+ population group. However, there was also an indication that money arguments over gambling were *more* frequent among the SOGS 10+ population group than the counselling group.

¹⁸ Examination of this sub-group suggests that they experience relatively few harms from gambling, scoring negative on almost all items in table 6.2.

¹⁹ Although some of these may be concealing a problem (see table 6.9 for evidence of denial among problem gamblers).

Table 6.2 Significant adverse impacts experienced^a

By definition of problem gambling

Impact	<i>All gamblers</i>		<i>SOGS5+</i>		<i>SOGS 10+</i>		<i>HARM</i>		<i>In coun- selling</i>
	Ever	Last year	Ever	Last year	Ever	Last year	Ever	Last year	Ever
	%	%	%	%	%	%	%	%	%
Suffered from depression	8.2	5.8	58.7	53.2	82.3	82.3	59.6	52.9	95.7
Job adversely affected	4.7	2.7	31.6	25.7	51.6	48.3	30.6	28.0	55.1
Changed job due to gambling	0.8	0.2	6.0	1.9	15.2	12.0	4.6	2.2	18.3
Lost job	0.3	0.0	0.5	0.0	0.0	0.0	0.6	0.0	18.6
Bankruptcy	0.1	0.1	1.4	1.0	8.8	6.1	1.6	1.1	8.4
Obtaining money illegally	1.1	0.1	7.1	1.2	13.2	3.7	8.0	1.3	42.3
In trouble with police	0.7	0.2	4.1	2.1	13.8	7.6	4.7	2.4	18.3
In court on charges	0.4	0.0	3.1	0.2	13.4	1.4	3.6	0.3	15.8
Seriously thought about suicide	1.0	0.4	9.3	4.5	27.4	19.6	10.5	5.1	57.8
Spending more than could afford often or always	..	3.0	..	30.2	..	68.9	..	31.4	..
Led to relationship breakup	1.7	1.1	11.4	4.7	31.6	15.8	23.0	15.4	
Led to split-up of partners ^b	1.1	..	9.2	..	31.6	..	16.3	..	26.0
Not enough time to look after family's interests	2.1	1.3	19.7	13.7	51.3	48.6	17.5	13.7	..

^a The SOGS 5+ and 10+ results are from the *National Gambling Survey*, as are the results for the HARM group (box 6.7). SOGS 5+ includes all people who score 5 or more (including those who score 10 or more). The counselling group results relate to people seeking help from specialist problem gambling agencies. ^b The question posed was whether a relationship breakdown had led to divorce or separation. In this context, the term separation refers both to the technical state of separation through divorce proceedings, but also to the physical parting of a couple, even if not married.

Source: PC *National Gambling Survey* and PC *Survey of Clients of Counselling Agencies*.

Table 6.3 Do problem gamblers enjoy gambling?

	<i>Made life a lot more enjoyable</i>	<i>Made life a little more enjoyable</i>	<i>Made no difference</i>	<i>Made life a little less enjoyable</i>	<i>Made life a lot less enjoyable</i>	<i>Can't say</i>
	%	%	%	%	%	%
SOGS 5+ ^a	5.7	24.1	20.1	15.9	34.2	0.1
NON-SOGS 5+	3.6	23.7	68.9	2.2	1.1	0.6
SOGS 10+	5.8	3.0	13.1	17.2	60.6	0.3
NON-SOGS 10+	3.6	23.8	67.8	2.5	1.7	0.6
HARM	3.1	18.3	24.8	15.8	38.0	0.1
NON-HARM	8.8	34.8	51.8	2.8	1.6	0.4
All gamblers	3.6	23.7	67.6	2.5	2.0	0.6

^a SOGS 5+ includes all people who score 5 or more (including those who score 10 or more).

Source: PC *National Gambling Survey*.

Table 6.4 Self rating of degree of severity by SOGS score

<i>Rating of degree of problem</i>	<i>SOGS 3-4</i>	<i>SOGS 5-9</i>	<i>SOGS 5+</i>	<i>SOGS 10+</i>
	%	%	%	
1 (no problem)	48.3	14.9	12.5	0.0
2 to 3 (minor problems)	35.2	27.7	23.8	3.7
4 to 6 (moderate problems)	16.5	36.4	33.2	16.2
7 to 10 (most severe problems)	0.0	19.0	24.7	54.8
All	100.0	100.0	100.0	100.0

Source: PC National Gambling Survey.

Another way of looking at the degree to which these varying measures of problem gambling genuinely pick up the harms associated with gambling is to compare them with the group of people who say they have been harmed in some specific ways by their gambling.

The Commission blended questions on harmful impacts into an indicator of harmful gambling (box 6.7) — the approach being similar to that used by the Nova Scotia study of problem gambling (Focal Research, 1998). The measure omits most items counted in the SOGS — such as borrowing from friends, being criticised by others, and chasing losses — because while these may indicate problematic behaviour, they need not result in harm to the gambler.

It should be emphasised that this derived measure of harm is indicative only. It was intended to be a relatively stringent test of harm, so that people experiencing less pronounced harms will not necessarily score positively on these criteria. In that sense, a zero score on the HARM criteria should not be regarded as evidence that a person is suffering no harm from their gambling. For example, were someone to often have money arguments about gambling, often feel guilty, often lose time from work they would score zero on the HARM scale.

While the items on the HARM scale have good face validity and the correlation with SOGS suggests concurrent validity, the survey did not include any validity checks to assess whether people saying they were experiencing harms from gambling really did so, or that those denying them had no problems. Independent interviewing of respondents and corroboration by significant others would be needed to check the sensitivity and specificity of these HARM criteria as a proper test.²⁰ However, the Commission primarily sees the HARM scale as an *indicator* of harms, rather than as a prevalence testing instrument of the same ilk as the SOGS or the Fisher DSM-IV. However, it may be useful to incorporate items, such as those

²⁰ A point made by Mark Dickerson, one of the Australian gambling experts who helped advise the Commission.

used in the HARM indicator, in future tests of the impact and prevalence of gambling problems (section 6.8), and subject these to full validity testing.

Box 6.7 **Elements of harmful gambling — the HARM indicator**

A person has experienced harm from gambling if they meet *any* of the following conditions for the last year. They:

1. found that gambling has made life a lot less enjoyable and they *always* feel they cannot control gambling, although they want to;
2. *always* have money arguments about gambling;
3. *always* borrow to gamble while not paying borrowings back;
4. *always* lose time from work or study due to gambling;
5. *always* feel guilty about gambling;
6. borrow from loan sharks to gamble *sometimes* to *always*;
7. fraudulently write cheques to gamble *sometimes* to *always*;
8. believe they have a current problem *and* they rate their problem from 5 or more on a 10 point Likert scale;
9. *always* spend more than they can afford;
10. have *often* or *always* suffered from depression due to gambling;
11. have *often* or *always* experienced adverse effects on their job due to gambling;
12. have changed jobs in the last year due to gambling;
13. have been sacked in the last year due to gambling;
14. have *often* or *always* not had enough time to look after their family's interests due to gambling;
15. have become bankrupt due to gambling;
16. have experienced a relationship breakdown due to gambling;
17. have obtained money illegally to gamble;
18. have been in trouble with police over gambling;
19. have appeared in court on a gambling-related matter;
20. have seriously thought about suicide because of gambling;
21. have wanted help for gambling problems; or
22. have tried to get help for gambling problems in the last year.

A person who records a single answer to any of the above is deemed to have experienced harmful impacts from gambling, simply because each individual impact is serious. The *PC National Gambling Survey* suggested that around 1.8 per cent of the adult population score one or more using the above measures (which is somewhat less than the number of people who are measured as problem gamblers using the SOGS 5+ cutoff). About 54 per cent of this HARM group score 2 or more.

Source: *PC National Gambling Survey*.

People who were categorised as experiencing harmful impacts (using the HARM indicator) scored on the SOGS test in almost an identical way to that of people categorised as problem gamblers using the SOGS 5+ threshold (table 6.1). This provides one basis for seeing SOGS 5+ as a reasonable measure of problem gambling.

On the other hand, it is certainly not the case that the people identified by the two measures are always the same (table 6.5). The harm indicator, and SOGS 5+ and 10+ are separate, but overlapping concepts.

There are estimated to be 293 000 problem gamblers in Australia using the SOGS 5+ threshold, but only 172 000 (or about 60 per cent of them) score 1 or more on the HARM scale. This reflects the relatively stringent nature of the HARM scale, and should not be taken to imply that these people are not suffering any harms from their gambling. In comparison, of the 47 000 problem gamblers based on the SOGS 10+ score, nearly 45 000, or about 96 per cent, report a HARM impact.

There are 83 000 people who report at least one HARM impact who do not score 5 or more on the SOGS and 209 000 people who report at least one HARM impact who do not score 10 or more on the SOGS.

Table 6.5 Problem gambling and HARM

	<i>People</i>			<i>% of adults</i>		
	Not SOGS 5+	SOGS 5+	Total	Not SOGS 5+	SOGS 5+	Total
No HARM	13 750 271	121 224	13 871 495	97.34	0.86	98.20
HARM	83 265	171 513	254 778	0.59	1.21	1.80
Total	13 833 536	292 737	14 126 273	97.93	2.07	100.00
	Not SOGS 10+	SOGS 10+	Total	Not SOGS 10+	SOGS 10+	Total
No HARM	13 869 558	1 937	13 871 495	98.18	0.01	98.20
HARM	209 922	44 856	254 778	1.49	0.32	1.80
Total	14 079 480	46 793	14 126 273	99.67	0.33	100.00

Source: PC National Gambling Survey.

It is apparent that the SOGS 10+ group fails to identify the bulk of people who are experiencing significant problems with their gambling, whereas this false negative problem is much less apparent for the SOGS 5+ group. To the extent that the HARM group adequately represents people experiencing significant problems, the prevalence rate given by the SOGS 5+ measure is out by about 15 per cent (because false positives are partly offset by false negatives). In contrast, the SOGS 10+ prevalence measure is less than one fifth of the rate suggested by the HARM measure.

The SOGS 10+ measure picks up many of the extreme outcomes from gambling, such as bankruptcy and being in court on charges connected to gambling problems (table 6.6).

Table 6.6 Are problems exclusive to problem gamblers?^a

<i>SOGS item</i>	<i>SOGS 5+</i>	<i>SOGS 10+</i>	<i>Reported harmful impacts from gambling</i>	<i>SOGS 5+</i>	<i>SOGS 10+</i>
SOGS 1	64.7	25.1	Suffered from depression	74.9	18.7
SOGS 2	43.5	10.7	Job adversely affected	79.0	24.0
SOGS 3	62.8	13.3	Changed job due to gambling	100.0	100.0
SOGS 4	23.0	3.7	Bankruptcy	100.0	100.0
SOGS 5	48.9	8.6	Obtaining money illegally	100.0	50.9
SOGS 6	38.2	6.9	In trouble with police	100.0	56.6
SOGS 7	61.2	13.7	In court on charges	100.0	100.0
SOGS 8	56.9	16.9	Seriously thought about suicide	100.0	71.0
SOGS 9	46.0	17.0	Spending more than could afford ^b	92.2	34.0
SOGS 10	59.0	21.6	Led to relationship breakup	35.2	18.9
SOGS 11	56.1	23.0			
SOGS 12	57.6	19.2			
SOGS 13	48.6	14.5			
SOGS 14	68.7	28.3			
SOGS 15	57.8	17.4			
SOGS 16	97.7	54.9			
SOGS 17	100.0	46.2			
SOGS 18	92.3	7.6			
SOGS 19	89.9	54.3			
SOGS 20	88.1	49.1			

^a The 2nd and 3rd columns are the percentage of SOGS 5+ and 10+ gamblers respectively, who scored positively on *given* SOGS items. The 5th and 6th columns are the percentage of SOGS 5+ and 10+ gamblers respectively, who reported suffering the listed harmful impacts from gambling.

^b Often or always.

Source: PC National Gambling Survey.

However, the SOGS 10+ measure excludes 81.3 per cent of gambling related depression (ie 100 – 18.7), 49.1 per cent of cases of obtaining money illegally, and 81.1 per cent of gambling related relationship breakdown. In contrast, the SOGS 5+ measure tends to capture most of these adverse outcomes.²¹

Nor is it the case that the SOGS 10+ category neatly equates with the ‘need help’ group identified in section 6.4. Not all people who seek help from specialist

²¹ Marshall, Balfour and Kenner (sub. 116) have found similar results for an institutional population. They explored the prevalence of gambling related crime among 101 non-Aboriginal inmates of the Yatala Labour Prison in South Australia in 1997. They found that no cases of such crime were recorded for inmates scoring less than 5 on the SOGS, but that using a threshold of 10+ was overly conservative, and failed to account for a significant amount of gambling related crime amongst inmates.

counselling agencies have SOGS 10+ scores (table 6.7) — with around one quarter to one fifth having SOGS scores between 5 and 9.²²

Table 6.7 SOGS scores among gamblers in counselling

	Scoring below 10	10+
	%	%
Dickerson et al. 1996a ^a	22	78
<i>PC Survey of Clients of Counselling Agencies</i> ^b	23.4	76.6

^a Based on results from 82 clients attending a specialist clinic (at the Department of Psychiatry, UNSW, directed by Associate Professor Alex Blaszczynski) diagnosed as pathological gamblers according to the DSM-IV.

^b Based on 402 problem gambling clients of specialist problem gambling counselling services around Australia. 2.5 per cent of clients had a score of 4 or less, and 20.9 per cent between 5 and 9.

Clearly some people needed assistance despite their below 10 score. Others in the general population with scores of less than 10 may not have sought help from specialist gambling counselling agencies, but might have obtained it elsewhere or needed it (we would obviously not get to observe this group as part of a ‘treatment’ group).

The *National Gambling Survey* provided some evidence of this. Though most (63 per cent) people who scored 10 or more on the SOGS wanted help, these represented a modest share (27 per cent) of the overall group of people who wanted help (table 6.8). Similar results were apparent for gamblers who tried to get help for their problems.²³ The results suggest that there is a significant group of people with SOGS scores below 10 (but not below 5) who want and obtain help of some kind.

On the other hand, the *National Gambling Survey* suggested that a third of people with SOGS scores of 10 or more did not want help (and a further 4 per cent did not

²² A similar exercise was conducted using the DSM-IV criteria on 1102 and 1429 Victorian BreakEven clients respectively in 1995-96 and 1996-97. It was found that 18.6 and 27.4 per cent respectively of these ‘treatment’ groups scored on 4 or less items (Jackson, Thomason, Thomas, Crisp, Smith, Holt, Ho and Borrell 1997, p. 30). This is below the threshold of 5 or more required for a diagnosis of ‘pathological’ gambling (Dickerson, McMillen, Hallebone, Volberg and Woolley 1997, p. 13). In the analysis of SOGS scores of 737 clients who sought help for gambling problems in New Zealand, 1.1 per cent scored below 5, 5.2 per cent scored 5, 27.1 per cent scored 6 to 10 and 66.6% scored 11 plus (Committee on Problem Gambling Management New Zealand 1997, p. 13). Dickerson, Baxter et al. (1995, p. 100) found that 23 per cent of those who sought help from BreakEven services in Queensland fell below the ‘pathological’ gambling threshold of the DSM III-R criteria (the precursor to the DSM-IV).

²³ Noting that many people with problems obtained help from informal sources or from non-specialist agencies, so that these instances would not be captured by statistics collected from specialist gambling counselling agencies.

know). However, while they may not have declared that they wanted help, this does not mean that they are necessarily false positives. All of these gamblers acknowledged that they had a problem (and 99.3 per cent of them rated their problem as more than 5 on a Likert scale of severity from 1 to 10).

Overall, the evidence suggests that the SOGS 10+ threshold will tend to underestimate the prevalence of severe problem gambling (level 3 gambling).

Table 6.8 Gamblers who wanted and obtained help

<i>SOGS category</i>	<i>Share which wanted help</i>	<i>Share of people who wanted help accounted for by this category</i>	<i>Share which tried to get help</i>	<i>Share of people who tried to get help accounted for by this category</i>
	(%)	(%)	(%)	(%)
SOGS 0-2	0.1	2.6	0	0
SOGS 3-4	0	0	0	0
SOGS 5-9	32.3	70.9	12.2	66.4
SOGS 10+	62.7 ^a	26.5	32.1	33.6

^a However, note that a further 4 percentage points of this group did not know if they needed help.

Source: PC National Gambling Survey.

Adapting the SOGS to estimate the numbers of severe (level 3) problem gamblers

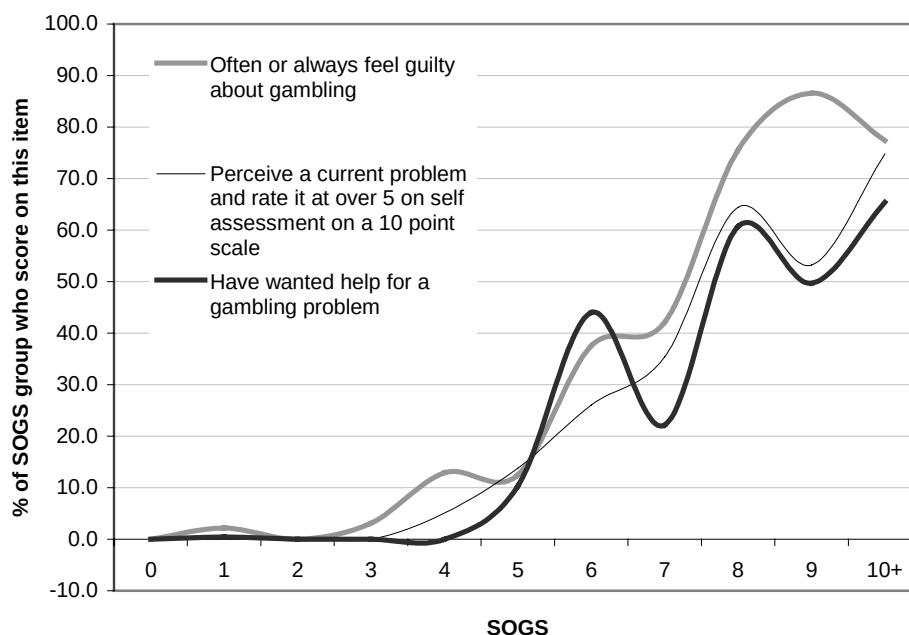
Dickerson et al. (1996a, p. 52) and Dickerson et al. (1997, p. 39) suggested that the prevalence of people with severe gambling problems (the level 3 group) be estimated by giving different weights for people with different SOGS scores:

- 20 per cent of those with scores of 5 to 6 are rated as having severe problems;
- 50 per cent of those with scores of 7 to 9; and
- 100 per cent of those with scores of 10 or more.

The Commission examined how harms vary as the SOGS score rises, and found evidence that the above approach would reasonably ameliorate the high false negative problem associated with the SOGS 10+ cutoff (figure 6.3).

The Commission has, therefore, used Dickerson's weighting scheme above to produce one estimate of the prevalence of severe (or level 3) gambling problems. However, in doing so, we emphasise that the way in which population surveys are conducted is likely to somewhat underestimate people with severe gambling problems — an issue to which we turn next.

Figure 6.3 How some key problems vary over SOGS scores^a



^a Each of the SOGS categories represents those people who scored a particular level of the SOGS. Accordingly, SOGS 3 are those who scored exactly 3 on the SOGS. The data have been smoothed.

Data source: PC National Gambling Survey.

Do population surveys miss out the most severe cases?

Population surveys of problem gambling will tend to underestimate the number of people with extreme problems requiring counselling help:²⁴

- It can be surmised that people who are heavy gamblers — a group which will over-represent problem players — are less likely to be at home to get into the sampled group in the first place.
- Where the survey is telephone-based, as was that used by the Commission (like most other similar surveys), financially affected gamblers may have had the phone cut off, again excluding them from the survey. Telephone-based surveys have other advantages and disadvantages, which are discussed in appendix F.
- Others, such as the homeless or institutionalised (eg jail inmates) may also have a greater likelihood of being problem gamblers, but are outside the sample frame.

²⁴ Dickerson, Baron, Hong and Cottrell (1996), Volberg (1996a), Lesieur (1994 — cited in Delfabbro 1998, pp. 182–3).

-
- It also appears likely that someone with a severe gambling problem may be more inclined to refuse to participate in any survey. Around a quarter of problem gamblers receiving help from specialist agencies said that they would not have participated in such a survey prior to seeking help (table 6.9).
 - People in certain cultural groups may be more uncomfortable about openly divulging personal issues, like problem gambling;
 - Finally, and most particularly, people may provide dishonest or distorted answers to questions, especially if they feel that they are engaging in stigmatised behaviour. The Commission has been told by problem gamblers that, prior to seeking help from a counsellor, they would not have honestly disclosed their problem. Of those problem gamblers who would participate in a survey prior to seeking help, only 38 per cent believed they would answer honestly. Some 45 per cent said that they would hide their problem to some degree, and 17 per cent did not know what they would have done (table 6.9). Only 0.3 per cent said they would have exaggerated their problems. Yet the original validation exercise for the SOGS did not take into account the likely strategic behaviour by problem gamblers when answering questionnaires of this type (because it took a group of self-confessed problem gamblers in a clinical setting, rather than problem gamblers outside this setting).

Given these findings, it is possible that many people who actually experience severe problems with gambling may fail to disclose this in surveys intended to measure prevalence rates. As noted by the Australian Institute for Gambling Research:

... given the inherent limitations of survey design, I agree with the Commission that these results [the prevalence estimates for problem gambling] are likely to be underestimates (AIGR sub. D216, p. 8).

The Commission estimates suggest that if the true prevalence rate of people with severe problems was around 0.7 per cent, it is easily possible that surveys would suggest a prevalence rate of such severe problems at around 0.3 per cent.²⁵ The

²⁵ The *measured* prevalence rate (p) from a survey is equal to:

$$p = \frac{(1 - \alpha_1)(1 - \alpha_2)(1 - \alpha_3)\alpha_4\gamma}{(1 - \alpha_1)(1 - \alpha_2)(1 - \alpha_3)\alpha_4\gamma + (1 - \beta_1)(1 - \beta_2)(1 - \beta_3)(1 - \gamma)}$$

where α_1 , α_2 and α_3 is the survey response rate by severe problem gamblers, the share of problem gamblers with no phone at home and the share of problem gamblers who are not at home when the telephone survey is conducted. β_1 , β_2 and β_3 are the associated parameters for people who are not severe problem gamblers. α_4 is the share of severe problem gambling survey respondents who honestly reveal their problems. γ is the true population problem gambling rate. For $\alpha_1=0.25$, $\alpha_2=0.05$, $\alpha_3=0.15$, $\beta_1=0.25$, $\beta_2=0.025$, $\beta_3=0.10$, $\gamma=0.007$ and $\alpha_4=0.46$ (the latter assuming that half the people who don't know what they would have said in table 6.9 actually honestly reveal

implication is that the Commission's *National Gambling Survey* could have seriously understated the prevalence of the most severe (SOGS 10+) cases.

Table 6.9 Do genuine problem gamblers reveal they have a problem?^a

<i>Answer</i>	<i>Share of respondents who said that they would have ...</i>
	(%)
Answered honestly	28.9
Refused to answer the survey	23.7
Somewhat concealed any problems	13.7
Mostly concealed any problems	9.7
Completely concealed any problems	9.2
Exaggerated any problems	0.2
Told them you did not know	1.7
Don't know what they would have said then	12.7
Total	100

^a Based on responses of 401 clients of counselling agencies. The survey asked problem gamblers seeking help from specialist gambling agencies whether they would have participated in a survey prior to seeking help, and whether they would have revealed the true nature of their problems.

Source: PC Survey of Clients of Counselling Agencies.

Some counselling groups suggested that the Commission's prevalence figures could have understated the prevalence of problem gambling by up to a threefold factor (sub. D252, p. 1), although the Commission considers that to be highly unlikely.

Others were more concerned that the Commission had underestimated the level of problems by marginalising the modest problems that recreational gamblers may experience:

[The report] discusses at length the difficulties in determining threshold test scores for identifying problem gamblers, but does not question the idea that there is a threshold below which gambling is not problematic... There is no acknowledgment that many recreational gamblers experience occasional and/or minor problems that are nevertheless substantial in aggregate... For gambling, similarly, the focus of prevention needs to be on the broader population, not just heavy-gambling individuals (Raven, sub. D272, pp. 1-3).

The latter approach, of course, goes beyond the issue of counting 'cases' of problem gambling. This 'sociological' approach attempts to understand more broadly any adverse social effects of gambling and to fashion, where cost effective and appropriate, ways of ameliorating these. The Commission has attempted to look at some of these broader issues in chapters 9, 10 and 16.

their problem) then $p=0.003$. These figures, while conjectural, are consistent with the pattern of telephone survey responses (Steel et al 1996).

Summary and policy implications

As we emphasised in section 6.4, the SOGS can be legitimately used to look at the prevalence of people whose problems do not require individual intervention, but which are of concern for public health reasons. Walker (1998b, p. 44), for example, notes:

Gambling causes far more misery in society than is accounted for by the lot of the pathological gambler.

Similarly, Shaffer et al. (1997, p. iii) observe:

... scientists and public policy makers have paid insufficient attention to level 2 gamblers (ie those with sub-clinical levels of gambling disorders). While extremely diverse, level 2 gamblers experience a wide set of problems from their gambling.

In this instance, it is clearly appropriate to use lower SOGS scores to determine the number of Australians whose gambling behaviour entails significant risks (level 2 gambling problems using Shaffer et al.'s terminology), *so long as the purpose of this prevalence rate is made clear*, namely:

- *not* to estimate resources for direct help services;
- *nor* to see this group in a stereotyped way as 'addicts' hooked on gambling. The best analogy may be problem drinking which is a concept which goes far beyond alcoholism.

In this context, it is important to note that different measures of false positives or false negatives will occur depending on what definition of problem gambling is applied and what standard for confirming the diagnosis of the SOGS is used. Thus, if a researcher is using the SOGS to try to identify at-risk gamblers (level 2 gamblers) then someone they accept as a true positive may be rejected as a false positive by someone using the SOGS to identify people needing individual intervention to help them with their gambling problems.

- A SOGS score of 10 or more will significantly underestimate the number of people who are experiencing moderate problems with their gambling (a high false negative rate for level 2 problem gambling) and provide a somewhat conservative estimate of the number of people wanting and needing help services (a medium false negative rate for level 3 problem gambling). On the other hand, it will probably not count anyone who does not have a real problem (a low false positive problem).
- In contrast, a SOGS score of 5 or more will substantially overestimate the prevalence of gamblers needing help services (a very high false positive rate for level 3 gamblers, but a much lower false positive problem for level 2 risks), but

pick up most people who suffer significant adverse impacts from gambling (a low false negative problem).

- However, both thresholds of the test will inevitably fail to measure the prevalence of those problem gamblers, who, for various reasons, are unavailable to be surveyed or fail to answer questions honestly.

Unless researchers are very clear about how they interpret a positive test score, there is scope for a confused debate about which threshold on the SOGS has the best test properties and the magnitude of prevalence rates of problem gambling — a phenomenon which is not helped by large differences in the terminology to describe the different levels of problems people face (box 6.8). It is tempting for someone who wishes to attract the attention of legislators and obtain resources for helping people with gambling problems to set a low SOGS score for a prevalence measure, without disclosing that this would only be appropriate for measuring an at-risk group, instead of a ‘need treatment’ group, a point noted by TAB Ltd (sub. 161, p. 3) and ACIL:

Though they may be well-intentioned, it is clear that many parties have a strong career interest in exaggerating the problem gambling phenomenon and in seeing that the reported incidence is never below some threshold (sub. 155, p. 71).

But, similarly, industry groups who wish to minimise the perception of apparent harms created by gambling, will tend to set the bar high to achieve this objective. Some of the criticisms by industry of the draft report’s findings in relation to the prevalence of problem gambling (for example, the AHA NSW sub. 208, p. 28) reflect their view that someone must have severe problems to be termed a problem gambler.

There is a clear need for any test of gambling problems to set thresholds which have known risks of harms, and to explain the *purposes* of each of the thresholds that may be selected. The Commission considers it useful to employ a number of different benchmarks for ‘problem’ gambling — which suit the different possible purposes of such a test — in the same way that different benchmarks are now used to assess problematic alcohol use or degrees of weight problems.

Box 6.8 **Confusions in terminology**

Arising out of the different frameworks that are applied to problem gambling are a number of different terms for the problem, which can make international comparison difficult and confusing.

- Gamblers Anonymous tends to use the term '*compulsive*' gamblers, but this term is not generally used by counsellors, psychiatrists or psychologists helping gamblers experiencing problems.
- Outside Australia, people scoring 5 or more on the South Oaks Gambling Screen (SOGS) or the DSM-IV test are rated as '*pathological*' gamblers, a term which is avoided in Australia. People scoring 3 or 4 are described as '*problem*' gamblers. Sometimes people who score 3 or more are collectively called 'problem' gamblers.²⁶
- In Australia, people who are getting help from counselling agencies for their gambling are labelled as '*problem*' gamblers. Those scoring 10 or more on the SOGS (and sometimes those scoring 5 or more) are also labelled as 'problem' gamblers. Those scoring 5 to 9 on the SOGS are often described as '*at-risk*'.

In the chapters that follow, some results from international studies are presented for problem gamblers, others for problem and pathological gamblers, and others still for pathological gamblers. We emphasise that each of these is different and the results will vary accordingly.

In the remainder of this report we use various thresholds and approaches, depending on the purpose of the analysis:

- In looking at the costs of problem gambling we usually avoid the SOGS altogether, and rather, look at the prevalence of particular harmful impacts on people.
- However, some information on certain problems was only available from the *Survey of Clients of Counselling Agencies*. Given that this help-seeking group appeared to generally match the characteristics of the SOGS 10+ group in the *National Gambling Survey*, the Commission obtained national estimates of the prevalence of such problems by using the SOGS 10+ threshold in the national survey. To use the SOGS 5+ threshold would grossly exaggerate the extent of such problems.
- In adjusting the consumer surplus for problem gambling, the Commission took account of gamblers scoring 5 or more on the SOGS (to capture people with at least level 2 problems), since to do otherwise ignores many people who have

²⁶ The term 'disordered' gambling is also now being employed in the US, for example, by the American Gaming Association (www.americangaming.org).

significant problems with their gambling (including impaired control). However, the Commission treated severe problem gamblers in this group differently from moderate problem gamblers.

- Similarly, in examining consumer protection, the Commission used the broader definition of problem gambling (SOGS 5+) in keeping with the view that consumer protection and public health policy aims to lower risks of problems for groups other than those who are most seriously afflicted (Shaffer et al. 1997; Ferris, Wynne and Single 1999, pp. 34–35). Indeed, given that risky behaviours and harms extend below the SOGS 5+ level (table 6.4) there is a case for regarding the population of gamblers with potential consumer problems from gambling as far bigger than that encapsulated by the problem gambling prevalence rate.

6.7 Criticisms of the Commission's use of the SOGS

ACIL (sub. D233, p. 44ff) and others criticised the Commission's use of the SOGS on a number of grounds.

ACIL re-iterated the point made by Gerstein et al. (1999, p. 17) that the SOGS is based on the 'outdated' DSM-III rather than the DSM-IV. The DSM-III was used as the 'gold standard' for validity checking of the SOGS. However, the SOGS and the DSM-III are different:

- the SOGS has categories that have no obvious parallel in the DSM-III; and
- the SOGS is a *test* and the DSM-III (like the DSM-IV that followed it) is a set of diagnostic *criteria* used by clinicians.

The DSM-IV represents an evolutionary, rather than a revolutionary change in the DSM-III. One way in which the DSM-IV was improved over the DSM-III was to *use* some of the questions from the SOGS. In discussing the draft report with Rachel Volberg (an eminent US researcher), she indicated that the use of the SOGS-R and the Fisher DSM-IV screen in six US jurisdictions and in the Swedish and New Zealand national studies, suggest that these two screens measure similar (though not identical) constructs.

For example, in the Oregon prevalence study (Volberg 1997, p. 37), it was found that the prevalence rate of people scoring on DSM-IV (3+) and SOGS (3+) was identical, with similar prevalence rates for what was termed severe problem gambling. In the recent Swedish study, however, the SOGS suggested a higher prevalence rate than the DSM-IV (Rönnerberg et al. 1999, p. 94), although which measure is best at identifying problems remains unclear.

ACIL also argued that there was little evidence about the extent to which the SOGS measured problem gambling in a way that matched the broad (harm-based) definition of problem gambling used by the Victorian Department of Human Services (DHS), and increasingly adopted by others in Australia. The Commission made some assessment of the people experiencing harm with the development of a set of questions probing the adverse impacts of gambling (section 6.6) and found that the SOGS and our defined measure of harm were overlapping but not entirely congruent measures. Even so, there was strong evidence that nearly all people scoring 5 or more on the SOGS suffered some harm, even if it was not to the significant degree suggested by the stringent HARM criteria. On the other hand, there were a range of harms that were not examined (for example to partners and children), and future examination of problem gambling should consider the broader harmful impacts and how these may vary in different cultural and social settings. New test instruments currently being developed are trying to better measure the harmful impacts (section 6.8).

ACIL also argue against the SOGS on the grounds that it is a test derived using an inappropriate US ‘mental disease’ framework. While the SOGS was developed using a set of diagnostic criteria which conceptualised problem gambling as a mental disease, the actual test questions posed in the SOGS tend to emphasise behavioural responses by people to gambling (lying, chasing losses, borrowing money) rather than mental states. The more recent DSM-IV criteria and the tests based upon them, such as Fisher’s DSM-IV and Gerstein et al.’s (1999) NODS, which ACIL cite approvingly, provide a greater weight to psychological aspects of gambling (such as preoccupation, escape, and tolerance) than the SOGS.

It was also argued that because the SOGS was not implemented for the full sample of respondents in the Commission’s survey, this amounted to leaving out the control group and constituted ‘a clear violation of the scientific method’ (sub. D233, p. 46). This criticism misunderstands the process by which tests, such as SOGS, are developed and used. A control group is not required every time a test is implemented. Rather, initial research is conducted to determine the properties of a test and then it is subsequently used without controls. In any case, without clinical confirmation that no problem exists, it is not certain that non-regular gamblers would be an adequate control group.

Secondly, it is highly inefficient to implement a test for all people if some of them lack the principal defining characteristics of the target group. The Commission elected only to ask the SOGS of people who gambled on average weekly on a non-lottery gambling form, or who spent more than \$4000 on gambling per year. This left out non-regular gamblers spending less than that amount and non gamblers.

The Commission omitted the former from the survey because, while some of them may actually be problem gamblers, past survey evidence from Australian studies show that very few exhibit problem gambling behaviours.²⁷ The Commission was thereby able to boost its sample of regular gamblers and obtain more precise estimates of the prevalence of problem gambling. Additionally, the Commission considered that the false positive rate was likely to be high amongst this group, and wished to avoid upwardly biased estimates of the prevalence of problem gambling. However, their exclusion is likely to mean that some genuine problem gamblers were omitted from the Commission's prevalence estimate.²⁸

ACIL and its statistical consultant were also critical of the Commission for not administering the SOGS (which relates only to behaviours associated with gambling undertaken over the last 12 months) to people who were established as non-gamblers. But to do so would be akin to asking unmarried people about their marital problems or introducing breast cancer screening for men.

Notwithstanding that many of these criticisms of the SOGS are misdirected, the Commission does not consider that the SOGS is an ideal instrument, an issue to which we turn next.

6.8 Are existing tests of problem gambling adequate?

Another question relates to whether tests, such as the SOGS or the DSM-IV, are really adequate tools for looking at problem gambling. It has been claimed that the SOGS is problematic because it only looks at some dimensions of problem gambling, is ill-suited to Australia because we have a more tolerant attitude to gambling, and is not geared to certain socio-economic groups (eg adolescents, Aboriginal and Torres Strait Islanders²⁹ or ethnic communities). As part of its inquiry, the US National Gambling Impact Study Commission developed a new test (Gerstein et al. 1999, p. 14ff). The new test, the NORC DSM-IV Screen or NODS, shares many facets with the SOGS and the DSM-IV, and represents an incremental advance, rather than a genuine methodological shift.

The VCGA is also in the process of developing an alternative screen, to be called the Victorian Authority Gambling Screen (VAGS). This promises to have different conceptual underpinnings to the SOGS, DSM-IV or the new US screen, and will be

²⁷ The recent US prevalence study also used a similar method (Gerstein et al. 1999, p. 19).

²⁸ Jackson et al. (1999a, p. 29) found that 6.9 per cent of gaming machine and TAB problem gamblers in counselling exhibited current binge gambling behaviour, which may not be picked up adequately by the Commission's survey method.

²⁹ For example, see Foote (1996, p. 7) and appendix E.

based on ‘a multi-disciplinary reconceptualisation of the impacts of gambling on the individual and family’ (VCGA 1998). The Canadians have also recently developed a new measure of problem gambling (Ferris, Wynne and Single 1999) — the Canadian Problem Gambling Index (CPGI). This places a far greater emphasis than the SOGS, DSM-IV or NODS on the adverse consequences of gambling behaviour (eg health impacts), and environmental features which may contribute to problem behaviours (eg big wins).

The Committee on Problem Gambling Management from New Zealand was critical of the need for a new instrument:

There needs to be an agreement about what the measure is in Australia. We constantly hear criticism of the SOGS instrument. There is no scientific evidence that homo sapiens in Australia are a subspecies from the rest of the world and require a different scientific device, and therefore the one now applied internationally for about 15 years has no relevance here. Frankly we think that’s a lot of bunkum. If the Australians wish to introduce a new measure and want to convince the rest of the world that it’s the best one, so be it. ... I see no scientific information to come from Australia which would compel an alternative scale of measures to be applied (transcript, p. 474).

However, the notion of developing a test which draws from frameworks outside the psychiatric and psychological research domains seems worthwhile, because it may generate a richer understanding of some aspects of problem gambling — and the Canadian approach seems highly promising. However, it is too early to determine whether, in fact, any of the alternatives will represent a useful alternative or adjunct to the SOGS or DSM-IV.

Either way, there is scope for improving the body of evidence about appropriate thresholds for the SOGS and for dealing with the apparent inadequacies of some questions or their weights (section 6.5).

In summary, the SOGS has a number of limitations as a way of understanding the nature of the problems facing gamblers. Nevertheless, if interpreted carefully and augmented by other information on the harmful impacts of gambling, the Commission considers that it can provide a useful guide to the prevalence rates and impacts of problem gambling. It is, in any case, the most popular internationally used test, which allows Australian prevalence estimates to be compared with past Australian estimates and those overseas.

6.9 The prevalence of problem gambling

Prevalence of problems among adult Australians

Having defined the different levels of problem gambling and the various tests (and associated thresholds) that have been used to measure it, it is then possible to estimate the prevalence of problems among Australians:

- Using the approach of Dickerson et al. (1997), around 1 per cent of Australian adults are estimated to have severe gambling problems (level 3 problems) — equivalent to about 130 000 adults (table 6.10).

Table 6.10 **Prevalence of gambling problem by degree of problem^a**
Australia 1999

	<i>People affected</i>	<i>Share of adult Australian population</i>	<i>100 x standard error</i>	<i>Marginal number of people affected</i>	<i>Marginal prevalence rate</i>
	Number	%	%	Number	%
SOGS 3+	692 235	4.90	0.28	240 711	1.70
SOGS 4+	451 524	3.20	0.24	158 787	1.12
SOGS 5+	292 737	2.07	0.20	86 249	0.61
SOGS 6+	206 487	1.46	0.17	48 471	0.34
SOGS 7+	158 016	1.12	0.15	34 158	0.24
SOGS 8+	123 858	0.88	0.13	30 325	0.21
SOGS 9+	93 533	0.66	0.11	46 741	0.33
SOGS 10+	46 792	0.33	0.08	46 792	..
Dickerson method	129 348	0.92	0.12	129 348	..
HARM	254 778	1.80	0.19	254 778	..

^a Column 1 records the number of people in each of the SOGS categories who score at that level. A SOGS n+ means those people who scored from n to 20 on the SOGS. Thus SOGS 3+ are people who scored 3 or more on the SOGS. Column 2 is the share of such people in the Australian adult population. Column 3 is the standard error of the estimate, reflecting the statistical uncertainty associated with survey samples. It can be used to understand the likely range of prevalence rates. The 95 per cent confidence interval for any given prevalence rate is the measured rate plus or minus 2 times the standard error. For example, the 95 per cent confidence range for the SOGS 5+ prevalence rate is 1.67 per cent to 2.47 per cent. The standard errors shown here do not take account of the complex survey design (see appendix P for a description of the bootstrapping method that is used to take account of the complex design). The corrected standard error for the SOGS 5+ prevalence rate is 0.245 (or about 25 per cent wider than the conventionally defined standard error). Column 4 records the marginal number of people affected as higher SOGS thresholds are used. Thus there are about 30 000 people who have a SOGS score of exactly 8. Column 5 records the marginal prevalence rate associated with column 4. The Commission's prevalence rates assume that non-regular (on non-Lotto forms of gambling) lower-spending gamblers do not experience *any* problems. It is likely that even some of these will, so the estimates here probably understate the prevalence rate somewhat.

Source: Estimates from the PC *National Gambling Survey*.

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- Using the adjusted SOGS 5 to 9³⁰ threshold to look at problems which are of lesser severity, then around 1.15 per cent of Australian adults currently have moderate problems (level 2 problem gambling) — or an additional 163 000 adults.
 - So overall, around 293 000 adults (or 2.1 per cent of the adult Australian population) have significant problems associated with gambling, using the SOGS as the basis for estimation.³¹
 - When looked at in terms of harmful impacts, the Commission finds around 255 000 adult gamblers (or 1.8 per cent of the adult population) experience significant adverse outcomes as a result of their gambling.
 - In the US it is suggested that people scoring 3 to 4 are also at risk of gambling problems — and indeed the usual nomenclature describes such people as ‘problem’ gamblers. They would account for an *additional* 400 000 adults (or a further 2.8 per cent of the adult population). However, the Commission considers that the use of this lower threshold in describing problem gamblers is likely to have too many false positives and prefers estimates based on higher SOGS scores or on other criteria.

State prevalence estimates are less reliable due to smaller sample sizes. With that caveat, the results indicate that NSW has a significantly higher prevalence rate (regardless of the threshold chosen for problems) than other states — which is consistent with the greater accessibility of gambling and the longer period that gaming machines have been available (table 6.11). It is notable that in states where gambling has been less common, such as Tasmania and Western Australia, prevalence rates are also much lower (an issue examined more closely in chapter 8).

³⁰ This is calculated by subtracting the Dickerson prevalence rate from the SOGS 5+ prevalence rate in table 6.10. Thus the level 2 risks have had all people scoring 10 or more removed, plus those scoring from 5 to 9 who are deemed to have genuinely severe problems.

³¹ The principal test of the reliability of a test is Cronbach’s alpha measure of its internal consistency. The reliability of the SOGS test used by the Commission is very good, with Cronbach’s alpha equal to 0.82 (much higher than the 0.70 that is usually regarded as representing good reliability — Volberg 1997, p. 35).

Table 6.11 Prevalence of gambling problems and harm incidence by state

	SOGS 10+	SOGS 5+	Dickerson method	HARM	SOGS 10+	SOGS 5+	Dickerson method	HARM
	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>no.</i>	%	%	%	%
NSW	15 923	122 300	59 798	93 985	0.33	2.55	1.25	1.96
VIC	12 477	75 925	28 974	72 713	0.35	2.14	0.82	2.05
QLD	9 857	48 609	19 665	46 274	0.38	1.88	0.76	1.79
WA	0	9 548	2 353	20 545	0.00	0.70	0.17	1.50
SA	8 266	27 809	15 627	16 315	a	a	1.38 ^a	1.44
TAS	0	1 526	305	406	0.00	0.44	0.09	0.12
ACT	146	4 588	1 629	2 944	0.07	2.06	0.73	1.32
NT	124	2 431	998	1 597	0.10	1.89	0.77	1.24
Australia	46 793	292 737	129 349	254 778	0.33	2.07	0.92	1.80

^a The prevalence result for problem gamblers for South Australia, particularly for SOGS 10+ was found to be relatively high compared to other states (0.73 per cent for SOGS 10+ and 2.45 per cent for SOGS 5+). This probably reflects sampling error.

Source: PC National Gambling Survey.

Quite apart from the SOGS or HARM, the Commission also examined the prevalence of gambling problems using some self-assessment questions posed to adult Australians:

- around 6.3 per cent of those surveyed indicated that they had some sort of problem on a scale of 2 (a small problem) to 10 (a severe problem) (table 6.12) — equivalent to an aggregate of around 890 000 adults.³² However, most of these were people who rated their problems as slight. About 1.5 per cent indicated that they had problems which were rated 5 or more out of 10.
- about 0.8 per cent of adults surveyed (equivalent to 111 000 adults in the whole population) said they wanted help — an indication of genuine problems at least as far as the perceptions of the person are concerned. But less than half of these had tried to get help of any kind, including from informal sources (chapter 17).

³² In other words 94 per cent said they had no problem at all.

Table 6.12 Gamblers' self-rating of the degree of problem they face

<i>Rating of problem</i>	<i>Number of adults</i>	<i>Share of adult population</i>
	Number ('000)	%
1 - Not At All A Problem	13 233	93.68
2	397	2.81
3	176	1.25
4	94	0.67
5	67	0.47
6	48	0.34
7	50	0.36
8	18	0.13
9	5	0.03
10 - A Serious Problem	17	0.12
Can't Say	21	0.15
Total	14 126	100.00

Source: PC National Gambling Survey.

Other studies of prevalence

Other than the anomalously high result³³ obtained for the first partly national study, previous Australian surveys of problem gambling (table 6.13) suggest that around 0.3 per cent of the adult population have severe problems (using the SOGS 10+ cutoff) and about 1 to 2.9 per cent of the adult population have *at least* moderate levels of problem (using the SOGS 5+ threshold).

Some of the differences between states and points in time apparent in table 6.13 may represent real differences in prevalence rates, but some will reflect the different ways in which the various surveys were implemented (telephone versus doorknock), subtle but important differences in questions, whether regular or all gamblers were asked the SOGS questions, and sampling (and other) errors.³⁴

³³ The first 'national' study conducted in four capital cities (Sydney, Brisbane, Melbourne and Adelaide) suggested much higher prevalence rates than have been found since. This should probably not be regarded as a reliable indicator of prevalence rates at that time.

³⁴ If something is rare among a population then different samples of that population will tend to provide estimates of prevalence which deviate considerably. For example, suppose that the true prevalence rate was 0.5 per cent and a random sample of 1000 adults was taken. The probability of discovering J problem gamblers in this sample is calculated as:

$$\Pr(J)=_{1000}C_J \times p^J(1-p)^{1000-J}$$

where $_{1000}C_J$ is the number of combinations of 5 among 1000 and p is 0.005. The likelihood of discovering just 5 problem gamblers (the expected number of problem gamblers) in the sample is only 17.6 per cent. There is a 12.4 per cent chance of finding 2 or less problem gamblers, and a 13.3 per cent chance of finding 8 or more problem gamblers. As Dickerson et al. (1996a) note,

Table 6.13 Prevalence estimates of problem gambling from past surveys^a

	'National' 1991-92	Tas 1994	Tas 1996	WA 1994	NSW 1995	NSW 1997	SA 1996	Victoria 1997	Victoria 1998
Survey method	D	D	T	D	D	D	T	T	T
No. participants	2744	1220	1211	1253	1390	1209	1206	2000	1737
Total no. regular gamblers	376	n.a	n.a	204	~528	457	381	n.a	n.a
Regular gambler participants	290 ^b	295	477	204	299 ^c	288 ^d	381	n.a	n.a
Gamblers offered the SOGS ^e	Regular	Regular	All	Regular	Regular	Regular	Regular	All	All
N SOGS 5+	107	14	35	7	36	38	15	15	26
N SOGS 10+	22	2	3	4	9	6	4	3	n.a.
p SOGS 5+ (%) ^f	6.60	1.14	2.89	0.56	2.59	2.89	1.24	0.75	1.5
p SOGS 10+ (%)	1.16	0.16	0.25	0.32	0.57	0.41	0.33	0.15	0.3
CI SOGS 5+ (%)	5.67 - 7.52	0.54 - 1.73	1.94 - 3.83	0.14 - 0.97	1.75 - 3.42	1.94 - 3.83	0.61 - 1.86	0.37 - 1.12	0.92- 2.08
CI SOGS 10+ (%)	0.75 - 1.56	0.0 - 0.38	0.0 - 0.53	0.00 - 0.63	0.17 - 0.96	0.04 - 0.77	0.00 - 0.65	0.0 - 0.31	0.04- 0.56
Adult population ('000)	12 909	346	348	1 269	4 638	4 762	1 122	3 469	3 520
NPOP 5+ SOGS	851 994	3 944	10 057	7 106	120 124	137 622	13 913	26 017	52 800
NPOP 10+ SOGS	149 744	554	870	4 061	26 437	19 524	3 703	5 203	10 560

^a Mnemonics are D is a doorknock survey; T is a telephone survey, N is the number of survey respondents who are problem gamblers, p is the prevalence rate, CI is the confidence interval, and NPOP is the number of problem gamblers in the population. ^b The refusal rate for Part 2 of the survey was 22.9 per cent. ^c In the 1995 NSW study, a quota of 140 was set for Lotto only players, ie. 229 weekly Lotto players out of the 369 eligible for Part 2 were not offered it. ^d In the 1997 NSW study, a quota of 113 was set for Lotto only players, ie. 169 weekly Lotto players out of the 282 eligible for Part 2 were not offered it. ^e Regular gamblers are defined as those gambling at least once per week; the Tasmanian and Victorian surveys asked the SOGS of all gamblers — those who had participated in gambling activities in the last 12 months and 6 months respectively. ^f The standard error of the prevalence estimate is $\sigma = \text{SQRT}\{p(1-p)/N\}$, where p is the prevalence rate and N is the sample size. The 95 per cent confidence interval is p plus or minus 1.96σ .

Source: Dickerson, Baron, Hong and Cottrell (1996); Dickerson and Baron (1994); and Dickerson and Maddern (1997); Dickerson, Baron and O'Connor (1994); Dickerson et al (1996a, 1998); Delfabbro and Winefield (1996); Market Solutions and Dickerson (1997) and Roy Morgan (1999). Population numbers are from the ABS Cat. no. 3201.0 (various issues).

Taking the differing populations into account, the weighted average prevalence rates of these past Australian studies is 1.8 per cent (excluding the 1991-92 national study) and 3.3 per cent (including the national study). Accordingly, the Commission's prevalence estimates are broadly in line with state studies that have been conducted over the last decade. That said, the overall prevalence estimate derived from the *National Gambling Survey* should be more accurate, reflecting its larger sample size and the use of a consistent set of questions.

small prevalence rates stretch the accuracy of the survey method to its limits. Indeed, apart from the early national study, with sample surveys ranging in size from around 1200 up to 2000 participants, the number of problem gamblers identified across the various state studies ranges from only 2 to 9, a variation which could arise purely from chance. This is evidenced by the fact that the 95 per cent confidence intervals for the SOGS 10+ prevalence rates overlap for all states.

A range of studies have been conducted around the world to estimate problem gambling prevalence rates:

- A recent large-sample Swedish study (Rönnerberg et al. 1999, p. 55) estimates the prevalence of problem gambling in Sweden at 0.6 per cent (based on SOGS 5+) with 0.2 per cent having a SOGS score of 8 or more.³⁵
- A large number of studies have been conducted in the US and Canada, and these suggest that problem gambling (defined by the SOGS 5+ threshold) amongst non-institutionalised adults amounts to around 1.1 per cent of adults (table 6.14) compared to Australia at 2.3 per cent. However, it is also common in the US to refer to people scoring 3 or more on the SOGS as ‘problem’ gamblers. The group scoring 3 or more are estimated to comprise around 4 per cent of US adults. While the Commission questions the usefulness of this low cutoff, the Australian measure of problem gambling using this cutoff is still higher at about 4.9 per cent (table 6.10).
- The most recent US study (National Gambling Impact Study Commission NGISC 1999) suggests that around 1.1 per cent of American adults were current ‘pathological’ gamblers (using a DSM-IV screen). A DSM-IV screen rating of 5 does not have a simple equivalence to the SOGS, but tends to identify the same groups of gamblers.
- A range of studies have been conducted in Spain (Becona 1996). Two studies pointed to a prevalence of problem gambling (on a SOGS 5+ threshold and a DSM-IV rating of 4+ respectively) of 1.7 per cent. A more recent study found 1.4 per cent of adults were problem gamblers (using SOGS 5+).
- A number of studies have been undertaken in New Zealand (Abbott and Volberg 1991, 1992) and they point to a prevalence of problem gambling of around 1.2 per cent (using the SOGS 5+ cutoff).

Once their use of a lower SOGS cutoff in diagnosing problem gambling is taken into account, the picture emerging is that the prevalence of at least level 2 problem gambling is significantly greater in Australia than other countries. This should not be surprising given the much wider availability and acceptability of gambling in Australia.

³⁵ This study found that a further 1.4 per cent of people had SOGS scores of 3 to 4, which the authors regarded as also indicative of a problem.

Table 6.14 Mean prevalence rates (and confidence intervals) of gambling problems, a meta analysis of North American surveys^a
1977–1997

<i>Affected groups</i>	<i>Typically SOGS 5+ (lifetime)</i>	<i>Typically SOGS 3-4 (lifetime)</i>	<i>Typically SOGS 5+ (past year)</i>	<i>Typically SOGS 3-4 (past year)</i>
	%	%	%	%
Adult				
Prevalence	1.6	3.85	1.14	2.8
95% confidence interval	1.35-1.85	2.94-4.76	0.9-1.38	1.95-3.65
Adolescent				
Prevalence	3.88	9.45	5.77	14.82
95% confidence interval	2.33-5.43	7.62-11.27	3.17-8.37	8.99-20.66
College				
Prevalence	4.67	9.28	..	..
95% confidence interval	3.44-5.90	4.43-14.12	..	..
Institutionalised (eg prisons, drug rehab)				
Prevalence	14.23	15.01	..	..
95% confidence interval	10.70-17.75	8.94-21.07	..	..

^a In undertaking the meta-analysis, Shaffer et al. did not look at actual SOGS or DSM-IV scores, but used authors' ratings about the proportion of gamblers who were at-risk or 'pathological' problem gamblers. In the US, the customary use of the SOGS is that scores of 5+ are used to label people as 'probable pathological' gamblers, while scores of 3 to 4 (and sometimes even 1 to 4) are used to identify gamblers who are apparently at-risk. The total number of people identified as having problems is the sum of these two groups. For example, Shaffer et al's results point to about 5.45 per cent of North Americans as having some problems with their gambling. In comparing the results of the US studies with Australia it should be emphasised that no Australian study has regarded a score of below 5 as relevant to the diagnosis of problems. The lower cutoff used by US studies has also obscured evidence on the number of people with high SOGS scores (of 10+) — these are mostly not reported.

Source: Shaffer et al. (1997, p. 34).

Disaggregated prevalence measures for Australia

Prevalence calculations based on the population as a whole can be misleading. First, calculating problem gambling prevalence rates using all adults in the denominator is based on the premise that all adults are equally exposed to gambling, which they are not. To use an analogy, the prevalence of mountaineering-related deaths of Australians is almost infinitesimally small, but the prevalence of mountaineering related deaths among mountaineers is relatively high.

Second, concentrating on the person who directly experiences the problem fails to take account of the likely impacts on those affected by the problem gambler — which includes family members, friends and work colleagues, as well as, in extreme cases, crime victims. Problem gambling has ripple effects on others:

The prevalence rate also does not take into consideration that a person experiencing a gambling problem lives in a community which he/she impacts. So the negative impacts of gambling can manifest themselves in individuals and their families (partners and children), their social network, their productivity at work and sometimes even in illegal acts to finance the gambling in order to try to make up losses (Lifeline Canberra Inc, sub. 103, p. 2).

Third, even if a prevalence figure is low, it does not mean that this provides a basis for sidelining problem gambling. The costs for those affected have to be weighed up against the benefits for those who are not.

Finally, it ignores the prevalence of under-age gambling problems, which lie outside the scope of the definition.

There are a number of alternative methods for calculating or better understanding prevalence rates by examining:

- *The prevalence of problem gambling amongst adults who have gambled in the past 12 months* (eg as advocated by Shaffer et al. 1997, p. 65). Since about 80 per cent of Australian adults gambled in the last 12 months, this makes a modest difference to prevalence rates — with the rate of level 2 (or higher) problem gambling touching on 3 per cent for gamblers as a whole.
- *The prevalence of problem gambling by the type of gambling* (eg wagering on horses compared to lotteries or gaming machines). This allows for the fact that the likelihood of developing problems is higher among some forms of gambling, and that calculating a general prevalence rate masks severe problems in some forms and slight problems among others. The data (table 6.15) however, can provide a misleading indicator of risk for popular forms of gambling, since it combines two distinct groups of gamblers — those who are regular (on average,

weekly) players and those who are non-regular gamblers.³⁶ This is why the rate of problem gambling amongst all people who have gambled in a given mode is lower in modes which are popular. It would *not* be appropriate, for example, to declare that gaming machines are low risk on the basis of the estimates for ‘all players’ in table 6.15.

- *The prevalence of problem gambling by the intensity of gambling* (either by frequency or amount). Many people have very low exposure to gambling. It is revealing to calculate prevalence rates in their absence to see to what extent the likelihood of problems rises with intensity of play. These measures also might help to identify problem gamblers from easily monitored behaviour, or to design harm minimisation strategies. For example, if one per cent of people who undertook gambling of a certain form had gambling problems, it is not useful for identification of problem gamblers among that group. However, if 50 per cent of people who gambled weekly on the form had such problems then it is a useful discriminator of problem gambling. Weekly gambling on gaming machines, and casino table games is a highly significant indicator of an increased likelihood of problem gambling.³⁷ Around one in five regular gaming machine and casino table game players score 5 or more on the SOGS.
- *By ‘favourite’ mode* (the mode where most money is perceived to be spent). People often gamble on many different forms of gambling. If they are a problem gambler in a particular mode of gambling, then they will still be counted as a problem gambler when they play other modes, even if their expenditure is relatively modest. One way of overcoming this is to calculate the share of people with problems by their favourite mode of gambling (figure 6.4). This strongly suggests that lotteries and instant scratch tickets present few direct problems. For example, only 0.28 per cent of those who consider lotteries their most expensive form of gambling have any problems. But gaming machines loom much larger as a source of problems, with one in ten of those for whom this is the favourite form scoring 5 or more on the SOGS.
- *The Continued Adoption Rate* (Focal Market Research 1998, p. 1.19) or *Conversion Rate* (Volberg and Stuefen 1991 and Baseline Research 1996) of different forms of gambling. This is the ratio of the percentage of people who

³⁶ We also emphasise that the calculations here are based on the share of problem gamblers (whatever the gambling mode or modes that is the source of their problems) who play any given mode. Thus because some problem gamblers will gamble on lotteries, there is a share of problem gamblers among lottery players. This should not be taken to mean that lottery playing caused the problem. The relevant issue is the comparative representation of problem gamblers by mode of gambling. If it is higher, this is suggestive that that mode is more risky.

³⁷ Results for keno, subsumed in other commercial games, also suggest a relatively high level of risk.

gamble in a particular gambling form on a *weekly basis* to the percentage of people who gamble on this form *at all* (over the last 12 months) While not prevalence measures themselves, they indicate the extent to which people are potentially exposed to risk when playing a particular form of gambling. The continued adoption rate is very high for lotteries, but since this a low risk form of gambling this does not have significance for problem gambling. However, it is also relatively high for gaming machines and racing, which means that a relatively large group of people are exposed to high risks — which explains why people playing these games account for the bulk of problem gamblers seeking help. In contrast, while regular gambling on casino table games appears to be a strong indicator of an increased likelihood of problem gambling, very few people who play casino tables games do so weekly.

- *Problem gambling among non-adult populations.* All of the major state and national surveys have excluded under-age gamblers from their scope. However, there is abundant overseas, and some Australian evidence, that problem gambling also affects people aged under 18. Prevalence rates of these problems should also be calculated. The Commission did not undertake a survey of adolescent gambling, but other Australian studies and international research, suggests that youth problem gambling is at rates somewhat *higher* than in adult populations.

In summary, it appears that some forms of gambling, such as lotteries and scratchies, in their current forms, currently present low risks for problem gambling. Other forms, particularly regular playing of gaming machines and casino table games, appear to be associated with a higher likelihood of gambling problems.

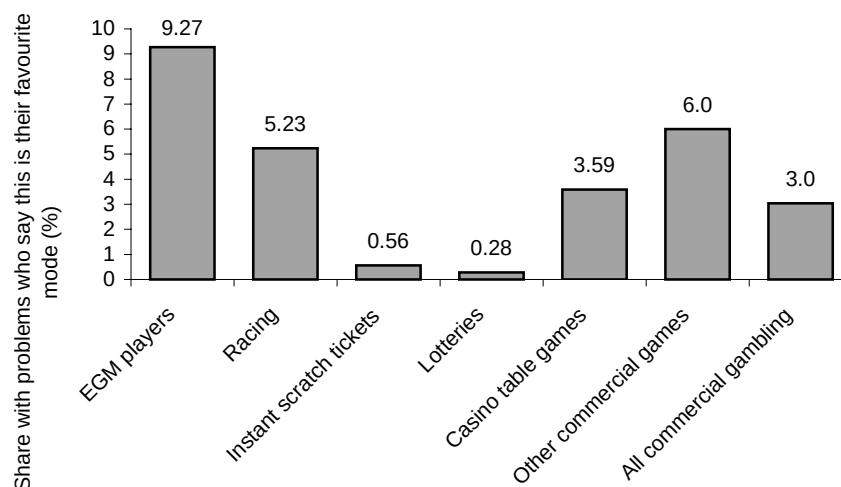
Table 6.15 Problem gambling prevalence and harm incidence rates by gambling mode and frequency of playing^a

	SOGS 5+	SOGS 10+	HARM	Relevant share of adults	Continued adoption rate
	%	%	%	%	%
All players					
EGM players	4.67	0.76	4.09	38.60	..
Racing	4.46	0.74	3.80	24.30	..
Instant scratch tickets	2.83	0.39	2.34	46.20	..
Lotteries	2.75	0.34	2.42	60.00	..
Casino table games	6.12	1.06	4.67	10.31	..
Other commercial games	5.60	0.92	5.02	23.51	..
All commercial gambling	2.55	0.41	2.22	81.30	..
Weekly players					
EGM players	22.59	3.77	14.79	4.27	11.06
Racing	14.72	3.10	11.45	3.45	14.20
Instant scratch tickets	5.49	1.32	5.90	6.70	14.50
Lotteries	2.48	0.35	2.44	29.10	48.50
Casino table games	23.84	8.03	15.63	0.25	2.42
Other commercial games	13.31	2.30	8.05	3.70	15.74
All commercial gambling	4.62	0.88	3.48	37.53	46.16
Regular non-lottery	15.36	2.79	10.70	9.47	..

^a The relevant share of adults is the percentage of adults who play in the relevant categories. For example, 81.3 per cent of adults have participated in commercial gambling in the last year, but only 9.5 per cent gamble weekly or more on non-lottery gambling modes. Non-lottery excludes both lotto type products and instant scratch tickets.

Source: PC National Gambling Survey.

Figure 6.4 Share of people with problems by their favourite mode of gambling^a



^a The 'favourite' mode was determined by asking what mode gamblers thought they had spent the most on.

Data source: PC National Gambling Survey.

6.10 Who are the problem gamblers?

A relevant issue for possible targeting of any public health campaigns is whether there are any clear socio-demographic pointers to higher incidence of problem gambling. Clearly, as suggested in the previous section, regular play on a continuous form of gambling, such as gaming machines, is a very significant risk factor. Otherwise, only a relatively few relevant factors emerge (tables 6.16, 6.17 and appendix Q). Indeed there are often bigger differences between gamblers and non-gamblers than there are between problem gamblers and gamblers generally.

Problem gamblers in the general population appear to be younger than the average gambler. A gambler aged under 25 years has a likelihood of developing a gambling problem about twice that of gamblers as a whole. Those in counselling are older than those who have not sought help (consistent with people enduring problems for some time before people seeking help). Gamblers over 70 years rarely appear to display gambling problems. They have a likelihood of developing problems about one fifth of that of gamblers as a group.

Table 6.16 The age of problem gamblers
Australia 1999^a

<i>Age</i>	<i>In counselling</i>	<i>Problem gamblers</i>	<i>All gamblers</i>	<i>Non-gamblers</i>
<i>Years</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
Under 25	6.3	26.4	13.8	11.2
25-29	8.6	15.1	9.4	9.3
30-34	9.6	8.4	11.6	8.2
35-39	14.5	10.6	10.2	10.1
40-44	19.3	6.8	10.2	9.4
45-49	14.0	9.0	9.7	10.6
50-54	14.0	8.3	11.0	10.0
55-59	6.3	8.1	7.7	7.2
60-64	4.1	2.6	4.7	5.5
65-69	2.0	3.3	4.4	5.3
70+	1.3	1.5	7.2	13.4
Total	100.0	100.0	100.0	100.0

^a The ratios of column 2 to column 4 and the ratio of column 3 to column 4 provide a rough indication of the changed level of risk of being a problem gambler, taking the age distribution of all gamblers as the benchmark.

Source: PC Survey of Clients of Counselling Agencies, PC National Gambling Survey.

There appear to be few differences between problem gamblers and all gamblers on the basis of education (though fewer of those who are in counselling have been to university or CAEs).

It also does not *seem* to affect the likelihood of problems if a person was born in Australia or not. This is also the finding of Jackson et al. (1999b, p. 12) when examining the ethnicity of Break Even clients in Victoria. However, there does appear to be a higher prevalence of problems among gamblers who do not speak English at home. But little is known overall about the way in which gambling problems are manifested among different cultural groups. It may be that the relative likelihoods of problem gambling are higher (or lower) than suggested by these figures. For example, they may be higher if problem gamblers speaking a foreign language or who are culturally uneasy about survey questionnaires or counselling services are not included in the sampling. As well, problem gambling is a concept rooted in a cultural context, and what may be benign or problematic in one setting may be otherwise in another. The AIGR (1999) has completed a report for the Racing and Gaming Commission of Western Australian on access to services by different cultural groups. A study which reports the results of a major survey of ethnic groups in NSW is due to be released in the year 2000.

People who are separated or divorced, unemployed, living in single-person households are more highly represented amongst problem gamblers. This is also the finding of Jackson et al. (1999b, p. 13). For example, they found that 20.7 per cent of Victorian Break Even clients presenting for a gambling problem are divorced or separated (p. 13) and 12 per cent are unemployed (p. 17). However, the causality is complex. Other results (chapter 7) suggest that work and marital status may be the result of problem gambling, rather than risk factors themselves.

Average personal income appears to be somewhat lower among gamblers in counselling or who were identified by the *National Gambling Survey* as problem gamblers — but the difference is slight. Jackson et al. (1999b, pp. 19-20) also found that problem gamblers have a similar level of income to other adults (figure 6.5). That said, a considerable number of problem gamblers are in lower income brackets (figure 6.5 and appendix Q).

Males and female problem gamblers appear to be equally represented at counselling services. The Commission's *Survey of Clients of Counselling Agencies* suggested that 51.4 per cent of clients were male — close to the 49.8 per cent found for Victorian Break Even clients in 1997-98 by Jackson et al. (1999b, p. 10). However, the Commission's *National Gambling Survey* suggests that males are still somewhat more highly represented among problem gamblers in the general population. This suggests that males may be less willing to seek professional counselling assistance.

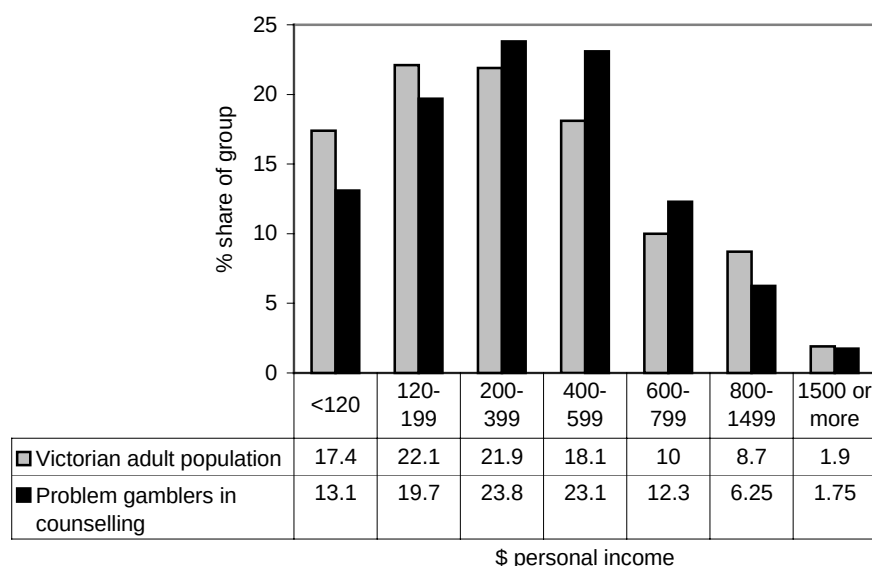
Table 6.17 Who are the problem gamblers?

Australia 1999

<i>Characteristic</i>	<i>In counselling</i>	<i>Problem gamblers</i>	<i>All gamblers</i>	<i>Non-gamblers</i>
	%	%	%	%
<i>Education</i>				
Up to 4th year high school	38.4	31.0	29.5	24.6
Finished high school	26.7	28.7	28.6	24.0
TAFE/ technical education	12.7	9.8	11.2	7.8
CAE/University	21.1	30.5	30.8	43.7
<i>Male</i>	51.4	60.0	50.0	45.0
<i>Foreign born</i>	26.2	19.7	22.3	27.9
<i>Father Australian</i>	60.1	56.9	63.2	58.9
<i>Mother Australian</i>	61.4	63.3	65.9	60.9
<i>Non-English spoken at home</i>	9.7	8.2	4.8	9.2
<i>Aboriginal or Torres Strait Islnd.</i>	1.2	2.4	1.6	1.0
<i>Marital status</i>				
Married or living with a partner	47.3	47.3	66.1	66.3
Separated or divorced	25.1	8.1	5.9	4.6
Widowed	3.3	1.4	3.6	6.5
Single	24.3	43.2	24.3	21.9
<i>Household type</i>				
Single person	24.7	8.5	8.1	10.8
One parent family with children	9.4	3.7	5.0	4.0
Couple with children	16.8	34.9	50.3	48.5
Couple with no children	32.4	21.2	22.2	23.7
Group household	8.4	27.0	11.2	9.8
Other	8.2	4.6	3.0	2.9
<i>Major income source</i>				
Wages/salary	55.3	69.7	63.6	52.8
Own business	11.2	7.0	13.8	18.2
Other private income	0.8	1.6	2.9	4.4
Unemployment benefit	8.4	5.2	2.3	2.0
Retirement benefit	2.0	2.0	3.8	5.1
Sickness benefit	2.3	0.1	0.2	0.3
Supporting parent benefit	3.8	2.3	1.5	0.5
Aged/invalid pension	13.5	9.0	8.5	12.5
Other	2.3	3.1	2.6	2.1
<i>Work status</i>				
Working full-time	42.6	53.5	48.4	41.9
Working part-time	15.3	16.4	16.0	15.3
Home duties	8.9	6.4	10.1	9.2
Student	2.8	10.5	5.3	6.6
Retired (self-supporting)	2.0	2.1	8.9	12.8
Pensioner	13.0	7.0	7.1	9.3
Unemployed (or looking for	12.0	4.1	2.9	2.4
Other	3.3	0.1	1.0	2.0
<i>Average personal income</i>	28 819	30 050	32 120	31 100

Source: PC Survey of Clients of Counselling Agencies, PC National Gambling Survey.

Figure 6.5 Personal income of problem gamblers in counselling
Victoria 1997-98^a



^a Based on a sample of over 2 200 problem gamblers in counselling. The data included two categories of income data that recorded income ranges on a different basis to the remaining data. These were distributed evenly among the appropriate income ranges.

Data source: Jackson et al. (1999b).

The current roughly balanced gender mix of problem gambling represents a large shift in the composition of problem gamblers over the past decade. In their 1991 national study, Dickerson et al. (1996) found that 86 per cent of problem gamblers were male. The prevalence of problem gambling among females has increased by a factor of three over this time. It appears that this ‘feminisation’ of problem gambling has proceeded with the introduction of gaming machines — an issue examined more closely in chapter 8.

Many socio-demographic factors are correlated. For example, young people tend to have lower incomes than middle aged people. Accordingly, results, such as those in tables 6.16 and 6.17, might conceal significant patterns in the likelihood of problem gambling, once these interdependencies are taken into account. To deal with this problem, the Commission undertook a logistic regression analysis of the likelihood of being a problem gambler for those who answered the SOGS (and therefore mainly regular gamblers).

The most important factors associated with a higher likelihood of problems for regular gamblers appear to be age (a negative impact on the likelihood of problem gambling), the frequency of playing gaming machines (a positive influence), the frequency of betting on racing (positive), the frequency of playing at the casino

(positive), and residency within a city (positive). Higher household income appeared to be negatively associated with problem gambling, but the effect was weak and not statistically significant at the conventional 5 per cent level. Once confounding variables are taken into account, other demographic variables (such as sex, education, ethnicity or marriage status) had no apparent effect on the likelihood of developing problems amongst regular gamblers. This does not mean that these variables may not have some influence on the likelihood of problem gambling:

- It is possible that the probability of undertaking regular gambling in the first place is correlated with some of these factors, and that then exposes the person to the risks of problem gambling (for example, more highly educated people appear to be less likely to gamble at all).
- The sample size (140) of problem gamblers in the *National Gambling Survey* means that the standard errors associated with the demographic characteristics of problem gamblers will be relatively high.³⁸

But the overall message from the analysis of the characteristics of problem gamblers is that there are few clear individual factors, other than age, that are associated with a higher likelihood of gambling problems. Certain playing modes — particularly regular gambling on continuous forms, such as gaming machines — appear also to be a significant determinant of higher prevalence rates.

6.11 What is the duration of problems?

Information about the duration of problem gambling is interesting in a policy sense for a variety of reasons:

- first, it suggests whether the costs borne by problem gamblers persist year after year, or disappear after a relatively short duration; and
- second, it provides a guide to the incidence of gambling problems amongst an adult population. If each year, 2.1 per cent of the adult population had a gambling problem, and the duration of the problem was just one year, then this would imply that a large share of the adult population would have gambling problems at some point in their lives. Conversely, if the problems are enduring, then the proportion of the adult population who at some time will develop problems is a small factor (around 2) times the annual prevalence rate.

³⁸ The standard error is about $0.085\sqrt{(p(1-p))}$ where p is the proportion of the group with a given attribute.

The evidence points to problem gambling as an enduring problem for those who are affected. Gamblers from the *National Gambling Survey* who identified themselves as having a current problem had had the problem for an average 9.1 years.³⁹ Some 28 per cent had experienced problems for 10 years or more.

The *Survey of Clients of Counselling Agencies* suggested similar results, with an average duration of problems of 8.7 years.⁴⁰ Again, around 30 per cent of clients experienced problems for 10 years or more (table 6.18).

Table 6.18 The duration of problems amongst clients of counselling services

	<i>Share of problem gamblers</i>
	%
Less than one year	3.1
One to two years	16.5
Over 2 years to 5 years	27.9
Over 5 years to 7 years	12.4
Over 7 years to 10 years	9.8
Over 10 years to 15 years	11.6
Over 15 years	18.6

Source: PC *Survey of Clients of Counselling Agencies*.

Dickerson, Baxter et al. (1995, p. 94) found that nearly 40 per cent of help-seeking problem gamblers had experienced problems for more than 10 years (table 6.19).

However, amongst Queensland help-seeking problem gamblers, less than 10 per cent had experienced problems with this duration (figure 6.6). Females tend to have had a far shorter average duration of problems, probably reflecting the relative recency of mass involvement by women in gambling. This suggests that problem gambling prevalence rates will tend to climb in the future as the existing stock of problem gamblers accumulates.

³⁹ Those who indicated that the problem had been in the past suggested an average duration of 3.2 years.

⁴⁰ Some overseas research suggests a longer duration of problems among help seekers. For example, a US study (Lorenz, Politzer and Yaffee 1990) found that the mean age when members of a Gamblers Anonymous group had first lost control of their gambling was 27 years (a mode of 18 years) and the mean age when they had gained control was 40 years (a mode of 37 years) — which points to a typical duration of 17 to 19 years for this group.

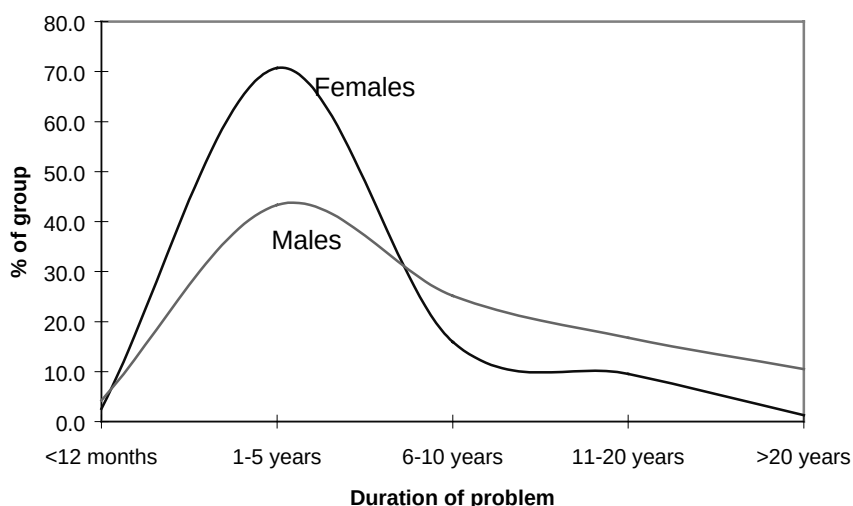
Table 6.19 The duration of problem gambling

<i>Duration</i>	<i>% of problem gamblers by duration of problem</i>	<i>Duration</i>	<i>% of problem gamblers by duration of problem</i>
	Queensland BreakEven clients ^a		South Australian counselling clients ^b
	%		%
0 to 2 years	28.2	Up to 3 months	3.1
3 to 5 years	16.7	3 to 6 months	5.7
6 to 10 years	16.1	6 to 12 months	14.6
11 to 15 years	9.8	1 to 2 years	29.9
15 to 20 years	5.8	2 to 5 years	29.3
> 20 years	23.0	5 to 10 years	9.1
		10 years or more	8.4

^a These data are for 1994, and would be expected to be influenced by the relatively recent liberalisation of gaming machines in Queensland at the time. ^b These data are from November 1996 to May 1998 for a sample of South Australian clients of gambling counselling services.

Source: Queensland data from Dickerson, Baxter et al. (1995, p. 94) and South Australian data from Elliot Stanford and Associates (1998).

Figure 6.6 Duration of problem gambling by gender
Clients of counselling agencies^a



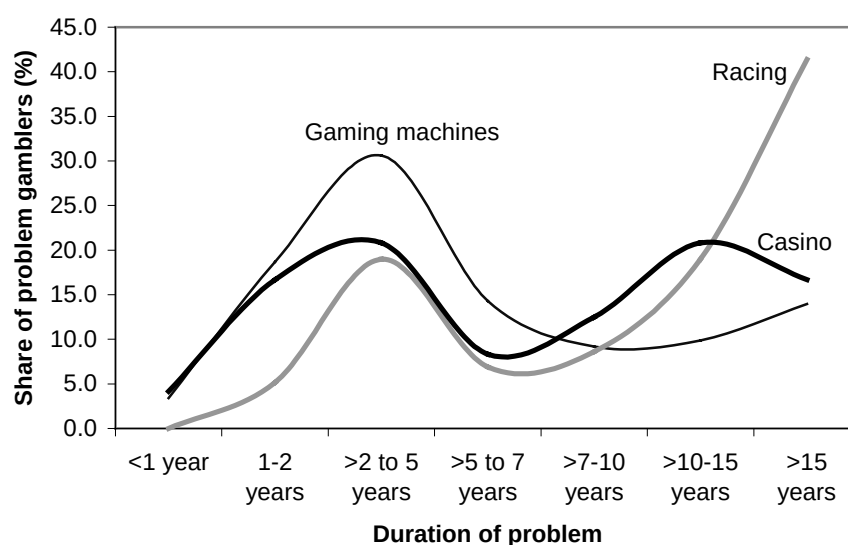
^a The data have been smoothed.

Data source: Relationships Australia Queensland (sub. 62).

People with problems relating to racing appear to have had far more enduring problems than those with problems from gaming machines or casino table games (figure 6.7). About 40 per cent of the clients of counselling agencies with a gambling problem relating to racing have had the problem for more than 15 years — about double that of the two other modes. Many more clients with gaming

machine problems have a very short duration of problems. This probably reflects the more recent liberalisation of gaming machines. The data suggest that clients in states other than New South Wales had a significantly lower duration of machine gambling problems. For example, South Australian gaming machine problem gambling clients had an average duration of problems of 4.8 years compared with 10.9 years in New South Wales. By contrast, there were no statistically significant differences between duration for racing-related gambling problems in different states. These duration data suggest that a whole new cohort of problem gamblers have been created with the liberalisation of gaming machines.

Figure 6.7 Duration of gambling problem by source of problem
Counselling clients^a



^a Clients were asked to nominate the gambling mode that was the principal source of their gambling problems.

Data source: PC Survey of Clients of Counselling Agencies.

The duration data imply that many problem gamblers must have started gambling at a young age. The Commission was told by counselling agencies that many problem gamblers report that they commenced gambling at a relatively early age, and that they even developed problems when they were young. For example, the Festival of Light pointed to the risks of scratchies for young people:

A youth ... told us that he had begun buying Keno and instant scratchies at the age of 16, but had quickly become addicted ... He started buying them with spare change he happened to have. He had a few small wins, and that kept him going so he started to 'spend up big'. 'There was one time I had a spare dollar so I played it on Keno. I won \$3, but ended up spending that also and losing it. I was hooked — so I spent \$10 I was

planning to save, and ended up with nothing... I always thought I would win in the next game' (sub. 107, pp. 3, 9-10).

The *Survey of Clients of Counselling Agencies* confirms this (table 6.20), with 24 per cent of gamblers in counselling indicating that they commenced gambling regularly below the age of 18 years. Five per cent indicated that they had developed problems when under 18 years. There is also a marked difference between males and females, with many more males regularly gambling earlier than females — and also, accordingly, developing problems earlier.

Table 6.20 The age at which problem gamblers in counselling reported they first gambled and developed problems, by gender
Australia 1999

Age category	Age when started gambling regularly			Age when first developed problems		
	Males	Females	All	Males	Females	All
	%	%	%	%	%	%
<=10	3.1	3.2	1.3	0.0	0.0	0.0
11-17	35.0	10.2	22.5	9.1	1.1	5.0
18-24	33.0	18.3	26.6	33.7	11.9	23.4
25-35	13.2	26.9	19.7	29.7	28.1	29.0
36-49	12.7	29.6	20.8	22.6	39.5	30.7
50+	3.1	11.8	9.1	5.0	19.5	11.8
Total	100.0	100.0	100.0	100.0	100.0	99.9

Source: PC *Survey of Clients of Counselling Agencies*.

6.12 Comparison of gambling problems with other public health concerns

As noted by Gerstein et al. (1999, p. 50) and Tabcorp (sub. D232, p. 9), it is instructive to examine how the prevalence of problem gambling compares with other key public policy health concerns. The evidence suggests that the prevalence of current year problem gambling is considerably less frequent than problems with alcohol and tobacco. On the other hand, it is rather more prevalent than current use of illicit injection drugs. It is also considerably more prevalent than the yearly incidence of some other public health concerns such as transport related injury and scalding in infants (both of which are the subject of awareness campaigns — chapter 16).

It should be emphasised that the relative magnitudes of prevalence rates among different sets of public health problems is only one consideration for prioritising policy action. The major consideration is the marginal net benefit associated with

public intervention, which will depend on the effectiveness and cost of interventions.

Table 6.21 The prevalence and incidence of public health concerns

<i>Health concern</i>	<i>Relevant population prevalence rate</i>	<i>Source</i>
	%	
Australia		
Regular smoker ^a	22.4	AIHW 1999 p. 12
Daily consumption of 5 or more standard drinks daily ^b	2.3	AIHW 1999 p. 18
Harmful or hazardous regular consumption of alcohol ^c	7.1	AIHW 1999 pp. 16-18
Use of an injecting drug in the last 12 months ^d	0.7	AIHW p. 26
Severe gambling problems ^e	0.9	PC National Gambling Survey
Moderate gambling problems ^f	1.2	PC National Gambling Survey
Hospitalisation rates for transport-related injury ^g	0.2	AIHW 1998, p.300
Hospitalisation rates for scalds 0-4 year olds	0.1	AIHW 1998, p.300
United States		
Current year alcohol dependence	7.2	National Research Council 1999 p. 81
Current year illicit drug dependence	2.8	National Research Council 1999 p. 81
Current year 'pathological' gambling ^h	0.9	National Research Council 1999 p. 81
Current year 'problem gambling' ⁱ	2.0	National Research Council 1999 p. 81

^a Smokes daily/most days. The prevalence is of the population aged 14 or above. ^b This is based on the share of people aged over 14 years who consume more than 4 standard drinks daily. ^c This is based on males who consume more than 4 standard drinks (the recommended maximum) at least 4 days a week, and on females who consumer more than 2 standard drinks (the recommended maximum) at least 4 days a week. It is unlikely to measure dependence. It is measured as a share of the population aged 14 years and above. ^d These drugs are mainly opiates, but also include a range of other injectable illicit substances. It only relates to use over the last year, and should not be equated with dependence. The prevalence rate applies to the population aged 14 and above. Tabcorp (sub. D232, p. 10), using the same source, cited a figure of 2.2 per cent for drug dependence, but this appears to be lifetime use of heroin. ^e Based on the Dickerson definition used in this chapter (share of the adult population). ^f Based on the residual of people scoring SOGS 5+ who were not included in Dickerson's definition (share of the adult population). ^g Rate based on the whole population. ^h The standard for measuring 'pathological' gambling is different to Australia — if a comparable standard had been used it is likely that the United States measured prevalence rate of so-called 'pathological' gambling would have been less. ⁱ This is based on a threshold for identifying problems that is generally not recognised in Australia.

Source: AIHW (1998, 1999); PC National Gambling Survey ; NIDA (1999).

7 The impacts of problem gambling

Box 7.1 Key messages

- While problem gambling for some people may be precipitated by prior conditions or problems, the Commission's assessment of the evidence is that many of the harms experienced by problem gamblers can be traced to gambling itself.
- Around 60 per cent of those with at least moderate gambling problems indicate that they have suffered depression as a result of gambling. And about 9 per cent of problem gamblers (and 60 per cent of those in counselling, the most severe category) report that they have seriously thought about suicide because of their gambling. It is estimated that there are between 35 and 60 suicides linked to gambling each year.
- Around one in five severe problem gamblers are reported to be suffering from alcoholism or other dependencies.
- Gamblers and their families say that lack of trust, lying, arguments and financial stresses leads to enormous pressures on families. About one in ten problem gamblers said that their gambling had 'ever' led to a relationship breakdown. It is estimated that there are around 1 600 gambling-related divorces annually. One in ten gamblers in counselling reported domestic or other violent incidents related to their gambling.
- On average, around seven other people were reported to be adversely affected to varying degrees by a severe problem gambler's behaviour.
- Survey results suggest that severe problem gamblers often have someone else in their family with gambling problems. For example, a problem gambler in counselling has a 16 times higher chance of having a father with a problem, than a non-problem gambler.
- The Commission's surveys suggested only moderate effects on work performance by most problem gamblers. About 19 per cent of problem gamblers said they lost time from work or study in the last year due to gambling, but this typically occurred infrequently. In contrast, around 50 per cent of problem gamblers in counselling reported that they had lost time from work or study due to gambling in the last year.
- Problem gamblers in counselling report a decline in work performance averaging about 7 per cent.
- The Commission's national survey data, consistent with other studies, suggests that about one third of aggregate gambling losses are accounted for by problem gamblers — this represents about \$3.6 billion a year.
- Based on national survey data, gambling losses represent an average of 22.1 per cent of household income (before tax) for problem gamblers (with a median of 12.2 per cent).
- The consequence of the high ratio of gambling spending to income is that problem gamblers tend to run down assets or borrow. One in two problem gamblers have borrowed money from some source to finance their gambling, and one in five problem gamblers borrowed money without paying it back.

7.1 The nature of impacts

Gambling is a form of entertainment enjoyed by many people. But for problem gamblers it has many adverse effects (figure 7.1). And, as emphasised in the previous chapter, the harms extend beyond those who might be categorised as problem gamblers. Accordingly this chapter examines the adverse impacts of gambling on both problem gamblers and others.¹ It commences by discussing some methodological problems associated with determining causality, before examining empirical evidence on the magnitude and prevalence of the adverse impacts of gambling.

Some methodological issues

While the chapter deals with each adverse impact separately, it is important to note that many of the impacts shown in figure 7.1 have linkages between them, so that one impact intensifies or causes another. For example, a problem gambler who loses much of his or her income in a given period will often feel depressed or angry, relationships may suffer and they may be tempted to borrow from a loan shark, with further stresses. They may feel deeply preoccupied with the hope of making good their losses, so that work productivity falls. Similarly, a gambler who commits a crime because of gambling will feel anxiety associated with the fear of being caught or losing face, possibly precipitating more gambling to escape these feelings.

But these interaction effects raise a potential methodological problem, which is examined next.

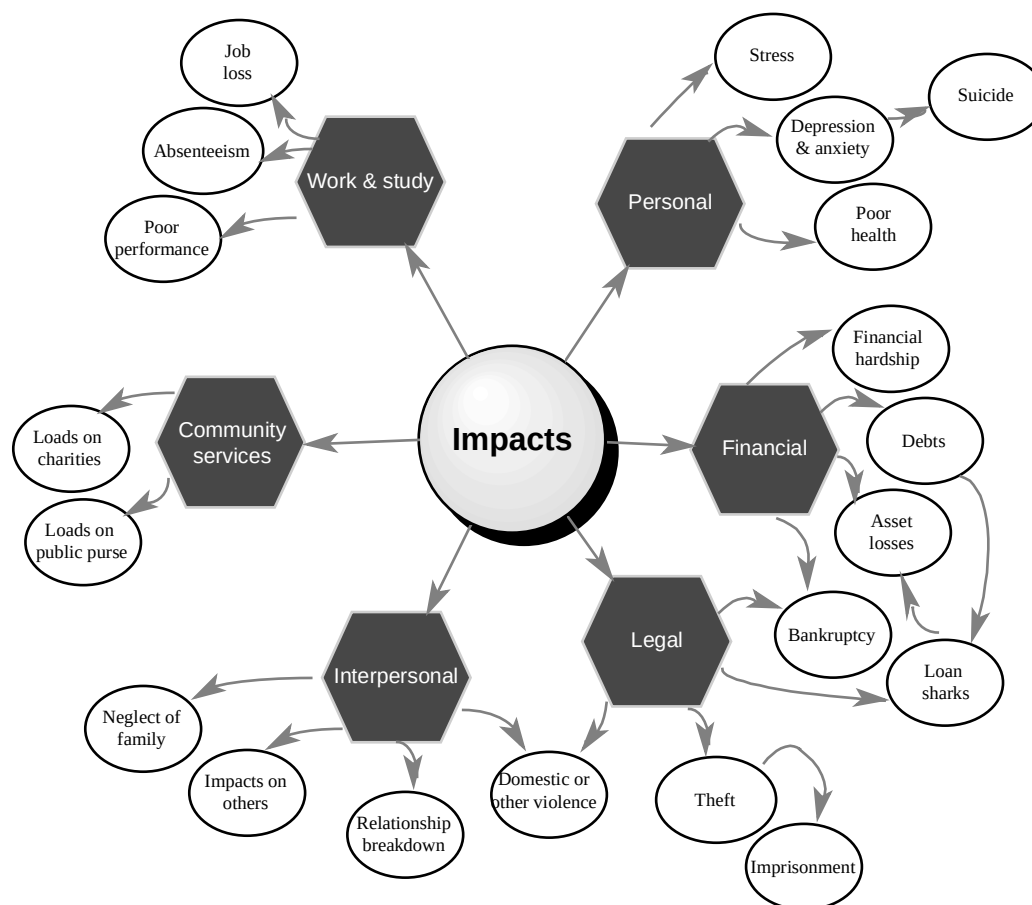
Is it ‘people with problems’ or ‘problem gambling’?: the issue of causality

Much of the evidence on impacts of problem gambling establish *associations* between certain adverse outcomes that problem gamblers have experienced. An association is not the same as causality — a point emphasised by a statistician engaged by ACIL (sub. D233, p. 96). To be sure that the increased legal availability

¹ This chapter presents for public discussion data drawn from a wide range of sources. These include public submissions and case studies given to the Commission in writing and orally; the Commission’s own research and the international social research literature. Since the data from different sources was collected using different methodologies, it is not of equal quality. Where possible the Commission has tried to corroborate findings from one source with those in others, but there would be value in a searching examination of methodological differences between the various strands of the problem gambling literature, an assessment of which sources are most reliable and valid, and an attempt at meta analysis.

of gambling has caused any given outcome, it would need to be shown that this outcome (or similarly bleak alternative) would not have occurred in the absence of gambling. For example, a person may be very depressed, go on a gambling binge, spending all of their income and assets, with devastating financial and personal outcomes. They then kill themselves. Is gambling a *cause* of these outcomes, or a *symptom* of a person with problems?

Figure 7.1 **Impacts of problem gambling**

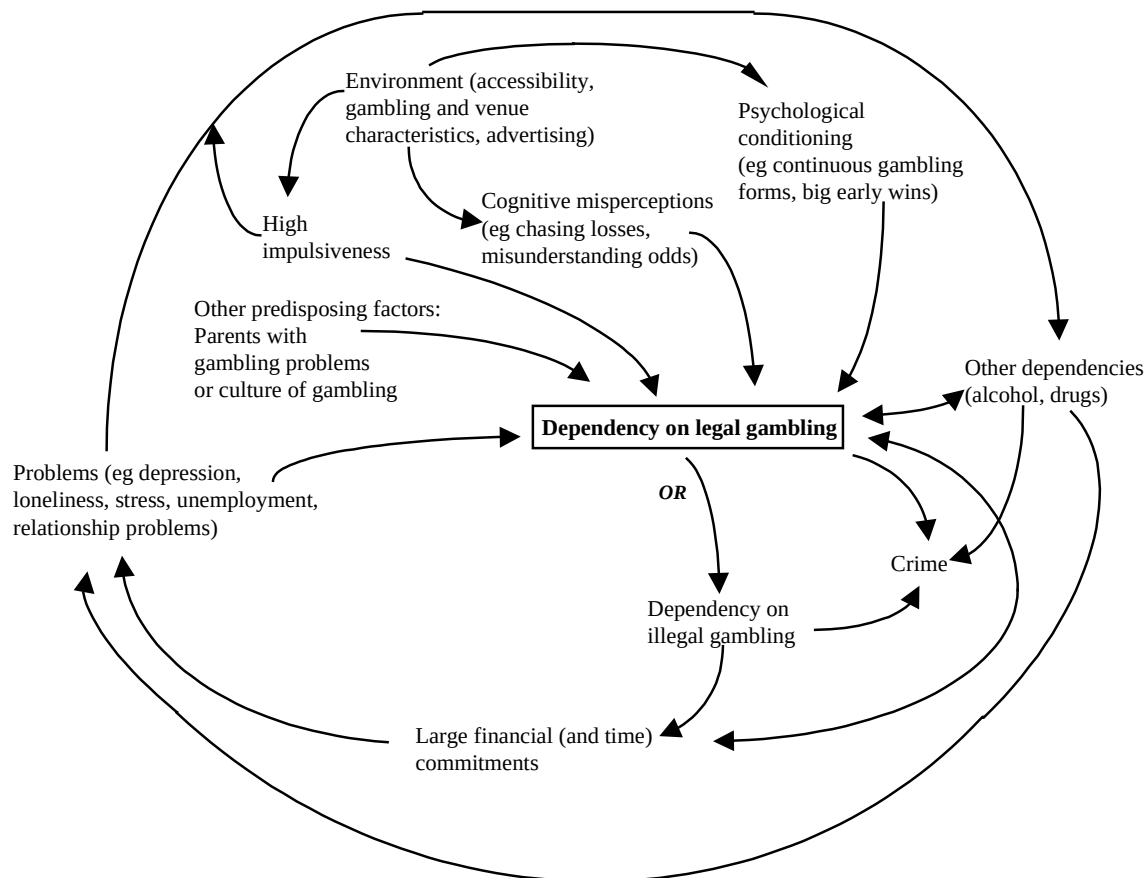


While it is extremely difficult to resolve problems of causality, it is useful to examine some of the key possible causal links between the legal availability of gambling and gambling problems (figure 7.2).

People with problems?

A number of submissions from gambling industry representatives argued that problem gambling was the result of people with problems who gambled, rather than something that was caused by gambling.

Figure 7.2 Causal pathways and problem gambling^a



^a The figure shows the different pathways of possible causality associated with problem gambling, its outcomes and determinants. Arrows show the causal directions.

The ‘rational’ addiction literature explains the concurrence of unhappy people and addiction in this way. Others put this view too. For example:

Q. Do problem gamblers exist? A. I am yet to be convinced of this, however I fully acknowledge that there are people with problems who gamble (Mr Windross, Managing Director of the TAB, sub. 161, p. 3).

... the claimed complementary indications — severe hardship, other compulsions, suicidal tendencies and low social and self-esteem — suggest that those identified as having gambling problems would have problems whether gambling was available to them or not. Thus while a growth in problem gambling is seen to have coincided with the rapid expansion of the availability of legal gambling products, the alleged causal link may be quite spurious (ACIL, sub. 155, p. 80).²

² It should be noted, parenthetically, that the first statement in the second quote applies a suspect logic. It appears to argue that, by itself, evidence for big problems relating to problem gambling implies that the problems were caused elsewhere, and thus that problem gambling does not lead to any big problems! A parallel would be: ‘The claimed complementary indications — severe

This view is represented by pathway 1 in figure 7.2, and some psychologists have agreed that prior problems may be a factor which precipitates problem gambling for some people (Blaszczynski 1998, pp. 36–7; Shaffer, Hall and Vander Bilt 1997, p. 55; Baseline Market Research 1996³).

If this pathway were the start *and* end of the explanation of ‘problem’ gambling then it would imply that controlling access to gambling would not affect the actual level of problems experienced. In this case, policy measures to deal with problem gambling (for example, by altering the availability of gambling or using measures, such as self-exclusion) that do not deal with the fundamental problems of the problem gambler would be ineffective.

However, for many gamblers pre-existing problems do not appear to precipitate problem gambling (Shaffer, Hall and Vander Bilt 1997, p. 76 and box 7.2 for a personal anecdote). As well, while some factors may pre-dispose a person to gambling, there is little evidence that problem gamblers share common personality traits.

One question often asked is whether there is a ‘gambling prone personality’. The answer is simple and straightforward: there is no such gambling personality type. Furthermore, there is no individual personality trait that is commonly to be found in gamblers. Gamblers include all types of personality, and all kinds of personality traits are found in gamblers (Blaszczynski 1998, pp. 23–4).

Contrary to popular myth, scientists have so far been unable to identify the “addictive personality”... anyone can develop such a problem. In particular, the combination of a recent tragedy associated with the powerful behavioural learning principles that form the basis for gaming machines and the pervasiveness of such machines constitute a “problematic gambling cocktail” (Relationships Australia, SA, sub. 118).

abdominal injuries, head injuries, spinal problems, and post-accident traumas — suggest that those suffering from car accidents would have had problems anyway, whether cars were available or not.’

³ For example, this study found that 14 per cent of not-at-risk gamblers gambled as a distraction from problems, while 53 per cent of probable pathological gamblers did so (and 43 per cent of problem gamblers — defined as people scoring SOGS 3-4).

Box 7.2 **The experience of one problem gambler**

... in short I had a wonderful life and was on top of the world [prior to developing gambling problems] ... I don't know what drove me to seek diversion in poker machines. I just can't remember ... So pretty soon I was going to play the pokies quite often and yes I was enjoying myself and sometimes even won a few dollars ... I lost interest in music, in my car ... dining out, friends, my girlfriend; everything, everything, except those reels spinning before my eyes, in my head, in my dreams. I was totally consumed and, in what seemed such a short time. Anyway the whole story is long and covers the last seven years and though I have tried to be unemotional I must say now that I have been through hell. ... I have contemplated suicide many times, and many times, I've actually felt as if I was already dead.

Source: Comments from a gambler to the Productivity Commission's inquiry.

This view undermines the perspective that a certain sort of person is bound to acquire a gambling problem (or other dependency) regardless of the gambling environment in which they find themselves.

In any case, for those for whom prior problems or disorders are a precipitating factor, gambling appears to *exacerbate* their prior problems, in what has been termed the 'problem gambling loop' (WACOSS 1997, p. 10; Wesley Gambling Counselling Service, sub. 26). After all, there are relatively few 'dependencies' which are as costly as gambling (alcohol and drug abuse being the exceptions). Someone who decided to ease their problems by exercising excessively, working over-long hours or watching too much television might suffer some ill effects, but not on the scale suffered as a result of compulsively gambling. In this case, changes in the regulatory environment for gambling would still confer benefits because either it may directly reduce the harms suffered as a consequence of people's problems or shift escapist behaviour to less harmful outlets.

It is sometimes also claimed that people with gambling problems are people who:

- either have another dependency (such as alcoholism), whose adverse outcomes are confused with those of gambling; or
- *would* have had another equally damaging dependency, such as alcohol or drugs, in the absence of the easy access to legal gambling.

This is represented by pathway 2 in the figure 7.2.

It is certainly true that some problem gamblers have co-dependencies. Ramirez et al. (1984) report that a substantial number of problem gamblers using help services suffer from alcohol and/or drug abuse. In this case, some of the adverse consequences attributed to gambling may really be related to another dependency. As well, problem gambling itself may sometimes also be related to such dependencies — as when a person who has consumed a lot of alcohol loses their

inhibitions to gamble. If the line of causality were often to run this way, then it might suggest controls on access to alcohol in gambling venues, rather than controls on gambling per se.

Finally, another argument sometimes mounted against a causal connection between the availability of legal gambling and problem gambling is that the problems would still have existed for many, because they would have used illegal gambling services (pathway 3). For example, it has been reported that a significant number of women have been deserted by spouses engaged in illegal gambling *prior* to the introduction of legalised casino and gaming machine gambling in Victoria (Brown et al. 1999, p. 32). And the Adelaide Central Mission (sub.D267, pp. 5–6) cites current problems associated with illegal gambling in South Australia.

However, while there is evidence that illegal gambling was rife prior to liberalisation, there is also strong evidence that problem gambling prevalence rates have increased with legal accessibility to gambling (chapter 8).

Gambling as the cause of the problems?

While there are some causal pathways that run from problems to gambling, there are many which run the other way. These pathways suggest that the gambling environment is likely to play a major role in causing problem gambling. For example:

- As gambling opportunities become more accessible, this allows an impulsive person much greater opportunity to gamble.
- Some gambling forms such as gaming machines involve repetitive, but random, rewards for further play — which conditions behaviour in some people to gamble persistently (Knapp 1976; Anderson and Brown 1984 and the review in Blaszczynski 1999). The machines have been humorously nicknamed by psychologists as ‘one-armed behavioural technicians’ (Creed 1998) to reflect their encouragement of continued play through operant conditioning. The use of ‘variable ratio schedule reinforcement’ (the pattern of payoffs) in gaming machines is similar to that used to condition rats to repetitively push a lever in ‘Skinner boxes’ (National Research Council 1999, pp. 39 and 245). Gambling forms which lack skill or random reinforcement, such as weekly lotteries, tend to be almost completely free of problems compared to ones with these characteristics (chapter 6).
- The gambling environment, including the promotional activity of the industry, may compound (or at least, not negate) certain erroneous beliefs that gamblers have about winning. For example, people may believe that a machine which has not paid out for some time will do so soon, that they will be able to make up past

losses, and that they have a greater ability to control the likelihood of winning than they do (Blaszczynski, Walker et al. 1997).

Ultimately the notion that the causality behind problem gambling lies on a single one-way road is faulty. There are many simultaneous and interconnecting pathways.

For example, a person may wish to escape a boring and low paid job, and gambles heavily on poker machines. She makes large losses. These losses are devastating, and the person erroneously sees no alternative but to gamble further in order to make up these losses. The losses are now even worse, providing the impetus for a number of vicious cycles. Work performance declines as the person is distracted by her financial crisis and the need for a big win. Her home life is also getting worse, as her partner wants to know where all the money (and time) is going. Gambling provides an escape from these escalating problems — and the cycle is renewed and intensified.

The causal pathways to problem gambling in this illustrative case come from multiple and intertwined sources, but there is little question that problem gambling behaviours (and the gambling environment) play a central and, therefore, policy relevant role.

However, it is also the case that there are risks of either understating or overstating the impacts of problem gambling:

- It is possible to overstate it by seeing every case when a problem gambler loses his or her job, abuses a partner and child(ren), goes bankrupt, embezzles an employer's money, or suicides as causally linked to gambling. In some cases, these devastating outcomes will reflect a hidden common factor which pre-dated the gambling problem.
- It is possible to understate it, because adverse social consequences (of anything) are often shrouded by stigma and, thereby, secrecy. The history of any social problems which are perceived as 'deviance' is that only the 'tip of the iceberg' is first accounted for in the public domain (for example, mental illness, child abuse).

The Commission recognises that assessing the extent to which gambling causes problems is extremely difficult. It is clearly not possible to conduct experiments, as in the physical sciences. Nor is it cost effective to have large matched groups of non-problem and problem gamblers. And even when these methods are applied, they do not always resolve causal issues in an uncontroversial or rapid way. (For example, it took many decades to prove scientifically the link between tobacco use

and its adverse health effects.) In the absence of experimentation and matching, a number of other methods can be used:⁴

Quantitative approaches to assessing causality

One approach is to use a statistical method, ‘regression’, which attempts to calculate the association between a possible cause and outcome, such as divorce, taking into account the influence of confounding variables.⁵ Effectively the question being asked is, taking account of all the other possible contributing factors to divorce, how much additional risk is posed by problem gambling? This is the approach taken by the US NORC study (Gerstein et al. 1999). This method, while indicative, does not actually deal with causality unless it can be certain that the gambling problem preceded the divorce. **The most effective way of identifying causal pathways relating to apparent adverse outcomes for problem gamblers would be a longitudinal study of gamblers.**

Other quantitative approaches look at the overall incidence and prevalence of some social harm (such as bankruptcy, suicide, or crime) either over time or regionally, and see if there appears to be a link to the intensity of gambling (for example, McCleary et al. 1998). The usefulness of these ‘aggregate’ approaches depends on:

- *Dealing with confounding variables.* Simple comparisons, by themselves, provide little evidence and can mislead. For example, Tabcorp (sub. D232, p. 12) argued that: ‘Greater access to gaming machines does not increase the proportion of gamblers who become problem gamblers, nor does gambling lead to greater incidence of divorce, bankruptcies or crime’. They observed that despite there being no equivalent gaming machines in Western Australia, divorce, crime and insolvency rates were much higher than in Victoria. But this sort of comparison is very weak because it is based on just one determinant and fails to control for confounding factors.⁶ The relevant issue is not whether some problem is higher or lower in a gaming state than a non-gaming state, but

⁴ O’Neill, a statistical consultant to ACIL (sub. D233, pp. 96–7) provides a useful discussion of these techniques.

⁵ The method involves regressing some adverse outcome, such as divorce, against some risk factors which may lower or increase the likelihood of divorce, such as age, education, duration of marriage, income, *and* problem gambling. The interest in such regressions is on the coefficient on problem gambling.

⁶ It is easy to manufacture similar examples where the comparison is less flattering to gambling. For example, the suicide rate is higher in Queensland with its far greater per capita gambling expenditure than Tasmania (Victorian Taskforce 1997, p. 12) — but the Commission considers this as equally poor ‘evidence’ of the impact of gambling as the example provided by Tabcorp.

whether, *holding all other possible influences constant*, these problems would be the same as or less in a gaming state.

- *The relative importance of gambling as a contributor to the social problem.* In some cases, trying to find out whether gambling causes some adverse reaction *using aggregate data* is doomed to failure, because even if there were a link, the number of gambling-related cases may be swamped by other unrelated cases (box 7.3).
- *The burden of proof.* In most statistical analyses of the possible ill-effects of gambling, the cards have been stacked against finding a relationship even where one exists. This is because the studies typically only reject the maintained hypothesis of no link, if the risk of being wrong is 5 per cent or less — a stringent requirement. In a sense these methods assume innocence and require a proof of guilt. This has the implication that even where there is a true effect, it will often not be found. Whether this is appropriate statistical practice depends on the costs of being wrong.

Box 7.3 Finding causal relationships using aggregate data: Is cyanide safe?

This is an illustration of some of the pitfalls in trying to use some forms of aggregate data for determining causal relationships. Every second year select a group of 100 people and administer a lethal dose of cyanide. Then test whether the aggregate mortality rate is statistically significantly higher in the years the dose is administered compared to years that it is not. With around 100 000 people dying each year, and this figure varying because of random fluctuations, it would be impossible to find the influence of the cyanide related deaths. But an inference that cyanide is safe would clearly be premature.

This example does not mean that aggregate analysis is never useful. However, an appropriate research strategy may be to see whether the statistical method used could be expected to find a relationship when one exists.

In summary, there are a range of quantitative methods that are routinely and usefully employed in looking at the impacts (and causality) of problem gambling, but they contain some pitfalls that are rarely highlighted.

A self-assessment approach to assigning causality

This is based on asking gamblers whether gambling has contributed to an adverse event or not. This is how we deal with descriptions of causality in everyday life ('why were you late?', 'what made the car break down?'; 'why are you sad?'). Thus someone may have got depressed, but not because of their gambling problems — if

respondents answer honestly, the self-assessment approach can provide a good perspective on causality because it makes use of all of the knowledge of the respondent. Self-assessment is obviously particularly useful if the phenomenon being investigated relates to a person's mental state.

The Commission largely took this approach in its study of problem gamblers, although it buttressed these results using a range of other research sources (for example, on suicide, crime and bankruptcy) based on other methodologies.

It should be emphasised that self-assessment methods have drawbacks. People sometimes forget, exaggerate, dissemble, make errors, and may be poor at determining what might have happened under the counterfactual. Whilst the Commission was unable to verify with third parties whether self-assessments by problem gamblers were accurate, the results obtained from the Commission's self-assessment approach were similar to those obtained by NORC using their quantitative methods.

Nevertheless, it is important to undertake some checks of the plausibility of answers using self-assessment. For example, does it identify an implausibly large number of affected people in the group of people suffering that harm? (see the later discussion on divorce). Is it consistent with what is already known about problem gambling? Is it consistent with the views of clinicians in the field? The Commission has used a number of such checks to assess whether the self-assessment methods are likely to over- or understate the adverse impacts of problem gambling.

In the following sections, the Commission refers to any corroborative or contradictory evidence on the magnitude or causal factors underlying each of the major potential impacts. The Commission also sought comments from an expert group on what their clinical and research experience with problem gamblers suggested about causality. It was their view that, as a rule of thumb, around 15 to 20 per cent of the adverse impacts ascribed to problem gambling would have occurred anyway — and this should be borne in mind when looking at the impacts recorded in this chapter. The costs of the adverse impacts of problem gambling have been adjusted down in chapter 9 to reflect this complex causality.

Ultimately, judgements about causality rest on a mixture of theory and qualitative and quantitative evidence (as in the justice system). There is no single method that resolves what would have happened to a problem gambler in the absence of their problem. There will certainly be people who suffer adverse consequences associated with gambling, who, in the absence of the availability of legal gambling, would have suffered similar adverse consequences from other sources. But overall, the Commission's assessment, based on reviewing different evidence, is that:

-
- while problem gambling may sometimes be precipitated by outside events, problem gambling will tend to exacerbate any pre-existing problems; and
 - that many of the harms experienced by problem gamblers can be traced to gambling itself.

The effects on different cultural groups

In this chapter, the Commission examines the impacts on problem gamblers as a group. However, impacts may vary between different types of sub-groups, such as women and people from different cultural backgrounds. Jackson et al. (1999a,b) have provided useful data on the ethnic mix of clients of BreakEven services in Victoria, which helps establish patterns of use of services.

But the study of cultural patterns of gambling in the *general* population is a relatively neglected area. The ways in which cultural factors can influence gambling behaviours, benefits and harms are complex. For example:

- gambling has a central and different role in Aboriginal and Torres Strait Islander (ATSI) communities. The nature and types of problems and benefits experienced diverge from those of non-indigenous Australians (appendix E); and
- gambling has resonated in different ways among the Vietnamese community (box 7.4).

Moreover, these culturally shaped facets of gambling are not well picked up by telephone surveys, especially since these often involve under-enumeration of the vulnerable members of such communities. The Commission has not conducted detailed work on the varying impacts of gambling on different cultural groups, especially since some other studies are soon to be released.

- The AIGR (1999) has conducted some research into the cultural dimensions of problem gambling in Western Australia. In the absence of the widespread availability of gaming machines, the concerns relate to a narrower set of gambling modes).
- The Casino Community Benefit Fund, through its trustees, has funded a major project in New South Wales to examine the ethnic dimensions of problem gambling, including a large scale survey based on interviews with different cultural groups using interviewers from the relevant cultural group. The results are due to be released in early 2000.

The Commission considers that more research will need to be conducted in this area, especially in determining the appropriate models for provision of assistance and prevention under harm minimisation strategies.

Box 7.4 Gambling-related problems in the Victorian Vietnamese community

Jesuit Social Services undertook a study of gambling-related problems in the Victorian Vietnamese community. The study found evidence that:

- the expansion of legal gambling, and especially the opening of the casino, had substantially increased demand for help services by the Vietnamese community (p. 34);
- gambling-related issues could account for between 1 and 20 per cent⁷ of the caseload of agencies helping Vietnamese Australians (p. 38);
- the impact of gambling on the Vietnamese extended family is far-reaching because of its close knit nature. Relatives feel they must help with gambling debts (p. 49); and
- the issue of 'face' and stigma associated with having a gambling problem made it difficult to attract problem gamblers to counselling services (p. 71).

Source: Tran (1999).

7.2 Personal effects on gamblers

Depression, anxiety, suicide and ill-health

Problem gambling — with its potentially devastating impacts on the finances, personal lives and relationships of the affected gamblers — is related to heightened anxiety, depression, and in extreme cases to suicide.

The Adelaide Central Mission noted:

In the extreme case, the depression that arises out of the despair, hopelessness, shame and guilt of the consequences of gambling can be so overpowering for some that the only recourse is suicide. Among the people seen at Adelaide Central Mission, over the last six months we are aware of at least 6 suicides. The number of people who talk about suicide as an option to their circumstance is approaching 1 in 3 ... From our experience we are aware that in some cases that the deaths are not always recorded as suicide. There is often an alternative recording of the cause of death to protect the family or because the death is not readily identified as a suicide by the investigating officer eg car accidents (1998, p. 15).

Many studies find a connection between problem gambling, and mood disorders, such as depression or anxiety — a connection which was emphasised by a number

⁷ Problem gambling counsellors were **not** included.

of submissions to this inquiry.⁸ There is some evidence that the gambling problem often precedes the onset of depression (McCormick et al. 1984), though in some cases depression can act as a trigger.

The Commission's *National Gambling Survey* and *Survey of Clients of Counselling Agencies* results suggested high levels of self-assessed depression, guilt and suicidal thoughts due to gambling:

- around half the people with at least moderate gambling problems say they have suffered depression as a result of gambling at some time, and around 53 per cent say they have been depressed because of gambling in the last year (table 7.1). Rare and short-lived episodes of depression are obviously less costly than frequent or enduring states of despondency. A better measure of significant depressive episodes is whether the feelings are commonly experienced. About 22 per cent of people with SOGS 5 or more report being 'often or always' depressed because of their gambling. Annually around 5.1 per cent of Australian adults report depression lasting 2 weeks or more (ABS 1998d). On this basis, and assuming that the 'often to always' category best captures a genuine episode of depression, gambling accounts for about 8.9 per cent of such cases annually. Clearly, since the methods for establishing the levels and nature of depression among the wider community involve self-assessment, the figure is imprecise, and could be somewhat higher or lower.
- Nearly all problem gamblers seeking help from counselling agencies record some episodes of depression and about 60 per cent report feeling this way often or always;
- the overwhelming majority of gamblers experiencing problems say they feel guilty about their gambling and the bulk report control problems;
- about 9 per cent of problem gamblers report that they have seriously thought about suicide because of their gambling, and about 60 per cent of those who seek help for their gambling problems from counselling agencies; and
- about one in ten problem gamblers who seek counselling assistance report an attempted suicide.

⁸ AIGR (1996b), Blaszczyński and McConaghy (1989), Brown and Coventry (1997); Crockford and Guebaly (1998), Lesieur et al. (1986); Lesieur and Blume (1990) and sub. 40, p. 6ff.

Table 7.1 Personal impacts of problem gambling
Australia 1999^a

	Yes ^b	Number affected	Never ^c	Rarely	Some- times	Often	Always	Source
	%	'000	%	%	%	%	%	
Suffered from depression due to gambling								
Problem gamblers (ever)	58.1	170.2	41.9	..	..	..	..	NS
Non-problem regulars (ever)	4.3	52.2	95.7	..	..	..	..	NS
Adults (ever)	2.1	289.9	97.9					NS
Problem gamblers seeking help (ever)	95.6	..	4.3	6.5	29.2	44.8	15.1	CS
Problem gamblers (in last year)	52.7	154.3	47.3	8.6	21.9	16.4	5.8	NS
Non-problem regulars (in last year)	2.6	31.5	97.4	1.5	0.7	0.1	0.3	NS
Adults (in last year)	1.5	205.9	98.5	0.5	0.5	0.4	0.2	NS
Seriously considered suicide due to gambling								
Problem gamblers (ever)	9.2	26.9	90.8	..	..	..	..	NS
Non-problem regulars (ever)	0.0	0.0	100.0	..	..	..	..	NS
Adults (ever)	0.3	35.5	99.7					NS
Problem gamblers seeking help (ever)	57.8	..	42.2	19.1	23.9	12.0	2.8	CS
Problem gamblers (in last year)	4.4	12.9	95.6	..	..	..	..	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	..	..	..	..	NS
Adults (in last year)	0.1	12.9	99.9	..	..	..	..	NS
Attempted suicide								
Problem gamblers seeking help (ever)	13.6	..	86.4	..	..	..	..	CS
Suffered from guilt due to gambling								
Problem gamblers (in last year)	88.9	260.2	11.1	15.3	27.2	21.5	24.8	NS
Non-problem regulars (in last year)	16.2	196.1	83.8	6.7	8.7	0.6	0.2	NS
Adults (in last year)	4.8	681.5	95.2	1.9	1.7	0.5	0.7	NS
Problem gamblers seeking help (in last year)	99.0	..	1.0	2.8	12.8	35.3	48.1	CS
Made life less enjoyable								
Problem gamblers (in last year)	50.1	146.7	49.9	..	..	..	..	NS
Non-problem regulars (in last year)	4.8	57.5	95.3	..	..	..	..	NS
Adults (in last year)	3.6	507.7	96.4	..	..	..	..	NS
Control problems - 'like to stop but can't'								
Problem gamblers (in last year)	69.1	202.1	30.9	17.5	22.7	11.3	17.3	NS
Non-problem regulars (in last year)	6.7	81.6	93.3	2.8	3.0	0.5	0.2	NS
Adults (in last year)	2.3	330.5	97.7	0.8	0.9	0.3	0.4	NS
Problem gamblers seeking help (in last year)	97.0	..	3.0	5.5	20.1	44.4	27.1	CS

^a NS is the PC *National Gambling Survey*; CS is the PC *Survey of Clients of Counselling Agencies*; PGs are problem gamblers (defined as SOGS 5+ for results from the general population). ^b Includes those who said yes, but did not nominate a frequency. ^c Non-problem regulars include just regulars (and excludes the sample of high spending non-regulars).

Source: PC *National Gambling Survey* and PC *Survey of Clients of Counselling Agencies*.

Other results corroborate these high personal costs:

- The Mental Health Foundation of Australia (MHFA, sub. 51, p. 9) report that 75 per cent of problem gamblers who seek help have symptoms of depression. They claimed that a majority (61 per cent) think of suicide, while a sizeable minority (22 per cent) have made actual suicide attempts, which seems consistent with international results (table 7.2).
- Relationships Australia (SA) (sub. 118) reported that their Gambling Rehabilitation service clients are reporting higher levels of anxiety and depression than the Relationship Counselling Service clients — and much higher levels of suicide thoughts.
- Among a group of problem gamblers in counselling in South Australia, Elliot Stanford and Associates (1998) found that the *average* suffered from moderate levels of depression and anxiety.

Problem gamblers experience a number of other, potentially distressing mental states, such as guilt, restlessness, preoccupation with gambling and loss of control. For example, in an analysis of Victorian Break Even clients, Jackson et al. (1997, p. 27) found that 58.6 per cent felt irritable or restless because of their gambling, 62.5 per cent felt preoccupied with gambling and 67.7 per cent had made frequent but failed attempts to control their gambling.⁹ These patterns have persisted in more recent years according to data gathered from Victorian Break Even clients (Jackson et al. 1999a, b). Overseas evidence suggests that problem gamblers are much more likely to feel angry, anxious or disappointed when playing gaming machines than recreational players (table 7.3).

People who seek help for their gambling problems are not generally representative of those with problems among the general populations. For example, rates of self-assessed lifetime depression related to gambling among problem gamblers in counselling are:

- about equal to those in the general population with a severe problem (SOGS 10+)¹⁰,
- about twice as high as problem gamblers in general (SOGS 5+ or level 1 and level 2 problem gamblers combined); and
- 22 times higher than non-problem regular gamblers and 47 times greater than the adult population as a whole.

⁹ These are some of the behaviours which make up the DSM-IV criteria for 'pathological' gambling.

¹⁰ At 95.6 per cent for the help group compared to 82.3 per cent for people scoring SOGS 10+ in the general population).

Table 7.2 Suicide thoughts and attempts among problem gamblers

Evidence from the literature

<i>Study</i>	<i>Finding</i>	<i>Country</i>
Blaszczynski and Maccallum 1999	41% of a sample of 53 diagnosed pathological gamblers receiving treatment reported suicide ideation, and 10% had a level of suicidality within the range of serious to extreme.	Australia
Moran 1969	20% of a sample of 50 pathological gamblers had attempted suicide	UK
Lesieur and Blume 1990	17-24% of a group of GA members and pathological gamblers attending an inpatient treatment program had suicide ideation	US
Schwarz and Lindner 1992	34.7% of a sample of 58 gamblers seeking help had suicide ideation and 31% had attempted suicide	US
McCormick, Russo, Ramirez and Taber 1984	30% of 50 gamblers seeking treatment had severe, extreme or lethal suicide ratings and 12% had made attempts. Three quarters of problem gamblers entering treatment suffer from severe depression	US
Frank, Lester and Wexler 1991	Among a group of 162 GA members, 13% admitted to a suicide attempt and 48% suicide ideation	US
Bland, Newman, Orn and Stebelsky 1993	13.3% of lifetime pathological gamblers had attempted suicide	Canada
Ladouceur, Dube and Bujold 1994	A Quebec study of college students found that 26.8 per cent of pathological gamblers had attempted suicide, compared to 7.2 per cent of college students with no gambling problem	Canada
Horodecki 1992	70% of pathological gamblers seeking treatment had expressed suicide ideation, and 8% an attempted suicide	Austria
Sullivan 1994	80% of respondents to a gambling hotline had suicide ideation, 17% had planned a suicide, 4% had made an attempt.	New Zealand
Lorenz, Politzer and Yaffee 1990	65 per cent of a Gamblers Anonymous group in Maryland, US, had seriously thought of suicide, two thirds of these to the point of considering the method of killing themselves	US
Lesieur (1998, p. 158)	In a review of the suicide literature, suggests that between 12 and 18 per cent of Gamblers Anonymous members have attempted suicide, 45-49 per cent have made plans to kill themselves, 48-70 per cent have contemplated suicide and 80 per cent have said they wanted to die.	US

Table 7.3 Emotional responses while playing machines

Nova Scotia, Canada 1998^a

	<i>Infrequent gaming machine players</i>	<i>Frequent non-problem players</i>	<i>Problem players</i>
Disappointment	10	11	61
Angry/frustrated	4	5	39
Sad/depressed	<1	1	30
Nervous/edgy	1	2	13

^a Problem players also reported higher levels of excitement than other players (24 per cent cf 12% for infrequent players and 13% for frequent players), suggesting that their emotional responses tend to be more extreme than others, regardless of whether the feelings are positive or negative.

Source: Focal Research (1998, p. 3.83).

The recent US national survey found a similar relative pattern, with 11.6 per cent of pathological gamblers having a depressive episode, compared to 6.7 per cent of at-risk gamblers (Gerstein et al. 1999).

These patterns in the data provide some ability to check their validity. The AHA (sub. 231, p. 28) noted that questions used in the Commission's *National Gambling Survey* such as 'Have you ever suffered from depression because of your gambling?' may have had a leading effect, eliciting positive responses from people who may have suffered depression, but not due to their gambling. As noted above, ABS data suggests a 5.1 per cent annual incidence of an enduring depressive episode among Australian adults (most of which is clearly not related to gambling). Non-problem regular gamblers — who would have the easy excuse of blaming any depressive incident on gambling if they wished to — nevertheless record extremely low levels of enduring depression *related to gambling* (at 0.4 per cent – often to always, which is around 1/60th of the comparable incidence level for problem gamblers — table 7.1). It is revealing too that the proportion of problem gamblers in counselling answering the self-assessment question who say they feel depressed often or always, is similar to that determined using clinical evaluation techniques for such groups. Overall, these patterns suggest that the self-assessment question used in the Commission's survey picked up depression related to gambling relatively well.

However, while the rate of problems among those with the severest difficulties with gambling are much higher than other groups, they account for the (albeit still sizeable) minority of total cases of problems. People with severe gambling problems, for example, account for only 37 per cent of people who have often or always felt depressed because of their gambling.¹¹

Estimating gambling-related suicides

Information on suicides and gambling mainly come from two sources:

- case studies of individual gamblers who become desperate as a result of the financial and personal consequences of gambling and then kill themselves (such as the cases described by Blaszczyński and Farrell 1998, and Marfels 1999¹²); and

¹¹ The bulk of the remainder (55 per cent) are accounted for by problem gamblers scoring 5 to 9 on the SOGS. Around 7 per cent are accounted for by non-problem regular gamblers. These may be false positives, but 70 per cent of these have a SOGS score of 4 and none have a zero SOGS score.

¹² The latter study found that of 189 suicides by adult visitors to Las Vegas from 1990 to 1998, problem gambling could be identified as the primary cause for the suicide in 10 cases (or 5.3 per

-
- surveys of people who are problem gamblers (either in-treatment or identified as part of a general population) which asks them about any suicide ideation (people who think about suicide) or attempts (tables 7.1 and 7.2 above).

This evidence provides a good *prima facie* case that suicide can result from problem gambling, but it makes it hard to estimate the actual numbers of suicides. There are a number of possible ways of approaching this task.

As in the study by Blaszczynski and Farrell (1998), records from coroners' offices may be used to try to estimate the number of suicides related to gambling. They examined the case records of all suicides in Victoria from 1990 to 1997, identifying 44 gambling related cases, with the apparent number increasing over time (figure 7.3), perhaps linked to greater gambling accessibility. Over the full period, these suicides accounted for 1 per cent of Victorian suicides, increasing to 1.7 per cent for the period 1994 to 97. If the Victorian pattern is roughly similar to that of other Australian states, then (using the 1.7 per cent ratio and 2 708 adult suicides in Australia in 1997¹³) around 46 gambling related suicides occur each year in Australia.

Unfortunately, it was not clear how many of the suicides related to legally sanctioned gambling compared to illegal games. Nor, given the presence of significant co-morbidities, is the causality absolutely clearcut. As Blaszczynski and Farrell put it:

Given the limited data, it cannot be conclusively stated with any degree of certitude that gambling was the singular or predominant motivation underlying the suicide ... Nevertheless, there are sufficient indicators to provide strong support for the argument that gambling acted as a catalyst or played a relevant role in the suicide (pp. 7, 15).

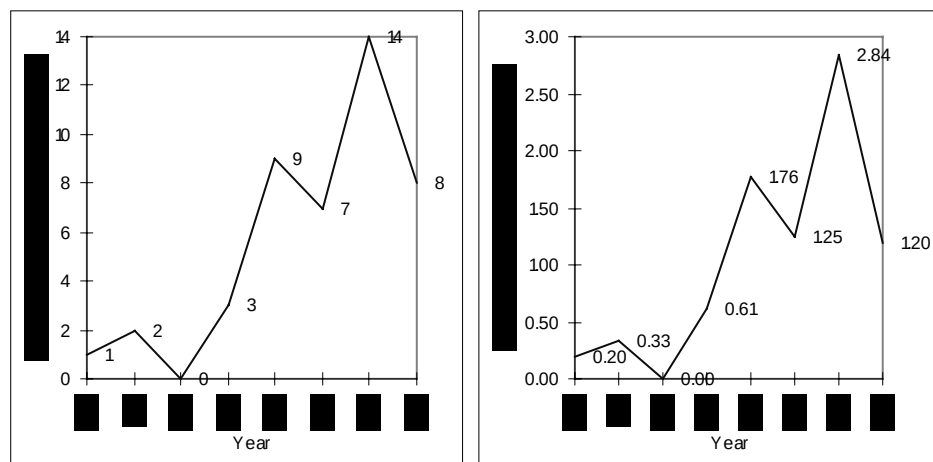
It is probable that a proportion of suicides of problem gamblers reflect wider problems, and may have occurred anyway. For example, the MHFA (sub. 51) and the Australian Medical Association (sub. 53, p. 4) note that there is no clear cause-and-effect relationship between mood disorders and problem gambling. Problem gambling can be precipitated by a mood disorder, or it can generate (or exacerbate an existing) a mood disorder.

On the other hand, many suicides may be misdiagnosed as car accidents, drowning, or other forms of death, so it is not clear that Blaszczynski and Farrell's results represent an upwardly biased indicator of suicides from gambling.

cent of the cases). The study related to suicides by visitors that took place in Las Vegas. They overturn any notion that a significant proportion of suicides by visitors to Las Vegas must be related to gambling. However, they cannot be used to infer the proportion of overall suicides of a resident population that are due to gambling.

¹³ From the National Injury Surveillance Unit (1999).

Figure 7.3 Gambling-related suicides in Victoria
1990 to 1997



Data source: Blaszczyński and Farrell (1998) and National Injury Surveillance Unit data on Victorian total suicides to calculate the suicide share (of people suiciding in Victoria aged 15 years or over).

Another approach to estimating the suicides attributable to gambling may be to use epidemiological evidence on the general prevalence of suicides and suicide thoughts/attempts to infer the extent to which suicide thoughts or attempts by problem gamblers may be realised as successful suicides (table 7.4). Evidence from the Victorian Task Force Report (1997, p. 21) on suicides suggested that for every successful male suicide there were between 30 and 50 suicide attempts, while for every female suicide there were between 150 and 300 attempts.¹⁴ The *PC Survey of Clients of Counselling Agencies* suggested that about 28 per cent of males with serious suicide ideation attempted suicide, compared with about 19 per cent of females with suicide ideation (probably reflecting the generally lesser duration, on average, of their problems). These data can then be used to estimate gambling-related suicide attempts per year — about 1 500 attempts by males and 1 400 by females. Once the relative rarity of success (in any given year) is taken into account, gambling-related suicides are estimated to amount to between 35 and 60 a year, with a midpoint of 47.5.¹⁵ This is close to the estimate generated using Blaszczyński's data.

¹⁴ In using these ratios it is being assumed that each problem gambler is only making one attempt in the year concerned. Since some may have made more than one attempt, it is possible this may be the source of some underestimation. On the other hand, it is also likely that some problem gamblers would have had problems which would have led to suicide attempts in any case. For example, Blaszczyński and Maccallum (1999) found that around 10 per cent of cases of suicide ideation in a group of severe problem gamblers was unrelated to their gambling.

¹⁵ The draft report estimated a much higher figure using data on the ratio of successful suicides to suicide attempts obtained from the National Injury Surveillance Unit. They reported 14 713 attempted suicides among adult Australians and 2 708 successful suicides (in 1997), giving a

Table 7.4 Estimating suicides of problem gambling using epidemiological data^a
Australia 1997

Suicide indicator		Males	Females	Total
Suicide ideation rate in help seeking problem gamblers	%	59.3%	57.0%	..
Suicide attempt rate among help-seeking problem gamblers	%	16.8%	10.6%	..
Ratio of attempts to ideation in help-seeking problem gamblers	%	28.2%	18.7%	..
Serious suicide ideation related to gambling by problem gamblers in the last year	number	5 408	7 538	12 946
Estimated gambling-related suicide attempts	number	1 528	1 407	2 935
Ratio of suicides to attempts				
High	%	3.33%	0.67%	2.05%
Low	%	2.00%	0.33%	1.20%
Estimated gambling related suicides				
High	number	51	9	60
Low	number	31	5	35

^a This estimate assumes that the attempt to ideation ratio applying for problem gamblers in counselling also applies to severe problem gamblers in the general population, and that the Australia-wide suicide success rate is a reasonable indicator for this group.

Source: PC Survey of Clients of Counselling Agencies, PC National Gambling Survey and Victorian Task Force (1997).

Finally, another approach is to use the variation in suicide rates over time and between regions to try to explore its underlying causes. If the increasing availability of gambling and the apparently associated increase in problem gamblers has led to increased suicides then this should contribute to higher suicide rates in areas where gambling is more freely available. The problem here is that there are many contributors to suicide and these other factors have to be controlled in order to assess the marginal contribution to suicide by gambling. No study of this kind has been done in Australia.

However, a number of US studies have been conducted with strikingly divergent results. Phillips, Welty and Smith (1997) found that gambling or elements associated with gambling settings led to an increased risk of suicide. This study examined the proportion of deaths attributable to suicide in three casino gambling counties compared to non-gaming areas. In contrast, McCleary et al. (1998), in a study commissioned by the American Gaming Association, found no statistically significant differences in suicide rates between casino and non-casino sites.¹⁶ While

‘success’ rate of 18.4 per cent. As noted in the draft, notified attempts may seriously understate true suicide attempts, which is why in the final report the Commission has preferred the estimates of the success rates contained in Victorian Task Force (1997, p. 21).

¹⁶ It is notable that this result can still be reconciled with the possibility that problem gamblers have elevated risks of suicide if gambling lowers the risk of suicide for non-problem gamblers (eg by providing a lively and attractive place for people who may not otherwise be able to access a high quality community venue).

the McCleary et al. study seems superior on methodological grounds, there are a number of flaws in both studies that suggest the issue is far from resolved:

- only casino gambling was examined, rather than gambling per se;
- different counties have different approaches to harm minimisation, which might explain lower suicides in some casino counties;
- the level of per capita spending on gambling was not controlled for, nor differences in accessibility to gambling types — though these are risk factors for problem gambling; and
- the hurdle set for proof was a high one — namely that the probability of incorrectly inferring that there was a problem when there was not one was set at 5 per cent. This means that differences in suicide rates that may well have been due to gambling (say with 75 per cent confidence) would be regarded as not statistically significant.

It may simply be too hard using this statistical approach to detect increased suicide rates due to gambling amid all other suicides, especially if the problem gambling suicides amount to a small proportion of total suicides.

A more recent study by Nichols et al. (1999b) used a more elaborate methodology. They examined the impact of casino gambling by examining suicide (and divorce) rates among eight casino communities compared to five matching control communities. The control communities were selected on the basis that they were similar on 15 demographic, social and economic variables. Suicide rates increased (or decreased less) in six of the eight casino communities compared to the control. A regression analysis suggested that the presence of a casino was associated with a statistically significant increase in per capita suicide. But they warned that the impact of casinos on suicide was a complex matter and that ‘the effect of casinos on these phenomena does not lend itself to sweeping generalisations’.

In order to better understand which problem gamblers might be at risk of suicide, the Commission closely examined the characteristics of those who said they had tried to commit suicide. There were few apparent relationships between suicide attempts and gender, education, ethnicity, income or age. The statistically significant factors correlated with suicide attempts were depression, acts of violence, crime, debt levels, the duration of a gambling problem and the use of gambling as a way of forgetting worries (box 7.5).¹⁷ This pattern reinforces the

¹⁷ Blaszczyński and Maccallum (1999) also found support for an apparent link between crime and financial problems, and suicide risk. For example, they found suicidal gamblers had a median debt level of \$2 500 compared with \$200 for non-gamblers.

point that there are strong links between the varying adverse impacts of gambling (and other life events and behaviours).

In summary, there is little doubt that there are suicides linked to gambling — it probably lies somewhere between 35 and 60 a year.

Ill health

There is also some evidence of ill-health due to gambling:

- Relationships Australia Queensland (sub. 62) found that 20.3 per cent of their problem gambling clients reported physical symptoms associated with their problem.
- The recent US national survey found that ‘pathological’ gamblers had an incidence of poor health 2.2 times higher than low risk gamblers (Gerstein et al. 1999, p. 29).
- Ladouceur et al. (1994, p. 407) found that pathological gambling had severe health impacts. Over two thirds of a group of Canadian Gamblers Anonymous members indicated that due to gambling they experienced depressive moods, insomnia, headaches or stomach aches, at least once a week.
- Lesieur (1998, p. 157) cites high level health problems for a group of gamblers admitted to an Ohio inpatient gambling treatment program and a range of problems in a small group of Swedish pathological gamblers.
- A careful and large-scale study of video lottery games (which have some similarities to gaming machines) in Nova Scotia, Canada, found that problem players have far higher probabilities of physiological effects while playing, such as heart pounding, butterflies in the stomach, sweaty hands, headaches, shaking and nausea. For example, 43 per cent of problem players reported nausea and 18 per cent shaking or tremors compared to 6 per cent and 3 per cent respectively for non-problem frequent players. Star City Casino (sub. D217, p. 12) argued that these effects ‘accompany many pleasurable activities’. But that fails to explain the differential impacts on problem versus non-problem gamblers. And some of the more clearly unpleasant symptoms, such as nausea are clearly not typical of pleasurable activities.

Those who have gambling problems also describe health problems:

I knew I was addicted and out of control, but I felt powerless to stop. I had tried many, many times to just stop, but the urges that had a grip on me always won ... I ended up just as bad, and hating myself even ... thinking that I deserved this pain because I was so stupid and knew what the outcome would be, but went anyway ... So of course, my

health suffered, my finances were in ruin, and yet I didn't have the so-called willpower to stop (comments from a gambler to the Productivity Commission's inquiry).

Box 7.5 Suicide attempts among clients in counselling

The Commission used a logistic model to examine what factors might influence the likelihood of a suicide attempt by a problem gambler in treatment. The Commission estimated a general model with a suite of socio-demographic variables (age, sex, income) and some variables reflecting the dimensions of the gambling problem (such as gambling debts, borrowing from friends and not paying back, violent incidents due to gambling, divorce due to gambling, frequency of depression associated with gambling, the duration of the gambling problem and some of the motivations for gambling, such as to escape worries). This general model was collapsed, after testing, to a more specific model:

$$\begin{aligned} \text{ATTEMPT} = & -4.96 + 0.000011 \text{ DEBT} + 0.041 \text{ DURATION} + 1.09 \text{ WORRIES} + 0.87 \text{ VIOLENCE} \\ & (62.2) \quad (4.0) \quad (4.5) \quad (8.9) \quad (4.3) \\ & + 2.29 \text{ ADEPRESS} + 1.62 \text{ ODEPRESS} + 0.97 \text{ CRIME} \\ & (13.4) \quad (8.0) \quad (6.7) \end{aligned}$$

where DEBT is the gambling debt levels (in \$), DURATION is the number of years since the person had a gambling problem, WORRIES is a dummy variable scored as 1 (else zero) if the gambler indicated that they always gambled to take their mind off their worries, VIOLENCE is 1 (else zero) if the person indicated that gambling had led to incidents of violence involving family, friends or others; ADEPRESS is 1 (else zero) if the gambler was always depressed because of their gambling, ODEPRESS is 1 (else zero) if they are often depressed because of their gambling; and CRIME is 1 (else zero) where a person engages in an illegal act to gamble. Figures in brackets are Wald Chi-squares. The regression is based on 372 observations, of which 50 were suicide attempts. The chi-square test for the joint significance of the explanatory variables is 74.1 with 7 degrees of freedom ($p=0.0001$). The concordant predictions were 83.5 per cent, and discordant were 16.0 per cent.

Amongst other things, the model suggests that someone with an 8 year old problem, no debt and recording a zero for all of the other variables has a very slight risk (about 1 per cent) of attempting suicide because of their gambling. If they indicate that they are always depressed as a result of their gambling the probability climbs to about 9 percent. And it climbs significantly with all the other potential explanators so that someone with all of the problems, a \$50 000 debt and a 15 year duration of problems has a predicted 80 per cent probability of attempting suicide.

Source: Based on results from the PC Survey of Clients of Counselling Agencies.

Co-morbidities

Many problem gamblers experience other dependencies (table 7.5). Dickerson et al. (1996a) suggest that around 20 per cent of Australian gamblers who sought help for their gambling problems also have alcohol dependency.

A large dataset (4 915 registrations) of problem gamblers in outpatient addiction care and treatment in the Netherlands suggested that 7.7 per cent of problem gamblers seeking help had a secondary alcohol problem and 8.9 per cent a drug problem (LADIS 1998). This database also reveals that 2.4 per cent of those seeking help for an alcohol problem had a secondary gambling problem, while this was true for 1 per cent of people seeking treatment for a drug problem. Given that the populations of alcohol and drug dependents exceeds problem gamblers by factors of 5 and 7 respectively, the overall implications of secondary problems is that gambling problems are likely to loom larger than the primary treatment population might at first indicate.

Interestingly, Lorenz, Politzer and Yaffee (1990) found that past drug use was negatively correlated with the severity of the gambling problem, while alcohol problems had no statistical association with the severity of the problem.

Stinchfield and Winters (1996) in a large scale evaluation of Minnesota treatment services for problem gamblers found that 52 per cent had a co-existing psychiatric disorder (eg depression) and 47 per cent had used mental health services.

The existence of co-morbidities matters because:

- counselling for problem gambling will need to also deal with these co-morbidities, and treatment for other dependencies may need to take account of secondary gambling problems that may not be transparent; and
- it underlines the complex causality of problems experienced by problem gamblers. Problem gambling may exacerbate other dependencies, and they in turn may exacerbate problem gambling.

7.3 The impacts of problem gambling on others

Problem gambling affects both the gambler and his or her family, friends and, to a lesser extent, work colleagues and others in the general community:

... there is no doubt that costs imposed on others are a genuine social cost. These costs arise as a result of loss of business productivity, family breakdown, gamblers' antisocial and/or criminal behaviour, and destitution. They take the form of loss of well

being of the problem gamblers' associates, and costs to welfare agencies and community groups (Tattersall's, sub. 156, p. 9).

The AMA said:

The gambler's preoccupation with gambling, mood swings, potential for substance abuse, potential to commit crimes, and financial difficulties place an enormous burden on their family (sub. 53, p. 8).

The AMA is currently running a national awareness program to try to get people with gambling problems to talk to their general practitioner about their problem.

Money arguments are frequent among problem gamblers¹⁸, and many report that they are unable to look after the interests of their families sufficiently (table 7.6). Problem gamblers often lie about their gambling to their families, undermining trust. For example, Relationships Australia Queensland (sub. 62) found that 74 per cent of problem gambling clients admitted lying to family partners, therapists or others to conceal the extent of problem gambling. Jackson et al. (1999b) found that 77.3 per cent of Victorian Break Even clients in 1997-98 admitted to such lying. Many gamblers seeking help for their problems indicate that their gambling problems had a devastating impact on their families and friends (table 7.7), with the biggest impacts on their relationships with their partners (box 7.6). Apart from gambling behaviours, such relationship issues were also the prime triggers for problem gamblers seeking help.

Based on South Australian families affected by problem gamblers, Elliot Stanford and Associates (1998) found in a South Australian study that family relation problems for problem gamblers were at levels which indicated a '*clinically significant problem*'. This, with the financial burden, leads to an increased risk of family breakdown and problems. The House of Representatives Standing Committee on Legal and Constitutional Affairs (1998, p. 55) cites gambling as one of the high risk factors that could precipitate divorce.

¹⁸ Other Australian research (for example, Dickerson, Baron, Hong and Cottrell 1996 cite 77.3 per cent of severe problem gamblers having such arguments) confirm this pattern, as does recent US research (Gerstein et al. 1999, p. 29 — where 53.1 per cent of problem gamblers report such arguments).

Table 7.5 Presence of gambling problems in treatment groups and substance-abuse in people with gambling problems

<i>Study</i>	<i>Location</i>	<i>Group</i>	<i>Substance abuse</i>
Presence of gambling problems in treatment groups			
Lesieur and Blume (1987, p. 1186)	South Oaks Hospital, New York 1985	Group of patients receiving help for alcohol and drug rehabilitation	12% of people with current drug or alcohol problems were rated as pathological gamblers
Lesieur (1994)	US studies	Inpatient chemical dependency treatment facilities	9-15% with current drug problems are pathological gamblers
Westphal, Rush, Stevens and Johnson (1998)	US Louisiana	Adolescents in juvenile facilities for treatment of behavioural problems	38 per cent were rated as 'pathological' gamblers
Lesieur and Blume (1990)	US	Psychiatric admissions	6.5% of such admissions were pathological gamblers
Presence of substance abuse among problem gamblers			
Lorenz, Politzer and Yaffee (1990)	Maryland, US 1983-89	Treatment groups	26.7% with lifetime drug & 50.8% with lifetime alcohol problems
Stinchfield and Winters (1996)	Minnesota, US, 1992–96	Treatment groups	33% had received chemical dependency services
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)	NSW 1995	General population	They found a significant positive association between problem gambling and alcohol problems.
Relationships Australia Queensland (sub. 62)	QLD 1993–8	Counselling group	16.5% with a substance dependency
National Council of Welfare	Canada	General population	100% of problem and pathological gamblers were classified as dangerously heavy alcohol drinkers in the Alberta survey; Weaker but still positive effects were found in Saskatchewan and Ontario surveys
Black and Moyer (1998)	US	Small group of problem gamblers 'recruited' by the researchers	64 per cent had a lifetime substance abuse disorder
Wallisch (1996); Feigelman, Wallisch and Lesieur (1998)	Texas US	General population	25% of problem gamblers also had a problem with substance abuse; 16.6% of people with substance abuse problems also had gambling problems. Only about 4% of problem gamblers reported any interest in professional help for their problem gambling, but many more had obtained help for a mental health problem.
Gerstein et al. (1999)	US 1998	General population	5.8% currently drug or alcohol dependent (cf 1.2% for low risk gamblers)

Table 7.6 Interpersonal problems stemming from gambling^a

<i>Interpersonal problem</i>	Yes	Number affected	No	Rarely	Some-times	Often	Always	Source
	%	'000	%	%	%	%	%	
Not enough time for family								
PGs (ever)	19.5	57.1	80.5	..	..	..	..	NS
Non-problem regulars (ever)	0.8	9.8	99.2	..	..	..	..	NS
Adults (ever)	0.5	74.6	99.5	..	..	..	..	NS
PGs (in last year)	13.6	39.8	86.4	2.8	7.1	2.7	1.0	NS
Non-problem regulars (in last year)	0.5	6.3	99.5	0.3	0.0	0.0	0.2	NS
Adults (in last year)	0.3	46.1	99.7	0.1	0.2	0.1	0.0	NS
Gambling led to the breakup of a relationship								
PGs (ever)	11.3	33.1	88.7	..	..	..	..	NS
Non-problem regulars (ever)	0.1	0.9	99.9	..	..	..	..	NS
Adults (ever)	0.4	59.5	99.6	..	..	..	..	NS
PGs (in last year)	4.7	13.8	95.3	..	..	..	..	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	..	..	..	..	NS
Adults (in last year)	0.3	39.2	99.7	..	..	..	..	NS
Breakup led to split up								
PGs (ever)	9.1	26.8	90.9	..	..	..	..	NS
Non-problem regulars (ever)	0.1	0.9	99.9	..	..	..	..	NS
Adults (ever)	0.3	42.6	99.7	..	..	..	..	NS
PGs seeking help (ever)	26.0	..	74.0	..	..	..	..	CS
Losing contact with children								
PGs seeking help (ever)	11.4	..	88.6	..	..	..	..	CS
Prevalence of violence due to gambling								
PGs seeking help (ever)	13.1	..	86.9	..	..	..	..	CS
Gambling money arguments with family								
PGs (in last year)	42.0	122.9	58.0	7.8	18.8	10.8	4.6	NS
Non-problem regulars (in last year)	4.0	48.5	96.0	1.4	2.4	0.1	0.0	NS
Adults (in last year)	1.9	266.9	98.1	0.8	0.7	0.3	0.1	NS
PGs seeking help (in last year)	83.2	..	16.8	12.2	24.9	21.4	24.6	CS

^a NS is the PC *National Gambling Survey*, CS is the PC *Survey of Clients of Counselling Agencies*, 1999; PGs are problem gamblers (defined as SOGS 5+ for results from the general population). Data on regulars excludes people who play non-lottery games irregularly, but spend over \$4 000.

Source: PC *National Gambling Survey* and PC *Survey of Clients of Counselling Agencies*.

Table 7.7 Impacts on others by problem gamblers in counselling

	<i>Partner</i>	<i>Children</i>	<i>Parents</i>	<i>Friends</i>	<i>Colleagues</i>
	%	%	%	%	%
No effect at all	10.8	18.2	24.7	34.3	45.2
Minor adverse effect	8.5	21	20	25.1	13.2
Moderate adverse effect	17.2	14.1	21.3	17.5	8
Major adverse effect	46.6	20.7	21.6	15.4	9.4
Not applicable	14.3	24.9	10.3	6.3	20.9
Do not know	2.6	1.1	2.1	1.3	3.3

Source: PC *Survey of Clients of Counselling Agencies*.

The Commission's *National Gambling Survey* suggested that just under one in ten problem gamblers report a split-up with partners due to gambling (or 90 times higher than that for non-problem regular gamblers — table 7.6). About one quarter of problem gamblers seeking counselling report that gambling has led to the dissolution of a relationship with a partner.¹⁹ Trying to estimate the extent to which these lifetime rates of gambling-related relationship breakdowns contribute to *annual* divorces and separations in Australia is difficult (appendix T). **But on the basis of a variety of evidence, the Commission concludes that there are conservatively around 1 600 gambling-related divorces per year.²⁰ And there is also a significant impact on relationships.**

Partners

Problem gamblers tend to devote large amounts of money and time on gambling, and these commitments have severe consequences for the well being of their family and partners. This, together with deception about their gambling and the anxiety, mood swings and stress accompanying their gambling, not only generate relationship frictions, but health and mental distress for the partners.

Based on a clinical study of problem gamblers, Dickerson et al. (1996a) report that 40 per cent of problem gambler's partners had developed significant stress-related illness. Overseas studies confirm this pattern, with the partners of problem gamblers exhibiting high rates of emotional distress and other symptoms (Lorenz and Yaffee, 1986, 1989; and Lorenz, Politzer and Yaffee 1990), which is why they are also major users of help services. In a US study of members of GamAnon, a self-help group for families and friends of people in Gamblers Anonymous it was found that:

All respondents experienced numerous reactions, both psychological (depression, bad nerves) and physical (headaches, nausea, ulcers) as a result of living with an active compulsive gambler ... 5 [of 18] had severe suicidal thoughts, and one did attempt to

¹⁹ Other survey results find even more extreme results. Dickerson, Baxter et al (1995, p. 97) found that 44.4 per cent of males and 22 per cent of female clients of a Queensland counselling group experienced relationship breakdown as a result of their gambling problems. Dickerson, Baron, Hong and Cottrell (1996) found that 45.5 per cent of SOGS 10+ Australian problem gamblers experienced relationship breakdown. Relationships Australia Queensland (sub. 62) estimated that around 46 per cent of BreakEven Gold Coast clients (from May 1993 to October 1998) experienced a gambling-related relationship breakdown. Jackson, Thomas, Crisp, Smith, Ho & Borrell (1997, p. 27) found that 54.7 per cent of clients of gambling counselling services in Victoria in 1996-97 had jeopardised or lost significant relationships. Brown and Coventry (1997) and AIGR (1996b) report similarly adverse impacts of gambling problems on relationships.

²⁰ This is considerably less than the yearly rates used in the cost estimates in the draft report — see appendix T.

commit suicide. Others resorted to committing illegal acts, such as writing bad checks, to support the family (Lorenz, Politzer and Yaffee 1990).

Many of the problems appearing in such ‘significant others’ — such as in increased visits to general practitioners — may not be ascribed to problem gambling because of the stigma and embarrassment in revealing the problem (Blaszczynski, Walker et al. 1997).

Box 7.6 Some impacts on relationships

I have had gambling problems for the last nine years betting on horses. My gambling has caused me to appear before the courts on no less than four occasions. I have been homeless many times and my life has become unmanageable. When I am gambling, I do not think of the consequences, I don't care about anything else. I have readily blown my rent and food money to have one more chance to win. It doesn't worry me. My second wife has left with the two children, both under three years of age. Even so, all I can dream of is the big win which will turn my life around for the better (quoted in Blaszczynski 1998, p. 18).

Joanne is a 54 year old housewife whose thoughts about playing the lottery have taken over her whole life ... She skimmed on household spending just to get a few more pence for another ticket ... Her husband is fed up with her constant preoccupation with the lottery, her lack of interest in the marriage and their home, and the couple are now slowly drifting apart (Dickerson, Baxter et al. 1995, p. 22).

From memory there wasn't any specific incident that informed me about [his] gambling. He denied it of course. Just some tight, nauseating knot in the pit of my stomach told me that things were not right ... I started to read signs of distress ... [his] needing to stay at the office late ... his increasing difficulty remembering personal commitments, complaining about never having enough money for himself, increasing moodiness ranging from sullen, sulky and withdrawn to outright rage whenever he felt 'put out' ... and then things started to go missing. ... And so began my terrifying journey of loneliness ... [He] had stolen \$2000 from his work and had lost it all at the casino. He needed to replace the money by next morning or it would be discovered and he'd lose his job. So much was being lost here ... money, job, integrity, security ... The lying was the worst aspect of the whole experience. It meant the goalposts were continuously moving and therefore decisions were made that were constantly ineffective. She [the daughter] still has trouble discerning the difference between borrowing, lending, losing, taking and stealing and I have to vigilantly reinforce their meanings at every opportunity. She is currently having counselling ... I decided to leave with the children ... The air reeked with sadness and relentless weariness ... she [the other daughter] played around the edges of bulimia and suicide. ... He [the son] climbed on to the roof of the unit and yelled to me that he felt like jumping off (confidentialised sub. C35).

When the boys got home from school there was never anything for them to eat ... They had to wear the same clothes as they never had new clothes, I became a liar to my children ... I also became very angry most days ... We all turned into the family from hell. Due to my gambling I also lost a lot of very close friends through all the lies ... The people that have been affected the most with all this are my boys, my family and friends and also my marriage ... [my boys] have lost their father, friends and their home (sub. D209).

There is some evidence of domestic violence associated with problem gambling, although most of it is anecdotal. One counselling agency indicated that 4 per cent of its clients had admitted to physically abusing their partner to gain financial benefits (sub. D218, p. 2). In some cases, the perpetrator is the problem gambler (Brown, Johnson, Jackson and Wynn 1999, pp. 30–1, 41). In other cases, the domestic violence emerges as a response by the non-problem gambling partner to the sudden revelation of the financial losses incurred by a problem gambling spouse (evidence to the Commission by a migrant social worker in Darwin). In a US study, Lorenz and Shuttleworth (1983) found that 82 per cent of the wives of pathological gamblers (in treatment) were so angry or frustrated with their spouses that they wanted to hurt or even kill them. Over one in ten problem gamblers in counselling reported that gambling led to violent incidents (table 7.6).

The children

The children of problem gamblers are affected in many ways and, lacking the autonomy, maturity, access to help, and power of adult partners, may have less control over the situations in which they find themselves.

A highly visible form of the problem has been the much cited cases of children left in cars outside casinos (sub. 53, p. 9). This problem has apparently largely ceased now that casinos monitor car parks and will exclude a patron who engages in this behaviour. However, this has probably meant that children have been left at home alone or in inappropriate care situations — an invisible problem replacing a visible one.

The most immediate concern for children's welfare in problem gambling households is poverty. Problem gambling eats up resources that otherwise would be spent on all household members — from family entertainment, a serviceable car, a pleasant home, holidays, and even food.

The mood swings, substance abuse and familial discord that may accompany problem gambling, must also have substantial adverse impacts on any involved children, including their social integration and education:

Another one of our female clients from overseas had 4 children and was evicted because of her gambling. She was placed into our agency's emergency accommodation. She was behind with the rent, had no food for the children and kept her youngest son (aged 12) away from school to baby-sit the other three children while she gambled. We attempted to link the boy back into school as his school work had been severely disrupted ... Her son had lost his individuality and motivation ... Protective Services were eventually called in but she left with the children and there has been no follow up

with the agency (Social worker cited in Brown, Johnson, Jackson and Wynn 1999, p. 34).

‘Josie’, a mother of three young children under seven, from a nearby country town contacted us after she had used the housekeeping money for gambling. She felt particularly guilty because her children were suffering as she was emotionally distant and they were not eating well. This couple is now separate and the father gave up his job to care for his children (Relationships Australia (SA) sub. 118).

Another worker talked about a lady who left her child with friends for ten days and child protection was eventually called in. When they found her, she was at the casino with two packets of nappies in her hand. How hard was it for her to leave the casino you can see (Vietnamese Problem Gambling Community Educator cited in Tran 1999, p. 45).

Children of problem gamblers live in a volatile and confusing environment. The gambling parent is likely to ignore them and dismiss their needs on the one hand and at other times be doting and indulgent. The children respond to this seesawing relationship by feeling angry, hurt, lonely, guilty, abandoned and rejected (Relationships Australia (SA), sub. 118 drawing on Lesieur (1992), p. 46).

Carrig, Darbyshire and Oster from Relationships Australia and the Women’s and Children’s Hospital (sub. D210) undertook qualitative research to examine, from childrens’ own perspectives, the experiences of living with a parental problem gambler. They found:

- the experience of parental separation was common among study participants;
- that participants described a marked change in the gambling parent as a result of the gambling problem. The parent is often described as having undergone a personality change accompanying the development of the gambling problem and becoming ‘secretive, deceptive, unreliable, irresponsible, irrational, disinterested and selfish’;
- large tangible losses, such as money (their family’s and their own), their homes, their holidays. Some children lost their schooling; and
- a loss of security. The authors noted that the children felt a loss of a secure financial environment, the disintegration of stability, isolation from others and insecurity stemming from a volatile home life.

In summary they noted that:

The researchers believe that the importance of loss in these children’s descriptions of their experiences is undeniable. This sense of pervasive loss in the experiences of these children and young people can be viewed as a significant cost of parental problem gambling (pp. 27–8).

Lorenz et al. (1990) found that in Maryland, 61 per cent of the children of problem gamblers enrolled in Gamblers Anonymous suffer from a variety of behavioural and

mood problems including withdrawal, depression and anger (though these results are based on a small sample). Absences from school, higher dropout rates and poorer grades were also recorded. Other aspects of physical and emotional deprivation for children were revealed in a study of children of US Gamblers Anonymous members (Lesieur and Rothschild 1989).

Jacobs et al. (1989) found that children from problem gambling households exhibited a greater likelihood of undertaking health threatening behaviours (such as smoking, drinking and drug use) than their peers. They were more likely to attribute these behaviours as escapes from their dire domestic circumstances. Their educational results suffered. And they were more likely to feel profoundly sad and suicidal, with double the risk of making a suicide attempt.

There is some international evidence of increased risk of child abuse (cited in Adelaide Central Mission 1998, p. 16). US studies suggest that child abuse rates are two to three times more likely in the problem gambling family environment (Lorenz 1987 and Lesieur and Rothschild 1989).

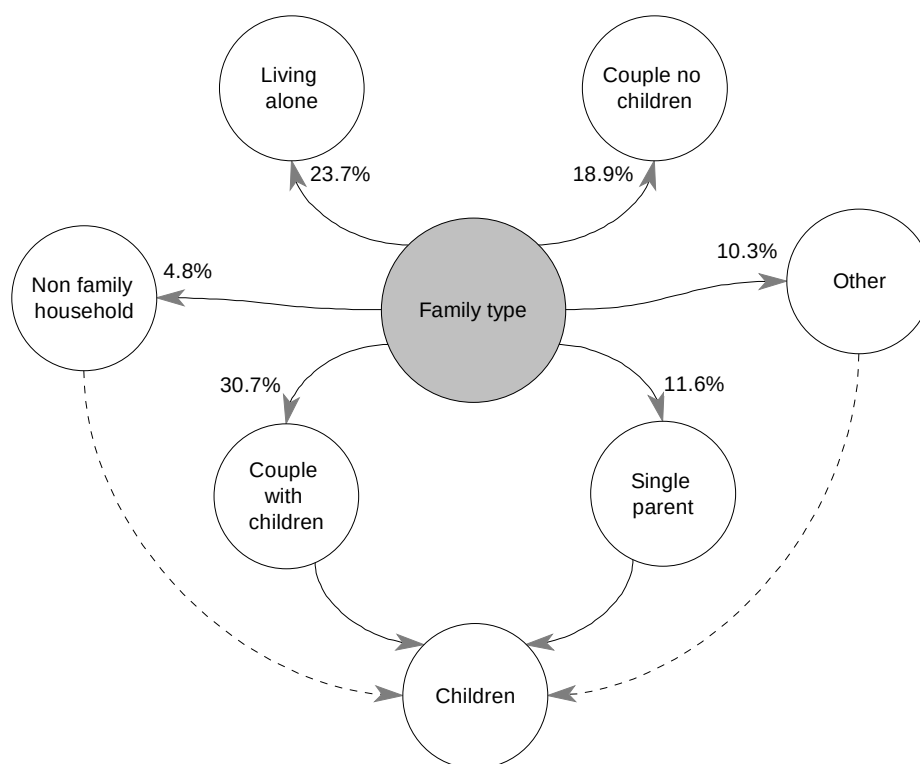
The numbers of people affected by problem gamblers

Another relevant issue is the number of ‘significant others’ who are affected by problem gamblers. While about one in five problem gamblers live alone (figure 7.4)²¹, most live with others, who must be affected by the problem gambler on a daily basis. Just under half of problem gamblers (49.4 per cent) live in households with children and on average have 2 children (Elliot Stanford and Associates 1998), so that for every problem gambler there is on average one associated child living in the same household. The Commission’s *National Gambling Survey* found a slightly smaller figure, with around 0.6 children (under the age of 15 years) living with the average problem gambler.²²

²¹ Many of those who live alone will still have strong connections with others, such as their parents. Moreover, many times the fact that they are alone may reflect the consequences of problem gambling on significant others, who have then left relationships.

²² The client survey, which covers the most severe category of problem gamblers also suggests around 0.6 children per problem gambler.

Figure 7.4 The families of problem gamblers^a
South Australia 1996 to 1998



^a Based on a survey of clients of gambling counselling services in South Australia for the period November 1996 to May 1998.

Data source: Elliot Stanford and Associates (1998).

People are surrounded by networks stronger than the immediate nuclear family, such as siblings, parents and friends. The Public Health Association of Australia notes that a problem gambler affects on average 10 to 15 other people (1997, p. 1). The Break Even-Western Problem Gambling Service (sub. 64 p. 3) cites evidence that problem gamblers affect another 7 to 10 people.²³ Lesieur (1984) says that between 10 and 17 other people are affected by the ‘excessive’ gambler, including spouse, children, extended family, employer, employees, clients, consumers, creditors and insurance agencies. Using data from the *Survey of Clients of Counselling Agencies*, the Commission estimated that the average number of people who are adversely affected by a problem gambler is 7.3.²⁴ Of course, the magnitude

²³ Some indirect evidence for this sort of magnitude can be obtained from the ratio of the prevalence of people reporting that they personally know someone with a gambling problem in the past year (around 28 per cent) and the prevalence rate of problem gambling (2.1 per cent) — with the ratio being around 13.3.

²⁴ The survey asked gamblers to nominate people who had been adversely affected by their gambling amongst five categories (partner, children, parents and other relatives and work

of such effects is likely to be weaker, of lesser duration and more under the control of the affected party, the more distant is their relationship to the problem gambler.

Intergenerational effects

Problem gamblers have an elevated risk of having children or other family members associated with them also developing subsequent problems — so that problem gambling has an inter-generational impact (Lesieur and Klein 1987; Lesieur et al. 1986; Volberg 1994; Volberg and Abbott 1994 and National Research Council 1999, p. 118).

The Commission's survey results suggested that problem gamblers are much more likely to report someone else in their family having problems with gambling. For example, a problem gambler in counselling has a 16 times higher chance of having a father with a problem, than non-problem gamblers in the population (table 7.8). These results are confirmed in other studies.²⁵

colleagues). The count of the number of people affected depended on whether the gambler nominated that there had been an adverse effect. Otherwise, it was assumed there had been a zero effect. It was assumed that if the gambler had children they had an average of 1.5, that if they had a partner they had an average of 6 other relatives (including parents, grandparents, parents-in-law and siblings) that were affected, that if they had no partner they had 3 such relatives. If they adversely affected friends it was assumed that there were 3 such people and similarly that where adverse work impacts were described they related to 3 affected work colleagues. These calculations are below estimates that have been made in other studies. Star City Casino (sub. D217, p. 12), however, considered that they were likely to be an exaggeration.

²⁵ In a New Zealand study, Abbott and Volberg (1992, p. 5) found that of those whose parents had a problem, 17 per cent exhibited some degree of gambling problem themselves. In the UK, Fisher (1996) found that 33 per cent of severe problem gamblers had a parent who was a problem gambler compared to 4 per cent of social gamblers. In a US study of people receiving help for gambling problems in Maryland, 24 per cent of the group had a father who had experienced gambling problems (Lorenz, Politzer and Yaffee 1990). A Canadian study also found strong links between problem gambling and a family history of problem gambling (Ferris et al. 1996). In a study of a South Australian prison population, Marshall, Balfour and Kenner (sub. 116, pp. 9–10) found that 32.4 per cent of problem gamblers had a father with a gambling problem (compared to 2.9 per cent for non-problem gamblers) and 17.6 per cent had a brother or sister with a gambling problem (also compared to 2.9 per cent for non-problem gamblers).

Table 7.8 Intergenerational and family-wide problems with gambling^a

	<i>Ever</i>	<i>Last year</i>
	%	%
PGs with partner with problem	0.5	0.5
PGs with father with problem	2.3	2.3
PGs with mother with problem	1.1	1.1
PGs with sibling with problem	4.3	4.3
PGs with child with problem	0.9	0.9
PGs with a parent with a problem	3.4	3.4
PGs with any family member problem	16.2	14.8
PGs who knows anyone with problem	62.8	56.8
PGs who know more than 1 other problem gambler	34.2	31.9
PGs in counselling with a partner having problem	5.0	..
PGs in counselling with father having problem	15.6	..
PGs in counselling with mother having problem	9.9	..
PGs in counselling with a sibling having problem	13.9	..
PGs in counselling with a child having problem	2.0	..
PGs in counselling with parent having problem	21.5	..
PGs in counselling with other relative having problem	8.7	..
PGs in counselling with any family member problem	36.6	..
Non-PGs with partner with problem	1.03	0.7
Non-PGs with father with problem	0.99	0.5
Non-PGs with mother with problem	0.39	0.2
Non-PGs with sibling with problem	1.40	1.2
Non-PGs with child with problem	0.58	0.5
Non-PGs with a parent with a problem	1.38	0.7
Non-PGs with any family member problem	11.23	7.0
Non-PGs who knows anyone with problem	39.62	28.0
Non-PGs who know more than 1 other problem gambler	11.36	7.5

^a PGs are problem gamblers (defined as SOGS 5+ for results from the general population) and Non-PGs are non-problem gamblers.

Source: Data on problem gamblers in counselling is from the PC *Survey of Clients of Counselling Agencies*, while all remaining data are from the PC *National Gambling Survey*.

It seems likely that the children of problem gamblers would be more familiar with how to gamble. They may also learn their parents' cognitive and cultural models of gambling which might pre-dispose them to a higher risk.²⁶

Problem gambling — like a variety of other social ills — has intergenerational consequences. People whose parents have had a problem with gambling are much more likely to develop a problem themselves. This means that the

²⁶ However, another possible explanation is that other aspects of cultural disadvantage may also be passed on, and it is this hidden factor which explains the intergenerational effect, rather than something tied specifically to gambling. For example, people who have low work skills and are unemployed are more likely to have children who are unemployed. Both the parents and the children would have a higher risk of problem gambling due to their unemployment status.

potential cost of a new ‘case’ of problem gambling is greater than might be expected — because it increases the likelihood of future cases. This strengthens the argument for preventative approaches to problem gambling.

7.4 Impacts on work

One of the behavioural traits of problem gamblers is pre-occupation with gambling, and that, with periods spent away from the workplace while gambling and the impacts of gambling-related substance abuse, can have adverse impacts on a gambler’s work performance. As noted in section 7.7, in some cases it results in theft from other employees or the employer.

Star City Casino (sub. D217, p. 12), in reviewing the evidence, considered that the ‘effect of gambling on work performance may well be less than the effects of surfing, racing, shopping, movies etc’.

The Commission’s surveys (tables 7.9 and 7.10) suggested moderate effects on work performance by most problem gamblers:

- about 19 per cent of problem gamblers said they lost time from work or study in the last year due to gambling, but this typically occurred infrequently. About one in four reported that gambling had an adverse impact on their work;
- in contrast, around 50 per cent of problem gamblers in counselling reported that they had lost time from work or study due to gambling in the last year. This mirrors the study by Dickerson, Baxter et al. (1995, p. 97) which found that 45 per cent of problem gambling clients of Break Even counselling services in Queensland had lost time from work;²⁷
- around 6 per cent of problem gamblers reported that they had ever moved jobs, and about half a per cent said that they had been sacked as a result of their gambling (about 1 500 people);

²⁷ Interestingly, they found that fewer women (14 per cent) had experienced this problem, which probably reflected the fact that the women had experienced problems with gambling for a shorter duration than the men (which in turn reflected the recency of gaming machines in Queensland).

Table 7.9 Work impacts^a

<i>Type of work impact</i>	<i>Yes</i>	<i>Number affected</i>	<i>Never</i>	<i>Rarely</i>	<i>Some-times</i>	<i>Often</i>	<i>Always</i>	<i>Source</i>
	%	000	%	%	%	%	%	
Lost time from work or study								
PGs (in last year)	18.8	55.0	81.2	9.1	5.5	1.4	2.2	NS
Non-problem regulars (in last year)	1.7	20.2	98.3	1.0	0.6	0.1	0.0	NS
Adults (in last year)	0.7	98.1	99.3	0.4	0.2	0.0	0.1	NS
PGs seeking help (in last year)	50.3	..	49.7	16.3	15.8	13.0	4.6	CS
Adversely affected job performance								
PGs (ever)	31.3	91.7	68.7	..	..	..	..	NS
Non-problem regulars (ever)	0.2	1.8	99.9	..	..	..	..	NS
Adults (ever)	1.2	165.1	98.8	..	..	..	..	NS
PGs (in last year)	25.4	74.5	74.6	8.7	14.5	2.2	0.1	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	0.0	0.0	0.0	0.0	NS
Adults (in last year)	0.7	94.3	99.3	0.3	0.3	0.1	0.0	NS
Changed jobs due to gambling								
PGs (ever)	5.9	17.3	94.1	..	..	..	..	NS
Non-problem regulars (ever)	0.2	2.0	99.8	..	..	..	..	NS
Adults (ever)	0.2	27.9	99.8	..	..	..	..	NS
PGs seeking help (ever)	18.3	..	81.7	..	..	..	..	CS
PGs (in last year)	1.9	5.6	98.1	..	..	..	..	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	..	..	..	..	NS
Adults (in last year)	0.0	5.6	100.0	..	..	..	..	NS
Lost job due to gambling								
PGs (ever)	0.5	1.6	99.5	..	..	..	..	NS
Non-problem regulars (ever)	0.0	0.0	0.0	..	..	..	..	NS
Adults (ever)	0.1	10.2	99.9	..	..	..	..	NS
PGs seeking help (ever)	18.6	..	81.4	..	..	..	..	CS
PGs (in last year)	0.0	0.0	100.0	..	..	..	..	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	..	..	..	..	NS
Adults (in last year)	0.0	0.0	100.0	..	..	..	..	NS

^a PGs are problem gamblers (defined as SOGS 5+ for results from the general population).

Source: Data on the problem gamblers in counselling is from the PC *Survey of Clients of Counselling Agencies*, while all remaining data are from the PC *National Gambling Survey*.

Table 7.10 Work impacts for problem gamblers in counselling^a

	<i>Time at work</i>	<i>Quality of work</i>	<i>Cooperation</i>	<i>Speed of working</i>	<i>Promotion prospects</i>	<i>Concentration</i>	<i>Confidence or trust</i>
No effect	50.7	44.9	55.7	58.8	59.2	28.7	55.5
Minor adverse effect	24.8	25.7	23.2	19.6	11.1	30.4	14.1
Moderate adverse effect	15.2	14.4	11.8	11	10.1	22.2	8.6
Major adverse effect	7.6	12.7	6.6	5.8	11.8	17.1	17.2
Not applicable	1.7	1	2.1	1.7	4.9	1	2.1
Don't know	0	1.4	0.7	3.1	2.8	0.7	2.4

^a Applies only to those problem gamblers who were employed at the time they had their problem.

Source: PC *Survey of Clients of Counselling Agencies*.

-
- job change and loss were much greater among problem gamblers in counselling, with about one in five saying that they lost or moved jobs due to gambling;
 - it appears that the biggest source of difficulty reported by employed problem gamblers is a loss of trust by others and lowered concentration on work (table 7.10); and
 - problem gamblers in counselling (the most severe category) reported, on average, a decline in work performance of 7.9 per cent.²⁸

Ladouceur, Boisvert, Pepin, Loranger and Sylvain (1994) have conducted one of the more thorough investigations of the impact of gambling on work performance. They found that 66 per cent of a group of Canadian problem gamblers who were members of Gamblers Anonymous had missed work (or left early) to gamble, with half of these doing so more than five times a month (p. 405). 14 per cent said they had missed a whole day of work to gamble. 59 per cent reported being irritable at work because of their preoccupation with gambling, finding it hard to concentrate. 37% had stolen from their employer.²⁹

7.5 Impacts on spending

The share of gambling expenditure accounted for by problem gamblers

Almost all estimates of prevalence of problem gambling for Australia suggest that a small share of adults are adversely affected — though significantly more as a proportion of regular gamblers (chapter 6). But prevalence rates are a very poor guide to aggregate social impacts because they fail to take account of the magnitude of the impacts. In particular, it is important to contrast the small prevalence rate of

²⁸ This was estimated from the Commission's client survey. The Commission asked gamblers to rate their work performance loss.

²⁹ Other studies have found similar results. Dickerson, Baron, Hong and Cottrell (1996) found that among people with a SOGS score of 10+, 54.5% had lost time from work/study; 31.8% had moved/changed jobs; 13.6% had had efficiency affected and 22.7% had been sacked. Relationships Australia Queensland (sub. 62) found that among clients of the Break Even Gold Coast (May 1993 to Oct 1998) 61% reported at least a mild adverse impact on their work, while 23.2% had moved jobs or been sacked as a result of their gambling. Gerstein et al 1999 (p. 42) found that 13.8% of problem gamblers in the general population had lost a job or been sacked in past year compared to 4% for low risk gamblers. They then estimated the rate of job loss *due* to gambling as 8 per cent. Lesieur (1998) and Thompson et al. (1996) reported more adverse outcomes for problem gamblers seeking help (in the United States).

problem gambling with the share of gambling expenditure (losses) accounted for by this group.

A minority of people account for the bulk of gambling spending, a phenomenon which has been noted by other researchers (eg Dickerson, Baxter et al. 1995, p. 79). And not surprisingly, problem gamblers, though a small proportion of total gamblers, are highly represented among heavy spenders and would be expected to account for a significant share of total expenditure. This has the important policy implication that gambling providers face mixed incentives for dealing with problem gamblers. Those venues which most try to limit the problems may lose revenue as well as losing market share relative to those whose efforts are weaker. It raises some additional hurdles to the workability of self-regulation (chapter 16).

Estimates for aggregate gambling

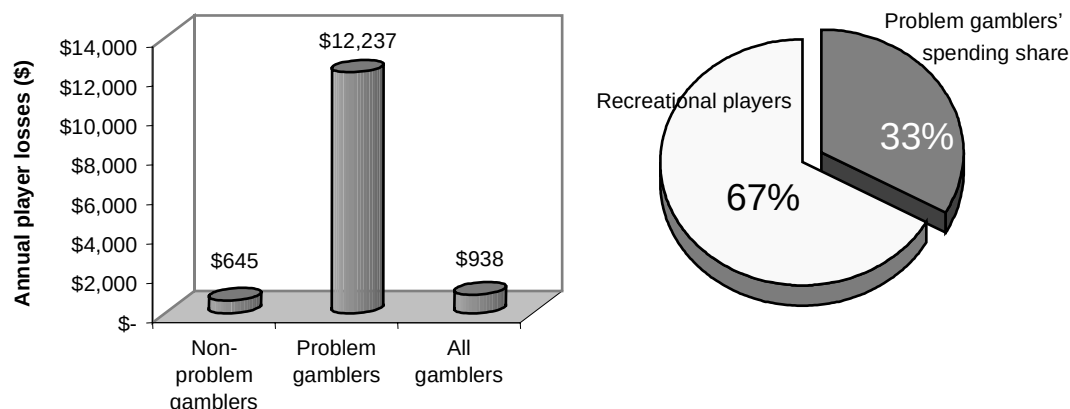
Few past studies of gambling in Australia or elsewhere have sought to examine the share of player losses accounted for by problem gamblers. The Australian study based on 1991 data by Dickerson, Baron, Hong and Cottrell (1995) is a rare exception. They found that problem gamblers accounted for about 26 per cent of total gambling expenditure in Australia, a number that they regard as ‘probably conservative’.

The Commission also undertook analysis of the unit record files of past Australian survey data (the Victorian, NSW, Tasmanian and SA surveys) to try to estimate expenditure shares of problem gamblers. The estimates vary significantly, but given sample variability, a weighted average of the estimates is more likely to give a reliable picture. On this basis, around 30 per cent of expenditure was accounted for by problem gamblers.

However, these surveys were based on different sets of questions, were conducted at different times and provide an incomplete coverage of Australia. The Commission’s *National Gambling Survey* is likely to provide a more reliable estimate. Using the methodology described in appendix P, the Commission estimated that problem gamblers account for about one third of total Australian resident commercial gambling expenditure (figure 7.5).

Behind the aggregate estimate is the fact that average annual expenditure by problem gamblers is very high. The average estimated expenditure of problem gamblers in the last 12 months is about \$12 200 — 19 times greater than the \$645 for non-problem gamblers.

Figure 7.5 The share of player losses accounted for by problem gamblers^a
Australia 1999



^a See appendix P for the methods used to calculate these estimates.

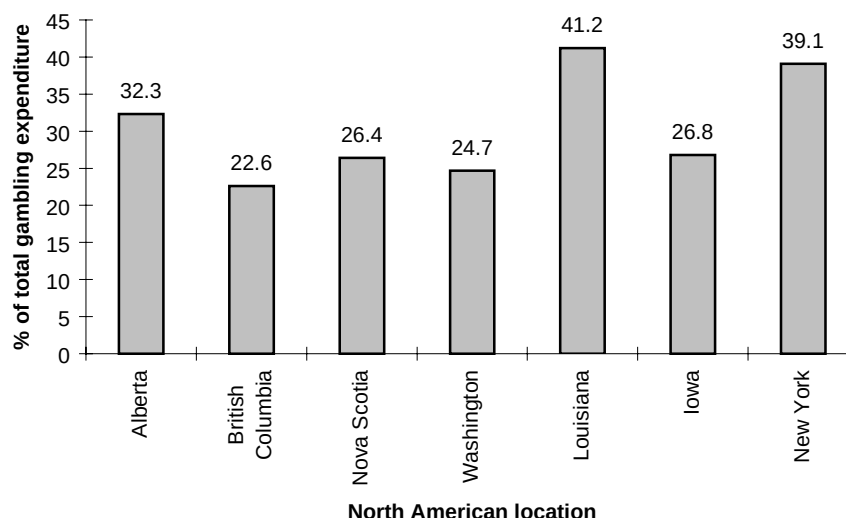
Data source: appendix P.

It should not be assumed that all problem gamblers spend a large amount, or that all heavy gamblers are problem gamblers. Indeed, the Commission's survey suggests that 60 per cent of gamblers outlaying more than \$4 500 a year are not problem gamblers. Even so, the data suggests strongly that problem gamblers are much more prevalent amongst big spenders than among light spenders. The average expenditure per gambler tends to climb with higher SOGS scores.

Those with severe problems (as defined using the Dickerson approach described in chapter 6) account for the majority of spending by problem gamblers. For example, it is estimated that this group accounts for about one third of spending on gaming machines and one quarter of spending on racing (appendix P).

Other international studies have also found that problem gamblers account for a significant share of expenditure. In the United States, Grinols and Omorov (1996) estimated that 52 per cent of casino revenue comes from problem and pathological gamblers — but their estimate appears to be inflated and subject to serious qualification (Volberg, Moore, Christiansen, Cummings and Banks 1998, p. 351). Lesieur (1998) examined seven jurisdictions in Canada and the United States and found that problem gamblers accounted for between 23 and 41 percent of total gambling expenditures (figure 7.6).

Figure 7.6 **Expenditure shares of problem gamblers in North America**



Data source: Lesieur (1998, 1996). Lesieur used a score of 3 or more as an indicator of problem gambling — which will tend to inflate the expenditure shares.

Rather lower figures were found by the recent US NORC study. Problem gamblers accounted for 16.6 per cent of past year losses in casinos and 13.5 per cent of past year losses in racing. However, the overall estimates of expenditure were unusual because many people claimed to win overall, so that these loss shares are of questionable value in shedding light on the problem gambling expenditure share. Analysis of the US data by Volberg and Gerstein is continuing and further results are expected in the year 2000.

Data from a 1992 survey in New Brunswick in Canada suggests that ‘pathological’ gamblers accounted for about 1.6 per cent of gamblers and only 4.3 per cent of total gambling spending (National Council of Welfare 1996, p. 8).

A detailed study of Video Lottery Terminals (VLTs) in Nova Scotia, Canada, found that problem players, who comprised 0.92 per cent of Nova Scotian adults, accounted for 53 per cent of VL gaming revenue (Focal Research 1998, p. 3.43).

Overall, problem gamblers, while small in number, have a cumulatively large impact because they spend around 19 times more than recreational gamblers. The implication is that of the \$10.7 billion of gambling expenditure by Australians in 1997-98³⁰, around \$3.6 billion comes from problem gamblers.

³⁰ Based on net gambling expenditure in Australia less \$536 million for casino losses experienced by overseas visitors.

Estimates for different gambling modes

It is possible to extend the methods used above to estimate gambling expenditure shares by problem gamblers to different types of gambling. No such studies have been attempted for Australia, but Volberg, Moore, Lamar, Christiansen, Cummings and Banks (1998, p. 355) find that problem gamblers in Iowa and Mississippi account for a share of total losses that varies significantly between gambling modes (table 7.11), as does Lesieur (1996, 1998) for seven regions in North America. The data suggest that problem gamblers account for a modest share of expenditure on non-continuous forms of gambling, such as sporadic lotteries (but not scratchies) and raffles — around 10 per cent (or lower). But expenditure shares are much bigger in EGMs (and VLTs), table games and wagering.

The Commission analysed data from a study in Alberta, Canada and found similar patterns, with the interesting twist that there were stark differences in expenditure patterns for males and females. Thus female problem gamblers accounted for about 40 per cent of bingo expenditure by all females, whereas male problem gamblers accounted for about 20 per cent of all bingo expenditure by males. An even clearer pattern emerged for wagering on horses, with female problem gamblers accounting for 2.7 per cent of female racing gambling expenditure and male problem gamblers for 58 per cent of male expenditure on this gambling form.

Analysis by the Productivity Commission of data from Wynne, Smith and Jacobs (1996) for Alberta adolescents aged 12 to 17 years found that gambling expenditures are even more skewed to problem gamblers in this group than adults. Forty-nine per cent of total gambling expenditure by adolescents is accounted for by the 8 per cent who are rated as problem gamblers³¹ — rising to 60 per cent for some gambling forms, such as card games, and as little as 24 per cent for raffles (table 7.12). No similar studies of expenditure shares among adolescents have been conducted in Australia.

³¹ Using the SOGS 5+ threshold.

Table 7.11 Share of gambling expenditure accounted for by problem gamblers

Iowa 1995, Mississippi 1996 and the United States 1998

<i>Type of gambling</i>	<i>Group size^a</i>	<i>Prevalence of problem gamblers</i>	<i>PLF^b</i>	<i>Proportion of losses</i>	<i>Low^c</i>	<i>High^c</i>
	Number	%	Ratio	%	%	%
Iowa						
Lottery	814	5.53	4.08	19.3	13.4	34.6
Casino tables	219	12.78	3.41	33.3	24.6	51.6
Casino slots	481	6.65	2.54	15.3	9.4	40.8
Bingo	153	10.46	2.17	20.2	10.4	42.0
Parimutuel	82	9.76	7.02	43.1	27.5	99.8
Charitable	407	5.40	1.73	9.0	6.8	13.4
Mississippi						
Lottery	183	9.34	1.78	15.1	8.4	74.6
Casino tables	74	10.81	1.17	13.1	6.4	100.0
Casino slots	255	11.81	1.72	18.5	11.4	48.2
Bingo	39	18.18	15.08	73.8	51.5	100.0
Parimutuel	24	29.17	0.21	8.0	3.3	100.0
Charitable	215	8.37	3.32	23.1	12.3	100.0

^a The total sample for Iowa was 1 500 and 1 014 for Mississippi. The group size is the number of people in the sample who gambled on any particular form. ^b This is the Proportional Loss Factor, which is the ratio of the losses of problem gamblers to those of non-problem gamblers. Problem gambling is defined as people who score 3 or more on a 12 months SOGS. This embraces a far greater group of people than would be normally accepted as problem gamblers in Australia, and suggests that the measures of expenditure shares would be somewhat inflated. However, it should be noted that while prevalence rates with such a low cutoff may be two to four times the prevalence with a 10 plus threshold, the expenditure shares would not be anywhere near as biased — simply because real problem gamblers spend a lot more than non-problem gamblers. ^c These are the 95 per cent confidence intervals for the spending shares.

Source: Volberg, Moore, Lamar, Christiansen, Cummings and Banks (1998, pp.355–6).

Using survey data from various state surveys and the Commission's *National Gambling Survey* suggests divergent spending shares for different modes (figure 7.7). Problem gamblers have a very significant share of the expenditure (however defined) on both wagering and gaming machines — these are also the gambling forms where problem gamblers tend to have the greatest difficulties. In contrast, problem gamblers account for a much lesser share of expenditure in lotteries, scratch cards and casinos. Indeed, conventional lotteries appear to be like most other consumer goods — and do not appear currently to present any significant hazards for players.

Table 7.12 Expenditure shares of gambling by gambling mode and gender of gambler^a

Alberta 1993

	<i>Current female problem gamblers</i>	<i>Current male problem gamblers</i>	<i>All problem gamblers</i>
	%	%	%
Bingo	41.6	21.6	39.2
Video Lottery Terminals	47.4	45.0	45.9
Pull-tabs	44.7	24.6	37.3
Instant or scratchies	15.3	17.2	16.2
Lotto	8.4	10.6	9.6
Local casinos	21.9	35.8	28.2
Cards/dice at casino	17.4	33.4	29.6
Sports with friends	11.2	13.2	12.5
Card games with friends	20.3	16.0	16.5
Raffles	2.9	9.3	5.8
Coin slot machine	4.1	15.7	10.1
Horse races	2.7	58.1	45.8
Games of skill	14.4	19.0	18.7
Total gambling	22.7	25.8	24.4

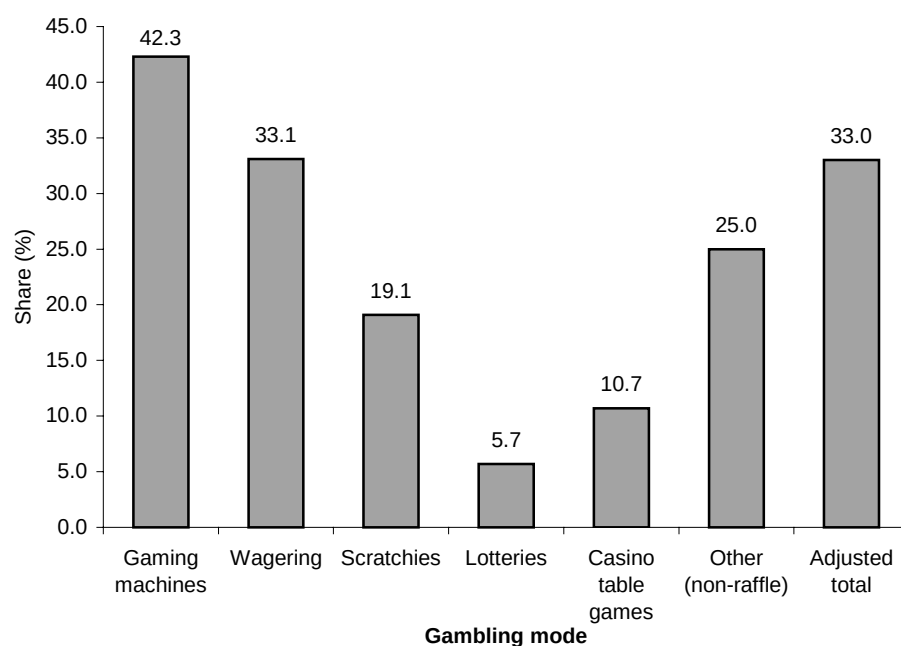
^a Female problem gamblers were 5.5 per cent of total female gamblers and male problem gamblers 6.8 per cent of total male gamblers — a broader definition of problem gambling is being used than would be the case in Australia.

Source: Productivity Commission estimates based on data in National Council of Welfare (1996).

Another revealing feature of the expenditure data found in the Commission's *National Gambling Survey* is that the outlays share of problem gamblers is usually lower than the net spend share. This is consistent with problem gamblers re-‘investing’ their wins, until they lose (appendix P).

In summary, problem gamblers may be a small minority of the gambling population, but their high levels of expenditure mean that they account for a substantial share of overall expenditure — a result which is not affected by the methods used to calculate the shares. Problem gamblers account for particularly high shares of total spending on gaming machines and racing. On the other hand, they account for a negligible share of spending on lotteries.

Figure 7.7 Expenditure shares of problem gamblers, Australia
PC National Gambling Survey 1999



^a The adjusted total takes account of the fact that the *National Gambling Survey* underestimates total spending in some gambling modes, while overestimating others. Problem gamblers are defined as SOGS 5+.

Data source: PC National Gambling Survey and appendix P.

Spending patterns by problem gamblers in counselling

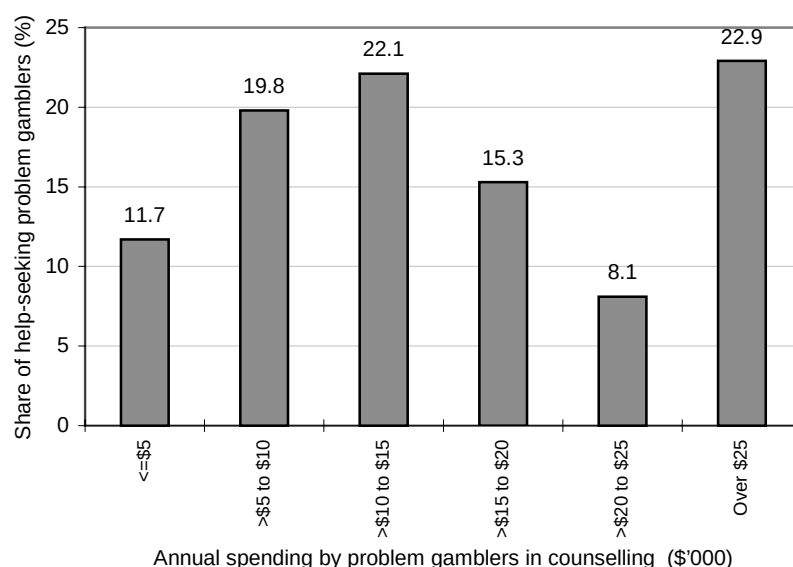
While they may not be representative of problem gamblers in the general population, it is still relevant to examine the levels of expenditure made by people who are seeking help for their problems, as these gamblers are generally the worst affected by problem gambling:

- The Commission's *Survey of Clients of Counselling Agencies* suggested average annual expenditure per problem gambler of just above \$19 000 — 60 per cent more than that of problem gamblers found in the population generally (figure 7.8).
- Evidence from Break Even clients in Victoria suggest very high annual expenditures by problem gamblers seeking help (Jackson, Thomas, Crisp, Smith, Ho & Borrell 1997 p. 25). For example, the median loss on gaming machines on the last day a problem gambler played was \$150 — and one person made a single session loss of \$25 000 after 50 hours of continuous playing. More recent data (for 1997-98) from Jackson et al. (1999b, p. 29) suggested that 45.5 per cent

of Victorian gambling counselling clients spent more than \$20 000 a year. Males tended to spend more than females.

- Data from South Australian clients of help agencies suggests that a sizeable minority of such gamblers are spending substantial monthly amounts (Elliot Stanford and Associates 1998).

Figure 7.8 The distribution of annual spending by problem gamblers in counselling, Australia, 1999



Data source: PC Survey of Clients of Counselling Agencies.

The financial effects of problem gambling

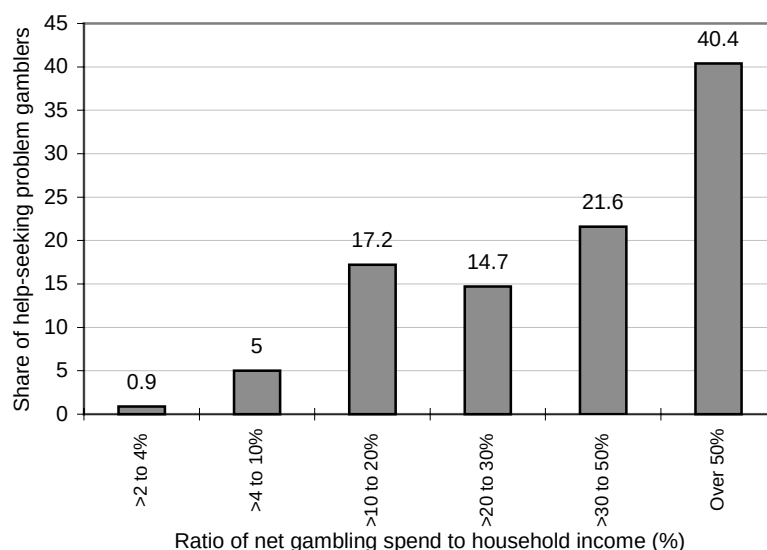
A crucial aspect of the impact of problem gambling is the extent to which it represents a large or small share of total income. The Commission found that the ratios of gambling expenditures to income are very high among problem gambling households relative to those of recreational gamblers:

- Amongst non-problem gamblers the mean ratio of net gambling expenditure to household income (affordability) is low at around 1.2 per cent (with the median even lower at 0.5 per cent), while for problem gamblers in the general population the average is 22.1 per cent (with a median of 12.2 per cent)³²; and

³² This will tend to underestimate the spending share because it assumes that any partner spends nothing on gambling, and because the expenditure data being used is not adjusted for survey under-enumeration (appendix P). It should also be noted that average affordability is calculated as the average of the spending to income ratios using the data from the Commission's *National Gambling Survey*. This is not the same as taking the mean problem gambling expenditure for all

- Among problem gamblers in counselling — those with the most severe problems — gambling expenditure exceeds 20 per cent of income in three quarters of cases (figure 7.9).

Figure 7.9 **Affordability of gambling for problem gamblers in counselling^a**
Australia 1999



^a Affordability is the ratio of net spending to household gross income.

Data source: PC Survey of Clients of Counselling Agencies.

The consequence of the high ratio of gambling spending to income is that problem gamblers tend to run down assets or borrow:

- About one in five problem gamblers reported borrowing money without paying it back (table 7.13) and one in two said they borrowed money from some source to finance their gambling (table 7.14). Dickerson, Baxter et al. (1995, p. 98) found that in Queensland 76 per cent of female and 56 per cent of male problem gamblers had gambling related debts at the time they sought counselling help. The average level of debt of problem gambling clients in this survey was \$4 564 for women and \$33 158 for men.³³ The Commission's *Survey of Clients of Counselling Agencies* found an average debt level of \$10 044 for problem

problem gamblers and dividing by their mean household income (that is around 11.6 per cent using unadjusted expenditure and 18.8 per cent using the adjusted expenditure).

³³ Some other studies suggest even bigger levels of debt. For example, a US Maryland study (Lorenz, Politzer and Yaffee 1990) found that average level of debt among a treatment group was just under US \$40 000.

gamblers in counselling (but about 40 per cent had no debt, so that the level of debt for those who did was \$16 925).³⁴

Table 7.13 Adverse financial impacts of problem gamblers^a

<i>Financial impact</i>	<i>Yes</i>	<i>Number affected</i>	<i>No</i>	<i>Rarely</i>	<i>Some-times</i>	<i>Often</i>	<i>Always</i>	<i>Source</i>
	%	'000	%	%	%	%	%	
Borrowed money without paying back								
PGs (last year))	18.7	54.8	81.3	14.2	4.0	0.0	0.5	NS
Non-problem regulars (in last year)	0.7	7.9	99.4	0.4	0.2	0.0	0.0	NS
Adults (in last year)	0.7	93.0	99.3	0.5	0.1	0.0	0.0	NS
PGs seeking help (in last year)	53.3	..	46.7	13.9	22.7	10.6	6.1	CS
Borrowed from loan sharks								
PGs (in last year)	5.8	16.9	94.2	2.5	0.8	2.5	0.0	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	0.0	0.0	0.0	0.0	NS
Adults (in last year)	0.1	17.0	99.9	0.1	0.0	0.1	0.0	NS
PGs seeking help (in last year)	8.4	..	91.6	1.3	4.6	2.0	0.5	CS
Bounced cheques deliberately								
PGs (in last year)	4.1	12.0	95.9	3.8	0.3	0.0	0.0	NS
Non-problem regulars (in last year)	0.1	1.6	99.9	0.1	0.0	0.0	0.0	NS
Adults (in last year)	0.1	13.6	99.9	0.1	0.0	0.0	0.0	NS
PGs seeking help (in last year)	21.2	..	78.8	7.7	9.4	3.1	1.0	CS
Sold property to gamble								
PGs (in last year)	10.8	31.6	89.2	6.3	2.0	2.5	0.0	NS
Non-problem regulars (in last year)	0.3	3.5	99.7	0.3	0.0	0.0	0.0	NS
Adults (in last year)	0.3	35.1	99.8	0.2	0.0	0.1	0.0	NS
PGs seeking help (in last year)	36.7	..	63.3	10.4	17.7	7.3	1.3	CS
Spent more than could afford								
PGs (in last year)	70.0	204.8	30.1	25.5	14.5	20.5	9.4	NS
Non-problem regulars (in last year)	8.7	104.8	91.4	5.7	2.3	0.5	0.1	NS
Adults (in last year)	2.9	412.5	97.1	1.7	0.6	0.5	0.2	NS

^a PG is a problem gambler (defined as SOGS 5+ for results from the general population). CS is the PC Survey of Clients of Counselling Agencies, while NS is the PC National Gambling Survey.

Source: PC National Gambling Survey and PC Survey of Clients of Counselling Agencies.

- Over five per cent (8 per cent of gamblers in counselling) said they had borrowed from loan 'sharks' — lenders who charge exorbitant interest rates, and sometimes harass borrowers for payment.
- Around one in ten reported selling property to finance their gambling (and more than one in three of gamblers in counselling). This includes using pawnbrokers (table 7.13). Using pawnbrokers involves penal rates of interest for borrowers and/or apparently relatively low valuations for goods (SAFCA 1996).

³⁴ Some counselling agencies, which conducted the interviews with problem gambling clients on behalf of the Commission, noted that many problem gamblers would accumulate debt on housing (or not pay off mortgages) in order to finance gambling. Accordingly, what people acknowledge as gambling-related debt probably understates the genuine level of debt.

- The bulk of problem gamblers say they have spent more than they can afford.
- Higher levels of debt present an additional significant risk factor for crime (appendix H).

Table 7.14 Other adverse financial impacts^a

	<i>Yes</i>	<i>Number affected</i>	<i>No</i>	<i>Source</i>
	%	'000	%	
Owed money due to gambling				
Problem gamblers (ever)	51.4	150.4	48.6	NS
Non-problem regulars (ever)	4.6	5.6	95.4	NS
Adults (ever)	2.0	288.5	98.0	NS
Problem gamblers (in last year)	37.1	108.7	62.9	NS
Non-problem regulars (in last year)	1.7	2.0	98.4	NS
Adults (in last year)	1.0	135.4	99.0	NS
Got gambling funds by using a pawnbroker				
Problem gamblers (ever)	13.1	38.4	86.9	NS
Non-problem regulars (ever)	0.5	6.4	99.5	NS
Adults (ever)	0.4	55.4	99.6	NS
Problem gamblers (in last year)	9.5	27.7	90.5	NS
Non-problem regulars (in last year)	0.3	3.5	99.7	NS
Adults (in last year)	0.2	31.2	99.8	NS
Went bankrupt				
Problem gamblers (ever)	1.4	4.1	98.6	NS
Non-problem regulars (ever)	0.0	0.0	100.0	NS
Adults (ever)	0.0	4.1	100.0	NS
Problem gamblers seeking help (ever)	8.4	..	91.6	CS
Problem gamblers (in last year)	1.0	2.9	99.0	NS
Non-problem regulars (in last year)	0.0	0.0	100.0	NS
Adults (in last year)	0.0	2.9	100.0	NS
Lost house				
Problem gamblers seeking help (ever)	7.9	..	92.1	CS
Lost superannuation				
Problem gamblers seeking help (ever)	13.4	..	86.6	CS

^a CS is the PC *Survey of Clients of Counselling Agencies*, while NS is the PC *National Gambling Survey*. Problem gambling is defined as SOGS 5+ for results from the general population.

Source: PC *National Gambling Survey* and PC *Survey of Clients of Counselling Agencies*.

These financial outcomes can be difficult for problem gamblers and their families (box 7.7).

Box 7.7 Financial problems

Our honeymoon was spent doing a tour of race and trotting tracks ... I later learnt that all the money given to us as wedding gifts was gambled away at this time ... Twelve months after our new home was built we were served with a notice to quit as my husband had not paid any instalments on the loan and an enforced sale followed ... He had at times stolen and gambled their [the children's] pocket money (Comments from a gambler to the Productivity Commission's inquiry).

Peter was a 36 year old manager with a serious problem playing Black Jack at the Casino. Married with 2 children and a large mortgage. His house has been sold at a loss and a car on lease also sold. He had six personal loans, credit cards, loan from parents, outstanding school fees, medical bills, telephone account and taxation debt. Total bankruptcy debts \$84 000 (sub. D267, p. 3).

A fifty-one year old widow had been a regular bingo player for several years. The problem she described to Break Even began when she played the poker machines before and after the bingo sessions. She felt it was now an escape from being alone at home and she was embarrassed at her credit card debt of \$850 she could not pay, having lost savings of about \$10 000 (Dickerson, Baxter et al. 1995, p. 96).

In a period of a year and a half she had progressed from an initial dislike of her first go on the machines when she lost \$5 to a daily session of up to 4 hours duration. She has debts of \$21 000 on a variety of credit cards and two bank loans (ibid., p. 96).

I lost \$600 on three occasions (ie \$1 800), each \$600 gone in less than 2 hours; \$1 020 lost in five hours, another \$950 lost in three hours, and \$1 000 lost in 4½ hours (sub. D255, p. 3).

Are problem gamblers doomed to be penniless?

An important question when looking at the impacts of problem gambling is whether a typical person showing problems will, over time, gamble themselves into poverty, or whether this affects only a subset of people experiencing problems.

Compulsive gamblers will bet until nothing is left: savings, family assets, personal belongings — anything of value that may be pawned, sold or borrowed against. They will borrow from co-workers, credit union, family and friends, but will rarely admit it is for gambling. They may take personal loans, write bad cheques and ultimately reach and pass the point of bankruptcy ... In desperation, compulsive gamblers may panic and often will turn to illegal activities to support their addiction (Wexler and Wexler 1992, quoted in Simon 1995).

There is little supportive Australian evidence that this is the case for problem gamblers as a group, though it may be true for a sub-group.³⁵ Following other triggers — such as relationship breakdown, job loss or financial problems prior to

³⁵ Data from a Nova Scotia (Canada) survey of VL players (Focal Research 1998, pp. 3.39–3.40) reveals that most problem players there do not drive themselves into bankruptcy, but remain as long-term problem gamblers.

complete insolvency — many people will seek to resolve gambling problems prior to the extreme point described in the above quote. As well, problem gambling need not be progressive — it may vanish as a person solves their own problems without professional assistance, or it may persist as a problem without progressing in extremity.

About 1.4 percent of problem gamblers report that they have ever been bankrupt as a consequence of gambling, and even less in the last year. However, the proportion affected are so small that the estimate is very unreliable statistically.

Official data from the Inspector-General in Bankruptcy may provide a better picture of bankruptcies due to gambling. These reveal that there were 223 non-business and 94 business bankruptcies related to gambling or speculation. This is about 1.3 per cent of total bankruptcies, and implies that only 0.1 per cent of problem gamblers are declared bankrupt in any year. Presumably some of these bankruptcies are quite unrelated to gambling, so that even this would appear to be an overestimate of gambling-related bankruptcies. However, it is a criminal offence to go bankrupt as a result of gambling, so there are strong incentives for people to conceal gambling as a cause (appendix R). As noted by the Adelaide Central Mission:

I believe that the bankruptcy statistics are extremely conservative concerning problem gambling and difficult to identify while the present legislation is in place [which provides for prosecution of people who go bankrupt due to gambling].

Problem gambling as a reason for personal bankruptcy is often not indicated and reasons given refer to health issues, loss of jobs, other criminal acts, breakdown in relationship and poor money management (sub. D267, p. 3).

The Adelaide Central Mission also observed that:

During the last 12 months, as one financial counsellor in a smaller State, I have been involved in 20 petitions for personal bankruptcy totalling \$1.25 million, which can be directly attributed to the petitioners problem gambling addiction. The average number of debts per petition was eight and the sale of 6 house properties were involved...The considerable fraudulent behaviour of my clients resulted in three Company liquidations with losses exceeding \$1 million (sub. D267, p. 3).

The Society of St Vincent de Paul GAME counselling agency in New South Wales also pointed to significant numbers of bankruptcies among its clients. The Society also revealed that many had escaped bankruptcy, but only at the cost of the significant loss of assets:

We have had some success in avoiding bankruptcy for clients that come to our agency. To illustrate this point, in the last financial year (1998-99), 42 clients have asked me to help with their bankruptcy. Out of these 42, only 10 needed to be declared bankrupt. Of the other 32, 23 are working at the task of repaying their debts and the other 9 have had

to sell their assets (and for 6 of the 9, their homes) to satisfy their creditors (sub. D218, p. 2).

The Wesley Community Legal Service (sub. D215, p. 1) noted that in some cases bankruptcy was avoided by effectively insolvent gamblers because relatives paid the debts.

It appears that bankruptcy is a relatively rare event for problem gamblers as a group, but its rarity should not be taken as a barometer of the adverse financial impacts of gambling. Many problem gamblers run down assets or pass their financial obligations to others among their friends and family.

Indeed, the declaration of bankruptcy may in practice provide some significant benefits for problem gamblers (and their families), as pointed out by the Wesley Community Legal Service (sub. D215, p. 2):

- creditors stop demanding payment, reducing family stress;
- legal debt recovery procedures are stayed;
- it provides public recognition of the inability of the problem gambler to pay debts, ending attempts by the gambler to borrow money to bail out from problems;
- bankruptcy is registered on the bankrupt's Credit Reference Limited File for 7 years, which makes it difficult to borrow money to gamble;
- most bankrupts are discharged at the end of 3 years, providing a chance for a new start in life; and
- bankrupts on good incomes are required to make contributions to creditors.

They also noted some disadvantages, most particularly the possible risk of prosecution of a problem gambler — which the Commission addresses in appendix R.

As emphasised in chapter 6, problem gamblers are a heterogeneous group. Those with the severest gambling problems (including those in counselling) face devastating financial consequences — with about 8 per cent being declared bankrupt, 8 per cent losing their house due to their gambling, and 14 per cent losing superannuation assets (table 7.14).

Some overseas results

A number of US studies suggest that bankruptcy rates among problem gamblers are even higher there. The recent NORC study (Gerstein et al. 1999, p. 55) found that a

‘pathological’ gambler had about twice the odds of going bankrupt as a low-risk gambler (controlling for confounding variables). About 19 per cent had ever been declared bankrupt compared to 5.5 per cent for low risk gamblers. On the other hand, their econometric analysis of the spatial variation in bankruptcy rates could find no influence of proximity to casinos.³⁶

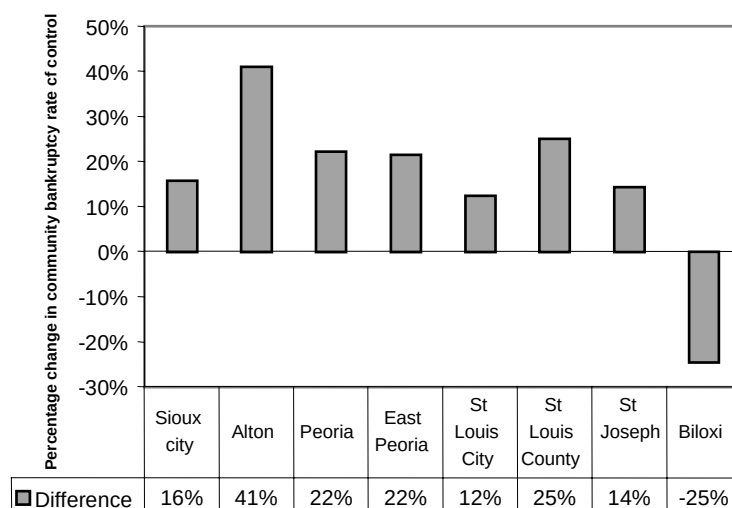
A recent US study by Nichols, Stitt and Giacomassi (1999a) examined personal consumer bankruptcy rates using a less aggregated group of casino communities and a control group of communities, which had similar socio-demographic characteristics, but no casino gambling.³⁷ They examined whether county-level bankruptcy rates had risen over time after the introduction of the casinos relative to the change over time in the control communities. The results suggested that casino gambling was associated with (a statistically significant) increase of bankruptcy in seven of the eight communities (figure 7.10). It should be noted that the overall personal bankruptcy rate in the United States appears to be several times larger than in Australia, so that it is possible that these quantitative methods might have a greater chance of uncovering gambling effects in the United States than Australia. However, some care should be taken in seeing problem gambling as necessarily the only underlying factor connecting casino gambling and elevated bankruptcies. It may be that the analysis is picking up some other economic impacts of casinos.

³⁶ One possible way of reconciling these diverging results is that it is possible that the casinos stimulate the local economy by attracting other states’ visitors. In this case, the increased bankruptcy rates associated with problem gambling would be matched by lowered bankruptcy rates due to local economic stimulation. If this were the case, then it would be predicted that bankruptcies would tend to rise in the states which provided the visitors to states with casinos — but these bankruptcies would not be observed in the model results.

³⁷ With one exception, the researchers selected casinos that were not destination casinos. This overcomes some of the confounding effects associated with the venues that attract out-of-state visitors, thus stimulating the local economy. The only destination venue was associated with a decrease in bankruptcy rates following the introduction of the casino.

Figure 7.10 The apparent impact on personal bankruptcy rates of casino communities compared to controls

Eight US casino communities



Data source: Nichols, Stitt and Giacomassi (1999a).

Sources of money for gambling by problem gamblers

As well as accumulating formal or informal debt or running down assets, problem gamblers also give up other forms of consumption. The majority of problem gamblers in counselling (table 7.15) report at least sometimes running out of money to buy essentials or pay urgent bills.

Table 7.15 Share of problem gamblers who ran out of money to buy household essentials or pay urgent bills

	Share of gamblers
	%
Always ran out of money	6.2
Often ran out of money	34.2
Sometimes ran out of money	27.9
Rarely ran out of money	9.0
Never ran out of money	22.7
Total	100.0

Source: PC Survey of Clients of Counselling Agencies.

But they give up more than essentials — the significant financial burdens of problem gambling must have large displacement effects on a range of other forms of consumption by affected households. Relatively little research has been

conducted into the sources of funding of gambling expenditure — whether it be for recreational or problem gamblers. The Commission's *Survey of Clients of Counselling Agencies* suggested that they frequently gave up holidays, other entertainment, restaurant meals and savings (table 7.16). Jackson et al. (1999b, p. 30) found that 47 per cent of problem gamblers in counselling ran down their savings, and 9 per cent raised gambling funds through asset sales.

Table 7.16 What do problem gamblers in counselling give up in order to gamble?

	<i>Food and grocery items</i>	<i>Savings for things you were hoping to buy</i>	<i>Power, phone, accommodation</i>	<i>Car / durables</i>	<i>Holidays</i>	<i>Entertainment</i>	<i>Restaurant meals</i>
Always went without	4.0	21.2	1.5	16.0	25.7	18.4	24.2
Often went without	11.8	31.1	7.3	15.2	20.4	23.6	22.0
Sometimes went without	27.2	29.9	12.3	28.5	23.0	31.8	22.7
Rarely went without	16.5	6.8	12.3	10.3	9.1	8.2	12.1
Never went without	40.4	11.0	66.7	30.0	21.9	18.0	18.9
Total	100.0	100.0	100.0	100	100	100	100

Source: PC Survey of Clients of Counselling Agencies.

The Commission's *National Gambling Survey* revealed rather different displacement effects among problem gamblers — effects that intensified as the gambling problem increased in severity (table 7.17). Problem gamblers tend to give up spending on personal items (such as clothing) and paying bills, much more than non-problem gamblers. For example, over one-quarter of severe problem gamblers said that if they hadn't spent the money on gambling they would have spent it to pay bills (compared to just 2.4 per cent of non-regular non-problem gamblers). All gamblers said that they gave up small household items, other entertainment and recreation, and savings.

7.6 Impacts on others, the public purse and the non-profit sector

The financial burdens borne by problem gamblers spill over the boundaries of their households, into wider family and friendship networks, into the non-profit sector and into the public welfare domain. This happens via a number of routes:

- some problem gamblers lose their jobs and then require social security payments. They also tend to seek social security advances (in about 13 per cent of cases);

- their rates of ill-health appear to be higher — with implications for the health budget;
- they require assistance with their gambling problems from counselling agencies, which comes at a cost;
- the shortage of adequate household finance requires sporadic material aid from charities for some problem gamblers. The Commission's *Survey of Clients of Counselling Agencies* found that 22 per cent of problem gamblers in counselling obtained material assistance from a charity when the money ran out. The average annual amount obtained was estimated at (a modest) \$200 per year³⁸ for those who sought assistance. A sizeable majority of problem gamblers in counselling (64 per cent) said they lied about the reason for needing material assistance, so that the charities themselves are probably not highly aware of the burden placed on them by gambling problems; and
- they borrow from friends (58 per cent of cases) or simply defer or ignore bills (64 per cent of cases).

Table 7.17 What do other problem gamblers give up in order to gamble?

	<i>Problem gamblers (SOGS 5+)</i>	<i>Severe (SOGS 10+)</i>	<i>Non-problem non-regulars</i>	<i>Non-problem regulars</i>
	%	%	%	%
Groceries or small household items	17.5	18.3	23.1	17.0
Major household goods (eg TV)	4.7	8.7	3.2	3.2
Personal items (clothing, footwear)	21.9	26.5	11.1	12.3
Restaurant meals	9.7	7.2	7.6	8.6
Wine, beer	11.5	6.5	9.0	13.6
Movies or concert	5.0	0.0	4.3	4.1
Other entertainment & recreation	12.9	21.5	10.5	9.1
Paid off credit card or bills	11.7	28.4	2.4	4.4
Pay rent/mortgage	4.0	14.3	1.5	0.7
Spent on grandchildren	3.1	3.9	2.2	2.8
Petrol	4.7	0.0	1.0	0.5
Cigarettes	4.7	0.0	0.5	0.8
Donation to charity	0.0	0.0	0.6	0.0
Magazines/books	0.0	0.0	1.6	0.2
Other items	8.1	7.8	5.3	5.0
Savings	17.4	19.6	14.4	24.2
Don't know	8.1	6.1	14.6	11.7

Source: PC National Gambling Survey.

³⁸ It is likely that this is a significant underestimate, because in many cases material aid is obtained by the partner of the problem gambler, rather than by the problem gambler themselves.

Of course, overall problem gamblers pay huge taxes through their gambling to governments — roughly of the order of \$1 billion — so that there is little question that, as far as state governments are concerned, they are net beneficiaries of any transfers that take place. Their own families, businesses, friends, and charities almost certainly, however, pick up the main tabs.

7.7 Crime and problem gambling

The discussion in this section, which examines different aspects of the relationship between crime and problem gambling, draws on material provided in appendix H.

Why do some problem gamblers turn to crime?

Lesieur (1984, 1996) has outlined the sequence of events that lead some problem gamblers to commit criminal offences. To obtain money for gambling or to pay gambling debts, gamblers initially draw on their savings and then make cash advances on their credit cards, borrow from family and friends, or take out loans with banks or other financial institutions.

As the Wesley Community Legal Service noted:

Typically a gambler will borrow increasing amounts of money to gamble, disguising the purpose for which the money is borrowed by shuffling money from one place to another. For example, a personal loan may be taken out to purchase a car, which is then sold to provide gambling money (sub. 46, p. 7).

A case study (box 7.8) shows the pattern of asset loss, mounting debts and then crime.

Box 7.8 A case study of the pathway to crime

Elaine is 48 years old ... and is from a wealthy Asian background. Elaine had never previously set foot in a club before ... Elaine decided to go inside the club ... While there she was fascinated by the flashing lights and sounds emanating from the poker machines. She cashed \$10 and began to play. She recalls she was instantly hooked. Some 3 years later and \$600 000 in liquid assets ... she eventually had to declare bankruptcy and...faced the inevitable marriage breakdown ... she attempted to chase her losses, and embezzled a further \$30 000 from a family member. She was eventually charged and sentenced to 6 months jail.

Source: BetSafeNews, April 1999 p. 3.

Problem gamblers may subsequently borrow from loan sharks, or resort to selling personal or family property to obtain funds for gambling. Faced with mounting financial difficulties and gambling-related debts, when all these legal sources of gambling funds are exhausted, problem gamblers may then resort to illegal activities to obtain money. As the Salvation Army noted:

Once they [problem gamblers] have exhausted their income, whether wages, salaries, pensions or benefits, they then borrow on credit cards, take out loans, steal from family/friends, sell personal and family property, and then move to stealing from others (sub. 35, p. 2).

What proportion of problem gamblers commit offences?

To shed light on what proportion of problem gamblers commit offences to support their gambling, information can be drawn from Australian surveys of:

- people seeking help from problem gambling counselling services;
- problem gamblers seeking treatment from hospital/university psychiatric units and attending Gamblers Anonymous;
- prison inmates; and
- the general population.

The findings from a range of studies are summarised in table 7.18.

Some findings from individual surveys

A study by Jackson et al. (1997) presents information on criminal activity among 1452 new clients who registered with problem gambling counselling agencies in Victoria in the period 1 July 1996 to 30 June 1997, and who were assessed in terms of the ten DSM-IV criteria for ‘pathological’ gambling. One of the criteria is whether a subject has committed illegal acts (eg forgery, fraud, theft or embezzlement) in order to finance their gambling. The study found that:

- around 30 per cent of clients admitted to having committed illegal acts to finance their gambling (Jackson et al. 1997, p. 27).

The proportion dropped to 20 per cent in the 1997-98 survey (Jackson et al. 1999b, p. 35). This study found that 33.2 per cent of problem gamblers with a problem related to the TAB had committed illegal acts, compared to 17.2 per cent of those with a problem related to gaming machines.³⁹

³⁹ This may simply reflect the fact that criminal behaviour tends to take some time to appear and most gaming machine players have a more recent problem. It may also reflect the fact that males

Table 7.18 Proportion of problem gamblers committing offences

<i>Region</i>	<i>Period</i>	<i>Type of clients assessed</i>	<i>Number of clients assessed</i>	<i>% admitting to criminal offences</i>
Victoria	1996-97	New clients at all problem gambling counselling agencies	1 452	30
Victoria	1997-98	New clients at all problem gambling counselling agencies	2 209	20
Victoria	Nov 97-Nov 98	New clients at counselling service for Vietnamese gamblers	30	50
Queensland	May 93-Oct 98	New clients at Break Even-Gold Coast	443	53
Queensland	1993-94	New clients at 5 Break Even centres	174	29
Queensland	1994-95	New clients at 5 Break Even centres	357	64
National ^a	1998-99	Clients of problem gambling counselling agencies, Australia-wide	404	44
NSW	n.a.	Hospital treated patients	152	53
NSW	n.a.	Gamblers Anonymous members	154	66
SA	Aug 97-Dec 97	Prison inmates (with SOGS score of 5+)	34	76
National ^a	1999	Problem gamblers (with SOGS score of 5+)	140	11

^a The data for the PC *National Gambling Survey* and the *Survey of Clients of Counselling Agencies* exclude writing bad cheques deliberately.

Sources: Jackson et al. (1997); Jackson et al. (1999b), sub. 86; Boreham, Dickerson, Harley (1995); sub. 62; PC *Survey of Clients of Counselling Agencies*; Blaszczyński and McConaghy (1994a, 1994b); Marshall, Balfour and Kenner (sub. 116); PC *National Gambling Survey*.

The Australian Vietnamese Women's Welfare Association Inc. (sub. 86) reported on characteristics of clients who presented at a problem gambling counselling service for Vietnamese gamblers in the western region of Melbourne. In the twelve month period to November 1998, the service provided assistance to 30 people (18 males and 12 females) with gambling related difficulties. Of these clients who sought help:

- 50 per cent were involved with the courts (they had either been ordered by a Magistrate's Court to undergo counselling or were about to appear in court because of their gambling or gambling-related activities);
- 27 per cent were involved in stealing casino chips, cheating at casino games, stealing or shoplifting; and
- 17 per cent were involved with inappropriate money-lending schemes.

Results of illegal activity among clients of problem gambling agencies are available from the Commission's *Survey of Clients of Counselling Agencies* (table 7.19).

are more likely to commit a crime than a female, and are much more concentrated among those with a racing-related gambling problem.

Overall, 44 per cent of clients reported an involvement in some form of gambling related criminal activity at some stage of their gambling career. Around 16 per cent had appeared in court on charges related to their gambling, and around 6 per cent had received a prison sentence because of a gambling related criminal offence.

Table 7.19 Crime among clients of problem gambling counselling agencies

<i>Gambling related activity</i>	<i>% of clients^a</i>
Borrowing without permission or obtaining money improperly	42.3
Gambling has led to problems with the police	18.3
An appearance in court on criminal charges	15.8
A prison sentence	6.4
Any gambling related criminal activity	44.1

^a The percentages refer to 404 clients. Illegal activity in this case *excludes* deliberately writing a cheque knowing that it would bounce.

Source: PC Survey of Clients of Counselling Agencies.

Detailed information on offences committed by problem gamblers was obtained in a survey of 306 New South Wales problem gamblers (Blaszczynski and McConaghy 1994a, 1994b), comprising 152 hospital treated subjects and 154 members of Gamblers Anonymous. The study (1994b) revealed that the majority of offences committed by problem gamblers are gambling related. Of the 306 subjects surveyed:

- 59 per cent admitted to committing at least one *gambling* related offence over their gambling careers (and 48 per cent admitted to committing *only* gambling related offences);
- 18 per cent admitted to committing at least one *non-gambling* related offence (and 6 per cent admitted to committing *only* non-gambling related offences);
- 11 per cent admitted to committing *both* types of offences; and
- 35 per cent reported committing no offence at all over their lifetime.

A study of gambling-related crime in a prison setting has been carried out by Marshall, Balfour and Kenner (sub. 116). Subjects for that study were chosen from Yatala Labour Prison, South Australia's main reception jail for sentenced prisoners. The study collected data during the period August to December 1997 on 103 inmates from the 176 who were new intakes from the courts and sentenced for an immediate period of imprisonment.

To determine the prevalence of problem gamblers, these new intakes were screened on the basis of the SOGS. Of the 103 subjects surveyed, 26 admitted to committing gambling-related offences (they had 'been in trouble with the law due to

gambling'), and 34 obtained a SOGS score of 5 or more. The *joint* characteristics of these groups are of particular interest:

- all 26 subjects who had committed a gambling related offence scored 5 or more on the SOGS; but
- 8 of the 34 subjects (24 per cent) with a SOGS score of 5 or more had *not* committed a gambling related offence.

The latter group who committed crimes that were unrelated to their gambling may well be 'criminals who also happen to be gamblers'. Marshall, Balfour and Kenner conclude that:

There is a need to differentiate between criminals who gamble excessively and the pathological [problem] gambler who turns to gambling-related crime (sub. 116, p. 15).

1999 PC National Gambling Survey

The Commission's *National Gambling Survey* sought information on the prevalence of gambling-related illegal activity. Questions posed in the survey in relation to crime were whether a respondent had:

- obtained money illegally because of their gambling;
- experienced problems with the police because of their gambling; or
- appeared in court on charges related to their gambling.

The results classified in terms of two categories of problem gamblers (those with a SOGS score of 5+ and 10+) are presented in table 7.20.

Table 7.20 Legal system impacts of problem gambling

	<i>Ever SOGS 5+</i>	<i>Ever SOGS 10+</i>	<i>Last 12 months SOGS 5+</i>	<i>Last 12 months SOGS 10+</i>
	%	%	%	%
Any gambling related illegal activity	10.5	26.5	3.3	11.3
Obtained money illegally	7.0	13.2	1.2	3.7
Been in trouble with the police	4.1	13.8	2.2	7.6
In court on gambling related charges	3.1	13.4	0.2	1.4

Source: PC National Gambling Survey.

Around one in four problem gamblers in the 'severe' category (SOGS 10+) reported having committed some form of illegal activity at some stage of their gambling career, and around 10 per cent during the past 12 months. Prevalence rates of illegal activity were somewhat less among problem gamblers more generally, with around 10 per cent of those with a SOGS score of 5+ having committed a criminal offence.

However, it should be noted that of the 23 respondents to the *National Gambling Survey* who admitted to having ever committed an illegal activity to finance their gambling, 9 scored less than five on the SOGS. Four of these indicated that they used to have a gambling problem in the past but not now. The other five denied ever having a problem. There is a very high likelihood that the latter respondents are false negatives — because if someone commits a crime to finance their gambling then this is normally symptomatic of a significant gambling problem. On that assumption, the prevalence rate of crime among problem gamblers in the severe category would be rather higher than depicted by the raw data in the Commission's *National Gambling Survey*.

Overall summary of findings on extent of crime by problem gamblers

Marshall, Balfour and Kenner summarised the relationship between problem gambling and criminal behaviour as follows:

Pathological [problem] gambling is a significant risk factor in offending. Depending on the population assessed and the methodology used, the percentage of pathological gamblers that offend to support their gambling ranges from 30 to 50 per cent (sub. 116, p. 2).

The findings on the proportion of problem gamblers committing criminal offences estimated in the various studies summarised above is largely consistent with this conclusion in relation to the lower bound but suggests that for some categories of problem gamblers it can be as high as 60 or 70 per cent.

What crimes do problem gamblers commit?

A wide range of illegal activities are committed by problem gamblers. For example, illegal activity can take place within the family of the gambler. The Wesley Community Legal Service (sub. 46) described cases where a problem gambler had stolen the property of family members which was then sold or pawned to raise money for gambling, or forged the signature of family members to borrow money.

Break Even–Gold Coast commented that:

Group members reported committing crimes as a result of gambling, ... [including] stealing cash from workplaces, fraud and uttering. A common form of fraud was the writing of cheques to secure goods and then returning the goods for cash refund, thus accessing cash for gambling (sub. 73, pp. 3-4).

The Blaszczyński and McConaghy (1994a) survey of problem gamblers reported some of the offences committed as follows:

At the petty end of the spectrum, gamblers forged their spouses signature on cheques or in opening new joint accounts, stole from petty cash, engaged in shoplifting to subsequently sell the goods ... and stole from fellow employees at work (p. 124).

But the illegal activity can also extend to offences such as larceny, embezzlement and misappropriation, and more violent crimes such as armed robbery and burglary. Blaszczyński and McConaghy (1994a) also reported that:

More serious offences included repeated theft of vehicle spare parts for illicit sale, distribution and sale of marijuana, and the embezzlement of significant amounts on a regular basis from large corporations or banks (p. 124).

But not all of the offences that are committed by problem gamblers lead to arrest or prosecution. For example, much of the crime that is committed by problem gamblers against family members is never reported (box 7.9). Hence, crime report rates understate by a substantial margin the number of offences that are actually committed.

Box 7.9 Participants' views on under-reporting of crimes

Family members, friends and employers are the most frequent victims. These people are reluctant to report the criminal activity, and will often 'bail out' the problem gambler by advancing funds to pay creditors where criminal charges are threatened (Wesley Community Legal Service, sub. 46, p. 13).

We believe that the incidence of gambling related crime is under reported: very few families will lay charges against another member of their family and many employers are also reluctant to press charges (Relationships Australia (South Australia), sub. 118, p. 12).

Crimes committed against family and friends included stealing and pawning goods and selling family assets without consent. [But because] ... family members rarely choose to prosecute, many of the crimes and their impact on the family and the economy go unnoticed (Break Even—Gold Coast, sub. 73, pp. 3-4).

In the counselling work we undertake we are seeing clear evidence of white-collar crime, both large and small, being used to finance gambling activities. A large proportion of this theft occurs from family members and significant others. It is not reported, but it is crime nonetheless (Adelaide Central Mission, sub. 108, p. 19).

A large number of computer-initiated crimes are not proceeding to legal action as employees state they either cannot identify or prove losses and/or do not wish to receive the adverse publicity that could be involved if they pursue the matters (Adelaide Central Mission, sub. D267, p. 5).

What happens to problem gamblers who are convicted?

The Blaszczyński and McConaghy (1994a) study also sheds light on what proportion of gambling related crimes actually result in charges being laid. Of the 306 NSW problem gamblers surveyed, 24 per cent had been charged with

committing a gambling related offence. This represents around 40 per cent of subjects who admitted to committing a gambling related offence (almost identical to the result obtained using the Commission's *Survey of Clients of Counselling Agencies*).⁴⁰

Only around one quarter of those committing larceny were charged, and slightly less than half of those committing embezzlement or misappropriation. But typically, the more serious types of offences — such as armed robbery, break and enter, and drug dealing — were associated with a greater likelihood of arrest. For crimes like larceny and embezzlement, the most common sentence imposed was a good behaviour bond. However, all convictions for armed robbery and drug-related offences, and around half the convictions for break and enters, resulted in jail sentences.

Problem gambling and loan shark lending

Problem gamblers may resort to borrowing money from 'loan sharks' when possibilities for borrowing from mainstream avenues such as banks, credit unions, and financial institutions are exhausted. Dealing with loan sharks signals desperation on the part of the borrower because such loans not only entail exorbitant interest rates but also a menacing context in the event of non-repayment.

Loan sharks use gambling venues to find new clients (box 7.10).

The Australian Vietnamese Women's Welfare Association reported on the experience of some of its clients:

They [the loan sharks] move around the casino and when they see that someone has lost ... money, they say, "Come on, I'll give you some money. You'll win everything back". [And] the person is so keen to get back the money that [they] agree to any terms (transcript, p. 564).

Participants at the Commission's round table on crime and gambling gave a variety of views on how commonplace loan sharking had become:

In Victoria it's prolific, people spot in gambling venues and put gamblers in touch with financial institutions.

Loan sharking is a problem in small communities and is becoming more sophisticated. It is difficult to tell when loan sharking begins and a personal loan ends.

Loan sharking evidence is only anecdotal. If it is increasing this may reflect a lack of alternative investment arrangements (Commission's crime roundtable).

⁴⁰ However, Adelaide Central Mission (sub. D267, p. 5) considered that 70 per cent of its problem gambling clients had not been charged as a result of their actions.

Box 7.10 Some loan sharking experiences

Fred is a 26 year old ... club staff member ... [who] only started gambling about two years ago and has developed a very serious problem in the last 12 months. After gambling all of his savings away at the casino, Fred was introduced to some loan sharks who operate there. His financial problem was very severe given his limited income and there is significant pressure building over his failure to make the payments on some personal loans he got at the casino. Fred's debts exceed \$40 000 and he is very depressed. He has attempted suicide recently. The main pressure on Fred is coming from a man who provided money at the casino. ... Another of Fred's personal loans was arranged by a loan shark who charged a fee of \$2 000 in order to arrange a loan of \$10 000 (*BetSafeNews*, April 1999, p. 3).

... some [clients] have been approached by people at the gaming venue to lend them money ... One of them was ... [for] a loan of \$9 000 and she had to pay \$300 interest a month. There's a lot of issues involving that sort of thing because sometimes its a private individual lender and threats of violence may be used ... towards the gambler (Australian Vietnamese Women's Welfare Association, transcript, p. 563).

There's some pretty awful loan sharking going on down on the Gold Coast. The people are too frightened to even tell you about it, who they are or terribly much about it ... because of the types of threats that have been made to people who don't pay up (Relationships Australia Queensland, transcript, p. 129).

Group members as gamblers were not only perpetrators of crime, but also witnesses and victims. One group member reported witnessing theft at a gambling venue. Another had been extended credit by a loan shark and received threats when he was unable to meet repayments (Break Even–Gold Coast, sub. 73, p. 4).

The issue of loan shark lending in South East Queensland has been the subject of a recent Report by the Office of Fair Trading (OFT 1999). The OFT collected information from community groups such as financial counselling organisations and community legal centres, and from consumers via a state-wide Phone-In (conducted between 12 and 16 April 1999).

While the OFT study did not specifically ask borrowers whether the reason for their having to borrow from a loan shark was related to a gambling problem, the information obtained on loan shark lending characteristics in general is of interest. Typically, loan shark credit contracts involved: extremely high interest rates (3 or 4 per cent weekly or 20 per cent monthly); small loan amounts (the majority were for between \$1 000 and \$2 000); weekly repayments; late payment fees (commonly \$5 per day); and loans were described as being for 'business or investment purposes' to circumvent the Consumer Credit Code.

Wesley Community Legal Service noted that loan sharking is illegal in that it is in breach of the consumer protection provisions of the Consumer Credit Code — for example, section 22 of the Code provides a maximum fine of \$11 000 for imposing a monetary liability on a loan that is inconsistent with the Code (sub. D215, p. 2).

Some of the consequences of loan shark lending for the gambler and the community include:

- intimidation and physical threats to ensure repayment of loans;
- a problem gambler's personal debt problem is likely to be magnified rather than relieved;
- gamblers may resort to crime rather than suffer the consequences of not being able to meet repayment conditions; and
- there can be violence and criminal activity associated with loan sharking.

The Commission finds that:

- **around one in ten problem gamblers have committed a crime because of their gambling;**
- **up to two-thirds of problem gamblers in counselling have committed a crime to finance their gambling;**
- **the offences committed are mainly non-violent property crimes (larceny, embezzlement, misappropriation); and**
- **while the majority of offences committed do not result in legal action (and many go unreported), around 40 per cent of offenders are charged and convicted.**

7.8 Are there any offsetting benefits for problem gamblers?

So far this chapter has focused on the ways in which problem gambling can adversely affect gamblers and those connected to them. However, while many aspects of the life of a problem gambler are bleak, gambling can provide some positives, even for problem gamblers. Star City (sub. D217, p. 13) argued that more emphasis should be given to the benefits of gambling for problem gamblers.

The Commission found evidence that many severe problem gamblers often found gambling relaxing, pleasurable, and an interesting hobby (table 7.21). Gambling was also used as a means of crowding out personal difficulties, with many problem gamblers indicating that gambling took their mind off worries (themselves potentially induced by gambling) or made them feel less lonely.

Table 7.21 What are some of the positives of gambling for problem gamblers?

	<i>Always</i>	<i>Often</i>	<i>Sometimes</i>	<i>Rarely</i>	<i>Never</i>
	%	%	%	%	%
Relaxation	15.9	30.7	33	9.7	10.7
Pleasure and fun	15.6	26.3	39.1	10	9
Meet new friends	3.4	4.9	19.4	27.7	44.6
Hobby and interest	10.9	23.8	25.3	11.6	28.4
Hope for a change in life	7.5	10.3	17.1	20.2	45
Safe and pleasant place	12.2	20.5	29.3	12.4	25.6
Something to talk about	3.9	4.9	9.8	18.8	62.6
Helped through a boring job	2.9	5.2	17.4	15.8	58.7
Took mind of worries	26.3	34.9	26	3.6	9.2
Made feel less lonely	16.8	23.9	25.7	8.9	24.7

Source: PC Survey of Clients of Counselling Agencies.

Notwithstanding the positive impacts of gambling, 70 per cent of gamblers in counselling wanted to give up gambling altogether, and the remainder wanted to control their gambling (or did not know what they wanted).

The Commission has acknowledged these positive aspects for problem gamblers by including them in its estimate of the benefits of gambling (chapter 5 and appendix C).

8 The link between accessibility and problems

Box 8.1 Key messages

- Establishing a link between accessibility of gambling and problem gambling is of central concern for policy, because the existence of a link would suggest a need for caution in liberalising access to gambling.
- Accessibility is not just about proximity; it is also about: the mass appeal and ease of use of a gambling form; any conditions on entering gambling venues, and the initial outlay required to gamble.
- Among current major forms of gambling, gaming machines and lotteries are the most accessible, followed by TABs and lastly by casino gambling.
- Of these, greater accessibility to gaming machines has increased the risks of problem gambling the most.
- Problem gambling prevalence rates tend to be highest in areas where accessibility to non-lottery gambling is highest — such as Victoria and New South Wales — and lowest where accessibility is lowest — such as Tasmania and Western Australia.
- Help seeking by problem gamblers is also strongly associated with accessibility, although the direction of causality may vary.
- Changing patterns in problem gambling — particularly the much greater representation by women suffering from problems controlling their use of gaming machines — are particularly strong evidence of a link between accessibility and overall problem gambling rates.
- Using one methodology, the Commission estimates that there would be an *additional* 10 500 problem gamblers in Western Australia (or about 110 per cent more than current levels) were gaming machines to be liberalised to the same extent, and under the same conditions, as eastern states.
- Overseas evidence echoes that of Australia, but is less conclusive.
- While causation is hard to prove beyond all doubt, there is sufficient evidence from many different sources to suggest a significant connection between greater accessibility — particularly to gaming machines — and the greater prevalence of problem gambling.

8.1 Why is the link at issue?

A central question relevant to policy is the existence and strength of any link between the liberalisation of gambling and the creation of either new problem gamblers or more severe problems among people with existing difficulties. Many community groups maintain that such a link exists, and that it provides a basis for restrictions on the availability of gambling. For example, the Queen of Hearts study by Brown and Coventry (1997, p. ii) argues:

Ultimately, reducing access to gaming facilities must be the cornerstone of any strategy to meet the needs of women with gambling problems.

Many experts also accept a link. For example, Wildman (1998) summarising the literature on gambling, argues:

This would appear to be the question to which we can give the clearest answer in this unclear area ... Exposure to gambling leads to increased levels of involvement in this activity ... So the answer is “yes”, increased legalisation of gambling will lead to an increase in the prevalence of pathological gambling, and its attendant effects... (p. 263).

It may seem obvious that greater liberalisation of gambling would have to increase the number of problem gamblers, so that there is little point in examining the question. However, not everyone agrees with the link between accessibility of legalised gambling and problem gambling. The American Gaming Association (1999) argues that there is:

... a small, but relatively constant percentage of the population that exists independently of gaming availability, which demonstrates that areas with gaming do not have higher rates of problem gambling than those without gaming. Some states have even experienced decreases in problem gambling rates after the expansion of gambling: 2.7% in 1991 to 1.2% in Connecticut’s estimated current pathological gambling, in spite of the opening of the largest casino in the US.

A number of possible conjectures are advanced about why the link between gambling accessibility and problems may be weak.

First, it is sometimes argued that problem gamblers can always gamble on illegal forms (back street casinos, card games, mahjong), so that liberalisation deflects them from illicit (and potentially more harmful) gambling to legal forms, without altering the number of actual problem gamblers. People who once hid their problem because of its connection to an illegal activity may also be more willing to seek help, and that, with the greater visibility of help services, might explain why numbers reporting problems had increased.

Second, in the case of Australia, the recent path of liberalisation has not been from gambling prohibition to liberalisation, but from a liberal regime — where legal

gambling in many forms was widely available (TAB, lotteries, bingo) — to a more liberal regime, with an expanded set of gambling opportunities. It could be that gambling opportunities were already extensive enough that all (or nearly all) people with a potential for problem gambling had developed it, prior to the phase of liberalisation that occurred in the 1990s.

How can this debate about the connection between liberalisation and gambling problems be resolved? There are a number of strategies, including examining:

- the varying levels of problem gambling prevalence by Australian jurisdictions or over time, and correlating these to measures of accessibility;
- the differential use of help services in different Australian jurisdictions;
- micro data on patterns of gambling in Australia to see if they reveal an association between accessibility and problems;
- the epidemiological foundations of risk and the degree to which these vary by states in Australia; and
- overseas data and trends, which may make patterns clearer because variations between jurisdictions (or over time) are greater than in Australia.

This chapter examines evidence about all of these, which help to resolve the nature of the link between gambling problems and accessibility. As a first step, however, it is important to understand what accessibility to gambling means.

8.2 What are the dimensions of accessibility?

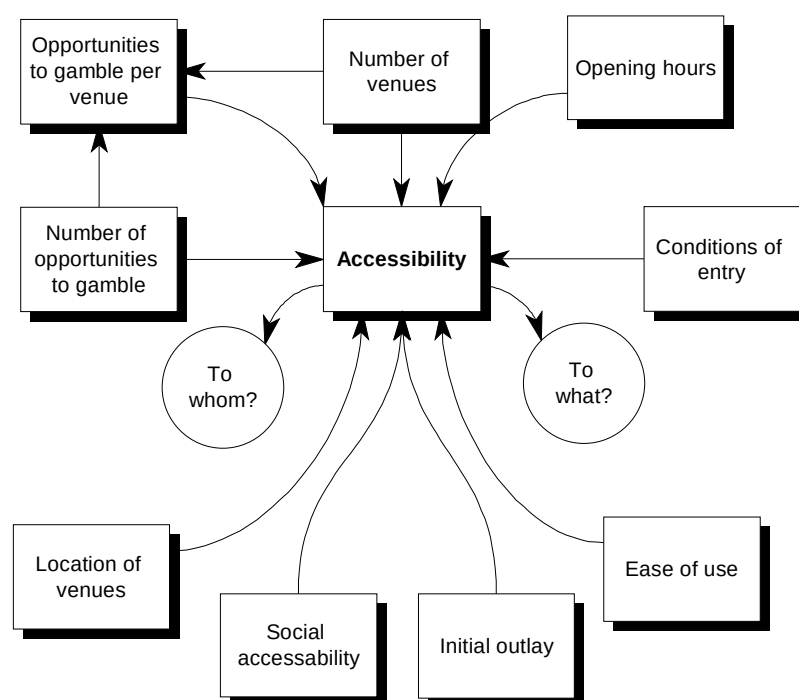
As noted by the Interchurch Gambling Task Force (sub. 165), accessibility has a number of dimensions, which may affect problem gambling in different ways (figure 8.1).

The most obvious form of accessibility is the *total number* of opportunities to gamble in any particular gambling form (such as the number of gaming machines or the number of blackjack tables) — however, a given number of machines may be distributed among venues or ‘spatially’. If opportunities are limited, then there will be congestion and patrons would find it difficult to gamble for long or even moderate periods — affecting their use and expenditure. Caps on machines in Victoria, for instance, are intended to meet community concerns about accessibility in this way.

How gambling opportunities are arranged *spatially* is very important to accessibility because it determines the average proximity to gambling opportunities.¹ Blaszczyński (1998, p. 16) draws this link between proximity of gambling and problem gambling:

A further consideration is ease of access to gambling facilities. People are less likely impulsively to go to an off-course betting office if it is located several miles away. The inconvenience of travel and/or parking vehicles is sufficient to cause them to reconsider the strength of their urge. This is precisely the reason why casinos in some countries require twenty-four hours' notice of intent to gamble or are located in non-metropolitan areas ... Accessibility is important in terms of time as well as location.

Figure 8.1 Multiple dimensions of accessibility



The number and distribution of gambling opportunities

Phone betting on the TAB makes this form of gambling currently the most spatially accessible. If most Australians eventually have home internet access and could gamble on this medium, then every home (and workplace) would become a gambling outlet.

¹ A counsellor indicated to the Commission that staff members of gambling venues had elevated risks of problem gambling compared to others — and this too may reflect their strong familiarity with and proximity to gambling.

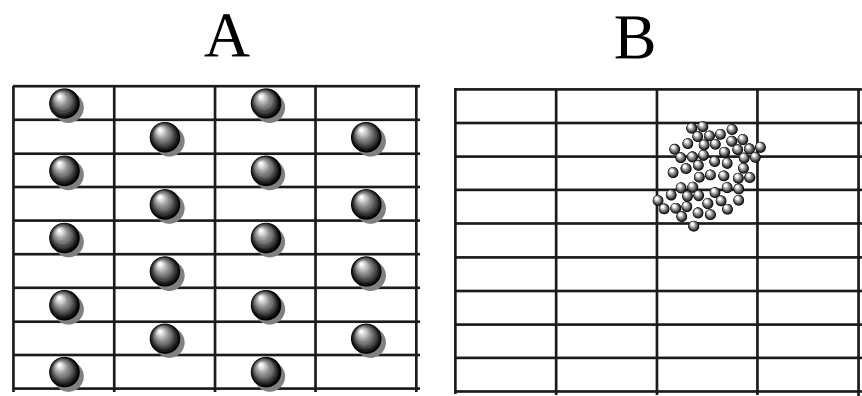
Most Australians (with the exception of Western Australia for gaming machines) are in close proximity to outlets for gaming machines, TAB and lotteries. As noted by one social worker:

On every corner you've got your Tabarets and the pokies are in every pub. You hear women constantly say 'How do I escape that? How am I supposed to give it up yet it's in my face the whole time?' (cited in Brown, Johnson, Jackson and Wynn 1999, p. 21).

In contrast, casino gambling is spatially the least accessible gambling mode as there is usually only one available in any given metropolitan area (Southern Queensland with two being an exception).

The number of venues offering gambling clearly puts a limit on the spatial distribution of gambling opportunities, but it is largely an independent aspect of accessibility. This is illustrated in figure 8.2, which represents two cities.

Figure 8.2 **Does spatial distribution affect accessibility? Two cases**



In one (A) there are only a few large venues, but they are dispersed such that every part of the city has ready access to a gambling venue. In the other (B) there are many more venues offering gambling, and in that *local* area, accessibility to gambling is higher. But in general, city B represents a far less accessible gambling regime than A, because most venues are concentrated in one location. If, however, all the venues in B were spatially dispersed as in A then accessibility would be greater in that city. All Australian jurisdictions have restrictions on the types of venues which are licensed to sell gambling products. Nevertheless, most gambling forms are readily available in hundreds, and sometimes thousands, of venues in most jurisdictions.

Other dimensions of vicinity

The number of opportunities to gamble in any given venue (for example, more staff in a TAB agency, more machines in a hotel or club) — which is related to the

number of venues and the aggregate number of gambling opportunities — may also affect accessibility.

- Limited opportunities to gamble in any given venue can influence gamblers' behaviour. Gambling is less anonymous, and it also signals that gambling is an auxiliary rather than a major feature of the venue concerned. This may in turn convey a sense of social ambivalence or disapproval about gambling which could reduce participation rates.
- On the other hand, harm minimisation strategies, which act to reduce the impact of greater accessibility, may sometimes, paradoxically, be more cost effective in venues where accessibility is greatest — an issue explored in greater depth in chapter 16. This is because some harm minimisation strategies have high fixed costs and could only be implemented by a venue which has many gambling opportunities (for example, a casino).

As examined in chapter 13, different Australian jurisdictions have varying approaches to limits on gambling opportunities in venues. Victoria and South Australia, for example, have ceilings on the number of gaming machines per venue, as does New South Wales for hotels and the casino (but not for clubs).

Opening hours. Many gambling venues now operate for 24 hours a day, 7 days a week, so that there is no time at which they cannot be accessed.

Conditions of entry. In European casinos entry is more heavily restricted (Thompson 1998). In Australia, clubs typically have higher dress standards and more restrictive entry than hotels.

Ease of use of the gambling form. For example, gaming machines do not require skill — or even interpersonal contact — compared with blackjack or betting on the races, and so are more accessible.

Initial outlay required. Casino table games, such as blackjack and roulette, often involve relatively high stakes per game (of around \$5), reflecting the costs of providing personalised gambling services. Machine based gambling economise on such costs, as do lotteries. The cost of a single game on a poker machine can be as low as one cent (although effectively this will involve spending a dollar to purchase a credit bank of 100 credits). Low outlay games are obviously more accessible to people on lower incomes than high outlay games.

Social accessibility. This is the sense in which a venue provides a non-threatening and attractive environment to groups who might otherwise feel excluded. This is not an undesirable feature of venues, but it does affect the extent to which new groups of people may be recruited into gambling, with adverse consequences for some of

them. For example, casinos are clearly non-threatening and attractive to Australians from an Asian background and, in the Northern Territory, to Aboriginal and Torres Strait Islanders (who are said to be tacitly discouraged from gambling in clubs and pubs). And many clubs or hotels with gaming machines are now seen as safe and socially acceptable places for women, when they were not previously:

If you go back fifty years ago ... you'd be too busy washing your clothes [to gamble]. And I think too ... that years ago it wasn't acceptable for women to go into hotels (Family support worker cited in Brown, Johnson, Jackson and Wynn 1999, p. 21).

Some implications

The above nine dimensions determine the level of exposure people have to a gambling form. They also imply that a single measure to control accessibility — such as a global cap on machines — is unlikely to have much effect by itself, if other aspects of accessibility are high.

Among current major forms of gambling, gaming machines and lotteries are the most accessible, followed by TABs and lastly by casino gambling (table 8.1).

Table 8.1 Accessibility varies across major gambling modes

	<i>Gaming machines^a</i>	<i>TAB</i>	<i>Casino</i>	<i>Lottery</i>
Number of opportunities to gamble	Very high ('0 000s of machines)	High ('000s of outlets and phone betting)	Low	Very high
Spatial distribution	Dispersed widely	Dispersed widely	Single location	Dispersed widely
Number of venues	Large number per capita	Large number per capita	One per city	Large number per capita
Opportunities per venue	High in NSW, restricted in SA and VIC	Determined by staffing ^b	Typically large	Determined by staffing ^b
Opening hours	Often 24 hours	Around 12 hours	Mostly 24 hours	Business hours
Conditions of entry	Very easy in hotels, easy in clubs/casinos	Very easy	Easy	Very easy
Ease of use	Very easy	Moderate	Hard for many	Easy
Initial outlays	Very low	Low	High	Low
Social accessibility	High for women	Low for women	High for women, Asians (and ATSIs in NT)	High
Overall accessibility	Very high	Medium	Low	Very high

^a Excluding WA, which has no gaming machines outside Burwood Casino. ^b If there are few staff in a venue then that constrains the number of bets made or tickets sold.

Whether exposure matters for problem gambling is also going to depend on:

- *who* is exposed. Some groups are more vulnerable than others. Accessibility to people in deprived socioeconomic circumstances is more likely to lead to

increased problems (because affordability is linked to problems and because poorer people may be more likely to look to gambling as a solution to financial problems); and

- *the gambling mode*. As noted in chapter 6, continuous forms of gambling, such as gaming machines, pose bigger risks than lotteries.

Liberalisation in gambling in Australia has (so far) mainly manifested itself as the legalisation of gaming machines and casinos. However, given the characteristics of casino games, and their location, casino liberalisation has represented a relatively modest increase in accessibility to gambling. By contrast, gaming machine liberalisation has represented a very significant increase.

8.3 Australian population surveys: what light do they shed?

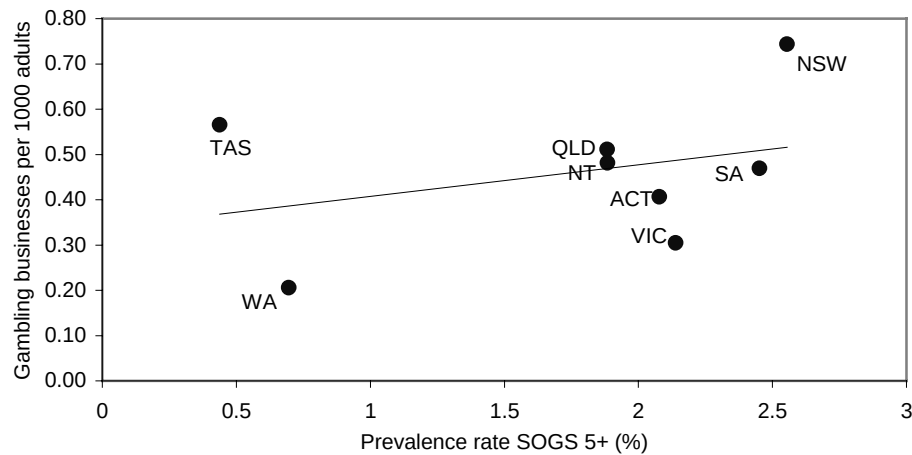
In theory, if greater accessibility (exposure) leads to more gambling problems, then regions (or times) where access is low should have a lower prevalence rate of problem gambling than ones where access is high. However, testing this link is not very easy because accessibility is a multi-dimensional concept.

It is clear, for example, that there is only a slightly positive (and statistically insignificant) link between the number of gambling businesses per 1000 adults and the problem gambling prevalence rate (figure 8.3). For example, Tasmania has far more businesses per person than Western Australia, but a smaller problem gambling prevalence rate.

However, gambling businesses per adult captures only some aspects of accessibility — it does not indicate *what* gambling is accessible (eg TABs, gaming machines etc), how *much* gambling can take place at each venue (eg it ignores venue caps on machines in some venues and jurisdictions), or aspects of the *technology* that may constrain or facilitate gambling (such as phone betting, denomination controls or restrictions on the types of machines that are available).

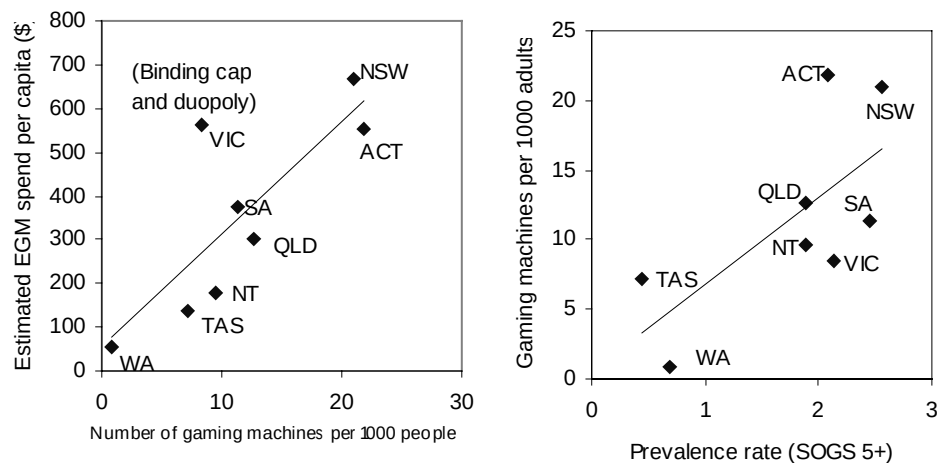
Gaming machines are the prime source of problem gambling (chapters 6 and 17). Here there appears to be a statistically significant positive relationship between the number of machines per adult in a jurisdiction and the overall problem gambling prevalence rate (figure 8.4).

Figure 8.3 The link between the problem gambling prevalence rate and the number of gambling businesses per 1000 adults



Data source: Based on the number of gambling businesses at the end of June 1998 as reported by the ABS, 1999, *1997-98 Gambling Industries Australia*, Cat. No. 8684.0, adult population data and prevalence rates from the PC *National Gambling Survey*. See note in figure 8.6 regarding South Australia.

Figure 8.4 The link between gaming machine spending, machine numbers^a and problem gambling

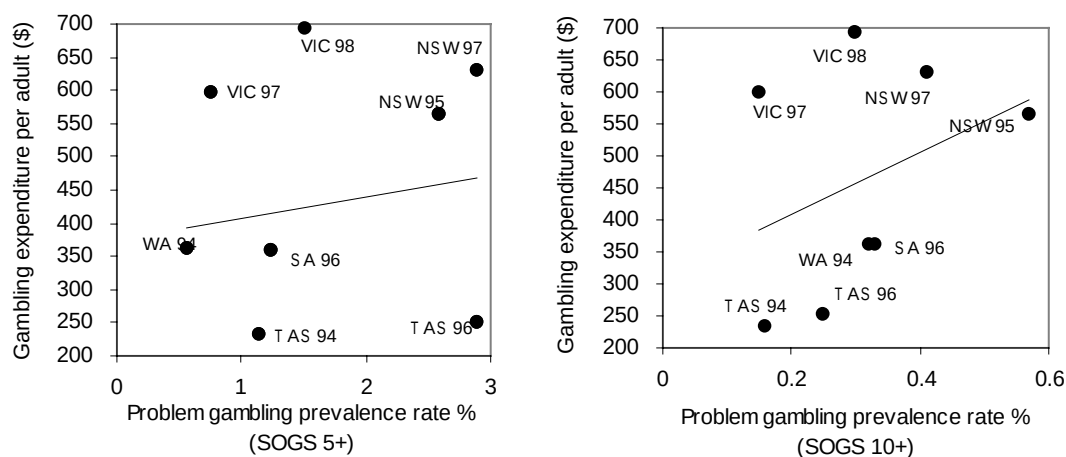


^a The graph on gaming expenditure and machine numbers is only indicative because of data limitations. The WA gaming machine spending was estimated at 20.3 per cent of 1997-98 casino gaming revenue (based on the share reported in the 1997 Burswood Annual Report). Moreover, the Tasmanian Gaming Commission data subsume gaming machine expenditure in casinos in the total spending of casinos. The ABS, *1997-98 Gambling Industries Australia* (Cat. no. 8684.0) reports that gaming machine revenue accounts for 32.3 per cent of total casino revenue in Australia. As an approximation, this share was applied to each jurisdiction's 1997-98 casino revenue (bar WA and the ACT) to estimate gaming machine revenue due to casinos. A figure of zero was used for the ACT as its casino is not allowed gaming machines. The imputed figure for casino gaming machine revenue was then added to gaming machine revenue from clubs and pubs, and then converted to a per capita basis. The machine numbers were the latest estimates available to the Commission.

Figure 8.4 also reveals a relatively close relationship between gaming machine numbers and gaming machine expenditure — with the notable exception of Victoria where a binding cap and duopoly suppliers are unique in Australia. This suggests that, more generally, per capita gambling expenditure might be a reasonable summary measure for gambling accessibility. This would reflect the plausible assumption that high levels of demand lead to more sources of supply, and that greater avenues for supply (and features that encourage higher intensity gambling) also have a feedback effect on demand and expenditure.

The prevalence rates of problem gambling in Australia appears to be generally higher in states with higher per capita (non-lottery) gambling expenditure (figures 8.5 and 8.6). New South Wales, for example, has consistently higher levels of problem gambling than other states, and Western Australia, where gaming machines are effectively barred, has a much lower level. The non-SOGS measure — HARM, which was developed in chapter 6 — is also higher in states where gambling intensity is higher, so that the results here are not vulnerable to any deficiencies in the SOGS.

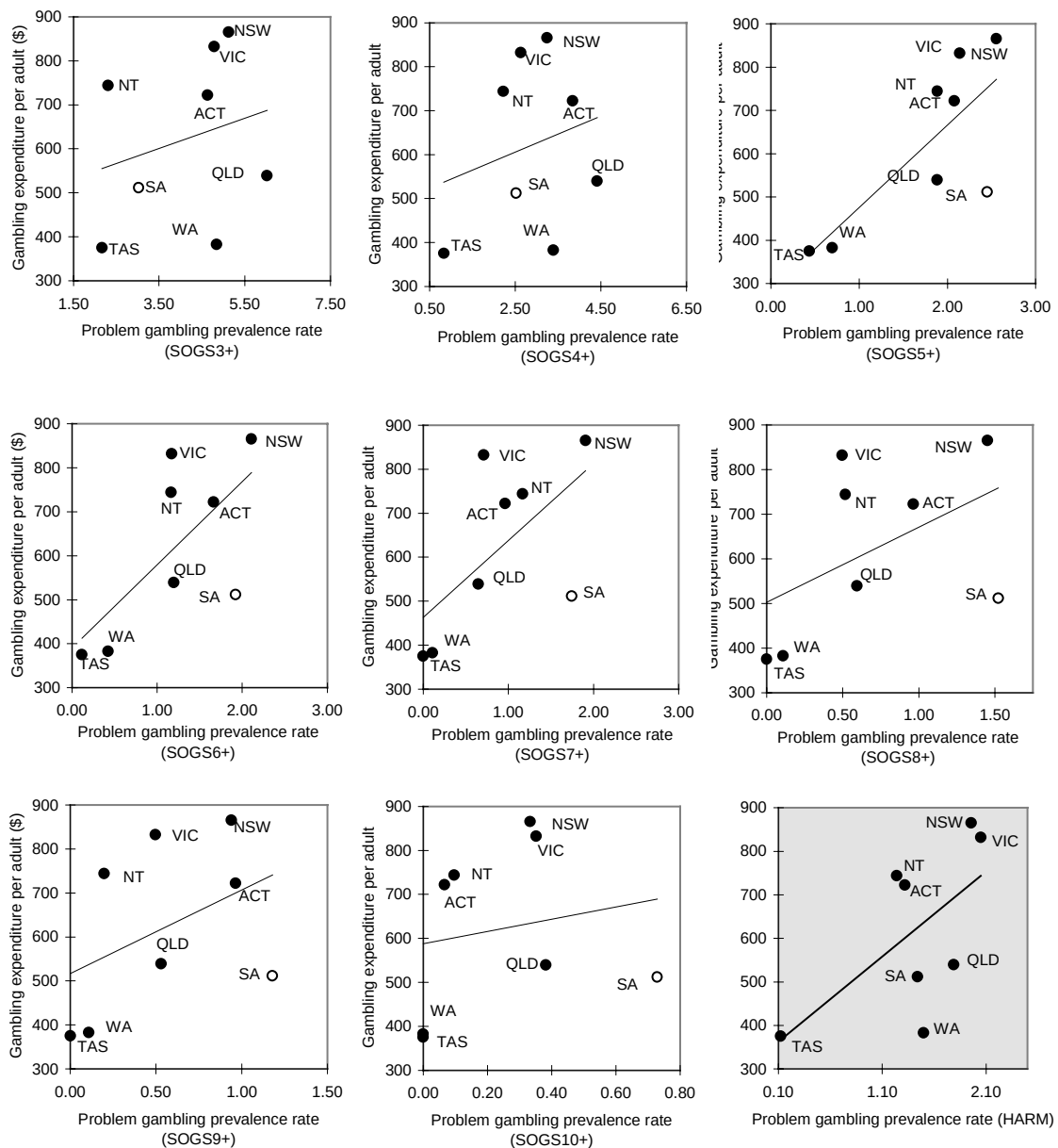
Figure 8.5 Problem gambling prevalence rates and gambling expenditure^a
Past Australian studies



^a Based on the VCGA studies for Victoria in 1997 and 1998, two NSW studies for 1995 and 1997, and single studies for Western Australia, Tasmania and South Australia. The spending is real per capita gambling expenditure (1989-90 prices) where gambling includes racing, gaming machines and casino gambling, but not lotteries or other minor forms of gambling.

Data source: The spending data is from Tasmanian Gaming Commission (1999) dataset, while the prevalence data are from the major past Australian prevalence studies, reviewed in chapter 6.

Figure 8.6 Problem gambling prevalence rates and gambling expenditure^a
Results from the National Gambling Survey 1999



^a The spending is per capita gambling expenditure for 1997-98 where gambling includes racing, gaming machines and casino gambling, but not lotteries or other minor forms of gambling. The South Australian prevalence rates were typically outside expected bounds, given the results in other states. They are included in the graphs — but are likely to reflect random sampling errors rather than the 'true' prevalence rates in South Australia.

Data source: The spending data is from Tasmanian Gaming Commission (1999), while the prevalence data are from the PC *National Gambling Survey*.

Dickerson et al. (1996a), noting the higher prevalence rate of problem gambling in New South Wales compared with Western Australia and Tasmania, point out:

Given the strong association between SOGS scores and a preference for gaming machines and betting, the restriction of the former to casinos in Tasmania (at that time) and Western Australia may be the single most important factor contributing to the lower prevalence figures found in those States.

While graphs, such as those in figure 8.6, show an apparent link between accessibility (as proxied by expenditure) and problem gambling prevalence, they do not provide a numerical indicator of the degree of the association. To obtain such an indicator of the magnitude of the link, the Commission used a number of simple statistical models (box 8.2). The strength of the relationship between gambling intensity and problems depends on the data used.²

If the Commission's *National Gambling Survey* data are used then gambling intensity can explain a significant proportion of the variation in the prevalence of problem gambling. About 60 per cent of the variation in the prevalence of problem gambling³ across Australian jurisdictions is explained by their varying intensity of gambling.

Another way of assessing the possible connection between gambling intensity and problems is to see if average SOGS scores and self-assessment ratings by regular gamblers are higher in states where gambling expenditure per adult is bigger (figure 8.7). The data reveal a similar relationship to that in figure 8.6.

² Ideally, a model of prevalence rates should examine the independent influences of the differing availability of different modes of gambling (such as wagering, casino, gaming machines), the extent to which gambling is dispersed within a state (highly dispersed or not), the time that gambling form have been available (since it takes time for people to develop problems), any rules which restrict access (eg the domination of gaming machines by clubs — which have entry restrictions — in NSW, compared to the domination of gaming machines by hotels — which do not — in Victoria and South Australia) and the degree to which a jurisdiction has implemented harm minimisation strategies. Unfortunately, the few observations available on prevalence rates makes this impossible at present. Following the recommendation by the statistician consulted by ACIL (sub. D233, p. 102), the Commission has concentrated on the prevalence threshold (SOGS 5+) most commonly used in the report.

³ Using the standard SOGS 5+ definition that has been employed elsewhere in the report. Notably, however, the relationship is much poorer if the SOGS 10+ rating is used. In a linear model, the spending level is positively associated with the SOGS 10+ prevalence rate, but it is not statistically significant at the usual significance levels. However, it should be noted that few people satisfy the demanding criterion for SOGS 10+ in the Commission's survey, and the relative standard errors on regional prevalence rates for this SOGS threshold are therefore very high (a point noted in chapter 6). The SOGS 10+ prevalence rate for South Australia appears to be an outlier. If this observation is stripped from the regression, the association between spending and problem gambling is greater and is statistically significant.

Box 8.2 Gambling spending and prevalence rates in Australia^a

The relationship between the prevalence rates of problem gambling (defined as SOGS 5+ as usually used in this report) and per capita non-lottery expenditure was examined using two simple models:

A linear model:

$$\text{SOGS 5+} = -0.143 + 0.00307 \text{ SPEND}; \quad \bar{R}^2 = 0.52, \text{ Obs}=8$$

(0.2) (3.9)

A log model:

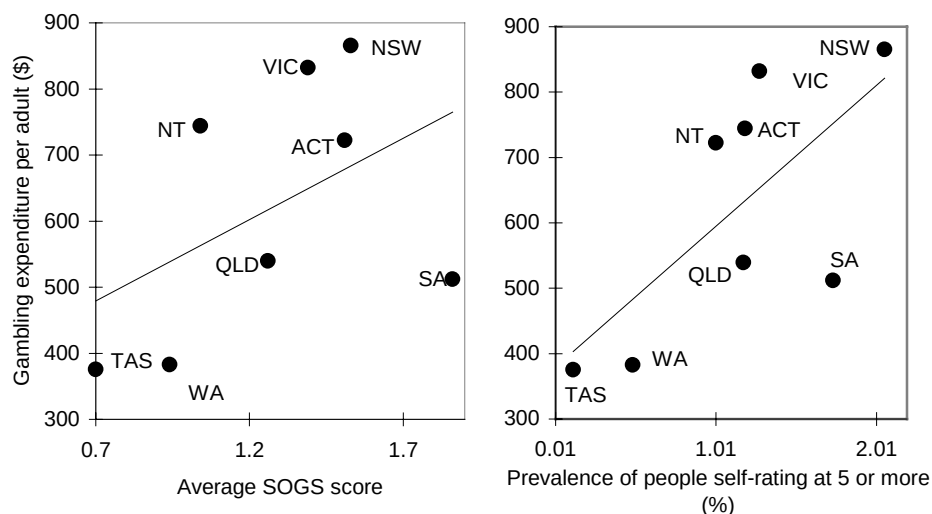
$$\ln(\text{SOGS 5+}) = -9.76 + 1.595 \ln \text{ SPEND}; \quad \bar{R}^2 = 0.61; \text{ Obs}=8$$

(4.1) (4.5)

where SOGS 5+ is the prevalence rate (in percentage form) for each jurisdiction and SPEND is non-lottery gambling expenditure per capita. t statistics (in parentheses) are based on White's heteroscedasticity correction.

Source: Commission calculations based on the PC National Gambling Survey.

Figure 8.7 Relationship between average SOGS scores, self-rating scores and gambling expenditure^a



^a South Australia has been removed from the graphs. The self-rating was based on a 10 point scale, from zero for people who said they had no problem, to 10 for a very severe problem. Expenditure data is as defined in figure 8.6.

Data source: PC National Gambling Survey.

Limitations in the simple empirical analysis?

Using expenditure as a proxy for accessibility and then trying to assess how this might affect problem gambling prevalence involves some assumptions. A statistical consultant to the industry questioned the link between accessibility and expenditure:

... gambling expenditure per adult is equated to accessibility. Why should it be considered to be a proxy for accessibility? It is possible to have very high accessibility and if no one uses the gambling medium, very low gambling expenditure, and vice versa. It is wrong to equate the two (sub. D233, p. 102).

There is, however, no jurisdiction where expenditure is very low and access is very high. The two jurisdictions with the lowest expenditure also have far fewer gaming machines than others. For example, Western Australia has no gaming machines outside of its casino. Nor is there any jurisdiction where expenditure is very high and access is very low. New South Wales, Victoria, South Australia and Queensland have thousands of gaming machines located in numerous venues throughout all regions of their states, as well as many TAB outlets. Because the evidence on accessibility matches closely the picture suggested by expenditure, it appears that, in fact, expenditure captures well the qualitatively different levels of access to gambling in each jurisdiction.

A potentially bigger problem in using expenditure data⁴ to impute whether greater accessibility leads to higher prevalence rates of problem gambling is one of causality. Problem gamblers have very high levels of gambling expenditure. Regardless of whether increased prevalence rates are *caused* by increased accessibility, this means that overall expenditure per capita will tend to be bigger in jurisdictions with a higher prevalence rate, thus obscuring any true relationship. The Commission undertook some provisional statistical analysis of the likely magnitude of this bias — and found it could be significant (box 8.3). This suggests caution in interpreting the data relating to expenditure and problem gambling prevalence.

⁴ Or even data on measures of accessibility, such as the number and spread of gaming machines.

Box 8.3 **Biases in the estimates of the impacts of accessibility on problem gambling**

A high prevalence rate will tend to increase per capita expenditure, leading to an automatically positive relationship between the two. The Commission examined the possible impacts of the biases resulting, by undertaking some computer simulations. We started by *assuming* that there was no connection between accessibility and problem gambling, and then seeing what consequences this assumption had for estimation outcomes. We supposed that the data generating process was one in which:

- problem gambling prevalence rates in each state were determined as a random fluctuation around a constant ($PREV = 0.0165 e^{\varepsilon}$ where ε is distributed as a normal with $\sigma = 0.42$). These regional variations might, for example, reflect different numbers of vulnerable people or higher levels of social stress;
- expenditure by problem gamblers also fluctuated around a (high) constant ($EPG = 12\,000 e^{\varepsilon}$ where ε is distributed as a normal with $\sigma = 0.166$); and
- expenditure by recreational gamblers fluctuated randomly around a (low) constant ($ENPG = 450 e^{\varepsilon}$ where ε is distributed as a normal with $\sigma = 0.31$).

Values for the means and the standard deviations used in the simulation analysis were selected on the basis of patterns visible in the actual data. In each simulation, it was then possible to calculate per adult spending in the eight jurisdictions and to examine the OLS estimates produced by regressing the prevalence rate against the spending estimates. The analysis showed, not surprisingly, that the feedback from high expenditure by problem gamblers onto the 'independent' variable, biased the coefficient significantly. Indeed, in the *absence* of any genuine causal relationship, the coefficient on spending in the linear model was about 0.002 (or about two thirds of that found in box 8.2). However, in the bulk of cases (about 90 per cent for the log model and 80 per cent for the linear model) the standard t statistics on the spending variable in 20 000 simulations was below that observed for the models estimated on the actual data. This suggests, that though the coefficients are biased, it is unlikely that the results presented in box 8.2 are simply the product of the automatic link between expenditure data and the problem gambling prevalence rate.

Source: Commission calculations.

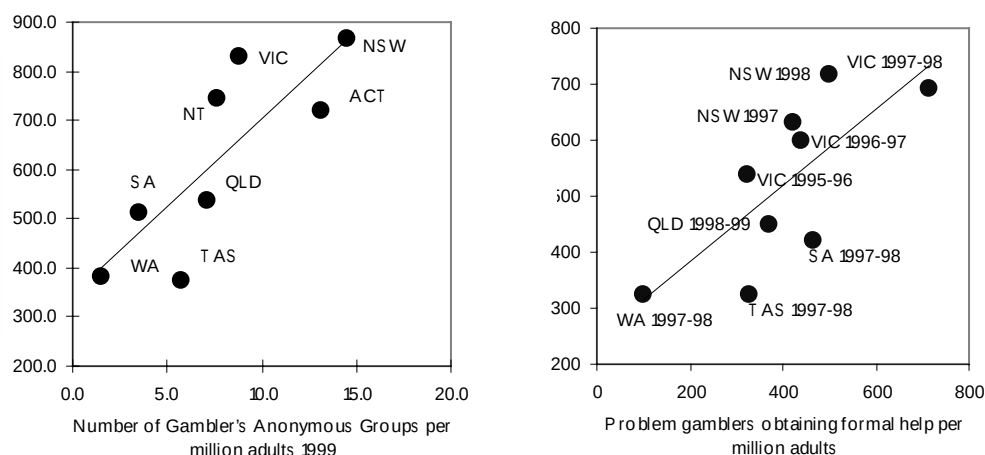
8.4 **Variations in the use of help services**

All jurisdictions have a variety of help services tailored to problem gambling. Data on the use of such services provides another source of evidence about possible linkages between problem gambling prevalence rates and the intensity of gambling in different areas.

The Commission obtained some data on the number of problem gamblers seeking help in different jurisdictions, and also on the relative number of Gamblers Anonymous Groups (figure 8.8). Again these suggested a link between the level of help-seeking problem gamblers and expenditure per adult — with many more clients per million in New South Wales and Victoria (where per capita gambling expenditure is high, as are almost all aspects of access) than in Western Australia (where spending is low and a limited range of gaming machines are restricted to the casino).

The figure also suggests that as gambling opportunities expanded in New South Wales and Victoria, the share of adults seeking formal counselling help for severe gambling problems increased — though in part, this could reflect increased awareness of services.

Figure 8.8 The link between gambling intensity and clients of counselling agencies



Data source: Expenditure data (excluding lotteries and minor gaming forms) are from the Tasmanian Gaming Commission. The spending data are re-based to 1989-90 constant dollars for the second graph, to take account of the differing dates to which the data relate. The GA data is from www.gamblersanonymous.org/mtgdirAUShtml. The help services data for the second graph is from chapter 17. It is assumed that 70 per cent of the new clients of Tasmanian Break Even services are problem gamblers and that 84 per cent of the Victorian clients in 1995-96 were problem gamblers (as was the case in 1996-97). See chapter 17 for further details.

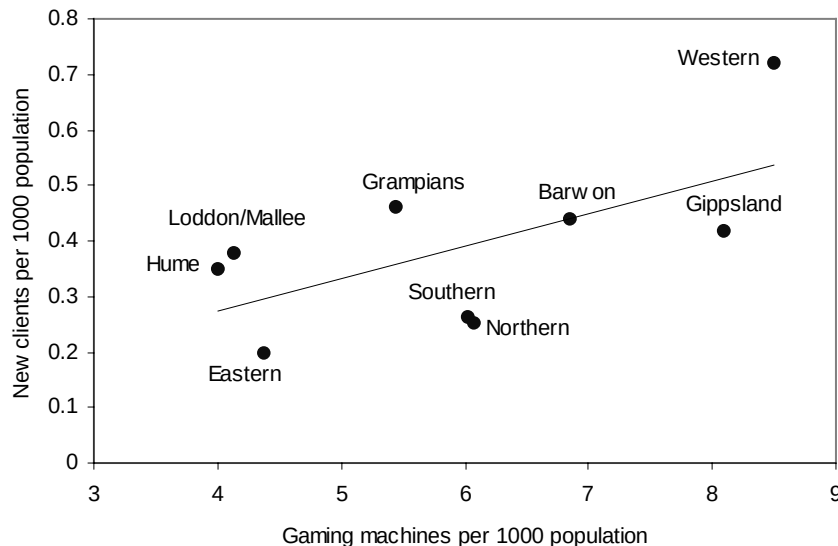
The Commission also considered evidence on the spatial distribution of help-seekers within jurisdictions. Relationships Australia Queensland (sub. 62) undertook some exploratory analysis of the spatial distribution of their clients and indicated that they tended to be concentrated near to large gaming venues. However, underlying the complexity of inferring connections between accessibility and problem gambling, it may be that the causal connection goes the other way, and that:

- big gambling sites find it economic to locate in communities with a high predisposition to gambling (and not surprisingly these communities would then have a higher number of problem gamblers); or/and
- big gaming venues locate themselves in large population catchments in which case, even for a fixed risk among differing communities, more people would become problem gamblers.

In another study, Jackson et al. (1998) examined data on gaming machine density and help-seeking in nine Victorian regions (figure 8.9).

Figure 8.9 The link between gaming machine accessibility and new problem gambling clients

Victoria, 1996-97



Data source: Jackson, Thomas, Crisp, Smith, Ho & Borrell (1998, p. 34).

There appears to be a relationship between the density of gaming machines in an area and the number of new clients of help agencies, suggestive that greater accessibility increases the incidence of problem gambling. The effect explains about 40 per cent of the regional variation in the incidence of problem gambling. However, the results are indicative only — and are strongly influenced by the Western region.

The Commission estimated some simple models based on these data (box 8.4):

- One model (the log model) predicts that for every 10 per cent increase in the number of gaming machines in an area, there would be a 7.4 per cent increase (the log model) in the number of new problem gambling clients.

- The other model (linear model) suggests that this effect varies, depending on the current density of machines — with the effect at around 7.5 per cent (for every 10 per cent increase in machines) when machine densities are low, and around 9.4 per cent when machine densities are high (linear model).

Box 8.4 **The apparent link between accessibility and new problem gamblers**

The table below indicates the apparent relationship between gaming machine density and the demand for new services. The results are indicative only, as there are only a few observations, but it illustrates the methods which could be used to look at how problem gambling and accessibility are associated. The models can be used to estimate the number of expected new clients per 1000 people as accessibility rises. The relationship is, however, not measured with much precision, so that the actual relationship could be quite different.

<i>Linear model</i>			<i>Log Model</i>	
Gaming machines per 1000 people	Elasticity	Expected new clients per 1000 people	Elasticity	Expected new clients per 1000 people
2	0.75	0.16	0.74	0.17
3	0.82	0.21	0.74	0.22
4	0.86	0.27	0.74	0.28
5	0.88	0.33	0.74	0.33
6	0.90	0.39	0.74	0.37
7	0.91	0.45	0.74	0.42
8	0.92	0.51	0.74	0.46
9	0.93	0.57	0.74	0.50
10	0.94	0.62	0.74	0.55

a Two models were estimated (a linear model and a log model). White's robust t statistics are shown in parentheses below parameter estimates:

$$\text{CLIENTS} = 0.039 + 0.059 \text{ EGMs with } R^2 = 0.39$$

(0.3) (2.2)

$$\ln(\text{CLIENTS}) = -2.306 + 0.738 \ln(\text{EGMs}) \text{ with } R^2 = .29$$

(3.5) (2.0)

The elasticity is the proportionate increase in new problem gambling clients brought about by a proportionate increase in gaming machines.

Source: The results are based on data from Jackson, Thomas, Crisp, Smith, Ho & Borrell (1998, p. 34) for 9 regions of Victoria for 1996-97.

Clearly, these results are preliminary as they are based on a small number of regions. The direction of causality could also be confounded if counselling services were set up and advertised most strongly in regions where gaming machines were the most dense (box 8.5).

There would be benefits in having an Australia-wide database developed as a better way of gauging the magnitude of the connection between accessibility and problem gambling. It should include problem gambling client numbers by region and time, matched by data on variations in the nature of gambling by area (such as gaming machine numbers).

Box 8.5 What could confound links between spatial variation in help services and gambling intensity?

The number of problem gamblers seeking help is a function of the provision, accessibility and effective promotion of help services. In theory, some of the variation in prevalence rates of help-seeking problem gamblers may not reflect underlying numbers of problem gamblers, but rather differential service provision. This complicates interpretation of any relationship between problem gambling and accessibility and intensity of gambling.

In some circumstances, it might lead to incorrect causal inferences. For example, more gambling help services might be set up in areas where there are more gaming machines because service providers expect more demand there. If they were to more actively promote their services in such areas or if demand was partly a function of supply then these services would tend to have a greater number of clientele. In this case, as noted by Jackson, Thomas, Crisp, Smith, Ho & Borrell (1998), the direction of causality runs from service provision to counted cases of problem gamblers, rather than the other way.

8.5 Changing patterns of problem gambling

The use of help services

While the cross-sectional data based on expenditure or accessibility measures are suggestive, the changing patterns of problem gambling provides more robust evidence. This evidence strongly suggests that many of the problem gamblers who have emerged in the last few years are the product of liberalised access to gaming machines.

If a gambling form that was once unavailable (either legally or illegally) is made available, and people start to report cases of problem gambling associated with it, this is *prima facie* evidence of a link between accessibility and problems. For example, on the Gold Coast the demand for help for gambling problems stemming from gaming machines has more than doubled over the four years from 1993-94 to 1997-98. Gaming machines now account for more than half the demand for counselling services (figure 8.10).

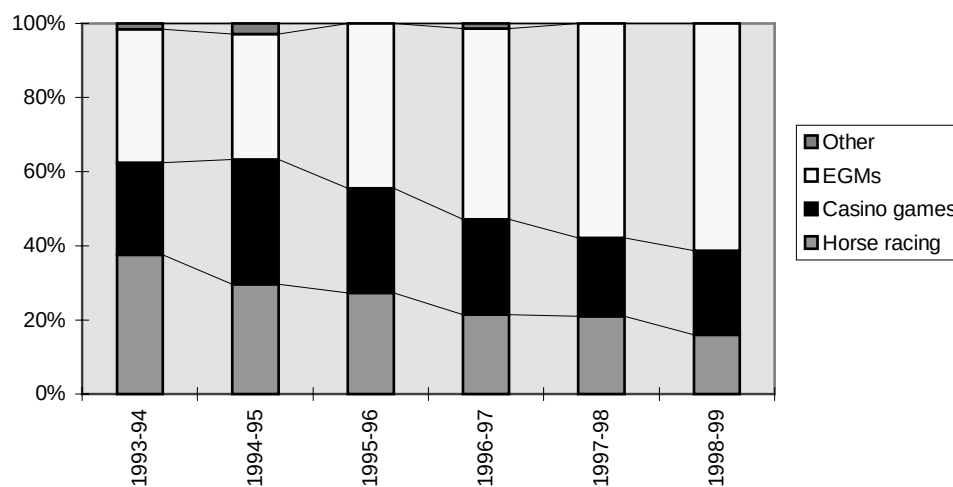
A statistical consultant to the industry, however, considered that these data provided dubious evidence about any link between gaming machine availability and problems:

Gaming machines have been available from February 1992 and the data runs from 1993 to 1999. The introduction took place prior to the beginning of the data. Unless some further mechanism is proposed about the rate of uptake, it means nothing (sub. D233, p. 103).

There are, however, two mechanisms that are highly likely candidates for the increase over time in the incidence of problems associated with gaming machines, even after machines were first introduced:

- First, people do not develop gambling problems immediately and the period taken to develop problems varies between people (as evidenced from the *Survey of Clients of Counselling Agencies*). This would suggest that cases would increase over time after the introduction of the machines;
- Second, accessibility, as measured by the aggregate number of machines and the number of venues offering them, has also increased over the period.

Figure 8.10 **Pattern of demand for counselling services, Gold Coast, Queensland^a**



^a Gaming machines have been available in the Northern NSW area of the Gold Coast since 1956, and on the Queensland area of the coast from February 1992.

Source: Relationships Australia Queensland (sub. 62, p. 5).

Another important issue here, however, is that of displacement. Gambling opportunities are always available — even under complete prohibition. It is *theoretically* possible (as some industry advocates argue) that problem gamblers are people who would always have problems with gambling — legal or otherwise —

and that the impact of increased accessibility may be to switch their allegiance from one problematic gambling form to another. However, in the case of the Queensland data, the number of cases of problems associated with racing did not fall as cases associated with gaming machines rose — therefore, it does not seem that the increase in gaming machine problems displaced other gambling modes as sources of problems, suggesting that the displacement argument is of limited relevance.

The feminisation of problem gambling

The socio-demographic nature of problem gamblers has changed. As noted in chapter 6, problem gambling used to be a male dominated phenomenon, but has been feminised with the advent of gaming machines. When Dickerson et al. (1996) conducted a major survey in 4 states in 1991, they found that 14 per cent of problem gamblers were female. Now around forty percent of problem gamblers are female (based on the PC *National Gambling Survey*), and, overwhelmingly, these problems are associated with gaming machines.⁵ Data from counselling agencies in jurisdictions where there are gaming machines report that about half their clients are female, and these clients overwhelmingly have problems with gaming machines (table 8.2). Western Australia, where the only gaming machines are video card machines in the casino, reports a much lower prevalence of problems associated with gaming machines and a much lower share of problem gamblers who are female (figure 8.11).

Table 8.2 The source of problems for gamblers in counselling

Data by gender

<i>Game</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
	Number	Number	Number	%	%	%
Lottery games	49	39	88	3.9	3.4	3.7
Racing	350	25	375	27.8	2.2	15.6
Gaming machines	681	970	1651	54.1	85.2	68.9
Bingo	8	56	64	0.6	4.9	2.7
Casino table games	107	14	121	8.5	1.2	5.0
Other kinds	18	9	27	1.4	0.8	1.1
Not known	46	25	71	3.7	2.2	3.0
Total	1259	1138	2397	100.0	100.0	100.0

Source: Jackson et al. (1999b, p. 27).

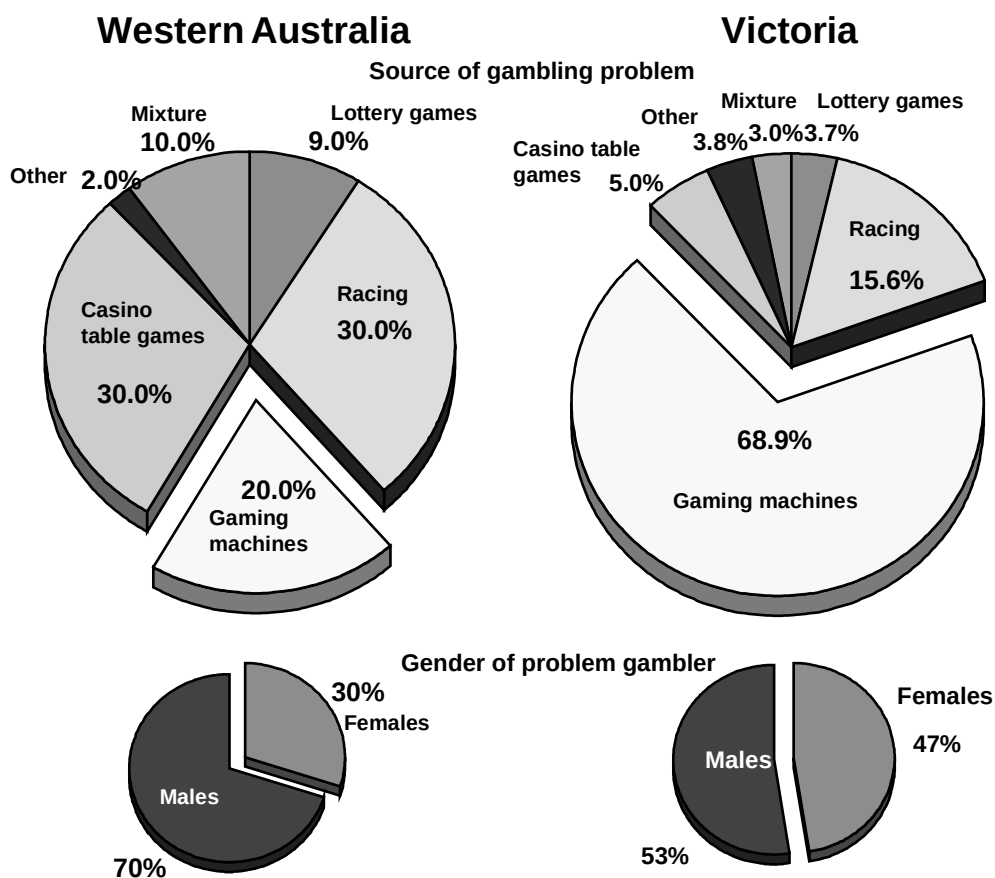
⁵ The Sunshine Coast Community Services (sub. D220, p. 1) also cited increasing feminisation associated with gaming machine problems. Over a 4 year period they found that the female share of problem gamblers doubled (to 50 per cent), and problems attributable to gaming machines increased from 31 per cent to 80 per cent.

Any notion that people with problems associated with legal forms of gambling would also have had problems with illegal forms looks suspect in the face of the gender-based data. It is hard to explain how so many of the almost exclusively male population of problem gamblers of a decade ago changed sex!

The duration data discussed in chapter 6 is also consistent with the view that liberalisation of gaming machines led to a whole new group of female problem gamblers. It is hard to think of any other process which could explain the formation of this group, other than the availability of the machines.

The Commission considers this the most powerful evidence in favour of a connection between problem gambling and the availability of gaming machines.

Figure 8.11 Source of problem gambling in Western Australia^a and Victoria



^a Data from the Western Australian Government also suggested a similar gender split of 75 per cent males (based on data on clients from July 1997 to June 1998).

Source: PC Survey of Counselling Agencies and table 8.2.

8.6 The epidemiological foundations of risk

The epidemiological perspective focuses on risk factors that may vary between environments. People have to be exposed to a risk to develop problems, and this exposure varies by jurisdiction. Regular gamblers appear to be the risk-prone group. Does increased accessibility increase the numbers in this group, especially among higher risk gambling forms, such as gaming machines (chapter 6)? One methodology explores the prevalence of problem gambling (due to gaming machine playing) as the multiple of three factors:

- the ratio of gaming machine players to adults — this would rise were gaming machine availability to be increased;
- the ratio of regular gaming machine players to all gaming machine players; and
- the ratio of problem gamblers to regular players (assuming that these are the high risk group — which from chapter 6 appears borne out by evidence. Australian data suggest that in jurisdictions which have ‘proper’ gaming machines (ie excluding the card machines in Western Australia), problem gamblers account for between 15 and 30 per cent of regular gaming machine gamblers (table 8.3).

Table 8.3 Gambling problems and regular gaming machine players^a

	<i>Share of regular GM players who have problems</i>	<i>Share of GM players who are regular players</i>	<i>Share of adults who are GM players</i>	<i>Share of adults who are regular GM players</i>
	%	%	%	%
NSW	24.9	14.6	38.7	5.6
VIC	27.2	10.2	44.6	4.5
QLD	14.7	9.9	41.5	4.1
SA	14.6	8.8	41.4	3.7
WA	0.0	3.7	16.4	0.6
TAS	15.9	2.0	35.9	0.7
NT	39.5	8.8	33.1	2.9
ACT	18.5	12.4	37.3	4.6
Australia excluding WA	22.9	11.4	41.0	4.7

^a Problem gambling is here based on a SOGS score of 5+.

Source: PC National Gambling Survey.

This suggests that an increase in the availability of gaming machines would, all other things being equal, increase the proportion of regular gaming machine players in the adult population, and accordingly, increase the number of problem gamblers. Dickerson and Maddern (1997, pp. 14, 66) applied this methodology to predicting the consequence of further liberalisation of gaming machines in Tasmania. Their survey results suggested that a further 6300 adults would play regularly, of which

around 1250 to 1880 would be new problem gamblers — or an increase in problem gambling of between 13 and 19 per cent.

The major *potential* drawback in this methodology is the assumption that the share of gaming machine players who have problems is fixed, when it might decline as more people become regulars. However, as noted in box 8.6, if anything, the number of problem gamblers among regulars *increases* as the number of regular adult players rises.

Box 8.6 Is the share of regular gaming machine players who are problem gamblers constant?

The underlying assumption in the predictive model used by Dickerson and Maddern (1997) is that the share of problem gamblers in regular gaming machine players is a meaningful measure of risk. However, the fact that the share is high is, by itself, no evidence about the riskiness of regular gambling on gaming machines. For example, imagine a counterfactual in which problem gambling numbers were *fixed* in a population. It would not be surprising to still find a high share of problem gamblers among regular players, simply because problem gamblers tend to all be regular gamblers. But, by definition, it would be incorrect in this case to predict more problem gamblers, were there to be an increase in the number of regular adult gaming machine players — rather, the share of problem gamblers among regular gaming machine players would fall.

Considering this counterfactual case suggests a way of examining whether the share of problem gamblers among regular gaming machine players is a meaningful parameter — examine the correlation between the share of problem gamblers among regular gaming machine players and the share of regular gaming machine players in the adult population. If it is sufficiently negative, then it undermines the case for using this parameter for epidemiological prediction. In fact, for the data obtained from the PC *National Gambling Survey* it is significantly *positive* — not negative or zero (ρ , the correlation coefficient, is 0.47). This suggests that as access to gaming machines is liberalised, there are two effects. First, the share of regular gaming machine players increases as a share of adults; and second the share of problem gamblers among regulars increases — possibly reflecting changes in the nature of the micro gambling environment that occurs for regular players (for example, bigger, more busy venues, greater promotion of gambling as competition intensifies).

Using this methodology suggests roughly the increase in problem gamblers that could be expected in Western Australia, were the Government to liberalise access. Given an adult population of 1.4 million, and assuming that:

- the problem gambling share of regular gaming machine players would rise to the median (for Australia as a whole, excluding Western Australia);

-
- as would the share of regular gaming machine players among adults⁶, then

there would be an *additional* 10 500 problem gamblers in Western Australia (or about 110 per cent more than current levels).

8.7 Some overseas evidence

As in Australia, relatively little research has been conducted in other countries about the connection between accessibility and problem gambling. However, some assessments have been undertaken. Eadington (1989) and Lesieur (1992) have suggested a causal link between US problem gambling rates and increased accessibility, but others have doubted this (for example, Harrah's Entertainment Inc, sub. D243, p. 2). The Committee on Problem Gambling Management in New Zealand note a range of other international studies showing a link between gambling problems and greater accessibility:

The [Capitol Gaming Taskforce] reported a 500% increase in problem gamblers seeking help between 1991 and 1994, the years when riverboat and electronic gaming machine gambling expanded rapidly in the state (Laborde, 15 July 1994). In New Jersey, it was noted that compulsive gambling helpline calls jumped from 1,200 a year to 32,000 after casinos were introduced (McGetigan, 1995). An increase in numbers of problem gamblers receiving treatment has been noticeable in Germany since 1984. Meyer (1992) in reviewing the German literature on gambling, concluded that there had been an increase in the prevalence of problem gamblers as a consequence of increased availability of legalised opportunities for gambling. Remmers (1995) suggests the increase in compulsive gambling in Holland occurred as a result of electronic gaming machines (EHMs) and the introduction of casinos. The Jellinek Addiction Centre reported 400 visitors in 1986 — the year gaming machines were introduced. Six years later this had risen to 6,000 per year (1998, pp. 16–17).

A detailed study of the social impacts of a new casino, the Casino Niagara in Canada, provides some insights into the micro social impacts from increased accessibility to gambling (Room, Turner and Ialomiteanu 1998). In 1996, about one in ten Niagara Falls residents said they gambled in a non-charity casino, jumping to one in two a year after the casino had been in operation. By comparison, roughly one in ten Ontario residents in general had gambled in such casinos, increasing to

⁶ In the case of Western Australia this would reflect a likely increase in the number of adults who played gaming machines (currently, they play card machines, which are not regarded as entertaining as genuine gaming machines), as well as an increase in the number of regular players among gaming machine players. In this context, it is interesting to note that in Queensland a survey by AIGR and LIRU (1995, p. 6) found that 29 per cent of indigenous gamblers had not gambled at all prior to the introduction of gaming machines, which suggests that accessibility to new forms of gambling does create completely new consumers — and new problem gamblers.

one in five in 1997, suggesting that Niagara Falls gambling participation had increased as a result of the new casino. The proportion of people reporting gambling problems rose from 2.5 per cent to 4.4 per cent. The proportion of respondents reporting family members with gambling problems increased from 5 per cent to 7.5 per cent, and those reporting friends with problems rose from 14 per cent to 20.5 per cent.

However, much of the existing research literature on links between accessibility and gambling problems is based on either studies of a state or country observed over a very few time periods, or comparisons between two jurisdictions with differing gambling intensities. Such studies may be useful in understanding the processes that might generate additional recruitment into gambling and increased problem gambling, but they cannot provide systematic evidence about the link between gambling problems and accessibility. For example, Hill (1997, p. 6) cites the American state of Iowa where problem gambling rates appeared to increase significantly following liberalisation of gambling. Hill also inferred that the introduction of legal gambling in Georgia had led to substantial problems, though the absence of a baseline study makes this conjectural (sub. D243, p. 2). In other states, such as Connecticut, the opposite pattern appears to have held. Whyte (1997, p. 5) from the American Gaming Association notes:

Contrary to the rhetoric of gaming opponents, increased availability of gaming does not lead automatically to an increase in problem gambling... the actual survey evidence is mixed, as some problem gambling rates have slightly increased or stayed the same, and some have actually declined after the expansion of gambling. For example, a recent Connecticut survey showed a decrease in pathological gambling from 2.7% in 1991 to 1.2 per cent in 1996, similar to a South Dakota survey, which found a decrease in prevalence from 1989 to 1991. In both cases there were major expansions in gambling availability between the survey dates.⁷

Two studies of problem gambling in Alberta, Canada, add a further twist (AADAC 1998). The 1994 study found a prevalence rate of 5.4 per cent ‘problem’ gamblers (based on SOGS 3+), which fell to 4.8 per cent in the replication study in 1998. However, the prevalence of what was termed ‘probable pathological gambling’ (based on SOGS 5+) increased from 1.4 per cent to 2 per cent.

Studies of a single jurisdiction based on only a few time points do not provide enough reliable information. More time periods or more jurisdictions are needed to average out confounding factors and statistical noise in the prevalence estimates.

⁷ Rachel Volberg in a communication to the Commission indicated that she urged ‘caution in interpreting the results’ from the South Dakota and Connecticut studies, since the baseline and replication studies applied different methods, the time gaps examined were small, as were the sample sizes.

Furthermore, in the United States — where the most research into the prevalence of problem gambling has been conducted — much gambling centres on casinos, which tend to be located along state borders to attract interstate visitors. This complicates the task of assessing the connection between regional variation in problem gambling and gambling intensity.

A number of (US) studies have attempted to look more closely at accessibility and prevalence using bigger datasets or more novel methods. Volberg (1994) compared prevalence rates of problem gambling among five US states with differing levels and histories of accessibility, and found that those with a longer history of legally available gambling had higher levels of problem gambling. More recently, the National Research Council (1999) examined replications studies in the United States as has AADAC (1998, p. II-4ff) in North America as a whole. The National Research Council (1999, p. 82) noted that:

There are very few studies that permit an assessment of whether the prevalence of problem and pathological gambling is associated with changes in the availability of legal gambling. The nature of the changes observed in those studies, however, was consistent with the view that increased opportunity to gamble results in more pathological and problem gambling.

However, it is apparent from these studies (table 8.4) that measured prevalence rates do not always increase with greater exposure to gambling, or stay constant in the absence of significant changes to accessibility. However, with the relatively small sample sizes used, the differing nature of gambling in each jurisdiction, the possibility of gamblers hopping state boundaries, plus other confounding variables, the studies, by themselves, are inconclusive about the links between access and problems.

Meta-analysis of 34 studies of gambling problems among adults in North America from 1977 to 1997 (Shaffer, Hall and Vander Bilt 1997) suggested that problem gambling has increased over time as gambling opportunities have multiplied in the US. This is suggestive of a link between accessibility and problems (figure 8.12), but other factors may also played a part.

On the other hand, there was no evidence that problem gambling among adolescents, college students or people in prisons (and other institutionalised settings) had increased. The discrepancy between these groups is not altogether surprising. Adults in the general population are more sensitive to social sanctions against behaviours, such as gambling, which the community sees in an ambivalent way. As gambling became more acceptable and accessible, adults gambled more, and further numbers of them developed gambling problems.

In contrast, adolescents, college students and institutionalised people are relatively less concerned about such social sanctions, and so the trend to greater acceptability did not really have a marked impact on their already high participation in (often illegal) gambling (Shaffer, Hall and Vander Bilt 1997, p. 57). Furthermore, many young people would not have been able to readily play some of the newly liberalised forms of gambling (such as gaming machines or casino table games) because of age limits and so their exposure over time to liberalised forms of gambling has been less than adults. In this sense the contrary results for adults compared with others increases the credibility of a link between gambling problems and accessibility, rather than undermining it.

Table 8.4 Replication studies of problem gambling in North America^a

<i>Jurisdiction</i>	<i>Study dates</i>	<i>Magnitude</i>	<i>Change</i>
	Years	%	%
Those jurisdictions where gambling access is increased substantially			
Iowa	1988-1995	0.1 to 1.9	+1.8
Minnesota	1990-1994	0.9 to 1.2	+0.3
Connecticut	1991-1996	2.7 to 1.2	- 1.5
Manitoba	1993-1995	..	+ 0.6
Alberta	1994-1998	1.4 to 2.0 ^b	+0.6
Those jurisdictions in which gambling access did not increase substantially			
Nova Scotia	1993-1996	4.8 to 5.5 ^c	+0.7
Texas ^d	1992-1995	1.3 to 1.8 ^e	+0.5
South Dakota	1991-1993	1.0 to 0.9 ^f	-0.1
New York	1986-1996	1.4 to 2.6	+1.2
New Brunswick	1992-1996	..	+0.8

^a The Commission's preferred measure of problem gambling for comparisons between jurisdictions is the current level of what US researchers refer to as 'probable pathological gambling' (ie matches the Commission's concept of SOGS 5+). Our concern is that definitions of problem gambling based on lower test thresholds tend to have too high a level of false positives. Also lifetime measures are probably less suited than current measures for trying to measure the impact of current accessibility arrangements. Unfortunately, the most consistent data set is on a lifetime basis, and so the Commission has cited these numbers where possible, or indicated the nature of the data where it is otherwise derived. ^b This is the *current* 'probable pathological gambling' prevalence rate. ^c This is the lifetime gambling prevalence rate based on the lower threshold test (and therefore not ideal). No other estimate was available (AADAC 1998, p. II-5). ^d Some consider the introduction of a state lottery to have been a major change in the gambling environment. ^e The current 'probable pathological' gambling prevalence rate stayed constant at 0.8 per cent. ^f The current 'probable pathological' gambling prevalence rate also fell by 0.1 percentage points from 0.6 per cent to 0.5 per cent.

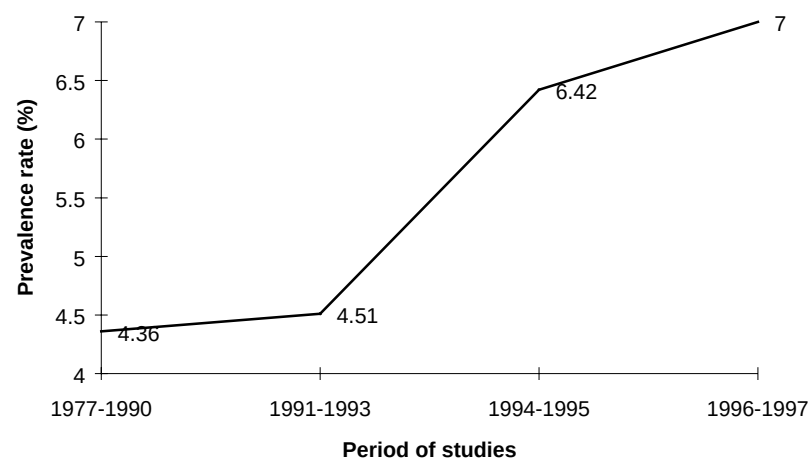
Source: National Research Council (1999, pp. 82-4); AADAC (1998, pp. 4-5).

The final report of the US National Gambling Impact Study Commission (Gerstein et al. 1999) used a large micro dataset to examine the link between location and the

prevalence of problem gambling (table 8.5).⁸ They found that the availability of a casino within 50 miles (versus 50 to 250 miles) is associated with about double the prevalence rate of problem and ‘pathological’ gambling. But while this pattern was apparent for the combined dataset, quite the contrary pattern was obtained for the telephone survey for the key ‘pathological’ gambling measure. Overall then, these data provide rather tentative evidence about the link between proximity to casinos and gambling problems.

Campbell and Lester (1999) found a positive and significant link between a measure of the prevalence of problem gambling in parishes in Louisiana and the density of video poker machines.⁹ At best, however, their simple models explained only about 17 per cent of the variation in problem gambling.

Figure 8.12 Prevalence of gambling problems for adults over time^a
North America 1977–1997



^a The prevalence rate is the sum of what Shaffer et al. refer to as level 2 and level 3 gambling (which will extend to people with SOGS scores as low as 3). This explains why the prevalence rates are so high.

Data source: Shaffer, Hall and Vander Bilt (1997, p. 44).

⁸ Senator Paul Simon (1995, p. 8) also suggested a more extreme association between proximity and gambling problems in the US. He claimed that while less than 1 per cent (0.77 per cent) of the population are compulsive gamblers, that number increases two to seven times when enterprises are located near a population.

⁹ Unfortunately, the measure of problem gambling used was the number of Gambling Anonymous Groups in each parish, which is only a proxy for the number of problem gamblers in an area.

Table 8.5 Prevalence rates of problems by proximity to casinos^a
United States 1998

	<i>Telephone survey</i>			<i>Telephone & patron survey</i>		
	<i>At risk (n=183)</i>	<i>Problem (n=30)</i>	<i>Pathological (n=21)</i>	<i>At risk (n=267)</i>	<i>Problem (n=56)</i>	<i>Pathological (n=67)</i>
	%	%	%	%	%	%
0 to 50 miles	6.7	1.6	0.5	7.4	2.3	2.1
51 to 250 miles	8.7	1.3	0.7	8.5	1.2	0.9
250+ miles	6	1	1.2	5.5	1.2	1.3

^a This has a number of limitations as a test of the link between accessibility and problem gambling, because it ignores proximity to gambling venues other than casinos.

Source: Gerstein et al. (1999).

Finally, a unique natural experiment into the effect of gaming machines on gambling problems was provided by the experience of South Dakota. The South Dakota Supreme Court ordered that all of the state's video gambling machines be shut down in August 1994 (as they were technically illegal). Other gambling forms, which were widely available, were not affected. This led to a 3 month lull in playing video games before a referendum legalised the games in November 1994. Inquiries to four problem gambling treatment centres in South Dakota fell dramatically from 68.1 per month (in the eleven months prior to the temporary ban), to 9.7 per month during the ban, before rising to 24 per month in the three months after the lifting of the ban (Carr et al. 1996). This is highly suggestive of a link between availability of certain gambling forms and the incidence of gambling problems.

8.8 Summing up

The potential link between accessibility and problem gambling is a key policy issue, since it determines whether constraints on access are likely to have any impact on problem gambling. The Commission examined evidence on the possible link from a variety of sources — including variations in problem gambling prevalence rates, the use of help services, the changing pattern of counselling demand and overseas evidence.

It is hard to capture all of the multi-dimensional aspects of accessibility in single measures, complicating assessments of its association with problem gambling. There are also sometimes problems associated with establishing the direction of causality. The cross-sectional information in particular, has limitations that makes it, in isolation, inconclusive as evidence for a link.

However, as a whole, the evidence is highly suggestive of a positive link between availability of legalised gambling — especially gaming machines — and the incidence of gambling problems. In particular, the feminisation of problem gambling appears strongly associated with the spread of gaming machines.

Overall, the Commission considers that there is sufficient evidence from many different sources to suggest a significant connection between greater accessibility — particularly to gaming machines — and the greater prevalence of problem gambling.

9 Quantifying the costs of problem gambling

Box 9.1 Key messages

- Quantifying the costs of the gambling industries is a difficult task, especially for the intangible impacts on the wellbeing of individuals. The Commission has nevertheless provided indicative estimates for as many of the impacts as possible.
- The costs associated with problem gambling are conservatively estimated to be equivalent to at least \$1.8 billion (with a higher estimate of \$5.6 billion) each year.
- The costs amount to an average of at least \$6000 per problem gambler per year, with the higher estimate averaging \$19 000 per problem gambler.
- The bulk of these estimated costs comes from the emotional distress and tension that problem gambling imposes on gamblers and their families, rather than direct financial costs.

9.1 Introduction

Earlier chapters have identified and discussed a range of benefits and costs generated by gambling in Australia. The principal costs for society (costs that are not offset by benefits elsewhere) result from problem gambling. Some of these are financial costs, whereas others are less tangible. The psychic or emotional impacts on problem gamblers and their families are costs for which a value should be assigned, in the same way that the pleasure or entertainment from gambling has a value. The difference is that only the latter value is expressed through actual market prices — proxy values have to be found for the former.

In estimating the costs, the Commission has grouped them into five broad categories:

- financial costs (family debts and bankruptcy);
- effects on productivity and employment;
- crime (theft, court cases and imprisonment);

-
- personal and family impacts (divorce and separation, depression and suicide); and
 - treatment costs.

Chapter 7 provides a more detailed presentation of the impacts of problem gambling, including the results from the Commission's surveys and from other available sources. In this chapter the Commission seeks to put values on as many of these costs as possible. Some, particularly the more intangible costs for problem gamblers and their families, are potentially very significant as well as being difficult to measure. Given these difficulties and uncertainties, the Commission has, where possible, provided a range of values for the cost estimates. In doing so, the Commission has tended to be conservative (erring on the low side), even when including a number for the higher estimate of any particular aspect of the costs quantified. A more detailed treatment of the methodology and numbers used is provided in appendix J.

9.2 Previous estimates of costs by other researchers

Researchers overseas (box 9.2) and in Australia (box 9.3), have attempted to estimate the costs that problem gambling imposes on society.

The most remarkable aspect of the estimates reported is their range — from US\$560 to US\$52 000 per problem gambler per year. This demonstrates both the conceptual difficulties involved, and the practical information problems in assigning reliable numbers to some of the costs. Similar difficulties can arise in estimating consumer benefits (chapter 5).

Box 9.2 Estimates from North America of the social cost of gambling

Estimates of the annual cost per problem gambler undertaken in the United States vary widely. For example, in reviewing US studies, Goodman (1995) reported:

By examining the combined costs which are produced by the behaviour of problem gamblers, including bankruptcies, fraud, embezzlement, unpaid debts, and increased criminal justice expenses, researchers have arrived at yearly estimates of how much these people cost the rest of society. Estimates of the yearly average combined private and public costs of each problems gambler have ranged between US\$20,000 and US\$30,000 in 1993 dollars, with some reports as high as US\$52,000. The United States Gambling Study, which I directed, arrived at a much more conservative estimate of US\$13,000 per problem gambler per year in 1993 dollars.

(continued)

Box 9.2 continued

Goodman (1997) pp. 61–2 reported:

Some of the most useful recent research on the costs of problem gambling was done by Rachel Volberg ... Her estimated cost to the public of the average pathological gambler in 1981 was approximately US\$13,600 — a figure she describes as a “much more conservative approach to costs” than she found in previous studies... Volberg’s analysis covers three basic categories: 1) the income which would have been earned by pathological gamblers who lost their jobs; 2) the costs of prosecuting and incarcerating them for crimes caused by their gambling problems, such as embezzlement, fraud, and theft; and 3) “bailout costs” — money given to them by family and others to cover their gambling expenses and living needs. Goodman (1997, p. 63) questioned the last category, which made up US\$6000 of the US\$13 600 estimate, as representing a transfer between groups within society rather than representing an economic loss.

The National Council of Welfare (1996, p. 33) reported a University of Manitoba estimate of the cost of compulsive gambling to society as Can\$56 000 for each problem gambler each year.

The most recent study in the United States has been undertaken as part of the work of the National Gambling Impact Study Commission. The study estimated that each problem gambler generates an annual cost (excluding transfers) of US\$560, and an additional lifetime cost of US\$3580. For pathological gamblers, the study estimated that each generated an annual cost (excluding transfers) of US\$1050, and additional lifetime costs of US\$7250. Details of results of the study are presented in appendix K.

Estimates at the high end of the scale tend to include *all* of the money spent by problem gamblers as a social cost — implying that problem gamblers receive no benefit at all from any of their consumption. Similarly, they include as a net cost to society payments that are essentially transfers within society (such as unemployment benefits, or bad debts).

For those estimates at the lower end of the scale, costs borne by problem gamblers themselves (internal costs) are usually not included, nor is there an attempt to measure most of the intangible costs. Such studies focus on direct financial costs imposed on others and on society as a whole. Transfers are often correctly identified and excluded. The exclusion of intangible costs is the most important factor leading to apparently low costs of problem gambling. But such costs can be as great as, or much greater than, the direct financial costs imposed on society.

An earlier estimate of costs in New South Wales

In 1995 and 1997, Dickerson et al. (1996a and 1998) undertook surveys of consumers in New South Wales and, together with the clinical experience of a

number of researchers in the field of problem gambling, made an estimate of the cost of problem gambling.

Dickerson et al. quantified a range of costs associated with problem gambling in New South Wales, arriving at an aggregate value of \$50 million per annum for that State — a cost per problem gambler of some \$1300 a year (box 9.3). This estimate is low, primarily because it focused on direct financial costs, with no estimate attempted for the intangible costs associated with problem gambling, though it did include the financial costs borne by problem gamblers (other than expenditure on gambling itself).

Box 9.3 Estimates of the cost of gambling in New South Wales

In 1998, Dickerson et al. updated an earlier set of estimates of the cost of problem gambling in New South Wales. They combined their 1997 survey of 1390 people with information drawn from the 1995 survey of 1209 people to form the basis of a revised estimate.

Their estimates of the annual costs of problem gambling are:

	\$ 000
Employment impacts	28 474
– productivity loss	20 796
– job change	5 258
– unemployment	2 420
Legal costs	17 846
– court costs	5 376
– prison costs	9 978
– police costs	2 492
Financial costs	66
– bankruptcy costs	66
Personal costs	732
– divorce	391
– acute treatment	441
Existing services	3 191
Total	50 309

The estimates assume that 0.85 per cent of the adult population of NSW are problem gamblers — all of those with a SOGS score of 10+ and half of those scoring 7 to 9. This equates to a problem gambler population of some 39 117 in NSW, with a cost per problem gambler of \$1300 per annum.

Source: Dickerson et al. (1998).

Lesieur (the originator of the SOGS measure of problem gambling) said about the Dickerson et al. study:

They have conducted the most thorough and potentially the best study done anywhere. However, it seriously underestimates the cost of problem gambling in several ways. (1996, p. 17)

Lesieur identified the following factors as contributing to an underestimate:

- the inclusion of only weekly gamblers excludes less frequent ‘binge’ gamblers;
- a six month period for the SOGS can lead to understatement even when ‘annualised’;
- excluding institutionalised populations, who typically contain a high level of probable pathological gamblers, leads to lower than actual levels of problem gambling; and
- a threshold of 10 on the SOGS was seen as too high — US studies typically use 3 or 5 as the cut off point.

The last of these points appears the most significant. Lesieur goes on to present a range of information comparing the costs faced by the ‘5 to 9’ group with the ‘10+’ group to indicate that adverse consequences can be as large for members of the former group as they are for the latter.

Despite these comments — criticisms can be made about any set of estimates — the methodology employed by Dickerson et al. is very useful, and has formed the basis of the Commission’s estimates contained in this report. In so doing, the Commission has sought to extend the work:

- from NSW to the national level;
- by including estimates for some of the more intangible costs associated with problem gambling; and, importantly
- by avoiding problems of identifying the most appropriate SOGS-based ‘cutoff point’ for problem gamblers *by looking at the prevalence of gambling-related adverse consequences in the whole population of regular gamblers.*

The methodology and data used by the Commission to estimate the benefits and costs of gambling in Australia are presented in detail in appendices C and J respectively. What follows is an outline of the approach taken to estimate the costs and a summary of the results.

9.3 The Commission’s estimates of social costs

In assessing the costs to society of problem gambling, (as opposed to the costs to individual gamblers) costs need to be viewed in a particular way. They do not

include costs which private individuals and businesses adequately take into account in deciding whether to produce and consume particular gambling products. Rather, the focus needs to be on those costs that are inadequately priced or accounted for in market transactions. The existence of such social costs would mean that, for society as a whole, an excessive level of production and consumption of the product in question may be occurring. In turn, this can provide a possible rationale for corrective government action or policy attention, depending on the costs associated with any such intervention.

Many activities generate social costs but typically, they are small in total and specific government actions are unlikely to be cost-effective. If the problem is large (with high social costs that are clearly associated with the particular industry or activity), more targeted policy actions may be warranted.

Which costs should be included in the estimates?

Expenditures or payments which many people would clearly refer to as ‘costs’ can be categorised into three types — internal costs, external costs, and transfers (these are explained in chapter 4, box 4.1).

It is the *external* costs — those imposed on others by a decision maker without them having a say — that would normally provide the only justification for government intervention on efficiency grounds.

However, in this chapter the Commission has included a significant element of problem gamblers’ *internal* costs (other than the money spent directly on gambling) in its estimates of the policy-relevant costs that gambling imposes on the Australian community.

This is because of serious reservations about the extent to which problem gamblers are aware of the true costs and benefits of gambling — misperceptions about how the games operate and the true likelihood of winning are widespread and persistent. More importantly, for many problem gamblers, it is questionable whether they are spending money on gambling in a ‘voluntary’ way, exercising the ‘consumer sovereignty’ that would normally be assumed to apply. Chapter 6 provides a detailed discussion of consumer sovereignty and problem gambling.

While *transfers* do not represent a net cost to society, they are nonetheless important for those who pay for them. If the transfers are large, it may be worthwhile investigating cost-effective ways to minimise them or, if they are part of the welfare system, ways to make them more effective. Estimating the size of the transfers and identifying the direction of flows can be a worthwhile exercise.

In addition, the process of undertaking transfer payments is not costless. For example, raising and distributing taxes to fund welfare transfers involves a cost. Similarly, in the case of bad debts, action taken to protect against such debts represents a cost, and to the extent that lenders cannot distinguish adequately between borrowers on the basis of risk (including gambling), these costs will be paid for by others.

ACIL (sub. D233), in addition to expressing the view that internal costs should be excluded, also questioned the inclusion of costs borne by other members of the family. The Commission does not agree with this view, for the reasons discussed in chapter 4.

Star City (sub. D217, p. 8) referred to similar spillover *benefits* from the wellbeing of the majority of recreational gamblers, and ACIL (sub. D233, pp. 28–29) said that such benefits of gambling to family members should be included in estimates of costs and benefits.

Advisedly, in our view, the happiness gained by the family members of the great number of satisfied, relaxed and fulfilled gambling customers is not counted in the Draft Report as an extra benefit of gambling. This is sensible, but quite different to the way the Draft Report handles spillover costs. Its handling of spillover benefits view households as a group of people who *are* covered by implicit contracts whereas its view of spillover costs presumes that *no* contracts exist.

Certainly there are benefits for a family stemming from the happiness of individual members. But the Commission does not consider that the additional contribution of gambling to this level of happiness to be significant. Most alternative forms of entertainment (while perhaps not valued as highly as gambling by the gambler) are likely to deliver a similar level of happiness and fulfilment which will equally ‘spill over’ to the family. The *additional* level of happiness from gambling is likely to be small, but the *additional* level of unhappiness from problem gambling is large. In its estimates of costs and benefits, the Commission has not attempted to measure each and every benefit and cost, but concentrated on those which appear to be the most significant.

Taxes on gambling

Some might consider that these are not *net* costs for society, because they are offset by high taxes on gambling consumption. The gambling industries are subject to a range of taxes, some significantly higher than those levied on other forms of consumption. In part, these taxes are levied, at least nominally, to pay for some of the social costs of problem gambling. In this analysis, the Commission has included the taxes levied on the gambling industries as a *benefit* in the estimates presented in

chapter 5. Consequently, such taxes are not offset against the cost estimates in this chapter as this would involve double counting.

How reliably can social costs be attributed to gambling?

Many of the adverse consequences experienced by problem gamblers are not unique to gambling. Depression, divorce or job loss occur for a variety of reasons, and to many people in society. In the Commission's *National Gambling Survey*, respondents were typically asked to report adverse consequences 'as a result of your gambling'. Thus, we are relying on participants willingness or ability to attribute the range of adverse consequences that they have suffered to their gambling activities.

An alternative approach was taken in the recent study in the United States (Gerstein et al. 1999). This study collected information on the prevalence of adverse events irrespective of cause in the population generally, and then compared the prevalence in the population without gambling problems with the prevalence in the population with gambling problems. When account was taken of a range of other likely influences on differences in prevalence rates, the observed difference was ascribed to the respondents gambling activities. A brief summary of the results of this study is presented in appendix K.

Overall, for questions that were equivalent in the Commission's *National Gambling Survey* and the US study, the results of the two approaches are broadly comparable in terms of the estimated prevalence of adverse consequences from gambling problems (appendix J).

In addition to the potential to mistakenly attribute adverse consequences to gambling activities, a number of participants in this inquiry questioned whether problem gambling itself was a symptom rather than a cause of the problems that some people face (see chapter 7 for a more detailed discussion of causality). In some situations, it may be inappropriate to say that gambling is the *cause* of the problems observed, though it may contribute to their severity.

Following the draft report, the Commission held a meeting with a number of prominent academics and researchers in the field of problem gambling in Australia. The participants were specifically asked their views on the extent to which problem gamblers would continue to have problems in the absence of gambling.

- The consensus was that for a number of adverse consequences — particularly depression, and divorce and separation — as a rule of thumb, some 15 to 20 per cent would have problems even if their gambling could be successfully managed.

-
- Where the adverse consequence was more directly financial — such as embezzlement, or bankruptcy — the view was that gambling was invariably the principal cause.

The Commission concedes that, while this is not a precise means of assessing causality, it provides a useful guide. Consequently, in revising the draft report, the Commission has made an adjustment for ‘causality’ in its estimates of the personal and family impacts of problem gambling, by applying a 20 per cent discount to the costs relating to adverse consequences in this broad category.

What are the costs of gambling problems?

A wide range of costs have been identified as flowing from problem gambling, but they can usefully be grouped into the following areas:

- financial costs (debts and bankruptcy);
- effects on productivity and employment;
- crime (theft, court cases and imprisonment);
- personal and family impacts (divorce and separation, depression and suicide); and
- treatment costs.

The Commission’s approach

Where practical, a range of values has been estimated for each adverse consequence because of uncertainties about its magnitude or the value attributed to it. In some cases this was based on a range of the dollar values ascribed to the consequence, and in others a range in the number of people affected. Importantly, the higher level of the range chosen need not represent the maximum possible value.

Most of the estimates are based on the prevalence of adverse consequences derived from the Commission’s *National Gambling Survey* in relation to a 12 month period. Where information was only available on the basis of an impact ‘ever’ occurring, the Commission has estimated the annual level based on the average duration of gambling problems reported by problem gamblers in counselling (8.9 years).

Where information on prevalence was only available from the Commission’s *Survey of Clients of Counselling Agencies*, this prevalence was only ascribed to the estimated number of problem gamblers based on a score of 10 or more on the SOGS (47 000 people) rather than the estimated total number of problem gamblers in Australia (293 000 people).

Valuing the intangible costs relating to such things as depression, suicide, or the emotional costs imposed on family members has been a particularly difficult component of the estimates presented. Consequently, and in order to be conservative, the Commission has chosen ranges of values based on compensation payment schedules in New South Wales and Queensland used for emotional harm. Typically for less severe cases, this is a range of \$5000 to \$15 000, and for more severe cases \$30 000 to \$50 000 per person. While even the high end of these ranges may be low compared to the extent of suffering that can occur, the Commission's estimates represent an average for a wider group of people.

Where one group of adverse consequences can be seen as an extreme example in a broader category, to avoid double counting, the numbers in the broader group exclude the more extreme group. For example, the number of people included in the estimate of the cost of depression exclude the number estimated to have thoughts of suicide. Similarly, the number used for breakup of a relationship exclude the number estimated for divorce and separation.

The Commission has not attempted to measure all the costs that arise from problem gambling. Apart from those which may not be substantial, or which have been discounted to err on the conservative side, for some the Commission had no adequate basis for attributing dollar figures, even as a range. For example, costs have not been measured for:

- non-regular gamblers. The prevalence of adverse consequences derived from the *National Gambling Survey* relates only to regular gamblers. To the extent that some non-regular gamblers experience problems, the estimates are understated;
- any future reduced earning capacity for problem gamblers that may result from being declared bankrupt or the costs associated with bad debts in bankruptcy;
- the impact on physical health, nor the medical costs associated with conditions such as depression;
- costs that may carry over into later years from 'one off' events;
- the emotional distress for families and parents of *moderate* problem gamblers;
- indirect costs such as sale of property etc, and long term effects on children resulting from divorce and separation;
- those who are only rarely or sometimes depressed; and
- actual suicides caused by gambling.

Appendix J outlines the methodology in detail. The results are summarised below.

The Commission's estimates

In total, the Commission estimates that problem gambling imposes an annual cost (excluding the unmeasurable costs) of some \$1.8 billion to \$5.6 billion (table 9.1).

Table 9.1 Costs of problem gambling
(\$ million, 1997-98)

	low	high
<i>Financial</i>		
Bankruptcy	1.3	1.3
<i>Productivity and employment</i>		
Productivity loss at work	21	150
Productivity loss outside work	7.2	50
Job change		
earnings loss	24	24
employee job search	13	13
employer staff replacement cost	22	22
<i>Crime and legal</i>		
Cost of police incidents	3.2	3.2
Court cases	5.6	5.6
Jail costs	5.1	5.1
<i>Personal and family</i>		
Emotional distress of immediate family		
Moderate problem gamblers	ne	ne
Severe problem gamblers	756	2 267
Emotional distress of parents		
Moderate problem gamblers	ne	ne
Severe problem gamblers	0	666
Breakup of a relationship ^a	288	864
Financial cost of divorce	2.8	2.8
Emotional cost of divorce	126	253
Cost of violence	2.8	8.3
Depression ^b	231	692
Thought of suicide ^c	120	239
Attempted suicide	70	117
Impact on immediate family	81	161
Impact on parents	0	21
<i>Treatment costs</i>		
Gambling counselling services	20	20
TOTAL	1 800	5 586

ne. Not estimated ^a Excluding those that lead to divorce or separation. ^b Excluding those reporting thoughts of suicide. ^c Excluding estimated attempted suicides.

Source: appendix J

Transfers within society as a result of problem gambling are much smaller, at an estimated \$35 to \$62 million annually, principally being the debts carried by other members of the family (table 9.2).

Table 9.2 Value of annual transfers as a result of problem gambling
(\$ million, 1997-98)

	low	high
	\$m	\$m
Debts	26	26
Unemployment payments	4.1	4.1
Value of money obtained illegally	4.9	31
TOTAL	35	62

Source: appendix J.

The most striking feature of these estimates is that the more easily measured direct financial or money costs of problem gambling, which amount to \$127 million to \$309 million, are a small share of the total. The most significant categories of costs are those covering adverse emotional impacts on immediate family members and parents, followed by the estimate for depression for those with gambling problems.

These costs loom large because of the numbers of people involved. For example, the *National Gambling Survey* indicates that some 48 500 people suffer ‘often to always’ from depression as a result of their gambling (after a range of adjustments for causality and to avoid double counting). Table 9.3 presents the estimated number of people associated with each of the adverse consequences included in the Commission’s estimates.

The intangible costs associated with problem gambling have not been estimated before. Their intangibility precludes precision or a point estimate, but the Commission considers that the range of values provided here are a useful guide to their minimum magnitude. If anything, the estimates are more likely to understate than overstate the true costs. That said, they nonetheless amount to a major component of the total cost estimates — underlining the importance of taking them into account.

As already noted, the intangible costs are just as real as the consumer benefits, but because there is no market mechanism to signal the values that people would place on these costs, they are harder to measure. Therefore, some have argued that it cannot be done in a way that is reliable enough, and should not be attempted. However, this poses the greater risk that zero values will be imputed for these costs — which would be less meaningful than the conservative estimates presented here.

Given the policy relevance of the intangible costs associated with gambling, and the difficulty the Commission experienced in trying to find information on dollar values that could be placed on these costs, this is an area where additional research would be desirable.

Table 9.3 Estimated number of people experiencing adverse impacts nationally used in the costing estimates

	People affected annually
Bankruptcy	317
Gambling debts	5 258 (46 792)
Productivity loss at work	7 000 +
Productivity loss outside work	2 358 +
Job change	5 600
Crime	9 700
Police incidents	6 300
Court cases	700
Jail	336 (2 995)
Family member emotional distress	151 129+
Breakup of a relationship	28 800
Financial cost of divorce or separation	2 560
Emotional cost of divorce or separation	8 422 ^a
Violence	551 (4 904)
Depression	46 160+
Thought of suicide	7 972+
Attempted suicide	2 348+
Family of attempted suicide	5 377

Numbers in brackets represent 'lifetime' numbers from which annual numbers have been estimated. + indicates that this number is the lower number in a range. ^a includes family members as well as problem gamblers (an average of 3.2 people per household)

Source: PC National Gambling Survey.

Social costs vary by mode of gambling

There is considerable potential variation in the contribution to social costs from the different modes of gambling. As outlined in chapter 5, the share of expenditure accounted for by problem gamblers varies markedly by gambling mode. To get some understanding of how the social costs are distributed, the share of problem gambling expenditure was used to allocate the social costs by mode (see table 9.4). As noted in chapter 5, the estimated expenditure shares for problem gamblers are likely to be more reliable for gaming machines and lotteries than for some of the modes with fewer numbers of problem gamblers identified in the survey. Because gaming machines account for some 76 per cent of the total amount of money spent by problem gamblers in 1997-98, 76 per cent of the social costs have been allocated to that mode (table 9.4).

Table 9.4 **Social costs of gambling by mode of gambling, 1997-98**

	<i>Share of expenditure in that mode accounted for by problem gamblers</i>	<i>Expenditure by problem gamblers</i>	<i>Social costs of gambling</i>
	%	\$ million	\$ million
Wagering	33.1	529	267 — 830
Lotteries	5.7	68	34 — 106
Scratchies	19.1	47	24 — 74
Gaming machines	42.3	2 710	1 369 — 4 250
Casino gaming	10.7	96	48 — 150
Other	25.0	112	57 — 176
All gambling	33.0	3 562	1 800 — 5 586

Source: PC estimates.

Some distributional issues

In comparing costs and benefits, it is typically assumed that a dollar of benefit for one person is equivalent to a dollar of benefit for another, and that a dollar of cost for one is the same as a dollar of cost to another. Where costs and benefits are spread evenly in society, this is a reasonable presumption. But when the costs and benefits occur in a quite uneven fashion, this assumption should be reviewed.

Most gamblers receive a consumer benefit equivalent to some \$250 to \$400 each year (chapter 5), while problem gamblers and their families are spending, on average \$12 200 each per year on gambling products and are generating a range of social costs estimated to be equivalent to some \$6100 to \$19 100 per problem gambler per year. While not all of this cost is borne directly by the problem gambler (much is borne by their family, and some by the wider community) the concentration of costs on a minority of people in society is an area of legitimate social concern.

Comparisons with other costs

The question of the costs of problem gambling in comparison with the costs of a range of other activities in society — tobacco, alcohol and illicit drugs — was raised by participants in the inquiry. For example, Tabcorp (sub. D232, p. 2) said:

Compared to the enormous benefits generated, the costs of problem gambling to society is negligible. US studies indicate that in the US the combined cost of smoking is 14 times that of gambling, motor vehicle accidents - 14 times greater, alcohol abuse - 33 times greater and drug abuse - 22 times greater.

Estimates of the cost of other social problems have been undertaken in Australia, most comprehensively by Collins and Lapsley (1996). These estimates, together with the Commission's estimate from this report are presented in table 9.5 below.

Table 9.5 Estimates of the cost of other social problems, Australia

<i>Problem</i>	<i>Annual costs \$ billion</i>
Gambling ^a	1.8 - 5.6
Illicit drugs ^b	1.7
Alcohol ^b	4.5
Tobacco ^b	12.7

Source: ^a PC estimates for 1997-98. ^b Collins and Lapsley (1996) estimates for 1992.

Some caution should be exercised in comparing estimates done at different times by different researchers using differing methodologies (see Gabbittas and Eldridge 1998, for a critique of these estimates). Nonetheless, whether the costs of the gambling industries are greater or less than the costs to society of other industries is not particularly relevant. Social costs of \$1.8 billion to \$5.6 billion per year are clearly high enough in an Australian context to warrant policy attention.

10 Broader community impacts

Box 10.1 Key messages

- Gaming machines have provided new recreational and social opportunities, attracted more people out of the home, and some gambling revenue has been used to provide better community and club facilities.
- Gaming machines have also altered the nature and feel of clubs and hotels, and can 'crowd out' other forms of entertainment, such as live music and alternative leisure and community activities.
- While growth in gambling limits growth in the retail sector, the effects are small.
- In some states, gaming machines are concentrated in lower income areas. This can compound social problems and cause funds to leak out of the area.
- The impact of gambling in country areas appears to differ little from the impact in city areas.
- Leaving aside crime associated with problem gambling, there is no evidence of significant criminal activity associated with the (legalised) gambling industry. Strong probity rules have contributed to this.
- Gambling may undermine certain community norms and some people may feel aggrieved simply by living in a gambling culture, just as others may feel better, but assessing these effects is difficult.
- Around 70 per cent of Australians (including a substantial majority of regular gamblers) consider that gambling does more harm than good to the community. Only 15 per cent feel it does more good than harm.

10.1 Introduction

Beyond the effects on gamblers and the gambling industry itself discussed in earlier chapters, gambling may also create broader community impacts. Questions which arise at this level include:

- apart from the crimes that problem gamblers commit, does gambling bring about greater criminal activity generally, or has the legalisation of gambling actually 'crowded out' organised crime syndicates?

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- how does the ‘gambling culture’ affect the feel, nature and cohesion of society? Is it neutral or even beneficial? Or does it, as some people assert, promote greed and idleness, undermine family values, and act to unravel the social fabric?
 - given that the gambling industry wins from liberalisation, do any industries lose and, if so, what should government do about this?
 - does gambling affect privileged and disadvantaged areas equally, or is the gambling industry, as some people suggest, ‘preying on the poor’? and
 - do communities in country Australia fare any differently to those in the cities?

In this chapter, the Commission explores each of these questions in turn.

10.2 Aspects of crime and gambling

Observers often warn that the gambling industry, and particularly casinos, attracts significant criminal activity. In its submission, an interdenominational Christian group called Salt Shakers noted:

Gambling is often associated with organised crime. Stories have already surfaced about the Melbourne Crown Casino being used to launder money. FBI Director William H. Webster said he “knew of no situation in which legalised gambling was in place where we did not eventually have organised crime.” Austin Guigan, chief states’s attorney of Connecticut, has said that in the USA “there is no major bookmaking operation ... which operates without organised crime” (sub. 170, p. 14).

While accepting that certain types of low level crime may occur in and around gambling establishments, several gambling businesses and industry groups argued in submissions that, these days, there is limited criminal involvement in gambling. Indeed, Star City said:

The infiltration of the casino industry by organised crime is now largely a thing of the past overseas and has never been a feature of the Australian industry. Even in Las Vegas which, in its early days was infiltrated by organised crime, [it] is now free of such influences. The myths persist, propagated by cinema and television, like the myths of the Wild West and [the] Australian bush, but the reality has been different for several decades (sub. 33, p. 24).

So, real world crime cauldron or Hollywood hoax — what does the evidence show? In this section, the Commission explores the issues at four levels:

- petty crime in gambling venues themselves;
- ‘street crime’ in the vicinity of those venues;
- money laundering through casinos and other venues; and
- control of gambling venues by organised crime syndicates.

Offences committed in gambling venues

People have been caught committing a range of petty offences inside casinos and gambling venues.

Some patrons seek to cheat at table games. For example, they lay bets at roulette tables after the ball has stopped spinning, or move their wagers from one position to another after the game has finished. Some patrons attempt to claim false jackpots. And in more sophisticated (and rarer) cases, groups have been caught filming cards being played by a croupier and, using remote radio communications, telling a player at the table what bet to make!

According to Victoria's State Coordinating Magistrate, Jelena Popovic:

Persons who have been charged with cheating offences at Crown Casino probably make up the bulk of gambling related offenders at Melbourne Magistrate's Court (1998, p.7).

As well, various forms of petty theft may be committed against patrons in gambling establishments, such as:

- stealing chips;
- thieving from unattended bags;
- pickpocketing; and
- stealing items such as handbags and wallets.

There are some obvious reasons why patrons in casinos — and other gaming establishments — might be targets for these types of petty theft. First, gambling venues often draw large crowds of people, most of whom can be expected to have a reasonable amount of cash or chips among their possessions. Second, many patrons consume alcohol whilst gambling, and/or may be mentally 'absorbed' by the game they are playing. They may thus appear to be easier prey for a petty thief. Finally, the focus of activity in a gaming establishment is on obtaining money. People who could be tempted to steal may be more likely to do so in such an atmosphere.

On the other hand, potential thieves also face clear disincentives to commit crime inside casinos, either against other patrons or against the house itself. Casinos have strong security and player monitoring systems, and a police unit is located inside some Australian casinos, which may act as an additional deterrent against petty crime. As Star City Casino pointed out:

There is no evidence to suggest that the crime rate is higher [inside casinos] than comparable gaming and non-gaming facilities. Nor is there any reason why crime rates should be higher in this industry. Certainly, a casino is the worst place from the viewpoint of the perpetrator to do such things given the presence of 1000 surveillance

cameras and 133 security officers. For this reason the detection rate and thus the apparent crime rate may be higher than for less well supervised locations (sub. 33, p. 23).

Further, in a study of crimes related to the Treasury Casino following its opening in Brisbane in 1994, McMillen and Rolfe (1997) noted that ‘the security system inside the casino is such that the Casino Crime Squad enjoys a higher than average clear-up rate against reported offences’.

Some participants at a Roundtable on Gambling and Crime — hosted for the Commission by the Australian Institute of Criminology (‘the Roundtable’) — said that ‘spotting’ for ‘loan sharking’ often occurs within casinos. Loan sharking refers to the practice of luring or pressuring people with high debts to take out high interest loans. While loans are not (normally¹) arranged inside casinos, people potentially in need of loans are ‘spotted’ on the premises and put in touch with lenders. One participant suggested that such behaviour is ‘prolific’, at least in Victoria, and another confirmed that patrons at Crown Casino had been approached to take out a loan, although the loan was represented as a house or car loan rather than a loan to finance gambling.

Overall, while some petty crime (and spotting for loan sharking) certainly does occur inside gambling venues, the Commission can not identify any evidence or clear-cut reason to conclude that the crime rate inside them is any higher than that for other venues that draw similar numbers of people. Nor does the Commission have reason to believe that what petty crime there is represents a cost to society that is not already adequately dealt with through existing deterrents and sanctions.

‘Street crime’ in the vicinity of gambling venues

A more common concern expressed about casinos is that they bring about an increase in crime *beyond* the walls of the establishments themselves. This concern relates not just to petty theft. It is also about other forms of ‘street crime’, such as break and enter, burglary offences, (illegal) prostitution and assault.

Several early studies of the effects of introducing casinos in the United States appeared to give credence to this concern. These studies commonly found that, after one or more casinos started in a particular area, the level of street crime in that area

¹ At the Commission’s public hearings in Melbourne, the Australian Vietnamese Women’s Welfare Association said that it was aware of incidents at Crown Casino in which patrons had been approached and given loans within the casino itself, often after the patron had just suffered significant losses (trans., p. 563).

went up. Some also found that crime increased in neighbouring areas, although the further the distance from the casino(s), the smaller was the increase in crime. Several case-studies have been made of the effects of large-scale casino development in Atlantic City, following the legalisation of gambling there in 1976. A number have reported that the city's per capita crime rate increased by more than the state average (Miller and Schwartz 1998). Indeed, one study noted that, in the twenty years after 1976, the city had to triple its police budget, while the local population actually decreased by 20 per cent!

However, Miller and Schwartz (1998, p. 134) have pointed out that many studies conducted on gambling and crime fail to consider the effect that casinos have on drawing people into an area:

Studies have found a relationship between casino gambling and street crime, but then again, most of these studies do not take into account that large numbers of tourists and gamblers are temporality in town, presumably increasing both the opportunities to commit crime and to be victimised by it.

In the case of Atlantic City, for example, there are apparently around 30 million tourist visits each year. When the level of crime is judged against the number of people actually in the area, rather than against the number of permanent residents living in the area, the crime rate has not increased.

Similarly, Margolis and Gray (1997) — in a paper commissioned by the American Gaming Association — argued that a number of key empirical studies had failed to document any causal link between gaming and crime. They also pointed out that crime rates had actually fallen in many areas where casinos had been established.

In concluding their review of the literature, Miller and Schwartz (1998, p. 135) stated:

We have not found here any compelling evidence to suggest that there is something unique about casinos that causes an increase in crime in the surrounding area. Of course, with increased people traffic, it is entirely likely that the raw number of crimes will go up. With tourists walking around with large amounts of money and expensive equipment, often vulnerable because of alcohol and their behaviour, it should not be surprising that more crimes will be committed. Most important of all, if large numbers of new hotel and motel rooms are built, particularly if little security is provided and it becomes known that people are leaving valuables (jewellery, cameras, winnings) in these rooms, then an increase in burglary should not be unexpected. None of these arguments, however, is different from those for resort areas and tourist attractions.

Indeed, Stitt, Giacopassi and Nichols (1999) — in a recent paper supported by the US Department of Justice — failed to find evidence that casinos increase crime rates when tourist numbers are taken into account. These authors looked at 'before and after' crime rates for seven US jurisdictions in which casinos have been

established. While crime rates increased in some of these, they fell in others, with no clear pattern overall. The authors speculated that local factors may be important determinants of whether crime rates increase or fall in an area following the establishment of a casino.

Overall, it is difficult to conclude from the US experience that casinos necessarily lift per capita crime rates, even if crime in the area surrounding a casino does increase.

In the Australian context, as noted earlier, McMillen and Rolfe (1997) have undertaken a study of casino-related crimes in respect of Brisbane's Treasury Casino. The study sought to:

- identify crime incidents within the vicinity of the casino;
- look at regional incidents which could be linked to the casino; and
- compare crime incidents before and after the opening of the casino.

McMillen and Rolfe found that crime in the immediate vicinity of the casino had varied little following the casino's launch in April 1995. The casino works closely with police, and a police precinct has been established within the casino (paid for partly by the casino). Overall, however, crime has not necessarily diminished — just shifted. There was less of a physical police presence in other city areas, and assaults around nightclubs increased over the study period. As well, a development associated with the Brisbane casino has been the growth in pawnbrokers and second-hand dealers in the immediate vicinity of the casino. The authors point out that this, of itself, does not necessarily mean that crime associated with casino patrons has increased. However, it does facilitate more of certain types of crimes, such as shoplifting, by providing more outlets through which petty thieves can dispose of stolen property.

Participants at the Roundtable noted similar trends in some other Australian cities. Policing in and near Sydney's casino has caused crime to shift to other parts of the city. It was observed that, in Sydney, statistically you are least safe if you are a young male, within 500 metres of a hotel, between 1am and 3am — the casino and its precincts are relatively safe. Likewise, a Melbourne Safe City Survey had found that the casino precinct was the second safest area of the city — safer than trams and cinemas, for example.

In summary, the Commission has found no evidence that casinos in Australia bring about more per capita street crime, nor even that crime rates increase in the immediate vicinity of casinos. Indeed, the opposite appears possible.

This is not to imply that crime does not happen as a result of people gambling. Clearly, where people incur debts they otherwise wouldn't, there is an increased risk that those people will be lured into committing criminal acts. This matter arises most obviously in the case of problem gamblers, and is addressed in chapter 7.

But the absence of substantive evidence does imply that there are unlikely to be major social costs, and may well be no social costs, associated with street crime *attributable specifically to (legal) gambling venues*.

Money laundering

Graycar and Grabosky (1996, p. viii) define 'money laundering' as:

... the process by which the proceeds of crime ('dirty money') are put through a series of transactions which disguise their illicit origins, and make them appear to have come from a legitimate source ('clean money').

Participants at the Roundtable mentioned that it is more difficult to launder money in Australia than in many other countries because there is a more tightly controlled regulatory framework.

A key element of that framework is the Australian Transaction Reports and Analysis Centre (AUSTRAC). It was established under section 35 of the *Financial Transaction Reports Act 1988* (FTR Act), as part of the Commonwealth Government's response to money laundering, organised crime and serious tax evasion. As AUSTRAC noted (sub. 43), part of its role is to:

- collect financial transaction reports information from the financial sector and some sections of the gambling industry (casinos, totalisator agency boards and bookmakers); and
- disseminate this information to law enforcement and revenue agencies — such information provides a money trail, crucial for identifying the financial dealings of money launderers and tax evaders.

In its view, the FTR Act and other regulatory mechanisms serve to minimise the opportunities for Australia's gambling industries to be used to facilitate money laundering and serious tax evasion.

Under the FTR Act, casinos, totalisator agency boards and bookmakers are classed as cash dealers, and are thereby required to (sub. 43, p. 2):

- report significant cash transactions (of \$10 000 or more), 'suspicious' transactions, and international funds transfer instructions;

-
- verify the identity of signatories to any accounts which may be opened and operated with them; and
 - provide a suspect transaction report to AUSTRAC if the dealer suspects it is being used to facilitate money laundering or tax evasion.

The decision to include casinos as cash dealers under the FTR Act in 1988 arose from concerns over the threat posed by organised crime. A report by the Senate Standing Committee on Legal and Constitutional Affairs (1993) recorded that:

Casinos pose a particular risk in this area [of organised crime] because of the international nature of their operations and of the banking system through which they function.

But the same report concluded that obvious ways of laundering money through casinos had been eliminated, largely due to the FTR Act.

Indeed, whether the spending of ‘ill-gotten’ money by criminals at casinos or other venues is strictly ‘laundering’ is debatable. As one participant at the Roundtable explained:

Laundering is the conversion of money from crime, not the spending of money from crime. What about people that are spending money from crime because they like gambling? — this isn’t laundering.

On the same point, AUSTRAC commented that:

There is ... evidence to indicate that criminals sometimes use their illicit funds in a ‘recreational’ sense during the course of gambling sprees at casinos. This would not generally be seen as a vulnerability of casinos in terms of the potential for money laundering. However, it may constitute a money laundering offence in terms of the Proceeds of Crime Act or corresponding State or Territory legislation (sub. 43, p. 5).

And Star City Casino pointed out that:

Successive studies, including one by AUSTRAC, have demonstrated that money laundering and tax evasion through a casino is ineffective and therefore very limited. The casino accounting and payment systems are transparent and do not allow for the translation of large sums of money into a different, unrecognisable form (sub. 33, p. 24).

Nevertheless, participants at the Roundtable offered a range of opinions on the importance of money laundering in the gambling industry:

I’m convinced that cash in hand businesses launder money through clubs and casinos to avoid taxation.

I believe there is a substantial amount of money laundering but it’s from overseas. There are problems with people ... [from] South East Asia, Russia. There is also anecdotal evidence of drug dealers laundering money.

Betting turnover for greyhounds and trotting races doesn't indicate money laundering. Gallops still have a large turnover but there is no evidence that money laundering is prevalent.

People laundering money through the casino could be of some concern. Casinos don't want to shut off clients that are good for business... It is difficult to tell the level of laundering and how they are doing it. The concern is that they can avoid AUSTRAC by playing at different tables. We are concerned about junkets and money laundering. Junket operators deposit money in casino safety boxes, but there is no record of where the money withdrawn is going — on gambling or into other areas.

Our position is different... Chips outstanding are at low levels. The casino gives you a cheque for winning, the capacity to launder at a casino is impossible. Money is recorded overseas and it's difficult to see how junkets are laundering money.

The Commission is unable to reach any definitive conclusion on the extent of money laundering in the gambling industry. Different parts of the gambling industry appear to proffer different scope for laundering, and hard evidence of the extent of actual laundering activities is thin.

Nevertheless, from the evidence before it, the Commission is of the view that money laundering in the gambling industry in Australia is unlikely to be a major cost to society.

Control by organised crime

As noted earlier, there are long held concerns that organised crime syndicates exert significant influence or control over segments of the gambling industry.

Horse racing and casinos

ACIL, in its submission for major gambling providers (sub. 155), pointed out that, traditionally, concerns about organised crime involvement in gambling in Australia have focussed on race-betting and illegal gaming. It also noted that substantial government controls had been introduced to counter these problems:

There appears to be a widespread view amongst Australians that in the US gambling has long been associated with crime. Often these impressions are underscored by some awareness of the pre-1950s escapades of Melbourne off-course tote operator Mr John Wren (popularised in Frank Hardy's famous novel *Power Without Glory*, the subsequent defamation trial and the recent ABC TV series) and intense media interest in the findings of various committees of inquiry into corruption over the last few decades. In any case, there seems to be an enduring image of corruption associated with the history [of] betting and racing, and this is one of the reasons for the controls in place today ... (sub. 155, p. 108).

The clamp-down on off-course SP bookmakers and the emergence of state-run single totalisator businesses are two of the most obvious control actions governments have taken. Less well appreciated but equally potent have been the longer standing laws granting the Principal Race Clubs (and their trotting and greyhound equivalents) the sole rights to run race meetings where gambling is allowed. The limitations on poker machine numbers and the types of venues that may have them has been another key control (sub. 155, p. 112).

ACIL continued by pointing out that, ironically:

The worst crime in recent years has been associated with the unlawful administration and policing of gambling restrictions (sub. 155, p. 112).

Participants at the Roundtable observed that illegal gambling had declined recently:

In NSW, there are no longer any illegal casinos. It is believed that there are some SP bookmakers operating but they cannot be specifically named.

In South Australia, the TAB cut out a lot of SP bookmakers but it is naïve to say that they no longer exist. We are aware of a couple ... They exist because of better odds, no tax records, and there's money in it. Now it is more organised. The TAB has taken away the bottom end of the market.

In relation to the casino segment of the gambling industry, Star City Casino argued:

The infiltration of the casino industry by organised crime is now largely a thing of the past overseas and has never been a feature of the Australian industry...

The reasons for this are:

- Most casinos are now public companies and subject to all the checks and balances of the securities agencies, shareholders and the media.
- The regulatory controls on operations and on the probity of directors, managers, employees, associates and suppliers and the existence of a very large body of regulators makes this one of the most heavily supervised businesses in the private sector (sub. 33, p. 24).

In fact, to the extent that the operation of legal gambling helps to drive out illegal operations, it is plausible that legalisation has reduced the influence of organised crime.

The Commission has examined evidence of the extent of illegal gambling in Australia prior to, and since, the imposition of stricter controls and the liberalisation of legal gambling, in appendix O. Not surprisingly, hard data on illegal gambling is sparse, and any estimates must be treated with caution.

Based on available estimates, the Commission calculates that, at its peak in 1982-83, spending on SP bookmaking in New South Wales was around \$350 million, and around \$800 million Australia-wide (in 1997-98 prices). This compares to around

\$100 million in New South Wales by 1994-95. For illegal casinos in New South Wales, the Commission calculates that annual expenditure was around \$125 million in the mid 1970s (in 1997-98 prices), and would be much less, and possibly approaching zero, today. These declines in turn imply less scope for control by organised crime.

Based on available evidence, the Commission believes that the introduction of TAB and legal casino gaming would have displaced some level of illegal activity, but other factors were also at work and the evidence is ambiguous.

And at the same time, an apparent response to the liberalisation of legal gambling, and the police crackdowns on the illegal sector associated with it, has been greater penetration by organised crime in the remaining level of illegal gambling activity (appendix O).

Other gambling modes

Roundtable participants expressed more concern about the potential for organised crime penetration in clubs and pubs with gaming facilities than in casinos:

Those that control the cash flow should go through some sort of clearance, as they do in Victoria. In NSW, regulation is fragmented and needs reform. There is no auditing, and there are possibilities for skimming ... Earnings should be properly reported.

It was also noted that, as more venues with liquor licenses also establish gaming facilities, the opportunities for money laundering and criminal activities increase. The Commission is aware of concerns about the ownership of some venues; for example, hotels. One participant said that there needs to be ‘firewalls’ to stop people with criminal backgrounds gaining gaming licenses.

There was little concern in relation to lotteries, and a number of submissions from lottery organisations, normally government bodies, pointed to their strict controls and vetting procedures.

The Commission received very little information about the informal gambling sector — such as that which takes place in some ethnic communities around games such as mah-jongg, or informal betting in pubs and clubs — and so has no appreciation of any criminal activity that may or may not surround this sector.

Conclusion

From the evidence before it, the Commission is again unable to reach a definitive conclusion on the extent of organised crime in the gambling industry. The

unlicensed part of the industry would appear to proffer most scope for organised crime involvement. However, this is the case for the unlicensed segments of any industry. In this case, it appears that the extent of illegal gambling operations has declined over recent years, at least partly because of the growth in legal gambling opportunities. Other parts of the gambling industry may also proffer some scope for organised crime involvement, although the scope appears to vary from segment to segment, and hard evidence of illicit activities is again thin.

In terms of the legalised section of the industry itself, however, in the absence of substantive evidence to the contrary, the Commission's assessment is that liberalisation at the very least has not added markedly to problems of control and influence by organised crime.

Australia's strict probity rules are a key reason for this and, as discussed in chapter 16, the Commission considers that these rules need to be maintained and possibly widened in application.

10.3 Impacts on the 'nature' and 'feel' of community life

A further issue is the extent to which gambling changes the 'nature' or 'feel' of life in the community and, to the extent that it does, whether these changes generate social costs or benefits.

Several submissions argued that gambling does have such effects, primarily of the negative type. Gambling was said to have changed the nature of entertainment and recreation for the worse, and to have undermined norms of ethical behaviour that are vital for the functioning and wellbeing of our society — in effect, gambling was seen as unravelling the social fabric. Salt Shakers went as far as to assert:

Gambling offers nothing constructive in our society. It is psychologically addictive, socially corrupting, economically fruitless, politically irresponsible, intellectually irrational and morally bankrupt (sub. 170, p. 4).

However, other participants presented gambling as being essentially just another product, and that its expansion has been driven by the demands of the people themselves, through their role as consumers. For example, in a submission for Tattersall's, Access Economics said:

There is a general acceptance of gambling in Australia, and strong consumer demand. By meeting that demand, Tattersall's and other gambling providers are contributing to the consumer wellbeing of Australians (sub. 156, p. i).

Some of these participants suggested that many of the 'moral criticisms' of gambling simply reflect paternalism or social engineering on the part of the critic,

and have no relevance for the economic analysis of gambling (and should have no relevance for government policy). Indeed, according to ACIL:

Many organisations, and not just the churches, include a kind of ‘evangelical’ purpose amongst their objectives, and with regard to gambling as with other things, advice is always being offered by well-meaning people about how others should behave ... There are some who feel their own powers of persuasion should be backed by the coercive powers of the state. This is where zealots and ordinary Australians are likely to part company (sub. 155, pp. 83-4).

On the other hand, the Interchurch Gambling Task Force argued that it is the gambling industry itself, through its expansion, promotion and relationships with government, that is guilty of social engineering:

There’s a very strong argument that the industry itself is trying to socially engineer the culture of our community to divert and attract young people and others to gambling ... The churches have said quite clearly that, in terms of gambling, gambling is part of Australian life. But what we need to do in a sophisticated, mature society is to ensure that addiction — to alcohol, gambling, all these sorts of things — doesn’t become a destructive element so much that the very nature of our community fabric disintegrates (transcript, p. 383).

In this section, the Commission explores these issues under the following headings:

- services provided by community clubs;
- changes in the nature and provision of entertainment;
- changes in behavioural norms and social ethics; and
- psychological costs of living in a society that ‘condones’ gambling.

Services provided by community clubs

The gambling industries, particularly the community club sector, point to a wide range of benefits that they provide to local communities — benefits that are heavily dependant on the level of gaming revenues they derive from their patrons.

Participants from community clubs argued that they contribute significantly to the local region. As well as those in country towns, clubs are typically located in the outer suburbs of the major cities, and provide a range of services that are often poorly provided outside the city centre. In its submission, the Council of Community Clubs of Australia and New Zealand said:

More than nine million people from all walks of life are estimated to belong to the 5,600 plus Australian registered and licensed clubs.

To the individual patron, who may or may not participate in gaming activities, clubs offer a low cost, safe, controlled environment, providing facilities and support in

keeping with the club's objectives. To the larger community, the existence and continued good fortune of clubs means that provision of financial and in kind support often not readily available from alternative sources within the community, or at a regional or state level. Not only do clubs recycle their gaming surpluses into the community, but also they do so with a clear non-profit focus, responding to specific needs at a local level in a highly efficient and cost effective manner (sub. 63, p. 3).

In a submission to the Commission's draft report hearings, the Penrith City Council highlighted the role of clubs within its community:

There are approximately 30 registered clubs in Penrith. These clubs offer a diverse range of facilities and services from sporting and recreational pursuits such as golf and bowling clubs to clubs that have an entertainment/leisure focus. Registered clubs are an important part of the history and culture of Penrith as they fulfil many of the community service obligations that Council or other service providers are unable to deliver (sub. D244, pp. 1-2).

Clubs receive concessional tax treatment in almost all jurisdictions in recognition of the services provided, and their locally-owned non-profit status.

Clubs Victoria, formerly the Licensed Clubs Association of Victoria, commented on the importance of gambling in the provision of these services and facilities by local clubs:

Gaming revenue returns are essential to create, promote and subsidise the necessary facilities, services and welfare activities (sub. 90, p.6).

Similarly, Clubs Queensland indicated that more than 650 out of the 1100 clubs in Queensland have gaming machines, and that:

These Clubs now rely, to some extent, on the revenue from gaming machines to fund other operations and community service activities. Accordingly, licensed Clubs represent a component of the wider gambling industry, although they should not be considered in the same context as other sectors of the gambling industry, due to the community ownership of Clubs (sub. D273, p. 2).

The Commission accepts that the growth of gambling has enabled community clubs, at least in some jurisdictions, to increase significantly the quality and range of the facilities and services they provide. Indeed, the extra funds diverted to community service projects can be considered a social benefit of gambling, and the Commission has included it in its estimates of the benefits of gambling (chapter 5).

Further, it is interesting to note some differences in the focus of concerns about gambling in states like Victoria, where local (gaming machine) gambling is provided by a private duopoly (Tabcorp and Tattersall's), and New South Wales where local gambling is dominated by the community clubs. In Victoria, concern is

Box 10.2 The role of community clubs

The Club Managers' Association Australia and the Leagues Club Association of New South Wales (sub. 41, p. 4) said:

Clubs provide social, cultural and recreational facilities to millions of Australians, as well as extensive support to community and welfare groups.

Over 65,000 people are employed in clubs in New South Wales alone. Club employment is not confined to metropolitan areas. Clubs provide employment in regional centres and small country towns.

While banks and government agencies have withdrawn services from rural communities, clubs have continued to expand and refurbish facilities and provide services that are being lost to the local community.

Gaming is a vital component of the operations of most licensed and registered clubs in New South Wales, Victoria, Queensland, South Australia and the ACT.

It is estimated that in 1997 registered clubs in New South Wales provided \$155.1 million in community support. Clubs also invested \$280 million in non-gaming related buildings, facilities and equipment (sub. 41, p. 4).

The concessional taxation treatment and gaming privileges conferred on clubs in some states recognises the important contribution clubs make to members, local communities and regional development (sub. 41, p. 14).

The Associations (p. 14) also said:

In many municipalities clubs relieve the financial pressures on councils to provide social, sporting and cultural infrastructure. This contribution is particularly valuable in provincial towns, regional centres and the rapidly growing urban fringes of sprawling Australian cities.

Of the 1,500 registered clubs in New South Wales, 860 or 57% are located in rural areas. Registered clubs often play a very significant role in rural communities because there are fewer recreational services available.

The Associations also see clubs as providing a broader range of benefits to the local community (p. 14):

In every State Emergency Services Evacuation Plan in NSW registered clubs play a prominent role. In the recent Wollongong flood crisis, clubs in the Illawarra and southern Sydney provided shelter to thousands of evacuated residents and stranded commuters.

regularly expressed about the extent to which gambling expenditure results in money going out of the local community in the form of private profits and high State taxes. For example, Clubs Victoria (sub. 90) criticised arrangements for providing gaming machines in Victoria that 'directed wealth away from the community clubs.' In New South Wales, where the clubs retain most of the gaming revenue, and where they receive concessional tax treatment, concerns about money going out of the region are less prominent. Certainly, in New South Wales, local expenditure of gambling revenues is quite visible in the form of the growing size and improved facilities of the local clubs.

However, from a public policy perspective, the key question that arises is whether it is efficient for governments to ensure provision of these services by encouraging gambling (or providing clubs with a tax concession), rather than by directly funding them. In theory, governments should have a more comprehensive view of the needs of the wider community, and are subject to public scrutiny and review through the democratic process. Against that, some participants expressed scepticism about the reliability of government as an alternative provider of community facilities. These matters are taken up further in chapter 20.

Community attitudes to clubs are typically positive. For example, in a 1998 survey in Queensland of attitudes to the club industry, most respondents responded favourably to a range of questions on the role of clubs (table 10.1).

On *gambling* in clubs, however, the attitude was more ambivalent. While a majority considered that clubs were responsible in their provision of gaming facilities, a majority also considered that the clubs rely too heavily on gambling. This view was stronger among respondents who were members of clubs than among those who were not (CMP Marketing Services 1998, p. 52).

Table 10.1 Community attitude to clubs: Queensland, 1998
per cent

(n=1713)	<i>Strongly agree</i>	<i>Partly agree</i>	<i>Neither</i>	<i>Partly disagree</i>	<i>Strongly disagree</i>	<i>Unsure</i>
The Club Industry is vital for funding and provision of local sport	51	31	1	5	3	8
The growth in the number of Clubs since 1993 in Queensland has been bad for local communities	8	14	3	23	33	18
Generally Clubs care about their local communities	45	31	2	6	7	9
The Club Industry is responsible in their provision of gaming facilities to the community	29	28	2	11	17	14
Clubs have a tax advantage over other hospitality providers such as hotels and restaurants	19	12	1	4	5	59
Clubs provide vital employment and tourism opportunities in local communities	54	33	1	4	3	5
Clubs provide a safe environment for socialising and entertainment	60	26	2	4	4	5
Clubs rely too heavily on gambling	42	25	3	11	11	9
The Club Industry is vital for funding of community bodies such as hospitals, aged care, schools and welfare organisations	20	24	2	11	14	28

Source: CMP Marketing Services (1998) p. 73.

Changes in the nature, provision and utilisation of entertainment facilities and leisure activities

Some participants expressed concern about the changing nature of entertainment venues, such as hotels and clubs, or of the difficulties of providing 'healthier' community leisure activities in competition with gaming venues.

The large scale placement of gaming machines in venues can change the 'feel' or 'atmosphere' of a venue itself, by:

- visually crowding or, to some eyes, 'polluting' the venue;
- reducing space for other forms of entertainment in the venue, such as pool tables, dance floors or stages for bands;
- providing a different background noise or hum; and
- reducing the amount of chatter and interaction between patrons, as people will often be playing gaming machines solo rather than 'leaning against the bar'.

Greater expenditure within venues of gaming machines can also 'crowd out' other forms of entertainment that might be provided. For example, the Jazz Co-ordination Association (JCA) of NSW reported on how the spread of gambling opportunities had adversely impacted on the live music scene. The JCA recently instigated an industry wide survey through the NSW Musicians' Union, to assess trends in live music employment opportunities. It found that:

... the biggest single factor nominated in loss of employment was the installation of gambling facilities [in Sydney's pubs] ... The question which asked if the musician was aware of bands replaced by poker machines brought an affirmative answer from around 33 respondents [31 per cent]. Is it part of the image Sydney wishes to project that its only pub recreation is gambling? Local music is a vibrant presence in the world's great cities. On present trends, Sydney will soon have none (sub. 159, pp. 7-9).

Further, by soaking up patrons' leisure time and discretionary cash, gambling can lessen the demand for other community activities, with possible implications for the nature and feel of community life. As Moreland City Council stated:

We would have a very vibrant lively community and we [in the Council] feel thwarted by the fact that we go to enormous efforts to provide all sorts of other things for people to do and value social capital, community participation, to address social isolation, and we have these [gaming] venues that seem to bring in the opposite result from the sort of values that we're trying to create in building social capital.

I think on a number of levels, [gambling] is misleading in terms of what gain you would get from it in terms of social connectiveness, that while there are other people around you, it's actually a very solitary kind of activity and there are other beneficial ways of connecting into our community other than going to one of those venues.

We do the best that we can to promote our services, to identify the services and create them and so forth, but when you look at the concentration [of gaming venues in the area]..., there's a heck of a competition there for people's attention and I think it takes more to get people involved in some kinds of other leisure activities than to simply walk into a hotel that's down the street. So there is a sort of mismatch between what you can get people involved in (transcript, 1293).

Clearly, to the extent that the nature of entertainment venues change, those who preferred the venues in previous form, including the type of entertainment they provided, will be worse off. This is no doubt the reason that some venues have decided not to introduce gaming machines, as certain clubs in Port Augusta have done (box 10.9 in section 10.5).

Likewise, people who would otherwise be able to enjoy the services provided by alternative leisure or entertainment facilities, and enjoy the camaraderie involved, will be disadvantaged to the extent that the growth of gambling diverts potential patrons away from other facilities and activities, and thus renders them less viable or attractive.

On the other hand, many of those who prefer the new facilities or the new activity of gaming will be better off.

Further, it should be recognised that many people may decidedly appreciate the ease of accessing gaming machines — which require 'simply [a] walk into a hotel that's down the street', as Mooreland Council put it — and some may simply not want to participate in 'community' activities. Indeed, Clubs Victoria indicated that one of the attractions of gaming for some people is that it actually is 'simple, unstimulating and non-interactive' (transcript, p. 1309).

In any case, there is evidence that the placement of gaming machines in certain venues has enticed a wider range of people, including otherwise housebound people, to travel to, utilise and enjoy the facilities and the particular type of social interaction they allow. In the various surveys of both metropolitan and regional consumers in Victoria conducted for the VCGA, people were asked what they saw as the benefits provided by local gambling facilities. According to the study on the *Impact of Gaming Venues on Inner City Municipalities*:

... EGM venues have almost achieved the status of community centres - pleasant places to go to meet and socialise with friends for reasons that have little or nothing to do with EGM usage or where EGM usage is a minor feature of the range of reasons the venue is used. It is also apparent that the comfort and ambience of such venues is very attractive and that good food, in particular, is an incentive.

The *impression* is that it [EGM usage] is largely a new audience, that it is a previous 'stay at home' audience is now a 'going out' group. This appears to be especially so in the case of the unemployed, women, the newly retired and elderly, NESB migrants and

the disabled for whom there are very few non gambling based community social and cultural alternatives and for whom community centre services have been reduced in recent years (MIAESR, DHSA and NIEIR 1997, p. 168).

And in a study of women with gambling problems, Brown and Coventry (1997, p. 70) reported the attractiveness of the venues as:

... an escape from reality to a place where they could feel safe and ‘belong’. Attention given by friendly staff and gaming venue managers can alleviate feelings of loneliness and isolation; staff smile and appear to go out of their way to pay attention to patrons. ... it is significant that the venues were perceived as pleasant environments in which women could, in turn, be supported or served by gaming venue staff.

How should the benefits for those who prefer the new, post-liberalisation style of venues and range of activities be weighed against the costs for those who preferred the style and range that previously existed?

Normally, shifts in the nature of products and activities available to the community, in response to changing consumer demand, relaxed government regulation or new innovations, are not seen as detrimental. Rather, they reflect a re-organisation of market activities to best meet the overall pattern or range of consumers’ preferences. This does not imply that everyone’s preferences will be perfectly catered for. What it does point to, however, is that such changes are likely to increase the fulfilment of people’s preferences *in aggregate*. As Access Economics, in a submission for Tattersall’s, said:

The vast majority of Australians have enjoyed gambling in moderation for decades. To the extent that they have increased their participation in some forms of gambling in recent years, this mainly represents the free exercise of consumer choice in response to changing product availability and innovation in the gambling market (sub. 156, p. i).

And the Australian Hotels and Hospitality Association added:

... this new product [gaming] represents a new and popular form of entertainment. Just as television did before it, and electronic games, and credit cards, and the internet, they all effected cultural change (sub. 154, attachment 3, p. 8).

So, while recognising that some people will lose out from the process of ‘structural adjustment’ within the entertainment and recreation sphere, the Commission does not see this in itself as embodying a net social cost.

Changes in behavioural norms, social ethics and personal preferences

Another concern is that the expansion of gambling has changed, and is continuing to change, the behavioural norms and social ethics of society that influence and underpin people’s broader behaviour.

Several submissions suggested that gambling can, among other things, undermine the work ethic, family values, healthy lifestyles, altruism, volunteerism and trust. For example, the Lutheran Church of Australia said:

Gambling encourages greed in people which results in a hard-hearted spirit and lack of concern for other people. Gambling connects greed, self-focus and lack of concerns for others — that is its nature (sub. 85, p. 1).

Salt Shakers added:

The promotion of gambling as a way of increasing one's wealth without effort is detrimental to the value system of our nation because it is based on greed at other people's expense (sub. 170, p. 2).

The Festival of Light (SA) referred to a concern that gambling “corrodes the initiative, inventiveness, diligence and thrift that are requisite for economic success in a free society” (sub D213, p. 4):

Likewise, the Interchurch Gambling Task Force stated:

... gambling corrodes social capital. It actually runs down civil society. It actually spends a lot of the trust, the values that say hard work and saving is preferable to a quick return on the pokies or on the roulette wheel or at the lottery. Whilst those pleasures are entirely acceptable and we're not trying to prohibit them, they also have cultural effects. They actually have an impact on society (transcript, p. 1645).

And according to the National Council of Women of Victoria:

Adolescents and their younger siblings are receiving sad messages from the modeling of many parents — that chasing that win is more important than the school or birthday outing; that time sitting in front of a machine and feeding it coins and notes by the hour is more important than spending time as a family at home or going out for a walk or to kick a ball; and that it's OK to lie about where you have been and where you got the money from (sub. 140, pp. 6-7).

From an economic viewpoint, behavioural norms and social ethics are of interest as they feed into people's preferences and, ultimately, have an impact on their actual behaviour. For example, societies in which people have a strong work ethic are likely to produce more than societies that do not. And there is likely to be more violence in societies in which violence is an accepted way of settling disputes and grievances than in those in which it is not ethically condoned. Obviously, a strong work ethic might be seen as leading to a 'good' outcome, at least up to some point, whereas a norm of violence might be seen as leading to a 'bad' outcome.

To what extent should the way that activities, such as gambling, affect people's norms and ethics be the subject of policy action by governments?

If governments could put appropriate controls in place to deal with any and all socially deleterious behaviour, such as violence, there would be no need for them to interfere with people's norms and ethics.²

In practice though, it is not possible to perfectly regulate people's activities and actions. For example, it is costly to detect and penalise all perpetrators of violence, and current sanctions do not deter all violence, so much violence continues.

This implies that there may be a case from the viewpoint of economics (broadly understood) for governments to influence people's norms and ethics, or at least to remove or curtail influences that distort them, to avoid bad social outcomes. For example, it is likely to be more efficient to inculcate non-violent attitudes in children, than to incarcerate them for crimes of violence when they are older.

This in turn implies that such matters potentially should be incorporated into policy advice provided to governments.

However, there is little agreement as to which norms or ethics are beneficial and which are not, and how beneficial or deleterious they might be. Most people would probably agree that a norm of violence was unlikely to be constructive for a society. But not everyone would agree that either 'family values' or 'the work ethic' — however they might be defined — are meaningful or appropriate norms or ethics for life in the next century. Likewise, some people might see trust in government and social institutions as a good thing *per se*; others might suggest that it is better that people form *accurate* perceptions about the level of trust those institutions warrant, rather than placing unwarranted (high) trust in them.

Further, it is difficult to determine the extent to which gambling may lead to an erosion in particular (good) norms or ethics and, in turn, the impact that erosion would have on community wellbeing.

There has been some research overseas on the effects of changes in norms, ethics and preferences on social outcomes. For example, Titmus (1971) analysed the effect of crowding out altruism with self-interest in the case of blood donations in the United States compared with Britain, and Putnam (1993) has examined the effects of different civic-traditions on various social and economic outcomes in Italy. Both these studies suggest that changes in people's norms, ethics and preferences can have substantive effects. Further, a survey of 100 charities in Ireland found that, after the introduction of the Irish Lottery: '... in many instances, the public were

² This is akin to the argument, in relation to environmental protection, that if perfect 'end-of-pipe' regulation and controls could be put in place to ensure that no undue pollution occurs, there would be no need for 'upstream' regulation of businesses inputs or processes, such as mandating 'clean' production technologies

more reluctant to donate, and desired some form of return for their donation such as a novelty trinket or item such as a pen.’ (Kiernan and Harvey 1993, cited in DFSAIA 1995, pp. 63-4).

What about gambling in Australia? At its initial public hearings in Melbourne, the Commission heard that the growth in gambling is undermining traditional arrangements for pooling funds within some ethnic communities, which is creating tensions and potentially leading to a breakdown in trust and community relations (Broadmeadows Care, transcript, p. 559). At the public hearings on the draft report, Moreland City Council (transcript, p. 1293) stated that gambling had displaced other community activities which could enhance what it termed ‘social connectedness’ (see above).

But while several participants asserted that gambling is having deleterious effects on norms, ethics and preferences, the Commission received little specific evidence on, for example, whether gambling had reduced the level of volunteerism in Australia, or how it has affected community norms. Further, the Commission is unaware of any comprehensive or robust study that looks broadly at the effects of gambling on norms, ethics or social cohesion.

This is not entirely surprising, as such concepts are quite nebulous and intangible, and attributing changes in them to one factor among many possible causes would be hazardous. This is not to say that these impacts are not real or do not matter, just that they are difficult to delineate and measure.

In the past, governments have restricted gambling largely because of community concerns about these types of effects. More recently, governments have faced competing incentives to restrict gambling, and these issues appear to have been given (relatively) less weight than they previously were. However, the pervasive community concerns about gambling do not appear to have diminished as liberalisation has progressed.

Overall, while the Commission recognises that gambling may indeed generate (potentially substantial) social costs through its effects on people’s norms, ethics and preferences, it is unable to determine just how significant or pervasive these impacts may be.

Psychological costs of living in a society that ‘condones’ gambling

Related to the foregoing is that some people may feel bad just from living in a society that ‘condones’ gambling or, at least, from living in a society in which gambling is seen to be encouraged and expanding, even though they need not and do not engage in gambling themselves. For them, a gambling venue may be a sign

of a degenerating society and may cause them feelings of regret, frustration or ‘disutility’. Glitzy gambling advertisements, and negative reporting of gambling and gambling-related problems in the media, may add to these feelings. Such feelings would not be unlike those feeling some people experience in relation to the existence of prostitution or, in a different way, poverty in our society. They are the converse of the pleasure or satisfaction some people gain just from knowing that a place like Kakadu exists and is protected, even though they may never visit it.

On the other hand, some people may gain psychological benefits from the presence of gambling. They may feel that it adds to their entertainment choices, even though they may not take up those choices. People with libertarian ideals may also feel better just knowing that gambling is not prohibited. And some participants suggested that, as a result of the promotion of gambling by governments in some states recently, people could gain an almost patriotic feeling by gambling (or the absence of one by not doing so).

To the extent that people feel good or bad about gambling’s presence and/or prevalence in society, the existence of gambling can be said to result in ‘external psychological benefits or costs’ on them. Because these impacts are ‘externalities’³, they are *potentially* relevant matters for government policy.

It is difficult to quantify the extent to which individuals incur these types of impacts from the existence of gambling, and how broadly they occur within the community. Surveys on public perceptions to gambling may provide an indication. however.

Public perceptions of gambling

As part of the Commission’s *National Gambling Survey*, participants were asked whether they agreed or disagreed with the statement “gambling does more good than harm for the community”. The results are set out in tables 10.2 and 10.3.

Most people thought gambling harmful overall. Around 70 per cent disagreed (most disagreed ‘strongly’) with the statement, compared with only 15 per cent who the agreed (most only ‘slightly’). Not surprisingly, regular gamblers were less critical of the effects of gambling than non-regulars, who in turn were less critical than non-

³ These impacts are said to be ‘external’ because they are external to the parties that generates them — the gambling industry and its patrons. As discussed in chapter 4, external benefits and costs are relevant for the analysis of government policy as they cannot be adequately captured and dealt with through normal transactions among people and businesses in the market place. Psychological costs incurred by gamblers from their own gambling are not external costs.

Table 10.2 Perceptions of the net benefits of gambling, by type of gambler^a
per cent

	<i>Strongly agree</i>	<i>Slightly agree</i>	<i>Neither agree nor disagree</i>	<i>Slightly disagree</i>	<i>Strongly disagree</i>	<i>Don't Know/ Can't say</i>	<i>Total</i>
Regular	6.1	17.3	14.6	27.8	33.2	1.1	100.0
Non-regular	3.1	11.8	13.4	25.9	43.9	1.8	100.0
Non-gambler	5.1	5.6	4.4	14.0	68.7	2.3	100.0
Australians	3.8	11.2	11.9	23.9	47.4	1.8	100.0

^a Based on the question: What do you think of the statement that overall, gambling does more good than harm for the community?

Source: PC National Gambling Survey.

gamblers. Nevertheless, even among regular gamblers, a significant majority disagreed that gambling does more good than harm for the community.

The responses across states were moderately consistent (refer to table 10.3). South Australia (85 per cent) recorded the highest proportion of respondents that disagreed with the statement, with 64 per cent of South Australians strongly disagreeing. More than 70 per cent of respondents in New South Wales, Victoria, Tasmania, the Australian Capital Territory and the Northern Territory also disagreed with the statement. People in Queensland and Western Australia disagreed to a slightly lesser extent, the lowest score being 64 per cent in Queensland. This represents a 20 per cent spread in the number of respondents that disagreed with the statement in different states, although this figure drops to around 12 per cent when the highest and lowest scores are excluded.

Table 10.3 Perceptions of the net benefits of gambling, by state^a
per cent

	<i>Strongly agree</i>	<i>Slightly agree</i>	<i>Neither agree nor disagree</i>	<i>Slightly disagree</i>	<i>Strongly disagree</i>	<i>Don't Know/ Can't say</i>	<i>Total</i>
NSW	3.4	10.5	12.5	21.6	50.8	1.2	100.0
VIC	3.0	12.5	10.3	27.5	44.4	2.2	100.0
QLD	6.2	13.2	14.8	24.4	39.4	2.0	100.0
SA	3.0	6.9	4.0	20.6	64.0	1.6	100.0
WA	4.0	11.3	14.9	22.6	44.8	2.5	100.0
TAS	2.8	8.3	8.9	28.3	49.6	2.2	100.0
NT	2.4	8.1	17.2	23.0	47.9	1.5	100.0
ACT	2.2	12.6	11.2	28.9	41.5	3.6	100.0
Australia	3.8	11.2	11.9	23.9	47.4	1.8	100.0

^a Based on the question: What do you think of the statement that overall, gambling does more good than harm for the community?

Source: PC National Gambling Survey.

New South Wales was in the middle of the group. This is surprising given that poker machines were introduced there in 1956, long before the other states. This tends to suggest that people have not become more accepting of gambling with lengthened exposure to it. On the other hand, gaming machines are also far more pervasive in New South Wales than in other states, potentially confounding this conclusion.

The results of the Commission's survey are largely in line with the results of some other domestic surveys on people's perceptions (box 10.3). Three of the four Australian studies reported in the box found clear majority agreement with the view that gambling has adverse impacts on society (or words to that effect), the other study being inconclusive.

The results of a New Zealand survey also suggest broad concerns towards gambling (box 10.4), whereas Americans appear much less concerned about the community impacts of gambling and, in a number of cases, are reported to generally approve of gambling in their communities (box 10.5). That said, the Commission has not closely vetted these foreign studies.

Box 10.3 Perceptions of gambling by Australians in other surveys

- A study on *The Impact of Gaming Venues on Inner City Municipalities* in Melbourne found that individuals reacted more negatively than positively to the impact of gaming machines (MIAESR *et al* 1997). There was little support for claims that gaming machines achieve good rather than bad impacts, except from the hotels and clubs directly benefiting from them. The number of individuals who claimed their lives had been improved by 'wins' was relatively small and it appeared that many of them lost this money through renewed 'investment' in gaming machines.
- A survey of 58 South Australian local councils found that 82 per cent thought that the impact of gaming machines on their community was negative (sub. 171). About 30 per cent thought there was a 'severe negative impact' on their community and 50 per cent said that there was a 'moderately negative impact'. About 20 per cent of councils had received reports from members of their community on the negative impact of gaming machines. About 80 per cent of councils thought that the impact of gaming machines on the community requires greater analysis.
- A VCGA commissioned *Second Positive and Negative Perceptions of Gambling Survey* (Dickerson and Market Solutions 1997, p. 71) found *strong* agreement amongst survey respondents that "gambling is a serious social problem" and that "gambling related problems have got worse over the last four years". However, there was moderate agreement amongst them that "on the whole, gambling is an acceptable activity in our community".

continued

Box 10.3 continued

- The Boroondara Gambling Impact Study found that community attitudes to gambling are ambivalent (sub. D207). Many interviewees were not against gambling on moral grounds and considered gambling a matter of free choice. However, some interviewees suggested that gambling activity had adverse effects on Victoria and the local community. The facilitator of a migrant womens' support group reported that group members considered gambling to be 'bad for society'. Casinos were seen as anti-social and unsavoury: 'Interaction is with money and not people'.

Box 10.4 Views across the Tasman

- A New Zealand survey of *People's Participation In and Attitudes Towards Gambling* found some forms of gambling to be 'socially undesirable' (Department of Internal Affairs NZ 1996). Two thirds of respondents considered telephone games to be socially undesirable and about half considered betting with bookmakers to be socially undesirable. Slightly over one third thought casinos, gaming machines, sports betting, and overseas lotteries were socially undesirable. In addition, almost two thirds of respondents wanted gambling specially regulated. That is, gambling should be regulated differently to other businesses and forms of recreation. The main reasons were to prevent criminal activity, to make profits fund worthy causes, to protect people who could be harmed and to make sure gaming is run fairly.

Box 10.5 Perceptions in the USA

- The *Gambling in America* survey found that 63 per cent of adults surveyed approved of legalised gambling but have reservations about the impact of legal betting on sports events and the effect of casinos on local communities and youth (Gallup Organization 1999). There was *moderate* agreement amongst them that "on the whole, gambling is an acceptable activity in our community".
- A US survey on *What Iowans Say About Gambling* found that opposition to gambling depended on certain demographics (The Iowa Stater 1997). Women surveyed were more likely to oppose gambling (37 per cent) than men surveyed (25 per cent). About 40 per cent of those over 30 years of age and 11 per cent of those 18 to 29 years of age opposed gambling.
- A US survey of *Casino Entertainment* found a high level of acceptance of gambling by the American public (Harrah Entertainment 1997). Ninety two per cent of survey respondents indicated that casino entertainment is acceptable for themselves and others. Seventy per cent of Americans said that casino gambling can be an important part of a community's entertainment and tourism offering. Eighty-one per cent of Americans said that casino gaming can be a 'fun night out'.

continued

Box 10.5 continued

- A questionnaire on *Attitudes of Community Leaders in New Casino Jurisdictions Regarding Casino Gambling Effects on Crime and Quality of Life* in the United States found that:
 - 65 per cent believed that casinos had a positive effect on the quality of life in their community;
 - 77 per cent believed that casinos benefited their community; and
 - 59 per cent were in favour of a casino being in their community.

The survey interviewed community leaders (majors, members of the city council, leading members of the business community) or people who work in areas (banking, law enforcement, social services) which provide an insight into the positive and negative effects that casinos have on communities. The study noted that the attitudes of community leaders may be swayed by them playing a prominent role in permitting casino gambling in their community (Giacopassi et al 1999).

Are there psychological costs?

The results from the Commission's survey provide a possible indicator of the psychological effects of gambling. The results would directly convert into psychological costs to the extent that people's perceptions about gambling affect the way they feel.

However, negative perceptions elicited from surveys do not automatically translate in psychological costs from the existence and prevalence of gambling. This is because people on a day-to-day basis may not give any particular attention to gambling and its effects.

Further, while Australians generally hold negative perceptions about the impacts of gambling, survey evidence also suggests that people may also incur adverse psychological costs were it to be curtailed. Among respondents to the *Second Positive and Negative Perceptions of Gambling Survey* (Dickerson and Market Solutions 1997, p. 71), for example, there was moderate agreement amongst them that 'on the whole, gambling is an acceptable activity in our community'. Respondents to several of the US surveys also agreed with this or similar notions (probably reflecting, at least in part, a greater prevalence of libertarian views in the United States than in Australia).

Overall, the Commission recognises that some people probably do experience some psychological costs from the existence of gambling, and that these constitute a form of social cost. However, although it is unable to determine how extensive they are,

it does not believe that they would be significant compared to the other costs and benefits that flow from gambling.

10.4 Sectoral impacts of the growth in gambling

The dramatic increase in expenditure on gambling over the last five or so years in Australia represents a significant shift in resources within the economy, and inevitably involves benefits for some industries and costs for others.

The benefits to the gambling industries, their suppliers and governments are clear enough. Chapter 2 has documented at length the growth of gambling in Australia — the industry now employs over 36 000 people and has an annual revenue of over \$11 billion. State and local government now receive almost \$4 billion per annum in gambling taxes.

As discussed later, industries that provide complimentary consumer products and services to gambling, such as clubs, dining and accommodation venues, have also benefited.

On the other hand, industries that compete with gambling for the consumers dollar will have experienced contractionary effects, although this loss has been spread across a wide range of consumption items, and the impact has been softened by the long-term decline in savings in Australia.

In submissions to this inquiry, participants raised concerns about the effects of the rapid expansion in expenditure on gaming machines and casinos on two specific areas:

- the retail sector; and
- traditional forms of gambling, such as racing and lotteries.

Some participants also advocated government action to halt or reverse these effects.

In this section, the Commission examines the impact of new gambling on these other areas and looks at the implications for government policy.

Impact on the retail sector

A number of studies have been conducted into the impact of gambling liberalisation on the retail sector. Many of these rely on anecdotal assessments by retailers themselves. Others involve broader economic assessments and modelling.

Survey and anecdotal evidence

Over the period 1995 to 1997, the Small Retailers Association of South Australia conducted several surveys which, among other things, asked retailers for their perceptions of the impact that gaming machines were having on their businesses. Box 10.6 contains the results of the relevant survey questions.

These surveys consistently indicated that around 2 in 3 small businesses considered that they had been adversely affected by the introduction of gaming machines. The latest survey indicated that almost 40 per cent reported a major negative impact, with a similar number reporting a minor negative impact.

In 1999, the Local Government Association of South Australia surveyed local governments about their views on the impact of the expansion of gambling. The survey found that:

A significant majority (82%) believe that the impact of gaming machines on their community has been negative or severely negative. Significant [adverse] impacts have been observed by Councils on community/sporting clubs (unable to compete against clubs with pokies - 68% indicating medium or higher impact), local businesses (65% indicating medium or higher impact) and decline in local sponsorship (60% indicating medium or higher impact) (sub. 171).

In its submission to this inquiry, the Logan City Council in Queensland, where gaming machines have increased from 74 in 1992 to 881 by 1997, said:

... in the Council's ongoing liaison with gaming venues, small business owners and community welfare organisations, we have become aware that concerns about both the social and economic impact have been growing. ... Council suspects that there has been an impact resulting from changes in the way the community is directing its

Box 10.6 The impacts of gaming machines on small retailers in South Australia

January 1995: When asked the question "Has the introduction of the 'pokies' affected your turnover?", 67.4 per cent reported a decline, this decline averaging 7.8 per cent.

October 1995: When asked "What impact has the Pokies had on your turnover?", 90 per cent of food retailers, and 81 per cent of non-food retailers, reported a decline.

May 1996 When asked the impact of gambling in their business, 67 per cent reported a considerable impact, and 17 per cent reported some impact.

September 1997: When asked whether gambling had a positive or negative impact on their business, 38 per cent reported a major negative impact and 39 per cent reported a minor negative impact.

Source: Small Retailers Association of South Australia 1995a, 1995b, 1996, 1997

discretionary income. However, these links are hard to substantiate because of the complex mix of factors involved (sub. 66).

Several Victorian participants, notably the City of Greater Dandenong (sub. 82), the Darebin City Council (sub. 150) and the Maribyrnong City Council (sub 39), expressed similar views. The latter said:

Local traders have also increasingly provided anecdotal reports of decreasing demand attributed to the impact of EGM gambling (sub. 39, p. 1).

...Council is particularly concerned at the impact that high levels of gambling expenditure may have on local economic activity and is seeking to develop an understanding of that impact (sub. 39, p. 12).

The Boroondara Gambling Impact Study (sub. D207, p. 4) also identified perceptions that businesses were suffering due to a redirection of funds to gambling, although it noted that this was by no means unequivocal or evident across the whole of the municipality.

These results need to be treated cautiously. As most of the participants acknowledge, much of this evidence of adverse effects of gambling liberalisation on other retailing activity is anecdotal. Given the recent visibility and profile of gambling in the community, it would not be surprising if some retailers were to attribute difficulties they are facing to the introduction of gambling, even if other factors were responsible.

Indeed, as argued in a recent South Australian study (which concluded that the introduction of poker machines had not had significant impacts on the retail sector):

It is clear that large numbers of [retail] operators believe their business has been hurt significantly, and this shows up through surveys conducted by the Small Retail Association. For some individual operators faced with direct competition from poker machines, this is undoubtedly true. For some individual households there are undoubtedly problems in dealing with excessive expenditure on poker machines, which limit their spending power in other areas. But in general, the introduction of poker machines cannot be seen as having a pervasive effect (sub. D231, att. 2, pp. 14-15).

There has been a much longer trend in the decline in expenditure on retailing. As the Australian Retailers Association said:

The trend over the past two decades at least, is that retailing has lost its 'market share'. In 1973-74 retailing attracted 43% of total consumption expenditure. This had declined to 36% by 1993-94 (sub. 93, p. 4).

While many areas increased their share of the consumer's budget, notably housing followed by income tax and entertainment/recreation, the Association commented:

Putting aside major items such as savings and income tax, which are largely influenced by government policy, and other items over which retailing cannot easily influence by competition, (housing rent, education and health) the key sources of expenditure which are impacting on the retail industry are entertainment including the increasing presence of gaming (sub. 93, p. 7).

While this is undoubtedly true, as the Association's submission indicates, retailing has lost 7 percentage points of 'market share' while entertainment/recreation (of which gambling is a part) increased its market share by only 1.6 percentage points. Hence, retail decline is mainly due to factors other than the growth in gambling.

Nevertheless, the Association concluded:

Spending on gambling continues to impact negatively on traditional areas of retailing expenditure and continues to place great strain on the viability of many once profitable businesses (sub. 93, p. 7).

The 1997 Victorian study

In Victoria, the VCGA commissioned a study into the impact of the expansion of gaming from 1990 to 1996 on the Victorian retail sector (NIEIR and Spiller Gibbins Swan 1997). The key findings of that study are presented in box 10.7.

The central finding was that the expansion of expenditure on gambling in Victoria had occurred at a time of a large fall in the level of savings in the State, and that expenditure on other retail activity had continued to rise over the same period. The study concluded that the expansion of gambling had been funded by the decline in the level of savings rather than a switch in expenditure from the retail sector.

While gambling may⁴ not have caused a reduction in actual retail expenditure in Victoria during or immediately after its introduction, the Commission does not believe that this result can be generalised to suggest that an expansion in gambling comes at no cost to other retail activity. All products and services compete for a share of the consumer's budget. Unless there is a permanent shift in the savings rate, the growth in expenditure on one product or service generally must be at the expense of expenditures on others, whether it be in the form of an actual decline in retail spending or a slower growth in retail spending than would otherwise have happened. And even if there is a permanent shift in the savings rate, this can be

⁴ The Australian Retailers Association has raised questions about aspects of the Victorian study. The Association noted (sub. 93, pp. 10-11) that the data used for retail turnover actually contains some expenditure on gambling, in businesses such as clubs, hotels, taverns and newsagents, and thereby inflates the actual (non-gambling) level of retail expenditure.

expected to have adverse effects on other economic variables, such as interest rates, which will ultimately find their way back to the economy in the form of reduced demand for other goods and services. Only if the increase in gambling caused a significant and sustained increase in economic growth, sufficient to offset the switch in market share away from other retail spending, would other retail sectors be better off. The Commission sees no reason to believe that this would be the case.

**Box 10.7 The Impact of the Expansion of Gambling
on the Victorian Retail Sector**

The study examined trends over the period 1990 to 1996. The key findings were:

- Whilst the growth in gambling expenditure in Victoria between 1990 and 1996 was stronger than the growth in expenditure on retail goods and services, at the state level, this appears to have been funded through a reduction in savings.
- Victorian gambling expenditures rose from 1.4 per cent of household income in 1990 to 3.3 per cent by 1996. Measured on the same basis, Victorian retail expenditure rose from 35.9 per cent in 1990 to 38.2 per cent in 1996. Services excluding gambling rose from 52.2 per cent in 1990 to 55.0 per cent in 1996.
- The experience in Victoria is mirrored across other states where gambling expenditure rose strongly. Household savings declined and retail and services increased their share of household income concurrently with the gambling industry.
- In Victoria, during the period (from 1992-93 to 1995-96) when gambling expenditure gained its largest increase in household income (1.6 per cent to 3.3 per cent), the share of household income allocated to expenditure on retail goods grew more strongly rising by 2.4 per cent.
- It appears that services were hardest hit by the expansion of gambling expenditure, with that category's share of total household sector outlays declining by almost 3 per cent from 1992-93 to 1995-96. Expenditure on motor vehicle purchases and dwelling rent collectively lost 1.9 per cent of total expenditure share.
- The retail sector is currently experiencing particularly dynamic and volatile trading conditions. In this turbulent environment it is difficult to ascribe particular negative retail trends to the recent and on-going increase in gambling opportunities.
- While at the state level there is little evidence to suggest that increased gambling expenditure adversely affected the retail industry generally, on a geographical basis some areas and industries in Melbourne and Victoria have probably been affected.
- The long run impacts of increased gambling on retailing may be much more severe. In previous recessions in Australia, lower savings have supported household expenditure and retail sales than what would otherwise have been the case. To the extent that lower savings have financed increased gambling expenditure, part of the cushion to consumption expenditure in the next recession has been removed.

Source: NIEIR and Spiller Gibbins Swan 1997

Indeed, the Victorian study recognised that:

The long run impacts of increased gambling on retailing may be much more severe. In previous recessions in Australia, lower savings have supported household expenditure and retail sales than what would otherwise have been the case. To the extent that lower savings have financed increased gambling expenditure, part of the cushion to consumption expenditure in the next recession has been removed (NIEIR and Spiller Gibbins Swan 1997, p. iii).

Economy-wide modelling results

General equilibrium modelling (discussed in chapter 5) is a more sophisticated tool for gauging the impact of increases in gambling activity on different sections of the economy. This method is able to account for economic linkages between different industries.

Table 10.4 contains the results of modelling simulations presented by ACIL and CIE in submissions to the inquiry, and those prepared by Econtech. The Commission has reconfigured the CIE and Econtech results so that all three show the effects on other industries of an *increase* in the extent of gambling.

As would be expected, the gambling industries and those industries with a significant component of gambling included in them expand the most, while recreation and a range of retail activities which compete with gambling for the consumers' dollar are the principal areas of contraction.

That said, the decline in these sectors is relatively small compared with the increase in gambling. The CIE model simulation, for example, suggests that for every 10 per cent of growth in gambling, retail trade will contract by about only 0.2 per cent, in the short run. And the Econtech simulation suggests that a 26 per cent expansion in gambling would result in a contraction in the retail sector of only a 0.5 per cent, in the long run.

While the impact of increases in gambling expenditure on other retail business cannot be determined precisely, the Commission considers that it will generally be negative, although limited.

Nevertheless, some contraction or restriction in growth will occur, and some participants expressed concern about this switch in economic activity. What implications should this have for government policy?

Such 'structural' changes *of themselves* are a normal part of the business environment. Consumer demands are always changing. New products and technologies displace old ones in the consumption basket, and more efficient and/or

better focused suppliers displace those that are not. In most cases, consumers presumably make these changes in their consumption patterns because they value the new product or service more highly than the old. In a market-based economy, business is generally expected to adjust to these changes in consumers purchasing patterns. Except in exceptional circumstances (chapter 4), there is no economic rationale for governments to intervene to override changes in the pattern of goods and services that producers provide and consumers seek.

Table 10.4 Industries most affected by an increase in the size of the gambling industries
percentage change

<i>Industry</i>	<i>CIE</i>	<i>ACIL</i>		<i>ECONTECH</i>
	<i>1% increase in gambling^a</i>	<i>50% reduction in gambling taxes</i>		<i>abolition of gambling taxes^a</i>
	short run	short run	long run	long run
<i>Industries that gain the most</i>				
Gambling and recreational services	1.000	2.09	2.66	26.3
Sports clubs		0.53	0.63	
Accommodation, cafes and restaurants	0.318	0.38	0.44	4.5
Other cultural and recreational services	.046			
<i>Industries that lose the most</i>				
Sport and recreation	-.0208			
Wine and spirits	-.0191			
Beer and malt	-.0175			
Retail trade	-.0162			-0.5
Active recreation		-0.25	-0.15	
Organised sport		-0.20	-0.15	
Furniture		-0.15	-0.13	
Household appliances		-0.10	-0.10	
Ownership of dwellings				-0.7
Cultural and recreational services				-0.4
Finance and insurance				-0.4

^a The results from the CIE and Econtech have been reversed to represent the impact of an increase in gambling activity

Source: CIE, sub. 111; ACIL, sub. 155; ECONTECH (1999)

Policy implications

That said, there would be a case for examining government policies if such changes are the result partly or wholly of discriminatory policies that favour the expanding industry at the expense of others. The Australian Retailers Association raised the question of different operating rules (such as different opening hours) for businesses

competing against gaming venues, which typically operate under a more liberal regime. The Association said:

Competition with the gaming industry has been introduced and fostered by state governments. Ironically, however, as evidence of the lack of forethought that has gone into the planning process, state governments' policies also retard the retail industry's capacity to compete. This is particularly the case when such policies place arbitrary restrictions on when shops may open and close (eg Sundays) and what producers may sell (eg liquor) (sub. 93, p. 7).

Further, there may be a case for governments to intervene to deal with the pace of change. In some jurisdictions, gambling has expanded rapidly, giving existing businesses less time to adjust to competition and changing consumer buying patterns. This problem may have implications for government policy, particularly when the speed of change results not from shifts in consumer demand but from liberalisation policies implemented by governments. Liberalising too rapidly may disrupt existing businesses, whereas a slower pace would allow those businesses and industries that are losing sales to adjust more smoothly by, for example, not replacing some capital when it depreciates and reaches its 'use-by' date.

The impact of gaming expansion on racing and lotteries

As well as structural changes between gambling and other sectors of the economy, the recent liberalisation initiatives, particularly the increase in access to (and thus expenditure on) gaming machines, have affected the amount of spending on traditional forms of gambling — racing and lotteries.

In a study for the VCGA, NIEIR (1997a) examined trends in Victorian racing gambling expenditure and racing employment since the introduction of gaming machines and the opening of the casino in Victoria. NIEIR looked at data from the Tasmanian Gaming Commission and conducted interviews with major participants in the Victorian industry. NIEIR concluded that the expansion of gaming had reduced gambling expenditure on racing, with between 4 and 5 per cent of annual new gaming expenditure in Victoria being displaced from the annual gambling expenditure of the racing industry.

To further test whether the expansion of gaming machines has affected traditional gambling, the Commission examined changes in per capita spending on the various forms of gambling in each state and territory. The data are charted in figure 10.1.

The figure shows that:

- expenditure on gaming machines and, to a lesser extent casinos, has increased both significantly and rapidly since their introduction;

- in most jurisdictions, per capita expenditure on racing has been in decline, but this decline has been over the longer term, well *before* the expansion of spending on gaming machines became significant;
- for lotteries per capita spending has continued to increase in several jurisdictions, such as Queensland, Western Australia and the Northern Territory; and
- in the others, lottery expenditure has declined but, in Victoria and South Australia, this decline began before the increase in expenditure on gaming machines.

Hence, it appears that the increases in expenditure on gaming machines and casinos have left expenditure on the traditional forms of gambling largely untouched.

This in turn implies that the new forms of gambling have largely opened up new markets with new groups of consumers, rather than simply shifted the gambling dollar between forms.

This view was largely supported by the results of the general equilibrium modelling work that Econtech undertook for the Commission. Econtech ran one simulation to look at the impact of re-regulating gambling — reducing gambling activity to its

Figure 10.1 Real gambling expenditure per adult in each state and territory by major type of gambling, 1972-73 to 1997-98
(1997-98 dollars)

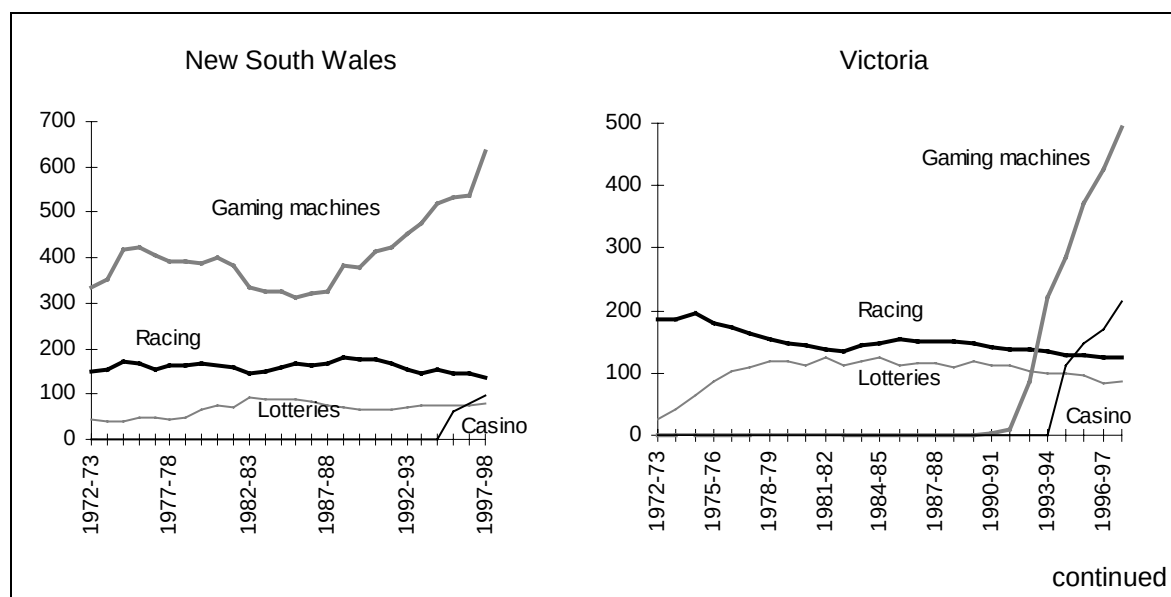
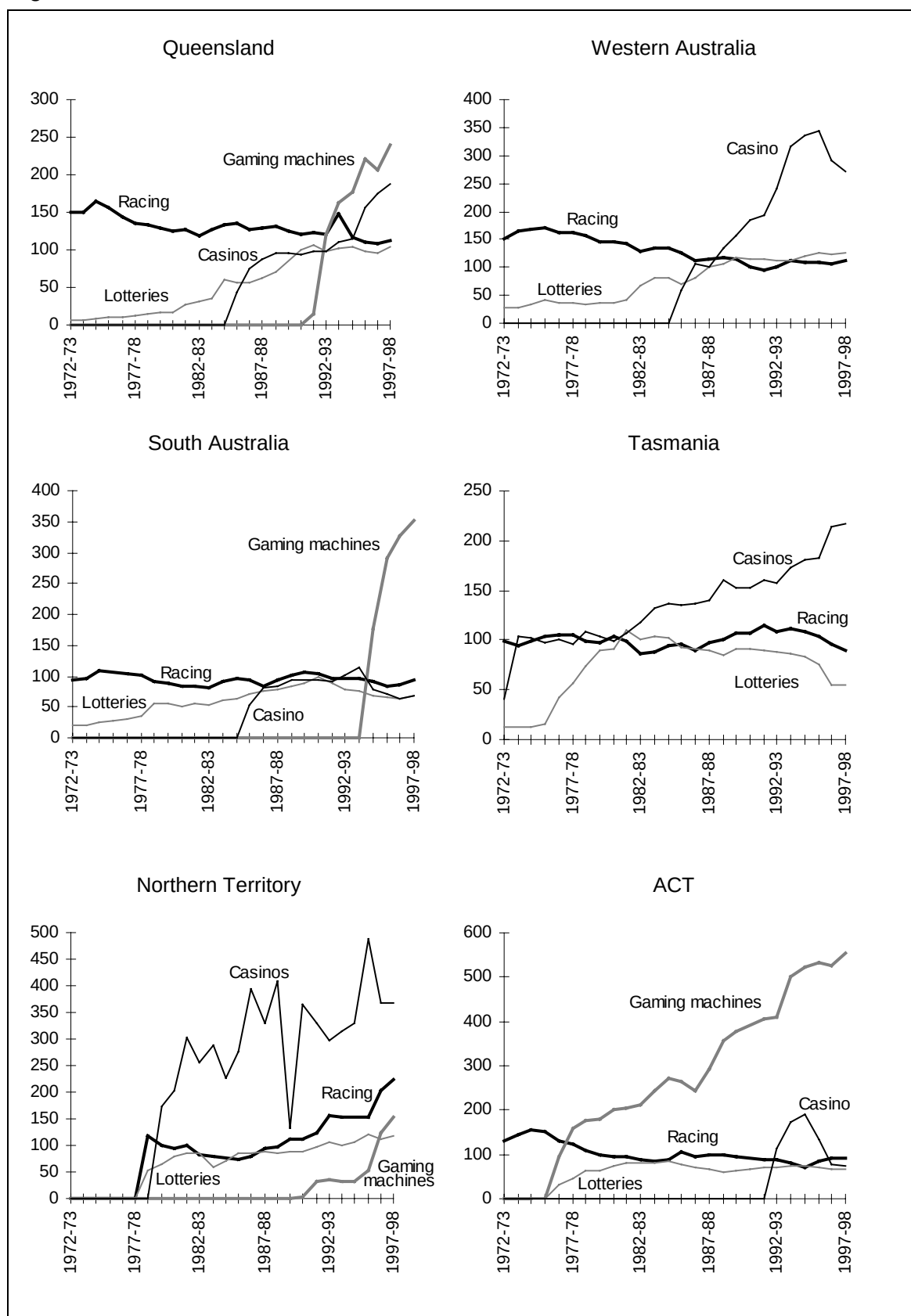


Figure 10.1 continued



Source: Tasmanian Gaming Commission 1999

1993-94 level. This simulation involved reducing gaming machines by 18 per cent and casino gaming by 55 per cent. As a consequence, expenditure on lotteries was estimated to increase by 10 per cent and on racing by 11 per cent. Of the almost \$2 billion reduction in expenditure on casinos and gaming machines, only \$333 million (17 per cent) was estimated to switch to other forms of gambling. Looked at the other way, the \$2 billion growth in casino and gaming expenditure has come at a cost of only \$333 million for other forms of gambling (Econtech 1999).

As with structural change amongst different sectors of the economy, the Commission sees structural change within the gambling sector as a normal part of the business environment. Of itself, it does not warrant government policy action.

10.5 Local and regional impacts of the growth in gambling

The Commission's analysis so far has identified several general impacts from the liberalisation of gambling in Australia, namely:

- significant increases in gambling expenditure;
- a rapid growth of the gambling industries themselves;
- benefits of this growth for most consumers of gambling services;
- limited effects on other industry sectors;
- the limited extent but significant impact of problem gambling;
- little evidence of other gambling-related crime;
- an increase in the patronage, and a change in the feel, of hotels, clubs and other venues with gaming machines; and
- possible changes in the nature and feel of society more broadly.

To the extent that the benefits and costs of gambling are spread evenly across the country, the impact of gambling in each region and each local community in Australia would simply be a microcosm of the national impact. Differences in state regulatory regimes aside, this means that the national trends identified in this report would also be evident in each region and each community.

From this starting model, the Commission has looked for evidence of variations in the local or regional impacts of gambling. Submissions have guided it to examine whether socially and economically disadvantaged communities are affected in different ways to other communities. It has also looked to see whether regions in country Australia are affected differently from those in metropolitan Australia.

Preying on the poor? — gaming machines in disadvantaged regions

Several submissions, particularly from Victorian local governments and community bodies, expressed concern about the apparent targeting of low-income and socially disadvantaged people and communities by gambling businesses, reflected in particular by the high proportion of gaming machines in such areas.

What evidence is there?

The City of Maribyrnong noted that it has the highest proportion of low-income earners (55 per cent) and highest unemployment rate (16 per cent) in metropolitan Melbourne, yet it also has the highest density of gaming machines. Referring to broader data on the placement on gaming machines (table 10.5), it stated:

There appears to be a relationship between the proportion of low income earners and the EGM density (whether calculated for either total or adult population) in local government areas (LGAs) in metropolitan Melbourne, particularly if the City of Melbourne [which incorporates the CBD] is excluded... There appears also to be an even stronger relationship between unemployment rate and a particular LGA (sub. 39, p. 8).

The Victorian Local Governance Association said (sub. 91, p. 4):

Early analysis of this spread of gambling showed alarming growth patterns. The heavy take-up of gaming machines was occurring in almost direct [inverse] proportion to the wealth of a community. The in-depth work of the Maribyrnong City Council shows that this connection is unfortunately most accurate.

[Maribyrnong, Greater Dandenong and Moreland are] municipalities with excessively high levels of gaming machines and venues per head of population. [They] are among Victoria's most disadvantaged in terms of income and all three have very high levels of recent settlers, many arriving from traumatic events in their home countries.

Table 10.5 Gaming machine density, low income earners and unemployment in selected cities of metropolitan Melbourne
number and per cent

<i>City</i>	<i>Gaming machines per 1000 adults (29/9/98) (number)</i>	<i>Low income earners (per cent)</i>	<i>Unemployment rate (per cent)</i>
Maribyrnong	17.3	55.7	15.9
Greater Dandenong	12.3	52.1	12.7
Darebin	10.7	53.0	12.2
Stonnington	5.7	36.2	4.5
Nilumbik	4.0	38.7	3.3
Boroondara	2.3	39.3	5.8

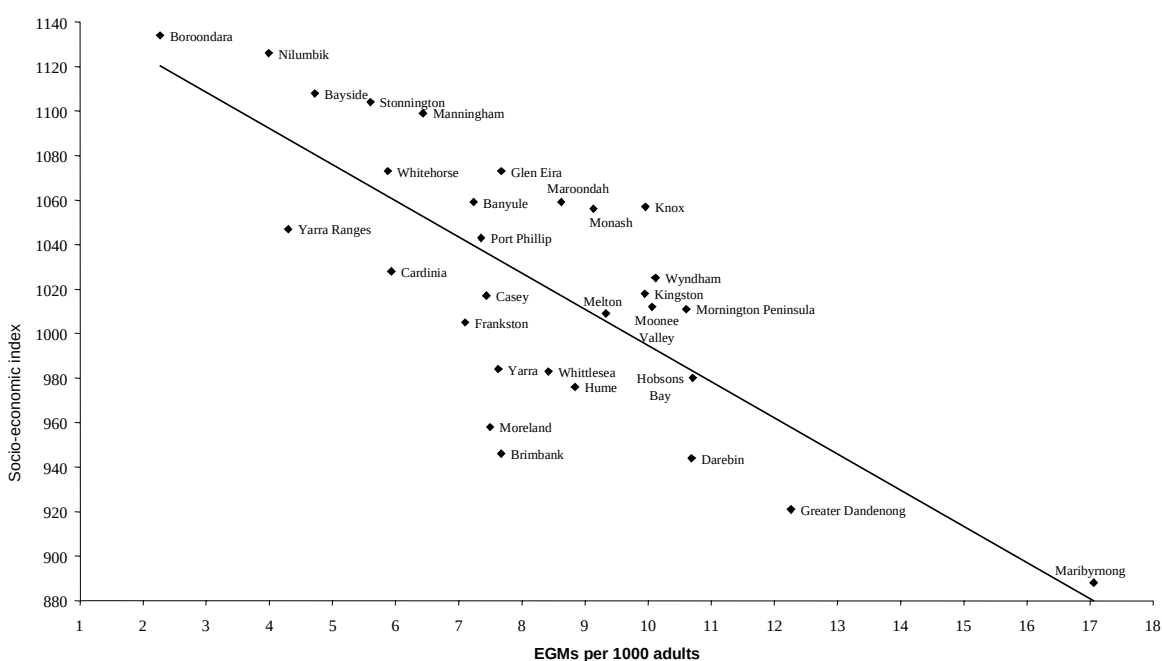
Source: Maribyrnong City Council (sub. 39, table 1).

The Yarra City Council stated that there is a close proximity between gaming machine venues and large public density housing estates:

[there is] a clustering of existing machines around the largest density public housing estates in the city, the Richmond, Elizabeth Street high rise, walkups and low-rise areas. Five of Yarra's venues are within easy walking distance of this predominantly low income district, generating a total of 53 per cent of the city's machines... Three other venues, the Tankerville Arms Hotel in Fitzroy (40 machines), the Albion Inn (20 machines) and the Collingwood Football Club (54 machines) are also in close walking distance to large public housing estates (sub. D238, p. 2).

Further, in its submission on the draft report, the City of Maribyrnong presented an analysis of the relationship between socio-economic factors and the number of electronic gaming machines for areas in suburban Melbourne. Figure 10.2 indicates a very strong negative relationship between the socio-economic index for areas and the number of electronic gaming machines. That is, the lower an area's socio-economic standing, the more electronic gaming machines in the area.

Figure 10.2 Socio-economic index for areas and the number of gaming machines for areas in suburban Melbourne^{ab}



^a The Australian Bureau of Statistics Socio-economic Index for Areas is used as a measure of socio-economic factors. The measure is a composite index that considers a range of characteristics from Census data including the incidence of unemployment, income, characteristics of dwellings and proficiency in the English language. ^b The correlation coefficient is 0.77 at the 1 per cent level (transcript, p. 1267).

Source: Maribyrnong City Council (sub. D202, p. 5).

The Commission conducted a basic analysis of data for Victoria, Queensland, New South Wales and South Australia to assess the relationship in different areas between:

- income levels;
- total gaming machine spending; and
- the number of gaming machines.

The Commission did not undertake analyses of the other jurisdictions due to data limitations and, in the case of Western Australia, its prohibition on gaming machines outside the casino.

The Commission's analysis used econometric techniques to assess the relationship on an 'unweighted' and 'weighted' basis. Unlike in the draft report, only the weighted results are discussed here, as they more accurately take into account the population size of regions (table 10.6). Appendix I provides more detail on the data sources, methodology and results.

Table 10.6 Relationships between income, gaming spending and the number of gaming machines for regions in various states^a

	<i>NSW</i>	<i>Vic^{bc}</i>	<i>Qld</i>	<i>SA^d</i>
Income and the number of gaming machines	Negative and significant	Negative and significant	No significant relationship	Negative and significant
Gaming spending and the number of gaming machines	Positive and significant	na	Positive and significant	Positive and significant
Income and gaming machine spending	No significant relationship	na	No significant relationship	Negative and significant

na not available **a** Appendix I provides more detail on the results and data sources. **b** Data has only been made available to the Commission on income and the number of gaming machines for Victoria. **c** Data for the City of Melbourne is an outlier and has been removed. The large number of machines in this area unreasonably affects the results. **d** Data for the City of Adelaide is an outlier and has been removed. The large number of machines in this area unreasonably affects the results.

The Commission's analysis yields mixed findings on the relationship between the placement of gaming machines and the incomes of people in an area.

- The data supplied by Victorian participants has been confirmed by the Commission's analyses — there is an inverse relationship between income levels and the density of gaming machines in Victoria. This also applies in New South Wales and South Australia, but not in Queensland.
- Analysis of Queensland, New South Wales and South Australian data also indicates that there is a positive relationship between the number of gaming machines in a location and the amount spent on them, so the greater density of

gaming machines in low-income areas is not necessarily being compensated for by a lower spend per machine.

- On the other hand, there is no significant relationship between income levels and the total amount spent on gaming machines in all states examined, except in South Australia where there is an inverse relationship between income and gaming machine spending.

Of course, gaming machines are only one aspect of gambling. Others include table games, race betting, lotteries and so on. It is not clear that a higher density of gaming machines in lower socio-economic areas would mean that people in those areas are supplied with more gambling services. For example, unlike residents in Brisbane to the north and the Gold Coast to the South, residents of Logan City — which has a large proportion of residents who are socio-economically disadvantaged — do not have access to a casino in their area.

Nevertheless, it remains the case that, in two of the four States studied, gaming machine densities are higher in economically disadvantaged areas and that, in turn, is likely to mean that people in those areas spend more on gaming machines than people in other areas.

Why might it happen?

One often heard explanation for this is that the gaming industry is ‘preying on the poor’ — targetting socially and/or economically vulnerable people. Logan City Council stated that:

A general view expressed by some [counselling and welfare] service providers is that people from a low socio-economic background are more vulnerable because gambling may be perceived as their only chance to improve their situation. The hope is nurtured by advertising that portrays normal people having the “big win”, whether it be scratchies, Keno, Gold Lotto or gaming machines (sub. 66, p. 4).

But there are other possible explanations.

Consumer demand

Consumer preferences are likely over time to influence the usage and location of gaming machines in the same way as for any other goods or service in any other market. Demand for gaming machines from consumers will be met by the supply of gaming machines from gaming operators. According to Tabcorp:

The allocation of gaming machines is determined by: the identification of unmet consumer demand within a particular geographic area; the number, proximity and

quality of competing entertainment businesses; and the availability of existing licensed premises to convert to gaming venues (sub. D232, p 13).

If so, it implies that consumers in low-income areas have stronger preferences for gaming machine gambling than those in high income areas. Why might this be?

A study conducted by the Good Shepherd Youth and Family Service (sub. 178, p. 12) nominated several factors that may make gaming machines attractive to low income people, including:

- proximity to home (meaning limited transport costs and easy access);
- welcoming, friendly and non-discriminatory atmosphere;
- small amounts of money can be used to play;
- venues commonly provide a range of incentives, such as free food and drinks, specials, and a warm environment with no restrictions on length of stay; and
- a limited range of alternative entertainment options (such as watching TV).

Clubs Victoria also suggested that the nature of gaming may make it more appealing as a form of entertainment to lower income earners. It stated:

This is a poor man's sport, playing gaming machines. It is simple, unstimulating and non-interactive but more poor, lesser educated like it more than do rich, educated people (transcript, p. 1309).

The Yarra City Council (sub. D238) argued that the concentration of migrants in low income areas may also further add to the demand for electronic gaming machines in these areas. Migrants may be attracted to gambling because it is an easy entertainment for people who are yet to assimilate into society. This type of demand may be reflected in Yarra City which has a high density of gaming machines. In Yarra City, about 35 per cent of residents are low income earners (a weekly gross income of less than \$500) and 32 per cent are from a non-english speaking background. The combination of low incomes and a high proportion of migrants may lead to higher demand for gaming machines in Yarra City.

Caps on gaming machines and the structure of the market

While consumer demand is likely to be a major determinant of the location and type of gaming machines, supply-side factors will also affect the way that gaming operators meet this demand. In particular, the location of gaming machines is also likely to be influenced by:

- limits or 'global caps' applying on the number of gaming machines; and/or
- the number of gaming machine operators providing gaming machines.

Victoria could be an example of the effect of these factors. The Victorian Government has placed global caps on the number of gaming machines. The number of gaming machines in hotels and clubs is limited to 27 500 (refer to chapter 13). There are also only two suppliers of gaming machines — Tattersall's and Tabcorp — who between them have access to all the market information on gaming machines, including in which areas the demand for machines is the greatest (or most profitable per machine). The two operators will be able to quickly assess which machines are yielding the greatest profit and will place their machines in these areas. In a market with a large number of operators, there will also be incentives for machines to be located in those areas with the greatest demand, but it may take longer for gaming operators to determine these areas through the process of buying and selling machines.

The Australian Hotels Association (AHA) submitted that these factors were responsible for the Victorian situation. It stated:

The AHA submits that the increased prevalence of gaming machines in lower income areas is a phenomenon derived from global statewide caps and pressures for gaming operators to place machines where there is highest demand. States such as Queensland and South Australia, both relatively new entrants to the gaming market, have not experienced any bias towards lower income areas (sub. D231, p. 6).

Wet versus dry areas?

In the draft report, the Commission said that:

... gaming machines are commonly located in hotels and clubs, but a number of middle class areas of Melbourne, including Box Hill and Camberwell, have no hotels and clubs. This may skew the distribution of gaming machines away from better-off areas.

In its response to the draft report, the City of Maribyrnong (sub. D202) presented evidence to refute this proposition. It found that there are sufficient venues in high socio-economic areas for gambling, but that the number of venues providing gambling services is lower.

The six Local Government Areas in suburban Melbourne with the lowest socio-economic index have:

- some of the highest gaming machine densities; and
- a total of 219 potential gambling venues; with
- 95 (or 43 per cent) of these venues providing gambling services.

At the other end of the spectrum, the six areas with the highest socio-economic index have:

- lower gaming machine densities; and
- a total of 166 potential gambling venues; with
- 42 (or 25 per cent) of venues providing gambling services.

This suggests that the higher density of gaming machines in socio-economically disadvantaged areas is not attributable to a lack of potential gaming venues in better-off areas.

What does it mean for disadvantaged communities (and governments)?

Whatever the reasons, where socially and economically disadvantaged areas do have a high density of gaming machines, there will be implications for the local community.

On the positive side, ACIL drew attention to the benefits that gambling venues bring to lower socio-economic areas.

An acknowledged benefit of growth in gambling outlets has been the availability of legal and safe gambling venues for women and ethnic groups in lower socio-economic areas. Some commentators, while critical that only gambling venues were available, see this as a great improvement in areas with otherwise poor social infrastructure, by providing people to develop alternative social networks (sub. 155, p. 79).

From this perspective, disadvantaged communities have benefited significantly from the growth in gambling and, indeed, possibly more so than otherwise better-off communities whose residents do not have access to the same number of gaming venues.

However, a number of submissions expressed concern about the adverse effects of gambling on economically disadvantaged areas of the community. In particular, residents who are already encountering personal or financial difficulties will have them compounded by additional difficulties that derive from problem gambling. The City of Maribyrnong stated:

Many of the welfare agencies operating in the municipality have reported that they have experienced or are experiencing the impact of increased gambling expenditures in the form of:

- problem gambling behaviour;
- increased levels of poverty and bankruptcy;
- family break-ups;

-
- domestic violence; and
 - stress and anxiety (sub. 39, p. 4).

Many of these problems are experienced at the individual or family level — by the problem gamblers themselves and those whose lives are entwined with them — although they also put some demands on community resources, such as welfare and counselling services. These matters have been discussed in detail in chapters 6 and 7, and the Commission has sought to quantify the costs of these problems in chapter 9, and to devise policy responses to them in part D of the report.

In one sense, the fact that these problems may arise in some places more than others is not relevant — so long as governments have appropriate policies in place to address these problems *wherever they arise*, and to the extent that they arise, the specific locations where they arise should not matter.

At the community level though, several submissions, mainly from councils, expressed concerns about the effects of gambling (box 10.8). These concerns covered:

- the size of EGM losses as compared to the amount of money that is returned to communities — submissions reported losses of up to around \$50 million per local government area with substantially smaller amounts being returned to local communities; and
- the effect of EGM losses on the local community, such as reduced employment and declining ‘social conditions’.

A study commissioned by a number of Victorian city councils — Brimbank, Greater Dandenong, Maribyrnong, and Moreland — assessed the local area impact of local gambling for Maribyrnong (box 10.9). While the study acknowledged the difficulties in estimating the effect of gambling on only the local community, it found that:

- gambling is a substitute for alternative consumption — consumption is diverted to gambling and away from (other) local consumption spending; and
- the net effect on low income communities diminishes the level of overall economic activity — production was estimated to reduce by up to \$21.3m and local income reduced by up to \$4.8m.

Similar results were generated by Pinge (sub. D279) using an input-output model of the regional economy of Greater Bendigo. Pinge found that the local gaming industry had weak linkages with the regional economy, with large leakages out of the region and that:

... if money spent on EGM's were spent in any other sector of the region, then output, income and employment would be better off. Gaming as an industry is in effect having a negative regional economic impact by redirecting economic activity out of the region (p. 2).

Box 10.8 Concerns about the effect of gambling on local communities

A number of submissions, mainly from councils, expressed concern about the economic and social effects of gambling on local communities. These submissions were concerned about spending being diverted away from other forms of consumption and the size of EGM losses as compared to the amount of money that is returned to the community from gambling.

The City of Maribyrnong points to broader community-level implications of concentrating gaming machines in areas of socio-economic disadvantage:

Council is particularly concerned about the impact that high levels of gambling expenditure may have on local economic activity... In a municipality such as Maribyrnong, it is difficult to accept that annual EGM losses of around \$45 million do not have an adverse impact on local consumption expenditure, with corresponding impacts on local employment and social conditions (sub. 39, p. 12).

Similarly, reflecting the results of a study it had done, the City of Greater Dandenong said:

Council is concerned that more than \$60 million is taken from players of local gaming machines, and less than \$17 million of this is identifiable as likely to be returned to local clubs and hotels as profit, or for the development of local facilities and services (sub. 82, p. 7).

The Victorian Local Governance Association added:

The inequitable location of gaming machines is most disturbing to those municipalities which lose enormous sums of money to commercial operators and the State Government. The three local governments involved in this submission — the Cities of Maribyrnong, Greater Dandenong and Moreland — between them watch helplessly as \$150 million annually leaves their communities through gaming machines.

... The study into the money trail by the City of Greater Dandenong shows that very little of this money finds its way back into the communities that make the greatest contribution (sub. 91, p. 4).

Logan City Council expressed major concern about:

... the amount of money that is going out of the community through: taxes on gambling profits; the profits themselves where the product is commercially owned; and through people going outside the local community to spend their gambling dollars (sub. 66, p. 10).

And Brighton Council in Tasmania drew attention to the reduction in local amenities resulting from the outflow of money from the disadvantaged communities of Gagebrook and Bridgewater. Among other things, this has seen the virtual closing of one of these communities' shopping centres (transcript, pp. 929-45).

Source: submissions.

Box 10.9 The impact of expenditure on gaming machines on Maribyrnong's economic activity

Doughney and Kelleher (1999) used a local area economic impact model to estimate the effect of the diversion of potential consumption away from non-gambling firms and the subsequent effect on the income of Maribyrnong residents. They used data from the Tasmanian Gaming Commission, the Australian Bureau of Statistics and the VCGA. The data on gaming expenditure was adjusted upwards to remove the under-reporting of gaming expenditure data collected from surveys. The authors recognise the difficulties in conducting purely local impact as opposed to broader country level economic modelling.

Doughney and Kelleher found that economic production and income in the Maribyrnong local area would have been higher had the expenditures on gaming machines not been diverted from other consumption spending — an increase in people's expenditure on gaming machines reduces demand for goods and services in the local area. Total local value added or production is estimated to reduce because of increased gambling expenditure by up to \$21.3m. Maribyrnong residents share of total local value added or income is estimated to have been reduced by up to \$4.8m.

Source: Doughney and Kelleher (1999).

Again, such effects could be expected to occur in any area in which expenditure by members of the community seeps outside the boundaries of that community, whether the expenditure be on travel, education, motor vehicles, opera, gambling, or anything else.

That said, because higher taxes are levied on gambling than on most other goods and services, the gross leakage of funds resulting from expenditure on gambling will be commensurately greater.

Further, it is possible that in communities that already suffer from significant socio-economic disadvantage, overlaying an additional source of socio-economic stress may have more significant community-wide impacts. That is, social and economic stresses may have compounding impacts. For example, where the unemployment rate in a particular area is already high, a further increase may push it to a level at which people in the area become too discouraged to look for work, and anti-social behaviour may ensue. The same effects might not be experienced in areas that start with a lower unemployment rate.

In the Commission's view, the potential for disadvantaged communities to suffer more adverse social problems from expansions in gambling has important implications for government policy.

In particular, it raises the issue of the appropriate type and degree of local government involvement in gambling issues. Several local councils, particularly in areas with a high proportion of low income earners, expressed concern at having no or limited control over the number of gaming machines in their local area. These councils argue that they are in the best position to analyse the social and economic effects of gambling on their local community, but are unable to directly control the number of gaming machines. That said, a survey by the Local Government Association of South Australia found that 56 per cent of councils want the State Government to remain responsible for licensing gaming machines (sub. 171), but that 70 per cent of councils wanted to gain greater input into the gambling and liquor licensing. The issues of appropriate local government involvement is discussed further in chapter 22.

Another issue is the ‘earmarking’ of gambling taxes, to repatriate them to the local communities from where they came or to reserve them for certain uses, such as addressing problems arising from gambling. This is discussed in chapter 20.

Special impacts on country communities?

As part of this inquiry, the Commission held Roundtable discussions with local people in Port Augusta and Goulburn to obtain information on the effects of gambling on country communities. Participants included hoteliers and club officials, government and private welfare workers and gambling counsellors, police, Councillors, community group representatives and retail sector employees (box 10.10).

The Commission has augmented this information by drawing on other material, including the results of two studies conducted for the VCGA: one into the effects of gambling on a selection of non-metropolitan communities in Victoria (DHSA and MIAESR 1997), and one into its effects on small Victorian rural communities (HSV 1997) (boxes 10.11 and 10.12).

These discussions and studies together reveal that the impact of gambling on country communities has been similar in many ways to the impact in metropolitan areas. For example:

- expenditure on legal gambling has increased in the towns over recent years, with anecdotal evidence suggesting that illegal gambling has declined;
- the recent introduction of gaming machines had increased the patronage and profitability of clubs and hotels, provided new opportunities for social interaction and led to improved community and sporting facilities provided by clubs;

Box 10.10 Country impacts: views from around the table

Below is a selection of comments made at the Commission's Regional Roundtables.

Individual and community benefits

People want quality of life — an ability to choose entertainment and relaxation in small amounts. Gambling is an alternative to more expensive pursuits which lead to quality of life. People are shifting their money away from other recreational/entertainment activities. Gambling is seen as community building. Community activities (eg radio station) are broadcast through venues with gambling. Gambling revenue does not really go out of the community. The club gives out 3.5 per cent of poker machine revenue, and has done so for years. *[Club official]*

Poker machines have increased hotel turnover, which has resulted in more jobs. We sponsor a few clubs and support health and youth causes in Port Augusta. We paid \$60 000 for an orthopaedic pool for kids with arthritis. *[Hotelier]*

Community groups get funding from clubs and hotels, so gambling is not inimical to the community. *[Councillor]*

Pubs and clubs: impacts and responses

Gaming in Port Augusta commenced in July 1994. There were 600 hotels on the market in South Australia. About 250 were for sale in the country. Gaming made hotels more marketable and profitable. Pokies were introduced to complement hotels. The state allows a maximum of 40 machines in each hotel.... The pokies have brought women back into hotels. They have brought in couples. There are nine hotels in Port Augusta — only two don't have gaming. The average number of machines is between 20 and 30. There are TAB facilities in six venues and one free standing TAB. *[Hotelier]*

Little pubs in rural areas are very important. *[Councillor]*. But smaller hotels are closing with licenses transferring to big urban areas. *[Police officer]*

Some clubs are now just into gambling to get bigger — without community objectives. *[Hotelier]*

I can speak for two clubs. One is heavily in debt and decided not to go further into debt by purchasing pokies. The other has no debt problem but also decided no to pokies because it felt that pokies would ruin the atmosphere of the club. *[Club official]*

Impact on other spending

Gambling is affecting other businesses, but I don't know by how much. *[Hotelier]* Cheap pokies lunches have affected our meat sales. *[Supermarket employee]*

Decline in bingo ticket spending has meant that community groups in Whyalla have lost \$250 000 a year. *[Counsellor/welfare worker]*

Initially, the introduction of poker machines brought a down turn in TAB turnover. Last year, TAB turnover came back to its normal level and I expect it to stay that way. *[Club official]*

Problem gambling/counselling

I'm not known in Port Augusta and many people approach me because I don't live in their community. In Roxby Downs there is a huge problem with problem gambling — both illegal and pokies. Very few people seek help when they are starting to go down. 70 per cent of problem gamblers seek help only when they have reached rock bottom. *[welfare worker]*

continued

Box 10.10 continued

Problem gambling/counselling continued

There is only one recognised gambling counsellor between Campbelltown and Canberra so I would agree with that problem gambling service availability in country regions is poorer than city areas. Funding is enough for some face-to-face counselling — I did 70 hours counselling over 3 months. Most of the problem gamblers have contemplated suicide. *[Counsellor]*

My main concern is what's going to happen to family life. The main effect is on the unemployed and pensioners. We mainly see people on Newstart. Gambling has a great effect on families and children. Social issues are a real problem. *[Charity welfare worker]*

Crime and illegal gambling

There is not much illegal gambling in Port Augusta. Illegal betting changed when the TAB came in. The TAB has meant that you haven't been able to put a bet with a SP bookmaker for the last five to ten years. *[Club official]*

There have been three unsubstantiated cases of illegal SP bookies operating in pubs in the last 5 years. Otherwise, there has been no evidence of crime, either organised crime or break-ins, associated with gambling. But I do not know what lies behind other crimes, such as domestic violence *[Police officer]*

There is a huge gambling culture in jails. They gamble with items like cigarettes, and it leads to a lot of violence. *[Correctional officer]*

Role of government

Government ought to control gambling. If you do not have government controlling it, the underworld does. Gambling is here to stay, but it should be channelled in a way that does not injure families. Governments should exercise responsibility — increase their awareness about the effects of gambling and their responsibilities. *[Councillor]*

I wouldn't like to see the council rule on gambling issues. The council stopped a major development store in Port Augusta and didn't have the foresight to see that people would travel elsewhere — to Whyalla *[Community group representative]*

On pension days, pokies should be closed until after a certain hour. *[Counsellor]*

Years ago, only hotels had a license to sell alcohol. Now, coffee shops in Adelaide can. Business has been chipped off. I am against more businesses having gambling. *[Hotelier]*

Other matters

Some people are concerned about Sunday gambling, but I think those days are gone. Gaming machines are seven days a week. *[Community group member]*. Saturday and Sunday is defunct. Lifestyles have changed over the last decade, you have leisure time through the week. People have a right to entertainment anytime. People can go into a club in Sydney at 4am and there will be 30 or 40 machines in play and people on shift. *[Club official]*

The Internet is very accessible in Port Augusta and Whyalla. I'm not sure it will impact on total expenditure. But if people are staying at home to play for entertainment, the community becomes more alienated. It also impacts upon venues and jobs. *[Charity welfare worker]*

I have grave concerns about Aboriginal gambling. Gambling is part of Aboriginal culture. But through card games it stayed in the community. Now with the pokies, the money doesn't go back to the community. *[Counsellor/welfare worker]*

-
- there are concerns that gambling is taking money away from local shops and other organisations, including charities; and
 - a small number of people had experienced severe problem gambling, and in some instances this had led to financial crises, family breakdowns and crime.

However, some slight differences also emerge.

First, at its Roundtable discussions, the Commission was struck by the importance that many locals appeared to attach to hotels and clubs as a focal point for social interaction and community life in country Australia. This may reflect a lack of alternative entertainment and recreation venues in country Australia relative to those available in city areas. Clubs were seen as having a particularly important role to play in supporting local community groups and charities. The increase in patronage following the introduction or increased availability of gaming machines and other gambling services in clubs and pubs may thus be of more benefit to country dwellers than city residents. The VCGA's reports also pointed to improved entertainment and sporting club facilities as major community benefits associated with gambling.

Second, the introduction or increased availability of gaming machines and related gambling services may be contributing to changes in the pattern of settlement in country Australia. In its recent report on *The impact of Competition Policy reforms on rural and regional Australia*, the Commission (PC 1999) identified a 'sponge city' phenomenon, in which larger regional centres are growing in size, in part by soaking up population from their hinterlands. Participants at the Commission's Regional Roundtables said that gaming machines in venues in the towns added to their attractiveness, and were helping to pull in custom from surrounding districts. In turn, less money is spent in smaller localities, thereby reducing their viability, and smaller hotels are apparently closing with licenses being transferred to bigger urban areas.

These trends no doubt derive mainly from the broader changes that are transforming country Australia, such as improved transport, lower commodity prices, larger farm size and changes in government policies relating to rural and regional Australia.

However, the recent introduction or increased availability of gaming machines and related gambling services may be adding to them.

Further, Roundtable participants and respondents to the VCGA studies also expressed concern about potential leakages of economic activity from the region if State gambling tax revenue, hotel gaming profits and (non-club) gaming operator income is repatriated to metropolitan areas or elsewhere without corresponding

injections of funds. As in the case of metropolitan municipalities that see a leakage of funds, this then raises the issue of whether funds should be ‘earmarked’ for these communities to counter these losses — a matter discussed in chapter 20.

Third, there is some limited evidence that the availability of problem gambling services in country regions is poorer than in city areas. For example, there is only one recognised problem gambling counsellor between Campbelltown, on Sydney’s outskirts, and Canberra.

Overall, however, the Commission was unable to identify any substantial differences in the impacts of liberalised gambling in country areas relative to those in metropolitan areas.

In its submission on the draft report, the Queensland Government stated:

The Draft Report’s claims do not give adequate consideration to impacts at a state, regional and community level, or to the differing nature and characteristics (such as levels of infrastructure) of individual state economies and their respective abilities to attract industries and jobs.

For example, the resurgence of the club and hotel industries in Queensland has been a direct result of the expansion of gaming since the introduction of gaming machines in 1992. This expansion has been associated with:

- significant growth in employment in Queensland clubs and hotels;
- increased Queensland clubs and hotels revenue (and associated decline in revenues for clubs in Northern NSW which previously relied heavily on the patronage of Queenslanders);
- the generation of revenue for direct funding of Queensland community projects and capital works and for the provision of essential government services including health, education, and law and order; and
- enjoyment of recreational and other facilities by Queensland patrons.

The Queensland Government considers that it is unlikely such benefits would have accrued in regional Queensland, or elsewhere in Queensland, if gaming machines had not been introduced (sub. D275).

It further commented that:

The availability of gaming creates economic activity, employment, recreational and entertainment opportunities in regional communities. Such investment can alternatively lead to improvement in the overall investment in smaller towns (sub. D275).

The Commission of course accepts that the introduction of gaming machines in Queensland may well have attracted some expenditure away from New South Wales clubs and hotels, just as the introduction of pokies in Victoria has seen an end of ‘day trips’ to towns on New South Wales border for the purposes of gambling.

Box 10.11 Effects of EGMs on non-metropolitan communities

A VCGA study covered five regional areas: the cities of Greater Ballarat, Bendigo and Geelong, and the Shires of La Trobe and of Baw Baw. The report commented:

....EGMs in clubs and hotels are currently providing 760 jobs to residents in the five study regions representing 0.40 per cent of regional employment. Households in the five regions are likely to spend \$150 million on EGM gambling.

Offsetting any short term gains, there may be leakages of economic activity from each region if State gambling tax revenue, hotel gaming profits and gaming operator income is repatriated to Melbourne and elsewhere and if like transfers into the areas from Melbourne and elsewhere do not take place.

There is evidence of important distributional effects among, between and within business and households in regional communities, in that moneys spent on EGMs would otherwise have been spent in other areas.

On the differences between the regions, the study commented (p3):

The dissimilarity of socioeconomic – demographic profiles of the regions (with the exception of Ballarat and Bendigo) restricted comparative possibilities *between regions*. However, when comparing the randomly selected *individuals* surveyed across the five regions in terms of their stated behaviour and attitudes to EGMs, the individuals showed far more similarities than differences. The reaction to EGMs in each region across a range of interest groups showed in all cases (except the gaming industry) more negative than positive reactions to EGMs. In short it was the marked *similarities* between the regions surveyed in data generated by this study as to the use of and reaction to EGMs which is notable. ... Thus, despite the differences in the economies of the regions, there are not marked differences of scope and scale in EGM activity, usage and response.

On the overall level of community attitudes, the study found:

However, when asked whether gambling does more bad than good about 80 per cent of all respondents said “yes”. While this response was more prevalent among non-gamblers, about 77 per cent of gamblers and EGM gamblers also gave this answer. In the public sphere, State agencies report social and economic impacts in the form of marginally higher workloads (Department of Human Services, Police, Magistrates Courts). Officials in private community service agencies (emergency relief, financial counselling, family counselling) reported major increases in workloads, not necessarily in a large volume of cases but in the severity and complexity of cases related to actual or suspected problem gambling. There appeared to be an increased workload for the Commonwealth Department of Social Security (DSS) which related to client gambling behaviour.

In conclusion:

From the data collected during this study, it would appear that the social consequences for most EGM users are benign, and are perceived by them most often in terms of improved social and entertainment facilities provided by EGM venues. These non-gambling social benefits were reported as more important to individuals than actual EGM gambling. The major neighbourhood benefits cited were improved facilities to sporting clubs and regional returns from the Community Support Fund. In all regions, the major discourse about the impact of EGMs concerned the perception of the severity of problem gambling. The perception of the severity of the consequences of problem gambling was influential in shaping the strong opinion that the bad achieved by EGM gaming outweighed the good.

Source: Deakin Human Services & Melbourne Institute of Applied Economic and Social Research (1997)

Box 10.12 Impact of EGMs on small rural communities

The VCGA commissioned a study of the effect of gaming machines on three small rural communities in Victoria. The communities chosen were:

- the Statistical Local Area of Wannon, including the townships of Balmoral (population 220) and Coleraine (population 1105);
- the Statistical Local Area of Camperdown, based around the township of Camperdown (population 3153); and
- the township of Sale and the area within 40 kilometres (population 31,574).

The study was based on discussions and interviews with a range of people in each of the regions. The report commented (p.xv):

In overall dollar terms, the role of EGMs was found to be minimal when compared with the overall level of economic activity (as approximated by aggregate private income) and employment structure in each of the regions. As a result, quantifiable evidence of the impact of EGMs was not detected in the analysis of the changing social and economic characteristics of any of the regions.

The study reported the results of community workshops as (p. xvi):

In general there was agreement that EGMs had changed the lifestyles of a significant section of the community and that there had been changes to entertainment patterns which are attributable to the introduction of EGMs. There was a clear response to the issue of changed shopping patterns with participants indicating that discretionary expenditure is being directed away from retail towards EGMs. ... Gaming venues were perceived as providing safe and comfortable entertainment environments for females. However there were perceived to be negative impacts on alternative forms of entertainment.

Source: Hames Sharley Victoria (1997)

Nor does it deny the potential for many of the broader benefits identified by the Queensland Government, including those accruing in regional centres. Indeed, the Commission did examine the benefits for the club industry and its patrons (section 10.2) and it has included the tax revenue from gambling as benefits (chapter 5). And nor does it deny the potential for regional variations in the distribution of benefits from gambling liberalisation.

However, these points do not alter the conclusion about the national benefits and costs resulting from liberalisation; nor do they negate the conclusion that *substantial* differences in the impacts of liberalised gambling in country areas relative to those in metropolitan areas are difficult to identify.

In this context, it should be noted that, just as there will be country communities that do benefit significantly from the liberalisation of gambling, so there will be

those that do not. Indeed, as a study that analysed the impact of the introduction of gaming machines in a country town in South Australia argued:

In summary, it can be claimed that the costs and benefits of poker machines in Peterborough have not been metered out in a balanced fashion. There is little in the way of employment and multiplier effects, entertainment values and cheap meals are not valued enormously by the town's people, and no-one was aware of any major jackpot wins. In contrast, most people knew of someone with a gambling problem, small businesses have experienced declines in turnover, clubs and charities are in difficulty due to fundraising declines and the demand for welfare services has increased. It would appear that given the socioeconomic circumstances of the town, the arrival of the poker machines has brought with it new problems and exacerbated old ones, but has brought little in the way of benefits. Poker machines are now contributing to the declining socioeconomic fortunes of the town (Marshall 1999).

This helps to highlight the fact that, just as some metropolitan areas will benefit (or fail to benefit) from gambling to a different extent than others, so some regional areas will benefit (or fail to benefit) from gambling to a different extent to others.

Overall then, the Commission remains of the view that the broad pattern of impacts of gambling in country areas does not differ significantly from the pattern in metropolitan areas.

11 Gauging the net impacts

Box 11.1 Key messages

- Estimates of the net impact of the gambling industries are extremely difficult to make and need to be interpreted with care.
- The Commission's estimates for the gambling industries *as a whole* show a range from a net community cost of \$1.2 billion to a net community benefit of \$4.3 billion.
- This aggregate estimate *by itself* is of limited use for policy analysis because:
 - the estimate covers a wide range from positive to negative;
 - it omits several of the impacts of gambling, principally on the cost side;
 - it hides differences in the distribution of benefits and costs between different gambling modes (as well as between different regions); and
 - in any case, a net impact estimate (whether positive or negative) cannot of itself guide policy decisions about incremental change or the most appropriate regulatory environment.
- Assessments of net impacts for the different *gambling modes* can provide more guidance for policy, particularly when accompanied with other quantitative and qualitative assessments of impacts and social costs:
- The Commission's quantitative estimates for lotteries suggest that they provide a clear benefit and, in the process, generate few social costs.
- While the estimates for gaming machines include the possibility of net benefits, they also encompass the possibility of a net social loss, due to the high degree of problem gambling related to this mode.
- There is a similar pattern for wagering, although the potential costs are estimated to be much lower.
- These quantitative assessments largely concur with more qualitative information on the impacts of the different gambling modes.
- The magnitude of social costs, particularly for gaming machines and wagering, suggests that governments should explore measures that can reduce the costs while as far as possible maintaining the benefits.

11.1 Introduction

So far in part C, the Commission has separately examined the benefits and costs of gambling, focussing on those of most relevance for government policy. It looked at

the benefits in chapter 5 and parts of chapter 10. Chapters 6–9 discussed the extent and nature of problem gambling and the various financial, social, emotional, criminal and community costs it entails. And chapter 10 also discussed the broader community impacts of gambling.

In doing this, the Commission has sought to quantify as many of the impacts as possible. Although this has not been a simple task, the Commission has been able to provide a range of quantitative estimates for what it sees as the many of the most substantive benefits and costs. It has buttressed these quantitative estimates with a qualitative discussion of the other benefits and costs that flow from gambling.

In this chapter, the Commission brings together its estimates of the measured benefits and costs of gambling to assist in gaining a sense of the overall impact of gambling liberalisation in Australia. The focus is on determining the measured net impact of the gambling industries, either as a whole or individually. It is equivalent to seeking to answer the question: what have been the benefits of making gambling legally available?

The meaning of ‘net impact’ estimates can easily be misunderstood, and there has been some misuse in public debate of the estimates published in the draft report (box 11.2). To reduce the scope for further misuse, in this chapter the Commission discusses what estimates of this nature *do* and *do not* mean, both in their own right and in terms of their relevance for government policy.

11.2 The Commission’s assessments

To derive quantitative estimates of the net impact of gambling, the estimated social costs of problem gambling can be subtracted from the net consumer benefit estimates. As discussed in chapter 9, the Commission has erred on the side of understating the social costs. The resultant net impact figures will be similarly conservative. As discussed in chapter 5, the estimated benefits include only those benefits resulting from the consumption of gambling. The estimates do not include any ‘production-side’ benefits from the liberalisation of gambling, or benefits resulting from the displacement of illegal gambling, which the Commission considers are minor and/or unmeasurable at the national level.

Reflecting the fact that the estimates from which the net impact figure is derived are presented as a range, rather than as point estimates, the net impact estimates also take the form of a range. Further, by using the top of the benefit range with the bottom of the cost range for the higher estimate of the net impact range, and vice versa for the lower estimate of the net impact range, the net impact range is wider than either the benefit range on its own or the cost range on its own.

Box 11.2 ‘Lies, damned lies and statistics’

The reliability of statistics used in public debate depends on both the rigour with which they are calculated and the veracity with which they are communicated.

The Commission qualified the estimates of benefits, costs and the net impact of the gambling industries that it published in the draft report, noting among other things that the estimates were inevitably ‘ballpark’ figures and that, in practice, the true net impact could be positive or negative. In other words, there was insufficient certainty to say whether the net impacts were positive or negative.

In the debate that followed the release of the draft report, the estimates were misused in several ways:

- in a publication purporting to present “the whole story” about gaming machines, one industry group reported only the Commission’s estimates of the net consumer benefits of gambling, omitting the social cost estimates;
- an inquiry participant, in seeking to convince the Commission that it should now conclude that the gambling industries impose a net cost on society, indicated that this would be a useful device with which to argue publicly for the curtailment of the industry; and
- a public figure commented that the Commission’s quantitative estimates of a positive net impact from the gambling industry proved that concerns about the recent growth of the industry were misplaced.

In its submission on the draft report, the Australian Hotels Association (NSW) stated (sub. D208, pp. 7-8):

The range is so broad that the Commission’s conclusion should have been (had it been asked to reach a conclusion) that it didn’t know from the data available what the net position was. In its Annual Budget, the Government would be ridiculed if it postulated a surplus of somewhere between effectively nothing and five billion dollars.

However, the Commission considers that its use of a (wide) range for its net industry impact estimates properly reflects the uncertainties the estimates entail.

It should also be noted that there are important differences between government budgets and net industry impact measures. The budget relates purely to monetary flows for which significant historical information exists to allow reasonably accurate estimates and forecasts of future spending to be prepared. The gambling estimates, on the other hand, deal with quite different subject matter, including many intangibles such as people’s emotions and mental states. They also have a different purpose for which the precision necessary for budget estimates is simply not a requirement.

The Commission does caution, however, against crude interpretations of the ranges it has provided. In particular, it is not necessarily the case that the mid-point of the range is the figure most likely to represent the true figure. For example, if the range is from negative \$3 billion to positive \$1 billion, it cannot automatically be concluded that negative \$1 billion represents the ‘best estimate’ of the real net impact, nor even that a negative net impact outcome is more likely than a positive net impact outcome. This is because the distribution of probabilities is not spread evenly throughout the range. Without information on the spread of probabilities, all that such a range can reveal is that the true value probably lies somewhere within it.

Overall, while the Commission recognises the estimates’ limitations, particularly the aggregate estimates of the net impact of the gambling industries, it considers that they can make a useful contribution. Among other things, given that other estimates of the net impact of gambling have entered public debate, the Commission considers it helpful to present its own estimates as a benchmark against which others may be compared. Further, if used with appropriate care, the quantitative estimates, and particularly the social cost and the net estimates for the different gambling modes, can help to shed a clearer light on the impacts of gambling and their significance for policy.

Aggregate estimates

The Commission estimates that the availability of gambling services provided benefits to consumers (after adjustment for the excessive spending by problem gamblers) of between \$4.4 billion and \$6.1 billion in 1997-98, while the measured social costs of problem gambling are estimated to range between \$1.8 billion and \$5.6 billion annually.

These figures in turn yield net impact estimates for the gambling industries ranging from a net cost of \$1.2 billion to a net benefit of \$4.3 billion (table 11.1).

Table 11.1 Measured net impact of the gambling industries
(\$ million, 1997-98)

	<i>Low consumer surplus</i>	<i>High consumer surplus</i>
Low social cost	2 565	4 277
High social cost	-1 221	490

Source: Commission estimates.

In interpreting these figures, it should be noted that:

- the estimates cover a wide range, from positive to negative;
- they omit several of the impacts of gambling, principally on the cost side;
- net impact figures hide differences in the distribution of benefits and costs between different gambling modes;
- they also hide differences between different states and regions; and
- in any case, a net impact estimate (whether positive or negative) cannot of itself guide policies relating to incremental changes or the appropriate regulatory environment (boxes 11.3 and 11.4).

For these collective reasons, the Commission considers that the aggregate figures are of limited use for policy. Assessments of net impacts for the different gambling modes can provide more guidance, particularly when considered in conjunction with other quantitative and qualitative assessments of impacts and social costs.

Box 11.3 Some limitations of net impact estimates

By themselves, net impact estimates for an industry are generally of limited use for devising public policy.

Normally what matters for policy is not the net benefits or costs of the *current* level of activity in a particular industry, but rather how *marginal* increases, decreases or changes in the nature of the industry will affect the net benefits or costs, *irrespective of what they are to start with*. This is because most policy decisions are concerned with incremental changes to an industry – not its wholesale liberalisation or abolition.

However, a net industry impact figure does not necessarily indicate whether the industry in question should be expanded or curtailed. For example, it is possible for an industry to generate a net benefit figure provided the industry is within a reasonable range of its optimal size, irrespective of whether it is above or below its optimal size. Further, it is plausible that, for industries that generate net community costs *in their current form*, policy changes such as harm minimisation, could result in them becoming sources of net community benefits. In this *different form*, the community might benefit from their expansion.

Another limitation is that a single net impact estimate for a group of industries will obscure any differences in the distribution of benefits and costs within the group. If the group recorded a net cost figure overall, for example, it is possible that some parts of the group might generate higher than average net costs, while other parts of the group might generate net benefits. This is the case in the gambling industries at present.

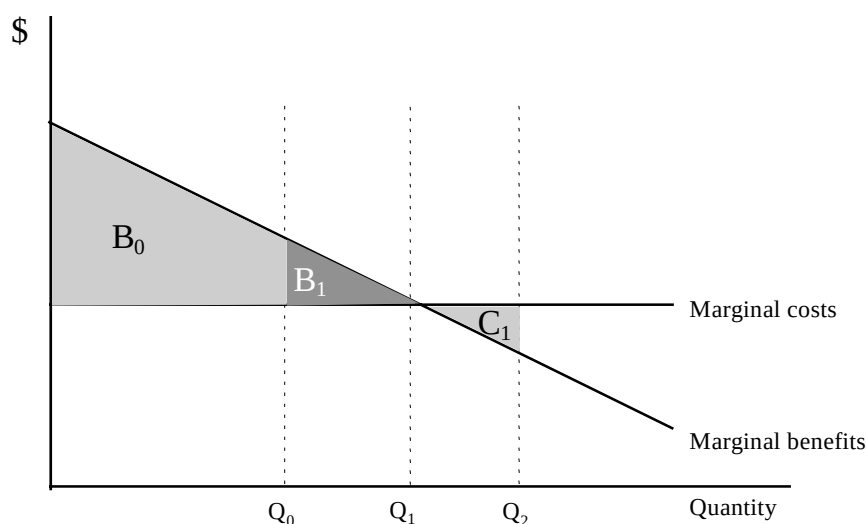
Box 11.4 Net impacts and optimal industry size

The figure below is a conceptual tool which can be used to demonstrate the relationships between benefits, costs, net impacts and optimal industry size.

As the quantity of gambling increases, the benefits flowing from each additional unit of gambling tend to decline (simply because the first units of consumption are valued by consumers more than the last — think of eating ice creams or spending time at the beach). Hence, the marginal benefit curve slopes downwards to the right.

To simplify the exposition, every additional unit of gambling is shown as bringing the same costs as the unit before it. Hence, the marginal cost curve is flat.

The net benefits of an industry are equal to the area under the marginal benefits curve *less* the area under the marginal cost curve. This means that the net benefits of having the industry are B_0 when gambling is at Q_0 , whereas they are (B_0+B_1) when gambling is at Q_1 and $(B_0+B_1-C_1)$ when gambling is at Q_2 . The optimal industry size — that is, the size at which net benefits are maximised — is thus Q_1 .



If the current regulatory regime had set the quantity of gambling at Q_0 , then further expansion of the industry would be warranted (until point Q_1 is reached). If, however, the current regulations had set the quantity of gambling at point Q_2 , then there would be gains from winding back the industry. Notably though, the net benefit is still positive at point Q_2 . The industry would only start showing total net costs at a point well to the right of Q_2 , where the net costs of each unit of consumption beyond point Q_1 started to exceed the net benefits gained from each unit of consumption up to Q_1 .

This has important implications. Finding that gambling in *total* contributes greater benefits than costs does not show whether the industry should be further expanded or wound back. Equally, a finding of net costs, while possibly suggesting some changes are necessary, would not indicate that the industry should be abolished.

Estimates for different gambling modes

The Commission's estimates of net consumer benefits and of social costs for the different gambling modes are set out in table 11.2, as are the resultant ranges of net impact estimates.

In deriving these estimates, the Commission has had to allocate the proportion of the total social costs of problem gambling among the modes. It has done this according to the proportion of expenditure by problem gamblers in each mode (section 9.3 in chapter 9).¹

One difficulty in allocating costs in this way is the lack of statistical precision in the estimates of the share of expenditure accounted for by problem gamblers for *some* modes. This problem arises because of the small number of problem gamblers, for some modes, in the Commission's *National Gambling Survey*. The estimates are most precise for lotteries, gaming machines and wagering. However, they are less so for scratchies, casino gambling and the 'other' mode — mainly keno.

Table 11.2 **Measured consumer benefits, social costs and net impacts of gambling, by mode of gambling**
\$ million (1997-98)

	<i>Net consumer benefit</i>	<i>Social costs of gambling</i>	<i>Net benefit^a</i>
Wagering	629 — 885	267 — 830	(201) — 617
Lotteries	1 232 — 1 498	34 — 106	1 126 — 1 464
Scratchies	219 — 266	24 — 74	145 — 243
Gaming machines	1 617 — 2 491	1 369 — 4 250	(2 634) — 1 122
Casino gaming	581 — 771	48 — 150	431 — 723
Other	103 — 184	57 — 176	(73) — 127
All gambling	4 365 — 6 076	1 800 — 5 586	(1 221) — 4 277

a: figures in brackets represent a loss.

Source: Commission estimates.

The Commission's estimates indicate that *lotteries* generate relatively low social costs and provide a clear (measured) net community benefit of between \$1.1 billion and \$1.5 billion. Spending by problem gamblers accounts for only 6 per cent of the

1 There are some limitations in this rule-of-thumb approach. Modes which do not involve continuous play, such as lotteries, might in reality be the source of a lower proportion of the social costs of problem gambling than their expenditure share suggests. It is also possible that different modes will occasion different social costs per dollar spent by problem gamblers for other reasons, such as differences in the age or gender profile of gamblers that play the different modes. While these considerations mean that the approach for apportioning social costs will not be precise, in the absence of more specific information the Commission judges that it represents a reasonable approach.

total spent on lotteries — the vast majority is recreational gambling (table 9.4 in chapter 9). This small proportion of problem gambling expenditure means that, even if the estimate of social costs from problem gambling were to be increased to compensate for the conservatism and omissions in the Commission's estimates, lotteries would continue to show a significant net community benefit. This aligns with the Commission's assessment of other evidence to this inquiry.

For gaming machines, the estimates indicate that, while this mode could provide net community benefits, it could also provide net community costs, and it certainly generates significant social costs. Problem gamblers account for a significant share of the total spending on gaming machines. Hence, (upward) adjustments to the estimates to take into account the unmeasured or understated social costs of problem gambling would push the net impact estimate range further into the negative. Again, these findings are consistent with the other quantitative and qualitative evidence presented to the Commission.

The *wagering* estimates are similar in pattern to those for gaming machines, although wagering generates proportionately lower social costs and thus the net impact range is more to the positive. Further, there is a question about the degree to which the growth in legal wagering has displaced illegal wagering. To the extent that it has, the social costs associated with the existence of legal wagering would be lessened (appendix O).

State and regional impacts?

As noted in section 10.5, the Commission found evidence of a concentration of gaming machines in areas of low socio-economic status in Victoria, New South Wales and South Australia (although not in Queensland). This in turn suggests that a greater proportion of residents in these areas are likely to be problem gamblers, and thus that the social costs in these areas will be higher.

Beyond these points, there is little evidence to suggest that the extent of problem gambling as a proportion of the population is significantly different in different regions within particular states or territories; nor that consumers derive different levels of benefits per dollar spent gambling depending on the region in which they reside.

At the state level, there are some differences in the prevalence of problem gambling between the states, notably a lower rate in Western Australia where gaming machines are different in nature and much more restricted in accessibility than elsewhere in Australia. This in turn implies that there will be differences in the net

impacts experienced in different states, although these differences are hidden by the national estimates.

The Commission had signalled an intention to make state-by-state estimates for its final report, but this was precluded by imprecision in the data for some states. However, the fact that the distribution of benefits and costs will vary between regions and states does not of itself indicate a need for adjustments to assessments of the net national impacts, just a need for them to be interpreted carefully.

11.3 Implications

What can be concluded from this quantification exercise, with all its limitations, is that the social costs as well as the benefits from the gambling industries are likely to be substantial. These estimates provide a policy challenge for governments:

- the magnitude of the social costs associated with gambling are sufficiently large, particularly for gaming machines and wagering, that governments should explore measures to reduce them; while
- the benefits are big enough that governments will not wish to lose them through overly harsh regulatory arrangements.

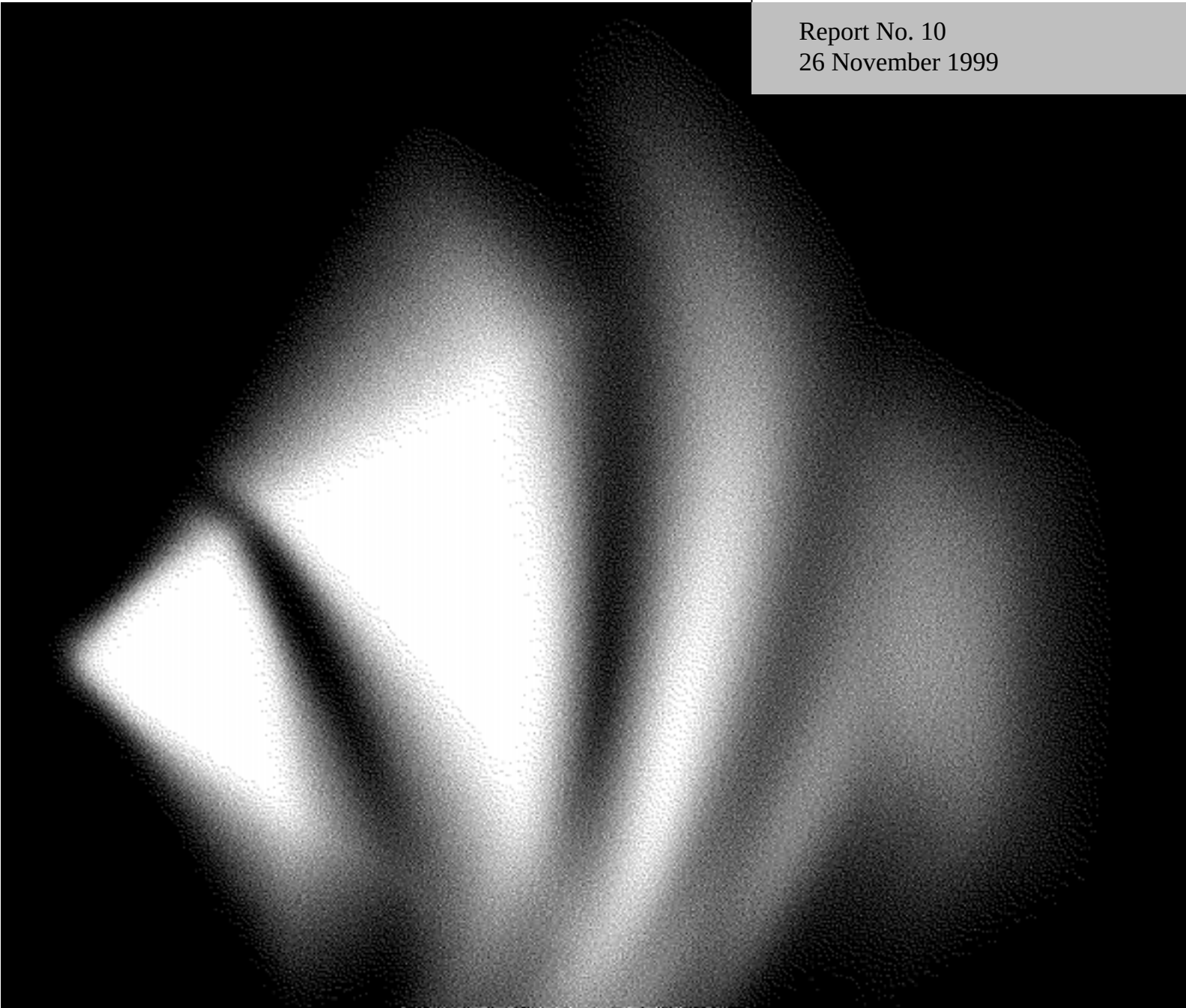
These policy issues are addressed in part D of the report.



Australia's Gambling Industries

Inquiry Report *Volume 2: Report (Part D)*

Report No. 10
26 November 1999



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References

12 Gambling policy: overview and assessment framework

Box 12.1 Key messages

- Transparent processes, careful attention to policy design and evidence-based choices among competing options are the keys to good policy.
- Governments have not always provided clear rationales for gambling policies.
- Some apparent objectives for, and outcomes of, policies do not have a strong *prima facie* basis — in particular, exclusivity arrangements, economic development, and measures which support particular groups or activities within the gambling industries.
- Policies often appear to have inconsistent objectives and variable application, illustrated by the use of strong probity controls in some gambling modes and their absence in others.
- The goal of revenue generation can have a distorting influence on policy. It is unlikely that the gambling regulatory environment would look like it does without the understandable imperative for states to meet their tax revenue needs.
- The two objectives providing the strongest rationale for special gambling policies are to ensure probity and to reduce adverse social impacts.
- The principle of consumer sovereignty and choice is important when devising gambling policy, but it does not mean that there is no role for government in trying to alleviate the harms from problem gambling.
- The overarching goal should be to maximise the welfare of the community as a whole. Measures which can reduce the social harms of gambling while maintaining the benefits find particular favour under this approach.

12.1 Introduction

The gambling policy environment is complex. It involves a highly elaborate and, at times, clashing set of arrangements for taxing and regulating the industry as well as for remedying its harmful side-effects.

This complexity reflects:

- the multiple jurisdictions and institutions involved in policymaking and administration;
- the variety of gambling modes, from racing (in all of its forms), casino table games, gaming machines, lotteries and more minor forms such as bingo, keno, and community gambling;
- apparent ambivalence in public attitudes to gambling;
- tensions between different policy goals of government; and
- the historical sequence of deregulation.

As the CIE observed:

To some extent the ‘heavy hand’ and the rich detail of regulation is a consequence of the relatively quick transition from illegal activity to legal activity. It is also shaped by the lingering perception that gambling is immoral. The large quantity of legislation can also be explained in part by the numerous moves by government in recent years to increase gambling opportunities. The current body of legislation reflects these seemingly contradictory motives to tightly control gambling, while simultaneously liberalising its availability (1997, p. 21).

Part D of this report contains a detailed examination of policies — current and potential — for regulating the gambling industry. In responding to the terms of reference and in line the requirements in the *Productivity Commission Act 1998*, the Commission’s primary aim is to identify any changes to present policy settings and institutional arrangements for gambling which could enhance the wellbeing of the community as a whole.

To this end, the Commission has used a broad framework which takes account of community wide costs and benefits. A key element of the framework is its clear delineation of the reasons individuals and markets left to their own devices may fail to maximise community wellbeing.

The preliminary steps in this approach were undertaken in part C — the assessment of the benefits and costs of gambling, including the delineation of social impacts from private impacts. The Commission found that, for certain modes in particular, the social costs are substantial. This in turn strongly suggests (but of itself does not prove) that governments need to make considerable changes to the way they regulate the industry.

Against this background, the subsequent steps involve:

- the evaluation of existing policies and institutional arrangements to determine the extent to which they adequately address either the underlying causes of the social impacts of gambling or the impacts themselves;
- where they do not, the design of alternatives to address these matters; and
- the selection of the option, or combination of options, assessed as having potential to yield the largest net benefits.

These steps are taken in the detailed analyses contained in subsequent chapters. However, the Commission has not been asked to make formal recommendations for reforms to the specific state and territory regulatory regimes applying to gambling. Hence, its approach has been to provide information and guidance for policymakers on the likely elements of a sound regulatory system for gambling or, at least, on areas where further investigation may be warranted. The Commission has explored a wide range of options for improved consumer protection and harm minimisation (chapter 16). Some of these could be implemented on the basis of existing evidence about their likely effectiveness and costs. But others require further evaluation and possible trials before implementation, a technical and empirical task that is beyond the scope of this inquiry.

Some requirements for good policy overarch the individual elements, just as some of the reasons for existing (poor) policies lay outside the gambling arena altogether.

To capture these broader issues and thereby provide a context for the detailed analyses which follow, in this chapter the Commission:

- sets out the generic policy-development processes and principles that have driven its findings and which should guide gambling policy generally; and
- provides an overview of the extent to which current approach to gambling regulation converges or diverges from these principles.

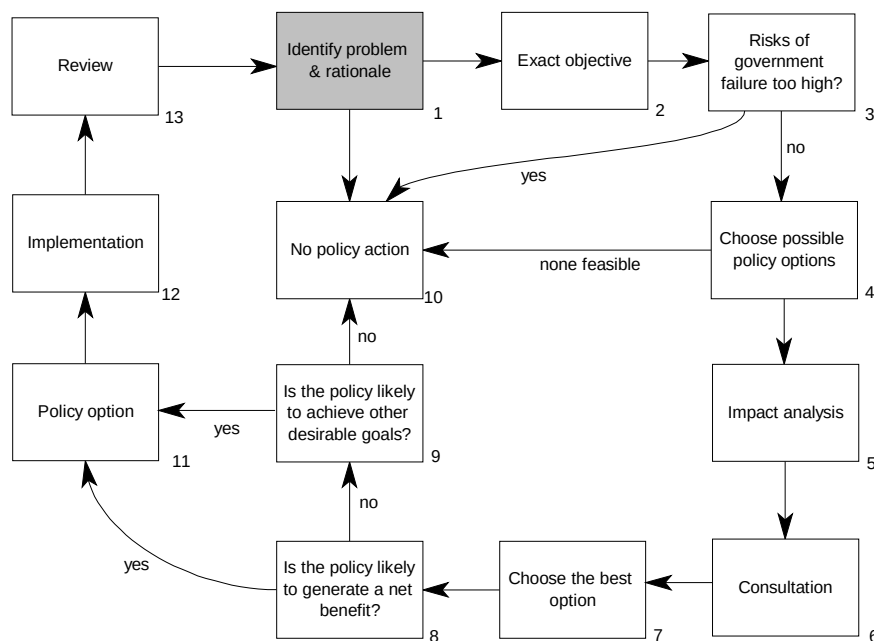
12.2 Policy processes

Because what *actually* happens in gambling policy often differs from what *should* happen, it is important to clarify how policy making should proceed, both as a way of assessing existing arrangements and as a tool for devising new approaches.

There are a number of general steps that assist good policy making (figure 12.1). These include:

- specifying clear objectives, considering alternative measures, and using transparent and consultative processes (box 12.2);
- and considering detailed design of any policy (table 12.1).

Figure 12.1 **13 steps to good policy**



Box 12.2 **Some principles of good policy process**

Identifying problems and clarifying objectives

- What is the problem that needs to be addressed and what is its risk?
- Why is government action needed to correct the problem?
- What are the objectives of government action?
- What are the risks and problems of government action?

Choosing an instrument

- What are the options for policy? (different types of regulation, including self-regulation; tax measures; financial assistance; and information provision)

Consultation

- Who are the main affected parties and what are their views? (eg industry's views about compliance costs of new regulations, community views about local changes with significant impacts).
- Are there appropriate *grievance* procedures for regulatory arrangements? (eg easily accessible, timely, fair systems).

Transparency and accountability

- Is the option clear, consistent, comprehensible and accessible to users? (eg granting licenses should be based on pre-agreed criteria and open to scrutiny).

Implementation and review

- How will the preferred option be implemented?
- How will the effectiveness of the option be assessed, including attempts to measure costs and benefits? How frequently?
- Is there a built-in provision to review or revoke the policy measure after it has been in place a certain time? For example, a regulation may become anachronistic with technological change (eg the influence of internet gambling on existing gambling modes) or altered community attitudes.
- Will any assessment of policies be independent from the policy maker or regulator?

Source: PC (1998) and ORR (1998).

Table 12.1 Impact and policy design issues

<i>Issue</i>	<i>Comments</i>
Design issues:	
Targeting	Does the policy target the problem effectively, and apply to the right groups? Does the policy apply too widely or narrowly?
Timeliness	Does the policy solve the problem in sufficient time?
Scale of resources	Does the policy apply the right scale of resources to the problem at hand?
Duration	Does the policy have the right duration?
Best-practice regulatory administration and delivery	Is it administratively efficient for government and for the client or target group? Is compliance and administration simple and low cost? Does the policy increase uncertainty? Do any paperwork requirements fit in with standard commercial practices, and with those required by any relevant regulations? Are the reporting requirements (in terms of frequency and detail) set appropriately? Is the administrative structure optimal for policy coordination, delivery and information provision? What systems are in place to ensure that the behaviour of policy administrators is fair and appropriate?
International obligations	Does it breach Australia's international obligations?
Enforcement	Is any regulatory enforcement regime appropriate (monitoring, fines, sanctions, education)? Is any penalty in proportion to the seriousness of the offence?
Flexibility	Is the policy likely to be effective as technology, markets, and community attitudes to gambling change? Is it likely to be effective for different sorts of gambling, venues or gamblers? Are any regulations flexible enough that a gambling provider has the freedom to search for lower cost ways of achieving the goals of the policy?
Cost recovery	Who should pay for the administrative and other costs of the policies (gambling providers, gamblers, taxpayers generally, a particular group of gamblers or providers, the source of any externality)?
Impacts:	
Who?	Who is affected by the problem which needs to be fixed, and who is affected by its proposed solutions?
On other policies?	How will any policy affect existing policies and regulatory institutions? Is it consistent with them?
On costs and benefits?	What are the costs and benefits of alternative options?
Distributional and social?	Who bears these costs and benefits? Does the policy unintentionally transfer significant resources from one group to another? How can these transfers be avoided or reduced? Is the policy 'unfair'? Does it conform with social norms?
Consumer and business impact tests?	Does the policy reduce competition and/or business innovation? Does it increase prices or reduce the quality of gambling? How much does it affect costs, quality or availability of inputs to the gambling industries? Does the policy require operational changes, including changes in personnel, or physical capital? Does it constrain business practices, for example, ability to attract overseas high rollers?

Sources: PC (1998), ORR (1998), Better Regulation Taskforce (1998), Ontario Red Tape Commission (1997).

In the chapters that make up part D, the Commission shows that some of the above principles have not been well observed in policy making for gambling.

Some of the elements which need particular attention for gambling policy are examined below.

12.3 Clear rationales?

Part C of the report outlined the key social impacts of gambling which might justify government involvement. Clarifying these rationales is important because, in their absence, gambling would be like many other entertainment and recreational industries, and there would be no grounds for what has been called the ‘complex regulatory web’ (sub. 155, p. 142).

Unfortunately, governments themselves send unclear signals about the underlying objectives for their gambling policies. This is because the objectives are often implicit rather than stated, are not always consistent, and the trade-offs among them are not specified. For example, governments have generally not revealed why there are variations in tax rates among gambling forms and venues, or why they themselves own some forms of gambling and not others.

The CIE (1998), in preparing a framework for Victoria’s NCP reviews of gaming legislation, argued that the stated objectives of governments provide only a partial understanding of the range of objectives which the regulations are intended to meet:

One reason for this is that nine different principal acts covering the industry have been enacted over the past 39 years and there are resulting inconsistencies, overlapping controls and gaps (CIE 1998, p. 20).

In this respect, Victoria is little different from other jurisdictions.

However, a number of objectives emerge as important (CIE 1998, p. xi; IPART 1998), as discussed below. The purpose of this discussion is not to detail *what* regulations and policies governments implement (which is in chapter 13). Rather it is to see *why* these are implemented, and whether such objectives have a *prima facie* rationale, as a basis for more detailed consideration in later chapters.

Generating government revenue

In no other group of industries today do policies appear to be driven so strongly by revenue needs — so much so that it is commonly observed that the states have become ‘addicted’ to gambling revenue. These revenue needs have contributed to the willingness by governments to liberalise formerly prohibited forms of gambling, such as gaming machines and casinos (for example, note the case of Queensland in box 12.3). Indeed, liberalisation displaced formerly illegal activity that gave governments no tax revenue, but occasioned liabilities (eg policing costs).

For example, the Western Australian Government said that:

... it seems certain that the revenue motive would have played a bigger role in the more recent rapid expansion of legalised gambling in most parts of Australia (in the last 10-20 years)... (sub. 76, p. 39).

Similarly, Tattersall's observed that:

... given gambling's effectiveness as a revenue raising device, governments have not long been able to maintain a policy of prohibition and non-involvement. The potential for revenue loss to other jurisdictions has also been a strong factor encouraging the spread of gambling services... (sub. 156, p. 56).

While revenue needs have contributed to liberalisation in the *availability* of gambling, they have also led to an overall regulatory and taxation regime that is far from liberal when compared with other entertainment products. Revenue needs have:

- encouraged monopoly practices that generate large economic rents, which are (partly) appropriated by governments through licence fees or specific gambling taxes; and
- led to high tax rates relative to other industries.

In some cases, the prominence of revenue generation in gambling policy is explicit. For example, lotteries have long been used to raise revenue for particular public purposes — these are sometimes seen as 'voluntary' taxes (the Opera House lottery being an obvious example). Western Australia and South Australia still depend on lottery revenues to fund specific activities. Queensland governments used the Golden Casket to fund their hospital system for many years, although the Government now simply directs funds to consolidated revenue (sub. 128, p. 12), as does New South Wales for its lottery.

In other cases, the revenue motive is more implicit in policy. For example, the persistence of monopoly (or 'exclusivity') arrangements in the gambling industries appears to be mainly driven by revenue considerations. Revenue collection, by itself, provides an unconvincing rationale for creating such exclusive rights. *If* it were accepted that governments should raise significant revenue from the gambling industries, then explicit taxes, through their greater transparency, accountability and flexibility, are preferred measures for collection (recognising that they may not *maximise* revenue from the industries in some cases).

However, even the goal of raising significant revenue from gambling may not be appropriate. That would depend on whether this was an efficient and equitable way of collecting tax revenue (compared to other sources) — an issue analysed in chapter 19.

**Box 12.3 Introducing gaming machines into Queensland:
some stated objectives**

According to the Queensland Government:

Gaming machines were introduced to:

- provide an avenue by which participating clubs could improve their financial position in order to provide enhanced recreational facilities and services for their members and patrons;
- provide additional employment opportunities in the States;
- provide direct funding to community groups, recreational and welfare programs;
- encourage the growth of tourism by the improvement of club facilities, services and entertainment;
- create extra revenue for the State; and
- meet the legitimate wish of those who are attracted to playing gaming machines by legalising access to such machines.

The Government added that gaming machines were legalised within a regulatory environment designed to ensure probity and integrity, and a range of policies was implemented to achieve this.

Source: sub. 128, p. 9 and Queensland Government (1996), p. 1.

The special weight given to revenue needs in governments' policies towards gambling reflects two factors.

First, the imperative for gambling revenue is driven by the imbalance in taxation powers between the Commonwealth and the states and territories. The Western Australian Government, for example, sees gambling taxes as a symptom of:

... the States' excessive reliance on Commonwealth grants (commonly known as Vertical Fiscal Imbalance ...) and substantial cuts in those grants; and very limited own source revenue raising options for the States (sub. 76, p. 39).

Second, governments' ability to tax is reinforced by the widespread perception that gambling is a 'questionable' pleasure. Ambivalent public attitudes allow governments to tax gambling with little adverse response. Governments can also mollify opposition to gambling itself, by taxing it heavily and channelling some of the revenues raised into socially worthwhile uses (chapter 20). It is politically much more difficult to oppose a measure if a significant proportion of the revenue raised is payable to a children's hospital.

Economic development and promoting tourism

Casinos, in particular, are promoted as agents for economic development and increased tourism. In Australia, every jurisdiction has adopted the policy of issuing casino licences only for hotel-casino complexes. And in many cases, the casino has involved large scale local redevelopments of partly derelict land: Jupiters, Crown, and Burswood are examples, while Adelaide and Brisbane both involved major renovation of heritage buildings.

The Queensland Government said that one of its objectives was to ensure:

... that the State benefits by the development and operation of hotel-casino complexes and associated community infrastructure. In particular ... casino licensees must have the financial resources to ensure the continuing viability of the hotel-casino complex (sub. 128, p. 8).

But while tourism and economic development are explicit objectives of some governments, the Commission found in chapter 5 that the wider economic development benefits of gambling are overplayed. It might have some relevance to destination gambling sites aiming to meet tourist needs, but most gambling does not fit this mould.

Special treatment for certain industries

Some gambling policies incorporate as a policy objective the favourable regulatory and tax treatment of particular groups, such as the racing and ‘club’ industries.

TABs commonly involve arrangements under which the racing industry receives funding from wagering revenues. For example, the joint venture between Tabcorp and VicRacing provides that the racing industry receive a share of all profits from Tabcorp’s gaming *and* wagering licences. The CIE (1997, p. 23), in its study of the Victorian regulatory framework, argued that ‘this is unlikely to have been negotiated in an unregulated market’.

In many jurisdictions, governments explicitly provide special advantages to clubs in the way they allocate gaming machine licences (chapter 13). Clubs also benefit to some extent from arrangements in jurisdictions such as Victoria and South Australia, where they are permitted the same maximum number of gaming machines as hotels, but where the greater demand is for hotel gambling. Clubs also benefit from advantageous taxation arrangements, partly as a matter of policy and partly in view of their mutual status (chapters 19 and 21).

In the absence of subsidiary rationales, the objective of tailoring regulatory and tax arrangements for segments of the gambling industries is unpersuasive. For example,

the Queensland Government introduced gaming machines to clubs (on a more favourable basis than hotels), in part, to

... provide an avenue by which participating clubs could improve their financial position in order to provide enhanced recreational facilities and services for their members and patrons (sub. 128, p. 9).

This begs the question of why gaming, among all possible services, should be chosen as the medium for the favourable treatment of clubs. Clubs would also improve their financial position from favourable treatment in providing cinemas, alcohol and other recreational and entertainment services, but most people would not see this as a proper basis for selective regulation.

It is possible that there are rationales for selective treatment, but that they are not articulated clearly by governments. This is problematic because it makes it difficult for policy evaluators to ask and test the right questions. Some *possible* rationales for selective treatment of different gambling forms could be that:

- clubs may represent less hazardous environments for gaming machine and TAB gambling than other venues (CIE 1997, p. 23);
- there may be other social advantages in favourable treatment of clubs — such as a more equitable distribution of resources in local communities;
- exclusivity may be a way of efficiently enhancing the pool size for parimutuel gambling modes (such as the TAB and lotteries); and
- in competitive wagering markets (where there are a number of gambling suppliers) no individual supplier has an incentive to pay anything towards the costs of the racing industry on whose outcomes they wager — the so-called ‘free-rider’ problem. In this case, it may be optimal for gambling suppliers to bind each other to pay a levy to the racing industry.

Whether in fact these provide a good basis for selective treatment is taken up in chapter 14.

Addressing the social costs of gambling

In practice, governments aim to limit the adverse social impacts of gambling through a range of policies, including preventative measures, harm minimisation and help services, and also through restrictions on the availability of gambling.

For example, the AHA (Victoria) indicated that the regulatory environment with respect to gaming machine licensing aims, in part, to address a number of social costs associated, or potentially associated, with gambling:

The rationale for licensing venue operators appears to be consumer protection, eliminating criminals and maintaining and protecting the government's revenue base. The rationale for linking the gaming licence to a liquor licence appears to be to restrict use of the product to those over 18 years of age, and to entrust the delivery of the product to a section of the community which is practiced in the responsible delivery of potentially harmful products (sub. 154, p. 9).

Gambling clearly does have severe social impacts for some people (chapters 6 to 9), so the objective of ameliorating or preventing these harms has a strong foundation.

Uncertainty about the social impacts of gambling have also led to a conservative attitude towards liberalisation of gambling. Governments have feared that some formerly illegal modes of gambling — gaming machines and casinos — might, when liberalised, have significant adverse effects on the community.

In reporting the reviews of gambling legislation undertaken thus far under the National Competition Policy agenda, the National Competition Council said that:

Traditionally, gambling has been far more regulated than most other industries, and free competition has not been an objective ... The approach of governments has reflected their views that there is significant community concern about the potential economic and social costs associated with a more competitive gambling market (NCC 1998b, p. 123).

Indeed, in explaining its approach to restricting gambling opportunities, the South Australian Government (sub. D284, pp. 1–3) emphasised that it sees gambling as a matter of social policy, not competition policy, (although it should be noted that there is not necessarily any conflict between the two, as social policy considerations are integral to the assessment of the merits of restrictions on competition under the National Competition Policy principles).

In the Commission's view, uncertainty justifies a cautious approach to liberalisation, but it does not justify protecting the interests of entrenched gambling providers (for example, by *long-term* exclusivity arrangements — chapters 13 and 14).

Whether the other instruments chosen to ameliorate the social harms of gambling work well or are applied consistently across jurisdictions and modes is, again, far from clear — an issue analysed in chapters 16 and 17.

Quality control and probity

One objective of governments is to implement regulations and oversight to ensure that games are 'fair' and that criminal provision of gambling — once the hallmark of parts of the industry — is avoided.

IPART observed that most developed countries regulate gaming primarily for social reasons and to deter crime:

The only product that exchanges hands in gaming is money. As a consequence, if gaming is not properly controlled, it is susceptible to criminal activity, fraud and dishonesty. Individuals can, and in some cases do, become addicted to gaming, with adverse effects for themselves, their families and society in general (IPART 1998, p. ii).

This is consistent with the views of the Western Australian Government, which said that the way in which it provides the public with access to gaming activities:

... has been influenced by the recognition that the gaming industry is an industry particularly attractive to unscrupulous operators and to organised crime. In an effort to protect the consumer from fraudulent activity, and to ensure that organised crime does not have an interest in operating or owning gaming activities, governments have determined that it is in the public interest to have a legislative regime requiring licensing and strict regulation of the gaming industry. These are long standing views which have been maintained by successive governments ... (sub. 76, p. 15).

Similarly, the Queensland Government said that its two major policy objectives are:

- to suppress illegal gambling by offering a legal equivalent; and
- to ensure the probity of the persons and the integrity of the systems involved in gambling by licensing the providers of the gambling product (sub. 128, p. 6).

The Queensland Government also noted that:

- the *Interactive Gambling (Player Protection) Act 1998* seeks to protect players by licensing providers, controlling advertising and marketing, ensuring privacy of personal information etc;
- its proposed new regulatory regime for art unions is heavily focused on ensuring probity;
- lotteries are run under stringent guidelines to ensure a high level of public confidence in the integrity of their operations; and
- the creation of the TAB was intended to stamp out illegal SP bookmakers and ensure that a significant proportion of the profits of offcourse wagering were returned to the racing industry (sub. 128, p. 12).

While probity appears to constitute a sound basis for government regulations, there are a number of subtleties:

- Probity is often in the interest of suppliers themselves. Good operators would, in the absence of regulation, still wish to signal their quality in this respect to consumers. For example, Star City Casino considered casino probity controls to be a reflection of residual concerns about casinos and organised crime, which

paid insufficient attention to the incentives which casinos have to operate as reputable businesses. Governments may, however, be more efficient at signalling and ensuring probity than individual operators.

- As noted in chapter 13, probity regulations apply extensively in some gambling modes (casinos and lotteries) but hardly at all in others (clubs). Probity regulations are rarely in place for non-gambling businesses.

The question of whether probity is an appropriate basis for special regulations in the gambling industries has to rest on evidence that the risks or consequences of lack of probity are likely to be noticeably higher without them (an issue which is examined further in chapter 16).

Summing up

Australian governments generally agree on the broad objectives of gambling policy. Foremost among these are the desires to maximise revenue, to minimise social impacts, to ensure product integrity and to deter criminal involvement.

However, not all of governments' objectives for gambling policies are clear, consistent, or have a persuasive economic or social rationale. Of governments' objectives, only two provide a strong *prima facie* basis for any special policies directed at the gambling industries — probity and ameliorating social harms. Four others have an uncertain basis, while the remaining four appear to have little rationale.

Nor do the objectives — when scrutinised closely — fit with the Competition Principles Agreement, the agreed framework for State and Territory reviews of regulatory arrangements. For example, when formulating the objectives of their gambling policies, jurisdictions have largely ignored their impacts on the efficient allocation of resources and, apart from probity, they appear to have often disregarded the interests of consumers (which goes beyond prices to consumer protection issues).

The view that implicit and explicit objectives set down by governments are flawed is echoed by others. The NCC, for example, expressed some doubts about some of the justifications provided for restrictions on competition (1998b, p. 124), taken up in chapter 14. ACIL, in a report commissioned by major providers from three States, was even more critical of both the objectives and sweeping nature of the regulatory and policy regime:

Regulation of gambling in Australia ... is an accretion resulting from historical attitudes and events (especially in periods in which gambling was illegal) that bear no relation to

either current reality or an overall and properly considered policy framework (sub. 155, p. 142).

In part it attributes this to ‘policy gridlock’ in all jurisdictions, noting that, notwithstanding National Competition Policy reviews:

... the various state and territory jurisdictions have found it difficult to undertake very searching reviews of their gambling laws (sub. 155, p. 143).

Some also argue that the mix of objectives is unbalanced, with the revenue objective dominating that of reducing the social costs of gambling:

- some fear that social costs may increase over time if a preoccupation with tax revenue deters governments from policies which may constrain gambling; and
- there is also concern that measures which seek to legitimise high taxes, like the earmarking of revenue for particular purposes, also serve to promote gambling.

12.4 Allowing for ‘government failure’

As noted, while there are a number of poor reasons given for government regulation of gambling, there remain some strong *prima facie* rationales for regulation of gambling and other government policies.

But these provide only a *contingent* basis for government policies in the gambling industries — they are not sufficient.

Policies intended to deal with one problem can create other problems and greater costs. For example, one strand of harm minimisation aims to reduce problem gambling by changing the designs of gambling technology and venues. For this to be worthwhile, the benefits from reducing problem gambling have to be greater than the costs for recreational gamblers. Some design changes will not pass this test.

Measures based on social norms and ethics pose questions about *whose* norms and ethics should apply, with risks of paternalism and excessive social control.

Similarly, it is possible that some measures aimed at curbing criminal problems associated with gambling (such as money laundering) may simply lead to criminal behaviour elsewhere, with little aggregate impact. And as IPART pointed out, there are limits to the extent to which governments can regulate gambling, because of the need to avoid increasing the appeal of illegal forms of gaming and providers of gaming in other states and countries (IPART 1998, p. ii).

The industry submission prepared by ACIL gave particular emphasis to the likelihood of such ‘government failure’, citing probable regulatory capture of public

officials, likely ‘lowest common denominator’ outcomes from government sponsored activities, populism and the distortions of raising taxes to fund government measures. It concluded that:

The key issue is that even if the market clearly fails in the provision of gambling services, this does not of itself justify the existence of public funding, regulatory and institutional arrangements to combat market failure. At the very least, the market failure must outweigh any government failure that may be reasonably expected to be associated with fixing it. This apparently straightforward point is often forgotten by proponents of government intervention and stands as an important reason why the current array of interventions, including tax policy, in Australia’s gambling industry deserves review (sub. 155, p. 5).

Governments’ failure to follow good regulatory process and design principles, compounded by and combined with revenue raising imperatives, may well have led to perverse regulatory outcomes in gambling.

12.5 Good process and design

There appears to be scope for process and policy design reforms that would reduce the risks of government failure. One of the key advantages of following something akin to Regulation Impact Statements (for regulations or other policies) is that they provide a framework for considering whether policy is susceptible to government failure.

Transparency, appropriate consultation and grievance procedures, combined with the explicit design of policy and the recurring independent assessment of the public benefit of policies, maximise the likelihood of an efficient and effective policy regime.

The right instruments and settings

In the gambling industries, a large range of instruments is used to achieve government objectives:

- taxes are levied or license fees exacted (at different rates for different gambling forms and venues);
- gambling venues are given exclusivity in some domains (casinos, lotteries, licensing of venues able to offer gambling);
- prices have regulated floors and sometimes ceilings;
- information is mandatorily collected and probity checked for some games and some venues;

-
- gambling technology is rationed (caps at various levels);
 - governments provide help services to people who come forward as problem gamblers or their family members;
 - there are a small range of preventative measures, such as the development of curriculum materials and awareness raising of some of the risks of problem gambling; and
 - harm minimisation strategies are developed, sometimes by the gambling industry on a self-regulatory basis and sometimes through legislative requirements (such as the ban on bill acceptors in South Australia).

The following chapters in part D assess the usefulness and justification of these instruments.

The internet and a range of other emerging technologies present some new challenges for policy (chapter 18). They raise the possibility that policy instruments that worked in other gambling modes will be ineffective in the new ones. It is also possible that if there is strong substitution between new and old gambling technologies, then it will undermine the effectiveness of policies used in the old modes. The story which unfolds from internet and interactive gambling may in this sense resemble that of banking in the early 1980s, where the protective web of regulations entangling the banks was unravelled by the vigorous growth of non-bank financial institutions.

A policy framework, whether it be for health, defence or gambling, should consist of a coherent set of arrangements which are coordinated to achieve their aims. However, policies for the gambling industries are fragmented, inconsistent, and even in conflict.

Policy inconsistencies can arise both because of poorly defined rationales for policy and because of the ad hoc way in which policies are developed (typically by different institutions) for the different modes of gambling. They often also reflect historical accident and the evolving nature of the industry. In many cases, only now are the gambling industries being seen as a coherent group of activities, which require a consistent set of policies and the need for, if not one, at least a coordinated group of institutional overseers (as demonstrated by the thrust of submissions to the New South Wales IPART inquiry). The Commission assesses in chapter 22 the procedural and governance arrangements which might provide better outcomes.

12.6 The policy goal: maximising net community benefits

The Commission's approach for examining policies, such as the regulatory and taxation arrangements which pervade the gambling industries, emphasises as its ultimate goal the notion of maximising overall community welfare or well-being. This encompasses those who benefit from, and those who are disadvantaged by, any policy measures. Where social and distributional issues are important, the Commission also considers the role that equity and social norms play in good policy making. In general though, given that weights for distributional considerations and values for achieving community norms can be incorporated with economic analysis, this goal can be broadly characterised as one of maximising net community benefits.

Chapter 11 indicated that, conceptually, one way to represent this objective in gambling policy is for government to set policy so as to achieve an optimal industry size. This size would be the level at which the marginal costs of gambling (comprising social and production costs) equal the marginal benefits to gamblers (box 11.4 in chapter 11).

One, unambitious, stance of government could be to take everything about the gambling environment as given (such as the design of gambling technologies, accessibility and monopoly provision), *except* the quantity of gambling allowed. Government would then simply try to maximise the social benefits of gambling by relaxing or tightening the quantity constraint.

However, such a stance would ignore all of the other possible policies and instruments discussed in the preceding sections. By re-designing these policies, it will often be possible to achieve higher net benefits by reducing social harms — and this, in turn, may allow the safer liberalisation of gambling.

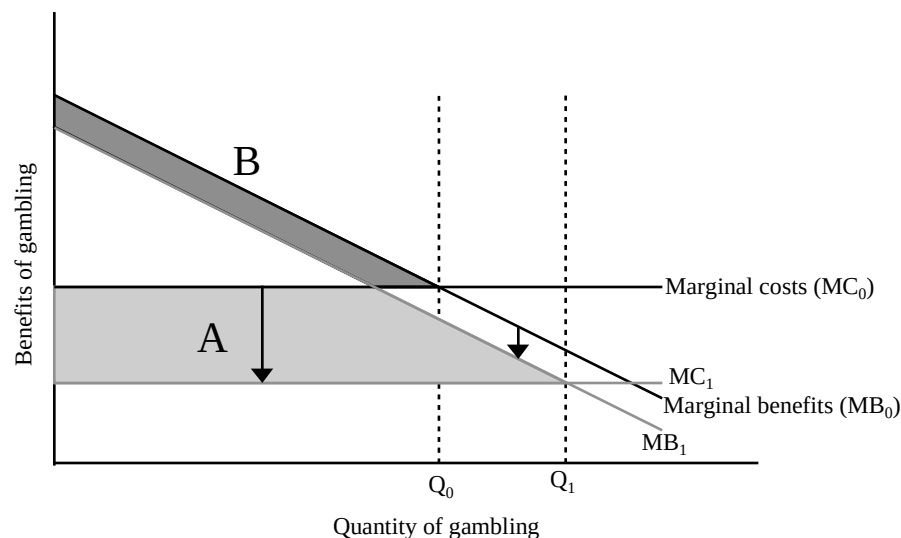
The principle is illustrated in box 12.4.

An analogy is motor vehicles. If cars were very unsafe, it might be reasonable for governments to limit their number. However, in the presence of the accident prevention and harm minimisation standards present today, there is no need to control vehicle numbers.

Box 12.4 Using policy to maximise benefits — some theory

The gambling industry produces both benefits and costs. These costs and benefits are likely to change as the industry grows or declines in size. The changes in costs and benefits associated with incremental changes in the size of the industry are referred to as *marginal* costs and benefits. While the graphical depiction of these marginal costs and benefits below is only hypothetical, they provide some useful policy insights.

Say that governments were to introduce some policies which improved prevention, harm minimisation and assistance, leading to less problem gambling — thus lowering the marginal social costs of gambling (from MC_0 to MC_1). Suppose that these also had some adverse impacts on the marginal benefits — pushing marginal benefits down from MB_0 to MB_1 (for example, because some recreational consumers found some of the measures decreased the convenience from playing). In the example given here, there is a clear net benefit from these measures (A, the gain, is bigger than B, the loss). Also, effective harm minimisation *increases* the optimal amount of gambling from Q_0 to Q_1 — so that policies which deal effectively with the adverse social consequences of gambling need not be counter to the interests of gambling suppliers.



Of course, the example in box 12.4 is an illustration only. Different movements in the marginal benefits and marginal costs will have other outcomes than shown in the example. However, the point is that government policy-making should take account of how it shifts the marginal benefits of gambling to consumers *and/or* the marginal costs of gambling (to problem gamblers and the community in general).

The role of consumer sovereignty

An overarching issue for the evaluation of gambling policies is how to determine which mix of gambling activities (and constraints on activities) actually maximises gamblers' net benefits. This can seem a perplexing task given the myriad of possible

activities and variations on activities that could be made available for gamblers, and the difficulty for the outside observer of determining which of these would bring the most net benefits for any one gambler, let alone for each gambler in the population.

A common benchmark is that people's revealed preferences are the best guide to these issues — the notion of 'consumer sovereignty':

One basic economic tenet is the 'consumer sovereignty' principle that individuals are generally best placed to assess for themselves the benefits that they receive and the costs that they incur from engaging in an activity. A corollary of this that, generally, an individual will only engage in an activity to the extent that the benefits of doing so outweigh any costs involved. Another is that the activities we observe can be safely assumed to represent the set which gives greatest possible satisfaction to those engaged in them, given the constraints of income, time available, information and so on (sub. 155, p. 2).

Hence, provided a judgment can be made that the production side of an industry is responsive to consumer demand, policymakers can normally sidestep the conundrum of having to value different activities by taking those observed in the market place to be the ones that maximise consumers' welfare.

In the case of gambling, the blanket application of this principle would imply an attenuated role for government. Some submissions to the inquiry took this viewpoint, arguing that gambling was a matter for the free choice of the consumer, and that regulations which restricted choice were, at best, paternalistic.

There is an important caveat in the above passage, however. It is the use of 'generally' in the phrase 'generally best placed'. Taken to its extreme, the concept of consumer sovereignty means that suicide, self-abuse, and heroin addiction all represent the desirable state of affairs for the person concerned. Of course, most consumption does not fall into these extremes, but for problem gambling this is exactly the issue. What generally holds for most goods may not hold for some gamblers.

In any case, the assumption that effective choice can only be restricted by policy is not always sound. Policies which allow informed consent typically widen, not narrow, consumer choice. For example, government requirements for information about product quality, cooling-off periods and measures to reduce supplier deception or entrapment, generally give consumers more power to make informed choices about what they buy.

And of course, the 'consumer sovereignty' principle is of no help where external benefits and costs are involved.

Overall, the Commission acknowledges that many policies that are consistent with the goal of maximising net (consumer) benefits will also be consistent with the principle of consumer sovereignty. The principle is also of value when devising gambling policy, particular for the large majority of (non-problem) gamblers.

However, that does not mean that there is no role for government in trying to alleviate the harmful social impacts of gambling, whether it be on gamblers themselves or on others. The notion of consumer sovereignty does not, therefore, short-circuit the policy assessment process laid out in figure 12.1.

The role of harm minimisation

The Commission has drawn on the principles of harm minimisation in developing several of its policy suggestions for gambling regulation. Harm minimisation strategies are a more ambitious, and a potentially more beneficial, way of dealing with the adverse social impacts of gambling than by simply imposing or tightening a constraint on the amount of gambling (box 12.4). They seek to meet the recreational demand for gambling, while reducing the social costs associated with each unit thereof.

It is important to recognise that the Commission's approach is more one of harm *minimisation* (or, perhaps more accurately, risk *optimisation*) than harm *prevention*. That is, the Commission does not favour measures which would reduce the social costs of gambling *no matter what the sacrifice to the private benefits*. Rather, its approach is to seek ways that, *as far as practical*, reduce the social costs of gambling without reducing the benefits.

This contrasts with the philosophy sometimes evident in public debate which, at the extreme, claims that any measure that reduces or eliminate a harm, no matter how costly the measure nor how small the harm, is justified: "One family destroyed is one too many", as one participant put it (City of Boorondara, trans. 1277).

While such claims are understandable and have obvious emotive appeal, they are also untenable in practice because they inevitably lead to the banning of anything that causes a harm, including things that entail substantial net benefits to the community. In the case of cars, for example, a philosophy of harm *elimination* would require their removal from the road.

Hence, in considering the role for harm minimisation strategies, the Commission has retained the flexibility to tradeoff the benefits of such measures with any costs they may impose on regular gamblers.

Characterising the Commission's approach

The Festival of Light interpreted the Commission's approach as involving a conflict between two mutually exclusive policy goals. It said:

...the draft report commits public policy to pursuing, simultaneously, two mutually exclusive agendas. On the one hand, a politically-correct, ultra-libertarian tendency to uphold the rights of individuals to engage in forms of pleasure seeking behaviour irrespective of their known destructive consequences is consistently upheld. On the other, a desire to establish a comprehensive social 'safety net' that protects individuals and society from the adverse consequences of such behaviour is simultaneously evident, in the form of 'minimising the harm' inflicted by problem gamblers. (sub. D213, p.3).

However, the Commission's approach is not based on absolute consumer sovereignty on the one hand, or absolute consumer safety on the other. Rather, the Commission's approach recognises that consumer choice and freedom involves some costs and benefits, as do varying regimes of consumer protection. The policy goal, difficult as it may be, is to find an approach that tries to achieve the overall best outcome.

Indeed, it should be noted that the approach developed in the following chapters involves a suite of measures, including:

- *consumer protection* measures for the benefit of all gamblers;
- proactive *harm minimisation* measures (such as voluntary self-exclusion measures) to reduce the extent of problems suffered by problem gamblers; and
- reactive *harm alleviation* measures (such as help services) for any problem gamblers, and their families and others affected by them, who suffer severe problems.

Hence, it is misleading to characterise the Commission's approach as being simply one of 'let the market rip but put a safety net in place to catch the losers'.

So in summary, the Commission has examined the merits of measures to address the pros and cons of gambling at a range of levels. In doing so, while recognising the importance of principles such as consumer sovereignty, harm minimisation and harm alleviation, it has not relied exclusively on any of these. Rather, it has been guided by the over-arching principle of maximising net community benefits. Any measure — whether it be interventionist or market-based — which can reduce the social costs of gambling while maintaining its benefits, will be particularly favoured under this approach.

13 Regulatory arrangements for major forms of gambling

Box 13.1 Key messages

Regulatory arrangements are characterised by:

- *exclusivity* arrangements and other limits on competition between providers (or potential providers);
 - monopoly (or near-monopoly) arrangements exist for casinos, the TAB and lotteries; in some cases, with the operators effectively endorsed by government;
 - in return for a tight regulatory regime, close supervision and heavy taxation (and licence fee), licensed operators may have exclusive access to a particular geographical market for some period;
- *restrictions on the supply* of gambling services (such as limits on how many gaming machines or gaming tables a venue may have)
 - all jurisdictions impose some restrictions on gaming machine numbers, whether by a maximum allowable in particular types of venues, a cap on the number permitted to operate in a region or in total, or both
- extensive *monitoring* of gaming and *probity checking* of licensees and some employees
 - measures have been put in place in all jurisdictions to allow regulators to monitor the integrity of gaming, and to provide greater certainty that the correct amounts of tax are being paid
 - but there is significant variation in the approaches taken for different modes of gambling
- *requirements based on the type of venue* involved (for example, what clubs, hotels and casinos can and cannot do); close regulation of casino operations
- differences with respect to the amount and type of *consumer information* provided to gamblers;
 - information on odds and payout rates is variable.

13.1 Introduction

Australia's gambling regulations reflect a blend of pragmatism, historical accident and the inevitable variation provided by the mix of gambling forms and the objectives of different governments and interest groups.

This chapter does not examine all aspects of these arrangements. Instead, it provides a snapshot of the regulatory environment faced by each major mode of gambling. It seeks to highlight appropriate regulatory features, as well as major inconsistencies and shortcomings, by concentrating on:

- *exclusivity* arrangements and other limits on competition between providers (or potential providers);
- *restrictions on the supply* of gambling services (such as limits on how many gaming machines or gaming tables a venue may have, global caps and prohibition of note acceptors);
- *requirements based on the type of venue* involved (for example, what clubs, hotels and casinos can and cannot do); and
- *the role of 'consumer information'* to gamblers.

While arrangements vary among jurisdictions, large parts of the gambling industry are characterised by some form of monopoly (or near-monopoly) for casinos, the TAB and lotteries; in some cases, with the operators effectively endorsed by government. In return for a tight regulatory regime, close supervision and heavy taxation (and licence fee) arrangements, licensed operators may have exclusive access to a particular geographical market for some period (which may or may not be defined).

By way of illustration, box 13.2 sets out arrangements applying in Victoria. Many aspects of these arrangements are also found in all other jurisdictions.

The industry sectors may be linked across modes of gambling and across jurisdictions. For example:

- Victoria's totalisator operator, Tabcorp, is also a major owner and operator of gaming machines, and is finalising its takeover of Star City Casino;
- the owner of Tasmania's casinos also operates all gaming machines in clubs and hotels in Tasmania;
- Tabcorp, Tattersall's, Jupiters and the Queensland TAB are among the licensed monitoring operators for gaming machines in clubs and hotels in Queensland;

- the New South Wales totalisator operator, TAB Ltd, has the contract to monitor the state's gaming machines;
- MGM Grand is licensed to operate keno throughout the Northern Territory; Jupiters has the licence for Queensland for 10 years (a further 15 years after which another licence may only be issued to Golden Casket); and
- Jupiters owns Centrebet, the sports betting agency based at Alice Springs.

Box 13.2 Licensed gambling in Victoria

Gambling in Victoria is characterised by licensing schemes that grant exclusive rights to private operators with respect to specific gambling products and venues. For example, there are:

- two licences to operate gaming machines in clubs and hotels in Victoria (plus the casino has approval to provide up to 2500 gaming machines in its premises). The clubs and hotels market is divided between Tabcorp and Tattersall's, which each have about 13 500 gaming machines in about 270 venues;
- one casino licence, which provides for monopoly provision of casino services in Melbourne and Victoria for set periods;
- one wagering operator's licence (Tabcorp);
- two licences providing exclusive rights for Tattersall's and Tabcorp to operate Club Keno; and
- one licence to operate the major lotteries (Tattersall's).

A range of legislation provides for the regulation of wagering, gaming and betting, including totalisator and fixed odds betting. It covers probity standards, monitoring, technical standards, crime prevention matters, inspection and direct funding of social programs from gaming machine revenues. It also provides for the powers and functions of the Victorian Casino and Gaming Authority, and the management of Crown Casino.

Source: submissions.

Some Australian-based gambling providers also have ownership links or other associations with major international gambling interests: for example, Darwin casino is owned and operated by MGM-Grand, while Conrad International and Casinos Austria also have interests in Australian casinos.

This chapter looks at each of the major forms of gambling in Australia — poker machines, casino gaming, racing and sports betting and lotteries. Minor gaming is addressed in the final section. While not a 'neat' categorisation — it covers both gambling mode and venue type — it helps group the discussion in a more convenient way.

Closer analysis and assessment of some key issues, including exclusivity arrangements, restrictions on the quantity of gambling able to be offered, restrictions on venues, player information and access to credit is undertaken in the following three chapters. Some key governance issues are dealt with in chapter 22.

13.2 Electronic gaming machines

While some forms of legal gambling have been around for a very long time, gaming machines are relatively new to most jurisdictions. It is also the form of gambling which has grown most rapidly in the last decade or so. Gaming machines now loom large in terms of gambling expenditure, government revenue generation and the reporting of problem gambling (chapter 6).

All jurisdictions impose some restrictions on gaming machine numbers, whether by a maximum allowable in particular types of venues, a cap on the number permitted to operate in a region or in total, or both. And there are rules about the type of machine permitted (for example, there are poker machines, draw card machines and multi-terminal gaming machines such as for horse racing or roulette), approval arrangements for manufacturers, and monitoring and revenue verification requirements. As the Australian Gaming Machine Manufacturers' Association noted:

There are seven States/Territories that allow geographically dispersed gaming machine operations. There are as many regulatory agencies each with their own peculiar approach to taxation, licensing, control mechanisms, disclosure, special purpose hypothecations, venue access limitations, technology planning, consumer focus, and inter-jurisdictional coordination (sub. 50, p. 3).

Venue restrictions

All jurisdictions place restrictions on the type of venue in which gaming machines may be placed (generally limited to licensed clubs, hotels or casinos, with different rules for each). This is generally defended on the grounds of limiting accessibility by underaged persons, although it is criticised by others because of the effects of alcohol on gambling behaviour (chapter 14).

Government policy towards the operation of gaming machines in clubs and hotels varies considerably across jurisdictions. And while New South Wales has licensed machines since 1956 (and has over half of Australia's 185 000 gaming machines), most jurisdictions have introduced them only in the 1990s. But numbers have expanded considerably in recent years. Table 13.1 provides a snapshot of current machines numbers in Australia.

Table 13.1 **Where are the gaming machines?^a**

	<i>Clubs</i>	<i>Hotels</i>	<i>Casino(s)</i>	<i>Total</i>
New South Wales	74 206	23 966 ^b	1 500	99 672
Victoria	13 479	13 632	2 500	29 611
Queensland	17 948	11 308	3 138	32 394
Western Australia	not permitted		1 180 ^c	1 180 ^c
South Australia	1 468	10 681	763	12 912
Tasmania	226	1 125	1 099	2 492 ^d
ACT	4 953 ^b	60 ^e	not permitted	5 013
Northern Territory	508	136	608	1 252
Total	112 788	60 908	10 788	184 526^d

^a For most jurisdictions, data relates to end-September or later; but numbers are subject to frequent change.

^b Not all are 'poker' machines (includes video draw poker machines). ^c All electronic video games, not poker machines. ^d Total for Tasmania includes 42 machines operated by Admirals Casino Pty Ltd on the *Spirit of Tasmania*. ^e 'Draw card' and 'draw and hold' machines only.

Gaming machines and the club industry

In several jurisdictions, gaming machines were introduced explicitly to assist the club industry. New South Wales provides one example. Queensland's 1996 White Paper on the regulation of gaming machines noted that:

Gaming machines were introduced into Queensland in February 1992, principally as a means of addressing the deteriorating financial position of the club industry and its consequent inability to provide facilities and services to its members (Queensland Government 1996, p. 1).

In its response to the draft report, the Queensland Government concurred with the Commission's finding of a significant connection between greater accessibility of gaming machines and greater prevalence of problem gambling, and is examining this issue in its gaming review. It remains of the view that gaming machines are essentially 'for the benefit of local communities and non-profit organisations':

... gaming machines should not be permitted in well frequented community places, such as shopping centres ... the multi-purpose nature of these centres makes them unsuitable for gaming venues (sub. D275, p. 7).

Moreover, the Government said that it has prevented:

... attempts by some elements to pursue entrepreneurial schemes that would have allowed gaming machine profits to be shared by a third party (sub. D275, p. 7).

Clubs are non-profit organisations, generally mutual associations. Their income cannot be distributed to members but is reinvested in club facilities or spent on community purposes. They are not subject to company taxes on much of their income, and pay gambling taxes at a lower rate than hotels (chapter 21).

One consequence is that most clubs with gaming machines have become much larger and generate much larger employment, turnover and profit than those without gambling facilities. On average in 1997-98, clubs with gaming machines had gross income of \$2.3 million and employed 25 persons while those without gaming machines had gross income of \$323 000 and employed six persons (ABS 1999a, p. 18).

In New South Wales, where clubs have 74 per cent of the state's gaming machines (table 13.2), a small number of 'super clubs' has developed. For example, the Penrith Panthers club has nearly 1200 gaming machines (compared to 1500 at Star City), and the top 200 clubs hold over half of all gaming machines in New South Wales. For some clubs, gaming machine revenue accounts for over three-quarters of total revenue.

Table 13.2 **Gaming machines in New South Wales^a**

	<i>Clubs</i>	<i>Hotels</i>	<i>Star City casino</i>
No. of venues with gaming machines	1 433	1 827	1
Total gaming machines operating	74 206	23 966 ^b	1 500
(percentage in each category)	74%	24%	2%
Maximum no. of gaming machines per venue	unlimited	30	1 500
Average no. of gaming machines per venue	52	13	1 500

^a As at October 1999.

^b Includes draw card and other older technology gaming machines.

Gaming machines and hotels

Governments have subsequently been faced with pressures to take account of the varying interests of casinos, clubs and hotels, each of which have been treated differently. For example, in Queensland:

Strong argument was raised at the time by hotels, who believed the introduction of gaming machines into clubs would have a significant adverse effect on their operations. Consequently, hotel sites were provided with access to gaming machines, but under less favourable terms and conditions ... (Queensland Government 1996, p. 1).

In New South Wales, hotels have only had access to the same types of machines as clubs since April 1997. (Before then, they were limited to five 'approved amusement devices' — later increased to ten.) From that date, hotels were permitted to operate up to 15 poker machines. And in 1998 they were able to seek the right to operate up to 15 more, when the government sold 2300 permits on a tender basis (sub. 68, pp. 7-8).

Of those jurisdictions in which gaming machines are permitted in clubs and hotels, the same technology of gaming machine is now generally permitted in both. But differences continue to operate in the ACT, where hotels and taverns are restricted to older 'draw card' or 'draw and hold' machines. This puts them at a competitive disadvantage to ACT clubs, which are free to choose the preferred and newer technology gaming machines. The Australian Hotels Association said that the 'B class' machines allowed in hotels:

... are no longer thought as 'entertaining' by the general public ... Turnover ... continues to decline and the provision of gambling services now, in many cases, is an unfeasible option for hotels (sub. 119, p. 46).

The Association said that this highlighted:

... the need for establishments to be able to update their systems according to customer expectations ... Gaming machines are updated and improved by providers to ensure an entertaining product ... It is essential to continually update and improve gaming machines to remain competitive with other forms of entertainment ... (sub. 119, p. 46).

The Allen Consulting Group (1998) argued that, while the intention was to limit gambling in hotels and taverns, the original limits were being eroded by technological change.

Gaming machines in casinos

The number of gaming machines (and tables) permitted in casinos is a matter which state governments decide in the context of licensing agreements, and decisions are generally taken in the context of views about the number of gaming machines which should be permitted in the community at large. In some cases, the casino gaming machine numbers are capped; in others, government approval is required before an increase can occur.

There are about 10 800 gaming machines in Australia's casinos (table 13.1). This represents about 6 per cent of Australia's gaming machines. Revenues from gaming machines in casinos accounted for about 24 per cent of total casino income in 1996-97.

Arrangements for machine gaming in Western Australia are quite different to those in other jurisdictions: that state's gaming machines are confined to Burswood casino, and the type of gaming machine is restricted to electronic video game machines which emulate casino games ('pokies' are not permitted). (Tasmania also had restricted its gaming machines to casinos until 1997.)

In contrast, Casino Canberra has never been permitted to operate gaming machines, even though ACT clubs have had virtually unlimited access to gaming machines for some years (box 13.3).

Box 13.3 Casino Canberra and gaming machines

The *Casino Control Act 1988*, which allowed the establishment of a casino in Canberra, expressly prohibits the casino from operating gaming machines. This restriction was examined in the recent National Competition Policy review of ACT gambling legislation, commissioned by the ACT Government. The review report argued that allowing the casino to install gaming machines could only have a marginal effect on problem gambling: there were then already almost 4900 gaming machines in 75 clubs. It also saw little to suggest that such a change would damage the licensed clubs. Moreover:

Once the community has made the decision to allow a casino it appears illogical to deny a dedicated gambling venue access to a form of gambling that is available in other venues (which are not primarily gambling venues) (Allen Consulting Group 1998, p. 50).

That report is now before the ACT Government.

In the meantime, Casino Canberra has obtained approval from the Commissioner for Land and Planning for a change to its Crown lease to permit a club to be an 'approved purpose' for the leased premises. (The Licensed Clubs Association unsuccessfully appealed against this decision.) Subsequently, a club applied for a gaming machine licence in respect of an area currently occupied by the casino. However, this application was refused by the Commissioner for ACT Revenue, and a subsequent appeal by the club to the AAT was dismissed.

Source: Allen Consulting Group (1998) and ACT Revenue Office.

Restrictions on the supply and use of gaming machines

Caps on gaming machine numbers

As noted, all jurisdictions impose restrictions of one kind or another on gaming machines and on gaming machine numbers, whether by a maximum allowable in particular types of venues, a cap on the number permitted to operate in a region or in total, or both (tables 13.3 and 13.4).

Caps are generally put in place because of concerns about the possible adverse social impacts of gaming machine gambling, particularly in the context of a rapid increase in their numbers, and in the number of venues with gaming machines. Such concerns lay behind South Australia's decision to limit each venue to a maximum of 40 gaming machines (originally intended to be 100). And while Victoria's 1993

casino legislation allowed for a maximum of 45 000 gaming machines in the state until 2005, a Ministerial Direction has limited the total number allowable in clubs and hotels to 27 500. (The casino already has its maximum of 2500 machines.)¹

Table 13.3 Machine gaming in clubs and hotels: some parameters

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Minimum payouts?	85%	87%	85% (max 92%)		85%	85%	85%	88-92% (depends on game)
Gaming machines to be in a designated gaming area?	✓	✓ ^a	✓		✓	✓	✓	✓ ^b
Note acceptors permitted?	✓	✓	✓		c	x^d	✓	x
ATMs prohibited from gaming area?	x	✓	x		✓	✓	✓	e
Credit by venue prohibited?	✓	✓	✓		✓	✓	✓	✓
Maximum bets?	\$10	x	\$5		\$10	\$10	\$10	\$5
Linked jackpots in venues?	✓	✓	✓		x	x	✓	✓ ^f
Wide area jackpots?	x^g	✓	✓		x	x	✓	x
24-hour monitoring?	x^g	✓	✓		✓	✓	x	✓

^a Except for five gaming machines per venue with a \$2 bet limit which are allowed outside the restricted gaming area. ^b Not strictly, but machines need to be in an area under constant supervision. ^c While not prohibited, none operate at present. However, two applications have been received by the Liquor and Gaming Commissioner, who directed that they be advertised for public comment. One manufacturer subsequently withdrew. ^d But their future use is under consideration. ^e Not prohibited, but the Commissioner prefers ATMs not to be in or near the gaming area. Cash limit of \$200 per day, and no access to funds from credit accounts. ^f Jackpots are permitted, although none are operating. ^g But moving towards this — see discussion of monitoring arrangements in text.

Regulation of gaming machine type and manufacture

National standards covering some aspects of gaming machine design and operation are in force in most jurisdictions (although there are no agreed Australia-wide standards for monitoring systems or communications protocols). The Australian Gaming Machine Manufacturers' Association said that, while much useful progress has been made:

Unfortunately, NSW does not subscribe to the 'standard', having opted some years ago to impose its own singular approach. In this respect, it stands entirely apart from all other jurisdictions ... The result has been that NSW has become isolated from the mainstream of the national approach and the costs of development and maintenance of technology requirements is significantly higher than it might otherwise be. The sheer

¹ The Victorian Government has said that it intends to cap gaming machine numbers at these levels and to introduce a cap on machine numbers in regional Victoria.

size of the NSW gaming machine market exacerbates those ‘lost costs’, which in the nature of commerce are recovered nationally rather than jurisdictionally (sub. 50, p. 7).

In its view, the further development of national standards would benefit its manufacturer members by reducing or eliminating technology differences between jurisdictions such that equipment able to be licensed in one could then be licensed in any other. This would reduce development costs, but regulators should also benefit were regulatory regimes to have shared standards for gaming machine design and function.

In a submission on the draft report, the Association emphasised that progress towards national standards is being made. It noted that a National Standards Working Party comprising Australian and New Zealand regulators was established in 1994, and since then has been working to achieve national standards (sub. D257, p. 29). Moreover:

Whilst standards differ between States, the standards are very similar and manufacturers of machines understand that different jurisdictions have different requirements ... These requirements are policed very strictly ... These standards and the high quality of regulation are recognised by overseas jurisdictions (sub. D257, pp. 28–9).

Table 13.4 Global and per venue caps on gaming machines

	<i>Global cap?</i>	<i>Casino cap?</i>	<i>Global cap on clubs and hotels?</i>	<i>Cap on individual clubs?</i>	<i>Cap on individual hotels?</i>
New South Wales	-	1 500	-	unlimited	30
Victoria	30 000 ^a	2 500	27 500 ^a	105	105
Queensland	-	b	-	280 ^c	35 ^c
Western Australia	-	b	no gaming machines permitted		
South Australia	-	b	-	40	40
Tasmania	-	-	-	25 ^d	15 ^d
ACT	5 200 ^e	no gaming machines permitted	5 200	unlimited ^e	13 ^f
Northern Territory	-	-	target of 680 (indicative maximum)	45 ^g	6

^a While the *Casino (Management Agreement) Act 1993* sets a limit of 45 000 gaming machines throughout Victoria until 2005, a Ministerial Direction limits the number in clubs and hotels to 27 500, and a further 2500 are permitted in the casino. ^b No formal limit, but any increase requires government approval. ^c From 1 July 1999. Scheduled to phase up to a maximum of 300 per club and 45 per hotel from 1 July 2001. ^d Until 30 June 2000. Scheduled to phase up to a maximum of 40 per club and 30 per hotel from 1 July 2002. ^e Subject to global cap on clubs and hotels. But new licensees may still be granted gaming machine licences even if that were to take the total number of gaming machines above 5200. ^f ‘Draw card’ and ‘draw and hold’ machines only. ^g Not limited by legislation, but set by Gaming Commissioner.

Aristocrat said that the development of software to meet the varying standards of Australian jurisdictions effectively doubles the time required to develop a game:

In Australia there are currently 10 different sets of regulatory guidelines to comply with ... it would require an additional 60–90 person weeks to rollout the game [‘Penguin Pays’] to all jurisdictions — about the same time required to develop the original base game from concept to software (sub. 111, p. 39).

Aristocrat sought the establishment of a single national regulatory standard or extension of mutual recognition to cover gaming machine standards.

The National Standards Commission, a Commonwealth authority with responsibility for coordinating the national measurement system, saw a national system of certification for gaming machines as a priority to facilitate both national and international trade in gaming machines. It has been conducting temperature and electromagnetic immunity testing on gaming machines for commercial test houses for some time, and said that:

... requirements for the approval of trade measurement instruments, viz. consistency of operation and lack of susceptibility to fraud, are similar to the requirements for gaming machines ... In this regard, quite a number of our partner laboratories in Europe are actively involved in the approval and certification of gaming machines (sub. 100, p. 1).

Mutual recognition issues

Gaming machines are one of only a few permanent exemptions for goods under the Commonwealth’s *Mutual Recognition Act 1992* and corresponding state legislation, along with firearms and other prohibited or offensive weapons, fireworks and pornographic material (mutual regulation is briefly summarised in box 13.4).

Moreover, the *Intergovernmental Agreement on Mutual Recognition* does not impact on ‘the manner of the sale of goods in the second state’. Hence sellers of goods still need to observe differing requirements relating to the sale of goods in different jurisdictions. This means that laws which license producers of gaming machines are not affected by mutual recognition. Hence, removal of the permanent exemption for gaming machines might have little effect.

For such reasons, while the variable regulation of the gaming machine industry across jurisdictions has an anticompetitive impact, removing the exemption would not affect this ‘because of the existence of restrictions which do not fall under the mutual recognition scheme’ (Committee on Regulatory Reform Review Group 1998, p. 48). Moreover:

The States and Territories prefer to maintain the existing comprehensive regulatory regime, through maintaining the exemption to gaming machines in the Act (p. 48).

Mutual recognition also has implications for interjurisdictional recognition of registered occupations. It is based on the premise that education and training processes for occupations are broadly equivalent in Australia. It does not interfere with the regulation of rules governing entry into licensed occupations, and has led to the development of national competency standards for many occupations. Occupations are considered ‘equivalent’ if the activities authorised to be carried out under registration are substantially the same.

Mutual recognition operates for internet gambling: the Western Australian Government said that under the national Regulatory Control Model for New Forms of Interactive Home Gambling, prepared under the auspices of the Australian Ministers for Racing and Gaming:

Participation is voluntary and once a service is licensed in one Australian jurisdiction, there is mutual recognition in all other participating jurisdictions (sub. 76, p. 63).

Box 13.4 Mutual recognition

The *Intergovernmental Agreement on Mutual Recognition* was intended to create a national market for goods and services. It was a response to the difficulties which business and industry were experiencing in operating in the various regulatory environments of different jurisdictions.

Premiers and Chief Ministers signed the agreement at the Special Premiers’ Conference in May 1992, and each jurisdiction (including the Commonwealth) subsequently implemented its own mutual recognition legislation based on the Commonwealth’s *Mutual Recognition Act 1992*. These variously came into effect between 1992 and 1995.

The effect of mutual recognition legislation is that:

- goods which are legally saleable in one jurisdiction may be sold elsewhere in Australia, regardless of differences in the standards applying in the different jurisdictions; and
- for registered occupations (those for which individuals require some form of legislation-based registration, certification, licensing, approval, admission or authorisation in order to legally practise), people who work in one jurisdiction can practise an equivalent occupation in other jurisdictions.

The Agreement calls for Heads of Government to monitor the Agreement. A review is currently underway by the Commonwealth–State Committee on Regulatory Reform.

Source: ORR (1997).

Ownership of gaming machines by venues or operators

Casinos are free to own or lease the gaming machines they operate. In some jurisdictions, clubs and hotels also have this freedom. But in others, the venues are required to lease gaming machines from another party. Broadly:

- in New South Wales, Queensland and the ACT, venues buy (or lease) gaming machines from approved manufacturers or financiers;
- in South Australia, venues buy gaming machines from the State Supply Board;
- in the Northern Territory, all gaming machines are owned by the government (this was also the arrangement in Queensland until 1997);
- Victorian venues contract with one of two gaming machine licence holders — Tabcorp and Tattersall's — who own and maintain the machines and retain one-third of each machine's net takings, rather than a lease rental or service fee; and
- in Tasmania, gaming machines are leased from the Federal Group of companies (the licensee of the two casinos); they have exclusive rights to supply gaming machines to clubs and hotels until 2009.

Queensland has recently undergone major changes with respect to the ownership of gaming machines. When it first permitted clubs to operate gaming machines, it purchased the machines and rented them to venues, in order to ensure probity and integrity by distancing the machine manufacturers from the venues (sub. 128, p. 9). In 1996, after four years of gaming machine operation, the Government consulted widely and prepared a White Paper on regulatory arrangements. As a consequence, the Government decided to allow venues to buy their own gaming machines, with monitoring of their activity being contracted to licensed monitoring operators, supervised by QOGR.

Victoria has arrangements for the ownership and operation of gaming machines outside of the casino which differ from those operating in all other jurisdictions. All gaming machines in clubs and hotels (about 27 100 in total) are owned, operated and maintained by the two operators, which have the right to place machines in venues, subject to:

- a 50/50 sharing of the market between the two operators;
- a 50/50 split between clubs and hotels;
- a maximum of 100 gaming machines per venue in restricted gaming areas plus up to 5 with a bet limit of \$2 in non-restricted areas; and
- a minimum of 20 per cent of gaming machines to be outside of Melbourne.

In effect, the two operators place gaming machines in venues (and in numbers) according to their assessment of likely profitability. About 20 per cent of clubs and 26 per cent of hotels in Victoria have gaming machines. (In contrast, in New South Wales about 94 per cent of clubs and 90 per cent of hotels have gaming machines.)

Requirements to monitor gaming machines and verify revenue

Measures have been put in place in all jurisdictions to allow regulators to monitor the integrity of the machine and the games operated, and to provide greater certainty that the correct amounts of gaming tax are being paid.

There are differences between jurisdictions with respect to the monitoring of gaming machines. Central 24-hour electronic monitoring of gaming machines is common but not universal. This is usually undertaken by the government regulator or by an agent (in some cases, the provider), supervised by the regulator.

For example, in Queensland, gaming machines are monitored online by eight licensed monitoring operators,² while in South Australia a private operator owned by the clubs and hotels carries out this function. New South Wales has not implemented central monitoring, but TAB Ltd has been licensed to implement a statewide computer monitoring system for all gaming machines (box 13.5).

But while TAB Ltd is the sole operator of the New South Wales gaming machine monitoring system, and has an exclusive licence to run a linked jackpot system for gaming machines in the state, it may also participate in gaming machine gaming. IPART (1998) recommended that the government investigate the adequacy of TAB Ltd's procedures for ringfencing its monitoring activities from its other gaming activities. It also noted that, in jurisdictions with multiple monitors, some of the monitors (such as Tabcorp and Tattersall's) also provide gaming.

Probity arrangements

All jurisdictions see the need to ensure the probity of gaming operations as crucial to protect the consumer, underpin the growth of an industry free from criminal influence, and to ensure that taxation is being paid correctly. Tattersall's noted:

Because of the very large turnover generated by EGMs, there is a strong incentive to tamper with the machines themselves and/or with the reporting systems upon which revenue collections rely. All states have detailed systems of regulation intended to

² Not all licences are active because of recent takeover activity (for example, TAB Queensland has taken over Golden Gaming).

combat fraudulent practices by EGM manufacturers, maintenance contractors, gaming machine operators and venue operators (sub. 156, p. 43).

To this end, the VCGA's objectives include:

... ensuring that gaming, wagering and approved betting competitions are conducted honestly and that the management and operation of the casino, the two gaming operators ... and the licensed gaming venues remain free from criminal influence and exploitation (sub. 60, p. 1).

Box 13.5 Monitoring of gaming machines^a

New South Wales:	X-standard gaming machines in clubs and hotels to be connected to a central monitoring system (operated by TAB Ltd) by 2001
Victoria:	online monitoring by the two operators, Tattersall's and Tabcorp and verified by the VCGA
Queensland:	online monitoring by 8 licensed monitoring operators: ^b • Queensland Entertainment Services • Jupiters Machine Gaming • Tabcorp • Tattersall's • AWA Gaming Systems • Golden Gaming • TAB Queensland • LTH Consulting and Marketing (venues decide which operator to contract with for monitoring and related services)
Western Australia:	online reporting to Office of Racing, Gaming and Liquor
South Australia:	online central monitoring by the Independent Gaming Corporation (jointly operated by the clubs and hotels)
Tasmania:	online central monitoring by the operator, the Federal Group
ACT:	venues submit monthly returns to government
Northern Territory:	central monitoring by government for clubs and hotels

^a In each jurisdiction where monitoring is online, the activities of the monitors are in turn supervised by the regulating authority. ^b Not all licences are currently active because of takeovers.
Source: submissions and regulators.

Similarly, the Queensland Government said that:

The two major policy objectives leading to legalisation of specific types of gambling are to suppress illegal gambling by offering a legal equivalent and to ensure the probity of the persons and the integrity of the systems involved in gambling ... (sub. 128, p. 6).

There are two broad aspects to the work of regulators: licensing and ensuring compliance. This covers:

The licensing of suitable organisations and persons to conduct gaming operations using approved equipment under certain conditions ...

... ensuring the gaming operations and related activities are conducted according to the relevant legislative provisions and that action is taken when there is reason to believe that there are breaches of the legislation (sub. 128, p. 18).

To achieve this, probity checking is pursued through:

- approving and monitoring the equipment used in gaming and internal controls and operating procedures; and
- the screening of licensees, operators, managers and staff who provide gaming services.

Licensing equipment

This involves checking the functioning of gaming machines, and in particular, of the electronics which control game play and payouts.

Different jurisdictions use different approaches. For example, New South Wales is introducing a system whereby some gaming machines will be approved prior to their evaluation, while Queensland has its own testing laboratory. In South Australia, manufacturers submit machines and games to the Liquor and Gaming Commissioner who engages private testing laboratories to certify compliance with standards. And in Victoria it is the responsibility of the two operators.

Nevertheless, the objective of each jurisdiction is the same: to provide greater surety to customers and to government that the games operate as claimed, and that advertised payouts are achieved.

Licensing people

Again, the approach is broadly common across jurisdictions. As the Victorian Auditor-General noted:

It is common international practice in the regulation of gambling industries that a structured framework is in place for the licensing of participants in the management and operation of the industry. This approach is principally aimed at excluding undesirable elements from the industry as the means of minimising criminal influence and exploitation, protecting patrons from fraudulent activities by operators and their employees, and safeguarding government revenue (VICAG 1998, p. 39).

There are good public policy reasons for scrutiny of those who operate or work in these industries, whether licensees, associates, manager, employees, contractors and suppliers. (These matters are assessed in chapter 16.)

To this end, Victoria requires licensing and approval for:

- the gaming operators;
- venue operators;
- manufacturers and suppliers of machines and components;
- gaming machine technicians;
- specified categories of employees of both the gaming and venue operators.

The VCGA said that:

In Victoria you must hold a valid licence if you are performing certain duties in gaming venues, the casino, approved bingo centres or if you are servicing or maintaining electronic gaming machines. There are four types of employee licences which when issued are valid for three years:

- Special Employees licence for people undertaking certain duties in gaming venues
- Casino Special Employees licence for people undertaking certain duties in the casino
- Technician's licence for people who service and maintain electronic gaming machines and associated equipment
- Bingo Employee's licence for people undertaking certain duties in approved Bingo Centres (*Licences and Permits* at www.gambling.vcga.vic.gov.au).

Probity checking is part of this process. This is carried out in conjunction with the police, and involves fingerprinting, examination of criminal records and scrutiny of criminal intelligence to identify actual or potential connections with known criminals. Other jurisdictions follow a similar procedure, although there are differences in the detail.

And for most jurisdictions, the general approach is much the same, irrespective of the venue. But in New South Wales, there are significant differences in the probity checking arrangements between the casino and the hotels and clubs. Broadly, while a wide range of gaming-related casino employees are subject to checking (see Star City's comments in chapter 16), similar employees in clubs are not. Club Secretary/Managers are required to be licensed, and poker machine technicians, but not staff with gaming responsibilities.

That said, it is a matter of judgment as to how high to set probity standards for personnel. For example, in Queensland, special licences apply for persons categorised as 'key employees' or 'key persons' engaged in gaming in any venue:

The applicants for key employee and key person licences are investigated similarly to individual licences but an additional determination must be made as to whether the person is suitable to perform the duties of a key employee or key person ... a higher level of financial stability and technical training may be required (sub. 128, p. 19).

And criticisms may be made of procedures. For example, in 1998 the Victorian Auditor-General suggested changes to the VCGA's methodology for, among other things, the process of investigating associates of licence applicants (VICAG 1998, p. 45).

Advertising

Gambling providers are subject to Commonwealth, state or territory laws prohibit false, misleading or deceptive advertising,³ to the specific restrictions contained in their own legislation, and to the requirements of their industry's code of conduct.

Nevertheless, several participants argued that current advertising of gambling services can mislead consumers. Mr Don Beggs, who described himself as a compulsive gambler, observed that:

Authorities advertise gambling in a very colourful, positive light, and very little is said about the downside of gambling (sub. 15, p. 3).

The Hon Nick Xenophon said that:

Advertising that depicts a person winning as a result of gambling, or misrepresents or suggests that the chance of winning as a result of gambling is greater than the actual chance of winning ought not be allowed. Any other advertisement should carry appropriate warnings and a contact number for a 24 hour gambling help hotline (sub. 98, p. 5).

The Australian Christian Coalition also argued that:

... the advertisements used by the gambling industry often border on misrepresentations ... Every day people are encouraged to gamble through print, electronic and point-of-sale media by wildly unrealistic claims ... (sub. D247, p. 1).

On the other hand, industry interests claim to advertise responsibly. Star City argued that current regulations work effectively — they prevent gambling commercials from being shown in unsuitable times but enable operators to promote their product to those over the age of 18:

NSW regulations prohibit gaming operators from advertising during dedicated children's viewing hours ... There are separate provisions in the Casino Control Act

³ For example, the Commonwealth's Trade Practices Act and the fair trading laws of the states and territories.

1992 (NSW) and Regulations with criteria for advertising by the casino. All marketing and promotional campaigns are aimed at people over the age of 18 ... Parents are not encouraged to bring children to the complex in any advertising or promotional material.

In South Australia, the hotels and clubs have established a *Gaming Machines Advertising and Promotion Code of Practice*, which imposes voluntary self-regulation on advertising and on the conduct of promotions in venues. Similarly, in Victoria, the gaming machine industry has a specific code of ethics for advertising (box 13.6). An attachment to the code specifies that:

Except in news, current affairs and sporting programs, a commercial relating to betting or gambling must not be broadcast in 'G' classification periods Monday to Friday, nor on weekends between 6:00am and 8:30am, and 4:00pm and 7:30pm.

(However, the code specifies that 'betting or gambling' does not include 'Government lotteries, lotto, keno or contests'.)

Box 13.6 Victorian Gaming Machine Industry Advertising Code of Ethics

The code, signed by Tabcorp, Tattersall's, the Licensed Clubs Association, Crown and the Australian Hotels and Hospitality Association, requires that:

- 1 Advertising shall not be false or misleading and deceptive, particularly with respect to winning.
- 2 Advertisements should be in good taste, not offend prevailing community standards and not focus on minors.
- 3 In all instances, the target audience will be people of 18 years and over and media selection and placement will reflect this ...
- 4 Advertisements must comply with the laws of the Commonwealth of Australia and the State of Victoria.
- 5 The conformity of an advertisement with the Code will be assessed in terms of its probable impact ... upon a reasonable person within the class of those to whom the advertisement is directed and taking into account its probable impact on [others].
- 6 The advertising of gaming should not be associated with excessive consumption of alcohol.

Source: Victorian Gaming Machine Industry Codes of Practice Secretariat (1998), pp. 4–5, 18.

More generally, the Australian Casino Association said:

Advertising is an important avenue for consumers to identify products and their attributes and suppliers of those products, assisting them to make more informed choices. Advertising is more likely to have an impact on the distribution of gambling (and other products) rather than increasing aggregate gambling (this should not be confused with regulatory changes, such as new casino licences, which allow more

gambling services to be provided). Advertising also allows suppliers to establish brand characteristics and this could help promote responsible gambling (sub. 124, p. 22).

In a submission on the draft report, Aristocrat Leisure Industries argued that:

... further controls on advertising of gambling venues and products are unwarranted. Gambling, which the Commission acknowledges 98% of adult Australians enjoy free of any adverse effects, does not fall into the same category as alcohol and tobacco products in terms of social harm and therefore merit special restrictions on promotion (sub. D266, p. 4).

The Australian Gaming Manufacturers Association supported controls on advertising which is false, misleading or deceptive, and endorsed the approach taken in this respect by New South Wales (as incorporated into its *Gambling Legislation Amendment (Responsible Gambling) Act 1999*). But it emphasised that:

All advertising depicts products positively — it is both unfair and an inappropriate intrusion of government into freedom of speech as it applies to advertising to ban advertisements which are not false, misleading or deceptive (sub. D257, pp. 16–17).

But the Queensland Government, also responding to the draft report, took the view that:

... stricter controls of gambling promotion would accord with the special treatment provided to alcohol and tobacco products where social harms from excessive consumption are also prominent.

The Queensland Government believes a more detailed investigation and analysis of advertising is required ... For example:

- an analysis of current advertising including an investigation of whether there is sufficient focus on responsible gambling or if advertising is orientated towards promoting the interests of gambling providers at the expense of problem gambling; and
- an investigation of whether different types of gambling advertising have different effects on individuals (eg. TV and magazine) (sub. D275, p. 19).

This issue is important for a number of reasons. It is first and foremost a question of consumer protection. And a particular concern is its effect in an environment in which some players become problem gamblers (chapter 16).

13.3 Casino gaming

Close regulation of casino operations is undertaken in all jurisdictions. Casino operators are generally subject to specific agreements with state and territory governments covering such matters as the type of operation, the number and type of gaming tables (and game rules, prizes, house take etc), the number and type of

gaming machines permitted, the design and layout of the venue, surveillance procedures and arrangements for internal and external auditing and revenue verification. Probity checks on operators and staff are routine, and processes for obtaining a licence tend to be extensive and lengthy, subject to considerable political scrutiny and debate.

Governments say they have enacted extensive regulation because of:

- concerns about potential for links between casinos and organised crime;
- a belief that a large casino development may facilitate economic development and generate tourism;
- the taxation potential of limiting casino numbers (special licence fees and taxes apply); and
- concerns about adverse social impacts of gambling (which may or may not be specific to casinos).

Table 13.5 A snapshot of Australia's casinos

<i>State / Territory</i>	<i>Casino</i>	<i>Location</i>	<i>Opened</i>	<i>No of gaming machines</i>	<i>No of gaming tables</i>
New South Wales	Star City	Sydney	1995	1500	210
Victoria	Crown Casino	Melbourne	1994	2500	330
Queensland	Conrad Treasury Casino	Brisbane	1995	1187	95
	Reef Hotel and Casino	Cairns	1996	540	45
	Sheraton Townsville Hotel and Casino	Townsville	1986	248	23
	Hotel Conrad and Jupiters Casino	Gold Coast	1985	1163	88
Western Australia	Burswood Resort Casino	Perth	1985	1180 ^a	120
South Australia	Adelaide Casino	Adelaide	1986	763	71
Tasmania	Wrest Point Casino	Hobart	1973	659	18
	Country Club Casino	Launceston	1982	440	12
Australian Capital Territory	Casino Canberra	Canberra	1992	nil	39
Northern Territory	MGM Grand	Darwin	1979	403	26
	Lasseters Casino	Alice Springs	1982	205	21
(Commonwealth Island Territory)	Christmas Island Resort Casino	Christmas Island	1993	suspended operations in April 1998	

^a All electronic video games, not poker machines.

Source: Australian Casino Association (sub. 124), submissions and regulators.

However, the industry argues that it is over-regulated. Star City said:

Gambling is already a heavily regulated activity with a high degree of very costly intervention both in the activities of businesses that provide such services and the protection of the customers involved ... there is a massive list of costly existing regulations on this industry (sub. D217, pp. 1, 3).

Similarly, the Australian Casino Association said that:

... it is generally agreed that the industry is the most stringently regulated of all the gambling industries and arguably is one of the most (if not the most) heavily regulated of all industries in Australia. The commission or premium player market within the casino industry is the most heavily regulated of all (and the one most exposed to international competition) ... (sub. D234, p. 16).

The Commission, in its *Issues Paper* (September 1998, p. 11) sought information about the compliance burdens of existing regulations, but received little specific information on this matter. The Australian Casino Association referred to the 'heavy handed' regulation of casinos, and while each jurisdiction was different, it judged that compliance costs:

... can run into millions of dollars per year for some casinos (sub. D234, p. 17).

But the Association said that the costs of complying with government regulations were difficult to assess because, for example, a negotiated licence fee might cover both the costs of government gaming inspectors and payment for certain exclusivity rights.

This raises the more general point that some regulatory requirements directly benefit the activity being regulated by, for example, providing consumers with assurance that it has been subject to probity and other checks. (Indeed, the perceived commercial benefits of being licensed in a well-regulated jurisdiction such as Australia is most clearly seen in the emerging internet gambling area, where some operators seek out such regimes, notwithstanding the higher cost of operating there.) And some activities required by regulation may have been needed to be undertaken (to a greater or lesser degree) by reputable operators for commercial reasons. Thus, particular care is needed in measuring compliance costs and in determining which involve an impost on the operator.

That said, it remains important to review regulation to remove that which is unnecessary and minimise the administrative and compliance cost of that which is needed. NCP reviews are an important means to this end.

Casinos are subject to a range of gambling taxes, and may be required to contribute to community funds (chapter 19).

‘Exclusivity’ rights

In each jurisdiction, casinos have (or, for a time, held) exclusive rights to operate in a particular geographical area, and four states and the ACT have permitted only one casino licence to be issued in their jurisdictions. Governments commonly specify that a new casino may not be established in proximity to the licensed casino for a set period (box 13.7).

Arguments commonly employed to justify some form of exclusive licensing mirror those for close regulation of casinos generally. For example, Burswood casino argued that there are three main reasons for exclusivity:

- economic development is facilitated through the development of the resulting international standard entertainment facilities (in Burswood’s case, involving urban renewal) and the subsequent contribution to tourism, employment and economic activity;
- regulation is made easier to implement and enforce; and
- monitoring and containing social impacts can be made more effective through, for example, better targeting of problem gambling services and more effective arrangements for barring individuals (sub. 113, p. 21–2 and 30).

The Western Australian Government said that a number of restrictions exist in its casino legislation which:

... are not related to gaming in casinos per se, but to the specific issue of securing a viable casino operation (sub. 76, p. 19).

It added that:

... the then Government agreed to the developers being granted exclusive rights to casino gaming in Western Australia for a period of 15 years. The casino has the exclusive rights to certain games except the games of poker with cards and two-up. The game of two-up may be played outside a radius of 200 kilometres from the casino. After the 15 years exclusivity period the ... State shall not grant another casino licence within a radius of 100 kilometres of Perth unless it is in a hotel and casino of comparable size and standard to the Burswood casino. Outside of the 100 kilometres a hotel and casino need only to be built to international standards (sub. 76, p. 23).

The Queensland Government also noted that:

Given the large up-front capital requirements to build casinos and the large ongoing costs, the Government granted defined geographic exclusivity arrangements for limited period to the licensees ... to allow the casino operators sufficient time to develop commercially viable casino operations (sub. 128, p. 8).

Box 13.7 All jurisdictions give exclusive rights for casinos

New South Wales:

- **Star City** has exclusive rights (NSW-wide) until 2007

Victoria:

- **Crown** has exclusive rights in Victoria until November 1999, and within a 150 km radius of Melbourne until November 2005 (and no venue within 100km may have over 105 gaming machines before 2005)

Queensland:

- **Sheraton Townsville** has exclusivity over a radius of 400km (excluding Cairns) until 2001, **Treasury** (Brisbane) has 60km until 2005, and the **Reef** casino (Cairns) has 120km until 2006. The exclusivity enjoyed by Gold Coast casino **Jupiters** expired in 1995

Western Australia:

- **Burswood** has exclusive rights which expire in 2000, after which another licence may only be granted within 100k of Perth for a hotel/casino 'of comparable size and standard' to Burswood

South Australia:

- **Adelaide** casino does not have a specified period of exclusivity, but the government has said it does not intend to grant another licence

Tasmania:

- **Wrest Point** and **Launceston** are operated by members of the Federal Group of companies, which have exclusive licences to operate casinos, keno and gaming machines in Tasmania until 2009

ACT:

- **Canberra** casino has exclusivity until 2012 (and at 20 years, this was the longest period provided to an Australian casino)

Northern Territory:

- **MGM Grand** (Darwin) is exclusive until 2005, **Lasseters** (Alice Springs) until 2003

Source: submissions and regulators.

In part as a consequence of these exclusivity arrangements, casinos may be marketed as a special 'destination venue' for tourists and locals alike.

Probity arrangements

Ensuring compliance with the regulatory framework involves regulators in ongoing audits and inspections, review and approval of internal control systems, gaming

rules and operational policies and procedures to ensure game integrity, and investigations of probity.

Part of this includes licensing of gaming operators and certain key personnel such as directors of casinos, and managers with gaming responsibilities.

Again, approaches differ among jurisdictions and for casinos, clubs and hotels. Requirements are typically more rigorous and detailed for casinos. For example, while other forms of gambling require the operator or the venue to hold a licence, many employees of casinos need to be licensed, either with ‘key’ licences (for those with discretionary management powers) or ‘operational’ licences (for dealers). For example, in the case of Queensland, QOGR said that:

Employees at a casino involved in management or gaming operations positions are licensed as either Key Employees or Casino Employees. Key Employees are management positions in any area of the casino’s operations. Licensed Casino Employee positions within a casino include games dealing and first level supervision, cash and accounting, administration, security, surveillance or internal audit operations activities (www.qogr.qld.gov.au/casinos.shtml).

The Queensland Government said that its probity investigations are primarily undertaken to establish the suitability of a person to hold a licence to participate in gaming operations. These include:

- Casino Operators and Casino Licensees;
- Gaming Machine Manufacturers and Suppliers;
- Licensed Monitoring Operators;
- Interactive Gambling Operators;
- Keno Licensee; and
- Lottery Licensee.

If required, investigations may also be conducted into printers and suppliers of gaming products such as lottery tickets (sub. 128, pp. 26–7).

Some detail of the processes involved is contained in box 13.8.

The Allen Report on ACT gambling noted that the application process for casino employees differs considerably across jurisdictions, and suggested that more uniformity would facilitate probity checks and reduce delays in assessing applications. In its view, a preferred approach would be to apply mutual recognition to this process, as this would permit casino employee licences issued in another state or territory to be accepted in the ACT (Allen Consulting Group 1998, p. 42).

Casinos undertake a wide range of surveillance activities, particularly for table gaming — which is more vulnerable to cheating and other forms of criminal

behaviour, because of the relatively high stakes involved and the interaction between players and dealers. (Gaming machines require a different approach as they tend to be electronically monitored.) Cameras are situated above tables and there are security staff on the gaming floor, together with external monitors such as resident casino and gaming authority staff and in some cases, police officers.

Box 13.8 Queensland's probity investigation processes

The Queensland Government said that, for operators, licensees and suppliers:

Probity investigations are conducted on either a proactive or reactive basis. The majority of investigations are reactive, arising from suspected involvement of a gaming participant in an untoward practice. Proactive investigations are based on either a 12 month or 5 year plan, where certain venues throughout the State are targeted for inspection with a view to establishing specific breaches of legislation. These inspections are performed without prior appointment.

When conducting a probity investigation or monitoring continued probity of the gaming participant the following matters, at a minimum, are considered:

- the applicant's character or business reputation, which may include individual referee, police, credit and company checks and investigation into either similar or other businesses conducted;
- the applicant's current financial position and financial background, such as the availability of finance, the ability to satisfy financial obligations, the financial backing of the parent company and financial management practices;
- if the applicant is not an individual, whether the applicant has, or has arranged, a satisfactory ownership, trust or corporate structure. This may include investigating the place of business, corporate structure, major shareholder details ... and voting rights ... ;
- whether the applicant has, or is able to obtain, appropriate resources and appropriate services, such as computer systems, experienced employees and contracts with suppliers;
- whether the applicant has the appropriate business ability to conduct the business. Consideration is given to previous experience in conducting a similar business and the suitability of internal controls in place; and
- if the applicant has a business association with another entity, then the entity's character or business reputation, current financial position and financial background is taken into consideration.

With regard to the *Casino Control Act 1982* there are more complex probity concerns involved with the Foundation Agreements which control the ownership structure associated with each casino. In the event of a request to restructure a Founder, an investigation into the proposed new ownership structure is conducted and the Minister is advised of any probity concerns. A casino Founder can not be released from its obligations under the Foundation Agreement without the prior approval in writing of the Minister.

Source: sub. 128, pp. 26–7.

Onsite regulators attend or supervise such activities as the count of moneys cleared from tables and gaming machines, and help conduct audit programs. In some (such

as Crown), police have a permanent presence, while others, such as Star City, rely on internal security, calling police as needed.

Probity is also pursued by internal rules and procedures. For example, there is a widespread prohibition on casino employees gambling in their place of employment. In some cases, this is legislated — as in New South Wales, where the Casino Control Act prohibits licensed employees of Star City from gambling at that casino. In other cases, this requirement is adopted as an internal policy. For example, the BetSafe group of clubs (a coalition of ten of the largest 30 clubs in New South Wales) said it is implementing a similar policy (sub. 172).

An important issue for public policy concerns the appropriate level of probity checking needed for casinos and other gambling venues. Star City argued that:

The casino licence in NSW was issued only after more than a decade of investigations and wrangling amid fears of infiltration by organised crime. In this sense we were captive of US history and obsolescent ideas and attitudes. Although NSW had a long history of gaming, it was the last state to approve a legal casino (sub. 33, p. 27).

These matters are returned to in chapter 16.

Information on odds and win rates

The rules of casino games, as regulated by state and territory governments, provide for a small advantage to casinos. The Australian Casino Association advised that:

In the long run the ‘price’ gamblers pay for casino services is the theoretical win resulting from the house advantage on the various games on offer (sub. 124, p. 3).

While casinos can and do lose to gamblers in particular plays, the probabilities underlying each game’s rules means that, over time, the casino can expect to generate a gain equal to the house advantage provided for in the rules (box 13.9). The Association said:

While there is scope for skill to be a factor in some card games for example, there are limits to this. In the long term the theoretical yield from games is constant although it can, and does, vary in the short term depending on the number of winners and losers at any one time (sub. 124, p. 3).

Similar considerations apply to gaming machines. But how well these matters are understood is not clear. There are two aspects to consider. The first concerns the quality and amount of information provided to gamblers: how comprehensive it is, in what form it is best provided and so on. The second concerns how gamblers interpret that information.

Box 13.9 **The price of casino gambling**

The Australian Casino Association said that:

Under the rules applying in Australia, the approximate theoretical yields or house advantages for some popular casino games are:

- Roulette 2.7 per cent;
- Sic Bo 7.5 - 8.5 per cent;
- Baccarat 1.2 - 1.25 per cent;
- Money Wheel 7.7 per cent; and
- Blackjack 1 - 2.5 per cent,

... the house advantage on each game (of the same type and rules) is similar to prevailing advantages in other countries. The critical point is that the long run house advantage on table games cannot be changed by casinos unless the games are dishonest (certainly not the case in Australia). This means that new costs (taxes, regulations and so on) must ultimately be borne by the house. In this respect, casinos are like export industries such as coal where Australian producers are 'price takers'.

Source: sub. 124, p. 3.

For example, while professional or regular recreational gamblers may have a thorough understanding of game rules and associated probabilities of winning, some participants suggested that many players do not adequately understand their chances of winning at particular games, notwithstanding pay tables and the like. This is particularly true of problem gamblers, who often have wildly unrealistic expectations about their chances of winning. This is reflected in behaviours such as 'chasing losses' and beliefs that a gaming machine is 'about to pay out', reflecting gamblers' conviction that they can predict or control matters which are in fact neither predictable nor controllable (chapter 6).

These and other consumer information questions are taken up in chapter 16.

Money laundering

Monitoring is also used to detect and deter money laundering. Part of the role of the Australian Transaction Reports and Analysis Centre (AUSTRAC), the Commonwealth's anti-money-laundering agency, is to collect financial transaction information on industry groups that deal in large amounts of cash (a characteristic that can make an industry particularly attractive to money launderers and those who wish to avoid Australia's taxation laws). Included in this category are casinos, TABs and bookmakers.

Some of the requirements AUSTRAC places on these entities are listed in box 13.10. Information is shared with AUSTRAC's partner agencies, which include police, customs authorities and the Australian Taxation Office.

Box 13.10 The role of the Australian Transaction Reports and Analysis Centre

AUSTRAC noted that:

Australia's gambling industry is vulnerable to money launderers and tax evaders. However, ... compliance with the [*Financial Transaction Reports Act 1988*] and relevant State and Territory legislation can provide an effective means of detecting and deterring such activity.

To this end, state and territory gambling regulators have implemented various strategies to ensure that regulations are upheld. These include maintaining detailed records of betting transactions, 24 hour on-site surveillance and ensuring that winnings cheques are only paid to legitimate 'winners'. Entities are also required to report:

- significant cash transactions - ... of \$10,000 or more;
- suspicious transactions - ... where there are reasonable grounds to suspect that the information about the transaction may assist investigation of breaches of Commonwealth and State and Territory laws; and
- international funds transfer instructions – those instructions an organisation makes and receives to transfer value into and out of Australia on behalf of its customers.

Cash dealers are also required to verify the identity of signatories to any accounts which may be opened and operated with them. Withdrawals cannot be made from accounts where the signatory has not been adequately identified.

AUSTRAC added that:

... should a cash dealer (including a casino) suspect it is being used to facilitate money laundering or tax evasion, the cash dealer must provide a suspect transaction report to AUSTRAC. Casinos have lodged a substantial number of suspect transaction reports and these have proved useful.

There is also evidence to indicate that criminals sometimes use their illicit funds, in a "recreational" sense, during the course of gambling sprees at casinos. This would not generally be seen as a vulnerability at casinos in terms of the potential for money laundering, however it may constitute a money laundering offence in terms of the Proceeds of Crime Act or corresponding State or Territory legislation.

Source: sub. 43.

Broadly, AUSTRAC considers that current procedures are working effectively:

Australia's gambling industry is vulnerable to money launderers and tax evaders. However, it can also be concluded that compliance with the FTR Act and relevant State and Territory legislation can provide an effective means of detecting and deterring such activity (sub. 43, p. 5).

The Australian Casino Association said that several investigations have laid to rest 'the misguided contention' that money laundering was possible in corporate casinos in the regulated Australian environment:

The 1991 report by the National Crime Authority, *Taken to the Cleaners: Money Laundering in Australia*; concluded that "there is no evidence of money laundering in casinos", while the 1993 Senate Standing Committee on Legal and Constitutional Affairs report, *Checking the Cash*, said obvious ways of laundering money through casinos had been eliminated, largely due to the Financial Transaction Reports Act (www.aca.asn.com.au).

13.4 Racing and sports betting

Racing

The principal form of wagering in Australia is totalisator wagering on thoroughbred, harness and greyhound racing. Other codes, such as quarterhorse and Arabian, are not permitted to operate races upon which wagering may take place.⁴ To a very limited extent, sports betting is starting to undermine this arrangement.

Broadly:

- state- and territory-based TABs conduct off-course and on-course totalisator wagering;
- racing clubs may operate on-course totalisators (although this is generally undertaken by TABs); and
- bookmakers take fixed odds wagers on racing, on-course and by telephone.

TAB and racing club monopolies and exclusivity arrangements

TABs (whether publicly or privately owned) dominate wagering on racing within their jurisdictions. They account for about 94 per cent of total wagering across Australia.

While competing on-course bookmakers are permitted and licensed, and racing clubs are entitled to operate their own on-course totalisators, legal off-course betting is limited to the TAB and telephone betting to bookmakers:

⁴ This is not a legislative restriction, but arises from the way the industry is structured (and in particular, the control provided to the controlling bodies over their respective codes). The benefits and costs of these arrangements for Victoria are discussed in CIE (1998).

- The (recently privatised) TAB Ltd in New South Wales has an exclusive 15-year licence to run off-course wagering (box 13.11).
- Victoria's privatised Tabcorp has the exclusive right to operate totalisator betting on races in Victoria for 18 years. Competition is limited to that offered by bookmakers on-course and to telephone betting.
- Other jurisdictions have government-owned TABs which enjoy exclusivity in off-course wagering. For example, in Queensland, the TAB has exclusive rights to conduct on and off-course totalisator and fixed odds wagering on any activity held at any race meeting on any racecourse worldwide. (The Queensland Government expects to privatise its TAB in the near future.)

The relationships between totalisator and fixed odds betting, and the various providers licensed to operate in those areas, can be understood by looking at arrangements in Victoria (table 13.6).

Table 13.6 Wagering services and providers, Victoria^a

<i>Betting products</i>	<i>Parimutuel (totalisator) wagering</i>		<i>Fixed odds wagering</i>	
	<i>On-course</i>	<i>Off-course</i>	<i>On-course</i>	<i>Off-course</i>
Victorian racing	Tabcorp option for race clubs ^b	Tabcorp ^c interstate TABs	Tabcorp Victorian bookmakers	Tabcorp ^c interstate and international bookmakers illegal betting
Sports betting	Tabcorp ^c	Tabcorp ^c	Tabcorp Victorian sports bookmakers	Tabcorp ^c interstate and international operators illegal betting
Interstate racing	Tabcorp ^c	Tabcorp ^c interstate TABs	Tabcorp Victorian and interstate bookmakers	Tabcorp interstate and international bookmakers illegal betting

^aWhile only Tabcorp and Victorian bookmakers can lawfully conduct betting *in* Victoria, this table also identifies alternative operators used by some Victorian punters. ^b Not utilised to date. ^c Exclusive in Victoria.

Source: Based on CIE (1998), p. 11.

As with lotteries, the monopoly providers in each jurisdiction may combine betting pools to increase the attractiveness of their betting products. For example ACTTAB said that, while its 'double' and 'treble' pools are based on local pools only, it combines with SuperTAB partners:

-
- for win or place bets: with Victoria, South Australia, Western Australia and Tasmania; and
 - for trifecta or quinella bets: with Victoria and Tasmania.

Box 13.11 The TAB in New South Wales

The NSW Government established the Totalisator Agency Board in 1964 to provide an off-course wagering service. It is now the largest wagering organisation in Australia.

It has a distribution network which includes 1480 outlets throughout New South Wales and about 110 000 telephone account holders.

In April 1998, TAB purchased Sky Channel, which is the principal means by which racing is telecast into wagering outlets, clubs and hotels throughout Australia. (Sky Channel has exclusive commercial rights to televise the major race meetings of the three codes of racing.) TAB is planning to develop a domestic pay TV racing service to allow home-based wagering. It believes that the majority of its customers prefer to wager on races which are televised (and, indeed, the introduction of Sky Channel into TAB outlets led to a significant increase in turnover).

The TAB was privatised in 1998. TAB Ltd has exclusive rights to operate off-course totalisators on thoroughbred, harness and greyhound racing and on authorised sporting events until 2013. (It can also operate on-course totalisators for these events, but currently has no substantial on-course totalisator.)

It conducts wagering on race meeting in Australia, and on selected events in other countries. Major international races such as the Japan Cup, Dubai Cup and Hong Kong Cup are also covered. About 42 per cent of its turnover comes from racing in New South Wales.

TAB Ltd is also licensed to offer fixed odds wagering on authorised sports events. (It has no plans to introduce fixed odds wagering on racing.) Fixed odds wagering represents less than one per cent of its forecast 1999 revenues.

Source: TAB Ltd (1998).

In its view:

SuperTAB allow ACTTAB customers access to some of the largest betting pools in Australia (acttab.com.au/action/about.html).

Similarly, Tasmania's TAB said that:

A TAB with a turnover of some \$220 million would have little chance of survival unless it is allied with one of either TABCORP or TAB Ltd. Accordingly, the TAB has negotiated membership of the SuperTAB pool [controlled by Tabcorp] for ten years (Annual Report 1998, p. 6).

A range of restrictions surround this industry

Underpinning current arrangements are longstanding laws which provide sole rights to 'Principal Race Clubs' (and corresponding bodies for the trotting and greyhound industries) to run race meetings at which gambling is allowed. Allied to these are agreements or joint venture arrangements between the racing industry and TABs. Typically these cover revenue sharing arrangements, the minimum number of local race meetings to be covered by the TAB and so on. Other controls concern the activities of bookmakers and the licensing of others such as trainers and jockeys.

Some of the restrictions which apply in New South Wales are summarised in a recent issues paper prepared for an NCP review of betting and racing legislation (box 13.12).

Bookmakers

Fixed odds betting is principally the province of bookmakers, who are generally permitted to take bets (either physically or by telephone) only while at a racecourse during race meetings. There are restrictions on their telephone betting arrangements (for example, they may only accept bets of \$200 or more for metropolitan thoroughbred races). Unlike TABs, they may extend credit to customers.

Several reports on the New South Wales industry in the late 1980s noted that betting with bookmakers had continued to stagnate, and the customer base had shifted strongly away from recreational gamblers towards professional and would-be professional gamblers (reported in ACIL 1992). More recent data has shown a continuing decline in the amounts spent with bookmakers, from a peak of \$166 million in 1988-89 to \$83 million in 1997-98.⁵ There are about 1100 bookmakers in Australia.

Probity arrangements

Bookmakers are subject to industry licensing and probity checking arrangements. For example, in New South Wales, bookmakers must be licensed by the relevant controlling body before they may field on any of the three codes of racing. Controlling bodies may make rules in relation to the operation of bookmakers. And bookmakers are subject to scrutiny by the Bookmakers Revision Committee for probity and financial competence (DGR 1999a, p. 17).

⁵ Measured in 1997-98 dollars, expenditure with bookmakers ran at over \$300 million each year during the 1970s declining to \$83 million last financial year.

Box 13.12 **Racing and betting: some restrictions operating in NSW**

The issues paper for the current NCP review of racing and betting lists the following restrictions which operate in New South Wales. (They are broadly comparable to those in other jurisdictions.):

- only non-proprietary associations may conduct racing on which betting is prohibited
- a racing club must be registered by the controlling body responsible for that type of racing:

This clearly restricts the entry of new clubs and the ability of racing clubs to conduct race meetings as they desire (for example - on a date of their choosing) and consequently affects their potential earnings (p. 21)

- only thoroughbred, harness and greyhound racing is permitted for betting purposes:
In other parts of the world other animals (eg afghans, whippets, quarter horses, arabians, camels) are officially raced (p. 21).
- the controlling bodies are authorised to make rules of racing and betting (including provision for the licensing of racing participants)

The net effect is that alternative 'codes' of racing may not obtain the necessary licences, club registrations, permits or other official status to be able to conduct race meetings in conjunction with lawful betting (p. 21)

- trainers of animals and jockeys and harness drivers are required to be licensed⁶
- there is a general prohibition against advertising of the availability of bookmaker or TAB services from another jurisdiction
- persons are prohibited from providing, by way of the internet etc, access to gambling operations other than those provided by TAB Ltd or authorised NSW bookmakers (and 'access to information' includes internet banner headline advertising and hypertext links)
- bookmakers must be licensed by the relevant controlling body
- they are subject to scrutiny by the Bookmakers Revisions Committee for probity and financial competence
- they may only operate at a licensed racecourse and when a lawful race meeting is in progress
- telephone betting is subject to the use of a specified closed mobile telephone system
- a minimum telephone bet level applies.

Source: DGR (1999a), pp.15–18, 21.

⁶ The thoroughbred racing board is reportedly considering rule changes which would restrict jockeys from gambling on sports and at casinos.

This approach is common across jurisdictions. For example, in the ACT:

... applicants must submit to a character check by the Australian Federal Police and identify all convictions, particularly those relating to illegal betting offences (www.act.gov.au/government/taxation/rac1.html).

A common approach is to require bookmakers to use a closed mobile phone system for telephone betting operated by the controlling club. For example, the Victorian Racing Club operates a system on behalf of the racing industry in that state. This permits monitoring and resolution of disputes over bets placed by telephone.

Both TABs and bookmakers also have obligations under AUSTRAC's reporting requirements, because of the large amounts of cash involved (box 13.10).

Information for the punter

In general, racing information is readily available (and reasonably well understood). This reflects the nature of the betting system, and perhaps its long history, together with the fact that race results are objectively verifiable. Customers can obtain information from a wide variety of media, including:

- Sky channel
- free to air radio (such as 2KY in New South Wales)
- AUSTEXT, which provides information via television with teletext decoders
- TABTEXT information though Sky Channel
- Newspaper form guides, race results and other information
- TAB internet sites
- electronic form guides from third party operators.

For sports betting, some of the same media (and outlets) provide this information.

The availability of information on assistance for problem gamblers appears to be less readily available, at least in some venues, than for gambling in casinos or clubs and hotels (chapter 16).

There are some differences between the information available to on-course punters and to those who bet off-course through the TAB. For example, the prices being offered at a racecourse by the bookmakers cannot be made available to those not at the racecourse. One participant, Mr Peter Mair, argued that this results in an 'insider' group with better information than the 'outsiders' who bet off-course (box 13.13). In his view:

A very useful start towards a fairer racing game would be the broadcast, off-course, of the on-course betting market fluctuations. It is manifestly unfair that the majority of racing gamblers should be required to place their bets in ignorance of betting developments on course (sub. 3, p. 4).

Box 13.13 On-course and off-course information: one punter's view

Mr Peter Mair argued that the industry fails to deliver fairness to those off-course who use TAB facilities. He said that punters are partly encouraged to attend racecourses:

... because the operators of the racing venues inform you that if you do attend you'll have access to better information in the way of fluctuations in the betting market that if you're off course ...

One result, he argued, is that those with better information can benefit from a TAB pool which has been contributed to by many off-course bettors without access to information available at the track (and this is compounded by TAB coverage of many regional races). Moreover:

if one attends the races these days you can observe people in front of the TV monitors that are keeping the on-course patrons informed of betting fluctuations. There are people there with mobile phones that are calling the fluctuations and sending them off course, not to 2KY but to a select group of people that they are serving (transcript, p. 261).

He added that, while such an arrangement benefited the bookmakers and the owners and operators of racecourses, it was unfair that:

...of the 3 or 4 hundred thousand people that might have a bet of a Saturday, when only 10 to 15 thousand actually attend the races, there's a ... vast majority ... that are betting on this product that are kept somewhat in the dark about what's happening.

Mr Mair made other suggestions as to how to improve the flow of information to off-course punters on such matters as the condition of racing tracks.

Source: sub. 3 and transcript, p. 261.

Advertising

State legislation commonly bans TABs from advertising for business in other states in traditional media. The New South Wales Department of Gaming and Racing said that:

Although it is lawful to bet with a licensed betting operator from any jurisdiction, in NSW – like most jurisdictions – there is a general prohibition against advertising – by print and traditional broadcast media – the availability of bookmaker or totalisator services from another jurisdiction ...

Similarly, a new provision has been enacted which prohibits a person from providing by way of the Internet, subscription TV or other on-line communications system:

- access to gambling operations other than those provided by TAB Ltd or authorised NSW licensed bookmakers, and

-
- access to information related to such non-NSW licensed gambling operations (includes Internet banner headline advertising and hypertext links) (DGR 1999a, p. 16).

ACIL said:

The intention has been to protect the exclusive franchise agreements which each state's TAB has had with its racing industry to run races on which totalisator bets are placed. [But notwithstanding this] interstate TABs have some local telephone account customers and there is a tacit agreement between the state racing industries that interstate races should be made available to local punters to place wagers on.

Nevertheless, ACIL argues that the advertising restriction has:

... succeeded in providing the local TABs with some security against the poaching of clients by interstate counterparts and has provided support for the substantial payments which TABs make each year to their local racing industries for the use of their races as wagering opportunities (sub. 155, p. 154).

But it notes that the commercial support which the ban on traditional media advertising has provided is now being threatened by internet gambling and sports betting agencies who have no commercial arrangements with the racing industry.

Sports betting

Sports betting involves wagering on all types of local, national or international sporting events — whether on-course, off-course, in person, by telephone or by the internet.

Sports betting has been legalised during the last decade, and is now offered in all jurisdictions by a few sports bookmakers and most TABs (sports betting in the ACT is described in box 13.14). As yet it represents only a small proportion of total spending on gambling, accounting for about \$24.5 million in 1997-98 (or 0.2 per cent of the \$11 billion spent on gambling). For example, the Queensland TAB accepts sports wagering through FootyTAB, but the level of wagering (\$2.5 million) is only 0.18 per cent of its turnover (sub. 128, p. 12).

Nevertheless, sports betting is expected to grow rapidly. A report released by the Australian Racing Board in May 1999 argued that:

... the sports betting market will experience dramatic growth via the increasing use of the Internet technology ... sport by its very nature is extremely global ... The sports betting market in Australia is in its development stage and already we have seen the enormous turnover figures that such spectacles as the Soccer World Cup and Rugby Union World Cup can achieve (ARB 1999, cited in OWP 1999, p. 50).

McMillen argued that the advent of interactive digital television will facilitate this rapid growth:

The capacity for this medium to develop and promote interactive sportsbetting will result in a rapid expansion of this form of gambling ... If legalised ... interactive television sportsbetting will become as popular as gambling machines are now (sub. D274, p. 8).

Online gambling is discussed in chapter 18.

Box 13.14 Sports betting in the ACT

Sports betting commenced in the ACT in 1995. There are now four licensed sports betting agencies, all operating out of a betting auditorium at Canberra Racecourse.

The *Bookmakers Act 1985* provides for the regulation and control of sports betting. Bookmakers who hold a 'standing licence' are eligible to apply for a sports betting licence. There are legislated suitability requirements and selection criteria.

Racing bookmakers:

- may only field at race meetings;
- require a permit to field from a racing club (as the individual club must be willing to permit the bookmaker to field at its race meetings);
- require separate licences for each racing code;
- may only take telephone bets on race days; and
- are subject to minimum telephone bet limits (eg \$200 for metropolitan races).

However, sports bookmakers may:

- operate up to 24 hours per day;
- accept bets in person, by telephone, fax or internet; and
- take bets on 32 approved (domestic and international) sports and events, including thoroughbred, harness and greyhound racing, the Olympic games, Commonwealth Games, Academy Awards and elections.

Sports bookmakers are required to pay part of the costs of the National Bookmakers Pricing Service if they benefit from this in the normal course of business.

In addition to the sports bookmakers, a limited number of licensed racing bookmakers are permitted to field on racing events only.

Source: www.act.gov.au/government/taxation/rac1.html

Victoria's Tabcorp said that during the second half of 1998 its sports betting revenues increased by 25 per cent over the corresponding period in 1997. This was partly attributed to:

... high levels of betting on World Cup Soccer and AFL Football. An additional 16 new National Sportsbet outlets were opened during the reporting period and ... [t]he number of sportsbetting outlets is expected to increase to approximately 70 over the next 12 months (1999 *Half Yearly report* at www.tabcorp.com.au).

TABs aside, sports betting agencies have generally been established by bookmakers. (Indeed, some engage in both racing and sports bookmaking.) They come under the same legislation and regulatory processes as racing bookmakers, and are required to meet essentially the same probity and prudential requirements. As the New South Wales Department of Gaming and Racing noted:

The introduction of sports betting in NSW has been aligned with the racing industry and the sports betting format has utilised existing licensing procedures imposed by the three racing controlling bodies (DGR 1997, p. 22).

Table 13.7 Sports bookmakers

	<i>Allowed since</i>	<i>Location restrictions</i>	<i>Times of operation</i>
New South Wales	1997	Racecourses and auditorium	24 hours, 7 days a week
Victoria	1989	Approved racecourses (Flemington auditorium): Other racecourses or authorised race or sports meetings:	24 hours, 7 days a week 3 hours before advertised starting time of 1st race until 3 hours after actual starting time of last race
Queensland	1992	Racecourses	During race meetings
Western Australia		Racecourses	From a racecourse at any time
South Australia	1994	Racecourses, auditoriums and registered premises (a range of sporting grounds)	Race meetings: 30 minutes before first race to 30 minutes after last race Auditorium: All racedays except when a metropolitan thoroughbred race meeting is being held
Tasmania	1995	On-course and approved off-course venues	24 hours, 7 days a week
Australian Capital Territory	1994	Racecourse, auditorium and approved sporting venues	24 hours, 7 days a week
Northern Territory	1992	Racecourses and approved sporting venues	24 hours, 7 days a week

For such reasons, most sporting bookmakers are ‘natural persons’ (and this is a requirement in some jurisdictions such as Victoria). However, in the Northern Territory and the ACT, corporations are permitted. Centrebet is one well-known example.

In Victoria, the *Racing Act 1958* makes it lawful for a registered bookmaker to conduct betting on any sporting activity approved by the Minister. However, the power to authorise bookmakers to bet on specific classes of betting is exercised by the Bookmakers' Clerks Registration Committee. And the governing bodies of the three racing codes may require that bookmakers obtain a club licence.

Reflecting this history, most jurisdictions require sports betting agencies to operate from betting auditoriums at racecourses, even if their main business is in non-racing sports betting. (One exception is Tasmania, where the only approved licensee operates principally from Wrest Point Casino.) Similarly, in the ACT, each of the four licensed sports betting agencies operates out of offices located at Canberra racecourse. Two conduct wagering on sports and racing, while two offer sports betting only. The latter two also offer services on the internet (box 13.14).

The scope of sports betting can be very wide, depending on which sports or other events are approved for betting purposes by the relevant Minister. For example, New South Wales allows betting on 19 different sports and, in Queensland, a sports wagering licence:

... allows the licensee to conduct totalisator and fixed odds wagering on any sporting activity which is not a racing event and it also permits wagering on other activities approved by the Minister eg betting on the "best actor award" at the Oscars (www.qogr.qld.gov.au).

Some jurisdictions, including the ACT, also allow betting on the outcome of elections.

Probity checking

Sports bookmakers are subject to much the same probity processes as racing bookmakers (described earlier).

As the regulatory regime for sports betting evolves, other issues will emerge. For example, jockeys are not able to lay bets on races in which they participate. The principle behind this restriction may have implications for sport betting, where, for example, football players or cricketers may choose to bet upon matches in which they are playing. This raises questions about the development of probity arrangements underpinning betting on games, and the incentives which are created for game fixing.

Advertising

As noted earlier, there are restrictions operating in all jurisdictions. However, most sports betting is undertaken by telephone (and more recently, via the internet). In such circumstances, jurisdiction becomes largely irrelevant. For example, most of Centrebet's Australian clients live outside of the Northern Territory.

13.5 Lotteries

Although making decisions and determining fates by the casting of lots has a long record in human history ... the use of lotteries for material gain is of more recent origin ... The first recorded public lottery in the West was held during the reign of Augustus Caesar for municipal repairs in Rome. The first recorded lottery to distribute prize money was held in 1466 in Bruges, in what is now Belgium, for the announced purpose of providing assistance to the poor (NGISC 1998, p. 1).

Lotteries have long been used as a source of public (and private) finance. For example, a lottery in Elizabethan England raised funds to repair harbours and undertake other public works, and lotteries were frequently used in colonial America to help pave streets, construct wharves and even build churches. In the 18th century, lotteries were used to finance construction of buildings at Harvard and Yale Universities.

In Australia, lotteries have their genesis in the sweepstakes operated in the nineteenth century (and Tattersall's dates from this time — box 13.15). Lotteries were typically established and promoted as a way to finance worthy causes, while providing entertainment and a chance of a substantial win for ticket buyers. Schools, hospitals and (most famously) the Sydney Opera House have received funding from lottery revenues. The Royal Women's Hospital at Herston in Queensland was built and equipped entirely from funds raised by the Golden Casket Lottery (sub. 145, p. 3), which was established in 1916. Golden Casket:

... was conceived by the ... Queensland Patriotic Fund [to] raise funds for the victims of WWI. 'Anzac Cottages' were built for widows and children and the long road to recovery for ex-servicemen began (sub. 145, p. 3).

NSW Lotteries, which has provided lottery games since 1931, said:

The first State Lottery was introduced at the height of the Great Depression to help alleviate the critical funding situation in the State's hospitals. Initial opposition by church groups and the Opposition of the day was withdrawn when the churches were unable to raise money by voluntary fundraising (sub. 152, p. 2).

Lotteries continue to provide a source of funds for many charitable organisations such as the Endeavour Foundation, the RSL, Mater Hospital and the Multiple

Sclerosis Society. BoysTown Family Care said that much of its funding comes from the lotteries which it has operated since 1961. It emphasised the need to understand charitable lotteries as a different sector of the market to commercial lotteries, with different social, economic and welfare impacts (sub. D254, p. 3). It also noted that surveys showed ‘for charity’ as a significant reason for some to engage in gambling.

Box 13.15 Tattersall's

The Tattersall's Sporting Club was established in Sydney in 1858 and was one of many conducting sweepstakes. In 1878 the licence was acquired by George Adams. The first public sweep took place on the running of the Sydney Cup in 1881.

Following the banning of sweepstakes in New South Wales in 1891, George Adams moved the Tattersall's Sweeps to Brisbane. Facing prohibition there also in 1895 he was invited to Tasmania to conduct a lottery to dispose of the property holdings of the failed Bank of Van Dieman's Land. He did so by organising a lottery of 100,000 tickets at £1 each, with 225 prizes of real estate. This was so successful that Tattersall's became the official state lottery of Tasmania in 1897 and Tattersall's Sweeps became a major business enterprise.

Until 1954, Tattersall's conducted its Sweeps from Tasmania, even though most of its tickets were sold elsewhere (for example, in the 1950s, 88 per cent of its sales were from outside Tasmania). Tattersall's moved to Melbourne in 1954 to avert the establishment of a state lottery in its biggest market.

Tattersall's now operates in four states and territories, and heads the Australian Lotto Bloc, which offers Lotto, Powerball and other games on a national basis. It also operates all lottery games in Western Samoa, Fiji, Nauru, the Northern Mariana Islands, Vanuatu and the Cook Islands.

Source: sub. 156 and www.tattersalls.com.au/about.html

According to the Western Australian Government, lotteries occupy a particular niche in the gambling market, and are perceived by players as:

- not being a form of gambling, or at least as a ‘hard’ or serious form of gambling (such as TAB or casino);
- a normal part of life;
- contributing to the support of worthwhile causes;
- having the image of the games being fair and the prize money being distributed fairly; and
- not encouraging forms of ‘hard’ gambling (sub. 76, p. 13).

Australia-wide, lotteries currently account for about 11 per cent of total spending on gambling, about half of the proportion at the beginning of the 1990s. Lotto accounts

for nearly 70 per cent of this, followed by instant lotteries (17 per cent) (sub. 158, p. 21).

Ownership, exclusive rights and jurisdictional issues

Exclusive marketing rights reflect the history of lotteries as one of the oldest, government-sanctioned forms of gambling, and a continuing substantial and reliable source of government revenue. The question of exclusivity is therefore intertwined with that of taxation (chapter 19).

Around the world, many lotteries are operated by governments to raise revenues (and, indeed, many see this as their main function). Of the major providers in Australia, only Tattersall's is privately owned. Britain's National Lottery is another example of a private lottery, but even in the United States, lotteries are generally state-owned. (And in New South Wales, since the privatisation of the TAB, NSW Lotteries is the only major gambling provider which is fully government-owned.)

In Australia, as elsewhere, most jurisdictions restrict the operation of lotteries to a single provider (table 13.8). The governments of New South Wales, Queensland, Western Australia and South Australia have their own (exclusive) lotteries, whereas Tattersall's, a private operator, is licensed as the sole provider of lotteries in Victoria and Tasmania.

Only two jurisdictions allow more than one lottery to operate within their territory. The Northern Territory has licensed Tattersall's as well as the Australian Lottery Company (which conducts a mail order lottery business for the sale of *The Territorian* lottery), and both Tattersall's and NSW Lotteries are permitted to operate in the ACT.

Governments also prohibit the advertising of 'foreign' lotteries, that is, those not licensed to operate in that jurisdiction. This is a common approach internationally: lotteries are generally government-owned, exclusive to their jurisdiction and do not compete in other jurisdictions unless invited to do so.

Pooling arrangements

While lotteries are all state- or territory-based, they have entered into commercial arrangements which involve joint operations with lotteries in other jurisdictions (box 13.16). The Australian Lotto Bloc was formed in 1981, combining the prize pools of Lotto games in all jurisdictions other than New South Wales. Other national blocs were formed in subsequent years.

Table 13.8 Australia's lotteries: ownership and exclusivity

<i>State / Territory</i>	<i>Licensee</i>	<i>Ownership</i>	<i>Exclusive until</i>
New South Wales	NSW Lotteries	government	July 2007
Victoria	Tattersall's	corporatised 1997	
Queensland	Golden Casket Lottery Corporation	private trust	June 2004
		government	June 2002
		corporatised 1997	
Western Australia	Lotteries Commission of WA	government	^a
South Australia	Lotteries Commission of SA	government	^a
Tasmania	Tattersall's	private (Vic)	-
Australian Capital Territory	NSW Lotteries	government (NSW)	-
	Tattersall's	private (Vic)	-
Northern Territory	Tattersall's	private (Vic)	-
	The Australian Lottery Company	private (privatised 1995)	

^a Exclusive, but no end date specified.

Source: submissions.

The four national blocs are listed in box 13.16. Three comprise all states and territories, while the Australian Lotto Bloc includes all jurisdictions other than New South Wales).

The Western Australian Government said:

The purpose of the establishment of these arrangements is to create a sufficient prize pool to be attractive to players (sub. 76, p. 7).

Box 13.16 National lottery bloc partnerships

<i>Saturday Lotto</i>	Australian Lotto Bloc	Qld, WA, SA and Tattersall's (Vic, Tas, ACT & NT)
<i>Oz Lotto</i>	National Lotto Bloc	NSW, Qld, WA, SA and Tattersall's (Vic, Tas, ACT & NT)
<i>Powerball</i>	Powerball Lotto Bloc	NSW, Qld, WA, SA and Tattersall's (Vic, Tas, ACT & NT)
<i>Soccer Pools</i>	Soccer Pools Bloc	NSW, Qld, WA, SA and Tattersall's (Vic, Tas, ACT & NT)

Source: submissions

All but two of the Lotteries Commission of WA's games are administered by the blocs:

The voluntary cooperation between the States in managing the existing Lotto and Soccer Pools products as well as in researching and developing new games has been an essential factor in the success of Lotteries in Australia (sub. 25, p. 10).

Lotto accounts for 78 per cent of WA Lottery Commission revenues. (For the whole of Australia, it averages 70 per cent of total lottery spending.) Western Australia, which has no poker machines, has the highest per capita sales of Lotto in the world.

Consumer and information issues

Probity arrangements

There are arrangements for establishing the probity of lottery operations in all jurisdictions. These cover approval processes for the games, the testing of the machines used, overseeing of draws and licensing of staff. For example, Golden Casket said that it is subject to:

... strict tests of probity, licensing of key staff and associates, approved control measures, individual game approvals and rigorous testing of all activities. While there is a significant cost in both time and money to meet all of these strict regulatory standards, Golden Casket believes proper and consistent regulation is essential to maintain industry integrity and public confidence (sub. 145, p. 4).

In addition, lotteries are subject to an industry code of conduct. The Western Australian Government said:

The members of the Lotto Blocs have developed a national code of conduct to apply to all members. All members signed the code in June, 1998. The voluntary code covers the following areas:

- a Lotteries Industry Accord which covers the objective of the code, responsible lotteries management, player information, handling of complaints and review of the code;
- a Lotteries Industry Advertising Code of Ethics;
- a Lotteries Operators Code of Practice; and
- a Lottery Retailers Code of Practice (sub. 76, p. 8).

NSW Lotteries advised that the code provides guidelines for responsible sale and promotion of products; for the referral of customers to appropriate community agencies if play should become a problem; requirements that advertising should not give a false impression of the chances of winning, and that odds and other game information be readily available to customers (sub. 152, p. 9).

Advertising and information to players

Several lottery providers said that advertising was crucial for lotteries to maintain market share in the face of increasing competition for the gambling dollar. Golden Casket Lottery argued against restricting advertising, providing high standards are maintained. It said that:

... lottery advertising follows the mass market approach used by consumer goods companies ... [it] is very careful to be socially responsible and to maintain the highest standards in its advertising by:

- realistically portraying the dream of winning the lottery;
- not overstating or misleading players with regard to their chances of winning;
- not offending prevailing community standards or targeting specific groups (eg. low income or the unemployed) ;
- targeting only those of lottery playing age; and
- complying with the code of ethics adopted by the Australian Association of National Advertisers.

The Australian lottery industry has incorporated strict advertising standards in the Australian Lotteries Industry Code of Practice ... Golden Casket is also subject to external regulation of its advertising through ... the Lotteries Act. The Corporation's regulator, QOGR, can issue Golden Casket with a direction about advertising if they believe an advertisement is not based on fact; is materially false, misleading or deceptive; or is indecent or offensive (sub. 145, p. 10).

Similarly, the Western Australian Government said that:

There is a clear relationship between the extent of advertising and sales results. The Lotteries Commission believes it has achieved a reasonable balance in advertising which achieves revenue targets without inappropriately promoting gambling (sub. 76, p. 14).

NSW Lotteries said that lottery advertising is 'a very disciplined process' which meets the code of the Australian Association of National Advertisers (which is incorporated into the lotteries industry code of practice). Moreover:

All major campaigns are ... evaluated through focus groups and extensively pre-tested with consumers prior to launch ... to ensure that advertisements meet community standards and expectations ... (sub. 152, p. 10).

Complaints procedures provide for review by the chief executive officer and the NSW Lotteries Board.

But some participants complained about unrealistic advertising, and particularly slogans such as ‘everyone can win’. In their view, this plays on people’s ignorance (chapter 16).

Keno

Keno is a numbers game, essentially an electronic form of bingo, where 20 numbers are drawn from 80. In some cases it is operated in a manner akin to lotto, with a daily or weekly draw. But in another form, generally limited to clubs, hotels, TABs and casinos, a game is drawn every three minutes almost every day of the year.

Indeed, in Queensland, keno was originally one of the games restricted to casinos. But in 1996 Queensland joined the majority of other states by allowing keno into clubs, hotels and TABs. Jupiters has the licence to operate keno throughout Queensland. The Queensland Office of Gaming Regulation monitors the operation of the game and of the licensee.

The licence to conduct Club Keno in New South Wales is held jointly by Clubkeno Holdings Pty Ltd and Club Gaming Systems Pty Ltd. The licence, which was first granted in 1991 and reissued in February 1995, expires on 1 July 2007. These activities are monitored by the Department of Gaming and Racing. In Victoria, Tattersall’s and Tabcorp have licences for Club Keno. And MGM-Grand introduced keno into hotels and clubs in the Northern Territory in 1996.

In South Australia, keno is run by the Lotteries Commission, and the continuous version may be played in newsagencies and other lottery outlets.

13.6 ‘Minor’ gaming

In addition to the major gambling forms just discussed, there is a wide range of relatively minor gaming activities (box 13.18 lists some examples). Together, they account for less than \$200 million of the \$11 billion spent on gambling in Australia. Nonetheless, they are important as a source of funds for many charitable and non-profit organisations. They include such activities as:

- bingo;
- raffles;
- lucky envelopes;
- fundraising nights; and
- trade promotions.

They are generally undertaken by ‘eligible organisations’, broadly defined as non-profit community or charitable organisations. For example, Queensland’s proposed new legislation refers to:

... associations formed for charitable, religious, educational, patriotic, sporting and community purposes, parents and citizens associations and political parties (www.qogr.qld.gov.au).

In Queensland, the most common form of gambling in this category is the minor ‘art union’, which covers most raffles operated by schools and community organisations. They have always provided a major source of income for Queensland’s non-profit associations (charities, community-based projects and sporting groups). And they continue to be important. The Queensland Government noted that:

For well over 50 years a large portion of legalised gambling in Queensland was through the public’s participation in minor gaming activities, generically labelled art unions, such as raffles, bingo and lucky envelopes. These activities have always provided a major source of income for non-profit associations so that they could fulfil their charters in providing support for charitable purposes, community based projects and sporting activities (QOGR 1998, p. 1).

Minor gaming is subject to certain restrictions (such as the need to keep records), and may or may not require a permit, depending on the size of prizes and the nature of operation. The permit process facilitates checking of the processes for undertaking the activity and may include requiring that mechanisms be independently certified for randomness.

Jurisdictions have a broadly common approach to the regulation of minor gambling. They differ in some of the detail. But broadly:

- subject to a range of conditions including that the game is fair and not conducted for commercial gain, many ‘social’ gambling activities such as bets between friends or private card games may be undertaken without permits. Western Australia’s *Gaming Commission Act 1987*, for example, explicitly legalises ‘social’ gambling. Governments generally take the view that social gambling is legal provided there is no bank or promoter, no accounts kept, no benefit to the house and no net income being generated;
- organised fundraising activities such as raffles with prizes under a certain threshold levels are generally legal without permits; nevertheless, certain conditions have to be met, such as that they are undertaken on a non-profit basis; and the threshold levels vary; and
- larger events such as major art unions generally require permits and undergo probity and integrity checking processes.

However, there are some differences in requirements between jurisdictions. For example, in the case of a recent television quiz show offering large prizes:

- New South Wales saw it as a trade promotion, but not one that required a permit;
- South Australia deemed it to be a game of skill (which does not require a permit), rather than a trade promotion or lottery; and
- Victoria gave more weight to the lottery nature of selection of contestants (who were chosen at random after registering by telephone), and saw it as a trade promotion requiring a permit.

Regulators are looking at such differences between jurisdictions in the context of Gaming Ministers' meetings:

... to determine the feasibility of each State and Territory having similar legislative requirements and conditions for running these lotteries. [the different approaches] impose significant compliance costs ... as the ... organiser strives to meet each jurisdiction's special requirements (DGR 1998a, p. 25).

Several participants pointed to the scope for trade promotions to inculcate children into a gambling culture. For example, Wesley Community Legal Service said:

If you go to your local shop the number of competitions to get you to buy particular products is enormous. There's no other society in the world that is so underpinned by gambling as our society and so children are applying to win prizes in a competition off a breakfast cereal packet or off a chip packet or off a soft drink bottle, they're everywhere ... That's what gets us into a gambling frame of mind (transcript, pp. 202–3).

Indeed, a recent trade promotion involving scratch tickets offering major cash prizes in packets of potato chips attracted some public controversy because of the likelihood that children might comprise an important part of that market. 'Scratch and reveal' tickets are commonly used in trade promotions (and often for products commonly consumed by children), and there are generally no restrictions on children participating. However, a variety of age limits applies to other forms of 'minor' gaming (some carry age restrictions of 16, 17 or 18 years, while others — raffles, for example — impose none).

These matters were the subject of some recent public submissions to reviews in New South Wales and Queensland. The New South Wales Minister for Gaming has subsequently announced a wider review of current age restrictions across a range of lottery and art union gambling activities, including trade promotions, and will shortly issue a discussion paper asking for public comment:

... this area warrants closer examination to ensure that existing controls and restrictions are reasonably consistent, give due regard to the general welfare of minors, and

continue to meet general community expectations (NSW Minister for Gaming, Hansard, Legislative Assembly, 15 September 1999, p. 503).

More broadly, Victoria is undertaking a review of its regulations covering minor gaming, including trade promotions bingo, raffles and lucky envelopes. And Queensland is streamlining its regulation of art unions following a process of public review (box 13.17).

Box 13.17 Regulation of minor gaming: Queensland

The Art Unions Act distinguishes between **exempt art unions** which do not require a licence or permit, and **non-exempt art unions** which do.

Exempt art unions include non-profit sweeps, small private raffles, and social bingo where the gross proceeds do not exceed \$500, and trade promotion art unions. Non-exempt art unions include major and minor art unions, major and minor bingo, lucky envelopes and calcutta sweeps:

- A minor art union comprises such activities as a raffle, chocolate wheel, silver circle, meat tray, 'chook raffle', punchboard, spinning wheel or football double, where the gross proceeds do not exceed \$5 000.
- A major art union is one where the gross proceeds are expected to exceed \$5 000.
- Minor bingo is where the total value of ticket sales for each session is no more than \$1 000.
- Major bingo is where the gross proceeds for each session is more than \$1,000 but does not exceed \$6 000. A highroller session is a major bingo session where the gross proceeds for each session can go up to \$12 000.
- Lucky envelopes are games of chance where numbers are randomly exposed from envelopes, break open panels, pull-tab sections, lucky number draws or similar devices. They may only be sold by an eligible association which holds a Lucky Envelope Sellers Licence.
- A calcutta is a form of sweep where the contestants in a sporting event (often horses) are auctioned off. The sweep is generally centred on an auction after which the winner is determined by the result of the sporting event. Calcutta sweeps may be conducted on official horse races in the racing calendar or other recognised sporting events.

There are general conditions which apply to all non-exempt art unions such as advertisements, tickets, order of drawing prizes, and prohibited prizes. Each type of non-exempt art union also has special conditions.

And because of some confusion as to the definition of the term 'art union', the term 'charitable gaming' will be used when describing gaming activities conducted for the purposes of charitable fundraising.

Source: QOGR (1998) and www.qogr.qld.gov.au/QOGR7.shtml.

Broadly, the proposed regulatory environment would raise the threshold at which different levels of regulation are imposed on fundraising activities. It is intended to create three categories depending on the amount of gross proceeds of each game drawn. And only charitable gaming with gross proceeds of \$20 000 or more per draw would be required to obtain a licence.

In some other jurisdictions a process of review and change is also occurring. In part, these changes are occurring because a number of eligible non-profit associations have argued that there has been a decline in their ability to raise funds through charitable gambling.

Box 13.18 Minor gaming: some examples

Bingo is an important social activity for many. Perth's Bingo Centre, for example operates six days per week and conducts bingo on behalf of six organisations, four of which are affiliated with the Australian Institute for the Blind. Patron attendance averages 6000 per week and the centre can hold 2100 patrons per session (sub. 76, p. 36). And **Club Bingo** is a common activity in registered clubs in, for example, New South Wales where clubs may conduct this activity without having to apply for a permit (NSW Dept of Gaming and Racing 1998, p. 33).

Similarly, in New South Wales, **promotional raffles** may also be conducted by registered clubs without the need to apply for a permit. But conditions apply to their operation. (Raffles are covered under **art unions** in Queensland — box 13.17.)

The regulation of **two-up** is something of an historical oddity, permitted only in certain locations (such as Kalgoorlie and Broken Hill) and in some places only on Anzac Day. (The authorisation to conduct the game in Broken Hill was issued to the City Council for seven years from March 1993).

Trade promotions (or **trade competitions**) — essentially private lotteries — are permitted in all jurisdictions for the purposes of promoting a product. In New south Wales they are described as:

... a free-entry lottery or game of chance conducted for promoting the sale of goods or services ... sometimes called a sweepstake, contest or giveaway (*Trade Competitions*, Community Gaming Fact Sheet, Department of Gaming And Racing, p. 1).

Customers do not pay to take part, other than by the purchase of a product at normal market prices or by way of a letter or telephone call. Typical examples are telephone competitions using a 1900 number, coupon competitions and members' badge draws.

As noted in the body of the chapter, jurisdictions are not uniform in the rules they apply (for example, in respect of competition entry by telephone — generally limited to 50 cents per call) and in their mechanisms for regulating this activity. (New South Wales, for example, has a blanket approval system.)

14 Are constraints on competition justified?

Box 14.1 Key messages

Exclusivity arrangements:

- Governments derive substantial revenue through licensing and taxation of gambling:
 - there is an interdependence between exclusivity arrangements and tax policy;
 - but providing exclusivity to maximise tax revenues is unlikely to be good policy.
- Exclusivity can disadvantage consumers by raising prices and restricting choice.
- There are some savings in regulation costs and probity checking of licensees and key staff.
- Exclusive licensing appears not to have been effective in reducing problem gambling:
 - restricting ownership or operating rights does not necessarily restrict accessibility, and with the exception of casino table games, has not done so; and
 - it is unlikely to assist in implementing harm minimisation practices.
- The provision of appropriate funding for the racing industry does not appear to require TAB exclusivity.
- The minimum telephone bet restriction which applies to bookmakers serves no useful purpose and could be removed immediately.

Restrictions on venue types:

- Current venue restrictions are arbitrary and reflect history and arrangements with particular interests, rather than strong policy rationales.
- It is not clear that linking alcohol and gambling licensing is good policy:
 - a broader, more rigorous, venue-based risk assessment approach may be preferable.
- There is little evidence that clubs provide a less risky environment for gamblers than hotels with respect to harm minimisation:
 - some limited progress has been made in both venue types, and there are benefits in strengthening harm minimisation programs in all venues.
- However, changing the rules now to allow hotels (or other venues) parity with clubs would greatly increase the total number and accessibility of gaming machines in most jurisdictions.
- The difference between casinos and some larger clubs has narrowed considerably, but major differences in regulatory requirements remain.

14.1 Introduction

Chapter 11 listed the various objectives of governments towards their gambling industries. While governments generally agree as to their broad objectives, not all have clear or persuasive rationales and some are mutually inconsistent. The result is a mixture of policies, many of which impinge on competition.

The gambling industries are characterised by many restrictions on competition. Foremost among these are:

- ‘exclusivity’ arrangements (exclusive licences for particular operators) which apply to major sectors of the industry; and
- restrictions which determine which types of venue may offer gambling services.

These arrangements variously restrict the ownership and provision of particular modes of gambling, the extent of their accessibility to consumers, or both. Exclusive licensing may or may not affect accessibility: for example, restrictions on casinos and lotteries directly limit the ownership of both forms of gambling, but the accessibility to lotteries is not constrained to the same extent as consumers’ access to casinos. Accessibility is affected by a range of considerations which are discussed in the next chapter.

Exclusivity arrangements are largely a legacy of history. But they have continued partly because they have advantages for governments, as well as being strongly defended by the beneficiaries. This chapter assesses the extent to which such arrangements also advance community welfare.

14.2 ‘Exclusivity’ arrangements

Governments generally outlaw arrangements which confer market power on particular groups, unless there are good public policy reasons for doing so. Exclusive or monopoly rights are generally opposed because they are inefficient in providing goods and services (and more broadly, their existence can conflict with social norms concerning monopoly privilege).

In his submission, Quiggin noted that economists have long condemned the practice of creating and selling ‘artificial monopolies’:

Analysis showed that a legal monopoly was equivalent, in economic terms, to the right to collect a tax. However, whereas most taxes were designed to achieve a balance between the objective of raising revenue and the desirability of minimising the burden of taxation, monopoly prices were set with the sole objective of maximising revenue.

He argued that:

- Artificial monopolies are undesirable *per se*
- The sale of monopolies creates contractual obligations which improperly bind the hands of future governments
- Corruption and misuse of monopoly power is encouraged and the possibility of redress ... is removed (sub. 149, p. 4).

Such arrangements continue to be a common feature of governments' approaches to almost all major forms of gambling. Lotteries, casinos and TABs are prime examples (and recent TAB privatisations have maintained exclusive rights for the new operators), as are exclusive rights to supply gaming machines, operate keno and so on.

Successive governments have used the Trade Practices Act and, more recently, the National Competition Policy to expose anti-competitive arrangements to scrutiny, both within the private and public sectors. Under the *Competition Principles Agreement* signed in 1995, all Australian governments have agreed to review any legislation which contains anti-competitive elements against the principle that:

legislation ... should not restrict competition unless it can be demonstrated that:

- (a) the benefits of the restriction to the community as a whole outweigh the costs; and
- (b) the objectives of the legislation can only be achieved by restricting competition (NCC 1998a, p. 321).

The South Australian Government observed that its gambling legislation is 'not designed to be pro-competitive':

In South Australia there is strong community concern regarding the social impact of gambling. The objective of most gambling legislation is to allay community concern, while also securing the positive economic benefits associated with gambling as a legitimate form of entertainment ... [to achieve] the right balance of consumer protection and consumer sovereignty (sub. D284, pp. 2–3).

It argued that this stance does *not* conflict with the requirements of the Competition Principles Agreement, under which social welfare and equity considerations, and the interests of consumers, may be taken into account when weighing up the benefits and costs of restrictions on competition. (A list of the matters which are required to be taken into account in NCP reviews — to the extent they are relevant to a particular inquiry — is contained in box 14.2.)

In accordance with this agreement, each jurisdiction is to review its gambling legislation. Reviews are expected to:

- clarify the objectives of such legislation;

-
- identify the nature of the restriction on competition;
 - analyse the likely effects of the restriction on competition and on the economy generally;
 - assess and balance the costs and benefits of the restriction; and
 - consider alternative means of achieving the objective of the regulation.

Some arrangements in the gambling industries have already been reviewed under NCP, and there have been some policy changes. Others are underway. But governments have deferred some reviews until the outcome of the Commission's inquiry.

Box 14.2 Competition Principles Agreement: the approach of governments to assessing proposals for reform

Without limiting the matters that may be taken into account, where this Agreement calls:

- (a) for the benefits of a particular policy or course of action to be balanced against the costs ...
 - (b) for the merits or appropriateness of a particular policy or course of action to be determined; or
 - (c) for an assessment of the most effective means of achieving a policy objective;
- the following matters shall, where relevant, be taken into account:
- (d) government legislation and policies relating to ecologically sustainable development;
 - (e) social welfare and equity considerations, including community service obligations;
 - (f) government legislation and policies relating to matters such as occupational health and safety, industrial relations and access and equity;
 - (g) economic and regional development, including employment and investment growth;
 - (h) the interests of consumers generally or of a class of consumers;
 - (i) the competitiveness of Australian businesses; and
 - (j) the efficient allocation of resources.

Source: Competition Principles Agreement, subclause 1(3).

The role of this inquiry is not to assess specific pieces of gambling legislation. Rather, in keeping with the breadth of its terms of reference, the Commission has

attempted to contribute an overarching perspective on the key public benefit issues under consideration in all jurisdictions.

That said, some of the criteria in box 14.2 are less relevant to a review of the gambling industry than others. For example, issues with respect to ecologically sustainable development, occupational health and safety and industrial relations have not loomed large. On the other hand, provisions which are most directly relevant for this inquiry are those covering:

- social welfare and equity;
- economic and regional development;
- the interests of consumers;
- the competitiveness of Australian businesses; and
- the efficient allocation of resources.

Some of these have already been touched on in earlier chapters. But others, such as regional development, while possibly relevant to questions of exclusivity, have been raised only fleetingly in this inquiry.

Some broad impacts

Restricting the number of providers through exclusivity arrangements affects the type and quantity of gambling services provided. Limiting the numbers of casino, TAB, keno and lottery licences allows those with licences to vary the services they provide according to demand (although casinos are subject to maximum numbers of machines and tables they may operate). Such arrangements allow a lottery licensee, for example, to maintain large prize pools or larger jackpots, both of which are likely to increase player interest in the game.

Exclusivity arrangements clearly advantage the licence holders, to the extent that they are protected from competition in the same field. Nevertheless, competitive pressures can still come from other gambling forms and, more broadly, from other uses of discretionary spending. But the restriction on direct competition can allow licence holders to provide their services at higher prices than in a more competitive market. This generates what economists call ‘monopoly rent’ (or ‘super profit’). It is a return to the operator over and above that return which would induce a competitive provider to supply the existing level of service.

There is mixed evidence as to whether current exclusivity arrangements are ‘biting’; that is, having an effect on the price and quantity of gambling services. In some cases, they clearly are. For example:

- casino licences have been paid for with substantial licence fees, demonstrating the value expected to be derived from exclusivity (table 14.1). In Victoria, the imminent end of Crown's exclusivity outside of a 150 kilometre radius from Melbourne has reportedly led to expressions of interest from several groups wishing to establish a second casino;
- in the case of gaming machines, New South Wales hotels which sought to operate more than 15 gaming machines were recently able to tender for that right, with average tender prices of about \$50 000 per machine being achieved — a clear indication of the 'scarcity value' of those rights. And the value to the two operators of gaming machines in Victoria is partly reflected in the value they paid for that right (for example, Tabcorp paid \$597 million for its gaming/wagering licences);
- similarly, the amounts paid by private operators for the rights to operate lotteries, keno, TABs and other services provide a measure of the value of exclusivity.

Table 14.1 Exclusivity licence fees for casinos: some examples^a

<i>Exclusive licence</i>	<i>Amount paid or payable</i>
Crown	\$200m in 1993-94 plus a further \$57.6m over 2 years. And from January 1996 a further \$100.8m was payable over three years in return for an increase in table numbers.
Star City	A once only lump sum payment of \$376m
Burswood	\$1.74m per year (indexed to the CPI)
Queensland's four casinos	\$137 500 per quarter
Adelaide	\$5 000 per month
Tasmania	\$60 800 per month, indexed
Northern Territory	nil
ACT	upfront fee of \$19m and annual payments of \$540 000

^a Illustrative only: excludes other arrangements negotiated as part of exclusivity arrangements.

Source: Australian Casino Association (sub. 124, table 7); and ACIL (sub. 155, p. 148).

Notwithstanding this, the South Australian Government was not convinced that exclusive provision has any effect on prices because of, for example, government controls on payout levels, and competition from other forms of gambling:

This argument may carry some weight if each mode of gambling is considered in isolation. However, if the broader picture of the whole gambling industry is considered, consumers have a much greater choice ... Exclusivities apply within each narrow mode of gambling but these gambling providers compete with a range of gambling service providers (including each other) as well as more broadly in the entertainment industry

... there are significant cross-elasticities¹ between the different gambling markets (sub. D284, p. 12).

Minimum payout ratios, taxation policies and competition from alternatives help control any tendency to 'excess' profits. However, exclusive arrangements necessarily reduce competition from others who would prefer to offer the services protected by these arrangements, and the fact that some providers pay large sums for that exclusivity implies a judgment that this can be recovered from players. Indeed, this point is sometimes made in another way by current holders of the exclusive licences, who argue that, were government policy to change, resulting in a loss of some of the exclusivity period, some form of renegotiation of licence fee arrangements ought to be made.

That said, exclusive rights provide no guarantee of profitability. Indeed, in recent years some casinos have faced considerable financial difficulties. Some may well have overbid for such rights, or spent too much in construction, or derived less than expected benefits. While the casino industry enjoyed a profit margin and a return on assets greater than the average for all business in 1991-92, the ABS (1998b, 1999b) reported that profit margins were:

- 6.5 per cent in 1994-95;
- 8.9 per cent in 1995-96;
- 1.2 per cent in 1996-97; and
- minus 10.8 per cent in 1997-98 (the year that Christmas Island casino suspended operations).

The Australian Casino Association said that:

The return on assets in the casino industry has, in recent years, been consistently well below the 10 year bond rate (sub. 124, p. 6).

More recently, the fortunes of some casinos appear to have improved (recent takeover and share price activity providing some indication of this).

Taxation issues

The extent to which the licensed providers are able to keep any monopoly profit depends on the licensing and taxation arrangements. Ideally, governments should tax such activities at levels which appropriate any rents for the government (and thus the community).

¹ The information on this matter is limited (see appendix D) but, if anything, suggests that cross-elasticities have thus far been low.

Governments typically require operators to pay for their exclusive licences in the form of upfront and/or ongoing licence fees and gambling taxes. As suggested, a prospective operator can, in principle, be expected to offer as a licence fee an amount which takes account of the expected financial benefits over the licence period. In this way, governments can tax away much (if not all) of the financial benefits created by the monopoly. This is likely to be achieved most effectively under an open tendering process.

There are thus benefits to government revenue in setting up providers of some forms of gambling as quasi-monopolies. As the South Australian Government noted, the monopoly licence arrangement:

... could effectively be characterised as a mechanism for collecting tax revenue ... The gambling industry provides the government with a good source of a least cost revenue collection method (sub. D284, p. 8).

And there may be particular advantages to the government of the day in extracting licence fee revenues upfront, rather than opting for an equivalent stream of gambling taxes over time (which may benefit subsequent governments).

But this in itself does not constitute a sound public policy rationale. Governments could equally set up quasi-monopolies in the production of any good or service, and tax the monopoly rents so created. That they don't do so — or no longer do so — reflects the fact that monopolies reduce consumer welfare by restricting consumer choice and raising prices.

In view of the close link between taxation rates and exclusive licensing, one important issue concerns the implications of any change in taxation rates for policy towards exclusivity arrangements. For example, were tax rates to be reduced without altering exclusivity arrangements, more of the economic rents generated by those arrangements would be retained by the gambling operators. There is thus an interdependence between exclusivity arrangements and tax policy. (This matter is returned to in chapter 19.)

Effects on consumers

From the viewpoint of *recreational* gamblers, exclusive licensing reduces the benefits they would otherwise obtain. Licence holders pay large sums for the right to 'sell' gambling services and expect to recover that from customers. Consequently, services and facilities, convenience to players and the range of

differently-priced games on offer² could be expected to be less favourable than under more competitive supply arrangements. In the case of casinos, the NCC noted that there is:

... a reduced incentive for the casino operator to improve the games available to casino patrons or to offer additional services ... [and] the period during which casino operators are protected from competition could create customer loyalties to the incumbent operator which may work against potential entrants to the casino (and substitute products) market (NCC 1998b, p. 125).

Instead, much of the benefits of exclusivity accrue to governments and to the licence holder, rather than being competed away to the benefit of players. And where licences are allocated, rather than tendered for — as in the case of some government-owned TABs and lotteries — there is no way of knowing whether the incumbent is a low cost producer of gambling services.

One effect of geographical monopolies is a loss in amenity for those who prefer casinos to, for example, club or hotel gaming. While gamblers in Tasmania and in the Brisbane/Gold Coast and Cairns/Townsville regions of Queensland have a choice of two casinos a few hours' drive apart, most jurisdictions have only one. A South Australian gambler, for example, seeking an alternative to Adelaide casino would have to travel interstate (or forgo the experience), as state government rules prohibit the development of another casino in that state.

Analogous considerations apply in other areas. In the case of lotteries, for example, consumers cannot easily buy out-of-state lottery tickets. For TABs, this is less of an issue, as punters can bet by telephone. But punters cannot choose between competing (off-course) TABs in the same jurisdiction, and so any scope for the establishment of lower cost operators who might offer better odds or services is forgone. And TABs are further protected by restrictions on telephone betting to bookmakers (by, for example, minimum bet sizes) and on advertising of the services of interstate TABs. However, lotteries and TABs attempt to circumvent some of the disadvantages to themselves of exclusivity arrangements by pooling arrangements across jurisdictions.

Potential competitors are obviously limited in the products they are permitted to offer to consumers. This can affect both potential future competitors and current suppliers, who in other circumstances may have moved into fields now covered by an exclusive licence. One response is for such operators to invest in or acquire operators with existing licences, rather than to set up in competition. Tabcorp's purchase of Star City may be seen in this light.

² The price of popular casino table games, for example, ranges from 1 to 8.5 per cent — see box 13.9 in chapter 13.

While exclusivity arrangements disadvantage consumers as a group, it may be that limiting gambling opportunities in this way provides a degree of protection to problem gamblers by limiting the gambling opportunities they face. These issues are considered below and in chapter 15.

Impacts for specific forms of gambling

The effect of exclusive rights on the accessibility of casino gambling is apparent. But there are three other areas where exclusivity has some specific effects on industry structure; namely, on lotteries, gaming machines in some jurisdictions, and TAB funding of the racing industry. These are discussed in turn.

Lotteries

Allen Consulting noted that, while two lotteries have been permitted to operate in the ACT, in order to promote consumer choice:

Industry participants noted that if only one lottery were operating in the ACT, the administration costs would be reduced by approximately 2.5 per cent, thus increasing the taxation revenue (Allen Consulting Group 1998, p. 54).

But others have questioned the desirability of maintaining exclusive licences. For example, Tattersall's argued that it should be free to compete in other jurisdictions. It sees significant economies of scale and scope in the provision of lotteries, on both the demand side (in respect of the size of the prize pool) and in terms of operating costs. And while the pooling of prizes across state boundaries has allowed the achievement of some economies of scale:

Lack of competition between lottery providers means that costs are high in some jurisdictions (sub. 156, p. vi).

Tattersall's claimed to have the lowest ratio of expenses to turnover (3.86 per cent) of any operator in Australia. It said it achieves lower costs because of its private trust structure and the incentives provided to staff. It estimated that, if all providers had achieved the same level of costs as itself, total costs Australia-wide would have been some \$150 million less than observed.

Had there been effective competition between service providers across state boundaries, this saving would have been available to governments as higher revenues, or to bettors as a higher maximum prize or expected return (sub. 156, p. vi).

Tattersall's saw the removal of regulatory barriers between states and territories as essential, in part to prepare for expected future competition from large scale foreign lotteries, such as Camelot in the United Kingdom and G-Tech in the United States:

This would allow the emergence of strong national organisations, capable of meeting future international competition (sub. 156, p. 57).

The price and product benefits to consumers from more competitive lottery arrangements do not appear to have been addressed in any jurisdiction. There are still five major providers, each protected in their own jurisdiction from competition by other lottery providers, and seeking to service what is becoming a national lottery market. The scope for other providers to enter the market with different lottery products is precluded by current arrangements.

The restrictions on interstate competition are often defended on taxation grounds (or because they are seen as a way of channelling funds to worthy causes — see chapter 18). But any alternative, non-exclusive arrangements which could be devised by governments would also be subject to taxation, as shown by ACT revenue sharing arrangements with NSW Lotteries and Tattersall's. Nevertheless, it is likely that current arrangements reflect a perception that government-owned lotteries are first and foremost fundraisers for governments.

Gaming machines

Several jurisdictions provide some form of exclusivity in the supply and operation of gaming machines. For example:

- the (exclusive) operator of Tasmania's two casinos, Federal Hotels, also has exclusive rights to operate gaming machines in that state's clubs and hotels until 2009;
- in the Northern Territory, all gaming machines in clubs and hotels are selected, owned and supplied by the government;
- in Western Australia, Burswood has all of that state's gaming machines, and has exclusive rights to operate games of a kind already approved for use inside the casino elsewhere in the state; and
- Victoria has a 'two operator' system for the supply of gaming machines to clubs and hotels (described in chapter 13).

The Victorian arrangement drew comments in a number of submissions. It clearly advantages the operators and the government (which benefits from licence fees), and there are advantages for the successful venues. The Licensed Clubs Association of Victoria (LCAV) said it provides 'a network control system that has the faith of the Government, public and venues'. It also acknowledged assistance by the operators to clubs which lacked sufficient management skills and understanding of gaming.

But the LCAV said that ‘the vast majority of club gaming venue operators’ in Victoria do not support current arrangements, as they cannot buy their own machines, have their income from gaming machines effectively dictated to them, and may lose the machines if returns are deemed insufficient by the operator. These views were echoed by the AHHA (Vic), which said that the two-operator system, together with capping arrangements, encourages the concentration of machines into as few venues as possible, and as few multi-venue operators as possible (sub. 154, p. 15). Some views from the clubs and hotels are contained in box 14.3.

Box 14.3 Victoria’s gaming machine duopoly: the views of the clubs and hotels

The Licensed Clubs Association of Victoria (LCAV) said that:

... The operators totally control the way in which gaming is conducted. Few variances can be negotiated with the operators who hold the power through promotional revenue. Significant variation of machine type is not an option on offer to gaming venues, yet this is a key managerial skill in interstate venues ... The current system denies clubs the right to manage their club’s services to meet the needs of the patrons and the club (sub. 90, p. 6).

The LCAV said that many clubs want to be offered the choice of purchasing or leasing gaming machines. This is seen as a ‘critical element of venue management’:

Having made a substantial investment in facilities, clubs have no security of tenure over the electronic gaming machines. Both Tattersall’s and Tabcorp may pull machines out of venues when their turnover is judged too slow and not commercially viable ... Individual clubs are worried as to what their club’s future is, as many have long term financial commitments based around gaming (sub. 90, p. 7).

Similarly, the AHHA (Vic) said:

The system offers no real tenure over machines by venue operators. It allows comparative measures of machine performance to dictate whether machines remain at a venue or not. The system denies the venue operator ... the discretion to limit or alter the supply of the product so as to minimise social costs (sub. 154, p. 15).

The AHA said:

... there is absolutely no net advantage to instigating or maintaining monopoly/duopoly type arrangements in any jurisdiction. Perhaps a better approach to that of granting exclusive rights is to allow licensees to purchase machines outright such as the case in South Australia and New South Wales. These arrangements go a long way towards dispelling the industry disquiet in certain states over access issues as it would allow hotels to operate on level playing fields with its direct competitors (sub. D231, p. 49).

A different concern was raised by a residential land developer and homebuilder in Victoria, Dennis Projects Pty Ltd. Many of its new projects are in greenfields sites on the urban fringe of Melbourne, and it noted the difficulty faced by a new hotel or club in obtaining gaming machines:

... as a result of the cap neither [Tabcorp nor Tattersall's] has any machines to supply new Hotels, hence a proposal for the construction of a Hotel on the urban fringe ... with all facilities ... lacks viability (sub. D245, p. 2).

Victoria's two-operator system was seen as adding to the uncertainty of investments by venues in gaming rooms and associated facilities, and is accompanied by pressure on them to promote and encourage use of gaming machines. Tabcorp reported that it had increased its average revenue per machine per day to \$190 during the second half of 1998, in part by making venues more attractive so that customers would want to stay longer.

It argued that, while commercial realities dictated the need to maximise the return to the operator, the pressure to move gaming machines from one venue to another according to the returns generated at each was more properly seen as a result of the caps which operate in Victoria:

... the restriction on the number of EGMs available to the Gaming Operators leaves them with no choice but to reallocate some or all of a Club's EGMs to another Club where EGM performance is likely to be significantly superior (sub. 173, p. 6).

These matters are discussed in chapter 15, which notes that such pressures would not arise in an environment without global caps, where venues (even if individually capped) were free to purchase gaming machines from manufacturers as they saw fit.

TABs

The exclusive rights which all jurisdictions provide to their TABs are supported by a raft of restrictions on the ability of others to compete with them. For example:

- there are restrictions on the activities of bookmakers, covering, for example, where and at what times they may take bets, their telephone betting activities, their ability to advertise and so on; and
- while punters are able to bet by telephone with TABs in other jurisdictions, the advertising of their services is prohibited.

Conversely, TABs are unable to compete for business or to establish agencies in other jurisdictions. In the main, their activities are restricted to totalisator betting on thoroughbred, harness and greyhound racing. And as ACIL noted:

... whereas the TABs all have exclusive rights to off-course totalisator wagering in their jurisdictions, they in turn depend for their racing events on board-registered non-proprietary racing clubs whose right to conduct (and timetable) race meeting where wagering occurs is also exclusive (sub. 155, p. 150).

It added that there are a number of groups (such as the quarterhorse³ and Arab horse associations) which would like to have TAB coverage for their events, but cannot under current arrangements in almost all jurisdictions. Similarly, proprietary racing is excluded by the requirement that no person may receive any ‘direct financial benefit’ from the ‘profits’ of a race meeting (CIE 1998, p. 24).

All of these restrictions clearly affect the options open to punters, in terms of *where*, *on what events* and *how* they may make bets, and the *prices* at which betting is made available.

To a lesser extent, they also limit the activities of the TABs. But current regulations, and the considerable convenience which TABs offer, have assisted them to capture most of the wagering dollar (about 94 per cent in 1997-98), notwithstanding that they charge a higher ‘price’ to the punter than on-course bookmakers (typically three times higher⁴ — see table 14.2).

Table 14.2 The ‘price’^a of a wager, 1997-98

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
TAB	15.0	16.0	16.9	17.2	15.5	14.3	14.4	15.9	15.8
On-course bookmaker ^b	5.5	4.5	5.5	5.0	4.9	5.5	6.2	6.4	5.2
Other ^c	14.6	16.1	17.0	16.3	15.4	13.9	7.6	7.4	14.0
Total racing	13.7	14.5	15.5	14.7	14.4	13.7	11.7	9.2	14.2

^a Expenditure as a percentage of turnover. For example, on average, a dollar spent on a TAB wager in NSW will return 85 cents to punters. ^b Some figures assumed by Tasmanian Gaming Commission. ^c Includes on-course totalisator and sports betting (racing).

Source: Tasmanian Gaming Commission (1999).

But the environment in which TABs operate is changing. Betting on racing has declined in importance relative to other forms of gambling, and in particular, machine and casino gaming. (And, indeed, Tabcorp and TAB Ltd have diversified into gaming machines.) And future developments are likely to increase pressures on this industry. The Queensland Government noted that these were coming from:

... cable television operators, interactive gambling, satellite technology, the privatisation of interstate TABs and the international market place (sub. 128, p. 51).

The Tasmanian TAB also noted that the growth in communications technology:

³ In another study, the CIE (1998) noted that there are some 180 000 quarterhorses in Australia, with a national stud book, and licensing and registration system to register horses, trainers, jockeys, stable personnel etc.

⁴ The practice of ‘rounding down’ of payout rates to winners contributes to this price. Such a practice can be significant for large bets placed regularly.

... is bringing growing competition to areas previously protected by a statutory monopoly which was part of a national oligopoly of State TABs. No longer can it be assumed that the customer is committed to wager with the local TAB (TAB Tasmania 1998, p. 6).

The success of the TABs has, in turn, led to increased funding for the racing industry (and more racing). But ACIL noted that this support is threatened by sports bookmakers operating on the internet who have no financial links with the racing industry:

Ultimately the breakdown of the geographic boundaries to the flow of information could upset the distribution agreements between the TABs and their local racing boards, and it might even lead to legal actions by local racing boards intended to recover 'royalties' from interstate operators (sub. 155, pp. 154–5).

In response to these developments, TABs in several states are now offering totalisator or fixed odds sports betting (in some cases, with exclusive rights to do so), often also through the internet. But the totalisator product provides an almost guaranteed income for them and tax revenue for the government. Large scale involvement by TABs in fixed odds betting, were that to occur, would raise questions about the nature of the risk involved and the appropriateness of government agencies bearing that risk. (It would also focus further attention on the merits of maintaining this activity in the public sector — privatisation has already occurred in several jurisdictions and is planned in others.)

The restrictions on TABs and on racing and sports bookmakers are subject to review by regulators and meetings of racing Ministers and officials. NCP reports also play a role: for example, a recent review by Western Australia's Office of Racing, Gaming and Liquor has recommended continuing some restrictions on bookmakers but removing others (box 14.4). And an NCP review of New South Wales' racing and betting legislation is currently underway. The issues paper for that review said that there are a range of objectives for the 'anti-competitive restrictions' of New South Wales racing and betting legislation, namely:

- ensuring the integrity of racing and betting activities;
- prohibiting criminal activity;
- encouraging the sustainable economic development of the NSW racing industry;
- protecting Government and racing industry betting revenues; and
- protecting the economies of scale associated with NSW totalisator betting (DGR 1999a, p. 19).

Box 14.4 **Restrictions on bookmakers: Western Australia's NCP review of betting legislation**

The review argued that restrictions on *where bookmakers may operate* provides a net benefit to the community and should remain in place (ORGL 1999a, pp. 88–9). While they impose costs on bookmakers:

Restrictions on the locations of bookmakers activities [provide] substantial benefits through reduced costs of monitoring bookmaking activities and reducing adverse impacts in the community from off-course betting and access to credit betting. Despite the potentially substantial costs imposed on bookmakers from reduced business opportunities ... the restriction on locations at which bookmaking may occur provides a net public benefit.

The review concluded that restrictions on *times at which bookmakers may conduct betting* provide little if any public benefit, impose substantial costs on bookmakers and should be removed. These costs:

... could be reduced by relaxing the restrictions or leaving decisions on timing of the bookmaking activities up to racing clubs. [This] has occurred in other states ... Advantages include ... allowing establishment of a betting auditorium at a major racecourse ... The major problem created by the establishment of betting auditoriums - the transfer of patronage and betting turnover from one race course to another - has been overcome by negotiation of profit sharing arrangements between the clubs. Disadvantages ... would be reduction in taxation revenue arising from transfer of some betting turnover from the TAB to an on-course betting auditorium. This may, in turn result in diminution in the value of the TAB as a public asset ... (ORGL 1999a, p. 89).

The review considered that the restriction on *minimum levels of telephone bets with bookmakers* should be repealed. It noted that telephone betting was introduced in 1993 on a trial basis, with a minimum telephone bet limit set at \$250 (or a bet to win \$2 000):

This ... was a national standard at the time designed to protect turnover of state-owned TAB businesses.

Since 1995, most states ... have moved to reduce the minimum telephone betting levels. A minimum level as low as \$100 exists for race betting in a number instances while no minimum level is common for sports betting. In Western Australia the minimum limit for race betting is currently \$200 or a bet to win \$2,000 ... Bookmakers operating in other states are able to provide telephone-betting services to punters in Western Australia, although it is considered unlikely that small punters betting less than the minimum limits would make use of the interstate services (ORGL 1999a, p. 101–2).

The review assessed that minimum telephone bet levels gave rise to a net public cost and should be repealed. It gave rise:

... to potentially substantial costs to punters, bookmakers and racing clubs, particularly in relation to betting services for small events and minor codes. Benefits may arise from protecting revenues to the government and racing clubs from TAB betting, and in reducing risks of problem gambling through credit betting, but these benefits are considered to be small. In total the restriction was assessed as giving rise to a net public cost ... (ORGL 1999a, p. 102).

Source: ORGL (1999a).

It said that anti-competitive restrictions likely to be canvassed during the review will include:

- *barriers to entry*, such as the exclusions on proprietary racing and forms of racing other than thoroughbred, harness and greyhound, and licensing arrangements for trainers, jockeys and harness drivers;
- *cross-border market protection*, such as restrictions on advertising by TABs or bookmakers not licensed in New South Wales; and
- *restrictions on licensed bookmakers*, who are limited in the events they may take bets on, the time and place of betting, minimum telephone bet sizes and advertising of their services. Procedures for licensing bookmakers and authorising them to conduct telephone, electronic or sports betting may also be reviewed (DGR 1999a, pp. 15–18).

Victoria's NCP review examined broadly similar issues matters (CIE 1998), and the issues paper for South Australia's current review has also raised these matters for public comment (Marsden Jacob Associates 1999).

Many current restrictions are designed with the interests of the current participants — governments, the TABs, the racing clubs and so on — in mind, and should be subject to broad public interest tests. And any policy changes would need to be evaluated in the context of the web of regulations which support current arrangements. But some changes could be made in isolation. **The minimum telephone bet restriction which applies to bookmakers but not TABs serves no useful purpose and could be removed immediately.** It appears to do no more than impose a competitive disadvantage on bookmakers in order to limit competition to TABs.

Some changes are occurring

Across many forms of gambling, there are some instances where exclusivity arrangements have expired and have not been renewed. For example, several casinos no longer have legally binding exclusive rights, although the political difficulties of obtaining a new casino licence may be significant in some, if not all, jurisdictions. And while newer forms of gambling, such as sports betting and internet gambling, are subject to licensing arrangements, they tend to be inherently more competitive.

Nevertheless, it remains the case that some forms of gambling are locked in to exclusive arrangements for some time to come (see box 13.7 in the previous

chapter), with no indication that this is likely to change in the near future. As a number of participants have noted, it would be expensive for governments to extricate themselves from these contractual agreements. The NCC noted, in the context of NCP reviews:

... because most monopoly licences include provision for compensation for early termination, the approach favoured by governments is to consider the need for less restrictive arrangements as exclusivity arrangements expire (NCC 1998b, p. 125).

And Quiggin highlighted a quandary for governments:

Retention of monopoly privileges may make the state liable for the loss of financial assistance grants under the Competition Principles Agreement, while removal of monopoly privileges may leave the government liable to pay compensation to monopolists or face legal action for breach of contract. In most cases, the costs of compensation for breach of contract will be greater than the value of the stream of monopoly profits that have been sold (sub. 149, p. 6).

Is exclusivity justified?

In 1998 the NCC reported on reviews of casino legislation undertaken under the NCP, noting that they highlighted common views of jurisdictions as to:

... the responsibility on governments to address community concern about the social impacts of gambling and the perceived attraction of casinos for organised crime ... allowing for multiple casinos would not reflect the strong support of ... constituencies for limits on the level of gambling.

... the contribution made by gambling to State and Territory revenue. Keeping in mind community views about the desirability of limits on the amount of gambling, the reviews found that financial returns to the community (licence fees and taxation) are maximised through a single licence arrangement ...

... the cost to the community of maintaining probity is minimised with a single licence because the cost of regulating one large venue is less than the cost of regulating many small venues (NCC 1998b, p. 123).

The NCC noted that, while it was not convinced about several of the justifications given, governments had judged it 'probable' that exclusive licensing arrangements in their jurisdictions had provided a net community benefit (NCC 1998b, p. 125).

As noted earlier, the Commission has looked at these issues in the broad against criteria that are consistent with those applicable to any NCP review.

Chapter 11 has shown that there is little to commend some of the justifications put forward to defend exclusivity arrangements. In particular, it argued that the need for revenue generation can have an unbalanced influence on policy in this area. But

chapter 11 also raised the possibility that particular equity, social or industry efficiency imperatives might justify exclusivity.

With those in mind, the rest of this section looks at exclusivity in the provision of certain gambling services and asks:

- Does it help control problem gambling through limiting accessibility?
- Does it facilitate harm minimisation processes?
- Does it reduce pressures to advertise?
- Is probity checking a justification for exclusive arrangements?
- Are there industry efficiency reasons of a kind which might justify exclusivity?
- Is regional development facilitated?

Does it help control problem gambling through reduced accessibility?

As shown in chapter 8, a key issue for problem gambling is *accessibility* to gambling opportunities. But the link between accessibility and exclusivity varies by mode of gambling.

For example, while lotteries are operated as local monopolies, and this restricts the type of lottery tickets which can be purchased, it does not restrict accessibility to lottery gambling, as tickets can be bought widely — for example, at newsagencies. In any case, there is little evidence to date of problem gambling relating to lotteries (although some fear this may arise as lottery draws become more frequent).

Similarly, while TABs are also local monopolies, bets can be placed at TAB agencies, many clubs and hotels, and by telephone and internet. So while TABs are exclusive licensed, accessibility is not unduly restricted. But unlike lotteries, TABs are a significant source of problem gambling (chapter 6). Controlling accessibility might imply controlling the (already very large) number of races upon which wagering can take place, and is not in itself an ownership issue (chapter 15).

For casinos, the situation is somewhat different. Casinos provide some games (such as keno and gaming machines) which are also provided by many other venues, and some, such as table games, which are exclusive to them and which distinguish casinos as gambling venues. This means that restricting casino numbers through exclusivity arrangements can only restrict accessibility to one form of gambling. (And it is no longer the dominant gambling activity in most casinos. To take an extreme example, in Tasmania's two casinos, gaming machines earn over \$21 million, whereas table gaming generates only \$1.3 million).

But as shown in chapter 6, gaming machines — the major source of problem gambling — are already widely available in nearly all jurisdictions. Limiting the number of casinos through exclusivity arrangements can have little effect on accessibility to this form of gambling (other than in Western Australia).

In Victoria, the duopoly's exclusive rights to own and operate gaming machines in clubs and hotels bring no obvious advantages with respect to access and problem gambling (Indeed, the combination of the duopoly and global caps may adversely affect problem gambling — explained in chapter 15.)

In sum, **exclusivity arrangements, as implemented, have in most jurisdictions not reduced the accessibility drivers of problem gambling, other than for casino table games.**

The South Australian Government said that:

The greatest benefits associated with exclusivity to table games at the Casino relate to harm minimisation and revenue generation. Harm minimisation is achieved through restricting access to table games (sub. D284, p. 13).

But it did not accept that this imposed a cost on gamblers who enjoy table gaming, in view of the wide range of substitutes for table gaming in the gambling industry and more broadly in the entertainment industry:

... the costs of restricted access to table games are more theoretical than real in that there are numerous suppliers of gaming machine and other gambling opportunities and the community displays no real desire for table gaming ... to be more widely available ... Given the widespread availability of other gambling opportunities in the State, the cost to consumers of exclusivity for the Casino would be trivial (sub. D284, pp. 10–11).

But it added that:

... supply restrictions can only be justified if they reduce the social costs of problem gambling by more than the adverse impact on recreational gamblers. This is true with regard to Casino gambling (p. 13).

Does it facilitate harm minimisation processes?

Harm minimisation programs have been established in some casinos, clubs and hotels as part of industry codes of conduct. Their effectiveness is discussed in chapter 16.

In some jurisdictions, codes of conduct have been established across all main provider groups, thereby facilitating the implementation of harm minimisation strategies in the venues covered. For example, Queensland's Responsible Gaming Advisory Committee's *Responsible Gambling Statement* and Victoria's Gaming

Machine Industry Code of Conduct have been put in place by the key sectors involved and bind them all to such requirements as advertising gambling help-line services. Given the variety of venues involved, this suggests that a key consideration is the commitment of the various components of the industry.

The Victorian duopoly has the advantage that the two operators may be able to police a self-regulation approach more effectively than under more dispersed ownership of gaming machines. But it is questionable whether self-regulation is the best approach to dealing with problem gambling (chapter 16).

Self exclusion orders may be easier to enforce for people with problems stemming from table games through casino exclusivity. But it has no such advantages with respect to problem gaming machine gamblers (other than in Western Australia).

The Commission sees no significant advantages for harm minimisation arising from exclusivity arrangements as such. A preferred approach is to focus efforts on improving the efficacy of harm minimisation programs in a range of venue types. This is the subject of chapter 16.

Does exclusivity reduce pressures to advertise?

Some participants have argued that moving away from the practice of providing exclusive licences may lead to more intense advertising of gambling, with adverse consequences for problem gambling, as competing providers sought to capture a greater share of the market for their services.

The extent to which this is likely to occur is difficult to judge. Some exclusive licence holders (such as casinos and lotteries) are heavy advertisers of gambling facilities and a larger number of providers might well mean more advertising in total. However, the Issues Paper for the South Australian NCP review of racing and wagering legislation argued that, while such concerns may have had force during earlier stages of gambling liberalisation:

The concern to avoid or minimise promotional effort has weakened as gambling has become more widespread and community acceptance of gambling increased. This concern appears to have been more relevant for the State lottery and the TAB in 1966 than it was for the introduction of the casino in 1983 (Marsden Jacob Associates 1999, p. 32).

But this is not a matter on which decisions about exclusive licences should hinge. Rather, they should be judged in terms of the totality of effects they have on the range and prices of gambling services, including any social impacts. And similarly, the Commission considers that a better approach is to examine advertising as a issue on its own terms. This is the approach taken in chapter 16.

Is probity checking a justification for exclusive arrangements?

It is likely that limiting the number of near-monopoly casinos, TABs and lotteries facilitates probity checking and regulation, because of the small number of venues or licensees involved. Having a single operator is likely to lower the cost and increase the effectiveness of probity checking of licensees and staff, and help keep monitoring and other regulatory costs to a minimum. Effectively this is an argument based on the benefits of achieving economies of scale and scope.

In respect of its casino, the South Australian Government said that:

... table games provide a significant opportunity for fraud and require intensive monitoring ... The provision of a single [casino] licence ensures probity of the highest standard at the lowest cost. Exclusivity enables much more stringent and effective probity checking than if South Australia had several casinos to monitor ... A single casino permits greater presence of casino inspectorate staff (sub. D284, p. 7).

The Western Australian Government said that there were a number of checking and monitoring benefits associated with its restriction on gaming machines:

- by restricting the conduct of gambling on gaming machines to licensed casinos, it is less costly and more feasible to maintain the integrity of this particular gaming product. Inspection, audit and surveillance can be conducted more effectively;
- the cost of the government monitoring of gaming machines is lower because of the smaller number of venues operating gaming machines (sub. 76, p. 30).

But these economies have to be set against inefficiencies which arise from having a single exclusive licence. As discussed earlier, these include reduced choice and convenience to players and the price effects of having an exclusive licence. It is the balance of such costs and benefits which is important. Governments do not argue that there should only be a single insurance company or bank because of the economies which would be involved in prudential checking or tax auditing — the offsetting benefits in such areas as price, choice and savings in time are indisputable.

As noted in chapter 16, **a better approach is to institute probity checking procedures which are appropriate to the mode of gambling and venue type, and to charge the licensee accordingly.** In this way, they become part of the cost structure of the industry and are reflected in operating arrangements and future decisions.

Are there industry efficiency reasons of a kind which might justify exclusivity?

Chapter 12 noted that there were two areas where industry efficiency arguments may provide a possible rationale for selective treatment. One concerns the lottery

industry, where exclusivity helps provide larger prizes. The other concerns the funding of the racing industry by TABs as part of their exclusivity agreements.

Lotteries

Providing an exclusive licence to a single lottery provider in a single jurisdiction (and preventing competition from other jurisdictions) allows it to provide bigger prize pools than otherwise. This is important because large prizes are the principal attraction of lotteries, providing benefits to consumers, in part because adding another player to a lotto pool increases the expected value of a bet (sub. 156, p. 39).

But within most jurisdictions, larger prizes are already being obtained by commercial arrangements under which the various operators pool their activities. Indeed, the major lottery products (Lotto, Powerball and the like) are now routinely provided through national blocs (chapter 13). In this way, some of the shortcomings of exclusive licensing are being overcome. This suggests that economies of scale cannot be a good argument for exclusive lottery licences (in the same way that they cannot be a good argument for a single exclusive licence for a bank or a retail shop).

Were exclusivity arrangements to be removed, one possibility might be the emergence of a small group of operators competing in several jurisdictions. Depending on the economies available, this might lead to an increase in the player returns from lotteries (currently low compared to other gambling products at 65 per cent for lotteries, 60 per cent for lotto and 62 per cent for instant lotteries). In such a case, some of the potential competitive gains identified by Tattersall's would accrue to consumers as lower prices.

But equally, differences in costs of production, together with consumer demand for large prizes, might see the emergence of major national lotteries, in place of the pooling arrangements now entered into as a response to limits on interstate competition. Such outcomes are best decided by consumers choosing the products they prefer. Depending on the number of competitors in the market, such an outcome may require monitoring on competition policy grounds. But **in the Commission's view, the capacity to provide larger lottery pools does not constitute an argument for government-enforced exclusivity.**

TAB funding of the racing industry

The conditions governing the exclusive licences for the TABs (whether government-owned or private) include the requirement that they contribute funds to the thoroughbred, harness and greyhound industries. For example, as part of the privatisation of the Queensland TAB, the government has negotiated revenue

sharing arrangements with the racing clubs for the next 15 years. And in Victoria, the now-private Tabcorp is required to share both gaming machine and wagering income with the Victorian racing industry. Across Australia, about \$400 million is paid by TABs to their racing industry.

This requirement reflects the fact that, unlike sports betting on football matches or car races, wagering is the major reason for horse racing to take place. If those providing wagering services were not to contribute to the racing industry, the industry itself would decline. As the Australian Racing Board noted:

The Australian Thoroughbred Racing Industry is a gambling industry in the sense that off-course and on-course wagering on racing outcomes is the major revenue source for the Industry (sub. 48, p. 1).

Without some form of policy response, ‘free riding’ might lead to the racing industry providing too few races:

The nature of racing events is such that it is difficult to exclude parties from utilising the primary product of the event - the outcome or result of a race. As such, it is possible that betting service providers could ‘free ride’ on the racing industry, taking bets on races without contributing to the costs of running them. Such a situation could lead to there being too few race meetings and a smaller racing industry (CIE 1998, p. 36).

Exclusively licensing a single TAB in each jurisdiction, heavily restricting the competition it faces, and requiring it to direct some of its revenues to the racing industry are the means by which this problem is currently addressed. But while it is a convenient and effective way of raising tax revenue and providing secure funding to the racing industry (and may have other benefits with respect to assuring punters of the integrity of the betting activity), it is a blunt instrument for overcoming such ‘market failure’.

But there can be no guarantee that current arrangements result in the ‘right’ amount of funding or lead to the running of the ‘right’ number of races, particularly in view of the many anti-competitive restrictions which apply. (Indeed, there are arguments that biasing wagering towards the TAB pooling arrangements has led to an excess of lower quality races — see subs. 3 and 14.)

Moreover, TAB monopolies in each jurisdiction are under threat from technological developments such as interactive home gambling and the increasing availability and popularity of sports betting (albeit from a small base). Alternative ways of achieving appropriate funding for the racing industry may need to be canvassed. For example, the advantages and disadvantages of some form of levy arrangement could be reviewed (box 14.5), although any such development would need some form of interjurisdictional agreement to work. However, it would have the advantage of

directly addressing the problem raised by ACIL and others of betting on racing being offered by some who do not contribute to the funding of those races.

But as noted earlier, any change in policy would first need to consider a wide range of related questions, such as the exclusive rights given to the racing clubs, licensing procedures for bookmakers, the limits on the codes covered and so on, as these restrictions serve a range of objectives.

However, the broad principles which should guide the approach of governments to the racing and betting industries ought to be essentially the same as for any other industry (chapter 12).

In short, there is a case for government intervention to overcome the particular market failures which affect the racing industry.

Interactive home gambling and the increasing availability and popularity of sports betting will increase the pressures on TAB monopolies in each jurisdiction. But TAB exclusivity and the restrictions which underpin it do not appear necessary to ensure an appropriate level of funding for the racing industry.

Any changes to the exclusivity arrangements for TABs would need to take into account the role of betting agencies which offer betting on racing but do not contribute to the funding of racing.

Facilitating regional development?

It is difficult to predict specific regional development spinoffs from the exclusivity of casinos, lotteries and so forth (or from removal of that exclusivity). However, the exclusivity of TABs does appear to have some benefits for regional and country areas. For example, the Western Australian Government noted that:

TAB distributions to the racing industry, particularly in country and regional areas, are important to the social fabric of the State. Weekend race meetings are extremely popular social events and play a major role in the social integration of farming communities. This has an additional flow on effect of maintaining community interest in horses (sub. 76, p. 36).

But that said, it is not clear what consequences for regional race meetings would follow in circumstances where TABs were not exclusive and racing for wagering purposes were not limited to the three current codes. Much would depend upon whether there continued to be demand for the same kinds (and standards) of races now run.

Box 14.5 Funding for the racing industry: what alternatives to TAB exclusivity?

A 'property rights' approach?

At one extreme might be a world in which the exclusive arrangements for TABs and many of the restrictions on bookmakers were removed, and each was free to take bets on a wide variety of sports and events. In time, their activities would evolve towards a preferred balance of totalisator and fixed odds bets on a wide range of sports and other activities. Specialisation might occur.

In such a world, 'free riding' could be solved by establishing legally enforceable rights to gambling on racing events and allowing *any* betting agency to negotiate fee arrangements with the holder of those rights (eg racing clubs). (Arrangements would subsequently develop for cross licensing, as with rights to televise sporting events.)

But a key question would concern who would control any such rights. Resolving this would require a review of the regulatory structures that underpin the racing industry. An indication of the difficulties involved comes from the Queensland Government, which noted that:

The issue of ownership of the racing product to broadcast through pay television has caused controversy within the ... racing community. The interrelationship between ownership of television rights to racing and income from racing has raised many questions for which there are currently no definitive answers in the current rapid technological developments (sub. 128, p. 51).

Such arrangements would need to be quarantined to those cases where the incentive to operate races came essentially from the wagering, with the likelihood that the game would be undermined in the absence of such a mechanism. This rationale would not apply to sporting events (such as football) undertaken for other reasons.

A levy approach?

Another approach would be to levy all wagering on racing, whether undertaken through TABs and racing or sports bookmakers, and pay a proportion to the racing industry.

The size of any such levy on gambling revenues could be determined by all industry members (including, for example bookmakers), with the role of government limited to seeing that the levy is agreed to and enforced. In this way, the industry as a whole could decide how much ought to be collected and how it might be used. And were such decisions to be made at the national level, this might help overcome some of the inefficiencies of the current state-focused arrangements.

Such a levy is already used in the United Kingdom explicitly to provide funding for the racing industry:

Bookmakers are required to pay a levy on their horserace betting turnover through the Horserace Betting Levy Board, which has a statutory duty to make funds available for the benefit of horseracing. The levy is in the form of a fixed fee per betting office plus a percentage [of turnover] ... Total payments therefore rise and fall in line with horserace betting expenditure (Field and Dunmore 1997, p. 1).

In the case of regional exclusivity for casinos, this can provide a boost to business activity and employment in the region concerned. Local businesses which help build and supply the casino benefit, and short- and long-term employment in some occupations in the area could rise. While some competitor businesses will be disadvantaged by the competition (and might lose employment), others gain, and business activity in the region as a whole is likely to be higher. However, the net effect on the region will depend upon the circumstances of the development and of the region concerned. And any such evaluation would need to ensure that all of the economic and social impacts were properly accounted for.

The South Australian Government noted that:

... there may be some benefits from a regional perspective if South Australia can preserve a stake in the national tourism market ... in a region with under utilised resources, such as high unemployment, a tourism/casino development could provide additional benefits to the economy. Attracting a major developer may also require an incentive structure that would enable them to offset their establishment costs and may therefore require an exclusivity period (sub. D284, pp. 6–7).

It added that, in the event that Adelaide Casino were to be sold by the Government as planned, its exclusive licence would assist in attracting new investors into South Australia to retain and develop the casino, as well as maximising sale proceeds (sub. D284, p. 8). Nevertheless, it acknowledged that:

... it may be a zero sum game nationally (sub. D284, p. 6).

Any large scale development will draw employment and other resources from elsewhere in economy (both within the same jurisdiction and outside). So what benefits one industry or region will in part be at the cost of others. While the effects in different parts of the economy will depend upon the markets for labour and other resources in the region and more widely, the net effects Australia-wide must necessarily be small.

For such reasons, it is not at all clear that regional development provides a sound rationale for exclusivity in gambling licensing, or that this approach would have any advantages over other policies which would also encourage regional development.

Summing up on exclusivity arrangements

Exclusivity arrangements impose costs on the community. And while revenue raising is used as a major rationale for these arrangements, it is not a strong justification. Other arguments put forward in favour of granting exclusive licences are also not compelling.

In the Commission's view, the key consideration is the effect which these arrangements have on problem gambling, and in particular, on the accessibility of gambling, and the implementation and effectiveness of harm minimisation practices.

While some problem gamblers benefit from the reduced access to table gaming which results from casino exclusivity, there is little to suggest that these arrangements lead to good social outcomes overall. And exclusivity is a very indirect way of tackling accessibility and harm minimisation.

14.3 Should gambling be restricted to particular venue types?

Current arrangements concerning the places where gambling is offered reflect history and ad hoc decisions of governments. But at their core are restrictions based on limiting gambling to adults, and the linking of gaming machine gambling to venues with liquor licences. A key restriction in each jurisdiction which has gaming machines sets different limits on the numbers of gaming machines for clubs and hotels.

Chapter 12 has shown that problem gambling provides a rationale for special gambling policies. But a key question concerns the criteria to guide decisions about future increases in the availability of different forms of gambling, particularly for those already shown to be more problematic.

A related question is the extent to which governments *can* restrict access, given the rise of interactive gambling, not only at home but through the increasing availability of internet cafes or internet terminals in shopping malls, airports and other public places.

Gambling and liquor licences

Gaming machines are generally restricted to premises which have certain types of liquor licences. Given the role of alcohol in adult recreation activities, this may seem unexceptional. It also provides clearly defined boundaries and premises, and facilitates the exclusion of under age gambling (although children may obtain entry into clubs even if not into gaming rooms, and exclusion of minors from gaming areas could easily be a feature of a gaming licence which was not linked to alcohol).

The Australian Hotels Association supported a linking of liquor and gaming licences as a sensible initiative to minimise minor access, noting that:

Establishments that provide liquor are only available to the adult population and the restriction of gambling services to hotels is an ideal way of limiting access to minors ... the hotel sector is well versed to effectively deal with the sensitive issues associated with both gambling and alcohol consumption [and it] provides an environment that is highly controlled (sub. D231, pp. 52–3).

The Queensland Government said that:

History has played some part in the continued use of liquor licensing as a basis for gaming venue approvals but no other method of assessment has been proposed which could successfully replace this system. The current regime is positive in the sense that it establishes an environment that is adult based (hence restricting minors) and requires a common nominated licensee who is responsible for the conduct on the premises (sub. D275, p. 14).

It added that:

... possession of a liquor licence is not the sole basis for the licensing of sites, but *one* of the criteria for applying for a licence (p. 14).

But there are some apparent anomalies. For one thing, other gambling venues are not so licensed: why exclude gaming machines from TAB agencies? And some liquor-licensed establishments cannot have gaming machines (for example, restaurants or grocery stores with liquor licences). One reason may be concern about the increase in accessibility to a problematic form of gambling. Or concern about increasing the ‘convenience’ nature of machine gambling. These questions of accessibility are discussed in the next chapter.

The Australian Hotels Association said:

... there is limited evidence to suggest that the provision of gambling and alcohol in the same establishment plays a significant role in a marked increase in irresponsible gambling practices and further research on these topics should be conducted before drawing policy recommendations (sub. D231, p. 47).

While clubs and hotels have broadly similar liquor and gaming licences, they are treated in very different ways in most jurisdictions. Foremost among these are the caps on numbers of gaming machines allowable per venue.

However, several participants noted that a person’s control over his or her gambling activities is necessarily reduced with alcohol consumption. A recent study for the Nova Scotia Department of Health provided support for this view: it found that people who play gaming machines while drinking tend to gamble for twice as long as those who do not drink. The Australian Hotels Association noted the Nova Scotia study but argued that there is insufficient evidence to suggest that problem gambling is more likely to occur if alcohol is involved. It said that studies should be based in Australia, as:

... there are significant differences throughout the world in public behaviour due to different cultures and environmental factors (sub. D231, p. 54).

Nevertheless, some counselling agencies and welfare groups expressed concern about the effect which alcohol can have on some people's gambling behaviour. And Nunkuwarrin Yunti of South Australia said that:

The enmeshment of alcohol and gambling opportunities under the same roof seems to be a trend far more common today than ever before. PUB/TABs are far more common than stand alone agencies in South Australia. Gaming machine licences are always linked to licensed premises, preventing the setting up of alcohol free venues. Any steps to minimise the opportunity to consume alcohol and gambling in the same venue is supported as a step to minimise associated harm (sub. 106, p. 6).

Given the evidence as to the high risks for some in the community from gambling, and that such risks can be exacerbated by alcohol, the provision of gambling in venues which serve alcohol might be thought problematic. While there are advantages to problem gamblers in reducing accessibility (chapter 8), it seems odd to limit such opportunities only to venues where drink is available.

In principle, applications for gaming licences ought to be judged against criteria based on assessment of the risk of harm, without direct reference to licensing for consumption of alcohol. This might, for example, cover such matters as venue location and layout, training of staff, harm minimisation programs and the like (some of which are already picked up in current licensing arrangements). In this way, both venues with alcohol licences and those without may be considered for gaming licences.

But much depends on the process by which such decisions are made (chapter 22). If the consequence is more outlets, that would lead to greater accessibility and therefore to greater problems. This matter (and the question of whether gaming machines might be located in other venues) is taken up in the discussion of gambling accessibility in chapter 15.

Venue type and problem gambling

Earlier chapters have indicated some of the areas in which there are significant differences in the approach of regulators to different types of gambling mode or venue. Clearly, for example, casinos are regulated to a much greater degree than clubs and hotels. But chapter 6 has shown that there is insufficient evidence to argue that casinos are a *particularly* serious source of problem gambling. In fact, with respect to gaming machines, the evidence points the other way: less problems appear to be attributable to casinos than to clubs and hotels. In large part this

reflects their small numbers, their location and role as a destination venue for many, and the small proportion of total expenditure on gaming machines that they represent.

It is a common perception among members of the public that clubs provide safer gambling environments than hotels. Many believe that clubs are more caring than other venues about their patrons (who are, in the main, members, rather than customers), and their non-commercial status means staff and management have less interest in generating profits. However, a contrary view was put by the AHHA (Vic), which said:

Professional managers are attracted to clubs. The profits from gaming are distributed via the management agreement, and the objective of ensuring community benefit can be thwarted (sub. 154, p. 11).

The perception that clubs are safer was a view reflected in the results of the Commission's own survey (chapter 15). However, that chapter also points out that such perceptions may well be ill-founded. Clubs, like other venues, have said that they generally do not actively intervene with players because of the difficulties of identifying problem gamblers, concern about giving offence, or possible potential for liability at law. Instead, they rely on passive measures such as signs and brochures.

A comparison of the proportion of gaming machine spending accounted for by problem gamblers in clubs and hotels suggests that a higher proportion is accounted for by clubs in New South Wales and by hotels in Victoria. It seems that, in a particular jurisdiction, problem gamblers dominate in the most popular form of venue in that jurisdiction. The Commission found no difference between clubs and hotels with respect to the incentive to intervene with problem gamblers.

Moreover, even if it could be shown that there was a lesser risk of harm in clubs generally, this may still not justify special treatment of clubs as a group. Individual clubs vary in many respects, including in the quality of their internal programs and their capacity to implement them effectively. The Commission has seen some that are clearly very good, others less so. The same applies to hotels. There is no completely safe environment. But gamblers will be safer in some clubs than others, and in some hotels than others (chapter 8).

A sound approach to policy is to determine what sorts of environments are not appropriate, and incorporate this into codes of conduct or regulation. This is discussed in chapter 16, which canvasses a range of matters concerning warnings for players, payout arrangements for prizes, machine design and other matters relevant to harm minimisation.

Big clubs —casinos by another name?

Some argue that there are no longer sufficient differences between casinos and the ‘super clubs’ which have emerged (in New South Wales, in particular) to justify significantly different treatment by regulators. Casinos offer a somewhat different experience to the local club or hotel, a difference which is reinforced by government fiat (and which adds value to the ‘brand name’). Both compete for discretionary income. But:

- big clubs, like casinos, provide lavish surroundings, hundreds of gaming machines in large gaming rooms and a full range of associated services such as bars, restaurants, world-class entertainment and so on;
- some clubs offer horseracing games and ‘virtual’ casino-like table games such as blackjack and roulette and at multi-terminal gaming machines;
- for many clubs, gaming revenue constitutes a higher proportion of their total income than is the case for casinos (which are all operated as hotel-casinos); and
- a few clubs in New South Wales have more gaming machines than the smaller casinos in other States (for example, only three of Australia’s 13 casinos have more gaming machines than the Penrith Panthers Club).

This perception was reinforced by some club officials, who acknowledged that they saw themselves as managing ‘casino-like’ operations.

Moreover, the distinctiveness of casinos in Australia has declined over time: some which commenced operations with only table gaming now derive a high proportion of their gaming revenues from gaming machines. While casinos account for about 6 per cent of Australia’s gaming machines, gaming machines account for a significant proportion of total casino revenue: for some, table gaming revenues dominate, but in other cases, a very high proportion of their income comes from gaming machines. This is consistent with experience in the United States, where casinos also derive a significant and increasing proportion of their profitability from gaming machines.

This adds weight to the argument for a common approach to regulation (and self-regulation), and as noted earlier, some jurisdictions and industry groups are already taking this course.

Summing up on gambling and venue type

Current venue restrictions are somewhat arbitrary. They reflect history and arrangements with particular interests, rather than strong policy rationales. In

particular, it is not clear that linking alcohol and gambling licensing is good policy. There may be merit in a broader venue-based risk assessment approach to gaming licences.

There is little evidence that clubs provide a less risky environment for gamblers than hotels with respect to harm minimisation. However, progress has been made in making some clubs and hotels safer. In the Commission's view, there are likely to be benefits in strengthening harm minimisation programs.

The difference between casinos and some larger clubs is becoming less clear, but major differences in regulatory requirements remain. And changing the rules now to allow hotels parity with clubs would greatly increase the total number and accessibility of gaming machines in most jurisdictions.

Underlying much of this discussion is the question of accessibility to gambling. That is the subject of the next chapter.

15 Regulating access

Box 15.1 Key messages

- The only justifiable policy rationale for regulating access to gambling is to limit social harms or to meet community norms. Other reasons — based on helping the ‘club’ industry or creating monopoly rents for taxation purposes — do not withstand scrutiny.
- The impact of caps on gaming machines depends on other aspects of the policy environment, such as who owns the machines and whether price controls are in place.
- Caps on gaming machine numbers are blunt instruments for reducing adverse social impacts associated with problem gambling or dealing with community concerns.
- Where the starting point is one of considerable accessibility to gaming machines — as in New South Wales and Victoria— then (binding) *state-wide* caps would not be likely to reduce problem gambling significantly, but would have adverse impacts on recreational gamblers.
- *Venue* caps can play a role in moderating the accessibility drivers of problem gambling and are preferable to state-wide caps for this purpose.
- It is likely that when gambling venues are widely dispersed throughout the community, they pose a bigger hazard for problem gambling than when they are concentrated in a few locations. This aspect of accessibility is largely ignored in current regulatory approaches.
 - Controls on where gambling venues may be located might be a better way of reducing hazards than restrictions on the *number* of gaming machines.
- An even better approach is to reduce the potential social hazards of gambling at their *source*, by re-designing aspects of gambling technologies, the environment of the venues, greater visibility of help services and stronger prevention programs (chapter 16).
- If governments do not significantly reduce the risks associated with gaming machines through effective harm minimisation strategies, there is a case for maintaining quantity restrictions where gaming machines are not yet available (as in Western Australia) or where existing venue caps are set at relatively low levels (as in Tasmania and South Australia).
- Either way, the Commission considers that uncertainties about the way in which caps may affect problem gambling, combined with community attitudes about the prevalence of gambling, suggest that any moves to lift the restrictions in place would need to proceed gradually to enable the impacts to be gauged.

15.1 Introduction

As noted in chapter 8, there are many dimensions to accessibility, but regulatory controls are focused narrowly on a mixture of:

- restricting the number of venues for casinos, often to just one or two in a state. In this area of regulation, the issue of accessibility and exclusivity overlap, in a way that does not apply to other gambling forms. Clearly a rule that establishes just one casino limits accessibility and at the same time establishes exclusivity. The issue of exclusive rights for casino operations has already been analysed in chapter 14 and is not revisited here;
- barring access to minors to all forms of gambling, and from entry to gambling areas of selected gambling venues (gaming machines and table games, but not TABs, racecourses or newsagents selling lottery tickets). This issue is taken up in chapter 16;
- restricting the opening hours of some venues, such as hotels and newsagents, which offer gambling products. However, these restrictions relate to general regulations applying to such venues, and do not take into account whether gambling is offered. The Commission notes that, perversely, retailers of many services face stringent (and probably inappropriate) shopping hour regulations, while opening hours for gambling venues, such as clubs and casinos, are typically unrestricted, despite their hazards.¹ The issue of whether opening hour restrictions should be considered for gambling venues is part of a broader question about designing a safe gambling environment — and is examined in chapter 16;
- controls on who can gamble on the internet (an issue which is considered as part of chapter 18);
- limiting gaming machines to licensed premises (which is examined in chapter 14);
- planning controls on the location of gaming machines in shopping centres;
- jurisdiction-wide caps on gaming machines; and
- caps on gaming machines per venue.

Regulations on access to *gaming machines* are reviewed in this chapter. Chapter 16 explores a number of questions about accessibility to other forms of gambling.

¹ But jurisdictions vary — for example, hotel and club gaming venues in South Australia are subject to a mandatory 6-hour break each day.

While there are many reasons that quantity restrictions may be employed — from protecting clubs to creating monopoly ‘rents’ — the Commission considers that there are only two potentially sound rationales for such measures, namely:

- to reduce the incidence (new cases) of problem gambling and abate the adverse impacts on existing problem gamblers (by cutting their spending or decreasing recidivism rates by limiting the accessibility and visibility of gambling opportunities); and
- to be in accordance with the social norms of communities. This raises contentious issues about how such norms would be determined and tensions between community values and individual freedom, an issue touched on in chapter 10. This chapter deals with this issue broadly, while chapter 22 explores the extent to which local communities should have a say about access.

It is also important to recognise more pragmatic aspects of caps on gaming machines. What might be the best policy prior to their introduction, may not be the best policy after widespread liberalisation has taken place. In Western Australia, where there are no genuine poker machines, the government can make decisions without considering the adjustment costs for the gambling industries. But in all other jurisdictions, even *if* it were decided that it was a mistake to have let the number of machines expand as they have, there would be significant costs to shareholders, operators and employees from any significant reduction, depending on its timing and extent.²

Community attitudes to accessibility

Concern over the social impacts of gaming machines have led to calls for restrictions on the number of machines in some jurisdictions. Very few Australians in any state or territory say that they would like to see an expansion in the number of gaming machines in their local community (table 15.1). Even in Western Australia where there are no poker machines (and no gaming machines in venues outside the casino), less than 7 per cent of people (based on the Commission’s *National Gambling Survey*) wanted an increase in machine numbers. A (small) majority of Australians wanted numbers to decrease, often by a large amount. Community attitudes to gaming machines were particularly negative in South Australia and Tasmania. For example, about 75 per cent of South Australians wanted to reduce the number of gaming machines in their local communities.

² One US state, Louisiana, held a referendum in 1996 on gambling operations already in place. Of its 64 parishes, 33 voted against video poker, which means that 45 per cent of the state’s 15 000 machines will have to be relocated or leave the state by 1999 (Sturges 1997).

Table 15.1 **Attitudes to gaming machine numbers by state, Australia, 1999**

	<i>NSW</i>	<i>VIC</i>	<i>QLD</i>	<i>SA</i>	<i>WA</i>	<i>TAS</i>	<i>NT</i>	<i>ACT</i>	<i>All</i>
	%	%	%	%	%	%	%	%	%
Clubs									
Large increase	0.6	0.2	0.1	0.0	1.8	0.0	1.4	0.0	0.5
Small increase	0.4	0.3	0.4	0.6	2.7	0.0	1.4	0.2	0.6
Same	51.4	52.6	55.3	43.7	59.7	47.8	53.6	51.3	52.5
Small decrease	13.9	12.5	10.4	7.0	5.7	8.2	10.4	17.5	11.4
Large decrease	26.5	26.0	24.9	43.3	17.1	37.1	24.2	23.3	26.7
Can't say	7.3	8.4	8.9	5.5	13.0	6.9	9.0	7.7	8.3
Hotels									
Large increase	0.6	0.4	0.1	0.0	1.6	0.0	1.4	0.0	0.5
Small increase	0.6	0.2	0.2	0.0	1.9	0.0	0.0	0.0	0.5
Same	42.1	43.3	53.8	26.4	60.1	39.0	56.9	50.8	45.2
Small decrease	17.2	17.6	10.6	12.5	5.6	13.2	7.2	18.7	14.4
Large decrease	31.0	31.3	25.5	57.4	17.4	42.2	25.3	22.0	31.0
Can't say	8.6	7.2	9.8	3.7	13.5	5.6	9.3	8.5	8.5
Casinos									
Large increase	0.7	0.2	0.1	0.0	1.0	0.0	0.9	0.0	0.4
Small increase	0.5	0.2	0.5	0.5	0.9	0.0	0.0	0.1	0.4
Same	64.3	63.4	66.9	64.3	69.6	71.0	72.4	62.7	65.3
Small decrease	6.1	7.5	5.7	3.5	3.4	4.4	3.7	11.1	5.9
Large decrease	16.6	18.9	15.7	22.8	13.4	19.1	14.0	12.8	17.2
Can't say	11.9	9.7	11.2	8.8	11.8	5.6	9.0	13.4	10.8
All venues									
Large increase	0.7	0.5	0.1	0.0	1.8	0.0	1.4	0.0	0.6
Small increase	1.2	0.6	0.5	0.6	4.4	0.0	1.4	0.2	1.1
Same	37.4	40.7	49.2	20.7	56.3	36.9	50.2	45.2	41.1
Small decrease	20.5	20.0	13.8	14.3	6.2	14.4	11.1	23.9	17.1
Large decrease	34.3	32.1	27.7	61.3	21.1	45.1	27.6	24.5	33.5
Can't say	5.9	6.1	8.7	3.2	10.3	3.6	8.3	6.2	6.6

Source: PC National Gambling Survey.

Australians were generally most concerned to reduce gaming machine numbers in hotels, followed by clubs and lastly casinos. Even in New South Wales, where clubs are the dominant venue for gaming machines (and are uncapped), more people wanted to cut back machine numbers in hotels than in clubs.

Of course, community attitudes by themselves are not strong grounds for caps, as people may be overly optimistic about the degree to which such measures are effective at achieving their objectives. Nevertheless, the attitudinal data point to widespread community concern about the number of gaming machines in Australia, and provide some qualitative information to decision makers about the community's weightings on costs versus benefits.

15.2 What are the impacts of state-wide gaming machine caps?

The current arrangements

Chapter 13 outlines the regulatory arrangements for the major forms of gambling in Australia, including the regulation of gaming machines. Table 15.2 summarises the situation relating to caps on gaming machine numbers in each jurisdiction in 1997-98.

Table 15.2 **Caps on gaming machines 1997-98**

	<i>Casino cap</i>	<i>Global cap on clubs and hotels</i>	<i>Cap on individual clubs</i>	<i>Cap on individual hotels</i>
New South Wales	1500	-	unlimited	30
Victoria	2500	27 500	105	105
Queensland	a	-	280	35
Western Australia	a	no gaming machines permitted		
South Australia	a	-	40	40
Tasmania	-	-	25	15
ACT	0	5 200	unlimited	13 ^{b}
Northern Territory	-	target of 680	45	6

Source: chapter 13

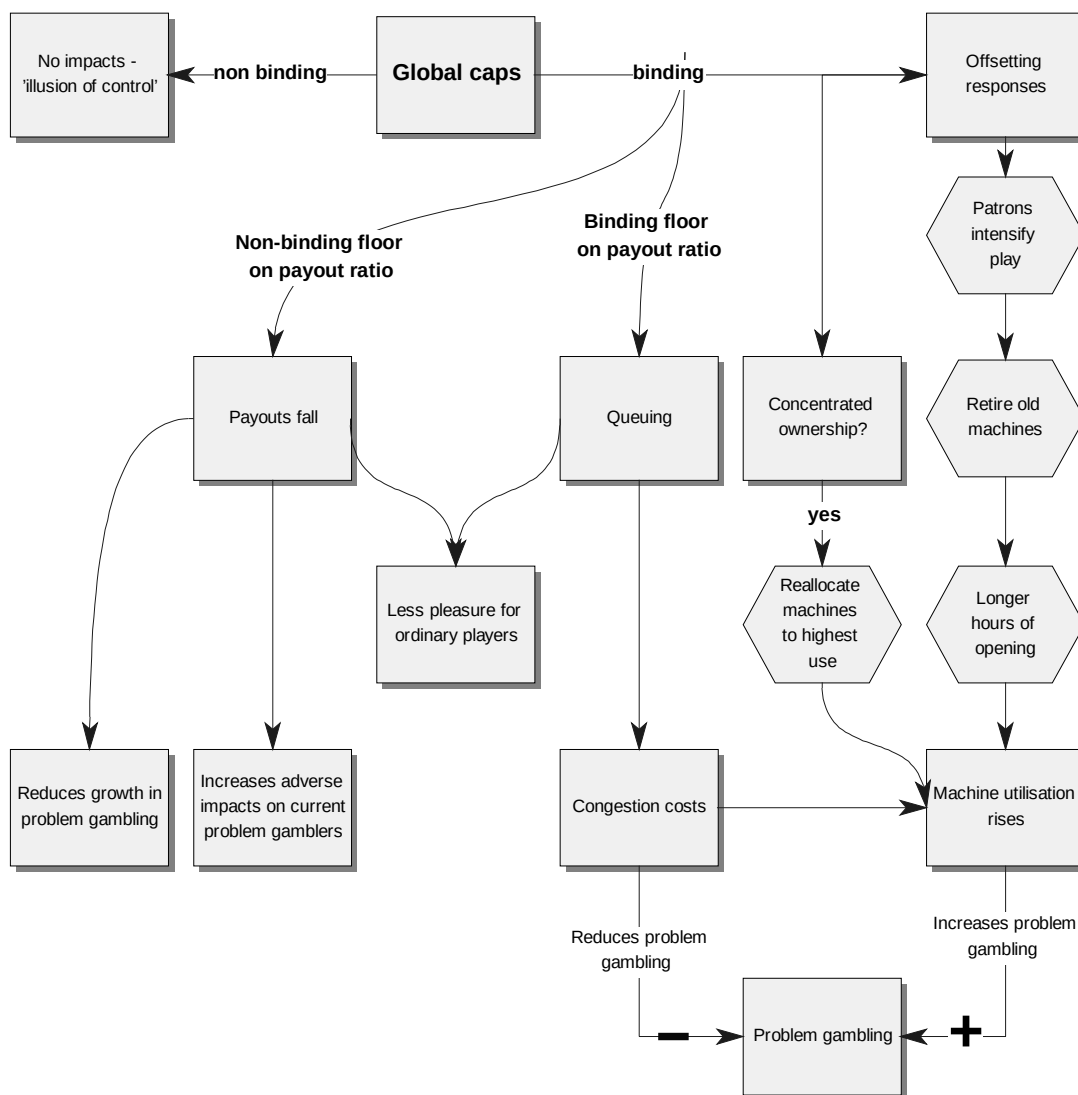
^{**a**} No formal limit, but any increase requires government approval. ^{**b**} 'Draw card' and 'draw and hold' machines only.

The impacts of such caps depend on:

- how tightly they are binding;
- other aspects of the regulatory environment (such as price controls and the extent to which the machines are centrally owned); and
- offsetting responses by consumers or venues, such as more intensive playing (figure 15.1).

The influence of these factors on the impact of state-wide caps are assessed in the following sections.

Figure 15.1 Impacts of global caps on gaming machines



Are caps binding?

Victoria has an aggregate limit currently in place, as does the ACT:

- The existing ACT cap is well above the actual number of gaming machines and so clearly is not binding.
- In Victoria, the number of gaming machines was significantly below the cap in 1996-7. It is probably just binding in 1999 (table 15.3). The extent to which the Victorian cap is binding will intensify as underlying demand rises with the growth of the population and per capita income.

Table 15.3 Are Victorian caps binding?

	<i>Required</i>	<i>Actual</i>	<i>Ratio of actual to required^a</i>
	Number	Number	%
Clubs	Maximum of 13 750	13 479	98.0
Hotels	Maximum of 13 750	13 632	99.1
Total clubs and hotels	Maximum of 27 500	27 111	98.6
Country	<i>Minimum</i> of 5 500	7 456	not relevant
Metropolitan	Maximum of 22 000	19 655	89.3

^a Quota limits are not met for any category. However, this should not be interpreted as implying that the cap does not bind, simply because venue changes, machine replacement and other factors will usually mean that actual machine numbers will be a little below the cap amount for most of the time. However, it is likely that the caps have only just started to bind because machine numbers were well below the cap amount until recently.

Source: Information provided by the VCGA. The data relate to 30 September 1999.

Offsetting responses by venues and patrons to quantity caps

The introduction of binding state-wide caps could be expected to elicit a number of responses by venues and customers.

Firstly, since machine quality varies, venues would prematurely retire less popular, less highly featured machines. This would lead to higher utilisation rates of machines, which would partly offset the intended effect of the cap.

Second, machine utilisation rates and hours of operation vary between venues. For example, the average annual turnover per machine in New South Wales clubs with less than ten machines is \$82 000, which is one seventh of that for clubs with over 300 machines (table 15.4). Similar patterns are apparent for other states.

Where decisions on the allocation of the machines is determined centrally so as to maximise revenue — as in Victoria — the introduction of a binding state cap would tend to lead to the reallocation of machines to venues with higher capacity utilisation. Both Tabcorp and Tattersall's acknowledged that their practice of reallocating machines away from lower-performing venues is partly a commercial response to the cap on total gaming machine numbers permitted in the state.

Table 15.4 Gaming machine utilisation by venue size, 1997-98^a

<i>New South Wales</i>				<i>Queensland</i>				<i>South Australia</i>		
<i>Club size category</i>	<i>Club TPM</i>	<i>Hotel size category</i>	<i>Hotel TPM</i>	<i>Club size category</i>	<i>Club ADT</i>	<i>Hotel size category</i>	<i>Hotel ADT</i>	<i>Size category</i>	<i>Club TPM</i>	<i>Hotel TPM</i>
	\$'000		\$'000		\$		\$'000		\$'000	\$'000
1-10	82	1	32	1-20	229	1-10	331	1-10	106	130
11-20	154	2	59	21-50	393	>10	494	11-15	135	166
21-30	205	3	82	>50	721			16-20	134	192
31-40	238	4	79					21-25	277	262
41-50	261	5	83					26-30	142	240
51-60	290	6	102					31-35	190	236
61-70	325	7	96					36-40	242	403
71-80	297	8	108							
81-0	353	9	102							
91-100	376	10	174							
101-150	373	11-15	136							
151-200	427	16-20	175							
201-300	475	21-25	190							
>300	585	26-30	357							

^a TPM is turnover per machine per year, and is the best single measure of machine utilisation. Data on TPM were not available for Queensland by venue size, so average daily turnover (ADT) per gaming machine was used.

Source: NSW Gaming and Racing Department, *Gaming Analysis 1997-98*; Queensland Office of Gaming Regulation 1998, *Queensland Gaming Newsletter* 1(1); October and information from the South Australian Government.

This reallocation would tend to offset further the impact of the cap on aggregate spending, and might, by changing the nature of the venues, increase the risks of problem gambling. For example, in response to the threat of losing machines if they do not achieve sufficient revenue per machine, a venue proprietor may:

- extend the hours of opening of the venue (subject to any liquor licence restrictions); or
- be more reluctant to deter problem gamblers, who are highly profitable patrons (chapter 7).

Where the machines were owned by each venue, as in New South Wales, and machines were tradeable, in the presence of a binding cap, the same effect would also occur, but probably more gradually.

Finally, customers may make more intensive use of the limited number of gaming machines in place. For example, consumers will tend to shift to non-peak periods, so that overall utilisation rates increase. As well, consumers have a range of choices about the intensity of their gaming machine gambling (the total bet size per button push) relative to the duration of their playing. For example, a patron could sit at a

two cent machine and play one line and one credit per button push, losing only about \$1.40 an hour.³ Or the same patron could choose to use a 10 cent machine, playing 9 lines and 10 credits per button push, losing about \$650 an hour.⁴

After the introduction of a cap, waiting time or venue-imposed time limits would restrict the use of low intensity, long duration playing styles. That suggests that caps would tend to lead to a shift in customer orientation towards either greater use of lines or credits (and to a lesser extent, higher denomination machines) — so that a given percentage cut in machine numbers would lead to a less than proportionate decrease in expenditure (box 15.2).

Impacts on gamblers

Notwithstanding the partially compensating behaviours of consumers and venues, a binding cap creates scarcity of gaming machines. This would push up the cost of acquiring a machine as competing venues bid for a fixed number of machines. In turn, this creates a ‘rent’ for whoever held the rights to the scarce machines (box 15.3).

These rents would flow to the government, where it issues licences for machines and charges a licence fee.⁵ In this sense, there is a parallel between a cap and a tax on gaming machines.

But whether actual gaming machine prices can rise will depend on whether there is a binding restriction on the payout rate or not. All jurisdictions have statutory floors on the payout rates for gaming machines (chapter 13), though none of these are currently binding.

³ Based on the assumption that each button push takes about 5 seconds, so that turnover is about \$14.40 an hour. With an average rate of return of 90 per cent, this implies an *expected* spend of about \$1.40 an hour.

⁴ At each button press, the gambler is outlaying \$9, so that their turnover per hour is \$6 480 and their *expected* spending around \$650.

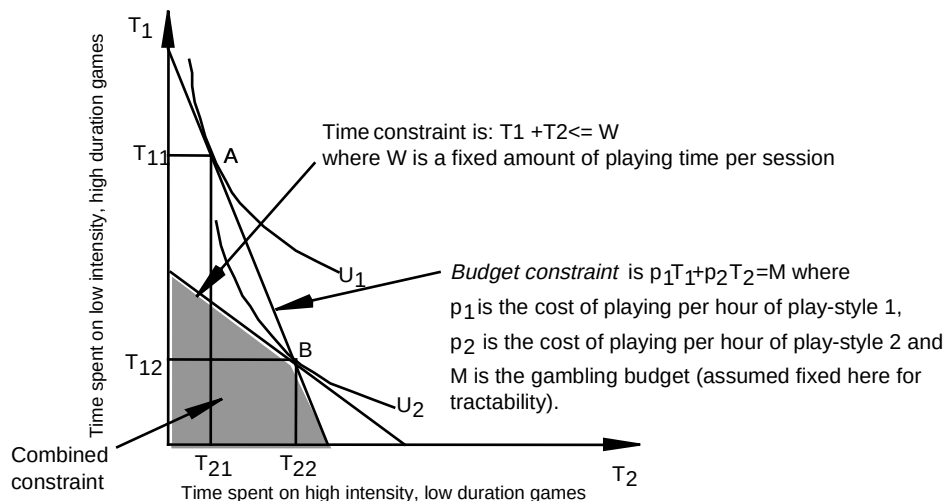
⁵ It is possible that the machine manufacturers and existing licensees might also obtain a share of the rent.

Box 15.2 How queuing may change people's style of playing

For many gamblers, playing on the machines is about purchasing entertainment time. But by varying the lines, credits or denominations of the machines, gamblers buy different types of experiences. Because modern gaming machines have such a diversity of choices for lines and credits, there is a continuum of playing styles. For example, the 2 cent Aristocrat *Dream Weaver* machine offers players a choice of up to 25 credits per line and up to 20 lines. For a fixed budget, say \$10, three strongly contrasting styles of play can be distinguished:

- *The long duration, low volatile style.* Playing on a two cent machine one line and credit at a time, will produce a very long duration game. The prospects of getting any large prize with this type of play is more remote, but many small prizes are likely. Outcomes are not very volatile, because the gambler is spreading risks over many repeated gambles over time.
- *The short duration, low volatile style.* Playing one credit per line and 20 lines per button push, will produce a much shorter duration game, but with more wins per minute than the previous style of play. Outcomes are not very volatile because the gambler is spreading risks over many lines.
- *The high volatile, short duration style.* Playing 25 credits per line and 1 line per button push also produces a much shorter duration game, but one with more volatile outcomes. In many cases, the gambler may not win at all (for a fixed budget), but if there is a win, it will be a significant amount relative to the gambler's budget.

The different playing styles can be seen as substitutes. Machine shortages create queuing, which has a number of possible impacts. First, in order to play, people have to spend time waiting. Given that people have constraints on the total amount of time they can spend gambling, this restricts the amount of time they can play. Second, a possible response by venues to queuing is some form of time rationing on machines, which would have the same effect. Consumers now faces two constraints when deciding how to allocate their budget between different styles of game — the usual budget constraint and the new time constraint. Any choice has to be within both constraints (the shaded area). The result is that time spent playing the more time consuming machine is likely to drop (from T_{11} to T_{12}), and time spent on the higher intensity machine increases (from T_{21} to T_{22}). Overall expenditure on gaming machines may not fall by much, though time spent playing has decreased (as has the recreational gambler's level of entertainment from U_1 to U_2).

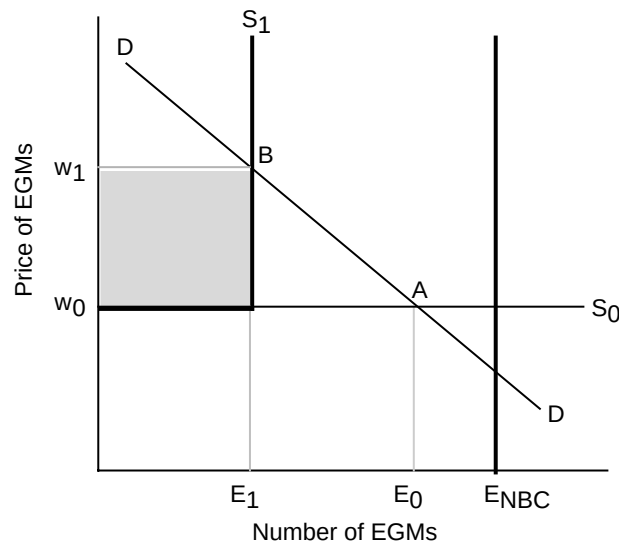


Box 15.3 What are the effects on machine prices/licence fees?

The figure below depicts the supply (S curves) and demand (D) for gaming machines. They can be used to illustrate the possible impacts of a global cap. Prior to the cap, venues purchase E_0 gaming machines to meet demand. If the cap is set at something like E_{NBC} it is *non-binding* — the existing level of machines is less than the cap, and the cap has no impact.⁶ Of course, over time demand would probably rise with income or increased population (an outward shift in the demand curve) and the cap would bind.

The impact of a *binding* cap set at E_1 is to raise the price paid for the machine, so that the owner of the selling rights (probably the government) would receive a transfer equal to the shaded area — with the price per machine rising to w_1 . The magnitude of the price increase depends on the extent to which the cap binds (the price of Victorian gaming machines appears to have risen — albeit only by 3 per cent — as the cap started to bind).⁷

If there is no binding floor to the odds on gaming machines, then the increased price of gaming machine licenses would be expected to be passed onto consumers as reduced odds (lower payout rates). Some recreational gamblers will no longer gamble as much as before, reducing the consumer surplus of gambling. If regulations on minimum odds are binding, then machine time is rationed by queuing. Machines would no longer be allocated to those people who value them most highly. Instead, there would be congestion and queuing to use machines. Abstracting from any positive effects on problem gambling, this would be more distorting than rationing by price.



⁶ In theory, it is possible in the Victorian case that the regional cap or the club/hotel quota may bind, even if the global quota does not.

⁷ Based on gaming machine numbers from the VCGA and revenue data from the Tasmanian Gaming Commission. Of course, this price rise may have reflected factors other than a gradually binding cap.

With no (binding) payout rate restrictions on gaming machines

To the extent that they are not already constrained by binding controls on the machine payout rates, gambling venues would tend to reduce the payout rates for gaming machines, reflecting the additional costs of providing gaming machines. Recreational gamblers would be adversely affected, simply because they face lower odds on playing the machines than before. Such players would cut back on time spent on the machines (or in some cases, never commence playing) and receive less pleasure from gambling than prior to the cap. The magnitude of this loss of ‘consumer surplus’ (chapter 5) would depend on how responsive such players are to increased prices.

While binding global caps would have adverse impacts on recreational gamblers (and, in the short run, on venue operators or gambling industry shareholders), that cost has to be weighed against any potential positive social benefits, such as reduced problem gambling.

If caps were quite restrictive they may reduce future problems by lowering the rate at which new problem gamblers are created. By limiting the number of machines and making them more expensive, fewer people would play, thus reducing exposure to the risk of problem gambling. For example, the Western Australian Government argued that there are a number of benefits associated with its restriction on gaming machines, including the banning of gaming machines:

... the social costs of problem gambling are reduced. Given that it appears that problem gambling is more likely to be associated with forms of gambling such as gaming machines, the restrictions assist in reducing the economic costs associated with problem gambling. Costs incurred in this sense include individuals incurring productivity losses; job change costs; legal system impacts (through gamblers turning to crime to support their problem); family and individual impacts, including divorce costs; bankruptcy costs and treatment costs (sub. 76, p. 30).

On the other hand, Victoria’s AHHA argued that the global caps in Victoria had no effect on problem gambling:

There is simply no evidence to suggest that a cap of 27,500 machines has any effect whatsoever on the incidence of problem gambling (sub. 154, p. 17).

The Association (sub. D237) and Clubs Victoria, decried the announcement by the (former) Victorian Government that it intended to ‘freeze’ gaming machine numbers across the state. (It also announced an intention to introduce regional caps.)

Any effects of the Victorian cap would likely be muted because it has only just begun to bind. Its future effects, depending on how long it is maintained, may be more pronounced.

However, state-wide caps on gaming machines could, perversely, have adverse effects on *existing* problem gamblers. As the cap binds, player returns would be expected to slowly fall (possibly as far down as the floor to returns set by the government). As problem gamblers are likely to be less responsive to price changes than other gamblers, they would continue to play at much the same rate as before, albeit at a higher price. This implies that overall expenditure by existing problem gamblers might rise, even though machine numbers had fallen. (Or if playing to the limits of available funds, will run out sooner — putting more pressure on the need to obtain more money.)

For the same reasons, it may also lead gamblers at risk of developing problems to ‘cross the threshold’. Among such people would be those who have very inelastic demand and can just afford their gambling prior to the cap. They may experience some of the traits of a problem gambler, such as chasing losses, guilt and preoccupation, but they can just afford their current pattern of play, without major problems. The cap, by inflating prices, increases their expenditure past the point of affordability, triggering some of the more harmful aspects of problem gambling (relationship problems, possible crime, intensification of anxiety and so on).

Thus, whether caps are in the public interest depends on the trade-off between:

- the relative magnitudes of additional burdens placed on incipient and current problem gamblers and pleasure forgone by recreational gamblers; and
- the magnitude of the costs avoided by reducing the number of new problem gamblers.

The effectiveness of state-wide caps in controlling problem gambling would, in part, depend on the starting point in the community which is contemplating caps. Where the starting point is one of considerable accessibility to gaming machines — as in New South Wales and Victoria — then the current number of problem gamblers is already high relative to the future possible reduction of problem gamblers that could be achieved by any realistic cap. In this case, (binding) caps would not be likely to reduce problem gambling (but would have adverse impacts on recreational gamblers).

At the draft report hearing, Victoria’s AHHA argued:

... there is no evidence which shows a correlation between problem gambling and machine numbers once the numbers are such as to give a substantial cover throughout the state ... there is no correlation between a reasonable number of machines and more machines ... [it] does not solve problem gambling and does nothing to implement harm minimisation strategies (sub. D237, pp. 2–3).

Wesley Gambling Counselling Services argued that capping gaming machine numbers in New South Wales now would be ineffective in reducing problem gambling, because of the large number of gaming machines already available for up to 24 hours in numerous locations:

... there can be no suggestion that placing a cap on the number of poker machines will be of any assistance in controlling problem gambling. Such a cap would only inhibit access to machines at times of peak demand ... Instead it will be necessary to develop more sophisticated strategies to protect consumers and minimise the incidence of problem gambling (submission to IPART inquiry, August 1988, pp. 8-10, cited in IPART report).

However, where the starting point is one of low accessibility to gaming machines — as in Western Australia — then caps *may* provide significant benefits from reducing problem gambling.

With binding payout rate restrictions on gaming machines

As noted earlier, current payout rate restrictions are not binding. However, these price controls would bind if machine caps were significantly below levels determined by an open market. In this case, the payout rates would not be affected by the cap on gaming machines. Machines would no longer be allocated to those people who value them most highly. Instead, there would be congestion and queuing to use machines.

For example, there might be social (and possibly venue) pressure on individuals to use the machines for less time (to give others a ‘fair’ go).⁸ Customer congestion also implies that those who were patient and who valued their time less than others — for example, retirees — would be more likely to gain access to the machines. Problem gamblers are over-represented among the young and employed (chapter 6), which suggests that they would be under-represented in the group of people who are willing to wait.

Accordingly, machine caps combined with price caps, would be likely to reduce expenditure by current problem gamblers⁹, and by rationing use among others may

⁸ The Commission was told, for example, of fights breaking out between tourists over the use of the few machines in a remote hotel in the Northern Territory!

⁹ One rational response that might moderate this effect is if problem gamblers were to play on less occasions but for longer durations. On the other hand, problem gamblers report being uncomfortable with other people watching them play and prefer anonymous uncrowded facilities. Caps, by increasing crowding, would tend to increase the discomfort of problem gamblers and reduce their incentive for playing (Focal Research 1998, p. 60).

also reduce the future incidence of problem gambling. Against this, such caps would reduce the pleasure of playing for recreational gamblers.

As noted previously, a quantity cap, *without* a sufficiently high floor to player returns, somewhat resembles a tax on gaming machines (with similar regressive outcomes to those described in chapter 19). In contrast, if a binding payout restriction exists, then venues would be unwilling to spend much more on licenses for machines than they did prior to the quantity cap, since they cannot recover the additional costs from customers. Thus a combined payout and quantity cap would not earn governments as much license revenue — the revenue being transferred to consumers, avoiding any implicit regressive tax.

In conclusion, *combined* payout and quantity caps probably generate better outcomes with respect to problem gambling than caps on gaming machines with freely adjustable player returns. This is not the usual result. Quantity constraints with freely adjustable prices are usually more efficient because people with the highest use-value are allocated the scarce goods. However, in the gambling case, this is not a desirable end, because those with the highest use value are often problem gamblers. But no state-wide caps may be better still.

Industry development effects

It also argued that some capping regimes — such as Victoria’s — inhibit the development of the club and hotel industry. Victoria’s AHHA said:

If more venues could access the gaming market, then more venues would be up-grading facilities, refurbishing, employing more staff, making money ... More venues would present as viable, safe hospitality outlets which are the quintessential tourist attraction.

The present system of operator control and the cap encourages the concentration of machines into as few venues as possible, and as few multi-venue operators as possible. This is a simple matter of economies of scale. Large strategically placed venues can best exploit the restricted resource. Free bus trips are already in use to convey patrons to remote venues ... in Victoria only 253 out of 1800 general licensees have machines. Amongst those venues that do not have access to gaming, probably some 90 per cent would welcome the opportunity to install some machines (sub. 154, p. 16).

However, clubs or hotels are the conduits for services to people, not economic ends in themselves. Maintaining or removing the cap should be based on its overall impact on the community, which primarily involves balancing the opposing impacts of caps on recreational and problem gamblers.

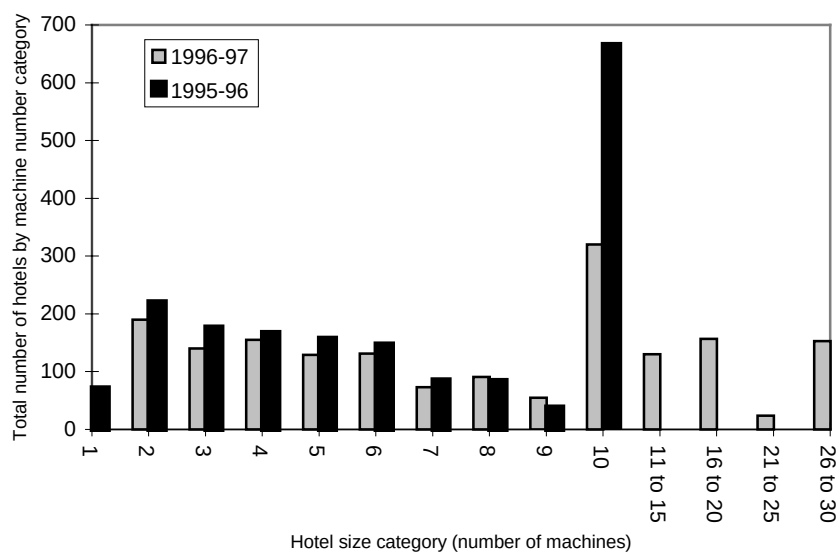
15.3 What are the impacts of *venue* caps on gaming machines?

Venue caps are a much more commonly employed form of rationing and are binding for some venues in most jurisdictions. Caps vary by the nature of the venue, with typically far more generous provision for clubs than hotels (table 15.2).

In any given region, if venue caps are binding on many venues *and* if the number of potential venues are limited (for example, by licensing and planning provisions), then this obviously restricts the number of gaming machines in that region. To some extent, any shortfall of machines in these areas would lead to greater demand (and supply) of machines by neighbouring unconstrained areas. But these substitution effects will be constrained by travel (and time) cost for consumers.

The relaxation in 1996-97 of the cap applying to hotels in New South Wales from 10 machines to 30 provides some evidence about the impact of venue caps. Many hotels were bunched at the point of the cap suggesting that the venue cap was strongly binding (figure 15.2).

Figure 15.2 **Distribution of hotels by hotel gambling size, NSW, 1995–1997**



Data source: NSW Gaming and Racing Department, *Gaming Analysis 1996-97*, March 1998.

Indeed, of the 1808 hotels operating gaming machines in 1996-97, 464 had more than 10 machines, suggesting that the venue cap affected about 25 per cent of hotels. Relaxation of the cap had a dramatic effect on the total number of machines in hotels (increasing from 11 688 to 17 675 — a 51 per cent increase). Venue caps,

therefore, can have a very marked impact on the total number of machines, although these data relate only to the hotel sub-market.

National data also suggest a similar pattern. The number of machines per capita is highest in New South Wales and the ACT, where there are no binding global caps¹⁰ and clubs — the major gaming machine providers — are not bound by venue caps either (table 15.5). In all other states, there are either venue caps for all providers or a global cap, and considerably lower numbers of gaming machines per person.¹¹

It is therefore possible that venue caps can effectively act to limit the total number of machines in a state.

Table 15.5 Gaming machines around Australia

	<i>Gaming machines outside casinos 1999</i>	<i>Adults June 1998</i>	<i>No of gaming machines per 1000 people</i>	<i>Real expenditure on gaming machines (outside casinos) 1997-98</i>	<i>Expenditure per machine</i>
	<i>No.</i>	<i>'000</i>	<i>No.</i>	<i>\$m</i>	<i>\$</i>
NSW	98 172	4 762	20.6	2 989	30 447
VIC	27 111	3 520	7.7	1 711	63 111
QLD	29 256	2 557	11.4	601	25 334
WA	Gaming machines not permitted outside of the casino				
SA	12 149	1 131	10.7	395	32 513
TAS	1 393	348	3.9	24	17 765
ACT	5 013	229	21.9	127	25 334
NT	644	131	4.9	20	31 056

Source: Data on gaming machines is from chapter 13, the adult population from Econdata and the spending data from the Tasmanian Gaming Commission.

But in doing so, venue caps are likely to produce some inefficiencies and offsetting responses. To the extent that a venue located in a high demand area is unable to meet that demand because of a cap, then either:

- that gambling provider may try to raise the price of gambling (reduce the odds), a cost which would be borne by consumers. However, as noted before, they will be somewhat constrained by the statutory maximum price on gaming machines. Moreover, unlike most products, where the price is a feature quite separate from the good, the price of playing on a gaming machine is a machine design feature, generated by the frequency of icons on the separate virtual reels in the machine.

¹⁰ The ACT has an aggregate cap, but it is not binding.

¹¹ On the other hand, this may also reflect the fact that gaming machines have been liberalised for longer in New South Wales and the Australian Capital Territory than in other jurisdictions.

Thus a gambling venue can only choose from a small suite of prices.¹² This suggests that while individual venues have some scope to increase prices to cope with excess demand they cannot fine tune prices to achieve that end; or

- gaming machine consumers have to bear queuing costs, additional travel and time costs to alternative venues; if such costs are high enough, they will forgo playing.

For example, Star City said that at times of peak attendance within casinos, limits on the number of gaming machines (and gaming tables) restricted the choices available to gamblers:

[the] inevitable consequence is queuing, customer frustration and unsatisfied demand, especially at those times ... when the working population seek to play (sub. 33).

ACIL said that both Star City and Crown:

... report that consumer demand for EGMs is much higher than the limit the regulations impose. In the US industry, where such restrictions do not exist, the ratio of EGMs to table games is thus consumer driven and is much higher, at about 25 EGMs to every table game (sub. 155, p. 151).

Of course, casinos offer a different atmosphere from most other gambling venues, so that ready substitutes are not available. For clubs and hotels, the degree of substitutability will depend on the patterns of use of the gamblers concerned. If the prime motivation of the patron is gaming machine gambling, then many clubs and hotels offer similar gambling environments, and even with venue caps, there are other venues typically within easy reach. These 'footloose' gamblers can avoid congestion by shifting to less used venues. However, substitution possibilities for those gamblers who visit a venue for its particular ambience or for its other functions are much more limited, and these gamblers will bear the residual congestion costs.

The consequence of caps is that any venue in which the cap binds will tend to have higher machine utilisation rates than venues where the cap does not bind. For example, hotels in Victoria tend to be more attractive to gaming machine players than clubs, but the total number of gaming machines must be shared equally between clubs and hotels (each limited to 105 gaming machines). As a result, gaming machines in hotels are more intensely used, generating about 50 per cent more turnover than those in clubs. Where the state-wide cap for hotel machines has been reached, one outcome has been a tendency for some hotels to be converted to clubs in order to offer gaming machines.

¹² For example, venues using the Aristocrat Diamond Touch gaming machine choose between player returns of 87.79, 90.03 or 92.12 per cent, depending on the reel configuration.

Other than generating queuing and/or price rises in some venues — to the detriment of consumers — venue caps may also lower productivity. Some venues are more efficient and entrepreneurial than others, and are able to provide gambling services at lower costs than others, yet can only do so up to the threshold determined by the venue cap.

There may also be economies of scale in the provision of gambling services, which are forgone above the cap limit.¹³ Certainly, there is some evidence that player returns are higher in larger venues, though this is disputed (chapter 21).¹⁴ This translates to significant annual savings in expenditure for heavy gamblers.

The social impacts of venue caps

Clearly venue caps have adverse impacts on recreational gamblers and on the efficiency of venues. To be justified, these adverse impacts would need to be offset by social gains.

Venue caps received little endorsement from participants in the inquiry. For example, the Club Managers Association and the Leagues Club Association (of New South Wales) argued against venue caps. They said that venue caps would not have any impact on problem gambling:

Problem gambling can occur at a venue operating 1,000 gaming machines or at a venue operating 5 gaming machines ... There is no statistical evidence that the incidence of problem gambling is higher in NSW than in other States, despite varying numbers of gaming machines per capita. Calls by other groups for the capping of poker machines in clubs is often motivated by their commercial interests or religious beliefs and not based on proven research (sub. 41).

Notwithstanding this scepticism about the benefits of venue caps, the Commission considered the two major ways in which such caps could have social impacts:

- the average size of venues is clearly smaller under venue caps, which may reduce risk factors and better accord with social norms; and

¹³ For example, construction costs per square metre of floor area tend to decline the bigger the overall area. Thus, the costs of building space per gaming machine should be lower in venues with more machines. As well, a larger venue can support less popular machines that would not have sufficient patronage in a smaller venue. Larger venues, can by their location and advertising, probably also increase machine utilisation rates.

¹⁴ The presumption being that the price variations within the club or hotel sector primarily reflect differing cost conditions. If anything, the price variations might understate the economies available for clubs from scale because the tax regime favours small clubs substantially.

-
- caps bind on some venues — producing congestion or price increases — with potentially positive or negative effects on problem gamblers respectively (as in the previous discussion of state-wide caps).

Do smaller venues mean smaller risks of problem gambling?

As the primary effect of a venue cap is to reduce the average size of gambling venues, the underlying hypothesis is that smaller gambling venues may present smaller hazards for problem gambling than larger venues. This could arise in a number of ways.

Marginalisation of gambling?

A venue with a small number of machines would (if they also had a wider range of non-gambling activities) place gambling in a different, more marginal context, which may discourage extended play. In contrast, where a venue is dominated by a large number of machines, the signal is that it is the norm to gamble without participating in other social or entertainment activities. This may have some slight impacts on the number of new problem gamblers, by subtly altering people's perceptions of what constitutes socially acceptable behaviour. But it is unlikely to be either a strong effect, or to ameliorate problems for existing problem gamblers. Furthermore:

- since many caps are set at high levels, they will not have the effect of marginalising gaming machine playing.¹⁵ Of course, more severe caps could be introduced — but these would impose substantial transitional costs on existing venues unless they were phased in slowly;
- the number of venues offering gambling is another dimension of normalisation, and this number would tend to be higher in the presence of venue caps.

Are small venues less anonymous?

Problem gamblers may desire a degree of anonymity while playing — which may affect their preferences for differently sized venues. There is evidence that problem gamblers tend to feel uncomfortable with people watching them play (Focal Research 1998, p. 3.60), and to choose playing times which are less congested (p. 3.48). Whether these behavioural patterns would make a problem gambler prefer a small or large venue is hard to say:

¹⁵ South Australia, with a maximum cap of 40, and Tasmania with a maximum cap of 25 machines, are exceptions.

- a person playing one machine in a bank of five placed near the bar of a hotel, would be conspicuous to non-gamblers in that venue. However, in some cases the machines are required to be housed in a separate room, thus *increasing* the anonymity, despite the small size of the venue;
- problem gamblers can always travel to venues outside their own communities, where the probability of being seen by someone they know is remote;¹⁶ and
- while gamblers may feel more anonymous in large venues, there is a lot of movement through the banks of gaming machines at these venues, including by venue staff, which means that problem players may have many people viewing their playing, to their discomfort.

In any case, the empirical evidence suggests that while problem gamblers may conceal the extent of their gambling from their family, they nevertheless typically choose a venue close to their home. For example, the Nova Scotia survey of gaming machine players found that problem gamblers had more regular locations close to home. They speculated:

Having a regular location makes it easier to play longer, as a player will more likely feel comfortable in their regular/familiar place. They are familiar with the staff, the staff know them and their habits, they know the other players, and the location is conveniently close to home (Focal Research 1998, p. 3.31)

Victorian survey data analysed by the Commission also found that problem gamblers tended to play at nearby locations where seemingly the odds of being recognised are greater (table 15.6).

Table 15.6 How far do problem gamblers travel to play?

<i>Player category</i>	<i>Distance travelled to venue to use gaming machines on last occasion played</i>					<i>Total</i>
	<i><5</i>	<i>5 to 10</i>	<i>10 to 15</i>	<i>15 to 20</i>	<i>Over 20</i>	
	%	%	%	%	%	%
Recreational gamblers	60	17	7	4	12	100
Problem gamblers	71	13	0	8	8	100

Source: Data from Market Solutions and Dickerson (1997).

The attraction of anonymity to problem gamblers may therefore be overstated and its policy relevance modest. Even if it were established that problem gamblers preferred larger venues because of their anonymity or some other factor, it would

¹⁶ The Nova Scotia survey of VLT players found that problem gamblers were willing to shift locations, and were much more likely to play at more than one location in a given day. Thus 44 per cent of problem gamblers went to more than one location compared with 19 per cent of other regular players (Focal Research 1998, p. 3.49).

have to be demonstrated that this preference was so significant that in the absence of big venues, problem gamblers would change their behaviour. That appears unlikely.

In fact, there is some evidence that problem gamblers do *not* have a marked preference for large venues. For example, the share of problem gamblers among people who gamble on gaming machines at casinos is about the same as that for people who gamble at clubs or hotels (table 15.7), and there is a roughly equal chance that a problem gambler will be encountered playing the machines at a casino as at a club.

Table 15.7 Problem gambling on gaming machines by venue type, Australia, 1999^a

	<i>Clubs</i>	<i>Hotels</i>	<i>Casinos</i>
	%	%	%
Share of gaming machine patrons who are:			
problem gamblers (SOGS $\geq$ 5)	5.1	6.4	6.4
severe problem gamblers (SOGS $\geq$ 10)	0.8	1.3	1.1
Probability^b of encountering a gaming machine patron who is:			
a problem gambler (SOGS $\geq$ 5)	30.8	23.7	23.8
a severe problem gambler (SOGS $\geq$ 10)	12.6	9.0	12.5

^a Problem gamblers may have their prime problem originating from a gambling mode other than gaming machines. It is assumed that all non-regular gaming machine players are not problem gamblers.

^b This probability is calculated by dividing the total amount of hours spent by problem gamblers playing on gaming machines in a venue by total hours spent by all gaming machine players in that venue.

Source: PC National Gambling Survey.

Could problem gamblers be more easily identified in small venues?

The few staff in a venue with a small number of machines are more likely to know their regulars, and in principle may be better able to identify problem gamblers. However,

- the extent to which staff at small venues acts on this information is not clear. No venue or organisation representing venues, suggested that their staff would approach suspected problem gamblers in order to help them, so unless this were to change a better ability to identify problem gamblers is superfluous; and
- staff in venues with many machines, such as casinos or the large clubs participating in the Betsafe program in New South Wales, receive considerable training to make them better able to assist a problem gambler who asks for help. Smaller venues will generally be unable to match these efforts, as the costs will loom larger for them.

Are losses per person lower in smaller venues?

Prices tend to be higher in smaller venues, which for a *given* amount of machine turnover implies greater losses. However, there is evidence that player losses are lower per adult in areas where a fixed number of machines are distributed among many smaller venues, rather than concentrated in a fewer bigger ones (box 15.4). This would tend to reduce the adverse social impacts of a given number of machines.

Box 15.4 Regional differences in player losses per adult

In order to look at the impacts that venue and machine numbers have on machine gaming revenue, the Commission analysed Queensland data for 1998 on player losses per adult across 30 regions. Expressed technically, it was found that:

$$\log(\text{LOSS}) = -1.38 + 1.518 \log(\text{MACHINES}) - 0.369 \log(\text{CLUBS}) - 0.112 \log(\text{HOTELS})$$

(5.4) (27.4) (6.0) (2.4)

where the figures in parentheses are White's heteroscedasticity corrected t-statistics, $R^2 = 0.939$, $N=30$, $SE=0.112$,

LOSS stands for player losses per adult in each area; MACHINES is the number of gaming machines per 10 000 adults; CLUBS is the number of club venues with gaming machines per 10 000 adults; and HOTELS is the number of hotels with gaming machines per 10 000 adults.

Findings

The model explains most of the regional variation in losses per adult. The negative coefficient on venue numbers is not the result of correlation between machine numbers and venues — venue numbers explain only 22 per cent of the variation in machine numbers per adult between regions. Adding venue numbers to the model provides significant additional explanatory power to the model.

The model suggests that holding the number of venues constant, a proportionate increase in machine numbers (ie an increase in the average size of venues) tends to increase player losses per adult by an even greater proportionate amount — a 10 per cent increase in the average size of venues increases player losses by about 15 per cent. On the other hand, an increase in the number of venues for a fixed number of machines (ie a reduction in the size of the average venue) decreases player losses per capita. This effect is more pronounced in the Queensland context for clubs than hotels.

The model suggests that an increase in venue numbers, by itself, need not raise player losses per adult in an area. However, the model should not be used to predict the outcomes of a policy induced change in the distribution of firm sizes because it is probable that some unobserved demand conditions (which then determine venue and machine numbers) are the key factors underlying losses per adult.

On the other hand, it cannot be assumed that *forcing* the average size of venues down through regulation would actually reduce player losses per capita by anything like the amount predicted by the model in box 15.4. That is because it is likely that areas that have bigger venues have different demand characteristics to areas with a smaller average venues. It may be that these different demand characteristics, rather

than their different venue types, are the essential determinant of different levels of player loss.¹⁷

Are the technologies and gambling environments different in small venues?

Another factor which may make smaller venues less hazardous for problem gambling is that their small scale alters the gambling environment. For example, their smaller scale will make it less economic to install gaming machines, to offer a large variety of machines, or to run large scale gambling promotions.¹⁸ However, these factors provide a poor justification for a venue cap per se. If they constitute significant environmental risk factors then they should be addressed directly.

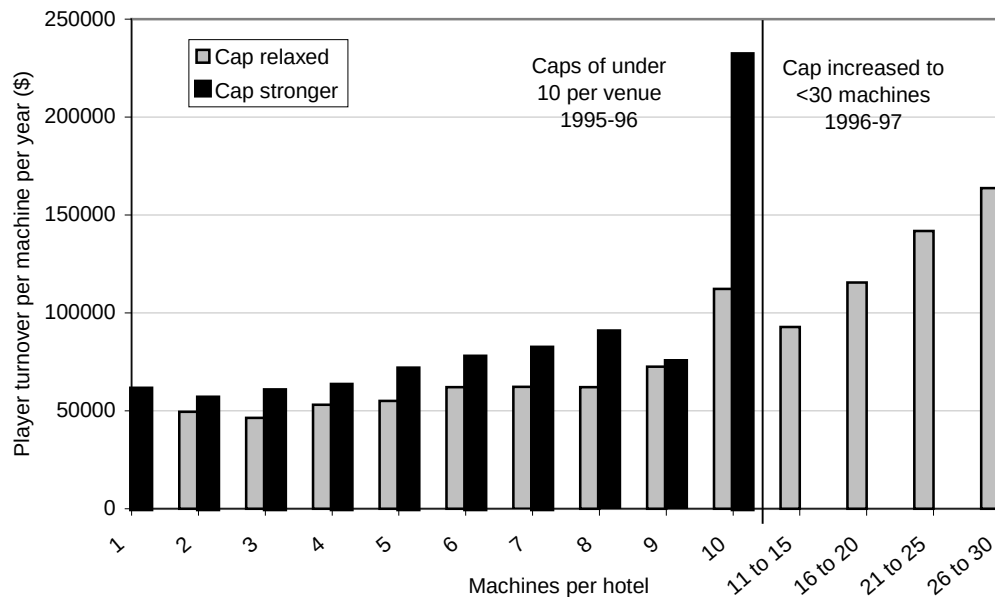
Other scale effects may also have social effects:

- Possibly reflecting higher unit costs, gaming machine payout rates in smaller venues appear to be lower than in larger ones (chapter 21). As argued throughout this chapter, lower payout rates are probably harmful for existing and incipient problem gamblers, but may be beneficial in marginally reducing the long run incidence of problem gambling by reducing exposure; and
- Machine utilisation rates are much lower in smaller venues than larger ones (figure 15.3). For example, in 1997-8, New South Wales hotels with 26 to 30 machines had a turnover per machine eleven times bigger than hotels with just one machine. From this, it might *seem* that tighter venue caps, by forcing venues to be smaller, would lower utilisation rates and make the gambling environment less risky. But this ignores the likely response by those venues that would be constrained by a tighter cap. While there is no information on what might happen to machine utilisation rates if venue caps were to be tightened, there is evidence of what has happened as a cap has been lifted. It appears that machine utilisation rates are very high in those venues that have machines installed up to the point of the cap, and that rates drop off if these venues are allowed to install new machines. Overall, the average turnover per machine in the more extreme capping regime is nearly 40 per cent higher than that in the more relaxed capping regime. As a result, while there were 34 per cent less machines under the more stringent cap on hotels, aggregate gaming machine turnover was only 2.5 per cent less.

¹⁷ Some evidence for New South Wales, where venue caps on hotels have been relaxed, suggests that this is the case.

¹⁸ Though joint advertising could overcome this scale effect — as in franchised businesses.

Figure 15.3 Turnover per machine per year, gaming devices in hotels
NSW 1995-96 (low caps) and 1996-97 (higher caps)^a



^a One factor that may partly confound results here is that hotels have a large number of 'approved amusement devices' as well as the more recently introduced gaming machines, and that the distribution of these two types of machines by the size of the venue will have changed as the cap was relaxed.

Data source: NSW Department of Gaming and Racing, *NSW Gaming Analysis 1996-97*.

Community acceptability?

Finally, a sixth possible argument for venue caps rests on community expectations about the nature of the gambling environment that they find acceptable. Where venue caps have been set at lower thresholds, such as Tasmania (25) and South Australia (40) they may act:

- to prevent the development of large casino-like gambling establishments in the suburbs; and
- as brakes on the pace of change in gambling — a goal which communities have clearly expressed (table 15.1) — because venue caps can limit aggregate machine numbers.

Effectively venue caps may act to institutionalise gradualism, while providing for differences in community attitudes to gambling. Where a community wished to have a rapid (slow) expansion of gambling opportunities in their area, they can adopt more (less) liberal licensing requirements for new venues. And by gradually increasing (decreasing) cap thresholds, communities can loosen (tighten) the degree of control they exercise over the gambling environment.

Whether in fact such de facto controls on venue numbers have desirable social outcomes is contested. For example, Victoria's AHHA suggested that restrictions on venue numbers, however exercised, would prove ineffective in controlling problem gambling, citing the case of alcohol:

The evidence in respect of alcohol contradicts the proposition that increasing numbers of outlets results in an increase in problematic use of the product. In Victoria over the period to 1987 to 1997 the number of liquor licences in Victoria increased from 5212 to 8240. Over the same period the consumption of alcohol in Victoria decreased by approximately 13%. There has not been any significant increase in the short or long term ill-effects of alcohol over this period of expansion in outlet numbers (sub. 154, p. 17).

It should be recognised, however, that the alcohol and gambling markets are quite different. Alcohol is a mature product with a relatively stable market. Consumption changes are more likely to be influenced by such things as lifestyle changes, health concerns and the introduction of random breath testing, than by changes in an already extensive accessibility.

In some jurisdictions, caps are set at high thresholds. Limiting a single venue to 270 (Queensland) or 105 (Victoria) machines still results in large gambling establishments, and provides little real control over the nature of the gambling environment that communities face.

Thus, while venue caps may meet *some* community expectations for control over their local gambling environments, they do so in only a few jurisdictions. Even when cap thresholds are low, venue caps provide weak controls over either the community impacts of gambling or problem gambling hazards.

The overall verdict

Accordingly, arguments for small venues on the basis of avoiding normalisation, anonymity, better identification of problem gamblers and incidental risk factors appear to be weak. On the other hand, in jurisdictions where they are still set at relatively low levels, venue caps can meet some community expectations about controlling the rapidly changing gambling environment.

Against this, there are some arguments which suggest that *larger* venues can exert improved control over problem gambling. Large venues may be able to spread the fixed costs of a large scale harm minimisation program across their many customers. For example the Betsafe harm minimisation program in New South Wales involved about \$1 million to develop a coherent program of protocols and staff training among large clubs, which would be more difficult to manage with small venues. As

well, there are economies of scale associated with monitoring larger venues for compliance with statutory or voluntary codes of conduct.

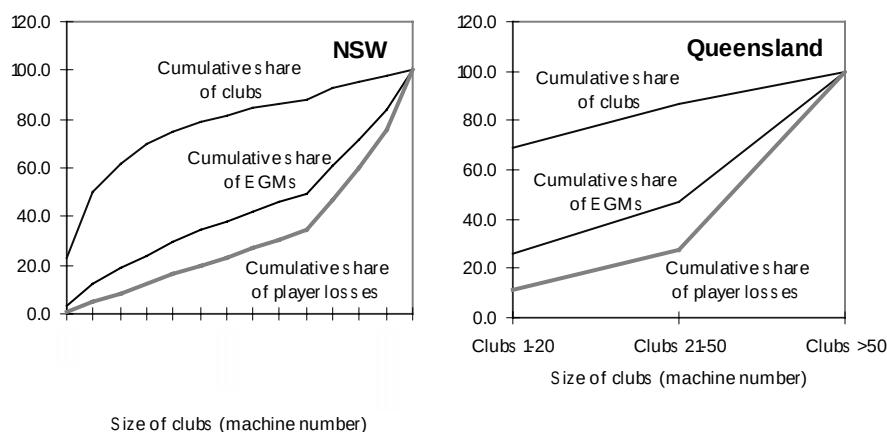
Do binding caps on some venues have worthwhile social impacts?

For those venues where the cap is binding the story is similar to that of global caps described in section 15.2. Any cap-induced price increases probably have adverse impacts on problem gambling, while cap-induced queuing probably has some modest benefits. However, there are number of important twists to the story.

First, binding venue caps are fickle control mechanisms for problem gambling. At best, they may work for those problem gamblers who frequent busy venues where the cap binds, but they miss all those who go to smaller venues. Smaller venues can still comprise a significant share of overall expenditure and, therefore, probably, of problem gamblers. For example, in Queensland, clubs with less than 50 machines account for 86.7 per cent of clubs with gaming machines, 46.7 per cent of the machines and 27.5 per cent of player losses (figure 15.4).

Second, to the extent that problem gamblers are in the ‘footloose’ group described above, then they may avoid the congestion (which might have moderated their gambling) of busy venues where the caps bind. However, the smaller venues to which they migrate will tend to have higher prices (if economies of scale are important), exacerbating their problems. Given that problem gamblers tend to gamble in more than one venue (Focal Research 1998), to go to a venue to gamble rather than for other reasons and to choose uncongested periods to play, it seems likely that they will be footloose, rather than habituated to a single gambling venue.

Figure 15.4 Concentration of activity in bigger venues, 1997-98



Data source: NSW Department of Gaming and Racing 1999, *New South Wales Gaming Analysis 1997-98*, February; and Queensland Office of Gaming Regulation 1998, *Queensland Gaming Newsletter*, 1(1), March.

15.4 Other access approaches

Regional gaming machine quotas

In the Northern Territory¹⁹ and Victoria²⁰, a form of regional rationing is employed.

In Victoria, this requirement appears to be driven by a desire to increase access by non-metropolitan people to gaming machines. In the absence of regional caps, it was thought that the operation of the duopoly and the global caps would reduce the incentive to place gaming machines in some country venues if metropolitan areas generated higher profits per machine. Victoria's AHHA noted that:

It was anticipated that, without this rule, nearly all machines would be placed in the city and suburbs. Machines in metropolitan Melbourne [generate higher net machine revenue] than machines in country venues (sub. 154, p. 10).

In fact, the cap on metropolitan gaming machines does not appear to be binding (being about 10 per cent below the threshold). Demand for machines in country areas exceeds the minimum by 37 per cent (table 15.3).

Some participants argued for other types of regional caps on the grounds that gaming machines tend to be located in poorer areas and that this leads to a disproportionate concentration of social problems in some areas. For example, the Interchurch Gambling Taskforce said that, because of the regressive effects of the current high levels of gaming machines in lower socioeconomic areas of Melbourne and Victoria:

... any expansion [in machine numbers] should be subject to regional caps. These caps should specify which areas have reached what a community regards as its saturation point. Guidelines as to the appropriate saturation point could profitably be discussed in a community consultation (sub. 55, p. 4).

At this micro level, regional caps amount to constraints on the location of venues with gaming machines. Since convenience of access does appear to be an important aspect in the choice of a venue for problem gamblers (Focal Research 1998 and chapter 8), limiting the average proximity of venues might reduce the prevalence of problem gambling. It would be important, however, to ensure that the scarcity of

¹⁹ A target of 500 gaming machines is 'earmarked' for the north of the Territory and 160 for the south.

²⁰ In Victoria, at least 20 per cent of gaming machines are to be located outside of the Melbourne statistical division. However, the Victorian Government has said that it intends to introduce regional caps on gaming machine numbers.

machines in a high demand poor area did not result in higher prices — or the arrangements might be akin to an additional tax burden on the poor.

While local rationing might have some beneficial impacts on problem gambling, it would also impose costs on recreational gamblers through congestion or greater travel time and costs to venues.

Destination venues?

An alternative way of controlling access is to have a few large venues as destination gambling sites. Access to casino table games is controlled in this way, as most states have a single venue where these games can be played. Isolating access to a few venues is an extreme form of licensing restriction, but it need not require any cap on machine numbers. By cutting the visibility and easy accessibility of gaming machines, it would be likely to reduce the incidence of problem gambling more effectively than state-wide or venue-based caps. It might also have relatively small adverse impacts on the pleasure of recreational gamblers:

- they would, on average, have to travel further to go to a gambling venue, and there might be some congestion costs associated with a few very busy sites. These costs would reduce demand.
- on the other hand, just as with cream buns, cups of coffee, or other consumption goods, the pleasure obtained from consumption falls as more is consumed. So while consumers may gamble less, the gambling they give up may be regarded as ‘marginal’ in value. The implication is that if the demand for gambling fell by 30 per cent, considerably less than 30 per cent of the consumer benefits of gambling would be lost.

Access restrictions of this kind also raises questions about its impact on competition. Competition may still be effective with a limited number of providers, or it may be necessary to have price controls to ensure consumers do not face higher prices.

There is, however, one substantial practical hurdle to the implementation of destination gambling for gaming machines — all jurisdictions bar Western Australia have liberalised access of the machines to many thousands of venues. Winding back that accessibility would involve large transitional costs, and any changes would have to be phased in over a very long period. Nevertheless, the concept might have application in Western Australia were they to allow the introduction of ‘genuine’ gaming machines.

15.5 Would other measures perform better?

Quantity constraints on gaming machines appear either to face implementation problems or lack effectiveness as measures for ameliorating problem gambling, and may sometimes intensify problems for current problem gamblers. They do, however, provide a control on the unchecked expansion of gaming machines.

In many ways, restrictions on machine numbers are akin to placing restrictions on the number of cars on the road because of safety concerns. This is not the approach taken for cars. Instead, governments have improved car safety through a range of measures, each of which could have a parallel for gaming machines:

- introducing *design measures* to lower hazards (such as safety belts in cars);
- increasing *awareness of safety issues* (which in turn has encouraged manufacturers to sell safety features as attractive elements of their products);
- improving the *safety of the environment* in which the machines are operated (better roads, signs, clearer traffic rules, prohibition of certain hazardous behaviours, like drink driving);
- *educating consumers* so that they are more likely to make sensible decisions; and
- *improving the care facilities* for those affected by an accident.

Some possible preventative and harm minimisation measures for problem gambling are discussed in chapter 16. If governments put them in place, gaming machine caps would probably be superfluous.

On the other hand, if governments do not significantly reduce the risks associated with gaming machines through effective harm minimisation strategies, there is a case for maintaining quantity restrictions where gaming machines are not yet available (as in Western Australia) or where existing venue caps are set at relatively low levels (as in Tasmania and South Australia).

And if governments maintain state-wide caps in jurisdictions in which accessibility to gaming machines is already very high, then player returns will tend to fall as demand rises for the limited machines in place. Such binding caps would need to be accompanied by a higher floor on player returns than is currently in place to limit the adverse impacts on problem gamblers.

Either way, the Commission considers that uncertainties about the way in which caps may affect problem gambling, combined with community attitudes about the prevalence of gambling, suggest that any moves to lift or tighten the restrictions in place should proceed gradually, so that their social and economic impacts can be gauged.

16 Consumer protection

Box 16.1 Key messages

- Reducing the risks of crime and problem gambling, and increasing the scope for informed consent by consumers, provides a strong basis for oversight of gambling by governments.
- Blanket bans on specific forms of gambling to protect consumers would not be viable or desirable, although more targeted action may be appropriate in the absence of effective harm minimisation.
- There should be better disclosure of the price of playing gaming machines and the likelihood of receiving high paying winning combinations.
- Relevant information should be provided to consumers about the nature of games, such as the fact that machine wins and losses are independent of past results.
- Consumers should be provided with records of their spending, where technology allows this.
- Problem gambling should be seen as a public health issue — governments should increase community awareness of the risks of gambling, including the wider development of material for school children.
- There are grounds for a special legislatively based code of conduct that ensures appropriate standards of advertising, promotion and marketing of gambling.
- There may be grounds for reducing the frequency of high frequency, low payoff lotteries, such as keno.
- There are grounds for restrictions on multiple withdrawals and on withdrawal amounts from ATMs in gambling venues, and potentially an outright ban.
- There is a case for mandatory rather than voluntary codes of conduct for responsible provision of gambling by venues.
- An easy-to-use self-exclusion procedure should apply in all gambling venues throughout Australia, and be widely publicised in venues.
- There are a wide range of possible changes to the design of poker machines which should be investigated to reduce their hazards for problem gambling, without overly affecting recreational gamblers.
- Probity regulations should employ appropriate risk-management, costs should be borne by the gambling industry, and a common framework applied across gambling types and venues.
- Regulations intending to lower the harms from gambling should be trialed, take a risk management approach and collect evidence on their effectiveness. The goal is not to eliminate all gambling problems, but to reduce risks in a cost effective manner.

16.1 Introduction

While gambling is pleasurable for many people, it poses some risks as well. As with other areas of consumption where there are adverse impacts on some consumers, or where people have imperfect information, these risks justify some consumer protection measures. These measures aim to reduce:

- *Consumer information problems.* Consumers may be poorly informed about the nature of the product they are buying, such as the role of skill compared with chance, and the actual odds of winning. Some may also make poor buying decisions because they find it hard to interpret the odds when these are known, have incorrectly founded concepts about gambling or engage in behaviours which have adverse outcomes on their welfare. These actions and ideas may be encouraged by misleading advertising, player inducements and the design of gambling products. With the exception of lottery products, consumers will also often find it hard to track time and money spent on gambling because of the unpredictable combination of wins and losses.
- *Problem gambling.* As shown in chapters 6 to 8, a small minority of gamblers experience severe problems with their gambling, to the cost of themselves, their families and society at large.
- *Probity risks.* Without some regulation there is potential for games to be rigged and for criminal activities related to gambling providers (and their suppliers), with risks to consumers and the community as a whole.

There are a range of approaches for dealing with products, such as alcohol, tobacco, drugs, motor vehicles and gambling, that cause significant social or consumer problems for some people. For gambling, these approaches can usefully be classified into a number of broad categories:

- bans on harmful forms of gambling;
- informational strategies, such as awareness raising, education, consumer information and changes to venue design and gambling technologies intended to ensure consumers can make choices with informed consent and to reduce the risk of some people becoming problem gamblers;
- controlling the gambling environment to reduce the harm for those who are already problem gamblers (such as exclusion policies and credit and expenditure limits);
- clarifying providers' duty of care and gamblers' self responsibilities — which then through potential legal redress, improves the incentives of gambling providers and players to choose less hazardous actions. Inevitably, since government may define others' responsibilities through legislation or be active

in devising regulatory measures, it is also important to clarify government's responsibilities. In this sense, responsibilities for 'safe' gambling rests with all three parties (figure 16.1);

- probity controls to reduce the risks of unfair games or criminal involvement; and
- providing direct help for those who are suffering the adverse consequences of problem gambling.

In practice, other than the first option, the remaining approaches, which we refer to as harm minimisation and prevention — are reinforcing, rather than competing forms of consumer protection. This chapter examines all of these approaches, with the exception of counselling services for problem gamblers, which are appraised in chapter 17.

Criteria for assessing consumer protection measures

The criteria for assessing alternative protection measures are important. At the broadest levels these are like other government policies (and the general design and process issues have been outlined in chapter 12). However, some of the key issues (outlined in figure 16.2) relevant for consumer protection are:

- enumerating and understanding the *level and nature of the risks* to be reduced (who is affected, with what consequence, for how long?);
- examining *causality*, or at least clarifying the research and evaluation issues related to causality which have to be tested after a measure is introduced. For example, some machines have bill acceptors, which apparently significantly increase the turnover on the machines concerned. If bill acceptors were the cause of the higher turnover rates, then removing them would lower turnover. However, it may be that people who want to spend a lot choose machines with bill acceptors because it is more convenient. In the absence of the acceptors, the big-spending gamblers may still spend the same amount;
- using *evidence* as the basis for retaining or discarding consumer protection measures. In many cases, it will be difficult to provide strong evidence that a measure works (is cost effective, helps all the groups targeted etc) prior to its trial, though there should be strong a priori grounds for believing it will work. Accordingly, the emphasis of the evidence-based approach is necessarily after a measure has been trialed. On the other hand, the more costly the measure, the better the evidence required before its trial;

Figure 16.1 The targets of gambling harm minimisation and prevention

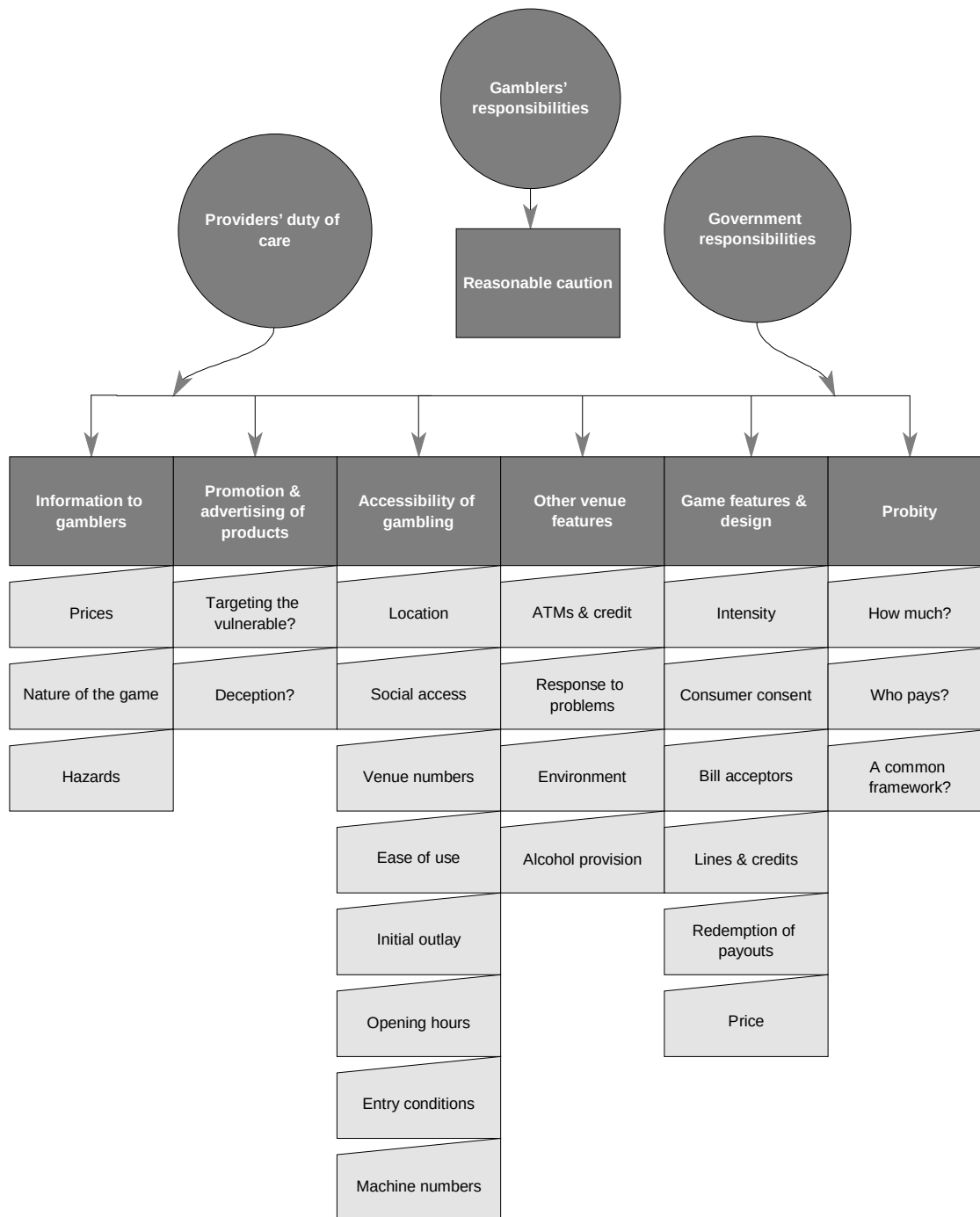
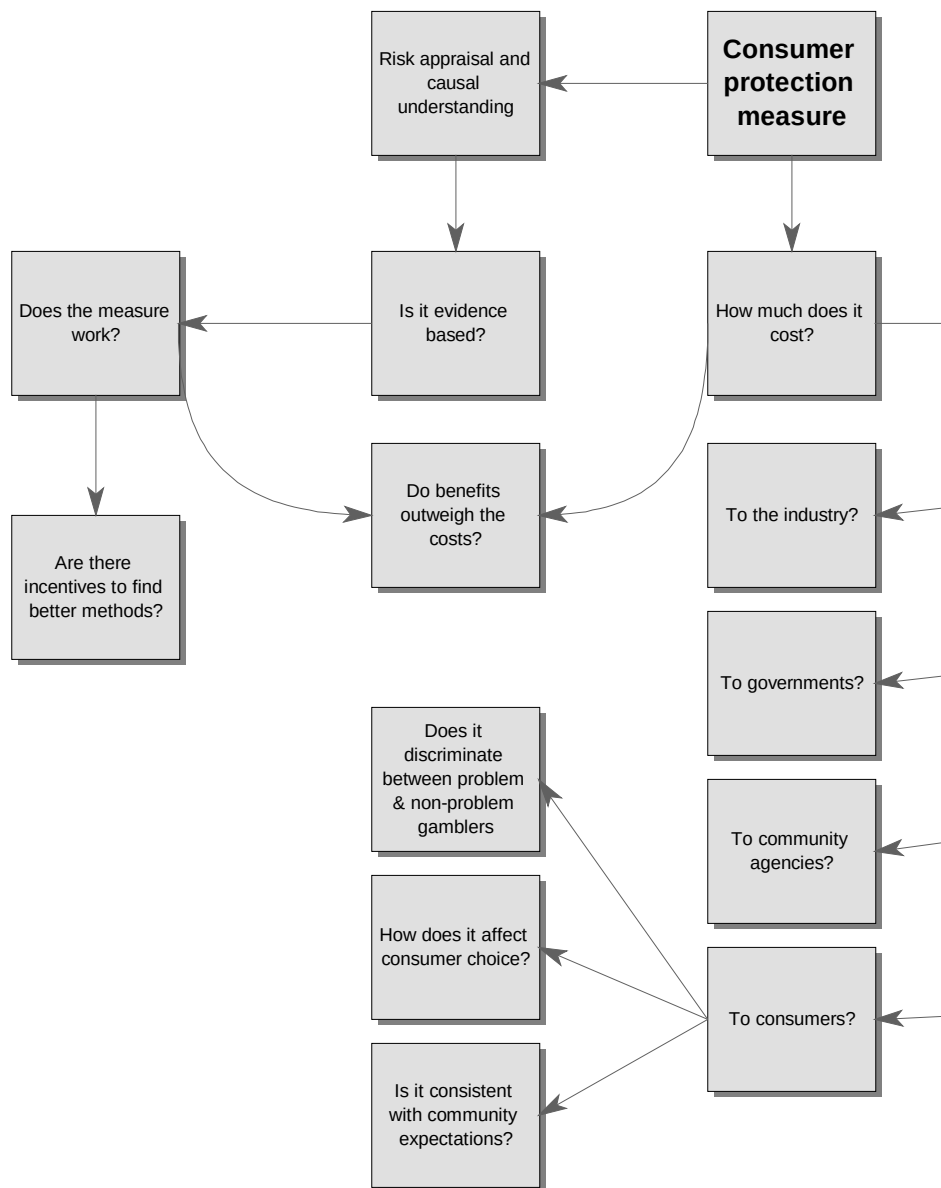


Figure 16.2 Criteria for assessment of protection measures



- trying to provide *incentives* for stakeholders to develop better consumer protection measures, rather than simply using prescriptive regulations. For example, *if* it were technically feasible, it would be better to define an acceptable level of hazard and leave gambling industries and venues the scope to find the least cost way of achieving that standard;
- using measures which *discriminate efficiently*. Measures intended to reduce problem gambling should, for example, try to target behaviours which are largely exclusive to problem gamblers, so that recreational gamblers will not be much affected;

-
- using measures which take account of the desirability of people's *freedom to choose*. Some protective measures, such as information provision or informed consent do not impinge on the freedom of the consumer. Other potential measures, such as limits on the intensity of play, changes in the payoff frequency and enforced breaks do restrain consumer choice. In some cases, limiting choice may be unavoidable, but where two measures share the same effectiveness, the one which constrains choice the least is preferred;
 - taking account of *community attitudes* to consumer protection measures. For example, if research showed that a certain group of people had a high risk of developing gambling problems, should they be excluded from playing? Should family members have control over the assets and budgets of a severe problem gambler? Should venue operators who fail to meet a consumer protection standard be prosecuted? The answers to these questions depend not only on the effectiveness of the measures themselves, but also on whether communities would be willing to countenance them; and
 - measures may be more effective in unison than by themselves.

16.2 A ban on gambling?

The most extreme measure would be to ban gambling, as has been done and is still done for particular gambling forms in some jurisdictions. A ban on gambling could, in principle, provide strong consumer protection from its hazards. It could involve bans on all gambling, or those forms which are regarded as most hazardous, such as poker machines or internet virtual casino gambling.

While most submissions to the inquiry supported some level of gambling, a number of submissions to the inquiry urged a ban on at least some forms of gambling:

Laws should be introduced to phase out poker machines in hotels over a five year period, but allow them to continue in clubs (Adelaide Crusade Centre, sub. 45, p. 5).

As evidence mounts that poker machine gambling in particular is damaging the Australian community and economy in that costs far outweigh benefits, the federal government must 'bite the bullet' and create incentives for state governments to phase out poker machines gradually, first from hotels and later from all venues (Festival of Light SA, sub. 107, p. 11).

Most forms of gambling in Australia have been illegal since European settlement. The principal exception is horse racing, typically limited to betting on race carnivals and, over time, more frequent weekend racing. Other forms of gambling have been illegal, but throughout the period a degree of underground gambling activity

persisted in the form of off-course or SP bookmakers, illegal casinos, and two-up games.

It is not clear that the previous ban on gambling in Australia resulted in costs and consequences anywhere as severe as those experienced in some other forms of prohibition, such as that of alcohol in the United States. There is anecdotal evidence of crime, corruption, loan sharking and problem gambling associated with underground gambling, prior to its legalisation in Australia, but, these appeared to be relatively minor problems for society.

It does not appear that recent liberalisation of gambling has been a response to prohibition in some way failing to address the problems presented by gambling. It is more likely to represent a change in the attitudes of the community and their governments towards the activity of gambling.

A blanket ban?

Any consideration of a ban on gambling must be viewed in the context of this shift in societal attitudes, and also acknowledge that a return to wide-ranging prohibition would be much harder to achieve and enforce than had gambling remained an illegal activity. A significant industry has been established to provide gambling services, and the majority gamble with little or no adverse effects. Complete prohibition of all forms of gambling would be costly for those who enjoy gambling, while only having benefits for those gambling forms that have large social consequences.

And now that demand for gambling is so high, complete prohibition could have adverse social consequences too:

- It may have the negative impact of driving the activity under ground, creating a criminal class out of people who are caught in illicit consumption, creating large potential profits for illegal suppliers and a web of corruption.
- If the activity were illegal, treatment would also be difficult. Information on problem gambling would also be poor, frustrating the development of appropriate care services.
- Illegality would also have the effect of denying consumers of gambling any protection from unfair and corrupt suppliers. And governments would not be able to raise revenues from the industry.
- It would not be practicable in the medium term, given contractual obligations between governments and gambling providers and the significant adjustment

costs which would be experienced by venues which had made large investments in gambling technologies.

- It fails to recognise freedom of choice, which communities value highly.

For these reasons, the Commission does not consider that the option of a blanket ban on gambling is a viable or desirable one.

A selective ban?

But what of prohibition of particular types of gambling? Prohibition of *particular* types of gambling, such as gaming machines, is more feasible, because it is unlikely that significant underground activity could emerge, given the nature of the technology. Moreover, particular bans have the advantage that they can target only those products which are most hazardous for consumers. Such bans have been put in place in some jurisdictions. For example, a majority of parishes in Louisiana decided by referendum to prohibit poker machines (chapter 15), while Western Australia has decided not to allow some of the types of gaming machines available in eastern states.

The prime disadvantage of outright bans on particular forms of gambling is that they significantly reduce consumer choice and deny most gamblers an activity they value because of risks to some. Whether a ban on a particular form of gambling is an appropriate consumer protection measure will depend on a complex range of factors:

- community attitudes to that form of gambling (which weigh up community values and norms as well as social and economic implications);
- the magnitude of the costs relative to the benefits of the gambling form. The case for a ban is strongest when the net losses to society from gambling are minimised with no legal provision of that gambling form, compared with some positive controlled amount. This formulation takes into account the possibility that bans may lead to socially costly illegal forms of gambling;
- the distribution of costs and benefits. For example, suppose that a certain gambling form produces small benefits for a large number of people, but very large costs for a minority. Suppose that the sum of the benefits less the costs is still positive. Typically, this situation would not suggest a ban, as the winners could compensate the losers and still be better off. But with problem gambling this compensation strategy is not feasible for two reasons. First, it is very hard to identify those who should be compensated and the appropriate compensation amount. This would involve huge transactions costs, and would also raise moral hazard issues as some people would feign problems to receive compensation or

engage in risk-taking behaviour. Second, compensation of a problem gambler raises its own difficulties if they then gamble away any compensation amount. The distribution of costs and benefits is, therefore, a more salient issue when deciding gambling policy than in many other cases;

- the degree to which problem gambling is a hazard that is largely random in its incidence among people. For example, if it were possible to predict with accuracy the types of people with high risks of developing problem gambling, then that might form a basis for alternative controlled forms of gambling. This is akin, for example, to drugs which are not prescribed to certain high risk groups, while being available for others. However, problem gambling risks are largely random, in that while there are risk factors, they explain little of the actual variation in the prevalence of problem gambling in a community;
- the extent to which people understand the risks they face. If people had a clear understanding of the personal risks faced, it could be left to them to decide whether to start gambling, notwithstanding its risks. However, most people do not believe that they are personally at risk, and even gamblers exhibiting many of the patterns of problem gambling often deny they have a problem. In this context, a ban is akin to a form of compulsory social insurance. People are usually willing to pay some amount to avoid catastrophes. In this sense, compelling people to give up the pleasures of the recreational use of a particular gambling type to avoid the risk of problem gambling is like forcing them to pay a premium to cover the costs of some risky event whose risk has been underestimated. Such compulsion, might, if warranted by evidence, be optimal;
- the extent to which it is possible to reduce risks in a legalised environment and to help problem gamblers effectively. A ban on a given hazardous gambling type is more appropriate if the hazards cannot be reduced in a more cost-effective manner. For example, notwithstanding their clear hazards, it is better to make cars, roads and drivers safer, rather than to ban cars; and
- the extent to which consumer preferences for the particular gambling form are stable (chapter 5). In conventional analysis, it is assumed that the pleasure any consumer derives from consuming a given quantity of a good does not change over time. However, it is *possible* that for some goods, such as gambling, this is not true, and that after a ban consumers change their preferences. If for example, after a period, consumers no longer missed (valued) a banned form of gambling, then this implies that there would only be a transitory stream of costs associated with reduced consumer surplus. This cost might then be offset by the permanent stream of social benefits from reduced problem gambling, and may tip the balance in favour of a ban in some cases. However, the Commission is not aware of any persuasive evidence on this issue.

While acknowledging that, in theory, a ban on a given form of gambling might sometimes be warranted, the Commission does not consider that there is enough evidence to warrant banning any *existing* gambling form. Instead, a better policy course is to pursue a range of strategies to reduce the social risks associated with legalised gambling— which we now examine in the rest of the chapter.

This emphasis on harm minimisation rather than quantitative restrictions on gambling is seen as sufficient by some groups, but questioned by others:

The AHA welcomes the Commission’s finding and reinforces that the community wish to participate in gambling services and it should not be banned for the majority to assist the small minority who have problems associated with this form of entertainment... A range of strategies, such as the responsible service of gambling, gambling help support services, education campaigns and industry codes of practice are the most effective ways of reducing the social risks associated with gambling (AHA, sub. D231, pp. 61-62).

There is a great deal of research and analysis into areas and means of harm minimisation in the draft report, which is excellent for the purpose of minimising the harm gambling does to problem gamblers. However, this requires to be balanced with means of discouraging and restricting gambling activities and accessibility in the first place, which can be seen as a form of harm prevention (Interchurch Gambling Taskforce, sub. D230, p. 16).

Whether harm minimisation should be supplemented by quantitative restraints depends, in part, on whether effective harm minimisation strategies can be implemented. If they are not implemented, or cannot be made effective, then the grounds for restrictions on availability appear to be more soundly based. However, it should not be assumed that just *any* type of quantitative restriction necessarily reduces adverse social impacts (as emphasised in the last chapter). Some restrictions could have perverse outcomes. Moreover, in all this the goal of policy is *not* to eliminate the adverse social costs of problem gambling, but to achieve a balance between the modest benefits from gambling derived by the many and the large costs felt by the few.

16.3 Basic consumer information

Price information to players

Information on odds of winning are readily available in many cases, such as all wagering and most casino games. However, there are some major exceptions.

Lotteries

The most popular lottery games do not disclose the real price of the gamble. However, this is an inevitable aspect of the way these complex gambling forms are organised (box 16.2) — accumulating jackpots, varying prize pools and the possibility of multiple winners make it hard to know the true price. Even so, people reveal a strong preference for such lotteries to conventional lotteries, in which a winning ticket with a known prize and known number of contestants is drawn randomly. The absence of a posted price does not seem to present any problems for consumers.

Perhaps of greater concern is the possibility that gamblers do not readily understand the true likelihood that they will win, and that they tend to believe that the chances are greater than they really are. Golden Casket Lottery said that its research shows that lottery players are aware of the low chance of winning the top prize in a lottery when they purchase their ticket (sub. 145, p. 11). However, many people have relatively poor ability to understand the very low odds that occur in lotteries.¹ Any conceptual errors people may make will not be self-evident (and therefore self-corrected) because few people expect that they will win a big prize, even over a lifetime. Thus, a gambler could underestimate the true price of a lottery ticket by a factor of 100² and would not correct this misconception through experience. Advertising, which point out that ‘someone has to win’, may reinforce such conceptual errors.

The critical issue is how many consumers who were fully aware of the odds would still play as frequently. This is uncertain, but merely telling them the odds without providing an indication of what they mean is not likely to be successful.

The Commission considers that there are grounds for improving people’s understanding of the odds of winning lotteries — and simple ways of illustrating the odds could be displayed in venues selling tickets. There are also grounds for better treatment of applied probability in schools and for appropriate advertising practices, an issue examined later in this section.

¹ They also have misconceptions about the extent to which they can be lucky. Thus, about 50 per cent of Australians believe that ‘some numbers are especially lucky for some people’ (BIE 1995, p. 32). But only 30 per cent of Australians with tertiary degrees considered this true, whereas about 70 per cent of people with only some primary school agreed with the statement, suggesting an inverse relationship between conceptual failures relating to risk assessment and education (and innate ability).

² For example, by conceptualising the odds as 1 in 80 000 rather than a 1 in 8 million chance.

Box 16.2 What is the price of a lottery?

The 'price' of a lottery ticket is not the amount paid for the entry, but that cost less the expected value of the return. The expected value depends on:

- the odds of winning. When playing lottery games, such as Ozlotto and Tattslotto, people choose 6 numbers from 45, and win a first division prize if their choice matches 6 randomly selected numbers. The odds of any given ticket winning a first division prize is, therefore, roughly about one in 8 million (roughly equivalent to the chance that a person could throw 23 heads in a row in a game of two-up).³
- The value of the prize. This depends on the size of any jackpot carried over from a previous game, and the number of tickets sold, since this determines the size of the prize pool; and
- The chance of multiple winners of any prize, which increases with the number of entries.

While consumers are typically aware of jackpots, they can only guess how many other tickets have been bought for any given draw. Accordingly they cannot calculate either the expected value of the prize, nor the true price of the lottery with any certainty.

A further possible concern with lotteries is the extent to which suppliers tacitly support the apparent perception of some players that the past pattern of wins is pertinent to the future. For example, the Victorian Tattersalls and Queensland Golden Casket Lottery websites⁴ provide a list of the numbers of past winning numbers for interested people to load from their server — presumably because there is a demand for such data. Such information is only useful on the premise that it increases the odds of winning. It certainly cannot do this, since each new draw is completely independent.⁵ This is not likely to pose difficulties for lottery playing by

³ The odds are $p = \frac{x!(y-x)!}{y!}$ where x is the number of unique numbers selected by the gambler from a larger group of y numbers. In the case of Tattslotto and Ozlotto $x=6$ and $y=45$. Powerball requires gamblers to choose the correct 6 numbers by drawing 5 from 45 and 1 from 45, and therefore offers significantly lower odds of winning (about one in 55 million).

⁴ The Tattersalls website (at http://tatts.com/nav04/nav04_fs.htm accessed on 19 November 1999) provides downloadable past winning results from a host of lottery type games, for the punter to 'play around with'. The Golden Casket site lists Oz Lotto and Powerball historical results (at <http://www.goldencasket.com/index.html> accessed at 19 November 1999)

⁵ In fact, to the extent that people using such information were to process the numbers a similar way, it would suggest that they would select their numbers from a narrower set. This would increase the chances of a shared jackpot among this group were one of those numbers to win, actually reducing the expected payout from a strategy intended to increase it. It should be noted that one area of historical information that *does* have some relevance to lottery gamblers is the past choices (not outcomes) made by gamblers. There is evidence that people often choose birthdays, avoid the lower edges of the card and otherwise, as a group, select from the numbers in a non-random way. This explains why the number of shared jackpots on some wins is higher than

itself. There is very little evidence that lottery playing pose any significant risks for problem gambling, or that it is subject to chasing (chapter 6). And thinking that one can develop a ‘system’ may be a pleasurable past-time, even if its founded on error. However, the provision of what is essentially misleading information may establish pre-conceptions about the nature of gambling generally, which then carry over to forms where those misconceptions increase consumer risks (such as to gaming machines). **The Commission considers that lotteries should emphasise that past results have no bearing on future outcomes and not provide data or other advice that suggests otherwise.**

Poker machines

The price of playing poker machines, while subject to a regulatory maximum, is not disclosed on each machine. Many participants argued that players need better information on the chances of winning when playing gaming machines (sub. 104, p. 48; sub. 38, p. 3, sub. 105, p. 4 and sub. 17, p. 9). For example, Xenophon argued that:

Consumers of gambling products ought to know the odds ... (sub. 98, p. 5).

Similarly, the Victorian Auditor-General has also indicated concern about the degree to which consumers are properly informed and argued for a ‘Players’ Charter’ to complement the industry’s voluntary codes of practice and to indicate the range of information that ought to be provided to players on fairness grounds (VICAG 1998, pp. 67–8).

Lack of disclosure is potentially problematic to consumers. They may not know how to make choices between machines, when they are unaware of the alternative prices of playing. This problem is accentuated when otherwise identical machines have different prices. For example, the Aristocrat *Fast Fortune* gaming machine comes with alternative return rates for New South Wales of 87.70, 90.04, 92.33 and 94.99 per cent. Expressed this way, the rates seem close, but rates of return are misleading indicators of the price. The true ‘price’ of the poker machine is one *minus* the player return. The most expensive form of the game is therefore 146 per cent more expensive than the cheapest version. Put another way, a person playing a 20 cents *Fast Fortune* machine with 3 lines and 1 credit per button push, can expect to lose \$21.64 on the 94.99 per cent machine and \$53.14 a hour on the 87.7 per cent machine, though in all other respects the machines appear to be the same. It seems reasonable to disclose this significant price variation to the consumer, rather than to

would be anticipated than if punters selected numbers randomly Apparently, thousands of people in the UK choose the numbers 1,2,3,4,5 and 6 for the National Lottery, and if that combination ever comes up would win a very small jackpot prize because it was shared so widely.

force them to experiment to discover it themselves.⁶ The Victorian Auditor-General (VICAG 1998, 1999a) has also expressed concern about return variations on the same game.

The Australian Gaming Machine Manufacturers Association said player fairness is an important issue and that detailed information on returns to players can be made readily available. However, it queried whether price disclosure would make any difference, citing an experiment in the ACT:

When gaming machines were first introduced into the ACT, it was required that the player return be advertised on the front of the machines. For the first six months there was a landslide of complaints from individual players that they didn't get the advertised rate. Within twelve months the complaints had virtually ceased — presumably because the players stopped believing or stopped caring. In any event, it made no difference to the play rates — they mirrored results obtained on identical NSW machines with no such signage (sub. 50).

The AGMMA also considered that the use of average payout rates was highly likely to confuse players or create false expectations, because of the way gaming machines work (box 16.3).

They indicated that many players misunderstand the returns and expect every game to conform with the posted return rate, when this would only occur after millions of game plays. However, this statistical variability is precisely what makes it difficult for consumers to surmise the price they face over a long period — and provides a rationale for some disclosure, rather than non-disclosure.

But the persistent consumer misunderstandings about the returns that concern the AGMMA raises the question of what is meaningful for consumers. Disclosure of the player *returns* in percentage forms is probably not an adequate representation of the price for most consumers. But some indicator of the price should be made available to the consumer. Some alternatives are:

- Consumers are well acquainted with price discounts in retailing, and may understand these price signals better than the raw returns. Given that most jurisdictions have a statutory maximum price, it is possible to represent the price as the percentage discount on the maximum price (of 87 per cent). Thus a machine with a 92 per cent return could be called a '38 per cent cheaper' machine.
- A simple value-for-money rating system based on icons could be used.

⁶ This, would in any case will take a considerable time to do. Statistical variability in the payouts, the fact that gamblers switch from machine to machine and differences in styles of play from occasion to occasion will make it hard, if not impossible, for average consumers to accurately detect price differences between machines (appendix U).

All other things being equal, easily assimilable price information should allow consumers to seek out cheaper machines and may provide competitive pressure for some venues to lower prices on some of their machines.

Box 16.3 Player returns

The Australian Gaming Machine Manufacturers Association (AGMMA) observed that information on returns to players can be made readily available in fine detail, but questioned how best to present that information in a useful way:

For gaming machines, all jurisdictions have minimum player return requirements (some even have a maximum). In practice, clubs, hotels and casinos operate machines well in excess of the statutory minima. In Victoria, for example, electronic gaming machines must be 'set' to return at least 87% of all moneys staked by way of prizes. In practice, the average 'setting' is 90%.

Whether publishing this ratio on each machine will increase player wisdom, or in any way modify behaviour is doubted.

... However interesting the measure may be, it is not seen as a useful start point for establishing useful criteria for fairness.

For gaming machines, the player return 'setting' is of very little pragmatic value to individual players. There is, of course, no obvious reason why players should be denied ready access to the knowledge, but there are a number of things worth noting:

- Except by some colossal fluke, no single player will experience the average during a play session.
- Statistically, half the playing population will get less, and half will do better than the average.
- It takes millions of games for a machine to closely tend to its 'setting'.

Two examples may help to illustrate the imprecision involved here. The games "Lion Dance" and "Double Pay" have been approved for use in New South Wales. Respectively, their player return 'settings' are 90.63% and 89.39%. Applying the rules of statistical expectation to both for a play sample of 2,000 games each, players will experience returns, which will range as follows:

- Lion Dance: 39% to 142%
- Double Pay: 55% to 124%

For an individual player, the return ratio is a very imprecise measure.

For either game to tend within plus or minus 1% of the expected average would require a sample of about 5 million games. For a single player to have any guarantee of experiencing this would require that the game be played non-stop for 12 hours per day for two and a half years. Additionally, the hapless player would have to be prepared to lose \$50,000 for the privilege of the experience.

... to our common knowledge, there has never been any attempt to keep [the odds of achieving each advertised prize] secret. What is elusive is trying to find some practical use for the information.

Source: AGMMA (sub. 50).

The AGMMA in its response to the draft report (sub. D257, pp. 8-9) also indicated that disclosure of the price could be misleading because of other facets of the distribution of the payoff. In particular, on some machines it is possible to have a higher probability of breaking even or better (from a given number of lines played) with a *lower* rather than a higher returning machine. This occurs because some machines tend to have more frequent smaller payoffs, and others provide a greater weight to bigger payoffs. A way of illustrating this possibility is to consider two lotteries:

- in one the overall return rate is 50 per cent and the chance of winning on any ticket is one in ten. This would result from a lottery in which the prize is \$5, the tickets cost \$1, and one in every 10 tickets is a winner; and
- in contrast, another lottery could offer a return of 95 per cent, and yet the chance of winning on any given ticket could be one in thousand. This would result from a lottery in which the prize is \$950, the tickets cost \$1, and one in every 1 000 tickets is a winner.

The AGMMA concluded that:

Using ‘price’ as defined by the Commission is far too brittle to be useful and/or fair to players. It falters on the volatility property present in all gaming machines per force of the relationship between prize values and the respective frequencies (or infrequencies) of their occurrence (sub. D257, p. 9).

The Commission agrees that gaming machines are complex devices with varying payoff distributions (appendix U). Even so, it is:

- not certain how typical it is that machines with lower player returns provide players with a greater likelihood of a net win from a session of play. It is most marked for the apparently hypothetical game provided by AGMMA (box 16.4), but scarcely a material factor in any of the other examples given;
- apparent that over a reasonable period of time — say a month and certainly a year — the determinant of the financial outcome of playing a gaming machine is almost exclusively its player return. The standard deviation as a share of the mean player losses becomes much smaller after a large number of trials (appendix U).
- not clear that volatility in returns implies that the price is irrelevant. Price is just one piece of information. Consumers make choices all the time by making tradeoffs between goods with different prices. A higher priced good is not always worse than a lower priced one, if it has other characteristics that make it more attractive. Accordingly, a more expensive game with more exciting game features, better graphics or sound, or a more appealing payoff distribution may be preferred to a cheaper game. If gaming machine venues wish to emphasise

some special feature of a game that justifies its higher price, they can do so. In the absence of price notification, the consumer is bereft of the ability to decide whether any apparent quality tradeoff is worth it or not.

Quite apart from the issue of the overall price of playing the machines, consumers may also be interested in the nature of the distribution of payoffs. Tabcorp said that payout tables are on all of its poker machines:

My understanding is that they in fact do use the payout tables, and that gives them an indication of how the machine pays out ... customers are able to determine that, and they manage their spend according to how they want to play the game and what they can actually afford to spend (transcript).

Nevertheless, existing payout tables provide very little real guidance to players, since all they do is indicate that certain combinations will pay out a certain multiple of the credits gambled at each button push. They do not tell the player the probability of the combination occurring. For example, 5 rhinos will pay out 5000 times the amount bet in the game *Black Rhinos*, which can be a considerable sum (up to \$5450 with scatter wins if playing maximum credits on a 10 cent machine). However, the probability of getting 5 rhinos is about one in 10 million from one button push when playing one line on the machine. Payout tables without the corresponding odds provide very little useful information to players.

The Commission considers that there are grounds for simple indications of the odds of winning any given payout on a machine to inform consumers more accurately about their true chances. Representing these as mathematical odds may be informative for many people, but may do little for some consumers who find odds hard to interpret. But there are other, more colourful, ways of representing the odds that may be understandable for these consumers. For example, in the case of *Black Rhinos*, consumers could be told that, if they bet one line per button push, in order to have just a *fifty per cent probability* of getting 5 rhinos (the big prize option on *Black Rhinos*):

- it would take them 6.7 million button presses; or
- at ordinary rates of playing, it will take them 188 years of playing or 391 days of absolutely continuous play (24 hours a day); or
- it would cost them nearly \$330 000.⁷

⁷ The Commission's calculations for *Black Rhino* were criticised by a number of major producers or their representatives (subs. D234, D289, D233, and D217). They indicated that the Commission did not understand the laws of probability or how random number generators work, and had contradicted the notion of independence in gaming machines. In fact, the Commission's calculations for *Black Rhino* **rely** on the assumption of random numbers and independence (appendix U), so that our results do not contradict these central features of gaming machines.

Of course, lower payouts have much higher odds and normal players can expect to win these frequently during the course of play. The bulk of the returns from gaming machines are made up of relatively *frequent* small prize payouts, and in the case of *Black Rhino* (and a range of other modern games) ‘scatter’ prizes are a dominant source of the machine return to the player. For example, information provided by Aristocrat Leisure Industries suggested that 45.17 percentage points of the 87.84 per cent average return on Black Rhino came from such scatters.

However, players are often still hopeful of large wins, which can make up for past losses, and yet routine play will not inform them of the odds of these rare events. That being said, the prospect of a large win, even if it is remote, can be pleasurable and entertaining, but it seems reasonable to know how much this ‘dream’ is likely to cost.

Another possible measure of the effective price of playing poker machines is the amount of time that can be bought by a certain style of poker machine play. Xenophon argued:

Consumers ... ought to know how long it will take to lose a particular amount of money assuming average pay out rates (sub. 98, p. 5).

It would be easy to calculate the average *expected* duration of any given style of play and reveal it in real time on the poker machine screen (appendix U). However, Tabcorp noted that their customers already had a good idea of the time they can buy on the machines:

What we find is that our customers are in fact buying time, and particularly the regular players have a very good idea of how much time they can get for their money (transcript).

The average spent on Tabcorp gaming machines was about \$29 per hour in 1998 (Annual Report).

Players *are* likely to be aware that they can buy a longer time by playing less intensively, but it is not clear that they can determine with any precision how long on average they will be able to play. The AGMMA (box 16.3) has emphasised that player returns are volatile and this also implies volatile game lengths. The Commission’s calculations also suggest that players could expect very significant deviations from the average duration (appendix U).

Aristocrat Leisure Industries — the manufacturers of the machine concerned — have confirmed our calculations. Since there appear to be widespread misunderstandings about how gaming machines actually work, the Commission has set out the details in appendix U.

While the expected duration is a summary measure of the cost of playing a poker machine, its distribution is highly skewed for normal playing styles (appendix U). As well, it does not appear to offer advantages over other forms of information about costs, such as the average hourly loss rate. These suggest that notification of expected player duration may have few incremental benefits if price is already disclosed.

In summary, reflecting their complex character, notification of the cost of playing gaming machines involves some challenges. In its response to the draft report, the AGMMA, while questioning whether consumers would really act on prices, (sub. D257, p. 6) nevertheless acknowledged that:

The notions of ‘return to player’ and its obverse the ‘venue return’ or ‘price’ are generally not available in the public forum. This is a deficiency from the consumers’ viewpoint and it ought to be rectified. There is no reason why such information should be withheld from players of gaming machines. It is disclosed in fine detail to regulatory agencies as part of the approval procedures.... As a first step in trying to address sufficiency and utility, AGMMA proposes the publication, for each game and each variety of each game, of an ‘odds card’ in a format similar to that shown for the hypothetical game [box 16.4].

Aristocrat, Australia’s leading gaming machine manufacturer also noted:

Aristocrat is ready to explore development of signage on machines to allow consumers to make more informed gaming choices and regards this as an area where we can make a contribution to responsible gaming (sub. D266).

The Commission considers this a useful step in the direction proposed in its draft report. In theory it could be available in other forms. In particular, machines already have versatile displays which provide graphics and information to players. Accordingly, the implementation of further information, such as this, to players would involve no radical re-design of the machines (and therefore pose low compliance burdens). As well, incorporating the information as a screen *option*, which would only be invoked when the consumer was interested in the information, would not adversely affect the appearance of the machine and avoid the risk that too much complex information is presented in too little a space.

Box 16.4 Informing players: one option suggested by the AGMMA

Game name: **Hypothetical game**

ODDS TABLES

	Chance of prize happening on a single play line
Prize value	1 chance in:
>=500	10,198
200 to 499	2,669
100 to 199	1,458
50 to 99	450
20 to 49	246
10 to 19	106
5 to 9	53
<5	10

Prize type by symbol combination	Chance of combination happening on a single play line
	1 chance in:
5 kind	4,784
4 kind	490
3 kind	45
2 kind	9

Overall chances on a single pay line

Chance of ANY prize 13%

Chance of NO prize 87%

The long term average player return for this game as approved by the regulatory authority is 90.31%.

Caution

All values shown are averages. It is likely that significant variations to these will happened during any session of play.

If You Bet With Real Dollars, Use Real Sense

Source: AGMMA (sub. D257, p. 7).

The Commission favours, in principle, the availability of better information, about the price of playing poker machines, including:

- **a simple system of informing consumers about *loss* rates on machines; and**
- **an indication of the *likelihood* of key payouts on the payout tables displayed on the machines.**

But notification of machine *returns* (which is one minus the loss rate) is a misleading indicator of the machine price and should not be implemented. Since poker machines are effectively computers with an in-built colour monitor, more sophisticated electronic posting of the price and likelihoods should be possible for new poker machines, while hand out cards or signs could be used on older machines.

However, prior to providing such information to consumers, the Commission considers that trials with consumers would need to be conducted to assess:

- the exact form in which information should be provided;
- the usefulness of complementary information pamphlets to consumers that help explain how poker machines work, including information on how to interpret any posted ‘prices’;
- the extent to which consumer behaviour changes as a result of this information.

It should be emphasised that the prime objective of better information is simply to empower consumers, not to deal with problem gambling. However better information about the price of gambling, — accompanied by clear explanations of how poker machines work — might reduce the cognitive errors that sometimes appear to underlie problem gambling.

The AHA (sub. D231, p. 62) indicated that they were not opposed to displaying odds for poker machines, but they considered that *all* gambling forms should be treated equitably in their requirement to notify prices. The Commission agrees with this principle, but notes that the prices of most other forms are generally given transparently by the game (such as roulette) or as part of the process of making the bet (eg wagering). However, some casino card games, lotteries and scratch cards do not routinely indicate the odds.

The regulation of payout ratios

Governments routinely set minimum payouts for gambling, enforced by close supervision and reporting arrangements. For example, gaming machines are typically required to return a minimum of 85-87 per cent to players (table 16.1).

Table 16.1 Gambling returns to players^a

<i>Category</i>	<i>Expected returns to player</i>
Gaming machines	85-87% of turnover
Casino	Depend on game rules
Club Keno	Generally 82.5%
Sports betting	As per agreed bets at fixed odds
TABs	Not less than 80% of the amount invested from any one totalisator and an average of not less than 84% of investments on all totalisators in any year.
Bookmakers	Agreed bets at fixed odds
Lotteries	Around 60% ^a
Soccer pools	Around 50% ^a

^a Of course while these are the expected returns to players, the modal outcome in these gambling forms is necessarily zero, as only a few gamblers win.

Minimum payout ratios are intended to reduce the opportunity for exploitation of gamblers by monopoly providers and may also have a role of ensuring that consumers without a strong understanding of the odds are not manipulated. Even without price notification on a gambling form, they guarantee a certain maximum price. Payout ratios are inextricably tied up with taxation and revenue distribution requirements. For example, they are a way of limiting the extent to which licence fees payable by operators can be passed on to gamblers.

Typically, floors on prices do not differ markedly between the states and territories, and do not appear to be binding — the observed odds are better than the statutory minima. In this sense, they do not have any obvious adverse impacts, while serving a useful signalling device to consumers about the worst odds they may face.

The Commission considers that there are grounds for statutory minimum payout ratios. However, there are no apparent grounds for statutory maximums, as, for example, applied by Queensland for poker machines.

Understanding the nature of the game

Not only do consumers appear to misunderstand the odds, but there is evidence of misconceptions about how some games work (table 16.2). As one counsellor noted:

... it's quite common for me to hear in our counselling rooms people having erroneous thinking around how the machines actually work and what they do, examples of that being people actually going to venues at particular times of the day, expecting that they would be full at that time because the lunchtime crowd had finished, or perhaps altering their play patterns from high to low betting on lines and credits, thinking that that would actually confuse the machine in some way or make it think that another player was on it, so that wins would come out. It's actually quite common, beliefs like that that come out, so again I think that more information about how the machines actually

work needs to get out there by community education or signs in venues, that people need to be informed about that (Kaldis, transcript).

Table 16.2 Beliefs about gambling^a

<i>Belief</i>	<i>Agreeing</i>
	%
The chances of winning a substantial amount of money at the casino are quite high	15.5
I think I'll win a good prize in Tattsлото (over \$10 000) one day	16.6
One day I'm going to strike it lucky at gambling	13.7
Sometimes I think I might have the power to 'will' my numbers to come up in gambling games	8.4
To win at gambling you have to think positively	19.0
If I concentrated hard enough I might be able to influence whether I win when I play the pokies	6.9
I'm more likely to win at lotto/gambling if I use my 'lucky numbers'	10.0
You can win at the pokies if you adopt the right system	10.1
You can 'beat the system' at the casino if you know how	11.1

^a Based on a survey of gambling attitudes among 1017 Victorian young people.

Source: Moore and Ohtsuka (in press).

Psychologists and psychiatrists working with problem gamblers often apply cognitive therapy, which provides tools for gamblers to think more critically about gambling — the success of these tools in a reasonable proportion of cases suggests that cognitive misconceptions do play a significant role in perpetuating problem gambling.⁸ Blaszczynski (1998), for example, notes the prevalence of false beliefs about control over poker machines and gambling generally:

Often, people playing the slot machines will touch the side of the machine, press the button a certain way or hold some item as a lucky charm. People believe that acting this way increases their chances of winning... Chance plays a central role in gambling. However, many gamblers hold a strong conviction that they can influence the outcome of chance events through their own skilful play (pp. 161-6).

Moore and Ohtsuka (in press) document erroneous beliefs about power over gambling outcomes — which seem to affect between one in five to one in ten people (table 16.2).

The Nova Scotia Video Lottery Terminals survey (Focal Research 1998) also found evidence of misconceptions by gamblers about the likelihood that they can win on gaming machines — misconceptions which were accentuated among problem players (table 16.3). While the prevalence of mistaken views was much lower among non-problem players, they still accounted for a significant minority of players.

⁸ Also see National Research Council (1999, p. 240ff) and Barrett (forthcoming).

Table 16.3 Belief systems about gaming machines

Video lottery terminals in Nova Scotia

	<i>Problem players</i>	<i>Frequent players</i>	<i>Infrequent players</i>
	%	%	%
I sometimes play VL games with the hope of paying off bills	45	4	3
I usually feel I'm going to win when I start playing VL games	50	21	18
I generally feel that over time VL will pay off for me	25	9	8
After a string or series of losses playing VL games, I feel I am more likely to win	23	8	5
I play a particular machine to improve luck	39	19	9
A system is very important when playing	32	20	10
A system is not all important when playing	18	40	60

Source: Focal Research (1998, p. 3-25 and 3-59).

People often do not understand that each game played on a gaming machine⁹ (and other gambling forms) is independent of results from past games. A machine which has not paid out for some time, has no higher chance of paying out in the future — there is no necessity that an individual machine actually return the expected rate in any given period. There is therefore no strategic value in waiting for a big win on a machine on which a gambler has posted a large cumulative loss. Many gamblers aim to make up for past losses by continuing gambling — this seemingly irrational behaviour extends far wider than problem gamblers, and may be underpinned by misconceptions about the role of luck and non-independence.

Some of these ill-founded beliefs may be reinforced by:

- jackpot and accumulator machines which must pay off a jackpot over some pre-defined expenditure interval;
- near misses (as when the right number of high paying combination of icons appear on a poker machine but not on the right lines); and
- familiarity with the machine (Blaszczynski 1998, pp. 166-8). He finds that the more familiar are gamblers with a poker machine the more likely they are to believe they have control over outcomes, such as 'knowing the spin of the reel'.

Cognitive therapy is one strategy for helping problem gamblers with an extremely skewed understanding of gambling. It may be that other information about the nature of gambling — and particularly the continuous games of luck, such as roulette and poker machines — may serve to reduce conceptual errors frequently

⁹ With the exception of accumulator machines and linked jackpot machines.

made by non-problem gamblers. Such information may in turn act as a preventative measure for problem gambling.

Information about how such games work and the most frequent misunderstandings about them could feature in easy-to-read information made available to patrons of gambling venues. They could also feature in school curriculums where appropriate, as discussed later. In clubs where people have to be members to play, this information could be provided at the time of membership or renewal. Widespread implementation should be preceded by objective and independent assessment using consumer trials.

A number of industry participants agreed with the provision of information to consumers. For example, the AGMMA (sub. D257, p. 16) indicated that it was in the process of preparing a booklet relating to gaming machine odds to provide to patrons of gambling venues.

Information about how much has been spent

Gamblers of all kinds appear systematically to underestimate their losses and overestimate their wins. Gerstein et al. (1999, p. 32), in reporting the results of the most recent US national survey of gambling, found massive and systematic biases in people's perceptions of winning while gambling, calling it a 'collective hallucination'. They suggested:

... a more general finding from these data is that gamblers, whether or not they are classifiable as problem or pathological, seem accustomed to a high level of fantasy about the economics of the games they play (Gerstein et al. 1999, p. 30).

The Australian Household Expenditure Survey for 1993-94 finds extremely large expenditure biases, with the reported expenditure being only 23.7 per cent of the actual figure. A series of major surveys commissioned by the VCGA reveal a more complex picture. Victorians initially overestimated their spending and then, in more recent years, significantly underestimated their spending (table 16.4).¹⁰

As Blaszczyński points out, there are many ambiguities about the term 'spending' and 'outlay', so that respondents misunderstand survey questions posed by researchers. The Commission attempted to reduce these problems in the *National Gambling Survey* by careful wording of expenditure questions. This appeared to

¹⁰ A recent extremely careful Nova Scotian survey of gaming machine gambling (called video lottery machines in Canada) found that perceived monthly expenditure was around 40 per cent below that derived by taking account of the frequency of gambles and the average per session spend — an underestimate which was as big for non-problem players as problem ones (Focal Research 1998, p. 3.42).

have generated somewhat less biased indicators¹¹, with the projected expenditure level on gambling being about 70 per cent of that estimated by the Tasmanian Gaming Commission.

Table 16.4 Biases in Victorian perceptions of gambling expenditure, 1992–1998^a

<i>Year</i>	<i>Perceived weekly outlay by Victorian gamblers</i>	<i>Gambling participation rate</i>	<i>Proportion lost from outlay</i>	<i>Derived weekly expenditure per adult Victorian</i>	<i>Actual amount lost per week by adult Victorians</i>	<i>Bias</i>
	\$	%	%	\$	\$	%
1992	21	75	79	12.4	5.23	138
1994	18	83	78	11.7	8.64	35
1995	18	77	77	10.7	12.05	-11
1996	18	87	81	12.7	14.35	-12
1997	16	86	80	11.0	15.36	-28
1998	17	76	81	10.5	17.55	-40

^a The survey respondents were asked to provide outlay estimates, and then an indication of the proportion of outlay that was won back. These two data items provide an estimate of the expenditure per Victorian gambler. To then derive an estimate of the spending per Victorian adult, this figure is multiplied by the gambling participation rate. The bias is calculated as the percentage difference between the derived and actual expenditure figures.

Source: Calculations by the Commission based on data presented on pages 40, 56 and 64 in Roy Morgan Research (1999).

It appears that consumers may well have difficulty recalling their expenditure on gambling. Tracking expenditure by gamblers is much more difficult than other forms of entertainment expenditure because of the volatile patterns of wins and losses, the fact that wins are more easily recalled than losses, other problems of biased evaluation by gamblers (Blaszczynski 1998, pp. 167–8) and the lack of records in many cases.

Such biased evaluation may be problematic because it makes it difficult for people to know when they may have exceeded what they think is a sensible budget for gambling. This is clearly more important the bigger is the amount spent on gambling as a share of people's total disposable income. Evidence from the Commission's *National Gambling Survey* suggests that gambling is a high share of many people's budgets.

This provides grounds for more information provision to consumers by gambling providers about their past spending. Australian internet gambling providers are set

¹¹ Even here, however, the wording changes were only moderately successful in eliciting accurate answers in some cases (appendix P has the detailed estimates).

to provide much more detailed information to gamblers than traditional forms of gambling. Many consumers use membership cards at venues when playing poker machines.¹² The cards are used by venues to pay loyalty bonuses and encourage people to play more. Since the cards already contain some information about the history of spending by players, they could be enhanced to collect overall spending information. Similarly, gamblers with TAB phone accounts could reasonably expect account records to be provided as a record of transactions.

The Commission considers that where loyalty or other cards are used in gaming machines, consumers should be provided with a written periodic record of their spending (as in bank account records). Such records should also be provided to TAB phone betting and internet gambling account holders. They could also be sent game information with such accounts.

Information on the risks of problem gambling

Many gambling venues have now adopted codes of practice which require notices which encourage responsible gambling and which provide referral advice for people who develop problems. Some signs warn of potential problems with gambling. Some venues provide pamphlets which outline some of the characteristic symptoms of problem gambling. However, with some exceptions, signage is discreet and the slogans subtle rather than direct and hard hitting — unlike slogans and advertising used in other public health campaigns (box 16.5), and unlike the slogans used to promote gambling.

As noted by Anglicare SA:

Images highlight fun, wealth, excitement and a general good time. Images such as looking at bills that cannot be paid, the faces of children not receiving Christmas presents or staring at the medicine for razor blades or tranquillisers would not make for attractive merchandising of gambling products (sub. 104, p. 44).

The New Zealand Racing Industry Board, has, however, recently developed awareness material that is far more in line with other public health campaigns, and may be of interest to Australian operators and regulators (figure 16.3). They argued that:

¹² The Commission's *Survey of Clients of Counselling Agencies* revealed that about 49 per cent of the clients whose problems were due to gaming machines had such loyalty cards. The Commission's *National Gambling Survey* suggested that about 21 per cent of recreational poker machine players claim to have such cards and 47 per cent of (mostly non-help-seeking) problem gamblers. Of those who have the cards, 80 per cent of non-problem players and 91 per cent of problem gamblers make at least some use of cards when playing the machines.

...strongly worded messages are necessary if we are going to make a difference amongst those persons who may need specialist information or who may need encouragement to refer for professional counselling... they have been pre-tested and focus tested with customers and problem gamblers (Alexander, 1999, p. 6).

Box 16.5 Gambling and other public health slogans

Used in gambling venues

Have fun, but play it safe (Tattersall's)

Bet with your head, not above it (Star City Casino)

Gambling can be addictive (Canberra Club)

A Victorian responsible gambling ad pictured a group of quirky people having fun with gambling, ending with the slogan 'If it's no longer fun, walk away'

If you play with real dollars, play with real sense (awarded best slogan, American Gaming Association, US, www.americangaming.org) and advocated by the AGMMA (sub. D189).

You bet your life? When you can't face your wife and kids. When you're in debt. When gambling and heavy drinking always mix. When life feels boring if you're not gambling. When its really hard to stop. It helps to talk... (New Zealand Racing Industry Board 1999)

Other public health areas

Speed Kills

If you drink and drive you're a bloody idiot

Hot water burns like fire (Queensland scalds prevention campaign)

The Australian National Tobacco TV ad campaign (www.quitnow.info.au) shows pictures of a smoke-damaged aorta oozing yellow fluids, blackened lungs and other repugnant imagery.

A Road Safety Campaign TV ad show a weeping man who has run over a child while drunk.

Not used in gambling venues but suggested to the Commission

If you think you can win, you're a loser (suggestion by participant).

If you think you can win, don't come in (suggestion by gambler on talk-back radio).

Gambling is addictive and may cause misery, depression, your marriage to break up or even death (sub. C38, p. 1).

Figure 16.3 Awareness pamphlet used by the New Zealand Racing Industry Board^a



^a Approved for publication by the New Zealand Racing Industry Board and the New Zealand TAB.

Data source: New Zealand Racing Industry Board.

The Commission saw little evidence that consumers were being provided with clear indications of the hazards of gambling (as they are, for example, with driving) or the fact that problem gambling can affect anyone who gambles. And while pamphlets may have a useful role to play, there is little evidence about whether existing posters or pamphlets have actually changed risky behaviour by patrons.

The notion, put forward by ACIL on behalf of major gambling providers (sub. 155, p. 71), that problem gamblers have ‘deep-seated personality disorders’, would tend to discourage ordinary people from thinking they could be at risk of developing problems. As noted in chapter 6, there is in fact little evidence that problem gambling stems from personality disorders. Rather, it is a complex phenomena with a variety of causal factors, which can affect anyone. As noted by the Adelaide Central Mission:

Among the community members struck down by this silent epidemic that we are aware of at the Adelaide central Mission are accountants, solicitors, doctors, psychologists, insurance brokers, bankers, self-employed business people, footballers, media

personalities, political figures, social workers, students, retirees, unemployed people and the list goes on (sub. 108, p. 13).

There are strong grounds for increasing community awareness of the hazards of gambling (rather than just its obvious pleasures), as has been done for alcohol consumption (eg *Drink Smart*¹³), drugs (eg *Live the Future*¹⁴), driving (eg the *Fatigue* campaign¹⁵) and tobacco (eg the *Quit for Life* mass media anti-smoking campaign¹⁶).

In tackling community awareness, an initial issue is one of perception by governments about the nature of the problem. **The Commission views problem gambling — in all its dimensions — as a public or community health issue, similar to that of alcohol.** This is because problematic consumption lies on a continuum from mild to severe, with over-consumption of gambling producing significant costs and risks for both those who engage in excessive consumption, but also the community more generally:

Consumption of gambling should be reflected within a public health construct delineating a continuum of social and enjoyable participation through to harmful and hazardous use. Parallels are drawn to international charters on alcohol and addictive substances underpinning government health policy responses (Committee on Problem Gambling Management (New Zealand), sub. 92, p. 1).

...problem gambling is an issue of concern not only for the person with a gambling problem and for their family, but also for medical practitioners, the gambling industry, the community and governments. Problem gambling as a public health issue is likely to affect an increasing percentage of the Australian population...Governments should develop and implement legislation to reduce problem gambling. Such legislation should include a public health approach to the development of policy and the regulation of the industry (AMA, sub. D224, pp. 2-3).

Moreover, as in other public health areas, there is significant scope for prevention of problems by intervening in the market to reduce hazards (Hawks 1997). In this public health context, there is clearly a role for government in information provision.

¹³ A Queensland program to reduce alcohol over-consumption risks (<http://www.health.qld.gov.au/atods/projects/drink1.htm>).

¹⁴ *Live the Future* was a collaborative project between the AMA Charitable Foundation, the State Library of NSW and the NSW Health Department. The Project aimed to increase community access to current and accurate information about drug and alcohol use (<http://www.health.nsw.gov.au/public-health/hpdp/livefuture.html>).

¹⁵ Motor Accidents Authority (NSW) (<http://www.maa.nsw.gov.au/reports/1998/directions/-strat2.htm>).

¹⁶ Evaluation details are available from University of Sydney (<http://www.health.su.oz.au/research/hpromo.htm>).

The Commission considers that there is a need for governments to provide clear information to the public about:

- **what is problem gambling;**
- **the fact that people of all ages, sexes and backgrounds make up the group of problem gamblers;**
- **its signs (such as chasing losses and loss of control) and self-assessment¹⁷;**
- **some of the risk factors (such as depression or stress);**
- **its consequences (poverty, job loss, relationship breakdown, depression and suicide); and**
- **advice on where help may be obtained (and indicating that this is a free service).**

Given the involvement in gambling by all ethnic and cultural groups, it is also clearly important that information be designed to take account of cultural and language differences among gamblers.

Measures such as these should raise awareness generally about the risks of problem gambling and encourage more responsible gambling by people who are at risk. As noted by the Interchurch Gambling Taskforce:

A warning can at least start to penetrate the consciousness in the way it already has done with smokers and drink drivers (sub. 55, p. 4).

It may also empower friends or relatives of people at risk to provide early informal help (in the same way that one of the ways of tackling drink driving is to empower friends to share the responsibility for the safe conduct of the drinker).

The advantage of information provision is that it is a relatively cheap measure for promoting informed consent by consumers, and may, with other measures, assist in changing cultural attitudes about the risks of gambling. It is not likely to deter existing severe problem gamblers, but it may help others who are lower down in the problem gambling continuum.

Any guides or health promotion should be independently authored, clear and objective, and provide consumers with tools which help them to obtain further advice if they need it, as well as possible strategies for reducing risks.

¹⁷ The Mental Health Foundation of Australia, for example, is currently developing an interactive online education and promotion campaign for responsible gambling. Kiosks will be available in gaming venues and will provide interactive means of self-assessment of at-risk behaviours (sub. 51, p. 11).

Effective information dissemination requires visibility. **Such information should be made available at gambling venues in ways that are just as visible as signs promoting gambling. They should be positioned on any nearby ATMs in venues, on gaming machines, at the cashier's and at points where people may be seeking help with other public health problems** (such as community and health centres, public libraries, the internet, and general practitioners). They could also involve mass media where evidence suggested this was likely to be effective. Again, any measures would need to be piloted and assessed for effectiveness.

Star City Casino (sub. 217, p. 19) agreed with signs, but suggested there may be a 'visibility threshold', given the large number of gambling awareness signs already provided in Star City. However, in its visits to a wide number of venues, the Commission found an uneven adherence to even modest visibility in many venues — principally those outside casinos. A short survey of six metropolitan hotels undertaken by the Interchurch Gambling Taskforce found that only two displayed signs about problem gambling risks visible to the surveyors. In the ACT, all venues are required to place warning signs on the machines, but at least one venue has placed these at knee height.

Public health promotion is now a developed discipline, and the forms and modes of information that are likely to be successful depends on experience in that field. **The Commission considers that jurisdictions developing appropriate health promotion in this area consult existing experts in the public health area about the best way of informing people about gambling risks in a way that is most likely to reduce the hazards of gambling.**

Another related issue is who should be *responsible* for public health awareness in the gambling area. Other areas of public health are now often characterised by strong cooperation between the states and territories, as exemplified in the National Public Health Partnership.¹⁸ The Commonwealth Department of Health Aged Care also fund a Public Health Education and Research Program (PHERP), which in turn funds Australian institutions to strengthen education and research in public health. It seems sensible that the scarce resources for developing effective public health awareness materials on gambling risks be combined nationally, rather than spread across the different jurisdictions in different campaigns. As well as using existing public health institutions, **there is a need for a national body which undertakes independent research into gambling problems and into effective public health measures to counter risks.** This issue is re-examined in chapter 22.

¹⁸ Dept. of Human Services (Vic) (<http://hna.ffh.vic.gov.au/nphp/home.htm>).

Early information about the risks of, and approaches to problem gambling may also have a role in reducing the hazards of gambling. As the social problems from gambling have become more noticeable, some Australian governments are developing educational material to provide children with skills intended to manage these risks:

- the University of Melbourne is developing gambling education guidelines for primary and secondary schools in Victoria (Jones 1998); and
- the Queensland Government aims to introduce gambling issues into the school curriculum later in 1999 (box 16.6).

The notion of school-based material was supported by a number of participants (for example, sub. 112; sub. 104, p. 52; sub. 94, p. 2 and sub. 51, p. 11). These classroom resources may allow children to become more critical consumers of gambling at a later age, and may also warn them of the risks associated with adolescent (illegal) gambling, which is widespread.

One potential drawback of educational material is that it could incidentally promote gambling among children. Indeed, in Victoria, curriculum materials were developed in 1995 for year 10 and 11 students by the Victoria Racing Club, although the materials were never actually used in classrooms (Jones 1998). As well, even if educational materials raise an awareness of risk, they may not (as in the case of teenage smoking) alter risky behaviour, which suggests longitudinal research into the long term effectiveness of these educational approaches.

Box 16.6 Curriculum development in responsible gambling in Queensland

The Queensland Responsible Gambling Advisory Committee and the Queensland School Curriculum Council developed materials for Queensland schools on responsible gambling, to be implemented across Queensland State schools in the second semester of 1999.

The materials comprise two modules:

- Gambling with health: building communication skills. This explores the nature of gambling, different attitudes to gambling, the possible consequences of gambling, and strategies students might develop to deal with problems. It also examines the sensitive issue of parental gambling, its impacts on families and methods of dealing with possible conflicts that may emerge.
- Gambling: minimising health risks. Students develop, test and implement a poster which addresses gambling related issues.

Source: Department of Families Youth and Community Care, Queensland (1998).

16.4 Advertising and promotion of gambling products

Advertising, promotion and marketing expenditures by gambling providers are high (table 16.5) and have increased significantly in the last few years.

Some jurisdictions restrict the promotion by venues of their gambling activity. For example, in the Northern Territory, poker machines must be advertised as *part* of the attraction of the venue, and not be singled out for individual promotion. But, overall, advertising and promotion is weakly controlled. As ACIL acknowledges on behalf of the industry (sub. 155, pp. 152–4) existing regulations are not very stringent.

Table 16.5 **Expenditure on advertising, promotion and marketing by Australian gambling providers^a**

<i>Type of expenditure</i>	<i>Casinos</i>	<i>Lotteries and other gambling</i>	<i>Total</i>
	\$m	\$m	\$m
<i>1994-95</i>			
Advertising	26.0	46.9	72.9
Marketing promotion and sponsorship	63.9	42.0	105.9
Total	89.9	88.9	178.8
<i>1995-96</i>			
Advertising	38.2	..	..
Marketing promotion and sponsorship	68.0	..	..
Total	106.2	..	..
<i>1996-97</i>			
Advertising	41.0	..	..
Marketing promotion and sponsorship	88.6	..	..
Total	129.6	..	..

^a The most recent edition of Cat. 8684.0 suggests that in 1997–98 combined advertising, marketing, promotion and sponsorship expenses were \$458.8 million for casinos, \$88.1 million for lotteries and \$26.6 million for gambling not elsewhere included. The figure for casinos is considerably at odds with past data.

Source: ABS (various years, Cat. nos. 8684.0 and 8683.0).

Typically, existing rules about advertising of any good or service are intended to ensure that material is acceptable to the community and does not prejudice the interests of consumers. The question is whether gambling is sufficiently different from other goods to warrant special treatment. Many participants considered that advertising of gambling reinforces people's false beliefs about gambling, or promotes and legitimises an activity which has significant social costs (box 16.7). Some other goods are accorded special status. The advertising of alcohol is restricted, while it is banned altogether for tobacco.

Box 16.7 **Gambling advertising: views of participants**

More generally, it is clear that advertising undertaken by the providers of gambling services seeks to encourage and promote the irresponsible attitude characteristic of heavy gamblers. The slogan used by Queensland PubTAB 'How do you expect to get rich if you just drink and watch TV?' is a striking, but not atypical example (Quiggin, sub. 149).

Currently, governments and the main industry players appear to be primarily concerned with attracting people to play at gambling venues by advertising them as a form of glamorous, safe and fun entertainment (Public Interest Advocacy Centre, sub. 174, p. 1).

In South Australia, at least, there has been an aggressive expansion of advertising ... for all forms of gambling in the past four years, particularly involving the TAB, the Lotteries Commission and the Adelaide Casino. The advertising invariably does not provide details of the odds of winning nor the potential harm from the risks involved (Xenophon, sub. 98, p. 5).

Anglicare SA believes that the gaming industry does not conduct its venues in a way which ensures that patrons are making a truly informed consent when they play. Advertisements are presented in a way which depict an unrealistic image of gambling outcomes, and this is reinforced by the actual gambling environments where time and effect are blurred and control of the experience is predominantly in the hands of the industry (sub. 110, p. 4).

Compounding all this, State and local governments who receive revenue from legalised gambling often are its promoters, both to bring gambling in and to sustain it. Governments get hooked. While States receive revenue from alcohol and tobacco sales, no government unit — to my knowledge — promotes alcohol and tobacco...But gambling is different. Billboards are erected in poor areas to promote the Illinois Lottery. 'This could be your ticket out' one proclaimed ... (United States Senator Paul Simon 1995, p. 11).

... government has an important role to play in setting limits on the promotion and advertising of gambling. For example, television advertising needs to be confined to adult viewing hours. Legislation should be enacted for all advertising to carry a warning of the negative effects of gambling (Salvation Army, sub. 35).

Far from being curbed, advertising of gambling in Australia is commonplace ... the slogan 'Everybody wins!' encourages people to disregard the odds and to disregard the cost of purchase ... Nearly everyone loses ... In Australia, the gambling industry can mislead gamblers in this way with apparently little or no control by the government authorities (Walker 1998b, pp. 27-8).

Essentially all advertising for gaming is misleading because it only shows people winning. That is not the experience of most people in gaming (Wendy Silver, Former chair of the WA Lotteries Commission, transcript).

Some overseas countries, such as the United Kingdom and the United States, have relatively tight controls on gambling advertising. The latter has a federal ban on promoting gambling on television and radio arguing that this provides some protection to compulsive gamblers. But the ban has many exceptions. It does not cover advertisements for casinos on Indian reservations, state-run lotteries or gambling sponsored by non-profit promoters working for charities. And thirty-

seven states plus the District of Columbia sponsor and advertise lotteries,¹⁹ while two-thirds of the states are home to Indian-owned casinos. Moreover, the US Supreme Court has recently ruled that the federal ban is unconstitutional (AGMMA, sub. D257, p. 17).

The question of whether harsher restrictions are appropriate in Australia depends on the extent to which any positive social benefits are outweighed by loss of information to consumers. ACIL (sub. 155, p. 154), on behalf of major gambling providers, argued that advertising can:

- provide valuable information to consumers about what different venues or products offer;
- inform consumers about the prices of goods on offer;
- establish brand names which people trust. This in turn may have advantages because the gambling providers will wish to protect their reputation, for example, through responsible gambling practices in their venues; and
- be used as a way of promoting responsible gambling.

In fact, current advertising does not appear to achieve most of these objectives.

Valuable information?

Very little rich information about gambling products is provided by existing advertising. Advertising tends instead to suggest that the product is exciting (as in promotion of casinos). This message is consistent with the idea that gambling is entertainment. But as noted by Walker (1998, p. 27) advertising which suggests the excitement 'never stops', ignores the fact that:

... for most of the time, poker machine players look bored; the excitement accompanies a big payout. For most of the players, the payouts will be temporary gains only and the lasting impression will be sour not sweet. To be places of excitement that never stop and fun all day long, the payouts must be frequent and the players must be winners. But the big payouts are rare; the majority will lose, and the suggestion that it is otherwise is false.

Or advertising may exaggerate the opportunity for winning (as in promotion of lotteries and poker machines). For example, the Commission has calculated that the odds of winning overall on poker machines for a regular gambler over a year are

¹⁹ The Congressional Commission examining gambling in the United States has indicated the possibility of codes of conduct for advertising of State lotteries (www.mediaweek.com/daily/March/aw/aw031999-62.asp (accessed on 25 May 1999)).

effectively zero.²⁰ Regular playing of poker machines may be very entertaining, but it is not a winning strategy, and arguably should not be presented as one.

Information about the odds?

Very little mass media gambling advertising provides information on the odds (or what they mean) to consumers. Of course, the fact that gambling advertising provides little information about prices in the current environment may partly reflect the pervasive influence of exclusivity arrangements in some gambling forms.²¹

Establish reputations?

This may be true for the promotion by a casino, TAB or lottery which are large multi-million dollar businesses, but it is not clear that brands are established for the multitude of small businesses, such as hotels and small clubs, which promote poker machines.

Does advertising promote responsible gambling?

In fact, very little advertising appears to promote risk-reducing consumption of gambling. In any case, any restrictions on advertising could obviously exempt advertising that was genuinely aiming to ensure more responsible gambling.

*What **does** advertising do?*

It seems likely that one of the major roles of advertising is to increase demand for gambling and to alter people's preferences so that they see gambling as an exciting activity. ACIL denied that advertising increases demand, but rather affects the distribution of sales between competitors. However, many gambling products are supplied by an exclusive supplier (casinos and lotteries) in a given jurisdiction, and have low degrees of substitution with other gambling forms. In this context, if advertising and marketing did not increase demand it is hard to understand why these businesses would make these expenditures. In any case, the notion that advertising and promotion may influence demand and preferences is not necessarily

²⁰ A simulation of a poker machine revealed that if ten thousand people gambled for 104 sessions a year, playing three lines per button push and stopping after one hour of gambling in each session, none would be expected to be ahead in that year.

²¹ On the other hand, the market for poker machines is very competitive and yet little price information is provided by competing venues.

a problem. Arguably most preferences are constructed by a myriad of social processes, of which advertising is just one source. If someone feels better off as a result of preferences influenced by advertising, they still feel better off.

It would be of more concern if advertising and promotion were to mislead consumers. Existing codes of advertising allow firms to exaggerate so long as the exaggeration is so self-evident that it is unlikely to mislead,²² but otherwise have provision for controlling misleading or deceptive advertising. The Commission is not aware of successful cases against major gambling providers in respect of their advertising, but this may reflect the difficulty in substantiating what constitutes deception. For example, most people may know that the chance of winning a lottery is remote — even if they do not understand how remote it really is — and wish to engage in the pleasant fantasy that winning is a genuine possibility. Advertisements which indicate that a particular form of lottery makes some people into millionaires is truthful, but may well be misinterpreted by people in a way that suggests the odds are better than they are. The advertising is not deceptive, but the information may well be misinterpreted by many. **The Commission considers that there are grounds for tighter controls on gambling advertising, where it is felt that the information provided by a gambling supplier would have the effect of reinforcing inherently false beliefs about the odds of winning or about the way gambling technologies work.**

Some providers have already agreed to a voluntary code of conduct, such as the Australian Lottery Industry Code of Practice,²³ which includes a commitment not to give a false impression of winning a prize and notification of odds to players. However, some participants were sceptical of such voluntary codes, and indicated the need for an industry-wide code. For example, Relationships Australia (SA) (sub. 118) recommended a legislatively prescribed code of practice for all gambling forms, which among other aspects, would clearly disclose the odds of winning.

The Commission is of the view that, notwithstanding existing general consumer protection measures, there are grounds for legislatively based codes specific to gambling. These should ensure that gambling advertising and promotion (across all modes of gambling) does not:

- give the impression that gambling is a reasonable strategy for financial betterment;
- target disadvantaged groups in a way that is calculated to increase their participation because of their desperate financial circumstances;

²² Each state has legal provisions dealing with advertising standards — generally derived from the Commonwealth Trade Practices Act (<http://www.consumer.qld.gov.au/gbguide/advertising.htm>).

²³ NSW Lotteries, *1997–98 Annual Report*, p. 5.

-
- lead to a false understanding of how gambling technology works (such as implying that skill matters to a game which is purely driven by luck;
 - encourage people to gamble in a way that is irresponsible, such as drinking and gambling, staying for long periods in a venue in order to be able to be eligible for an attendance prize or other inducements (sub. 46, pp. 13, 15; sub. 97; sub. 98; ACT transcript, p. 692 and box 16.8), or manipulating people to play repetitively (for example, ‘remember to put your entry in because your numbers may come up’); or
 - target *high risk* groups of gamblers, for example, through complimentaries or individual promotions.

Box 16.8 Inducements

F was a patron of a Sydney hotel. Over the course of 18 months he lost \$300 000 gambling on the hotel's poker machines. One factor in his gambling was the provision of free alcoholic beverages by the hotel while he was gambling on the machines, which impaired his judgment (sub. 46, p. 15).

After a while the club would always give me free drinks ... I would begin by betting \$20, then double it to \$40, then \$80 and so on. The more I drank, the more I bet, and as the drinks were free, I simply kept on drinking. I would bet as much as \$5 000 on a single Keno game (sub. 46, p. 15).

There are also grounds, given its public health nature, for all gambling advertising to incorporate a risk warning about the product (using an appropriate slogan).

Moreover, the grounds for stricter controls on gambling advertising appear to be stronger than on other goods because consumers may have persistent misperceptions even after regular consumption of the good. If a hamburger business describes their product falsely as ‘tasty’ it can fool at best a given consumer just once. However, a false view of odds can persist because of the probabilistic nature of the games played. A lottery player with a misunderstanding of the odds might never be able to correct this misunderstanding through personal experience.

The stricter control of gambling promotion and advertising would accord with the special treatment provided to alcohol and tobacco products where social harms from excessive consumption are also prominent. Any provisions should be administered by the appropriate gambling regulator in each jurisdiction, but there should be an attempt to establish a consensus about appropriate advertising and promotional standards.

16.5 Controlling the gambling environment

Measures which try to increase the flows of useful information to consumers, as above, would represent ‘light-handed’ interventions by government. These take as given the nature of the gambling environment, and provide consumers with some tools for safer consumption. There are, on the other hand, a range of stronger interventions which are either in existence, or have been proposed, to deal with gambling risks:

- attempts to control accessibility through venue and global caps are key features of the current regulatory environment, and were analysed in chapter 15. But other features of accessibility, such as opening hours, frequency of gambling events, and entry conditions are typically not subject to government control (as they are in a number of other international jurisdictions);
- the environment of venues could be subject to greater control, through restricting access to credit, mandating staff training in awareness of problem gambling, ensuring access to natural light and clocks, restrictions on the serving of alcohol to gamblers, and stricter policing of access to minors; and
- gambling forms could be subject to design modifications, such as changes in the payouts, the duration between button pushes on gaming machines, the frequency of races, and enforced breaks.

Generally, gambling providers were antagonistic to the notion of further interventions aimed at controlling the gambling environment to make it safer, whereas those who deal with problem gamblers and their families wished to have far stronger controls.

ACIL, representing some key members of the industry, warned that measures aimed at helping problem gamblers or reducing risks could lead to perverse offsetting responses by problem gamblers:

For example, we note that in 1995/96, Victoria allocated \$2.5 million over three years from the Community Support fund in support of a community education strategy which included a media component said to be accessible to all Victorians. This... could be interpreted as an invitation to at-risk gamblers to throw caution to the wind and to the spouses and friends of at-risk gamblers to wait for outside counsellors to do what they themselves would otherwise have done. ... Another displacement possibility is that discouraging or barring allegedly problem gamblers from gambling could cause them to substitute some other risky activity which is more expensive and more damaging (sub. 155, p. 98).

These particular examples may be far-fetched, but the conceptual point that measures intended to help problem gamblers might inadvertently worsen the

problem is a key insight that needs to be considered when looking at harm minimisation.

A possible alternative to prescriptive measures which try to minimise harm is the clear identification of responsibilities by patrons and gambling providers. In theory, clarifying legal responsibilities can create the incentives for appropriate care, while allowing creativity an innovation in the methods by which that care is achieved. Accordingly, section 16.6 examines whether a duty of care (either defined under common law or more clearly specified by statute) is likely to be enough to protect consumers. Then in sections 16.7 to 16.9, the pros and cons of more prescriptive measures are assessed.

Should harm minimisation measures be applied to non-gaming venues?

Participants in the inquiry mainly directed their comments on harm minimisation at gaming machines and casino games. This reflects the rapid change in the accessibility of these forms of gambling and the fact that they are now collectively the prime source of gambling problems (chapter 6 and 17). But traditional forms of gambling that are also associated with problem gambling, particularly wagering, should not be neglected. As noted by the Australian Hotels Association:

Wagering is a very accessible form of gambling. The introduction of pay TV in people's homes has meant that wagering is more visible and easily accessed. Additionally, a continuous service is offered through wagering networks... Responsible gambling brochures, self-exclusion information and promotion of gambling help lines displayed and promoted in both physical wagering outlets and through the TV and radio (specific wagering channels) may be a way of ensuring a greater awareness among wagering problem gamblers of the services available (sub. D231, p. 68).

The Commission considers that there are strong grounds, where it is cost effective and technically feasible, for harm minimisation measures also to apply to all forms of gambling that are significant sources of problems, including wagering.

The Commission also notes that the harm minimisation measures used need to take account of the context in which gambling takes place. Thus, signs are useful in physical venues, but risk warnings and help screens are appropriate for internet and TV gambling technologies.

16.6 Do venues have the right incentives to protect their patrons?

Do they have standard commercial incentives to look after their customers?

ACIL, in its submission on behalf of major gambling providers, considered that venues already had good commercial incentives to protect their customers, in the sense that poor product quality, customer service or safety loses long run custom:

Indeed we would venture that the private sector providers' commercial incentives align almost precisely with those of the interests of their customers and offer the community the greatest safeguard against problem gambling of all...Client care remains a frontier of intense competition amongst rival firms in the gambling industry and this is a plus for consumers (sub. 155, pp. 104–5).

This argument has some flaws because venues have mixed incentives. Would it pay for a gambling venue to minimise the risks of problem gambling or to turn away at-risk gamblers?:

- Problem gamblers can be a very good source of revenue to a venue because their playing intensity is so great (chapter 7), and yet, unlike people who have excessively consumed alcohol, they are rarely highly visible or disturb other patrons (Anglicare SA, sub. 110, p. 4).
- The other view put by some gambling providers was that problem gamblers tended to spend a large amount over a short period, but then gave up gambling after 'treatment', so that it was more profitable for venues to encourage lifetime responsible gambling. If true, this might provide a commercial incentive for venues to control problem gambling. However, as shown in chapters 6 and 7, problem gambling tends to be enduring, many severe problem gamblers spend more in a year than many recreational gamblers do in a lifetime, and in any case, many problem gamblers aim to control, rather than give up their gambling after receiving counselling help.²⁴

The Commission considers that it is far from clear that venues have strong commercial incentives to avoid problem gambling. As McMillen has noted:

In many respects, the profit objectives of industry are in fundamental conflict with aspects of social policy. Ultimately, only governments have the capacity, authority and

²⁴ The Commission's *Survey of Clients of Counselling Agencies* suggested that 28.2 per cent of problem gamblers wished to control rather than stop their gambling. A further 8.6 per cent were undecided.

responsibility to develop informed policies which give paramount importance to agreed notions of the public interest (1996b, p. 68).

These points suggest that many gambling venues are unlikely to voluntarily take active measures to reduce risks or to withdraw gambling services from patrons whose pattern of consumption appears excessive.

Ethical incentives?

Venue operators, like other people in the community, are not only driven by commercial imperatives. From an ethical perspective, it appears likely that most venue proprietors would not want problem gamblers on their premises or to create an environment that is risky to their patrons. Deakin Human Services et al. (DHS 1997) found proprietors and venue staff had genuine concerns for their customers:

We know this one man was spending too much so we put a limit on him. We won't give him any extra cash. He can only play with what he comes in with in his pockets (p. 95).

We chat to the people so they don't press the button too quickly (p. 174).

I think our venue has done a lot of good for the community, but gaming in general, well it's caused a lot of problems for families. And that might not necessarily mean that they may have a huge gambling problem, but the extra things they may have given their families may now be going to venues like ours. At least at our venue we give it back. I guess there are problems that have always been with society, and I guess we're helping to take people's money away, and that's sad, but would it go somewhere else? (p. 175).

We had one lady who collapsed because she'd been on the machines for 8 hours without getting up and having a drink or something to eat. We had to call an ambulance and now when she's in we keep an eye on her and offer her coffee (p. 217).

Our age group is 45 to 50s plus because we're that type of atmosphere...some people are lonely and depressed and we provide a real social outlet for them. Some people sit on our machines all day and enjoy the tea and coffee and the service (p. 261).

On the other hand, from a commercial perspective they find it expedient not to think too closely about highly profitable customers who might be exhibiting the signs of problem gambling. Indeed, during a visit to a New South Wales club the Commission was told that following the installation of gaming machines in a nearby hotel they had lost a very good patron who spent thousands. When asked whether this person may have been a problem gambler, the proprietor said that he had not considered this issue, but admitted he might have been. The incentives not to identify or constrain problem gambling may arguably be greater in Victoria, where venues are required to achieve minimum rates of return in order to retain their machines.

Overall, it appears unlikely that the genuine ethical concerns that proprietors and venue staff may have over facets of problem gambling are likely to encourage systematic harm minimisation practices, especially given that each operator rationalises that any action taken alone may simply prompt the problem gambler to move on to another venue.

Can a duty of care create the right incentives for harm reduction?

The common law duty of care

The threat of legal action (under common law) by problem gamblers against venues which fail to ensure a sufficiently safe environment for gambling provides, in theory, incentives for venues to act responsibly. In general terms, under the common law a gambling venue has a duty of care to avoid foreseeable harm. If it provides inducements to gamble, serves alcohol to a gambler who has already consumed too much, or provides cash advances to gamble, then that might constitute a breach (Stoljar 1999). To be found negligent, the venue would have to fail to act in the way that a reasonable person would. The court could then award damages upon proof of adverse impacts.

Unlike prescriptive regulations the common law duty of care allows venues:

- to act flexibly to the risks that are peculiar to its clientele and nature. A small sporting club with a single poker machine that is infrequently used will appropriately invest much less into a program of harm minimisation than a casino.
- to balance the costs of harm reduction measures against their benefits. Prescriptive measures, on the other hand, could be introduced with costs considerably in excess of the benefits;
- to decide how to effectively implement a program of harm reduction. Prescriptive measures may be followed mechanistically, and miss important details that contribute to effectiveness; and
- to seek innovative or lower cost solutions to harm reduction.

On the other hand, legal redress may be an inadequate and expensive way of creating incentives for harm minimisation if it is hard to prove causal connections, there are malicious claims that succeed because of imperfections in legal processes or if there is an insufficient number of legal precedents. It is clear, for example, that legal approaches to problems related to tobacco consumption have considerably lagged strong evidence on its adverse health impacts.

As well, while monetary damages awarded to a problem gambler provide disincentives to irresponsible venues, they may not be easy to enumerate or appropriate for the problem gambler:

If we can establish breach of duty of care, then the thorny question of compensation remains. What compensation should a court award to a problem gambler who got drunk on free drinks and lost all his money? All his money back again? How do we prove how much he lost? The gambling provider didn't keep any records and neither did the gambler. Even if we can prove how much he lost and get it all back to the gambler, we may simply be enabling him to go and gamble it all again. We can't force him to pay his bills or use the money to support his family (Wesley Community Legal service, sub. D215, p. 4).

There have been a number of legal cases regarding problem gambling (box 16.9). However, the Commission does not consider that litigation will, in the near future, provide a sufficient basis for a non-regulated approach to harm minimisation. On the other hand, better specification of a duty of care (outside its more narrow common law basis) may remedy some of the deficiencies of a litigation based system — and is examined next.

Specifying a duty of care and voluntary versus mandatory codes of practice

The common law duty of care is relatively narrow and vague. One elaboration of the principle of creating legal incentives for care by gambling providers is to specify in statute a duty of care by gambling providers that they take all reasonable and practical steps to protect their customers from gambling problems (IC 1998 pp. 133ff). The difference between this and the common law duty of care is that it specifies that venues have some responsibilities to reduce the potential risks relating to problem gambling, whereas under the common law the presumption that they have any responsibility in this area would itself be under contest.

Such a statutorily defined duty of care may create incentives for a gambling provider to:

- train staff about problem gambling and its detection;
- provide signage about risks of problem gambling;
- referral to problem gambling services;
- care to avoid inducement or serving excessive amounts of alcohol to gambling patrons; and
- other harm minimisation measures (including location of ATMs, buying 'safe' machines and appropriate advertising).

Box 16.9 Legal cases against venues

Xenophon said that:

There is yet to have been a prosecution in terms of provision of credit, when I know from direct contact with people who have been given credit and from gambling counsellors, that in recent years since the introduction of gaming machines, the provision of credit — which carries a 2-year gaol term — is something that has been quite widespread, and I think that there are some real evidentiary difficulties and structural difficulties in the legislation in terms of enforcing that ...

... what you really need to put a rocket under the industry is to have a couple of prosecutions where publicans lose their licence for providing credit, given the public policy criteria behind it, [and] that this exacerbates problem gambling (transcript, p. 744).

Star City said that:

A number of test cases are currently before the courts involving people taking action against gaming operators after sustaining significant losses. These cases pose a significant risk to the gaming industry. Clearly, any operator who acts irresponsibly by illegally providing credit to a patron should be liable to civil action. However, Star City believes that gaming operators who abide by the law should not be held responsible for losses or bankruptcies sustained by players. This could open the door for action by anyone who overspends or over-commits themselves in the purchase of any goods and services. Gaming operators rarely know about the financial affairs of their customers so it is unrealistic to expect them to intervene and prevent people from betting. They do, however, have a responsibility to assist those who are known to have a gambling problem (sub. 33, p. 20).

In some cases, credit card companies have been sued for recovery of amounts lost by gamblers who have used cash advances from credit cards for gambling. For example, in 1998 a problem gambler sought damages from a credit card company and a New South Wales hotel for provision of credit for gambling (information provided by Wesley Community Legal Service).

Wesley Community Legal Service, in responding to the draft report said:

We are representing a number of problem gamblers in common-law type cases against gambling institutions ... It would be true to say that while these cases are useful from the point of view of testing the effectiveness of the law, they are an inefficient way of assisting problem gamblers. We would prefer to see the establishment of a fair but firm regulatory regime that picks up and prosecutes the few gambling providers who fail to meet the minimum criteria. Ideally, such a regime would be established cooperatively between government, industry and consumer representatives (sub. D215, p. 4).

The Public Interest Advocacy Centre noted:

... we want to highlight the fact that it's a very difficult, complex and expensive process and we don't necessarily see litigation as the answer ... It seems unlikely that litigation is going to be the route through which clear law is going to be established that addresses ...the... standards that have to be set in relation to service provision in the industry. Given the current rate, it would take an awfully long time before there are sufficient cases determined by the courts for the courts to ...consider how to balance the rights and responsibilities of both the clubs and the patrons ... we would see that another mechanism which would actually address consumers' losses or consumers' problems would be effective ... So that if there are enforceable codes, enforceable standards... then there is perhaps a general push for better standards throughout the industry ... (transcript, p. 1477).

The theoretical advantage of specifying a duty of care is that, other than describing some obligations, it does not need to specify the means by which any given venue deals with its clients. Any industry code of practice could be varied over time, and venues could find for themselves cost effective mechanisms to achieve reasonable and practical standards of care. Standards would vary according to the nature of the gambling environment. It is also possible that insurance markets might develop to deal with compensation risks faced by venues. Insurers would tend to monitor patron risks when determining premiums for individual venues. Insurers may also develop their own measures for reducing risks.

A typical feature of this type of regulatory system is that providers develop *voluntary* codes of practice for patron care — and in this sense it follows the self-regulatory model. Different providers develop different codes, and as they learn more about the risks their clients face and the costs of measures to abate those risks, they have incentives to develop better codes. The statutory duty of care may also make explicit references to such industry codes of practice, which, if observed by a venue, are sufficient to protect a venue from prosecution or litigation.

Reflecting a mix of public relations²⁵, ethical and (common law) legal concerns, many gambling providers have already developed codes of practice — and these would likely be improved were venue obligations of care to be further specified. Existing codes emphasise appropriate advertising, signage and pamphlets about the risks of problem gambling and the availability of help services, the training of staff to deal with upset patrons who openly exhibit their distress about gambling, and the responsible serving of alcohol to gambling patrons. Of these measures, *BetSafe*, an initiative of a number of large New South Wales clubs, represents the most thorough and coherent approach of its kind (box 16.10). But other venues have also developed comprehensive manuals and protocols for dealing with problem gamblers. Victorian hotels, for example, have a range of procedures in place:

There are all embracing Codes of Practice, an Independent Complaint Resolution Process — which includes final adjudication by an independent person appointed by either the Law or Arbitrators Institutes and support both a strict advertising code and a Self-Exclusion Program. These initiatives are meaningful, effective and have the full support and input from ...all sections of the industry. They have been in operation since February 1997... Under the codes, information about gaming, risks of problem gambling, problem gambling counselling facilities and self-exclusion arrangements are promoted in all venues. Our advertising code of ethics addresses responsible advertising and, under our code, ATMs are not permitted in gaming rooms and credit may not be extended (Australian Hotels Association, Victoria, sub. D237, p. 6).

²⁵ For example, the Victorian Gaming Machine Industry Code of Practice incorporates an accord between industry partners to ‘enhance the public image of the gaming machine industry’.

Venues in other jurisdictions have undertaken similar measures, though with difference in the detail (for example, South Australian clubs and hotels have instituted Guidelines for the Responsible provision of Gaming Machine Services).

Such voluntary codes of conduct for responsible gambling may play an important role in reducing the hazards of gambling in the venues which implement them seriously.

Box 16.10 *BetSafe*

BetSafe is a responsible service of gambling program put in place by a group of 11 New South Wales Registered Clubs. The initiative includes:

- developing brochures and signs promoting responsible serving of gambling and alcohol and information pamphlets on problem gambling and drinking
- developing a comprehensive policies and procedures manual, so that staff know what to do in order to reduce patron risks;
- third party complaints procedure;
- setting exclusion policies, including self-exclusion;
- comprehensive training of all staff twice yearly in dealing with problem gamblers;
- counselling of staff (a high risk group) for alcohol and gambling problems;
- guidelines for appropriate advertising and promotion of gambling; and
- a 24 hour counselling service available to club patrons.

In the first 9 months of operation, the *BetSafe* program:

- delivered training on responsible service of gambling to 1 045 staff. The program evaluated aspects of staff's ability to deal with problem gambling. For example, on a Likert scale from 1 to 10, prior to training staff had a rating of 6.5, 5.5, 7, and 5 respectively for knowledge of problem gambling, knowledge of the self-exclusion procedure, knowledge of problem gambler characteristics and ability to offer assistance. After training the scores were never under 9.
- conducted 216 counselling sessions for *BetSafe* Club patrons; and
- arranged 31 self-exclusions.

Source: Information provided by *BetSafe*.

There is some evidence that current venue practices assist problem gamblers:

- 19.8 per cent of problem gamblers who seek help for their problems found about help services from signs at a gambling venue;
- 13.6 per cent found out about these services from venue pamphlets, although

-
- only 1.5 per cent of problem gamblers who sought help turned to venue staff for any assistance.²⁶

There is also some evidence that the counselling services offered as part of these programs reaches a significant number of those who are ready to receive it. For example, *BetSafe*, covers around 400 000 patrons. Supposing that 0.5 per cent²⁷ of these were experiencing very severe problems relating to their gambling, then this represents 2 000 patrons, of which 216 (or about 11 per cent) have so far been assisted by the program. Since some others may have sought help elsewhere, the program, has the potential over a number of years, and with growing consumer recognition (sub. D250), to help a significant proportion of those who are willing to be helped. On the other hand, what a program like this cannot do so readily is to prevent people from developing the problems, and to cater for those with problems which are not yet severe. But other harm minimisation measures, in concert, may have this effect.

Not all industry representatives considered the *BetSafe* program appropriate. The Australian Hotels Association (Victoria) was concerned about its cost compared with the code of practice in place in Victoria. More particularly, they were concerned about the legal implications of defining venue responsibilities this way:

...we believe that the *BetSafe* program is dangerously interventionist, and places our venue and staff at a risk of duty of care well beyond that which would reasonably be expected (sub. D237, p. 4).

On the other hand, it could also be argued that as case law and heightened court awareness develops in this area, those venues that do not establish relatively formal measures to protect their customers are more legally exposed than those who apply less formal processes.

Some participants have criticised existing codes of practice. As noted by the Public Interest Advocacy Centre (sub. 174, p. 5):

... whilst mainstream gambling outlets may be happy to set and meet reasonable standards, the quality of a voluntary code is set by the more reluctant members of the industry. The result is a product of the lowest common denominator. The gambling sector is characterised by an enormous range in the size, professionalism and ethical commitment of the service providers... It is not an industry where all providers have a commitment to developing best practice. Nor are all providers amenable to positive influence from industry associations. It is therefore unsuited to voluntary regulation... Those who are the source of the problems would not comply with a

²⁶ These estimates are from the Commission's *Survey of Clients of Counselling Agencies*.

²⁷ And since this is a poker machine gambling group, not just a random slice of the adult population, it would be expected to be greater than this.

voluntary code. If a mandatory code were to be introduced, it would not only increase the protection available to people who choose to gamble, but also improve the image and public perception of the industry.

A particular concern is that venues which do not act responsibly by not deterring problem gambling may grow relative to those who do, simply because of the large expenditure share accounted for by problem gamblers. For example, the *BetSafe* Group of Clubs (sub. 250) that ‘having a non-*BetSafe* irresponsible venue down the road is a problem for consumer protection’.

McMillen and Toms (1999) assessed the Responsible Gambling Trial Program for New South Wales Registered Clubs. They found it had clearly had beneficial impacts on harm minimisation. However, they found differential acceptance and implementation of the principles:

A small number (mainly large clubs which implemented a range of core and optimal strategies) could be seen to be acting with ‘enlightened self-interest’. A minority of clubs can be categorised as ‘good corporate citizens’. The majority of clubs implemented a limited number of suggested program strategies and can be considered to achieve minimum compliance. A small number of clubs (2) in the trial did not achieve acceptable minimum standards of compliance ... Self-exclusion was supported in principle by most but rarely implemented (p. vi).

So, it appears that codes of practice, while useful, have been differentially implemented. The Australian Institute for Gambling Research (AIGR), drawing on the above evaluation and analysis of existing responsible gambling programs in Australia and overseas, concludes that:

Self-regulation is not adequate for an effective responsible gambling policy (sub. D216, p. 14).

In theory, if voluntary codes were *accompanied by a statutory duty of care of venues to patrons in relation to their gambling*, those venues which did not adhere to, or develop reasonable practices would be vulnerable to prosecution. This might place pressure on venues to lift their performance.

But the question arises as to whether, by itself, introducing a statutory duty of care — and then leaving the detailed approach to patron care as part of a self-regulatory model — would be sufficient. In some industries this approach appears to work well. For example, railway services in Canada allow for self-regulation of safety (Bickerdyke and Lattimore 1997, p. 50), and this appears to have worked because safety breaches are transparent, fault is relatively easy to determine and the large companies concerned are mindful of the impacts of safety breaches on their exposure to legal risks and loss of reputation. Establishing a duty of care could, in theory, internalise gambling costs, but only if it is relatively easy and cheap to

verify fault. However, in a gambling context, enforcement of a duty of care may be difficult:

- venues may argue that the gambler had developed problems or spent money in other gambling venues;
- they may point to a suite of (in fact, token) harm minimisation measures whose genuine effectiveness is hard to monitor ex post by courts or regulators;
- they may point to the difficulty in determining who is a problem gambler and therefore question the reasonableness of any active measures by venues to control problem gamblers; and
- some venues will argue, as has ACIL in its submission on behalf of major gambling providers, that any given instance of patron harm represents a pre-existing personality disorder, which is not determined by the environment of the venue but by the psychological make-up of the gambler.

On these grounds, it appears that there is a case for more prescriptive and mandatory regulations rather than voluntary codes of practices (whether embraced as part of a statutory duty of care or not), as proposed by some counselling agencies (eg Lifeline Canberra, sub. 96).

The next three sections explore some of the possible prescriptive elements that might be included in a regulatory approach to harm minimisation, and which are, in part, already featuring in New South Wales legislation (box 16.11).

16.7 Controlling accessibility

Opening hours

A recent trend in most jurisdictions has been an expansion in the opening hours of a number of gambling establishments. It has become more common for gambling establishments to open 24 hours a day each day of the week.²⁸

²⁸ But hotels and clubs in South Australia must have a mandatory 6 hour break each day, and in any event gaming cannot take place outside the hours the venue is allowed to supply liquor.

Box 16.11 New South Wales legislation on responsible gambling

The New South Wales Government has put forward a package of measures to address problem gambling in New South Wales. The three key regulatory elements of the package are:

1. the *Gambling Legislation Amendment (Responsible Gambling) Act 1999*.
2. subordinate regulations:
 - *Liquor Amendment (Responsible Gambling) Regulation 1999*;
 - *Registered Clubs Amendment (Responsible Gambling) Regulation 1999*; and
 - *Casino Control Amendment (Responsible Gambling) Regulation 1999*.
3. a review of gaming machine technical standards.

The first of these, the *Gambling Legislation Amendment (Responsible Gambling) Act 1999*, was passed by the New South Wales Parliament in October 1999 and received assent on 2 November 1999.

The main purposes of the Act are to further provide for the responsible conduct of gambling and to minimise the harm associated with the misuse and abuse of gambling activities.

Among other measures, the Act:

- provides that the responsible conduct of gambling at licensed premises and clubs are objectives of the laws governing these venues;
- provides for the approval of poker machines and amusement devices that are operated by cards instead of cash and enables the making of regulations with respect to the use of such cards;
- enables the making of regulations imposing further controls over the provision of credit for gambling, and advertising, promotions, signs and notices associated with gambling;
- further restricts minors from organising or participating in gambling activities;
- promotes arrangements by which people who misuse and abuse gambling activities can exclude themselves from hotels or registered clubs;
- allows court ordered participation in gambling counselling for people who breach an order excluding them from the casino; and
- enables a court to require corrective advertising to be published, or training in the responsible conduct of gambling activities to be undertaken, as a penalty for breach of regulations dealing with advertising relating to gambling activities.

Source: NSW Department of Racing and Gaming, Sydney, pers. comm., 25 November 1999.

Increased opening hours are likely to lead to longer duration of play and greater expenditure by problem gamblers. This is because it removes a possible control mechanism for excessive gambling for people with incipient or current problems,

who might otherwise have timed their gambling just prior to a venue closing.²⁹ Some participants suggested shorter opening hours (for example, sub. 94, p. 2). In some other countries, accessibility to gambling is considerably tighter than in Australia.

Even so, restrictions on opening time would probably have few significant positive social effects, unless made draconian by current standards. Most problem gamblers do not gamble every day of the week, nor for extremely long hours. Controlling hours of opening — say to 6 days a week for 18 hours a day — would probably lead to some minor re-arrangement of the scheduling of gambling, without significant cuts in expenditure or total time played. Problem gamblers are more likely to still play, even at a marginally more inconvenient time, because they are unresponsive to price (either in a dollar form or as an intangible cost). Recreational gamblers, on the other hand, would have their recreational options circumscribed.

What would be the effects of quantity restrictions on other forms of gambling?

Poker machines, as a relatively new mass form of gambling, are subject to sometimes complex capping arrangements, while other mature gambling forms are not. This probably reflects a desire by governments and communities to temper adverse social impacts by a somewhat cautious process of liberalisation.

However, while there appears to be less concern about longer established forms of gambling, like lotteries and racing, these gambling forms have also been transformed technologically:

- races are much more frequent (sub. 104, p. 6). In the past, race meetings were relatively infrequent — mainly on a Saturday. Races are now run on a daily basis. In New South Wales, 3 146 race meetings were held in 1996-97 (DGR 1998a, p. 113). People can now also bet on races held throughout Australia (and even overseas) via the phone or internet; and
- there are more lottery products, such as scratchies, and more frequent draws.

The changing nature of these mature products suggests that governments and communities should use a common framework across gambling modes for assessing and reducing the social risks of gambling, of which quantity restrictions are just one *possible* tool. Thus, while none are currently in place, there are a number of options for introducing quantity constraints akin to those applying to poker machines.

²⁹ Data from the Nova Scotia survey of problem gamblers suggest that venue closure was a reason why gamblers stopped gambling, when they might otherwise have continued.

The basis for restrictions on conventional lottery outlets appear slight as this form of gambling has few serious adverse social impacts. However, there may be grounds for controlling the accessibility of high frequency, low payoff lotteries or similar games, such as Keno. This is because an increased frequency of playing, combined with any shift in the payout distribution away from a few large prizes to many smaller ones, may initiate some of the sequences of problem gambling — such as chasing losses. Notably, in the UK the Government has moved to restrict the frequency of on-line lottery draws to no more than one a day.³⁰

Alongside poker machines, wagering represents the biggest source of problem gambling (chapter 6). Yet wagering is subject to few controls intended to remedy these risks, nor are the panoply of possible control mechanisms for poker machines technically possible for racing. This raises the question of whether any controls on the accessibility of racing may be effective in reducing problem gambling?

While TAB outlets could be capped, this would probably have almost no impact since punters can make a phone bet. However, restrictions on the number of races might have a bigger effect and have been advocated by some leading racing figures. For example, leading trainer, Bart Cummings, is quoted as saying:

There seems to be a competition going on to see who can run the most race meetings to bet on. The industry will self-destruct the way it's heading. The whole of Australia is becoming like Las Vegas ... Here gambling is king. It's a sad state of affairs. (*Daily Telegraph*, 3 June 1999, p. 66).

The impacts of restrictions on the frequency of races would have different effects to those applying to poker machines:

- since one person experiencing and betting on a race does not deny anyone else that experience³¹, there would be no increase in the price of betting or congestion effects;
- the quality of races would tend to rise, because the racing industry could choose from the same pool of talent for a more limited set of races;
- it would tend to re-emphasise the importance of skill in making bets — punters would tend to pay closer attention to the 'form' since they would have the time to do so;
- reducing the frequency of races, would provide a natural break for those with, or developing, gambling problems to change their mind about chasing losses. It

³⁰ The measure was proposed 'to discourage socially damaging excesses and to protect the vulnerable' (Home Office 1998b, p. 2).

³¹ That is, races are non-rivalrous in consumption.

would also increase the ‘window’ of time in which they have to control their impulse to gamble.

On the other hand, such a measure may have some undesirable side-effects or could be circumscribed by many punters:

- it would have adverse impacts on some punters who enjoyed more regular playing;
- it would generate some short term adjustment costs for the racing industry which is geared to the current arrangements;
- it is possible that race betting would migrate overseas with international phone or internet betting. For similar reasons, any proposal to limit the number of races would probably require interstate cooperation; and
- some punters may switch to other sports events, which by their diverse nature and different purposes, could not have their frequency controlled.

These disadvantages, combined with the likelihood that sports betting will at some point overtake racing as a wagering form, suggest that stringent controls on racing frequency are probably not an attractive option for harm minimisation.

Under age gambling

Most state and territory governments regulate the age at which people can legally gamble, thus limiting the accessibility of minors to gambling. The restrictions — which are not contested by the gambling industry — are presumably intended to reduce the social impacts of gambling, and presuppose some level of hazard associated with playing, such as a reduced ability to make responsible judgments and a heightened risk of problem gambling for the young. It does appear that young people are more vulnerable to problem gambling than older ones (Shaffer et al. 1997), so that the bar on access to minors probably has a significant positive impact in reducing problem gambling among this group.

Even so, as indicated in chapter 6, many minors do in fact gamble, and overseas research suggest that notwithstanding its illegality, a significant share experience problems associated with their gambling. Some counselling agencies report that problem gamblers often had their first experience of gambling well below the minimum age at which gambling becomes legal. Griffiths (1998) in the UK has suggested that parents often act as proxies for their children when purchasing gambling products (eg lotteries and wagering). And informal gambling, which is outside the control of any gambling supplier is also a common feature of youth gambling. Moore and Ohtsuka (1997) found that Australian minors tended to play

gambling forms that are hard to detect, such as bingo, pool, card or similar games for money, rather than wagering, table games or gaming machines in gambling venues. A 1996 study from the University of Western Sydney (Jones 1998) found that about 60 per cent of teenagers from Western Sydney gambled at least sometimes. Gora (1998) summarising Australian research, indicates that betting on the outcomes of video arcade games is the most common form of teenage gambling, followed by pool and snooker games and scratch cards.

Some submissions noted violations of the law by gambling venues relating to minors:

Festival of Light has received several reports of minors aged 13-15 buying scratch lottery tickets or gambling on poker machines in hotels, without being asked for proof of age....current lottery and gaming laws and regulations relating to protection of minors are inadequate. Even the adequate sections are neither widely known (even by government officials), nor policed (sub. 107, pp. 3-4).

It is clearly important that existing statutes regarding gambling by minors in gambling venues be policed effectively by venues (including newsagents selling scratch lottery tickets), with appropriate penalties for non-compliance. Regulatory agencies should adopt a risk-management approach, targeting venues where complaints about access by minors have been lodged. However, it appears that most youth gambling takes place in contexts where legal sanctions would be ineffective or unwarranted (such as at home). It is not clear that extensions to legislation to widen the scope for detecting and abating gambling by minors is necessary or would be effective. On the other hand, youth gambling entails some risks, and its illegality may reduce their willingness to seek help for gambling problems that develop — which reinforces the case for raising awareness in children about gambling risks and for promotion of help services (chapter 17).

Other aspects of accessibility

As noted in chapter 8, accessibility also includes the ease of use of the gambling technology, its social accessibility, the initial outlay required and any entry conditions. None of these aspects of accessibility look promising as mechanisms for alleviating risk, without occasioning other substantial social costs:

- the high degree of social accessibility of clubs and hotels for new groups of gamblers — particularly women — is one of the advantages of poker machines. These venues represent safe and pleasant environments for people who may otherwise have had relatively poor community facilities at their disposal (Carter 1998). The high degree of social accessibility, does, however increase the stakes for appropriate reduction in the hazards of poker machines for those who use them;

-
- the initial outlay when playing poker machines can be very small. It seems highly likely that the rapid growth of smaller denomination machines in the late 1980s was a major factor underlying the growth of demand for poker machines. Such machines have enormous flexibility, so that a gambler can play at very different levels of intensity, and by varying their playing style, can shorten or lengthen a session of gambling. Any significant increase in the minimum denomination would probably lead to a reduction in gambling by many recreational gamblers, with uncertain effects on current problem gamblers; and
 - Australian gambling venues have very light entry conditions. Clubs notionally have the strongest entry requirements, with some minimum dress standards and the requirement to be a member. However, joining fees are extremely modest and represent no real barrier to entry. People may enter at any time and gamble immediately in all venues. No pre-arrangement for gambling or delayed entry after membership is required in Australian casinos, as occurs in some European casinos. It is unlikely that community norms would favour the introduction of significantly tougher entry standards, such as pre-arrangement of a gambling visit or higher dress standards. In particular, even while such a measure might have some effectiveness in controlling problem gambling, it would be difficult for multipurpose venues, like clubs and hotels, to implement the policy for gambling, without having to do so for other amenities, such as serving alcohol or food.

16.8 Controlling the venue environment

Participants in the inquiry suggested a number of changes to the design of venues to reduce problem gambling (box 16.12) though the benefits of these were questioned by the industry. These measures were mainly intended for gaming machine venues, which are the prime source of problem gambling.

Anglicare (SA) summed up their concern about the way gambling environments deny consumers informed consent when gambling:

Many of the subliminal cues presented to, or denied by, the gambling environment, are conducive to facilitating excess rather than restraint. We find it disturbing that many of the environmental conditions that subtly manipulate players are allowed to exist without sanction. ...Specifically, we are referring to environmentally induced conditions which contribute to dissociating the person from the reality of the time and money spent, altering the states of mood or level of arousal and facilitating the opportunity to chase losses (sub. 104, pp. 44–5).

Concerns about the gambling venue centre on:

- aspects of the venue design, such as lighting and clocks;

-
- access by patrons to credit and automatic teller machines; and
 - venue policies for problem gamblers, such as responsible service of gambling and self-exclusion policies.

Box 16.12 Changes to gambling venues suggested by stakeholders

The following matters need to be addressed: strategic positioning of clocks in venues in range of patrons' vision; venues to have access to natural lighting; EFTPOS receipts to state the balance of funds remaining in the account after a transaction; all gaming venues to have signs on display, indicating the contact telephone number of Break Even gambling rehabilitation services (Anglicare SA, sub. 104, p. 48).

Gaming venues should have windows and where these already exist, venues should not be required to take these out for the purpose of gaming (Springvale Legal Service, sub. 17, p. 10).

A gambling environment code [should] be developed including ...mandating the use of standard office lighting in any gambling venue, mandating the use of clearly visible, large and accurate clocks in any gambling venue ... (Adelaide Central Mission 1998, p. 28).

Design of the venue: clocks and lighting

In particular, a recurrent claim by care agencies was that the absence of clocks and natural lighting contribute to excessive play by detaching people from the outside world or creating a timeless environment (sub. 98, p. 6).

ACIL dismissed the notion that clocks were needed:

It is foolish to say that consumers are deprived of the means of keeping track of the time they spend gambling — nearly everybody these days wears a wristwatch (sub. 155, p. 81).

The Commission agrees that wall-mounted clocks would probably do little to ameliorate problem gambling, while a provision for natural lighting would be potentially very costly for many existing gambling venues, with unknown efficacy. On the other hand, problem gamblers appear to be often unaware of the passing of time (regardless of whether they are wearing a watch or not) so that re-design of the way poker machines and gamblers interact may be advantageous. That issue is taken up in section 16.9.

Access to credit, ATMs and cheque cashing

All jurisdictions prohibit the provision of credit by the venue to poker machine and casino gamblers, and ensuring this requirement is met is a feature of industry codes

of conduct (including the Draft Model Code for interactive home gambling). For example, under the Victorian *Licensed Venue Operators Code of Practice*, venue operators have agreed:

6. To prohibit any form of credit being available for gaming machine play by patrons (p. 10).

The *Crown Limited Code of Practice* says:

10. ... Crown does not generally operate cheque cashing facilities for patrons visiting the casino.
- 11 ... Automatic Teller Machines are not permitted within the licensed gaming envelope.
- 12 ... Crown will not extend any form of credit to any of its patrons who reside in Australia.
- 13 ... EFTPOS machines for cash transactions are not permitted within the licensed gaming envelope.

In New South Wales the codes of responsible gaming prepared by the registered Clubs Association and Star City also require ATMs to be away from the gaming floor, in another area such as reception. The best practice guidelines issued by the Department of Gaming and Racing also suggest this, as a way of giving the problem gambler:

- ... more time to ponder the implications of increasing her/his expenditure (IPART 1998, p. 55).

But notwithstanding these codes of practice, several participants, such as Wesley Gambling Counselling Services (sub. 26), BetSafe (sub. 172), Adelaide Central Mission (sub. 108), the Public Interest Advocacy Group (sub. 174) and Xenophon (sub. 98), claimed that credit has been made available to gamblers at a number of venues. They argued for greater efforts in enforcement of the prohibition on credit. Adelaide Central Mission argued that enforcement was a problem:

Through our service delivery, we are aware of numerous breaches of the credit provisions of the code. Existing provisions lose their teeth if there is neither resources nor commitment to ensure their enforcement. We are not aware of any successful prosecutions of code breaches.

... credit legislation should be vigorously enforced and ... serious consideration should be given to removing licenses for repeated offences ... (sub. 108, pp. 19–20).

IPART noted suggestions of lack of enforcement in New South Wales, and considered that it may be caused by a ‘lack of clarity’ in the drafting of the relevant legislation. It recommended review of the Registered Clubs Act and Liquor Act:

- ... to ensure that the provision of credit by gaming providers for the purposes of gambling is clearly and unambiguously prohibited (recommendation 5.5).

With respect to enforcement of this and other requirements of the gambling laws, Xenophon suggested changing current law to implement:

... a reverse onus of proof approach ... placing a greater degree of emphasis on venues acting pro-actively in the provision of gambling products. Further, a system of expiation notices for a number of offences, including minors being on premises should be implemented which will enable a greater degree of tracking of compliance [with] existing laws (sub. 98, p. 8).

He also argued for a credit prohibition to be extended to all gambling codes, expressing concern about the South Australian TAB's introduction of a telephone betting credit card.

But customers can, of course, obtain access to their own funds (and credit from any linked credit card account) from the ATMs that are commonly placed within venues for the convenience of customers. Several gambling counsellors expressed concern that their availability in or near gambling venues contributed to the problems of some of their clients. Xenophon said that this was a 'recurring theme' in his discussions with gambling counsellors and problem gamblers. In his view:

EFTPOS and ATM facilities should be removed from gambling venues, or at the very least their access be restricted for the payment of food and drink only (sub. 98, p. 8).

Adelaide Central Mission said that:

In the gambling industry the introduction of another form of credit facility or mode of transferring cash just adds to the risk of harm for problem gamblers (sub. 108, p. 22).

But others have noted that unduly restricting ATMs could cause inconvenience³² to patrons and others. For example, the Club Managers Association Australia and Leagues Club Association of New South Wales said that the Mathoura Bowling Club operates the only EFTPOS terminal in Mathoura, a New South Wales town of some 800 people (sub. 41).

A critical issue is the extent to which ATMs are used by problem gamblers relative to others, how much money is withdrawn, and the number of repeat transactions by a given customer. The Commission approached a major bank on the issue of repeat usage, but they did not collect this information. They were, however, able to indicate the relative importance of ATMs in pubs and club sites relative to those in other locations (table 16.6). They indicated that they had sited ATMs only in pubs and clubs with gaming. The average usage of ATMs in such gaming locations was

³² The concept of consumer inconvenience should not be taken lightly. However, it is also well to bear in mind that at the time that compulsory safety belt introduction was being mooted, many people argued that they were very inconvenient, caused 'emotional discomfort', 'gave no real protection' and only 25 per cent of people reported always wearing them (Freedman et al. 1971).

less than in ATMs in other locations. Such ATMs accounted for around 14 per cent of total cash withdrawals from their offsite network.

Table 16.6 The use of ATMs in pubs and clubs versus other locations

A major Australian bank

<i>Location of ATM</i>	<i>Share of offsite network</i>	<i>Share of withdrawals</i>
	%	%
Shopping centres	46.7	56.1
Pubs and clubs ^a	24.2	14.0
Other	12.1	11.3
Tourist	9.7	13.7
Petrol station	5.6	4.0
Hospital	1.7	0.9

^a The average number of cash withdrawals per day was around 75 per ATM in club/pub ATMs.

Source: Information provided by a major Australian bank to the Commission.

The Commission assessed the degree to which problem gamblers tend to use ATMs relative to recreational gamblers (table 16.7). The large bulk of recreational players never used an ATM at a venue when playing the poker machines, while the large bulk of problem gamblers did so, with one in five problem gamblers *always* doing so.

Table 16.7 How often do you withdraw money from an ATM at a venue when you play the poker machines?

	<i>Never</i>	<i>Rarely</i>	<i>Some-times</i>	<i>Often</i>	<i>Always</i>	<i>Can't say</i>	<i>Total</i>
	%	%	%	%	%	%	%
Non-problem players	78.2	11.8	5.0	1.4	3.2	0.4	100.0
Problem gamblers (SOG 5+)	34.6	12.4	15.1	16.5	21.3	0.0	100.0
Problem gamblers (SOGS 10+)	18.2	7.0	16.1	34.8	23.9	0.0	100.0

Source: PC National Gambling Survey.

A number of measures could be considered for restricting access to funds in gambling venues:

- restrictions on the nature of ATMs in gambling venues. They could, for example, have lower daily maximum withdrawals, exclude credit withdrawals, allow only one withdrawal per customer per day and have clearly posted warnings to consumers about problem gambling.
- an outright ban. This would inconvenience people who wish to gain access to funds for food or other services at a gambling venue, but these costs may not be large, once people anticipate that gambling venues do not offer fund withdrawal

services. It may also have adverse security impacts of customers if they are forced to use an ATM on the street, rather than inside the venue. But, against this, restricted access to funds is likely to temper problem gambling behaviour because it allows a problem gambler an easier way of setting and keeping to a budget, and allows them time to re-consider if they leave a venue to obtain more funds from a more remote ATM. The grounds for such a ban would be stronger if no other harm minimisation measures were undertaken.

Cheque-cashing is similar to ATMs in that it provides gamblers with convenient, instantaneous and repeated access to potentially large sums of money at a venue. It is subject to the same concerns as ATMs. **The Commission considers that, in principle, cheques should not be cashed in gambling venues.** This should also apply to cheque cashing for non-gambling items in such venues, such as food or alcohol. This is because it would be too easy to circumscribe the intention of the regulation to restrict access to gambling funds if patrons were able to secure cash for other goods and services.

However, a number of exceptions may be considered to this general rule. First, hotels sometimes act as de facto banks in rural Australia:

Hotels often provide a financial service to people, particularly in regional and rural areas wishing to access cash and credit facilities after hours. In some regional areas hotels cash thousands of cheques a year because there are no financial institutions in the area... For many people living and working on isolated properties, hotels serve as their local bank. (Australian Hotels Association, sub. D231, p. 70).

This suggests that cheque cashing should be permitted in rural hotels or clubs where the venue acts as a de facto bank, so long as each venue with cheque clearing facilities is registered with the regulatory authority and maintains appropriate records of transactions.

Second, there are also grounds for exempting casinos from this requirement, but only for high-rollers and where this facility has been pre-arranged.

Withholding alcohol from gamblers?

It is sometimes argued that gambler's judgement is impaired by alcohol, and that gambling should therefore take place in an alcohol-free environment. This presupposes that alcohol consumption increases the adverse outcomes associated with problem gambling.

The evidence is unclear. The Nova Scotian study of VLT players found that problem gamblers more often reported having played VL machines when they had too much to drink (35 per cent of problem players compared with 23 per cent of

non-problem frequent players). However, the study also showed that as a group problem players tended to drink overall rather less than other players. And in response to losing on the machines, problem players were much more likely to drink *less* than other players (24 per cent compared with 5 per cent for frequent non-problem players).

Tabcorp (sub. D286, p. 2) also provided survey data that suggests that regular gamblers were much less likely to have used the bar facilities of a hotel venue during their visit than occasional or infrequent gamblers.

It appears likely that excessive consumption of alcohol would have some impacts on gambling judgement, but that normal amounts of consumption have few adverse effects. For example, Breslin et al. (1999) examined the impact of moderate levels of alcohol consumption on betting behaviour, and found no evidence that it affected betting choices. However, the setting was experimental and so might not carry over to gambling venues.

Barring alcohol from gambling venues would have significant adverse impacts on recreational gamblers, since its consumption is a key feature of visits by many to such venues. For example, in a venue survey it was found that about one quarter of gaming machine players used the bar facilities, and most of these rated their experience at the bar as either very enjoyable or quite enjoyable (sub. D286, p. 6). There are, however, grounds for trying to prevent excessive alcohol consumption and existing codes for the responsible service of alcohol in licensed premises already aim to do this. There may also be grounds for limiting or proscribing free alcoholic inducements for gamblers.

Venue policies for problem gamblers

Identification and active help by venues

In the case of alcohol, it is illegal to sell alcohol to someone who is intoxicated. This raises the question of whether venue staff could also withdraw gambling services from a gambler experiencing problems, as advocated by a number of inquiry participants (eg sub. 112). There are certain indicators of gambling behaviour that may help identification. The cashing of cheques, asking for credit, the duration and frequency of gambling sessions, and behavioural signs (like swearing at or hitting a poker machine) are all potential indicators of problem gambling. Evidence from surveys, such as the Commission's *National Gambling Survey* and the Nova Scotia survey, suggest that a few combined factors (regular gambling, high expenditures, style of play) provide indicators of risk.

In the draft report, the Commission floated the idea of the development of a regulated requirement for withdrawing gambling from a person whose behaviour clearly suggests excessive gambling, such as persons who have played for periods of time that are considered excessive (for example, over 8 hours of continuous play), who shows visible distress about their gambling, or who attempt to get credit or a cheque cleared to gamble further from venue staff.

But there are some major drawbacks to this approach.

First, even if a small set of traits are good indicators of at-risk patrons, they will not be perfect. Venue staff who are questioning the level of involvement of an apparently at-risk gambler will inevitably wrongly categorise some people, risking giving considerable offence. During the course of the inquiry, gambling establishments have reported that their ability to identify problem gamblers is poor. In its submissions, Star City casino reported that measures for identifying problem gamblers would need more detailed and intrusive information gathering across a broad spectrum of customers than currently exists, including frequency of gambling (of all types), amounts gambled, financial and personal situation of the individual, effects on family and other relationships, psychological screening and other factors (sub. 33, p. 18 and sub. D217, p. 21). And even though existing provisions for responsible service of alcohol are based on subjective judgements by venue staff, arguably the level of subjective judgement required to identify a problem gambler are of a different and substantially greater order.³³

Secondly, and as a result of the difficulty in identifying problem gamblers, to require intervention would place the venue at risk of vexatious and opportunistic litigation by patrons who lose money gambling and then claim that the venue failed to intervene when there were apparent (and non-verifiable) signs of a ‘problem’.

Thirdly, even successful identification of a problem patron and withdrawal of gambling services may achieve little if the patron can go to another nearby venue, or if staff are not appropriately trained to provide help (such as a referral for counselling) to the gambler. Against this, however, it may jar such people into the

³³ In determining whether a person is intoxicated venue staff use a whole range of ambiguous signals, such as: is the patron boisterous, showing decreased alertness, changing their type of drink, or bad tempered? (from a pamphlet from New South Wales clubs about the responsible serving of alcohol). It might be supposed that if venues serving alcohol are able to use such ambiguous signals in an intelligent way to reduce over-consumption of alcohol, then they could also use similar processes for identifying and dealing with ‘over consumption’ of gambling. Tully (1994), for example, has developed an approach for venues wishing to implement responsible service of gambling. But, there is a point where it may be too much to ask a venue staff member to exercise judgement in an area where even experts disagree as to the appropriate diagnosis (Star City Casino, sub. D217, p. 21).

realisation that their behaviour is now appearing problematic to others, which may hasten assistance.

While it would clearly be appropriate for venues to take action when a patron is showing obvious signs of distress with their gambling, the Commission, on balance, does not consider that venues should be required by statute to withdraw gambling from patrons exhibiting behaviours that may be associated with problem gambling. This of course would not negate the use of common law remedies were a venue to act in a way that was patently unreasonable.

Self exclusion

Many gambling providers operate self exclusion policies. Identification of gambling problems in these cases is undertaken by the gambler rather than by the venue. They typically sign an undertaking not to gamble in that venue and can, if subsequently detected, be removed from the venue during the exclusion period, and charged with an offence. An exception is the Northern Territory, where no statute exists for facilitating these arrangements. Instead, there a venue may be legally liable if a self-excludee manages to escape detection and gamble. This has led to a convoluted legal process in arranging self-exclusions, rather than the more simple procedures used in States like New South Wales.

The Commission considers that self-exclusion should take the form of a simple contract written by the problem gambler with the gambling provider, with the gambler, not the venue, being liable for violation of the contract. However, a venue should make reasonable attempts to enforce the exclusion contract (eg by making staff aware of self-excludees). This approach (which is already employed in some jurisdictions, such as in New South Wales) could be applied across all Australian jurisdictions. As a matter of course, any gambler who signs such a contract should be referred for counselling (as exists, for example, in Star City Casino's and the *BetSafe* Group of Clubs' approach).

The penalty imposed on a gambler in breach of a self-exclusion order should take the form of a non-financial penalty, such as a community based order (unlike, for example, arrangements in Victoria, where up to a \$2000 fine is imposed). This recognises that problem gamblers' difficulties are principally financial in nature and that monetary penalties may create incentives for more gambling (to make up the loss) or impose hardship on the families of the problem gamblers (sub. 17, p. 6).

Also, the Commission considers there are grounds for mandatory signs in any gambling venue that indicate that any patron may self-exclude, and accompanying pamphlets that explain how self-exclusion works.

Some participants indicated that not all venues took self-exclusion approaches by problem gambler seriously.

It is disturbing to note the experiences clients disclose about their unsuccessful attempts to self-bar prior to contact with our service. Responses included being told: “Don’t be silly, see you tomorrow” (Anglicare SA, sub. 104, p. 25).

Arguably, it should be mandatory for any venue to act on an attempt by a patron to self-exclude. Failure to do so should be seen as a failure to responsibly provide gambling services.

Self-exclusions are probably most effective for table games at casinos³⁴. They may be of significant value in other gambling venues too, even if they cannot be completely enforced, simply by requiring the gambler to recognise their problem.

These clients are usually pursuing abstinence goals, rarely visiting other venues without considerable effort (Anglican Community Services, sub. 104, p. 25).

Whilst it may be seen as of limited usefulness when the problem gambler can just go to another venue, experience has shown that such a contract is a major step in a problem gambler’s treatment and that they are much less likely to relapse if such a commitment is made in writing (BetSafe Group of Clubs, sub. D250).

The Victorian codes also provide for support of a unique Self Exclusion Program which to date has seen over 850 deeds taken out by over 600 people. 250 people have entered a second deed. The deeds may be entered for a period of between six months and two years ...there is no cost to the patron attached to the program. This is a program that works. This prevents problem gamblers from gambling. We were advised by problem gambling counsellors that it was necessary for the problem gambler to voluntarily seek the self-exclusion program after receiving a program of assistance from the counsellor, because this would result in a very therapeutic outcome for the problem gambler. However, we also promote the program through our venues and to date a little over half of all deeds have come about from non-gaming counsellor referrals (Australian Hotels Association, Victoria, sub. D237, p. 5).

The principal drawback of existing self-exclusion arrangements is that a gambler who periodically loses control may circumvent the measures by going to other venues where a self-exclusion contract is not in place. Some codes for self-exclusion partly overcomes this by circulating photographs of the excludee to all relevant venues and committing the person to self-exclusion from this group of venues simultaneously. There may be value in adopting these arrangements in all jurisdictions.

³⁴ Springvale Legal Service (sub. 17, p. 5) suggested that there were some doubts over the effectiveness of exclusion orders, even for casinos, citing the case of one gambler who was charged with 13 breaches of the Casino exclusion orders in Victoria.

It may be that other, less readily circumvented technologies for self-exclusion may make this an even more effective measure for limiting the harms from problem gambling (see pre-commitment in section 16.9). The internet is already using some of these approaches (chapter 18). Existing approaches in physical venues may be weakened if there is a substantial increase in the number of self-excludees, as this will make it more difficult to monitor whether they try to gain entry to the premises. But overall self-exclusion is a useful adjunct to responsible gambling policies.

16.9 Controlling game features and design

Evidence from population surveys and problem gambling services suggest that gaming machines are the prime source of risk for consumers. This risk arises from their continuous nature, the ability to progressively increase the bet size per gamble, the relative absence of moderating social factors, and the structure of the payouts.

Many consumers, however, report reasonable levels of satisfaction with playing the machines. The question is whether changes could be made to the machines in such a way to reduce hazards, without significantly diminishing recreational gamblers' entertainment.

Participants in this inquiry advocated many possible changes to gambling technologies to address problem gambling and increase consumers' informed consent (box 16.13). The Commission also posed a series of possible harm minimisation strategies to problem gamblers receiving counselling assistance (table 16.8).

Problem gamblers were, in general, in favour of almost any measure which would increase their control over gambling and/or reduce accessibility. However, a majority were opposed to the idea of reducing the odds of winning as a deterrent to play, while measures such as removing linked jackpots, and not serving alcohol to people while they were gambling received more equivocal endorsement than other measures.

The Netherlands recently developed a series of proposals for controlling problem gambling on poker machines — the Nijpels model. This included automatic payout of winnings above 200 credits, a win bank, enforced breaks, more stringent betting limits, longer elapsed time between button presses, changes in lighting and sounds on the machines, and no bill acceptors.

While some of the proposals put forward in the Nijpels proposal appear unworkable in their current form in an Australian context, the Commission strongly endorses the idea that the way people and poker machines interact should be subject to scrutiny

to see if there are prospects for harm minimisation. We considered a number of options for control, which have some a priori or evidential support.

Box 16.13 Machine design changes?

These initiatives could include ... modifying EGMs to insert digital time reminders and electronic voice challenges to 'continuous' gamblers...The United Kingdom 'Mandrake' software technology ought to be added to all gaming machines to scan the faces of players and refuse access to those who have been excluded from venues (Springvale Legal Service, sub. 17, p. 6, 8).

Electronic gambling machines [should] be so designed or modified so...that a delay of at least 4 seconds be incorporated between the end of one betting cycle to the commencement of the next; that the machine releases a pay out into the coin tray when the total credits exceed \$10; that multiple bet machines be limited to three times the single bet value of the machine; that the machine automatically shuts down for 5 minutes after a jackpot exceeding \$50, that there be no light and sound shows associated with any win on the machine; that the highest monetary coin or note accepted by machines be restricted to \$1 (Adelaide Central Mission 1998 p. 29).

Reports from overseas indicate that Australian-designed poker machines are more addictive than their US counterparts...a change in design to make them less addictive in the meantime would be desirable (Festival of Light SA, sub. 107, p. 11).

Many clients of our Foundation's mental health practitioners report that the introduction of note acceptance facilities on some electronic gaming machines have significantly increased their ability to gamble more money in shorter periods of time. Such technology removes the requirement for gamblers to break their gambling session to obtain change to continue gambling, thus removing opportunities to reflect on the gambling activity and the amounts which are being gambled. Similarly, the provision of roaming change vendors on some larger venues is a process which many problem gambling clients criticise as contributing to their gambling difficulties... (Mental Health Foundation of Australia sub. 51, p. 10).

It is recommended that...the credit display be converted to a recording of dollar display; digital clock displays be inserted in the top right corner of screens, Return to Player rate (RTPR) to be displayed on machines; "Health/Wealth" warning be displayed on all machines; machines be positioned to allow a minimum of two people to comfortably be able to sit in front of a machine, with accompanying seating provided; and in particular the pace of gaming cycle be extended to 6 seconds, machines to automatically shutdown for 20 seconds after wins 250 times the original bet; and machines to release payout into coin tray after wins of 100 times the original bet (Anglicare SA, sub. 104, p. 51).

Table 16.8 Attitudes of problem gamblers to the effectiveness of harm minimisation measures^a

	<i>Would not work</i>	<i>Would work a bit</i>	<i>Would work well</i>	<i>Total</i>
	%	%	%	%
The education system should teach children about the risks of gambling and how to understand odds	12.2	42.7	45.0	100.0
Information about the odds of winning in any particular gamble should be clearly displayed (eg on a poker machine)	20.3	36.5	43.1	100.0
Venues should put up signs warning customers of the risks of gambling	24.0	34.5	41.4	100.0
TV and radio advertising campaigns should be used to make people aware of the risks of problem gambling	8.7	36.9	54.5	100.0
Promotion of gambling should be banned	19.7	29.2	51.2	100.0
Technology should be developed allowing gamblers to self-exclude from gambling, if they wish to	14.3	35.2	50.5	100.0
Counselling services should be advertised on national TV and radio	3.9	27.2	68.9	100.0
Automatic teller machines should not be located right next to where people gamble	7.9	17.6	74.5	100.0
Technologies should be developed allowing gamblers to set limits on their gambling, if they wish to	17.2	27.7	54.7	100.0
Winnings over a certain amount should be paid by cheque (eg over \$200)	17.6	27.7	54.7	100.0
The odds of winning should be reduced to make gambling less attractive	55.6	24.8	19.6	100.0
Technologies should be developed allowing gamblers to track their gambling spending over time	20.5	43.8	35.6	100.0
Gambling venues should not be open 24 hours a day	16.3	27.0	56.7	100.0
Alcohol should not be served to people while they are gambling	35.5	32.4	32.1	100.0
Venues should have windows and clocks so that people know how much time they have gambled	22.0	33.9	44.0	100.0
Poker machines should only be able to take coins and not notes	19.7	34.2	46.1	100.0
Poker machines should have enforced breaks in play so players can think about whether they want to continue gambling	23.3	37.0	39.6	100.0
Poker machines should be far less accessible in local communities	6.0	27.2	66.8	100.0
Poker machines should remind the gambler how long they have been playing, and ask them if they want to continue	19.9	40.3	39.8	100.0
The number of lines and credits playable on poker machines should be reduced	22.2	32.2	45.6	100.0
Poker machines should not have linked jackpots	35.3	30.9	33.8	100.0

^a Based on between 384 and 394 responses from problem gamblers.

Source: PC Survey of Clients of Counselling Agencies.

Mechanisms for providing information and control to gamblers

Dickerson (1998) has emphasised responsible gambling as a continuing process of making informed decisions. Informed decisions would be characterised by:

- good information;
- a set of genuine choices; and
- the opportunity for balanced consideration of the pros and cons of alternative behaviours. Given the potential for significant financial losses, gambling decisions should not be made under conditions of strong emotion or personal crisis. For example, a gambler who has lost extensively, and is desperate to recover their losses, is not in a position to exercise rational judgment.

The underlying principle of machine design under this approach is *informed consent*. **The Commission strongly endorses the idea that machine design should aim to maximise such informed consent and player control.**

Some changes that are consistent with the notion of informed consent include:

- notification of the dollar value of bets, rather than credits, so that consumers are aware of the real units being gambled (sub. 104, p. 48); and
- where it is possible to identify the player (for example, through their use of loyalty or other cards), on-going notification of the amount lost in a gambling session at a venue.

The Nova Scotia survey of gaming machine players has shown that factors external to the player — such as running out of cash, an appointment or the venue closing — are the most effective at stopping a gambling session for a problem gambler. The Commission's *Survey of Clients of Counselling Agencies* also suggests that cash constraints, rather than planned decisions by gamblers, tended to end gambling sessions (table 16.9). Dickerson (1998) has floated the option of incorporating some of these control features into the machine. For example, player's perceptions of elapsed time are sometimes very poor — thus limiting the extent to which they are making informed choices. Dickerson notes that the poker machine (which is effectively a computer, and so able to be programmed a multiplicity of ways) could sporadically query the gambler: 'Please estimate how long you have been playing?' Continued play would be contingent on whether a sufficiently accurate answer was provided. While such a measure may, in-principle, have a useful impact on correcting time misperceptions by a gambler, to be operational it requires that the machine knows when a new player commences playing. Moreover, any problem gambler can move to another machine even if they have been stopped temporarily from playing on one machine.

Table 16.9 Reasons why gambling sessions ended for problem gamblers^a

	<i>Always</i>	<i>Often</i>	<i>Some- times</i>	<i>Rarely</i>	<i>Never</i>	<i>Total</i>
	%	%	%	%	%	%
Ran out of money	37.9	43.6	11.0	3.3	4.1	100.0
Spent budgeted amount of money	19.2	20.1	20.9	15.5	24.3	100.0
Spent planned amount of time playing	9.8	11.3	17.5	25.2	36.2	100.0
Lost interest in gambling or got bored	1.2	3.2	18.3	27.2	50.1	100.0
The venue closed or there were no more immediate gambling opportunities (eg last race)	6.0	12.6	27.8	17.8	35.8	100.0
To eat or drink	0.0	3.5	23.5	25.9	47.1	100.0
Friends or family left	2.7	1.8	17.5	17.2	60.7	100.0

^a Based on between 331 and 390 responses from problem gamblers, depending on the item.

Source: Survey of the clients of problem counselling agencies, 1999.

However, there may be grounds for a machine to periodically query — through pop-up text on the visual display unit — whether the patron would like to continue playing. Even if players were to move around the machines in the venue, these periodic queries would serve to invite them to *reflect* about whether they really wish to continue playing or not. So long as these queries were not too frequent, then they would not have an adverse effect on the pleasure of recreational playing.

This suggests another key element in the control of gambling problems — the possibility for genuine pre-commitment.

Pre-commitment strategies

In all sorts of contexts, people use pre-commitment strategies when they believe that they will make future impulsive decisions, which are not in their best interests. The essential ingredient of genuine pre-commitment is that a decision once made acts like a contract and cannot be reversed. There are a number of possible pre-commitment strategies that might work for problem gamblers.

Noting that many of the difficulties stemming from problem gambling relate to its financial costs, it may be possible for a problem gambler to voluntarily pre-commit (at a time of lucidity) the bulk of their earnings to other essential expenditures (such as rent, petrol, food and clothing). This would mean that the amount of discretionary income available for gambling would be far smaller. Even if this were all spent, the gambler would still be able to avoid the worst financial effects of problem gambling. Financial pre-commitment could work, for example, through a contract with a bank, which would then have the first claim on a gambler's wages to direct them to accounts with suppliers of goods and services designated by the gambler (for example, a supermarket). The gambler would specify a period over

which such a contract would hold, and would not be able to re-negotiate the contract within that period, except in circumstances which they had pre-determined. The advantage of such a measure is that it has no impact on recreational gamblers, and has only to be implemented for problem gamblers.

However, it does have a number of disadvantages:

- it is likely to be only used by people who acknowledge that they have severe problems, and does not address issues of gambling control, misperceptions and informed consent for gamblers whose problems lie further down the problem gambling continuum or who are not confronting their problem; and
- it might have to extend to assets and irregular income as well as regular income, else problem gamblers might sell or borrow on assets;

Such a measure would involve costs for the banks concerned, and these should, in principle, be met by funds from the gambling industries or the gamblers involved. However, it may be worthwhile for the government to finance a trial of financial pre-commitment strategies to gauge their effectiveness and costs.

On the other side of the coin, there may be scope for pre-commitment on aspects of gambling, including spending, information, and playing style. Interestingly, one form of gambling already incorporates a host of measures which allow pre-commitment and informed consent — the internet.

One of the large potential advantages of internet-based gambling is that it can provide relevant and effective player-initiated controls. Gamblers can set budget limits, self-exclude and look at their past history of gambling winnings and losses by episode. The internet allows this because it combines a computer-based technology with a unique identifier for each gambler. These safety features are part of the regulatory environment for internet-based games. As a matter of consistency, it would seem desirable for other forms of gambling to match the internet in these aspects of player sovereignty. The question arises of whether this is technically feasible.

One possible avenue is in the future. Australia, like other advanced economies, is moving away from cash as the basis for transactions. It can be expected that traditional forms of gambling, such as gaming machines and casinos, will want to take advantage of the lower costs of cashless transactions that are already being exploited by internet gambling (for example, no need to empty hoppers, less security risks and the advantage of automatic record keeping). A key gaming executive has noted:

Cashless gaming makes very sound business sense. It's not a matter of when... it's only a matter of when they will adopt it rather than if they will adopt it. It's a very logical

progression... [the machines] need a lot less maintenance, but also there ... are no transactions with money movement. So ... all the security aspects will completely disappear (reported on ABC National Radio 1 September 1999).

Casino International (1999c, pp. 26ff) notes some of the advantages of cashless gaming machines using a credit card system:

... would place customer convenience at the top of the list of advantages for the cashless player. Players could move from game to game without worrying about having the right change... Players ... will have the added advantage of financial security.

This move would, in the absence of controls, represent a dangerous shift for problem gamblers, as it would turn each poker machine into an ATM. However, as described in box 16.14, it is possible that, with appropriate controls, the emergence of such cashless transactions in gambling may provide a vehicle for better pre-commitment and informed consent by consumers.

It is reported that a card system is being considered in Missouri, with the intent of increasing consumer protection:

Other coinless concepts include metal tokens, which have been used for years in Missouri where there are legal limits on how much any player is allowed to gamble. Players would pay for a certain amount of tokens on entering the casino and would then be prevented from purchasing any more. Moves are now being made by the Missouri Gaming Commission to redevelop this system using electronically purchased credits, which would allow players to press a single button to wager their credits on slot machines and still control the limit on what they are allowed to gamble (*Casino International*, 1999c).

One gaming technology provider, Global Gaming Services, considered that these sorts of technologies would provide a strong basis for harm minimisation:

Just as a driver's license is needed because drivers can cause harm to themselves and others, so might a gambling license be required. Requiring such a license could provide the opportunity for player education, research statistics, cashless (less crime and overhead gambling) and another source of income for government (license fees). This concept could be taken one step further to not permit a machine to operate unless a player has their "license" inserted. In most states and territories at least one wide area monitoring system links legal poker machines, and would provide a means to facilitate this. Of course there are in reality potential privacy implications, civil rights and infrastructure costs. Nevertheless it may provide a means of sustaining venue profitability, and minimise the occurrences, or assist with the detection of, problem gamblers (sub. D189, p. 2).

Box 16.14 Implications of a cashless society

It is possible that in the future the trend away from money to a cashless society may facilitate such pre-commitment mechanisms. In a cashless society, gambling will require a player to use a financial card either directly when gambling (for example, by inserting it into a gaming machine) or using it to buy 'chips' or tokens. These cards would include a magnetic strip for recording players' identification and for recording gamblers' preferences about the way they wished to gamble. For example, a player could:

- decide to self-exclude for any period of time. How wide such a self-exclusion would be depends on the extent to which venues and machines were linked to a central computer. If the card was like an ATM/EFTPOS card, then self-exclusion would be possible across all gambling jurisdictions in Australia, making it much easier to have a genuine pre-commitment to stop gambling *if* that was what the gambler wanted.³⁵ Alternatively, if the information on the card was exclusive to the venue (as in loyalty cards) then it would only allow the weaker form of self-exclusion from a given venue.;
- set a budget for a given time period, or even for that day's play. Once the pre-commitment had been made, the player could not subsequently amend their decision within the set time period;
- set a style of play (number of lines or credits per line);
- set the duration of play; and
- determine how and which winnings should be paid into their accounts.

Problem gamblers would not be able to readily cheat on any pre-commitment they had made. For example, if they 'lost' their card, any new card issued would still have the conditions of any pre-commitment made recorded on it, because a central computer would, like any bank card, have a record of the client. Nor is it likely that people would lend problem gamblers their cards (with their PINs) as that would leave them open to financial losses. In any case, if the problem gambler won on someone else's card the money would be credited to that person's account, not the problem gambler's.

Such technologies, by allowing pre-commitment, would enable consumers to make choices under conditions when they are in control. The measure is consistent with and indeed facilitates consumer choice. Consumers would be free to pre-commit to the sort of gambling experience they believe is appropriate, but they would not be obliged to take any particular approach. The measure does not raise any significant privacy issues because the consumer would be in charge of what is recorded and would have exclusive access to the information. There would be few costs to recreational gamblers. They would not have to apply for a special card, as ordinary banking swipe cards could be used when gambling. Nor would recreational gamblers be required to set limits — rather they would just be given the *option* of doing so.

That said, the measure would probably involve some costs. Any financial intermediary issuing cards would have to include the facility for recording the gambler's preferences on the card. However, the evolution of smart cards, rapid telecommunications and cheaper computing suggests that the marginal costs of additional information would be small.

³⁵ Note most states are heading towards central monitoring of machines, so that the marginal costs of the measure should be modest.

Others also supported the use of such card systems (sub. D260, sub. D259 and sub. D249). For example, Break Even Services in Victoria (sub. D249) drew attention to the possible beneficial role of smart cards:

The Victorian Break Even network is in favour of the introduction of smart cards linked to enhanced technology for all gambling consumers, particularly those who participate in more continuous forms of gambling such as EGMs. It is our contention that all players should be required to consciously choose to participate in gambling activities through a smart card and be able to receive a number of harm minimisation and consumer protection measures by this means... It is our belief that the obligation to obtain a personal smart card in order to gamble will not prove a disincentive for non-problem consumers. It is principally a one off requirement in line with procedures consumers are required to undergo across a range of activities and services in order to gain access to them.

If gambling providers were to move to technologies which are cashless in nature (such as putting a bank card directly into a gaming machine) then a system for informed consent along the lines described in box 16.14 would need to be a mandatory feature.

Since a ‘cashless’ society is some years off, is there anything that could be done now along the lines described by box 16.14? It is possible that cards could be *required* for using certain gambling forms, such as gaming machines. Such cards need not be used as a payment mechanism, but rather could be like the myriad of other cards that are now routinely used to provide identification in transactions (from Medicare cards, library cards and even video cards). To be feasible in the current environment, such a card system would have to be cheap to acquire and to use. One option may be to make minor alterations to existing bank swipe cards so that they stored players’ preferences for gambling. In this instance, cash would still be used to play the machines. Indeed, the only purpose of the card would be to identify the gambler and to automatically credit large prizes to the player’s account — it would **not** be used as a debit or credit card for the purpose of gambling. Such a card system is consistent with their already widespread use as loyalty cards. However, it is likely that such a system would be expensive (in the short term) to use in states where there are already many machines (given the need for machine modifications). On the other hand, such a system may be useful in a State like Western Australia, were they to decide to partly liberalise access to gaming machines.

There may be other ways in which consumers could currently have more control over the games they play. Some have already been developed in other international jurisdictions. For example:

-
- two Canadian companies have developed a bracelet for compulsive gamblers that emits a high pitched sound whenever the wearer approaches a gaming machine (Gambling Magazine, 1999); and
 - face recognition ID systems are being marketed to Casino Security departments — principally to identify criminals (Levine 1999). But these could also be used to help excludées to honour self-exclusion deeds.

Whether either of these sorts of technologies are practical, acceptable or cost effective is unknown. But they underline that just as technology can make gaming machines more entertaining, technology used with the same creativity may be able to significantly reduce problem gambling:

Most forms of venue gambling are technology based....Unless the technology and the companies that supply this technology are a major consideration, I would question the effectiveness of any strategy for responsible gambling (Global Gaming Systems, sub. D189, p. 2).

Bill acceptors

Most modern gaming machines include bill acceptors (though these are barred in South Australia). These allow gamblers to insert notes up to \$100 denomination to play the machines. The Commission has been given advice that, unsurprisingly, machines with acceptors tend to have higher levels of turnover than those which do not. As well, the Commission's *National Gambling Survey* suggests that problem gamblers are much more likely to use bill acceptors when these are incorporated into machines than other gamblers, with about 62 per cent of problem gamblers (on a SOGS 5+ basis) using this feature 'often' or 'always' compared with 22 per cent of non-problem gamblers (table 16.10). Problem gamblers' apparently higher use of bill acceptors may largely be testimony to their higher spending levels. However, it may also reflect the way that convenience and an absence of human contacts and pauses in play can allow gambling to continue unimpeded for those with problems.

There may be gains from requiring patrons to obtain change to play the machines from a cashier or other venue staff, rather than a cash machine or by using a note in a machine bill acceptor. This may make problematic play (repeated visits to get cash) more visible and may act as a social control on problem gamblers, while also allowing venues to gauge better whether they are acting responsibly in providing gambling services (for example, by analogy, could a hotel which allowed drinkers to self-serve alcohol in any quantity from a machine satisfactorily exercise responsible service of alcohol?). As Relationships Australia Queensland reported about problem gamblers:

One group commented “When I had to go back and forth to the cashier, then I’d think ‘Oh, she’ll think I’m a compulsive gambler’, and that would make me think about whether to go back to her again. With the note acceptors, I didn’t worry about that, nothing got in the road of gambling.” Group members observed that trips to the cashier were always an opportunity to consider leaving the gambling venue, but with machines equipped with note acceptors, they could have less distractions to their gambling, and thus less opportunities to consider stopping a session (sub. 73, p. 8).

Table 16.10 If the machine you usually use has a bill acceptor, how often do you insert notes when playing the machine?^a

	<i>Never</i>	<i>Rarely</i>	<i>Some- times</i>	<i>Often</i>	<i>Always</i>	<i>Can't say</i>	<i>Total</i>
	%	%	%	%	%	%	%
Non-problem players	31.2	13.4	31.7	13.2	10.1	0.5	100.0
Problem gamblers (SOG 5+)	8.6	12.6	16.5	28.6	33.7	0.0	100.0
Problem gamblers (SOG 10+)	5.1	6.5	11.5	51.4	25.5	0.0	100.0

^a For those people who play on machines which have bill acceptors.

Source: PC National Gambling Survey.

The AGMMA (sub. D257, p. 140) argued that the higher turnover in machines with bill acceptors stemmed from the fact that machines with bill acceptors are newer and therefore offer more novel features, which in turn attracts patronage. They also point out that the rate of return on newer machines tends to be higher and thus turnover would be greater for the same level of expenditure. They also argue that the reason problem gamblers use machines with bill acceptors more often than other machines may simply be revealing a preference for newer machines.³⁶ In effect, the AGMMA argue that factors other than bill acceptors play a role in increasing turnover.

Bill acceptors do represent a source of convenience for the customer, and probably a cost saving for the venue (that in turn may be passed on as lower prices). However, it is hard to argue that it presents anything other than a minor convenience. In this instance, the precautionary principle holds: don’t do something that might be hazardous if its benefits are very small.

For this reason, and until evidence that they do *not* present risks is substantiated, **the Commission considers that there are grounds that bill acceptors not be included in the design of poker machines, with any cash dispensers being located outside the gaming area.** However, where current machines have

³⁶ However, the data presented in the table relates to how often problem gamblers use bill acceptors when they are incorporated in a machine, not whether they use machines with bill acceptors.

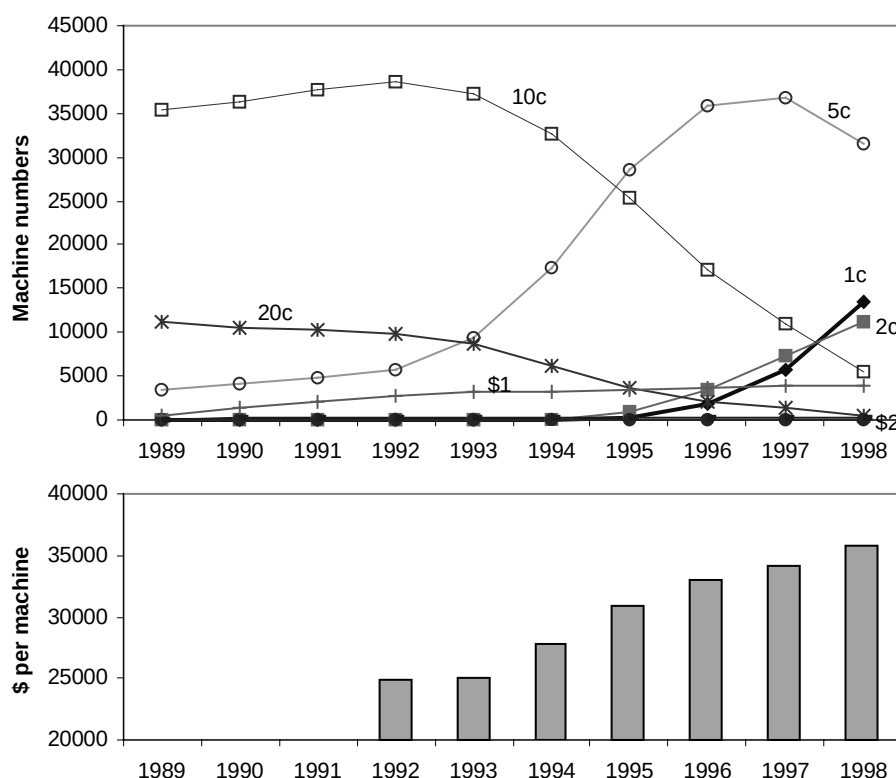
acceptors they should not be modified, because this would involve considerable costs, but be replaced over time.

Limitations on the rate of loss

Denomination and intensity controls?

Existing games allow gamblers an enormous choice over the intensity of gambling. As noted in chapter 15 and appendix U, some new models of 2 cent machine can allow players to choose anywhere between 2 cents to \$10 of turnover per button push. It seems likely that in the presence of such versatile low denomination machines, the higher denomination machines will, in a continuation of the trend established over the last decade (AGMMA, sub. D257, p. 15 and figure 16.4), decline even further in importance.

Figure 16.4 **Machine denominations in New South Wales clubs and gaming profits^a**



^a The data for club profit from gaming machines was not available for 1989 to 1991. Data relate to New South Wales clubs only.

Data source: NSW Department of Gaming and Racing, *Gaming Analysis 1997-98*, February 1999.

There is some evidence that problem gamblers tend to play the highest denomination machines to a significantly greater extent than non-problem players (table 16.11), but most usually play 1, 2 and 5 cent machines. Consequently, the principal issue is not one of the denomination of the machine, by itself, but the overall intensity of play that is possible.

Table 16.11 Denominations of machine played by problem gamblers

<i>Machine denomination</i>	<i>Non-problem gamblers</i>	<i>Problem gamblers (SOGS 5+)</i>	<i>Problem gamblers (SOGS 10+)</i>
	%	%	
1 cent machine	17.6	21.3	29.5
2 cent machine	7.4	7.5	6.3
5 cents machine	36.0	46.1	24.3
10 cents machine	19.6	4.7	3.0
20 cents machine	11.5	6.7	3.4
50 cents	3.0	0.0	0.0
\$1 machine	5.1	11.3	33.5
\$2 or more	0.1	1.8	0.0
Can't say	2.1	0.8	0.0

Source: PC National Gambling Survey.

Problem gamblers have a higher tendency to play more than one line at each button push than recreational gamblers, and a much higher likelihood of betting more than one credit per line (table 16.12). Where gamblers do play more than one line or credit per line, problem gamblers choose greater lines and credits. This suggests that a possible pathway to problem gambling is that people start with relatively low lines and credits, and then progressively increase playing intensity. This is consistent with the psychological conditioning model, in which people are rewarded (through frequent small prizes) for increased intensity of play.

Table 16.12 Playing intensity: lines and credits per button push

	<i>Non-problem gamblers</i>	<i>Problem gamblers (SOGS 5+)</i>	<i>Problem gamblers (SOGS 10+)</i>
Share betting more than one line per push (%)	82.3	93.4	76.9 ^a
Share betting more than one credit per line (%)	35.7	65.6	77.6
Of those playing more than one line (average lines)	6.1	8.9	9.2
Of those playing more than one credit (average credits)	4.1	5.9	6.4

^a Note that severe problem gamblers often tend to play one dollar machines, and may therefore more often tend to select just one line when doing so.

Source: PC National Gambling Survey.

There are a number of ways of reducing high intensity playing:

- restrictions on the maximum number of lines and credits per line would reduce intensity and short-circuit the conditioning of machines for players to gamble more; or/and
- tighter restrictions on the maximum amount that can be bet with a single button push, which would reduce the cost of playing per hour. Currently, a \$10 maximum bet exists for gaming machines in pubs and clubs in New South Wales, South Australia, Tasmania, and the ACT and a \$5 maximum applies for Queensland and the Northern Territory.

Given that the time available for many problem gamblers is limited (by jobs and other pre-commitments), overall expenditure of problem gamblers would probably fall by making gambling per hour cheaper, while fewer people would be likely to progress to problem levels of play. Measures to constrain lines and credits have precedence — for example, they were a feature of the early regulatory environment in Tasmania. Other than the pre-commitment measures discussed previously, changes to the intensity of play are the most likely to reduce player losses — and some of the attendant problems of excessive gambling.

On the other hand, such controls on intensity are relatively ‘heavy-handed’. High intensity play is enjoyable and some recreational gamblers would derive less pleasure from gambling on machines that reduced that option. How much any given control would affect such recreational gamblers depends on the relative spending patterns of recreational versus problem gamblers. The Commission’s *National Gambling Survey* suggests that problem gamblers stake around \$1.62 per button push compared with 57 cents for non-problem gamblers.³⁷ This suggests possible scope for reducing play intensity without overly affecting many recreational gamblers. However, any measure to reduce intensity should use a large dataset of gambling sessions by problem and non-problem gamblers to set the appropriate level of controls on denominations, credits and total amount bet per button press.

It should be emphasised that just because there are now mainly one or two cent machines does not imply that the machines involve lesser levels of intensity. To the contrary, with their multi-line multi-credit characteristics, supposedly ‘low’ denomination machines can involve player stakes per button push in excess of some apparently ‘high’ denomination machines. As shown in appendix U, the implied hourly expected losses of low denomination machines are around \$700 to \$1000 at maximum playing intensity. It is also notable that even though the mix of machines

³⁷ This is based on the SOGS 5+ rating of problem gamblers. If the SOGS 10+ rating is used, the difference in playing intensity is accentuated, with non-problem gamblers staking 57 cents per button push and problem gamblers \$3.22.

has shifted to lower denomination machines, the average venue profit per machine (or player losses) has increased.

Making play cheaper for problem gamblers?

While preoccupation with gambling and the time spent on it can be problematic features of excessive gambling, the largest problems stem from the high levels of expenditure incurred. The amount spent is likely to be very significantly affected by the price of gambling. Under current prices, a player's losses will, over a year of regular play, be very close to 10 per cent of player turnover. Indeed, because problem gamblers tend to re-stake their winnings and often play for longer periods, their expected return on *initial* stakes will be close to zero (appendix U). In theory a better pricing system for a problem gambler is a price of zero — that is, where the expected losses are zero. The gambler may, of course, still lose when they play, but over a long period (noting that nearly all problem gamblers play regularly) the sequence of wins and losses would tend to break even.

Of course, it is not possible for all poker machine players to play the machines at a zero price, since there are costs associated with providing the machine and a need by State governments for revenue. This suggests two possibilities:

- there could be a two part pricing strategy. Players could be charged an upfront cost to use the machine for a certain period of time, and the expected loss rate would be zero. This is entirely consistent with the viewpoint that the machines provide entertainment to patrons, and is more akin to the charging strategy for video arcade games and other entertainment forms; and
- if cards were required for gambling (as in box 16.14) then these could record a player's annual poker machine expenditure. When the level was below a certain threshold, say \$2500, they would receive the standard odds. Once their expenditure exceeded that threshold, the *expected* price would again be zero (so that the poker machine would read the card and use a different set of virtual reels for these players). This has the advantage that venues would have disincentives to have many players spending above the threshold amount and might put in place more effective measures to cut problematic play (since the venues would make a loss on any gambling above the threshold).³⁸

³⁸ Such a measure would need tight security on above-threshold cards, since every gambler would prefer those odds, and might seek to borrow or steal the cards. However, if the cards used were bank cards, people would not want to borrow or steal them since any winnings would be paid into the account of the card owner (cards would also be protected by PINs or other security measures), while owners would not want to lend them since this would potentially enable the borrower to withdraw money from their bank accounts (from a nearby ATM, for example).

The potential advantage of these possible options is that they limit the financial exposure of problem gamblers, thus limiting the harm from problem gambling.

Linked jackpots and accelerators

Some machines are linked together and pay out a jackpot at some point in a spending interval, such as paying out \$1000 between \$20 000 and \$30 000. Other non-linked machines — the accelerators — play out a jackpot over a similar spending interval. As the total spend rises over the interval and if the prize has not yet been paid out, players face stronger incentives to prolong playing. Incentives for prolonged playing may well represent a hazard for gamblers — and may accentuate problematic behaviour such as chasing losses. Moreover, as noted previously, many poker machine players believe that the payouts of poker machines are non-independent, so that a ‘full’ machine must pay out soon. While this view is erroneous for most machines, it does apply to linked machines. They may, therefore, fortify misconceptions about the way poker machines generally work.

The AGMMA (sub. D257, p. 19) argued that there should not be any ban on linked jackpots or accelerators, arguing that they:

- provide enhanced entertainment;
- provide a significant source of the future growth of the industry (and with associated employment gains and increased revenues for gaming venues);
- represent the technical cutting edge of gaming technology, so that controls would place Australian manufacturers behind overseas jurisdictions;
- are part of the commercial decision making of companies. They claimed that any ban would represent a gross interference with commercial matters (eg TAB attracted many shareholders with its monopoly on linked progressive jackpots which are yet to be implemented).

The Commission agrees that such jackpots are likely to increase player entertainment and that any ban would appear to involve some implementation costs and transfers from shareholders of gaming providers. However, the employment and economic growth arguments are not compelling (chapter 5).

On the other hand, there appears to be some evidence that problem gamblers find linked jackpot machines a greater attractant than non-problem gamblers, with about 30 per cent of gaming machine playing problem gamblers specifically seeking out such machines, compared with about 3 per cent of non-problem gamblers (table 16.13). This does not, however, necessarily mean that in the absence of jackpot machines, visits or money spent by problem gamblers would be any less.

Table 16.13 Do you specifically go to venues with linked jackpots so you can play electronic gaming machines with linked jackpots?^a

Data for Victoria 1997

<i>Gambler category</i>	<i>All the time</i>	<i>Some-times</i>	<i>Every now and then</i>	<i>Never</i>	<i>Don't know what they are</i>	<i>Not applic-able</i>	<i>Total</i>
	%	%	%	%	%	%	%
Non-problem gamblers	1.1	1.6	2.6	36.5	1.9	56.4	100.0
Problem gamblers	8.8	22.8	7.9	28.4	0.0	32.1	100.0
All gamblers	1.2	1.9	2.7	36.3	1.9	56.0	100.0

^a Based on analysis of the unit record data provided by the VCGA.

Source: VCGA 1997, Fifth Community Gambling Patterns Survey.

Currently there appears insufficient evidence that jackpots do exacerbate risks. In this case, a ban appears premature, given their possible consumer benefits. However, as these new technologies expand in significance, future research on problem gambling should investigate whether they are a major source of problems. Then, if appropriate, it may be necessary to regulate or even ban such features. The approach of gaming regulators should in this case, as with other evolving technologies, be to adopt appropriate risk management techniques and to constantly monitor the technologies for their consumer risks. If the evidence is favourable or the risks appear to be low relative to the benefits, then new gaming technologies could be given conditional permission, which is subsequently removed, with proper process, if harmful effects come to light. The approach, while not as precautionary as that applying to pharmaceutical products, could follow a similar template.

Enforced breaks

The Nijpels proposal introduced enforced breaks by requiring a waiting period of 15 seconds after any payout, and requiring frequent payouts. The notion that problem players may gamble for prolonged sessions is confirmed by the Commission's data, so that, in principle, enforced breaks may allow gamblers to pause before automatically playing on. The Break Even Secretariat (sub. D198) argued that the breaks in play are important 'not just for problem gamblers but for recreational gamblers' problematic episodes'.

However:

- the Dutch system was based on the automatic payout of winnings above 200 credits. With a reasonable intensity of playing, Australian gamblers could expect to win a payout of 200 credits relatively frequently — with amounts that were quite modest (typically \$2, \$4 or \$10), since most Australian machines are now

1, 2 and 5 cent machines.³⁹ Such frequent payouts and delays would be a source of player irritation. It would seem more sensible to have automatic payouts only when the value is above some reasonable amount, say \$100.⁴⁰

- many gamblers switch between machines while playing in a given (prolonged) session. Casual observation also suggests that they often like to take out winnings through the cash dispenser and then re-insert them into the machine (perhaps because of the enjoyment of hearing the cash payout). In this sense, gamblers already take breaks in play, but not ones which genuinely invite them to make a choice about continuing playing.⁴¹

Another aspect of machine design which may interrupt continuous gambling sessions is to consider the removal of call buttons on the machines which provide a drink service to patrons. As noted previously, a periodic query about the desire to continue playing may also be effective at establishing conscious consent.

The form of prize payouts

Problem gamblers are much more likely to continue gambling with a large prize (and much more likely to win one, since they play more). The consequence of continued gambling with prize money is that this inevitably results in player losses, because a player will accumulate losses and bet away wins. One way of thwarting this process is to pay out larger prizes by cheque (say prizes over \$250).⁴² Most gamblers would not find this inconvenient, since most do not win these amounts in any given year (table 16.14).

³⁹ For example, in New South Wales in June 1998, 20.1 per cent of machines were 1 cent machines, 16.9 per cent were 2 cent machines and 47.7 per cent were 5 cent machines. The remaining 15 per cent of machines were largely 10 cent and \$1 machines.

⁴⁰ Anglicare SA (sub. 104, p. 48) advocated an automatic shutdown of 20 seconds after a win of 250 times the original bet. Since most gamblers play 5 cent machines with around 3 to 5 credits per line, this would apply to prizes of between \$37.50 to \$62.50. Payoffs of 250 times the amount bet (note *not* of 250 credits) are relatively rare, and so would be workable.

⁴¹ Arguably an enforced break is more likely to work if at the time of any significant payout, the machine explicitly raises the question of whether a player wishes to continue gambling. Thus a screen message would appear asking the player if they would like to have a rest from play. If the player was using a loyalty or some other card in the machine that allowed the machine to determine how long the gambler had been playing, it would also be possible for the machine to query whether the player would like to continue gambling after a certain lapsed time (for example, 1 hour).

⁴² Springvale Legal Service (sub. 17, p. 10) suggested that ‘gamblers who have a “large win” (over \$1000) be required to participate in a “cooling off” period before collecting these winnings and be given a cheque of credit redeemable at a bank or place other than a gaming venue.’

Table 16.14 'Big' prizes won playing gaming machines

<i>Wins per year of \$250 or more</i>	<i>Non-problem gamblers</i>	<i>Problem gamblers (SOGS 5+)</i>
0	85.2	40.8
1-3	11.2	31.1
4-6	2.5	17.0
7 or more	1.1	11.1

Source: PC National Gambling Survey.

Time elapsed between games

The Nijpels model proposed a longer lapse of time between button pushes, and a number of submissions to this inquiry also suggested longer time lapses between button pushes.⁴³ There is evidence that continuous forms of gambling, like gaming machines, pose higher risks for problem gambling than non-continuous forms. However, small differences in the gaming cycle do not significantly address the continuous nature of gaming machines (but may impact on the cost of playing per hour).

The Commission understands that the average time elapsed between button pushes observed in gaming machine venues in Australia is actually greater than that mandated by the Nijpels proposal. Of course, it would be possible to slow the machines further by having longer time lapses than those in the Nijpels proposal. But the button push rate is also a factor integral to the entertainment value of the machines. At some point, longer pauses are likely to decrease the desire of a problem gambler to gamble excessively, but it would probably also deter recreational gamblers.⁴⁴

The Commission does not consider that there is strong evidence in favour of changing button push duration.

Lights and sounds

Some participants have commented on the 'addictive' quality of the lights and music on the machines:

Even the music and bells are cleverly researched. Australia's largest gaming machine manufacturer, Aristocrat, which controls the Adelaide market, has 40 people including

⁴³ For example, sub. 104 (p. 51) suggested a gaming cycle of 6 seconds.

⁴⁴ Tabcorp (sub. D232, p. 16) considered that a longer button push duration would be detrimental to consumers (they also appeared to be under the impression that the Commission had advocated increased times between button presses in its draft report, which was not the case).

psychologists working full time on game design. Sweethearts 2, one of the new generation Aristocrat machines, is smothered in cupids and pink hearts and is obviously pitched at women (Festival of Light, sub. 107, p. 8).

Musical sounds give the impression and reassurance that they are actually winning something, tells other people in the venue that they are winning something...with many machines being played at the same venue at the same time at least one machine is bound to be paying something and making a noise so that it appears that someone is always winning (sub. D259, p. 2).

The Nijpels model required static lighting when the machines were not being played and sound limitations on payouts. However, lighting, graphics and sound effects are contributors to the entertainment value of the machine. Their modification may reduce the attractiveness of the machines to recreational players who enjoy these features.

The Commission is not aware of persuasive evidence which suggest lighting and sounds seriously enhance the ability of the machine to condition player behaviour. This may need further research.

The issue of evidence and implementation

There can be no certainty about how successful particular harm minimisation strategies would be in reducing harm for problem gamblers. ACIL (sub. 155, p. 97) asserted that harm minimisation might, perversely, increase overall harm or at least not reduce it, because of counteracting behaviours by gamblers. This underlines the importance of testing and implementation strategies:

- One approach would be to test measures in experimental settings, but it is unclear whether they would adequately reflect real-world behaviour by problem gamblers.
- Micro databases on the playing experiences of problem and recreational gamblers could be analysed to predict the outcome of harm minimisation measures. Such databases would follow a representative sample of gamblers, made-up of groups of identified problem gamblers and recreational gamblers, through all their playing decisions — time spent per machine, number of machines played in a session, the pattern of lines and credits played during any session, the use of bill acceptors, and the tendency to use wins for future gambles. The University Of Western Sydney has developed some databases of this kind.
- Established results from psychological and sociological studies of problem gambling could be used to predict how problem gamblers might respond.

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- Existing or past problem gamblers could be asked how they think they might respond to the proposed measures. What people think they might do and what they actually do, can of course, be very different. Nevertheless, this strategy may still provide some useful insights about what could work best (table 16.8). The Racing Industry Board of New Zealand, for example, pre-tested its problem gambling awareness signage with problem gamblers (Alexander 1999). The AHA (NSW) disputed the worth of asking existing problem gamblers about the value of harm minimisation options, arguing that: ‘this is akin to asking the inmates how to run the asylum’ (sub. D283, p. 17).
 - Trials could be held in locations where it would be hard for the problem gambler to subvert the harm minimisation strategies by going to an uncontrolled venue nearby.
 - Trials could be confined to the more expensive and risky measures, whereas others could be introduced more broadly.

In floating options for harm minimisation (summarised in table 16.15), the Commission has made use of survey evidence, our understanding of the psychological and sociological aspects of problem gambling, and the viewpoints of problem gamblers or those experienced in helping them. These perspectives are balanced against the need to ensure that gambling remains entertaining for the bulk of gamblers who experience no problems.

The difficulty in gathering evidence on the likely effectiveness of all aspects of harm minimisation strategies prior to their at least partial implementation, suggests that the effectiveness of any introduced measures will have to be subject to detailed evaluation. An evaluation strategy should be a key facet of any implementation, since it will be important to establish good control data prior to any trial.

It is also important to note the role of evidence in deciding whether to implement a harm minimisation strategy. Some might argue that there has to be strong evidence about the likely effectiveness of a measure before it is introduced. Others might argue that there is *prima facie* evidence that certain aspects of gambling are hazardous and that conclusive evidence about appropriate ways of dealing with these harms is not required before some action is taken. Governments tend, for example, to ban or limit exposure to *potentially* dangerous drugs. In this instance, the onus of proof is on demonstrating the product’s safety, before it can be regarded as a normal good, rather than the onus of proof being to demonstrate that it is hazardous prior to measures seeking to control its availability. Arguably this precautionary approach is appropriate for some aspects of gambling too. The approach reflects the concern that consumption of certain products might have small benefits for many, but very large adverse consequences for some.

Table 16.15 Options for harm minimisation and prevention^a

	<i>Relevant modes^b</i>	<i>Aids consumer consent?</i>	<i>Impacts on recreational gamblers</i>	<i>Possible benefits for problem gamblers</i>	<i>Overall rating</i>
A ban on gambling	A	×	×	✓	×
Information on the odds of losing	G,L	✓	✓	✓	✓
Odds on payout tables on gaming machines	G	✓	✓	✓	✓
Information on the nature of games	A	✓	✓	✓	✓
Regulation of payout ratios	A	?	✓	✓	✓
A record of transactions	G,R	✓	✓	✓	✓
Awareness of the risks of problems	A	✓	✓	✓	✓
Restrictions on advertising	A	?	✓	✓	✓
Risk warnings on advertising	A	✓	✓	✓	✓
Opening hour restrictions	A	×	×	?	×
Quantity restrictions	A	×	×	?	?
Limiting social accessibility	A	×	×	?	×
Increasing the initial outlay	A	×	×	?	×
More stringent entry conditions	A	×	×	?	×
Limiting access to ATMs and credit	A	?	×	✓	✓
Simple system of self-exclusion	A	✓	✓	✓	✓
Player controls (eg card systems)	G, R, C	✓	✓	✓	✓
No bill acceptors	G	?	×	✓	✓
Limits on the rate of loss	G,R,C	×	×	✓	?
No linked jackpots	G	×	×	✓	?
Enforced breaks	G	✓	×	?	?
Cheque payouts for wins > \$250	G,C	×	×	✓	?
Longer times between button pushes	G	×	×	?	×
Less lights and sounds	G	×	×	?	×

^a A tick denotes a likely positive or at least benign effects, a cross an adverse effect and a ? an uncertain or mixed effect. The overall rating provides an initial judgement about the priority for assessment of regulatory options, with ticked items having the highest priority for policy evaluation. Options for harm minimisation of internet gambling are separately considered in chapter 18. ^b A denotes all gambling forms, G denotes gaming, R denotes racing, L denotes lotteries and C denotes casino table games.

16.10 Bankruptcy and problem gamblers

It appears that most problem gamblers do not go bankrupt. However, under section 271 of the Bankruptcy Act it is possible that a problem gambler who is declared bankrupt as a result of gambling could face prosecution. For this reason official data on gambling-related bankruptcies (appendix R and chapter 7) probably understate its true significance.

There is some argument for prosecution to deter reckless action by problem gamblers, but it appears unlikely that the existing provisions provide much deterrence since they are relatively obscure to gamblers until they are close to

bankruptcy. And in any case the authorities can usually apply other sanctions for clearly fraudulent behaviour associated with gambling.

These probably weak benefits of section 271 have to be offset against its possible costs. Section 271 treats people with a gambling dependency in a way that is quite unlike other dependencies, and may deter them from taking an action (filing for bankruptcy) that may substantially reduce their access to finance. As noted by the Wesley Community Legal Service (sub. D215, p. 2) bankruptcy also provides an opportunity for the problem gambler to re-evaluate their gambling, and probably represents a favourable time for counselling intervention. The arguments and data relating to gambling and bankruptcy are set out more fully in appendix R.

There may be value in the Commonwealth reviewing the merits of section 271. It could also give consideration to whether there were grounds for requiring mandatory attendance by a problem-gambling bankrupt to appropriate counselling.

16.11 Probity

So far this chapter has been concerned with consumer consent and issues of harm minimisation associated with problem gambling. There is, however, another source of risk to consumers and society generally from gambling — probity issues. The importance of ensuring probity is a common theme across all gambling modes, in view of the large amounts of cash at stake and the concern to allay public fears of the involvement of criminal elements. Wildman (1998, p. 291) recounts the following story in the US, which captures one of the public concerns about probity :

Several years ago, one casino manager told me, “A couple of regular customers came in with \$60 000 wrapped in neat bundles to be put into the cage for safekeeping in their name. We noticed that the money was slightly burned at the edges and pointed it out. “Oh”, one of them said, “that’s nothing, the torch was too hot.” “We took the money anyhow”, the casino manager told me. “Las Vegas is a place for fun. We don’t run detective agencies in the casinos.”

Moreover, gambling poses particular obstacles to good consumer knowledge about the quality of the services they buy because of the probabilistic nature of payouts. No consumer could independently confirm whether a particular poker machine genuinely offered the stated odds, or that prizes were appropriately drawn in a lottery. Nor could punters be sure that the horses actually running in a race were the horses reputedly running in the race (the Fine Cotton affair being a classic, if rare, case), drugged or held back without the involvement of race stewards. Mair (sub. D182, p. 3) also raises concern about the prevalence of ‘inappropriately asymmetrical information’ or insider trading, in racing gambling, and measures to

reduce its incidence. In all these cases, there is a strong basis for provisions to ensure that the gambling events are fair. As noted in chapter 13, the procedures for probity in the different gambling modes this are similar in their general approach, while varying in their details.

The key issues arising are:

- how far should probity be guaranteed and tested?
- what is the real versus the apparent level of probity?
- who should pay for ensuring probity?
- should different venues be assessed using a common framework, or should there be differential treatment? and
- should there be mutual recognition of probity controls?

How far should probity go?

It appears that early on in the introduction of new gambling technologies, jurisdictions were particularly conservative in wishing to avoid risks:

- For example, ensuring the probity of gaming machine operations was a major reason for the Queensland Government's earlier practice of purchasing machines and renting them to venues.
- Similarly, Victoria's Auditor-General (VICAG 1998, p. 53) noted that, in the lead-up to the establishment of the industry in that State, the VCGA's investigation was comprehensive. The Auditor-General supported the move to revised procedures and risk-based principles of probity checking as the VCGA's knowledge and experience accumulated.

This conservative attitude may be appropriate while a jurisdiction is learning about the nature and levels of probity risks, although it does suggest that jurisdictions that are new to a particular gambling form could also learn about more streamlined probity processes from states with greater experience.

Ultimately, the idea that gambling should be utterly free of crime or incidents of unfair play is untenable. It is inevitable even in the best system of probity checking that isolated instances of departure from probity will occur. This reflects the fact that probity checking can be extremely costly, so that risk management is critical to an effective strategy.

Consistent with this approach would be a strategy involving:

- a greater focus of probity checks on large gambling oriented venues, such as casinos and large clubs, where there are economies of scale in probity checking and large numbers of potentially affected consumers;
- checking of key staff, rather than necessarily all staff;
- checks on suppliers of gambling equipment, such as poker machines or tables, but not of food suppliers and other non-gambling related suppliers; and
- the development of a risk profile of venues, so as to target the appropriate venues with spot checks and audits of machines or other staff, rather than complete testing; and
- the use of automated systems for checking, as in the case of poker machines in most jurisdictions (but not yet in New South Wales).

It is not clear that all aspects of probity checking need be the responsibility of a regulator. Many businesses that deal with large amounts of cash, such as banks and insurance companies, have internal control measures for dealing with employee or consumer fraud (which typically generate costs for the business, rather than for consumers). It is possible that such probity risks be left to the gambling businesses themselves, without a need for additional oversight by government. This would allow gambling providers to decide what they considered to be prudent and cost effective measures of control to avoid losses to the business owners. Of course, it is still important to have regulatory oversight where probity concerns relate to protection of consumers or to criminal ownership or direction of a gambling business.

Probity: real or apparent?

There are a whole range of measures intended to achieve probity, but measures which may look adequate on paper may not actually function well in practice. For example, anti-laundering measures in casinos apply to transactions over a threshold. This invites the question of whether criminals may simply increase the frequency of small transactions just below the threshold level.

One possible way of gauging whether probity regimes are working as intended is for Australian jurisdictions to share consistently collected information on departures from probity in each jurisdiction over time to see if there are weaknesses in their approaches. Informal meetings of gaming ministers and officials already occur and may adequately meet this need.

Who should bear the costs?

Probity regulation generates costs. Arguably these costs should be borne by the industry itself, with venue charges reflecting the marginal costs of any probity checks.

User charging is the approach taken in some jurisdictions. It means that higher costs will be borne by those parts of the industry for whom the costs of assuring customers of the integrity of their operations is higher. This is an appropriate outcome, provided that the industry has a say in the development of probity requirements. The industry itself has a direct interest in maintaining probity for its own commercial and reputation reasons. This suggests there are benefits in meshing commercial and public probity requirements where practicable.

A common framework?

Differences in approach need to be based on differences of circumstances. The greater focus on casinos in some jurisdictions seems excessive, in view of the scale and variety of gaming activities of some of the big clubs. IPART's inquiry found that regulations were 'fragmented and inconsistent' and not adequately enforced in hotels and clubs in New South Wales (IPART 1998, p. iii).

Some participants argued that there were unjustifiable differences in approach to different types of venues, and in particular, that the different requirements placed on casinos and clubs (some of which are larger than some casinos) did not reflect the relative risks and probity issues involved.

Some casinos are subject to very intense 24-hour scrutiny by government authorities and police forces, to the point where Star City (box 16.15) argued:

The current regulatory structures for the gaming industry are totally inconsistent and haphazard. Some sections of the industry are put under intense scrutiny in almost every area of their operations – others operate under minimal scrutiny ...

The intense scrutiny accorded to the casino is out of all proportion given the relative scale of the problems it generates, the transparency of its operations and its size ... (sub. 33).

Box 16.15 Star City on casino regulation

Star City said that:

Only a small number of staff in hotels and clubs must be licensed and there are no checks made on suppliers (other than gaming equipment suppliers) to these industries. Government inspectors operate 24 hours a day at Star City - random inspections are conducted at hotels and clubs reflecting the staff numbers respectively devoted to two tasks.

Controls on Star City also extend to suppliers of large quantities of goods to casinos (including food, printing, consultancies and any other service valued at more than \$200 000). No such requirement applies to other gaming operators.

In the case of its employees, Star City said:

More than 2000 staff have been required to undergo the strictest probity checks so they can be licensed to work in the casino. These are no ordinary probity checks. Staff are required to produce financial documents dating back five years and be prepared to explain any particular transaction of interest to regulatory authorities. Criminal and credit records are checked and all applicants are palm printed and fingerprinted. Investigations can even be made with international law enforcement agencies like Interpol before a licence is issued. In some cases the licensing process can take up to six months (p. 27).

Moreover, some checks are revisited. Star City said:

The NSW casino legislation even requires a very detailed investigation every three years into the conduct of the casino licence. The investigation covers all aspects of compliance by the operator and its employees. The Casino Control Authority must determine whether it is in the public interest for the casino licence to remain in force — and whether it should be held by Star City. No other gaming body is subjected to such an onerous regulation.

Star City said it has its own regulatory body, the CCA, as well as a division of the Department of Gaming and Racing. About 100 people from various State and federal agencies are involved, even though:

... the casino ... generates only 14 per cent of the State's gaming revenue and operates only two per cent of NSW's slot machines. Yet there is no similar dedicated gaming regulator for the registered clubs which control around 75 per cent of gaming machines or the hotels which operate 23 per cent of machines nor for the TAB, Lotto or Racing (sub. 33).

Burswood casino also said that casinos are subject to significant regulatory requirements:

As a result ... the degree of security involved ... is significantly higher than that applying to many other business activities. Burswood would support any moves to streamline gambling regulation to ensure it operates as efficiently as possible [without] any diminution of the intent of gambling regulation (sub. 113, p. 23).

Some support for these views comes from chapter 6, which notes that there is insufficient evidence to conclude that casinos are a particularly significant source of crime or problem gambling.

Chapter 14 noted that many large clubs are not significantly different from casinos in terms of their gambling activities. The New South Wales IPART inquiry (1998) recommended the immediate licensing of all gaming managers with, in addition, the eventual licensing of all gaming related employees in clubs and hotels (by, say, 2001):

Gaming venue employees with cash handling, machine maintenance and or ticket issue duties hold positions of responsibility. Currently each venue (except Star City) performs its own (if any) suitability checks on potential gaming employees. Patrons, government and employers need assurance that gaming employees operate fair and honestly.

But IPART argued for a gradual transition towards this objective:

This would commence with gaming managers and progress eventually to cover all cash handling staff. [The proposed gaming commission] would need to conduct a risk assessment of the level of licensing appropriate for each type of gaming venue and staff numbers within each venue (IPART, p. 37).

IPART's proposal was supported by the hotel industry, which:

... would like to see the licensing of managers and shift supervisors and all other employees who work in a separate gaming room (AHA submission to IPART, August 1998, p. 22, cited in IPART, p. 37).

Differences in treatment by governments partly reflect historical factors, any licence fee and exclusivity arrangements to which governments have committed themselves, and some earlier uncertainties about the 'imported' casino culture which, at least in the early years in the United States, was linked to organised crime. And whereas clubs are community-based operations, with local operators and members, casinos can be owned or operated by international interests, perhaps making probity checking more difficult and increasing the political difficulty of granting licences.

Overall, however, there are few grounds for the marked differences in the treatment of identical types of gambling across different venues types. There is a basis, therefore, for a common set of probity requirements, at least within a jurisdiction, for gambling venues providing the same types of gambling services, and a move away from separate treatment of gaming machines in casinos, clubs and hotels.

On the other hand, different forms of gambling will require different approaches for at least some aspects of probity. For example, machine gaming, with central monitoring outside of the venue, involves different challenges to table based casino gaming, where there is much more scope for staff and customers to cheat. Even here there are grounds for a common approach to some aspects of probity checking (eg relating to checks on criminal ownership or management of the gambling business).

The *emphasis* of probity checking should be cost effective mechanisms for reducing risks to consumers and the community, regardless of the venue or gambling type.

Mutual recognition?

Jurisdictions may duplicate probity or gambling technology standards checks on a gambling business which sells into more than one State. The Allen report on ACT gambling noted that the application process for casino employees differs considerably across jurisdictions, and suggested that more uniformity would facilitate probity checks and reduce delays in assessing applications. In its view, a preferred approach would be to apply full mutual recognition to this process, as this would permit casino employee licences issued in another State or Territory to be accepted in the ACT (Allen Consulting 1998, p. 42).

Similarly, Tabcorp said:

One thing we would like to see, if it can occur at some stage in the future, is that if we had common probity across states - because each executive who works in this industry finds that if you move to another state you have got to go through the horrors of a large paper trail — if you can meet the probity requirements in Victoria, why can't you immediately or automatically have probity in Queensland, New South Wales, South Australia or somewhere else? (transcript, p. 1034).

Unless there are good grounds for different levels of probity or standards testing in each jurisdiction (eg for the checks on the computer chips and algorithms of gaming machines) there should be a mechanism which allows a business to meet just one requirement in order to sell in others. Mutual recognition is a process which allows this, but gambling has been made explicitly exempt. In fact, mutual recognition is probably not an ideal mechanism for dealing with divergent and duplicated standards in this area. This is because if gambling were not exempt from mutuality then all features of the regulation of gambling would be covered — and that might be inappropriate. For example, South Australia would be unable to bar bill acceptors or Western Australia genuine poker machines. However, it should be possible to reach inter-jurisdictional agreements on some common aspects of probity approaches, such as employee licences.

17 Help for people affected by problem gambling

Box 17.1 Key messages

- All jurisdictions have problem gambling strategies in place, including the funding of problem gambling counselling and support agencies, although some strategies are more comprehensive than others.
- There are differences among jurisdictions in how the problem gambling strategies are funded. Main areas of difference are:
 - while most jurisdictions impose compulsory levies to fund problem gambling services, in Western Australia and South Australia funding is derived from voluntary contributions; and
 - in most jurisdictions, funding is derived from only one or a couple of gambling codes rather than the gambling industry as a whole.
- Funding sources of problem gambling services should be broadened to include all gambling activities that contribute to the need for counselling/treatment services.
- There would be advantages in having rolling triennial funding arrangements for problem gambling agencies in jurisdictions where annual funding rounds currently apply, especially where processes are in place to evaluate the effectiveness of counselling/treatment services.
- It is difficult to put a precise figure on the number of problem gamblers (and those affected by problem gambling) who are currently attending problem gambling counselling agencies — the number is likely to be well above 12 000. But such a figure does not capture all clients seeking help for gambling-related problems because:
 - it excludes those who seek help from group support organisations such as Gamblers Anonymous; and
 - it excludes problem gamblers who seek help from generic service agencies.
- Results from the Commission's *National Gambling Survey* indicate that the likelihood a problem gambler will seek help varies with the degree of severity of gambling problems.
- Areas requiring attention in terms of effective service delivery by problem gambling counselling agencies relate to:
 - approaches used to assess the severity of gambling problems of clients;
 - assessment of client outcomes after counselling/treatment;
 - the effectiveness of counselling techniques used; and
 - whether the needs of particular client groups are being met.

17.1 Introduction

Most state and territory governments have responded to problem gambling in a variety of ways, such as funding community education programs, telephone gambling helplines, professional counselling and treatment services to help those experiencing problems, and research into the social and economic impacts of gambling.

To provide an up-to-date snapshot of available problem gambling services, the Commission conducted a *Survey of Counselling Services* during the course of the inquiry. The survey focused on the main government funded organisations that provide services for problem gamblers and ‘significant others’ affected by problem gambling. Details of the survey methodology are presented in appendix L.

In section 17.2, a brief overview is presented of the range of information and help services that are available for problem gamblers and those affected by problem gambling. The problem gambling strategies currently in place in the various states and territories are outlined in section 17.3, and the funding arrangements are examined in section 17.4. The more important problem gambling help services are then described, in particular the 24-hour problem gambling telephone services such as G-line (section 17.5) and agencies providing problem gambling counselling and treatment (section 17.6). In considering the operation of these agencies, information is given on how many people affected by problem gambling are attending, and the types of counselling and treatment provided.

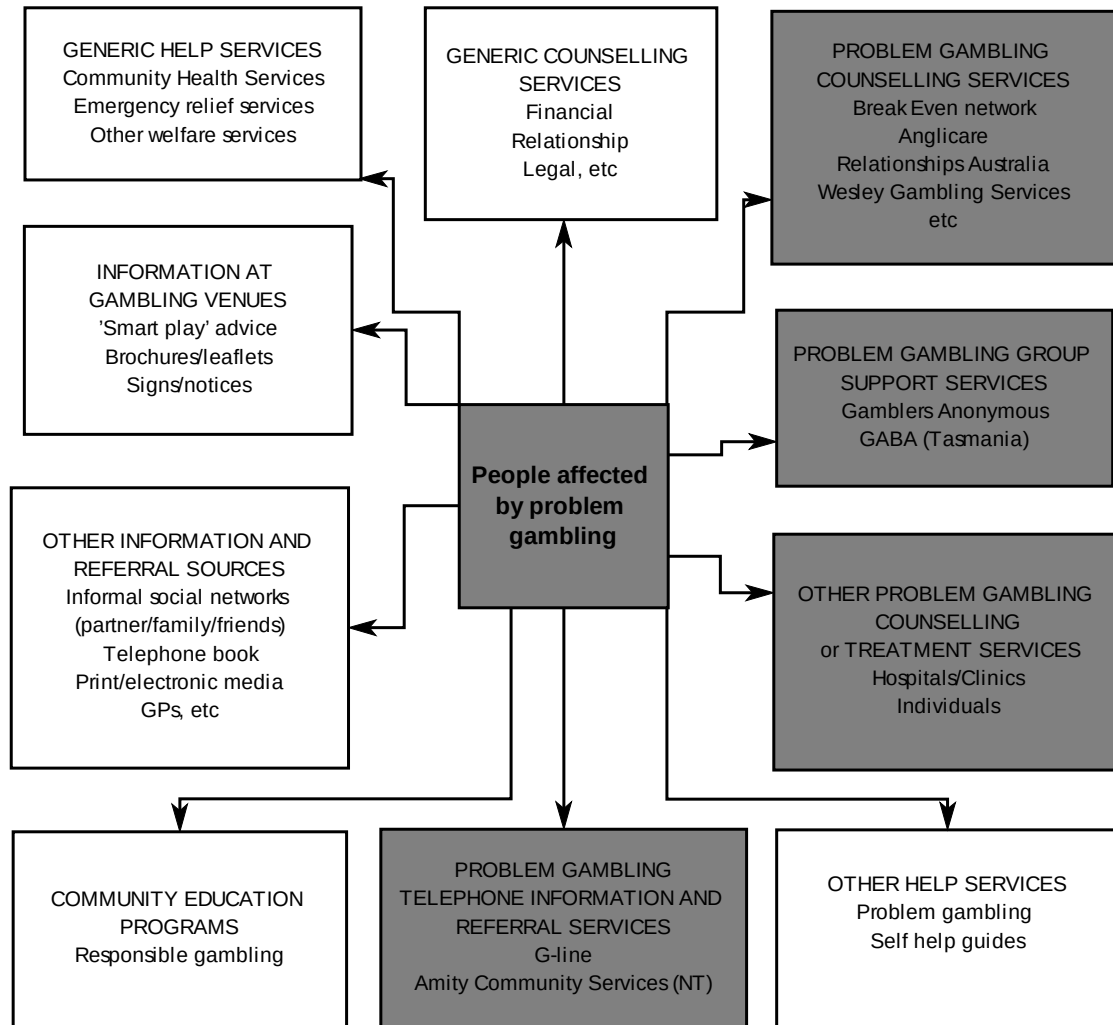
The chapter concludes with an examination of how successful the help services have been in meeting the needs of problem gamblers, and reports the views of the Commission and participants on the effectiveness of current strategies.

17.2 An overview of problem gambling help services

An indication of the main avenues by which those affected by problem gambling can obtain help is given in figure 17.1. The primary responsibility for the provision of help services for problem gamblers rests with state and territory governments. The decision to fund problem gambling services reflects a recognition by governments that the liberalisation of access to gambling has resulted in more people needing help for gambling related problems. As a response to this need, two common elements in most jurisdictions are the funding of direct help via:

- a network of problem gambling counselling and support services — in all states except New South Wales, a geographically-based network has been established under the banner of ‘Break Even’ to provide free counselling to gamblers, their families and friends; and
- a 24-hour telephone helpline to provide immediate counselling and support.

Figure 17.1 **Avenues for problem gamblers to access help services**



The ways in which a problem gambler (or those affected by problem gambling) might seek help will be influenced by the information and referral sources available. For many problem gamblers, their own informal social networks (including partners and family/friends) are the most important source of information about help services. Another important first point of contact might be a 24-hour problem gambling telephone helpline such as G-line.

General practitioners (GPs) can also play a role in assessing problem gamblers and their family members and referring them to appropriate counselling services. Patients may go to their GP to treat the adverse physical and psychological symptoms associated with gambling-related anxiety and depression. Indirect health effects may arise from inadequate nutrition, poor hygiene, and poor living conditions associated with gambling-related financial difficulties (AMA, sub. D204, p. 1).

But there are other sources of referral to gambling help services — for example, information might be obtained from a brochure or notice at a gambling venue, or problem gamblers themselves may self refer to a counselling agency.

The provision of problem gambling help services is carried out by a large number of quite varied and distinct organisations, including welfare, religious and other community groups, private individuals, and public and private hospitals and clinics. These service providers can be grouped into four broad categories (box 17.2). While some of these groups are restricted in the sorts of services they provide, others have a much wider focus.

Box 17.2 Main providers of problem gambling help services

Counselling agencies — largely comprise a wide variety of community organisations, such as welfare and church groups who provide a range of counselling services to problem gamblers.

Group support agencies — include organisations like Gamblers Anonymous. Gamblers Anonymous has grown out of alcoholics anonymous which believes that the only solution to alcoholic addiction is complete abstinence. Gamblers Anonymous has adopted a similar view to problem gambling.

Individuals — include people who either have a strong interest in the issue of problem gambling, know someone (friend or family) who has been affected by gambling, or they themselves were problem gamblers.

Clinics and hospitals — can range from professional individuals working in hospitals providing a service to problem gamblers to larger private clinics employing a number of professional staff.

But people adversely affected by problem gambling also access a broader range of community and counselling help services that are not gambling specific, such as:

- generic counselling services (financial, relationship, legal, etc);
- community health services (due to the incidence of physiological problems associated with problem gambling); and

-
- emergency relief and other welfare services (to provide food, clothing and other support for those deprived through problem gambling).

However, the problem gambling specific help agencies depicted by the shaded boxes in figure 17.1 are the focus of this chapter.

17.3 Government responses to problem gambling

In this section, features of the problem gambling strategies pursued by the state and territory governments are outlined. The funding arrangements for these strategies are described in section 17.4.

Origins of key elements of problem gambling strategies

The key elements of the state and territory problem gambling strategies are summarised in box 17.3. There are similarities in the structure of services developed across jurisdictions in Australia because those that have developed their strategies more recently have borrowed from the experiences and approaches developed earlier by other states as well as overseas countries. Some of the characteristics of services also reflect other similar services that already exist in areas like drugs, alcohol, relationships, etc.

The Break Even network concept of problem gambling counselling agencies originated in the ‘resource centre’ model developed in 1992 by the Queensland Department of Family and Community Services. The approach involved a range of strategies to help people affected by problem gambling, including (see Boreham et al. 1995):

- *direct services* for problem gamblers and their families — such as the provision of information and advice, and financial, addiction and family counselling;
- *prevention, education and community awareness* — involving networking with a wide range of other agencies and professionals in the community, and informing the community on gambling issues and prevention/harm reduction strategies; and
- *proactive strategies* — involving the active support and participation of key stakeholders in the gaming and wagering industry.

A 24-hour toll free problem gambling telephone helpline was first introduced in Victoria in 1994, and other states have gradually followed since that time. As Boreham et al. (1995) have noted:

an appropriately advertised toll-free one number for enquiries/crises concerning problem gambling is an essential component in the provision of services for problem gamblers and their families (p. 28).

Box 17.3 Key elements of problem gambling strategies

New South Wales

- currently 39 problem gambling counselling, treatment and rehabilitation services for problem gamblers and their families receive funding from the Casino Community Benefit Fund.
- a 24-hour telephone counselling and referral service (G-line).
- promoting industry and community awareness of problem gambling and associated activities through education campaigns.
- funding research into the social and economic impact of gambling on individuals, families and the general community.

Victoria

- a problem gambling counselling services network, Break Even, in operation since 1995 — with 18 agencies throughout the state currently receiving funding from the Community Support Fund.
- a 24-hour telephone counselling and referral service (G-line).
- a community education and media campaign.
- establishment of a Problem Gambling Reference Group — comprising membership from a range of key organisations including the gaming industry, counselling services, key community groups and government representatives, to provide advice to the Department of Human Services.
- a problem gambling research program.

Queensland

- a problem gambling services network, Break Even, in operation since 1993, at six locations.
- a 24-hour telephone counselling and referral service — since September 1998 on a pilot basis (the Gambling Help-Line project).
- an advisory Committee (the Responsible Gambling Advisory Committee) comprising all major stakeholders — to provide advice on strategies to monitor, prevent and respond effectively to problem gambling.
- community education and problem gambling research.

Western Australia

- a problem gambling support service, Break Even, in operation since 1995.
- a telephone counselling and referral service (G-line).
- publicising the availability of problem gambling services.

Source: DGR 1999e; sub. 76; VCGA (sub. 60); Department of Human Services (Victoria) 1998.

Box 17.3 Key elements of problem gambling strategies (cont'd)

South Australia

- a problem gambling services network, Break Even, in operation since 1995 — with 12 agencies currently receiving funding from the Gamblers Rehabilitation Fund.
- a 24-hour telephone counselling and referral service (G-line) — introduced in early 1999.
- an information framework to enable monitoring of the results achieved by clients of the services.
- a statewide community education campaign.
- commissioning of relevant research.
- training and development of Break Even staff.

Tasmania

- a problem gambling service, Break Even, in operation since August 1997 — with 3 organisations currently operating 8 services in 5 locations.
- a 24-hour telephone counselling and referral service (G-line).
- a long-term community education strategy focusing on promoting responsible gambling through preventative programs.
- ongoing research and evaluation to ensure effective service delivery and accountability.

Australian Capital Territory

- little if any strategy other than two part-time counsellors operating at Lifeline Canberra (Gambling and Financial Counselling Service).

Northern Territory

- a problem gambling service provided by Amity Community Services, including counselling and operating a toll-free crisis telephone number.
- research into the impact of gambling on individuals and families.
- a community education program.

Source: Elliot Stanford & Associates 1998; Eckhardt 1998; sub. 128; McMillen and Togni 1997; Alder 1998.

Other elements in the problem gambling strategies of most jurisdictions include:

- a community education strategy; and
- a problem gambling research program.

Problem gambling strategies by jurisdiction

Queensland

A key element in the strategy to address problem gambling in Queensland is the network of six regional counselling services operated by Relationships Australia, Centacare and Lifeline under the Break Even banner. Five of the services have been operating since 1993 (Brisbane, the Gold Coast, Townsville, Toowoomba and Rockhampton) while a sixth service was established in Cairns in 1996, following the opening of the Cairns Casino.

The Queensland Government stressed in its submission the advantages of having a regional network of problem gambling services. First, because of the *regional* spread, agencies can respond to local needs in their area. And second, because each agency is also part of a statewide *network*, this enables consistent levels of service to be provided across the state, as well as information to be shared more easily among agencies, and statewide programs to be better coordinated (sub. 128, pp. 30-1).

Victoria

In February 1994, the then Department of Health and Community Services proposed that regionally-based problem gambling counselling services be established in Victoria, as part of a Problem Gambling Services Strategy. The proposal was a response to the rapid increase in access to legalised gambling in that state. After the proposal was approved later that year, Victoria followed Queensland in adopting the name of Break Even for the problem gambling services network.

A range of other problem gambling services have been funded in addition to the Break Even counselling services, including (Department of Human Services 1998):

- community education and gaming liaison officers — who operate in each region and the Central Business District ;
- innovative services for people from non English speaking background communities;
- financial counselling services — to support the work of existing problem gambling counselling services;
- training and skills development — for problem gambling and financial counsellors and Community Education and Gaming Liaison officers; and
- parenting services — to meet the needs of people who seek Help for people affected by problem gambling who also require help with related difficulties which impact on their families.

Victoria pioneered the establishment of a 24-hour problem gambling helpline (G-line) which was in operation for a year before the establishment of the Break Even network. Another feature of the Victorian strategy is an extensive program of problem gambling research — the Victorian Casino and Gaming Authority funding research into the social impacts of gambling, and the Department of Human Services funding research into service delivery for problem gamblers (see VCGA, sub. 60).

New South Wales

In New South Wales, there are currently 39 problem gambling counselling and treatment services funded by the Casino Community Benefit Fund (CCBF). The Fund was established under the *Casino Control Act 1992*, and has funded counselling and treatment services, public education and awareness, and research into problem gambling since its inception in September 1995.

New South Wales differs from the other states in that the service agencies are not integrated into an overarching network along the lines of the Break Even model adopted elsewhere. As Prosser, Hing et al. (1997) stated:

In NSW many of the [problem gambling] services are available as discrete units but are not integrated under the Break Even name or organisational structure. Thus the NSW population have no publicly recognisable symbol or common element to associate with problem gambling services (p. 24).

Yet it has also been suggested that there may be some advantages in the New South Wales approach of not adopting a unifying label. As Michael Walker commented:

Since it is not known which assumptions about the causes of problem gambling are correct and which treatment methods are the more effective, a heterogeneous collection of agencies is appropriate. Also, the NSW system avoids the poor treatment record of a single agency contaminating perceptions of the whole range of agencies (sub. D287, p. 1).

South Australia

Responses to problem gambling in South Australia date from around August 1994, when funding was announced by the then Premier “to initiate programs to deal with gambling addiction and to help their families”. Such funding had been foreshadowed by the legislation introducing gaming machines in that state (the *SA Gaming Machines Act 1992*).

A range of problem gambling intervention and prevention services are funded by the SA Gamblers Rehabilitation Fund (GRF). In August 1995, the counselling agencies

funded by the GRF formed a network under the Break Even banner. The role of the network is to (see Elliot Stanford & Associates 1998, p. 16):

- contribute to adequacy and quality of services to gamblers and their significant others;
- provide information to stakeholders and advocate on gambling related issues and services;
- build co-operation and co-ordination between service providers; and
- raise community awareness of gambling related issues and their implications for individuals and the community.

Tasmania

A problem gambling strategy in Tasmania took effect in April 1997, when the government approved funding for three organisations to provide services for problem gamblers under the Break Even banner:

- Anglicare Tasmania (with counselling services in Hobart, Burnie and Devonport);
- Relationships Australia (with counselling services in Hobart and Launceston); and
- Gambling and Betting Addiction Inc. (GABA) (with group support meetings in Hobart, Launceston and Ulverstone).

The approach of the strategy was to provide problem gamblers with choice in two areas (Eckhardt 1998):

- *nature of help services* — a multiple service approach, which recognises the value of professional counselling as well as group support for helping problem gamblers and their families; and
- *number of organisations* — having more than a single provider of problem gambling help services.

However, Tascoss noted that one component of the problem gambling strategy — the community education program — operates only in Northern Tasmania, and has had limited broad impact within the community (sub. 114, p. 3).

Western Australia

The provision of problem gambling services in Western Australia dates from 1994, with the formation of the Problem Gambling Support Services Committee,

consisting of industry and government representatives. A major initiative of the Committee was that funding should be provided for a service to assist problem gamblers and their families. The successful applicant in the tender process was Centrecare Family and Marriage Service, which established a counselling service for problem gamblers under the name of Break Even in November 1995 (sub. 76).

Since its inception, the Problem Gambling Support Services Committee has continued to develop its role. As well as funding the 24-hour telephone help service (G-line) since August 1997, its recent initiatives include (sub. 76):

- negotiating an additional grant with Centrecare to provide more widespread publicity about the provision of gambling services; and
- undertaking research into problem gambling in ethnic communities.

Australian Capital Territory

In the ACT, the only response in place for dealing with problem gambling is a Gambling and Financial Counselling Service (GAFCS) operating in Lifeline Canberra (sub. 96). But current funding only allows for the employment of one part-time gambling counsellor and one part-time financial counsellor (sub. 103). As Lifeline Canberra stated:

There is a need for an overall government strategy which incorporates research, education, prevention and counselling services. Both Victoria and Tasmania appear to have models which could be incorporated in the ACT (sub. 103, p. 3).

Lifeline Canberra identified a number of gaps in problem gambling service delivery in the ACT, such as (sub. 103, p. 3):

- current funding allows for the employment of only 1.4 counsellors (to service a total population of over 300 000);
- because of these resource constraints, any advertising to increase awareness of the service could not meet any resultant increase in demand;
- no regional counselling services are provided (in the surrounding regions of the ACT, particularly Queanbeyan);
- no funds are specifically allocated to community education, prevention or media campaigns; and
- no resources are available to adequately evaluate service effectiveness.

Clearly the ACT lacks most of the key elements of the problem gambling strategies of other jurisdictions.

Northern Territory

In 1994, the decision was made to extend the availability of poker machines in the Northern Territory to clubs and hotels. Because it was recognised that community gaming machines may contribute to problem gambling, in early 1995 a Select Committee made recommendations in relation to (Alder 1998):

- *rehabilitation funding* — establishing a Community Benefit Levy for problem gambling related services and community organisations;
- *community education* — relating to gambling and sensible family budgeting; and
- *research* — initiating a base line research study of the impact of gambling on individuals and families, as the basis for designing a rehabilitation services network.

The Northern Territory relies on general community service agencies to provide problem gambling support services. The main agency is Amity Community Services, which has received some funding for gambling counselling, operation of a toll-free telephone helpline, and a community gambling awareness program — which included pamphlets at all gaming venues, a self-help manual for gamblers with problems, and posters advertising their services (McMillen and Togni 1997).

17.4 Funding of services for problem gamblers

In this section, the funding sources for problem gambling support services in the states and territories are described, and the levels of funding reported. The earmarking of gambling taxes in a broader context is discussed in chapter 20.

In addition to the government funded and approved services, there are also other providers of help to problem gamblers who do not receive government funding. Notable among these is Gamblers Anonymous, whose charter does not allow fund seeking.

Funding sources

The funding sources for the problem gambling strategies followed in the various jurisdictions are reported in table 17.1. It is clear that there are differences in a number of respects, including:

- the parts of the gambling industry that provide funding specifically for problem gambling services; and

- whether funds are derived from statutory levies or contributed on a voluntary basis.

In most jurisdictions, levies are imposed on sections of the gambling industry which contribute to one or more community support programs. However, in many cases only a small proportion of the funds raised from the gambling industry are typically used to support help services for problem gamblers, and the parts of the gambling industry that make contributions to funding these services can be quite narrowly based.

Table 17.1 Funding sources of problem gambling services, by jurisdiction

<i>State/Territory</i>	<i>Fund</i>	<i>Funding source</i>
NSW	Casino Community Benefit Fund	Part of the tax paid by the Sydney Casino operator (equivalent to 2 per cent of the gross annual gaming revenue)
Victoria	Community Support Fund	Derived from 8.33 per cent of the net cash balance from gaming machines in hotels
Queensland	Charities & Rehabilitation Benefit Fund	Derived from a percentage of gaming machine and keno revenue collected by the Queensland Office of Gaming Regulation
WA	Fund managed by Lotteries Commission on behalf of Problem Gambling Support Committee	Voluntary contributions from Burswood Resort Casino, WA Totalisator Agency Board and Lotteries Commission of WA
SA	Gamblers Rehabilitation Fund	Voluntary contributions by the Australian Hotels Association and Licensed Clubs Association
Tasmania	Community Support Levy	Derived from a levy on gross profits on gaming machines in hotels (a rate of 4 per cent) and clubs (a rate of 2 per cent)
ACT	Community Services Grants Program	Derived from a percentage of gambling revenue
NT	Community Benefit Fund	Derived from a levy of 25 per cent of gross profit on gaming machines in hotels

Sources: DGR 1999e; VCGA (sub. 60); Queensland Government (sub. 128, p. 48); sub. 76; Elliot Stanford & Associates 1998; Eckhardt 1998; sub. 96; Alder 1998.

In Queensland, legislation provides for a proportion of the revenue from casinos, gaming machines in licensed clubs and hotels, keno and other forms of gambling to be allocated to a number of special funds (sub. 128, pp. 45-48): Casino Community Benefits Funds (CCBFs), the Gaming Machine Community Benefit Fund, the Sport & Recreation Benefit Fund, and the Charities & Rehabilitation Benefit Fund — in relation to the last of these, contributions are made from gaming machine and keno revenue, and funds are used for charitable, rehabilitative or social benefit purposes.

In aggregate, these special funds benefited by \$92 million in 1997-98, with the Charities & Rehabilitation Benefit Fund (CRBF) alone amounting to \$26.4 million (sub. 128, p. 45). However, only a very small portion of the CRBF is allocated to assist problem gambling services. For example, in 1998-99 around \$1.56 million was allocated to recurrently funded problem gambling services (sub. D275, p. 24).

In Victoria, a percentage of the net cash balance from gaming machines in hotels contributes to the Community Support Fund (VCGA, sub. 60). The *Gaming Machine Control Act* 1991 requires that funds from the Community Support Fund must be used for (sub. 60, p. 1):

- research by the Victorian Casino and Gaming Authority into the social and economic impacts of gambling; and
- payment for or towards the provision of projects of benefit to the community, such as projects assisting problem gamblers, drug rehabilitation centres and projects of lasting significance which demonstrate substantial community benefit (such as those relating to youth, sport, recreation, tourism and the arts).

In New South Wales, the principal source of funding for counselling and treatment services for problem gamblers and their families, promoting public education and awareness, and supporting research into problem gambling is the Casino Community Benefit Fund. The Sydney casino operator pays a specified amount of tax (based on casino gross gaming revenue) to the New South Wales Government's consolidated revenue, and an amount calculated at 2 per cent of the casino's gross gaming revenue is separately hypothecated to the CCBF. But as IPART (1998) noted, other sources of funding for services and research include individual gaming operators, the Department of Community Services, NSW Health, universities and welfare groups (1998, p. 61).

In Tasmania, the Community Support Levy (CSL) is derived as a percentage of gross profits on gaming machines in hotels and clubs — but no contributions to the CSL are made from the profits on gaming machines located within the casino complexes. Funding in the Northern Territory is also very narrowly based — the Community Benefit Fund (CBF) is derived from a levy on gross profits on gaming machines in hotels only.

In Western Australia, problem gambling services are funded on an entirely voluntary basis by Burswood Resort Casino, the TAB and the Lotteries Commission. Each member of the industry provides their contribution to the Lotteries Commission, which then administers the grants program to G-line and Centrecare, and payment of the costs of research projects. As the Western Australia government commented:

The voluntary agreement by the gaming industry in Western Australia to contribute to problem gambling support services appears to be unique in Australia (sub. 76, p. 33).

But South Australia also has a voluntary funding approach. The Gamblers Rehabilitation Fund (GRF) was established by the South Australian Government in August 1994, shortly after gaming machines were introduced to clubs and hotels. An amount of \$1.5 million per annum is contributed voluntarily to the GRF by the Australian Hotels Association and the Licensed Clubs Association through the Independent Gaming Corporation (Elliot Stanford & Associates 1998, p. 7).

However, Anglicare (SA) expressed some concern that the voluntary funding arrangements in SA might not ensure that funding was adequate, and suggested that:

in line with other Australian States, the formula for contributing to the [GRF] be based on turnover, and be set at between 2 and 5 per cent (sub. 104, p. 17).

Further views of participants and the Commission on funding arrangements are presented in the concluding section of this chapter.

Funding levels

Information on funding levels for problem gambling strategies by jurisdiction are reported in table 17.2.

In New South Wales, funding of problem gambling services in 1997-98 amounted to around \$4.8 million, of which \$3.7 million was allocated to problem gambling counselling services (sub. 163). In total, \$13 million has been expended or committed since the inception of the CCBF in September 1995 on counselling and treatment services, public education/awareness and research in relation to problem gambling (CCBF 1999).

In Victoria, over the period since 1993 up to end-June 1999 a total of \$39.4 million has been committed from the Community Support Fund for the development of a comprehensive problem gambling strategy. Of this amount, \$30.4 million has been allocated to problem gambling and related services, \$1.5 million to the research program, and \$7.5 million to the community education campaign (Department of Human Services Victoria 1998). A further \$21 million has been allocated for the three-year period to end-June 2002.

In Queensland, an amount of \$1.556 was allocated in 1998-99 to recurrently funded problem gambling services, including funding of the Break Even network, piloting of the Gambling Help Line, and funding for the Secretariat for the Responsible

Gambling Advisory Committee, which is comprised of industry, problem gambler service provider and government representatives (sub. D275, p. 24).

Table 17.2 Funding levels of problem gambling services, by jurisdiction

<i>State/Territory</i>	<i>Period</i>	<i>\$'000</i>	<i>Comments</i>
NSW	1997-98	4 781	Expenditure on problem gambling counselling, research and programs
Victoria	1993-94–1995-96	4 134	Triennial funding for the Problem Gambling Services Strategy
	1996-97–1998-99	35 300	Second round of triennial funding
	1999-2000–2001-02	21 000	Allocation for third round of triennial funding
Queensland	1998-99	1 556	Allocation to recurrently funded problem gambling services
WA	1998-99	113	
SA	1997-98	1 337	Total expenditure of \$5.722 million since the inception of the GRF in August 1994.
	1998-99	1 747	
Tasmania	1997-98	303	\$1.125 million allocated to problem gambling programs during period July 1997–April 1999.
	July 1998–April 1999	304	
ACT	1998-99	107	Funding to Lifeline ACT for the Gambling and Financial Counselling Service
	1999-2000	127	
NT		See text	

Sources: CCBF Trustees 1999; Commonwealth Department of Health and Aged Care (sub. 163, table 3); Jackson et al. 1997; Department of Families, Youth and Community Care (Queensland) 1999; Queensland Government (sub. D275, p. 24); Eckhardt 1999; ORGL 1999b; Department of Human Services (SA)1999; Department of Education and Community Services (ACT)1999; sub. D275.

In Western Australia, the Problem Gambling Support Services Committee has approved a budget of \$113 000 for the provision of counselling services by Centrecare in 1999-2000, an amount similar to that approved in 1998-99 (ORGL 1999b).

In South Australia, the expenditure from the Gamblers Rehabilitation Fund in 1998-99 includes an allocation of \$1.164 million for Break Even service agencies and specialist services, and \$0.463 million for training, media and other services (Department of Human Services SA 1999).

In the Northern Territory, payments from the Community Benefit Fund were suspended in July 1997, pending the Gaming Machine Industry Review, which was completed in December 1998 (Alder 1998). However, that Review reports that the levy on hotels is still producing over \$125,000 per month, and the balance of the fund is over \$2 million.

On the situation in the ACT, Lifeline Canberra commented that the funding they receive:

... is considerably less than that which is received by gambling counselling services in other States. The number of citizens of the ACT attending the Gambling and Financial Counselling Service ... is consistent with that of other gambling counselling services although funding in the ACT is lower and availability of the service is less (sub. 96, p. 3).

Up-to-date or annual information on problem gambling funding is lacking for some jurisdictions. With that proviso, the total annual funding of problem gambling programs (including problem gambling counselling services, research into problem gambling, and other services such as G-line) is currently perhaps around \$20 million. However, this understates somewhat the overall level of problem gambling support because people with gambling related problems access a wider range of help services than those which are gambling specific. As the Queensland Department of Families, Youth and Community Care (1999) pointed out:

a wide range of funded and unfunded community based services and a number of government departments provide support, including counselling/health services, to people adversely affected by gambling in Queensland. These may be generic services which are not gambling specific, for example, a community health service or an emergency relief service.

Differences in levels of funding of problem gambling services across jurisdictions largely reflect differences in the number of clients attending problem gambling services (refer section 17.6). Comments on whether levels of funding are adequate and appropriate are reported in section 17.7.

17.5 Problem gambling telephone helpline services

Telephone help services for problem gamblers and people affected by problem gambling operate in all states and the Northern Territory. The current arrangements in the various jurisdictions are as follows:

Victoria, Tasmania, Western Australia and South Australia — a 24-hour telephone crisis counselling and referral service called G-line is operated by the Addiction Research Institute (ARI), an independent not-for-profit organisation supported by funding from both government and non-government sectors.

New South Wales — a G-line service was established in New South Wales in August 1997, operated by the ARI. From 1 August 1999 the New South Wales Government engaged a New South Wales-based company (High Performance Healthcare) to operate the 24-hour helpline, following a tender process. The new

operator conducts the service under the name ‘G-line (NSW)’ and uses the same telephone number as before — 1800 633 635.

Queensland — the Queensland Government has developed its own telephone help service model, the Gambling Help-Line pilot project, to meet the particular needs of the Queensland context. An independent evaluation of the pilot project has recently been completed, and the service will continue to operate in the pilot areas while a statewide model of operation is developed. The Gambling Help-Line is expected to be implemented across Queensland in early 2000 (sub. D275, p. 10).

Northern Territory — a telephone help service similar to G-line is operated by Amity Community Services.

The G-line service model

The G-line service was established first in Victoria, and became operational from October 1994. Since that time, a G-line service has been introduced in all states except Queensland (table 17.3).

Table 17.3 **G-line: commencement dates and funding support, by state**

<i>State</i>	<i>Date commenced</i>	<i>Funding body/source</i>
Victoria	October 1994	Department of Human Services (Community Support Fund)
Tasmania	October 1996	Tasmanian Gaming Commission (Community Support Levy)
New South Wales	August 1997	Department of Gaming and Racing (Casino Community Benefit Fund)
Western Australia	August 1997	Burswood Resort (Management) Ltd, Totalisator Agency Board and Lotteries Commission of WA
South Australia	End 1998/early 1999	Department of Family and Community Services

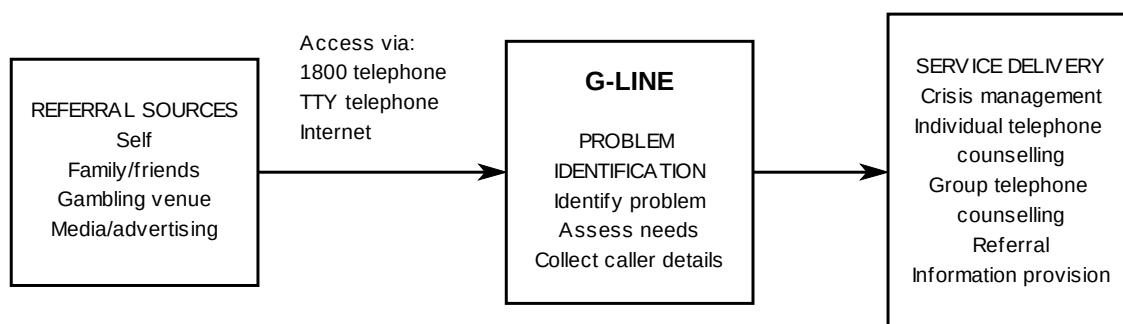
Source: Addiction Research Institute (sub. 37, attachment 2); <http://www.g-line.org.au>.

The key elements of the G-line service model — problem identification, provision of direct services, and referral — are depicted in figure 17.2. Other details on G-line are set out in box 17.4. G-line acts as a first point of contact for people affected by problem gambling to access a range of services, such as (sub. 37):

- *direct* services — including crisis counselling support, individual telephone counselling and group telephone counselling; and

- *indirect* services — including referral to services that provide problem gambling, relationship, financial and legal counselling; and provision of information.

Figure 17.2 **The G-line service model**



Source: Addiction Research Institute (sub. 37).

Box 17.4 **G-line at a glance**

Management	Addiction Research Institute (ARI).
Client group	People affected by problem gambling
Service provided	Individual and group telephone counselling, information and referral. The service is confidential and free of charge to callers.
Access	Clients can access the G-line call centre 24 hours a day, 7 days per week via a toll free 1800 telephone number. A TTY 1800 number is also available for the hearing impaired. An internet website (www.g-line.org.au) is accessible in 13 languages.
Coverage	Services delivered on a statewide basis in Victoria, Tasmania, South Australia and Western Australia.
Counselling staff	Professionally qualified telephone counsellors with specialist skills in problem gambling counselling and crisis management.
Funding	Funding for G-line services is received from state governments under contracts to provide those services for each state.

Source: Addiction Research Institute (sub. 37).

Group telephone counselling for problem gamblers is a program operated by the ARI which involves three to five clients participating in six, semi-structured, one-hour tele-counselling sessions per week. A G-line psychologist acts as the group's facilitator, and clients are required to make a commitment to participate in all sessions.

How do clients hear about G-line?

The main ways in which callers obtain the telephone number for G-line are reported in table 17.4. The information relates to Victoria, which has operated the G-line service for the longest period of time. The relative importance of the different referral sources has varied over time, with the most important *current* sources being the telephone book or directory assistance, notices at gambling venues, and brochures or pamphlets.

Table 17.4 Main referral sources to G-line: Victoria
per cent

<i>Referral source</i>	<i>Dec-98</i>	<i>Sep-98</i>	<i>Jun-98</i>	<i>Mar-98</i>	<i>Dec-97</i>	<i>Sep-97</i>	<i>Jun-97</i>
Family/friends, etc	6	10	8	6	6	6	11
Phone book, directory	30	32	29	20	18	13	38
Brochure/pamphlet/poster	20	24	25	8	6	7	17
Media (Paper/TV/radio)	7	7	12	45	56	63	14
Venue notice	28	19	15	11	9	8	12
Other	9	8	11	11	6	4	8
All	100	100	100	100	100	100	100

Source: Information supplied by Addiction Research Institute.

But the media was overwhelmingly the main referral source from the September quarter 1997 to the March quarter 1998. A publicity campaign for G-line during that period resulted in between one-half and two-thirds of callers listing the newspaper, television or radio (and especially television advertising) as the primary source of referral. It is clear then that media publicity can play a vital role in raising people's awareness of the availability of the G-line telephone help service.

How many clients are contacting G-line?

In some states, G-line has been operating for only a relatively short period of time (South Australia) or only on a pilot basis (Queensland). In relation to New South Wales, the Trustees of the CCBF declined to release G-line data to the Commission other than as an unidentifiable component of national G-line data. In respect of Western Australia, some concerns about the reliability of the G-line data were expressed to the Commission by the WA Lotteries Commission.

For these reasons, only limited information on the number of callers is available for reporting here — for Victoria and Tasmania (table 17.5). The trends in the number of calls to G-line in Victoria illustrate the importance of the ongoing need to keep

potential clients fully informed of the availability of the service by publicity and awareness campaigns.

Table 17.5 Number of calls to G-line, by period and state^a

<i>Half-year ending</i>	<i>Victoria</i>	<i>Tasmania</i>
December 1996	4 077	n.a.
June 1997	4 274	27
December 1997	7 169	82
June 1998	6 354	67
December 1998	5 028	66 ^b

^a The information relates to 'genuine' calls only. Because of the anonymity afforded callers, it is not possible to distinguish between those who contacted G-line once and those who made contact more than once, unless this was disclosed during the counselling process. Hence, the information refers to calls rather than callers.

^b Relates to September quarter 1998 only

Source: Addiction Research Institute; Eckhardt 1998.

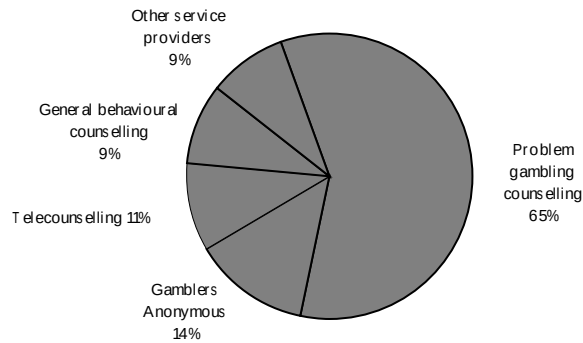
In Victoria, the number of calls to G-line increased steadily from the inception of the service in October 1994. In each of the first three quarters of 1995, total calls almost doubled, to reach around 700 in the September quarter 1995. A publicity campaign to increase awareness of the service later that year saw the number of calls increase from an average of 6-8 calls per day to 40-60 per day (Boreham et al. 1995, p. 28).

More recently, in the twelve month period to June 1997, 8351 calls were made. However, in the following twelve month period to June 1998, the number of calls jumped to 13 523. This period coincided with a major television and radio publicity campaign from July 1997 to February 1988. Since the June 1998 quarter, calls have declined somewhat with the number in the six-month period to December 1998 reaching 5028.

Where does G-line refer clients?

The current referral pattern for clients who contacted G-line in Victoria in the December quarter 1998 is depicted in figure 17.3. Around two-thirds of callers were referred to a problem gambling counselling agency, while around 15 per cent were advised to contact Gamblers Anonymous.

Figure 17.3 Referrals by G-line to help services, Victorian clients



Source: Information supplied by Addiction Research Institute.

17.6 Problem gambling counselling services

In this section, several aspects of problem gambling help services are examined, such as:

- how do people affected by problem gambling find out about counselling services?;
- how many people are attending problem gambling counselling services?;
- what types of gambling related problems do clients experience?;
- what types of counselling/treatment do clients receive?; and
- what are the outcomes of the counselling/treatment?

Some of the findings reported are drawn from the Commission's *Survey of Counselling Services*. Details on key characteristics of clients of these agencies, drawn from the Commission's *Survey of Clients of Counselling Agencies*, are reported in chapter 7.

How do clients find out about problem gambling counselling agencies?

The main referral and information sources for clients attending problem gambling counselling agencies are reported in table 17.6 for a selection of jurisdictions. In Victoria, the most important referral source is the telephone counselling service G-line, which accounted for 37 per cent of all referrals among new clients in 1997-98. In New South Wales and Tasmania, where G-line had been operating for a shorter period, the proportion of referrals from that source was only around 20 per cent.

Table 17.6 Referral and information sources for clients of problem gambling counselling agencies

<i>Referral/information source</i>	<i>Vic ^a</i>	<i>NSW ^b</i>	<i>Tas ^c</i>	<i>WA ^d</i>	<i>SA ^e</i>	<i>PC survey ^f</i>
Self-initiated	29	10	8	35	-	30
Family/friends	13	19	11	10	41	22
G-line	37	21	22	5	n.a.	21
Another agency/service	7	20	35	9	16	18
Brochure/advertising/media	8	11	9	10	10	-
Other therapist/counsellor medical /health service	6	6	-	4	4	-
Ministry of Justice/legal/parole	5	4	-	11	-	-
Telephone book	-	- ^g	6	17	12	-
Other/not known	4	9	9	-	17	9

^a Based on problem gambler client registration data for 18 Break Even agencies, 1997-98. These percentages sum to more than 100 because some clients reported more than one referral source. ^b Based on a survey of 45 problem gambling counselling agencies, August 1998. ^c Based on registration data for 102 clients of Break Even agencies, July 1997 to September 1998. ^d Based on registration data for 123 clients. ^e Based on client registration data for Break Even agencies, November 1996 to March/May 1998. ^f Results from *Survey of Counselling Services*, referral sources reported by 79 agencies, weighted by the number of problem gamblers attending each agency. ^g Included in the advertising category.

Sources: Jackson et al. 1999b; Walker 1998a; Eckhardt 1998; ORGL 1999b; Elliot Stanford & Associates 1998; PC *Survey of Counselling Services*.

In seeking to explain why the share of referrals from G-line in New South Wales might not have been higher, Walker (1998a) concluded that:

... the most likely explanation is that the G-line service has not been advertised sufficiently widely. Although signage and brochures present the 1800 number for G-line, it may well be the case that large numbers of problem gamblers simply do not realise that help is a telephone call away and that there is likely to be a counsellor nearby who is easily accessible (p. 16).

In the one state reported in the table which had no G-line service at the time of the data collection (South Australia), family and friends were the most important referral source. That source is also relatively important in the other states.

In Tasmania, the large proportion of referrals from other agencies is largely accounted for by referrals from the group support organisation GABA, which was responsible for referring 19 per cent of the clients attending the two problem gambling counselling agencies (Relationships Australia and Anglicare).

Self referrals are relatively high in Victoria and Western Australia, whereas in the other states they take a much a lower ranking. Jackson et al. (1999b) have commented on the Victorian self referrals as follows:

This concept of self-referral is a difficult one. While clients may be urged by others to seek help for their gambling associated problems, unless an actual referral is made, the client is regarded as self-referred. ... Conversely, if a client self-refers to an agency, and that agency subsequently advises that Break Even is a more suitable agency to deal with the client's problem, then a referral from another health or welfare service is recorded, even though the client initiated the original contact (p. 39).

Self-referral might also be something of a catch-all category where a counsellor is not sure of the source of referral. With these provisos, results from the Commission's *Survey of Counselling Services* suggest that referrals initiated by problem gamblers themselves are the most common source of referral. Family/friends and G-line were also important referral sources, with Other agencies of slightly lesser importance overall. The relative importance of telephone help services as a referral source differed across jurisdictions. For example, the proportion of referrals in Victoria, Tasmania and New South Wales from G-line were 54 per cent, 23 per cent and 15 per cent respectively, whereas in the other states in which it has been introduced more recently, G-line accounted for less than 10 per cent of referrals.

How many clients are attending problem gambling counselling agencies?

The available information on the number of clients attending problem gambling counselling agencies is presented in table 17.7. Because the introduction of Break Even services is only relatively recent in some states, time series information is very limited. Similarly, the available information on clients is not always comparable — sometimes referring only to new clients rather than all clients, and combining problem gamblers with those *affected* by problem gambling.

The information for New South Wales on the number of problem gamblers receiving counselling or treatment is available from surveys commissioned by the CCBF and conducted by Walker (1997, 1998a). The surveys sought to obtain a complete coverage of clients attending all agencies providing services for problem gamblers, and included not only counselling and treatment services funded by Government sources, but other services as well. Among the findings were that:

- 310 problem gamblers were counselled during a one week period in September 1998, compared with 154 during a comparable week in 1997; and
- approximately 2377 problem gamblers received counselling during the twelve-month period to September 1998, compared with 1972 for the same period in 1997.

The annual figures suggest an increase of 20 per cent in the number of problem gamblers being counselled and treated by agencies in New South Wales between 1997 and 1998.

Table 17.7 Number of clients attending problem gambling agencies

<i>State/Territory</i>	<i>Period</i>	<i>Source</i>	<i>Number of clients</i>
NSW	1997	Survey of service agencies	1 972 problem gamblers
	1998	Survey of service agencies	2 377 problem gamblers
	Sept 1997 (1 week)	Survey of service agencies	154 problem gamblers
	Sept 1998 (1 week)	Survey of service agencies	310 problem gamblers
Victoria	1995-96	18 Break Even agencies	1 324 new clients
	1996-97	18 Break Even agencies	1 817 new clients ^a
	1997-98	18 Break Even agencies	3 149 new clients ^b 4 024 clients in total
Queensland	Sept 1998 to April 1999	3 Break Even services	384 new clients ^c
SA	1997-98	Break Even agencies	749 clients ^d
WA	1997-98	Centrecare services	160 clients ^e
Tasmania	1997-98	Break Even agencies	143 new clients ^f
	July 1998 to April 1999	Break Even agencies	241 new clients ^f
ACT	1997-98	Lifeline ACT (Gambling and Financial Counselling Service)	314 gambling counselling sessions; 109 financial counselling sessions

^a Around 84 per cent were people who had problems with their own gambling behaviour. ^b Around 80 per cent were people who had problems with their own gambling behaviour. ^c Clients attending Break Even services in Brisbane, Gold Coast and Townsville for the 8-month period. These three agencies account for around 60 per cent of Break Even services funding in Queensland. Assuming service delivery is proportional to funding, and scaling up client attendances to a 12-month period gives an annual estimate of around 960 new clients. ^d 70 per cent were gamblers. There is some uncertainty attached to the SA figures. Elliot Stanford & Associates (1998) report a total of 4807 Break Even clients during the period November 1996 to March/May 1998. However, such a figure seems extremely high, relative to numbers attending in Victoria and NSW. The quoted figure of 749 clients is sourced from Department of Human Services 1999. The number of clients seen by the Break Even network in 1996-97 was 1645, of which 68 per cent were gamblers. Again, these figures appear to go against trends because in other States the number of clients has been increasing in recent years. ^e 83 per cent were gamblers. ^f Includes problem gamblers and those affected by problem gambling.

Source: Jackson et al. 1997, 1999b; Walker 1998a; Eckhardt 1999; ORGL 1999b; Department of Families, Youth and Community Care (Queensland) 1999; Department of Human Services (SA) 1999; Department of Education and Community Services (ACT) 1999.

The number of new clients presenting to the 18 Break Even problem gambling counselling services in Victoria increased from 1324 in 1995-96 to 1817 in 1996-97 (an increase of 37 per cent) and to 3149 in 1997-98 (a further increase of 73 per cent) (Jackson et al. 1997, 1999b). The overall number of clients attending counselling sessions in 1997-98 was 4024, which included new clients receiving counselling for the first time and clients who first presented prior to 1 July 1997 but who also obtained counselling in 1997-98. Around 80 per cent of the new clients

were problem gamblers themselves, with the remaining 20 per cent being partners and others affected by someone else's problem gambling behaviour.

Other jurisdictions have also recorded substantial increases in the number of clients attending problem gambling agencies. For example, if the available information for Tasmania for the period from July 1998 to April 1999 is scaled up to an annual basis, the increase over attendances in 1997-98 represents a doubling.

Information on client numbers attending Break Even services in Queensland is limited for a number of reasons. Although Break Even agencies collected some data prior to September 1998, use of the data base was inconsistent and as a result the statistics do not accurately reflect service delivery during the past few years (Department of Families, Youth and Community Care 1999). However, since September 1998 some limited but consistent statistical recording of clients has occurred and for that reason, only information for the period September 1998 to April 1999 is reported in table 17.7.

In South Australia, clients of Break Even services are allocated an encrypted identifier where possible, so that those who return at a later date or who attend more than one service can be identified. But of the 1645 clients in 1996-97, 30 per cent had an encrypted identifier while of the 749 clients in 1997-98, 55 per cent had an encrypted identifier. From these it is possible to identify repeat clients, but a limitation is, of course, that not all clients have an identifier.

The data in table 17.7 are consistent with a significant increase in the number of clients attending problem gambling counselling services in recent years. However, it is difficult to estimate the *total* number of clients that are *currently* attending problem gambling counselling agencies because of:

- differences in time periods and types of clients in the available data; and
- the information on clients of counselling agencies for all states except New South Wales includes only those attending services funded by Government sources. Hence in jurisdictions where there are also services providing help for problem gamblers that do not receive government funding, the reported figures will understate the *overall* number of problem gamblers receiving treatment.

In an effort to assemble the most up-to-date information, the Commission conducted its own *Survey of Counselling Services*. Findings are reported in table 17.8 on the number of clients (problem gamblers and those affected by problem gambling) receiving counselling or other help in the 12 month period prior to the survey. The agencies are classified into those which specialise in providing services for people experiencing gambling problems, and non-specialist agencies which provide help; and by jurisdiction.

The 53 specialist problem gambling counselling agencies which responded reported helping around 7 886 gamblers in the 12 months prior to the survey and a further 1 563 clients affected by someone else's gambling were also helped. Combined with around 2 157 helped by the non-specialist agencies surveyed, overall the respondent agencies reported counselling or helping around 11 600 problem gambler clients and other clients affected by someone else's problem gambling.

Table 17.8 People seeking problem gambling counselling or help

Number in 12 months period prior to survey

<i>Agency/jurisdiction</i>	<i>Agencies</i>	<i>Gamblers</i>	<i>Others</i>	<i>Total</i>
Specialist problem gambling	53	7 886	1 563	9 449
Non-specialist	26	1 720	437	2 157
NSW	21	3 448	484	3 932
Victoria	23	2 441	441	2 882
Queensland	8	969	306	1 275
Western Australia	5	180	32	212
South Australia	15	1 952	581	2 533
Tasmania, ACT, NT	7	616	156	772
Total	79	9 606	2 000	11 606

Source: PC Survey of Counselling Services.

Looking at the number of problem gambling clients by jurisdiction, differences arise between the survey findings (table 17.8) and the information in table 17.7 because of factors such as:

- *survey nonresponse* — not all agencies that were approached to participate in the Commission's survey agreed to do so, and not all who agreed to participate actually responded. For example, of 126 agencies included in the sample frame, 106 agreed to participate while completed returns were received from 82 (refer appendix L).
- *differences in coverage* — identifying all the agencies which provide counselling and help services for people with gambling problems in all of the various jurisdictions is a difficult task, and while the Commission's survey aimed to be as comprehensive as possible, inevitably coverage was less than complete. But the coverage of agencies in table 17.7 (apart from New South Wales) is also incomplete in that the reported data focus on agencies that receive government funding. Examples of differences in coverage include the following:
 - While 23 Victorian organisations providing problem gambling services responded to the Commission's survey, only 9 of these were common to the group of 18 Break Even services analysed in table 17.7. Hence, the Commission's survey includes data on 14 organisations which provide

problem gambling services but which are not covered in the Break Even statistics in table 17.7.

- Similarly, the Commission’s survey included 16 of the 45 agencies included in the Walker (1998a) survey for New South Wales, but also 6 agencies that were not in the Walker survey.
- *differences in time periods.* The Commission’s survey data relates to the 12 month period prior to when most agencies completed the survey (around mid 1999). This is more recent than most of the data in table 17.7.

The information in *both* tables 17.7 and 17.8 understates the likely number of people affected by problem gambling because:

- *some group support organisations are excluded* — for example:
 - Walker (1998a) reports that attendances at Gamblers Anonymous meetings in New South Wales are around 550 in any given week; and
 - GABA in Tasmania reported overall attendances of 1740 at their weekly meetings from April 1997 to end-August 1998 (Eckhardt 1998).
- *many non-specialist help services are excluded* — not all problem gamblers seek help from agencies which specialise in the provision of problem gambling services. Some may seek help from generic community service, financial or relationship counselling agencies (other than those included in the Commission’s survey).

On the last point, Professor Jan McMillen commented that:

The work we’ve [the Australian Institute for Gambling Research] done suggests that we’re really just seeing the tip of the iceberg in the designated gambling agencies. A lot of people are going to other support agencies for help, agencies that aren’t getting funded to provide gambling assistance and don’t have the time or resources to collect data and I think it’s putting great pressure on those agencies (transcript, p. 1495).

Women’s Health West (sub. 176) reviewed a range of information on clients of generic support services in Victoria, and while it is not possible to quantify the proportion of financial counselling caseloads which have gambling-related financial problems — because such information is typically not collected by these agencies — the following assessment seems apt:

... the caseload of the local Break Even service [is] a considerable underestimate of the workload imposed on community agencies by clients with gambling-related issues (sub. 176, p. 15).

The *Survey of Counselling Services* also provides an indication of the extent to which the number of clients presenting for counselling has *changed* in the last 12

months. Agencies were requested to provide information on their caseload of clients with gambling problems at the time of the survey and 12 months earlier. For the 64 agencies which reported information at both points in time (or who had commenced providing problem gambling services only in the previous 12 months), their overall caseload at the time of the survey was 2059 clients, compared with 1542 clients at the same time 12 months ago. Hence, the caseload of problem gamblers reported by respondents increased by around one-third in the space of a year.

In summary, it is difficult to know precisely how many clients are seeking help for problems related to gambling behaviour, because neither the information presented in table 17.7 nor that from the Commission's survey in table 17.8 is complete in its coverage. Because the findings from the Commission's survey are the most up-to-date, the number of problem gamblers (new and ongoing clients) and those affected by someone else's problem gambling behaviour who attended problem gambling counselling agencies in the past year is likely to be *well in excess* of 12 000.

There is a need for a National Minimum Data set to be collected on clients of problem gambling counselling agencies, using an identical set of definitions across all jurisdictions and an approach that would allow repeat clients to be identified as well as clients who attend more than one counselling service. The suggested approach would be not unlike that currently in place in relation to hospital admissions.

Problem gamblers who *do* and *don't* seek help

There has been some comment in the literature about apparent inconsistencies between the number of people estimated to be experiencing problems from gambling as suggested by the prevalence estimates (chapter 6) and the number of people who seek help for gambling related problems. The discrepancies are often used to suggest that the prevalence estimates overstate the extent of problem gambling. But as Thomas et al. (1998) have commented:

There is ... the possibility that the 'low' numbers of clients presenting to problem gambling services may be due to low service uptake. In other words, there may well be large numbers of people with problems who do not present to services for a variety of reasons (p. 13).

Some of the reasons why people experiencing gambling problems might not seek help include:

- a limited knowledge of the availability of services;
- poor location of services;
- hours of operation might not be convenient;

-
- problems might not be considered serious enough;
 - preference for other more informal assistance;
 - cultural and/or gender factors; and
 - the stigma associated with gambling problems.

Anglicare (SA) mentioned that some problem gamblers are deterred from seeking help because of feelings of shame and embarrassment:

Many people, because of the shame and stigma associated with gambling problems, carry the burden in isolation, lacking the confidence or strength to disclose the problem to established social networks. ... Attending [a counselling] service for some people is embarrassing and avoided at all costs (sub. 104, p. 21).

Break Even-Eastern Problem Gambling Service commented that:

Because there is so much stigma attached to problem gambling, many people are reluctant to seek help. Some ethnic groups do not seek assistance because culturally it is inappropriate to do so. To some cultures the concept of counselling is unknown (sub. 40, p. 8).

Jesuit Social Services referred to the under-use of gambling support services among the Vietnamese community as follows:

The reluctance of gamblers and their families to seek outside help has been attributed to reasons such as the lack of community knowledge about services, the unfamiliarity with the concept and benefits of counselling, denial, shame, and lack of time or priority for focus on personal and psychological issues. Other communities such as the Arabic community share similar reasons for not attending formal support services (sub. D201, p. 1).

The gamblers who *do* seek help are usually motivated by some crisis involving one or more of the following triggers (Eckhardt 1998, p. 16):

- generally reaching 'rock bottom' or a crisis point and having nowhere else to turn;
- in a situation of major financial difficulty, family breakdown, job loss and/or criminal charges;
- a high level of sheer desperation and panic;
- contemplating suicide.

As Banyule Community Health Service noted:

In our observation, many clients do not present until the problem is at crisis point and this has often occurred after a long period of gambling activity. In financial terms this crisis may be reached when savings are exhausted, credit is refused, bankruptcy filed, or criminal charges are pending (sub. 146, p. 2).

There is very limited information available on the proportion of problem gamblers who seek help. A study by Volberg (1997) estimated that only about 3 per cent of current pathological gamblers obtain professional treatment in a given year (not including participation in self help groups like Gamblers Anonymous). Volberg found that public clinics in the US state of Oregon had around 600 patients and/or affected family members per year, compared with an estimated prevalence of around 20 000 pathological gamblers.

To shed light on what the proportion of people with gambling problems who seek help might be, the Commission's *National Gambling Survey* sought information on whether (regular) gamblers in the last 12 months had:

- wanted help for problems related to their gambling;
- tried to get help for these problems; and
- received problem gambling counselling/support.

Around 0.8 per cent of adults reported they had wanted help, slightly less than half of these indicated they had tried to get help (0.32 per cent) and two-thirds of those who tried to get help reported they had received counselling for problems related to their gambling (table 17.9).

Table 17.9 Help seeking by Australian gamblers

<i>Nature of help seeking behaviour</i>	<i>Share of adult population (%)</i>	<i>Number of adults ('000)</i>
Wanted help for problems related to gambling	0.78	111
Tried to get help for problems related to gambling	0.32	45
Received counselling/support for gambling problems	0.20	28

Source: PC National Gambling Survey.

The scores obtained on the SOGS for the help-wanting and help-seeking groups of respondents is of interest.

- 97 per cent of those wanting help had a SOGS score of 5+, of which:
 - 26 per cent had a SOGS score of 10+ (severe problems); and
 - 71 per cent had a SOGS score of 5-9 (less severe problems).
- *all* of those who had sought help had a SOGS score of 5+, of which:
 - 34 per cent had a SOGS score of 10+; and
 - 66 per cent had a SOGS score of 5-9.

Furthermore, looking at the two categories of problem gamblers (figure 17.4):

- of those with a SOGS score of 10+, 63 per cent said they wanted help, 32 per cent had tried to get help and 23 per cent had received counselling/support; and
- of those with a SOGS score of 5-9, 32 per cent said they wanted help, 12 per cent had tried to get help and 7 per cent had received counselling.

Hence, the survey results suggest that perhaps 1 in 5 gamblers with severe problems obtain counselling whereas around 1 in 14 with less severe problems receive help.

Figure 17.4 **Help seeking behaviour by severity of gambling problems**

	WANTED HELP	TRIED TO GET HELP	RECEIVED COUNSELLING
SOGS 10+ (46,790)	63% (29,350)	32 % (15,040)	23% (10,590)
SOGS 5-9 (245,940)	32% (78,630)	12 % (29,750)	7 % (17,880)

Source: PC National Gambling Survey.

Respondents who indicated that they had tried to get help in the last 12 months for problems related to their gambling were asked:

- how they found out about services available to help people with gambling problems;
- who they first turned to for help for their gambling problems; and
- whether they had received counselling for problems related to their gambling.

Because the prevalence rate for problem gambling help seeking is small (0.32 per cent of the adult population) the number of help seekers identified in the survey was only 19. With the proviso that qualifications may attach to the representativeness of these respondents, some results are reported in table 17.10.

The most common ways in which respondents found out about help services for problem gambling were from signs and pamphlets (32 per cent) and the telephone directory (37 per cent). Also, respondents were most likely to turn firstly to their spouse/partner or family/friends for help in relation to their gambling (in 37 per cent of cases) while someone outside their immediate personal network (such as a GP or social worker or religious worker) was consulted in 26 per cent of cases. In respect of the organisations from which respondents obtained help:

- seven respondents reported attending Gamblers Anonymous (GA) — two of whom only attended GA, while five also received counselling from Lifeline or a Break Even agency; and
- eleven respondents reported having received counselling from an agency such as Lifeline, Break Even, a welfare or church organisation (for example, Salvation Army, Wesley, Anglicare) or a community health centre.

Table 17.10 Aspects of problem gambling help seeking behaviour^a

Respondents who tried to get help in the last 12 months

<i>How did you find out about help services?</i>	<i>%</i>	<i>Who did you first turn to for help?</i>	<i>%</i>	<i>Where have you received counselling?</i>	<i>%</i>
Signs at a gambling venue	11	Spouse or partner	16	Gamblers Anonymous only	11
Pamphlets at gambling venue	16	Family or friends	21	GA and counselling agency	26
Signs or pamphlets elsewhere	5	GP (general practitioner)	5	Break Even or other agency	32
Telephone directory	37	Church or religious worker	11	Can't say	32
Radio and TV advertising	16	G-line or other referral service	11		
Newspaper	11	Social worker	11		
Health professional	16	Gamblers Anonymous	16		
Financial adviser	11	Someone else	21		
Word of mouth	11	Can't say/refused	11		
Asked someone for help	11				
Didn't/couldn't find out	11				
Other	11				
Can't say	5				

^a Percentages may sum to more than 100 because some respondents found out about help services from more than one source, and turned to more than one person/group for help.

Source: PC National Gambling Survey.

But six respondents were unable to say where they had received counselling — of these, four had turned to someone for help while the remaining two either refused or were unable to say who they first turned to for help. So it is likely that while this group of respondents sought help in a broad sense, they may well not have obtained counselling or treatment.

On this assumption, the prevalence rate for people receiving counselling/support for problems related to their gambling is 0.20 per cent (table 17.9) — which scaled up to the population gives an estimate of around 28 000. The 95 per cent confidence interval around this estimate ranges from around 10 500 to 46 500. How do these results from the *National Gambling Survey* compare with the likely *actual* number of people seeking counselling for problem gambling — comprising problem gamblers and those affected by problem gambling?

The conclusion is that the *National Gambling Survey* findings are broadly consistent with the available data. It was noted above that the help organisations in the

Commission's *Survey of Counselling Agencies* reported seeing around 12 000 clients in the last 12 months, but that this number is likely to be a substantial underestimate of the total number of people seeking help for problem gambling because coverage of the survey was not complete, and it did not include people who attended Gamblers Anonymous meetings or who received help from generic counselling and help agencies. While the actual number is therefore difficult to estimate, it is likely to lie somewhere in the vicinity (on the lower side) of the *National Gambling Survey* mean estimate.

Star City casino was critical of findings such as these, suggesting the need for a "reality check" and pointing to:

The massive discrepancies between the [number of] persons attending counselling agencies (as problem gamblers or persons affected) and the Commission's ... estimate of gamblers with severe problems ...(sub. D217, p. 23).

But the fact that many problem gamblers do not access help services is consistent with help seeking behaviour in other health and social problem areas. For example, the ABS *National Survey of Mental Health and Wellbeing of Adults* (ABS 1998d) found that only around 12 per cent of people with substance use disorders used available health services.

What problems are experienced by clients of counselling agencies?

To illustrate the variety of problems experienced by problem gamblers who seek help from counselling agencies, some information from clients of Victorian problem gambling agencies is reported in table 17.11.

Table 17.11 Presenting problems of clients — Victorian problem gambling counselling services

Per cent

<i>Nature of problem</i>	<i>1996-97^a</i>	<i>1997-98^b</i>
Gambling behaviour	87	89
Financial issues	77	57
Employment/work	51	24
Interpersonal/relationship	67	49
Legal issues	29	10
Family issues	66	39
Leisure use issues	74	44
Intrapersonal	80	56
Physical symptoms	44	13

^a Relates to 1452 clients of 18 Break Even problem gambling counselling services. ^b Relates to 2456 new clients of 18 Break Even problem gambling counselling services.

Source: Jackson et al. 1997, 1999b.

The most common problems experienced by clients relate to their gambling behaviour, financial issues and intrapersonal problems (such as anxiety, mood swings, etc). Jackson et al. (1999b) note that while most problem gamblers who attend counselling present with more than one problem, the proportion reporting multiple problems has declined over the years — for example, 81 per cent of clients in 1995-96 reported 4 or more problems compared with 56 per cent in 1997-98. This suggests that problem gamblers are now seeking help earlier in their gambling careers.

Because of the wide range of problems that problem gamblers experience, counselling agencies need to have a range of skills to meet the needs of clients or, where those services are not available in-house, can refer a client to a suitable agency. Accordingly, the Commission's *Survey of Counselling Services* sought information on the types of services provided by agencies (table 17.12).

Table 17.12 Services for people experiencing problems with their gambling
per cent of agencies

<i>Service provided</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Counselling for gambling dependence	95	100	100	67	93	86	94
Counselling for other co-morbidities	59	57	13	50	13	57	44
Legal advice	23	17	0	0	7	14	14
Financial counselling	50	65	75	17	87	43	60
Family counselling	82	91	63	67	73	71	79
Relationship counselling	77	87	100	67	87	71	83
Referral to other agencies/professionals	86	100	88	67	87	71	88
Emergency help	18	35	0	17	47	0	25
Other services	9	30	50	33	20	14	23

^a Tasmania, ACT and NT.

Source: PC *Survey of Counselling Services*.

While, understandably, counselling for gambling dependence is the most common service provided, relationship and family counselling are also relatively important. Acting as a referral source to other agencies was the second most frequent service provided — presumably to other types of counselling, such as legal advice, which is much less generally available.

What types of gambling are the main source of problems?

There is a consistent pattern in Australia in relation to the forms of gambling that lead to or are associated with problem gambling (table 17.13). While gaming machines are overwhelmingly the form of gambling favoured by clients who seek

help for gambling problems, betting on horse racing and casino gaming are also sources of problems for some participants. A very small proportion of clients of counselling agencies report playing lottery games as the source of their problems.

Table 17.13 **Gambling activities favoured by clients of help services** ^a
per cent

<i>Gambling activity</i>	<i>Vic</i> ^b	<i>Vic</i> ^c	<i>NSW</i> ^d	<i>SA</i> ^e	<i>Tas</i> ^f	<i>PC survey</i> ^g
Gaming machines	81	72	79	68	72	71
Racing/TAB	20	16	12	16	15	12
Casino games	6	5	6	6	3	7
Lotteries	3	4	2	3	1	2
Other/combination	-	8	1	-	8	8

^a Some percentages may sum to more than 100 because the question asked of clients did not in all cases require a unique response. ^b Relates to Break Even clients, 1996-97 — gambling activity on the most recent day of gambling. The entry for casinos refers to 'card games' and 'numbers'. ^c Relates to Break Even clients, 1997-98. ^d Relates to 310 clients seeking help in a one week period in September 1998 from a survey of 45 agencies providing counselling and treatment services for problem gamblers. Refers to the main form of gambling leading to problems for the client. ^e Relates to 986 clients of the Break Even agencies during the period November 1996 to March/May 1998. Refers to the type of gambling causing problems for clients. ^f Relates to 93 clients attending Relationships Australia and Anglicare in the period July 1997 to September 1998, whose preferred form of gambling was recorded. ^g Main source of gambling problems for clients of counselling agencies, weighted by number of clients.

Sources: Jackson et al. 1997; Walker 1998a; Eckhardt 1998; Elliot Stanford & Associates 1998; *PC Survey of Counselling Services*.

The Commission's *Survey of Counselling Services* revealed some appreciable differences in sources of gambling problems by jurisdiction. For example:

- gaming machines are overwhelmingly the main source of problems in all jurisdictions except Western Australia, where access to video card and keno machines is restricted to the casino;
- race betting and casino games are relatively important sources of problems in Western Australia (each causing problems for around 30 per cent of problem gamblers) and in Queensland (each accounting for problems in around 15 per cent of cases); and
- while lottery games attract the highest participation rates among gamblers Australia-wide, they are typically not associated with problematic behaviour. However, in Western Australia they account for gambling problems in around 9 per cent of cases, and in Queensland 4 per cent.

How are problem gambling clients assessed in terms of treatment needs?

The Society of St Vincent de Paul pointed out that formal assessments of problem gambling clients can serve a variety of purposes, such as (sub. D218, pp. 1-2):

- assisting in treatment planning and delivery;
- providing a baseline measure which can be used to assess progress and measure the effectiveness of counselling; and
- providing an input to research — by translating psychological states into data.

It is important to consider the ways in which counselling agencies assess the severity of gambling problems as a preliminary to providing clients with the most appropriate treatment.

An advantage of having a statewide network of problem gambling counselling agencies (such as Break Even) is that consistent approaches to assessing clients can be used by agencies. In Victoria, for example, at the first contact with a Break Even counselling agency, a client assessment form is completed which records details of the type and frequency of gambling behaviours, and the adverse effects of these behaviours including an assessment based on the DSM-IV (*Diagnostic and Statistical Manual of Mental Disorders*, fourth edition).

But as Banyule Community Health Services in Victoria noted:

Break Even is required to assess clients in accordance with the DSM-IV. Some counsellors consider this inappropriate to the range of behaviours presenting and prefer the South Oaks Gambling Screen. ... The recent development of a 'G-map' by the Break Even team at Maroondah Community Health Centre may be deemed a more relevant tool for assessment (sub. 146, p. 2).

The Break Even agencies in South Australia collect an even wider range of data on clients, including the South Oaks Gambling Screen, the Marks Parkin General Health questionnaire, the Index of Family Relations and the Work and Social Adjustment Scale. However, the information is collected only from clients who consent to provide the information — and only around one-third of problem gamblers who attend give their consent (Elliot Stanford & Associates 1998, p. 20). This is a serious weakness, and limits the extent to which the effectiveness of any problem gambling intervention can be gauged.

To gain an indication in a more general context of how problem gambling clients are assessed when they present for counselling, the Commission's *Survey of Counselling Services* sought information on the diagnostic tools used by counsellors to assess problem gambling severity and other client characteristics (table 17.14).

Table 17.14 Frequency of use of diagnostic tools for assessing problem gambling clients, Australia
per cent of agencies

<i>Assessment tools</i>	<i>Never</i>	<i>Rarely</i>	<i>Some-times</i>	<i>Often</i>	<i>Always</i>	<i>Don't Know</i>	<i>Total</i>
South Oaks Gambling Screen (SOGS)	35	8	18	18	17	4	100
DSM-IV criteria	21	14	16	12	35	3	100
G-Map assessment guide	68	10	14	4	0	4	100
Addiction Severity Index	79	13	3	1	0	4	100
Gamblers Anonymous 20 questions	55	20	17	4	3	3	100
Taylor-Johnson temperament analysis	91	3	3	0	0	4	100
Relationship questionnaire	61	5	17	8	6	3	100
Other formal diagnostics	45	3	18	20	13	1	100

Source: PC Survey of Counselling Services.

Across the 78 problem gambling counselling agencies which provided information, the use of one or more of the available diagnostic tools was generally not commonplace. The SOGS was never or only rarely used in 44 per cent of agencies, and the DSM-IV never or only rarely used in 36 per cent of agencies. At the other end of the scale, the DSM-IV was always used in around 35 per cent of agencies, and the SOGS always used in around 17 per cent of agencies.

The frequency of use of diagnostic tools by agencies in the various jurisdictions are reported in table 17.15. On the basis of findings from the September 1998 survey of New South Wales agencies, Walker described practices by problem gambling service providers as generally being “far from satisfactory” and “not reaching the standards set in Victoria or New Zealand”:

The majority of counsellors and therapists have no formal assessment of the problems caused by gambling or the severity of the gambling problem itself. The DSM-IV assessment criteria are not widely used and a full assessment of co-morbidity is made by only three treatment professionals. With only one exception, structured interviews are not used in assessment. The G-map assessment guide is not used. The addiction severity index is not used. The South Oaks Gambling Screen is not widely used (1998, p. 17).

However, both the Commission’s *Survey of Counselling Services* and Walker’s more recent 1999 survey of New South Wales agencies suggest that the situation has changed. In the Commission’s survey, 55 per cent of agencies in New South Wales reported using either the SOGS or DSM-IV ‘often or always’, with their use being even more common among agencies in Queensland, South Australia and Victoria. Walker’s 1999 survey undertaken around six months later than the Commission’s survey reveals even more widespread use of these tools among New South Wales agencies, with around 90 per cent using a recognised assessment. According to

Walker, this change in procedure has probably occurred because of training schemes initiated in New South Wales in the last two years, a demand by the CCBF that assessment be included, and also possibly the stark findings from the 1998 report (sub. D287).

Table 17.15 Frequency of use of diagnostic tools, by jurisdiction
per cent of agencies using often or always

<i>Assessment tools</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
South Oaks Gambling Screen (SOGS)	45	5	0	0	88	43	35
DSM-IV criteria	45	73	100	0	8	29	46
Either SOGS or DSM-IV or both	55	73	100	0	88	43	67

^a Tasmania, ACT and NT.

Source: PC Survey of Counselling Services.

The Society of St Vincent de Paul pointed out that appropriate counselling and treatment depends on more than just using preliminary formal assessment tools like the DSM-IV or SOGS — rather, assessment should be an ongoing part of the counselling process:

... it needs to be pointed out that counsellors are making assessments, judgements, and evaluations of the client continuously as part of the counselling program. ... We should recognise formal assessment for what it is. It is simply a systematic and replicable way of observing or asking questions of the client, which often enables the client's responses to be compared to a normative group or groups. Whether such quantification and comparison assists the therapeutic process is open to debate (sub. D218, p. 1).

The Society of St Vincent de Paul also indicated that the need and scope for formal assessment will differ depending upon the particular needs of the client and that different situations call for a variety of assessment/counselling approaches (sub. D218, pp. 1-2). In particular, the Society stressed:

- the importance of relationship building in the therapeutic process — sometimes it may be best simply to accept the client's opinion as to the degree of his or her problem, rather than searching for an objective measure of the client's distress, especially in crisis situations or where time is limited; and
- the appropriateness of brief interventions and single-session therapy with some clients — for clients who only attend one session of counselling, a treatment such as motivational interviewing would be appropriate, whereas subjecting the client to a full assessment of co-morbidity would be counterproductive.

In summary, around two-thirds of the counselling agencies at the time of the Commission's survey were often or always using at least one of the two most widely

recognised problem gambling diagnostic tools. But because of the different types of clients who present for counselling, the use of less structured and formal assessments by some agencies can still be consistent with meeting the counselling and treatment needs of particular clients.

What types of counselling and treatment are used by problem gambling agencies?

There is a wide range of counselling and treatment services available to assist people affected by problem gambling. Such services can differ in relation to the form of help, the types of problems being addressed, and the nature of the counselling/treatment provided (box 17.5).

Free Yourself Program — an example of a self-help therapy

The ‘Free Yourself Program’ is a self-help approach developed by Gabriela Byrne, a former problem gambler (subs. 9, 74, D196). ‘Free Yourself’ aims to free people of their ‘addiction’ to gambling, based on improving their physical, mental and spiritual wellbeing. The program was developed as an alternative to approaches used by Gamblers Anonymous and conventional problem gambling counselling.

Group support/self-help approach — Gamblers Anonymous

Gamblers Anonymous (GA) views compulsive gambling as an illness, and the only way to recover from this illness is to stop gambling — the illness/abstinence model. The number of GA meeting groups in the various jurisdictions are: New South Wales (69), Victoria (31), Queensland (18), South Australia (4), Western Australia (2), Tasmania (2), Northern Territory (1), and ACT (3). Walker (1997) reported that in New South Wales, an estimated 550 gamblers attended GA meetings each week in 1997, compared with 154 attending all other problem gambling counselling agencies each week in that year.

Approaches used by problem gambling counselling agencies

A number of problem gambling counselling agencies reported on the counselling and treatment approaches to problem gambling that they typically used, and a selection is presented in box 17.6. As Break Even-Western commented:

Problem gamblers are variously referred to as compulsive, pathological, addictive or excessive. The varying terminology reflects the differing views on the nature of the problem, and consequently different models and approaches that are used in treatment (sub. 64, p. 4).

Box 17.5 **Broad types of help/treatment for problem gambling**

Self help — is where an individual is largely responsible for dealing with the problems associated with their gambling, drawing upon information provided in self-help kits distributed by some counselling agencies and programs developed by former problem gamblers, such as:

- *Free Yourself Program* (Gabriela Byrne 1997); and

self-help guides developed by clinical practitioners, such as:

- *Overcoming Compulsive Gambling: A self-help guide using Cognitive Behavioural Techniques* (Alex Blaszczynski 1998b).

Group support — is another type of self-help approach but in a group context, such as that used by:

- Gamblers Anonymous, and
- GABA (in Tasmania).

Counselling — usually involves individual or group face-to-face counselling with problem gamblers, their partners, or others affected by problem gambling behaviour. The types of counselling can cover one or a combination of the following:

- gambling behaviour (addiction) counselling
- financial counselling
- relationship counselling
- family counselling and support
- legal advice
- counselling for co-morbidities (psychiatric/emotional disorders, alcohol, drugs).

Medical approaches — adopt more intensive therapies for treating problem gambling, in cases where clients present with signs or symptoms of disorders (such as a suicide risk or a co-morbid condition such as schizophrenia) which indicate such treatment is appropriate, and can involve:

- inpatient or residential care
- medication therapy (for example to control depression or reduce impulsivity).

The Commission's *Survey of Counselling Services* sought information on the approaches or techniques used by the agencies to treat problem gamblers (table 17.16). The information refers to the proportion of agencies which use a particular method, rather than the proportion of clients who are treated by a technique. With that proviso, the general impression is that as many agencies appear to be using modern types of treatment like cognitive-behavioural therapy (CBT) as are using more traditional supportive counselling approaches.

There is some debate as to what are preferred types of treatment for problem gambling. As Blaszczynski, Walker et al. (1997) have noted:

There is a consensus that problem gambling is a treatable condition ... However, there is no single intervention modality that is the 'gold standard' or 'best practice' in the

management of problem gambling. Strategies and goals should be developed in conjunction with the client, taking into account co-morbid conditions and other relevant environmental factors (p. 19).

Box 17.6 Counselling and treatment approaches used

- Society of St Vincent de Paul — use an approach called GAME (a proGram for gAMblers and their faMilies with probleMs) which is a non-medical 'competency-based' program, involving a combination of financial counselling and goal oriented therapy. Such an approach places an emphasis on working with clients to achieve *their* goals, and means that it does not necessarily advocate abstinence from gambling (sub. 36).
- Break Even Southern (Victoria) — typically uses a two-stage counselling/treatment process. The first stage uses behavioural and cognitive behavioural interventions to address gambling itself. Treatment in middle and later stages typically incorporates a range of techniques to address relapse prevention and interventions for other life issues faced by clients (sub. 132).
- Break Even-Western — uses a family therapy/systemic approach involving three main constructs: the model of change (change is possible for gamblers and their families, but it is a slow process that needs to be worked out); assessment of gambling behaviour (clients are provided with rational, program-oriented therapy, learning rules for responsible gambling or how to give up completely); and exploration of underlying factors, mainly through systems theory (to determine what problems contribute to gambling as an escape) (sub. 64).
- Relationships Australia (SA) Inc. — uses an approach which focuses on crisis management (including immediately assisting clients with legal, financial and relationship issues); attention to gambling behaviour (including the development of individual strategies to modify or cease this behaviour); resolution of underlying issues (to ensure long-term effectiveness of intervention); and management and response to lapses (sub. 118).
- Wesley Gambling Counselling Service — stressed that problem gambling counselling requires flexibility and the use of a broad range of techniques. Utilisation of only one method is very limiting and in fact may not be helpful for clients requiring different strategic approaches. Therefore, as each individual has their own personality and style, so the counselling approach must be suited to the unique needs of the individual client (sub. 26).

Currently favoured interventions include behavioural modification techniques and cognitive techniques, either on their own or in combination (CBT). But in relation to past New South Wales experience, Walker (1998a) has commented that:

With few exceptions, counsellors and therapists are not using these approaches. When asked about their approach, many counsellors responded that they talk to the client and from their experience know what to say. [But] client-centred counselling has been shown to be relatively ineffective across a wide range of problems (p. 18).

Results from the Commission's *Survey of Counselling Services* appear to suggest a generally more favourable picture: a high proportion of the agencies which responded reported the use of cognitive, and cognitive-behavioural techniques, even

in New South Wales. This finding is consistent with the 1999 New South Wales survey conducted by Walker, where it was found that CBT is the most commonly used approach (sub. D287).

Table 17.16 Techniques used to treat people with gambling problems
per cent of agencies

<i>Methods/techniques</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Supportive counselling ^b	91	100	100	67	94	86	93
Cognitive/Cognitive-behavioural ^c	86	100	100	67	81	86	89
Systemic therapies ^d	59	70	75	33	69	71	65
Psychodynamic therapies ^e	27	52	50	0	38	29	37
Other methods or approaches	32	57	25	50	75	29	48

^a Tasmania, ACT and NT. ^b Includes allowing clients to vent feelings and offer a general supportive environment. ^c Includes analysis of beliefs through pattern restructuring; behavioural advice. ^d Includes structural, strategic family therapy, psychodrama. ^e Includes use of transference.

Source: PC Survey of Counselling Services.

Another source of information on approaches to treatment in government funded Victorian problem gambling agencies is the analysis of the 18 Break Even services (Jackson et al. 1999b). That study found that the most common treatment technique used was supportive counselling (for 60 per cent of problem gambler clients), cognitive behavioural approaches (33 per cent of clients) and systemic therapies (19 per cent of clients). However, these results are not necessarily inconsistent with the Commission's findings — the *Survey of Counselling Services* obtained information on whether a particular technique was being used, but cannot distinguish clearly between whether most or only a few clients are receiving such types of treatment.

Any conclusion on the application of different treatment approaches remains uncertain, because as Walker has suggested, the issue of treatment is a complex one and possibly one that is not accurately described by any data:

The problem is knowing what actually occurs in therapy. An agency may say that it uses CBT but we do not know how strictly the criteria for CBT are being met. ... CBT is a “buzz” word in therapy currently and most counsellors will have heard the term and have some understanding of what is involved. But whether their understanding is sufficient to categorise their own therapy is another matter (sub. D287, p. 2).

Training and accreditation of counsellors

The Commission's *Survey of Counselling Services* sought information on whether agencies required counsellors to have accreditation. Across the 82 respondent agencies, it was found that:

-
- 71 per cent of agencies required counsellors to have accreditation; and
 - 89 per cent required counsellors to have educational qualifications.

While these results might seem favourable, the details provided by agencies on the types of accreditation indicated very few requirements in problem gambling specific counselling areas. For example, while two of the New South Wales agencies reported training of staff at the Wesley Gambling Counselling Service course, other accreditations were typically in areas such as social worker, psychologist, addiction counselling qualification, etc.

Some respondents to the survey also expressed concerns about training and accreditation, with comments such as:

- “accreditation body for training is lacking” (New South Wales agency)
- “there should be a minimal accreditation requirement of all those who work in gambling counselling” (SA agency)
- “our counsellors would appreciate the availability of more training” (New South Wales agency)

Training was seen as an important issue by the Ethnic Affairs Commission NSW:

Training is particularly important because it ensures that those working with problem gamblers do so professionally, using sound and proven methods, based on an understanding of the cultural basis for gambling problems (sub. D281, p. 142).

Walker has indicated that there is a move in New South Wales to set up accreditation standards for the training of problem gambling counsellors (sub. D287).

The Commission sees merit in a framework being established to achieve improved training and a consistent accreditation process for gambling counsellors Australia-wide.

What outcomes are achieved by counselling/treatment?

The effectiveness of problem gambling counselling services can be gauged in terms of the extent to which clients achieve the outcomes they seek. In relation to gambling behaviour, for example, client expectations prior to counselling can range from wanting to stop gambling completely, to ‘getting in control’ such that gambling is no longer the source of any significant problems.

At Break Even problem gambling agencies in Victoria prior to August 1997, a Case Close Summary Form was completed at the final contact with a client. The

outcomes recorded were whether the problems for which a client primarily sought help were either fully resolved, partly resolved or unresolved. The outcomes for clients whose problem gambling counselling was completed in 1996–97 are reported in table 17.17. It should be noted that some clients who dropped out before indicating to a counsellor that they were not planning a further contact would not be included — though it is difficult to speculate the extent to which dropouts cease further contact because their problems have been resolved.

Table 17.17 Client outcomes of problem gambling counselling, Victoria, 1996-97 ^a

<i>Problem area</i>	<i>Fully resolved (%)</i>	<i>Partly resolved (%)</i>	<i>Unresolved (%)</i>	<i>Clients with problem (No.)</i>
Financial issues	14.8	48.2	37.0	670
Gambling behaviour	27.1	42.3	30.6	840
Interpersonal	18.9	45.3	35.8	603
Family issues	17.7	45.9	36.3	586
Physical symptoms	41.1	32.4	26.5	392
Employment/work role	30.6	29.7	39.7	421
Leisure use issues	19.0	48.0	32.9	583
Intrapersonal	19.1	52.5	28.4	669
Legal issues	57.1	19.7	23.1	350

^a Information relates to 1001 clients whose cases were closed in the period.

Source: Jackson et al. 1997.

There is considerable variation in the extent to which particular problems were resolved after counselling. While problems in all areas were either partly or fully resolved in the majority of cases, problems remained unresolved in 20 to 40 per cent of cases. The two areas with a relatively larger degree of problems being fully resolved were physical symptoms and legal issues associated with problem gambling. In other areas like financial issues, interpersonal and family issues, it is perhaps not surprising that problems may take longer to resolve than just the period of the counselling. Jackson et al. conclude that:

... while many clients experience full resolution of their problems, ... it is the case that many do not achieve resolution. ... This is consistent with the chronic nature of problems experienced by people with problem gambling behaviour (1997, p. 29).

Other information on outcomes of counselling services is available from a survey of clients of Break Even agencies in South Australia, conducted by Elliot Stanford & Associates (1998) as part of an evaluation of the GRF. A questionnaire was provided to all clients attending Break Even services during a two-week period, which sought perceptions on the severity of their problems before they started

counselling and at the time of the survey, and the extent to which counselling had made an impact on their problems (table 17.18).

Table 17.18 Client perceptions of outcomes of problem gambling counselling, SA

<i>Severity of the gambling problem</i>	<i>Clients No.</i>	<i>No problem (%)</i>	<i>Slight (%)</i>	<i>Definite (%)</i>	<i>Marked (%)</i>	<i>Very severe (%)</i>
Before counselling	130	1	5	18	19	57
Currently	129	10	34	32	11	13
<i>Impact of counselling on gambling related problems:</i>		<i>Made no difference (%)</i>	<i>Slight difference (%)</i>	<i>Definite difference (%)</i>	<i>Marked difference (%)</i>	<i>Very large difference (%)</i>
Gambling behaviour	118	-	21	31	31	18
Family & relationships	73	6	14	36	29	16

Source: Elliot Stanford & Associates (1998, Appendix 7).

The Elliot Stanford & Associates' survey revealed that before counselling, 76 per cent of clients perceived their gambling behaviour to be causing marked or very severe problems, whereas only 24 per cent still thought that way currently. Also, around half the clients thought that counselling had made at least a marked difference in their gambling behaviour, with only a slightly smaller proportion (45 per cent) reporting a similar impact on family and relationship problems. Again, these data have the proviso that the sample respondents were still in treatment, and so perceptions of dropouts were not captured.

The Society of St Vincent de Paul reported on outcomes from their GAME program, which involves a combination of financial counselling and goal oriented therapy as follows:

We ... found that we have a high client self report (85 per cent approximately) success rate where clients received at least some improvement in their gambling behaviour. ... By focussing on the positive and their competencies, we offer them hope [and] this in turn motivates them to change (sub. 36, p. 3).

However, a limitation of much of this evidence on gambling treatment outcomes is that it is very short term in nature, with assessments generally made at the time of, or immediately after, counselling. What is more important in determining if treatment is effective is whether follow-up assessments of outcomes made at different points in time after counselling yield similar results.

To investigate this and other aspects of gambling treatment outcomes, the Commission's *Survey of Counselling Services* sought information on:

- whether an agency made an assessment of the outcome of the counselling for each client;
- how soon after completion of the counselling such an assessment was made; and
- what percentage of clients achieved a satisfactory outcome from the counselling provided.

Overall, 71 per cent of respondent agencies reported that they assessed how successful the counselling treatment had been for each client (table 17.19). In around two-thirds of the agencies, such assessments were carried out immediately after counselling was completed and in around one-third of agencies from one to three months after completion. But assessments after periods longer than three months were not common. Three of the agencies reported that they undertook multiple follow-ups — such as after 3, 6 and 12 months.

Table 17.19 Assessment of client outcomes of gambling counselling
per cent

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Assess outcomes of counselling (per cent of agencies)	77	48	100	100	75	57	71
How soon after counselling? (per cent of agencies) ^b							
Immediately after	64	70	38	50	81	71	66
1-3 months after	36	4	88	33	31	29	31
4-6 months after	9	52	0	17	6	0	20
More than 6 months after	9	0	0	0	0	0	2
Satisfactory outcome achieved (per cent of clients) ^c	63	54	41	42	52	49	57

^a Tasmania, ACT and NT. ^b Percentages can sum to more than 100 because some agencies reported more than a single assessment period — some only assessed clients some months after completion of counselling rather than immediately, while others assessed clients immediately after counselling as well as some months later. ^c Calculated as the percentage of an agency's clients achieving a satisfactory outcome, weighted by the number of clients.

Source: PC Survey of Counselling Services.

Across the various jurisdictions, on average 57 per cent of the clients of respondent agencies were assessed by those agencies as having achieved a 'satisfactory' outcome from the counselling provided in the sense that gambling was no longer the source of any significant problems for the client. But because clients were generally assessed either immediately or a short time after counselling was completed, this is not necessarily an indication of the longer term effectiveness of the counselling and treatment provided. As Walker (1998b) has noted:

From the perspective of counsellors, it may appear that most of their clients benefit from the counselling received; the majority of clients are satisfied with the counselling

and the clients have not gambled during the counselling program. However, to believe that counselling is effective based on such perceptions is fundamentally misguided. ... The recommended period at which to judge the effectiveness of counselling therapy is *two years* after the completion of treatment (p. 53).

Results from a longitudinal study of client outcomes from problem gambling treatment programs in Minnesota have been reported by Stinchfield and Winters (1996). In that study, clients were administered follow-up assessments of outcomes at periods of 6 and 12 months after treatment. One finding of interest is that while most clients were gambling on a daily or weekly basis before treatment, 79 per cent reported no gambling at the conclusion of treatment. However, this impressive outcome was not sustained — the proportions reporting no gambling after 6 and 12 months were 43 per cent and 42 per cent respectively.

Short-term assessments of outcomes can therefore give a misleading impression of treatment effectiveness. According to Walker (1998a), a review of the literature on treatment outcomes indicates that correctly measured success rates (such as after a follow-up period of two years) are typically only about 20 per cent with supportive counselling — for example, around 80 per cent of problem gamblers so treated return to excessive gambling within two years. However, the exceptions to this generally negative view of treatment are behavioural modification techniques and cognitive-behavioural techniques (Walker 1998b, p. 52).

17.7 Aspects of help services delivery

This section addresses a number of issues relating to the effectiveness of delivering problem gambling help services to clients.

Who should contribute to funding problem gambling services?

As noted in section 17.4, the parts of the gambling industry which contribute to the funding of problem gambling services differ among jurisdictions. For example:

- in New South Wales a portion of the tax paid by the Sydney Casino operator is hypothecated to the CCBF;
- in Victoria funding is derived from gaming machines in hotels only;
- in Queensland funding is derived from gaming machine and keno revenue;
- in South Australia contributions to funding are made by hotels and clubs;
- in Tasmania funding is derived from gaming machines in hotels and clubs; and

-
- in the Northern Territory funding is derived from gaming machines in hotels only.

There is a broader-based approach in Western Australia, where the three major stakeholders contribute (Burswood Casino, the TAB and Lotteries Commission).

A number of participants were critical of the narrowness of the funding sources. For example, in relation to the approach in New South Wales the Society of St Vincent de Paul stated that:

... whilst Star City is obliged by legislation to contribute 2 per cent of their revenue to combat the negative effect of their activity, there is no such legislation relevant to other gaming venues. Only 2 per cent (approximately) of our clientele are 'victims' of the activities of Star City whilst 80 per cent (approximately) are [those] of the pubs. This illustrates how the casino must subsidise the rectification of the socially negative aspects of gambling in pubs and to a lesser degree clubs (sub. 36, p. 5).

Gamblers Help Line Inc. suggested that the funding sources of the CCBF should be broadened to include not only *all* gambling/gaming operators but also a contribution from the government as well:

... all businesses which profit directly from gambling operations should contribute — not just the casino. ... As the industry moves to seriously addressing responsible gambling issues and problem gambling issues, it would seem glaringly obvious that the Government do the same through policy and financial support. [Gamblers Help Line] recommends that the government pay to the Community Benefit Fund \$1 for every \$2 the industry contributes (sub. 179).

In Tasmania, Tascoss was critical of the fact that no contributions to funding problem gambling services are made from the profits on gaming machines located within the casino complexes:

Patrons using the gaming machines through casinos are [just] as likely to be experiencing gambling related problems as those within the wider community, particularly given the revenue increases in this area (sub. 114, p. 3).

For the Northern Territory, a recent review of the gaming machine industry (Alder 1998) made suggestions in relation to both the uses and sources of the Community Benefit Fund as follows:

... the CBF ... should only be used for gambler services, gambler education and gambling research ... [and] this revenue [should] be drawn from the gambling industry as a whole (0.25 per cent of all gambling gross profits) (Alder 1998, p. 15).

Anglicare (SA) was critical of the approach in South Australia, and suggested that all gambling codes should contribute to the GRF:

It is important to acknowledge that problem gambling can be associated with other codes [as well as pokies]. In making \$1.5 million p.a. available to fund the Break Even

gambling services, the Australian Hotels Association and Licensed Clubs Association are accepting responsibility for helping pokie gamblers with a problem. Other gambling codes are at present not doing that, despite the fact that their patrons needing counselling attend Break Even programs (sub. 104, p. 17).

The Australian Hotels Association (SA) and Licensed Clubs Association (SA) shared this view:

... neither the racing industry via the TAB nor the Lotteries Commission make any provision, either voluntarily or otherwise to the provision of services to those adversely affected by broader gambling products despite the fact that it was widely recognised that there were significant problem gamblers before gaming machines were introduced (sub. 101, section 7a).

All gambling forms contribute to the need for problem gambling services and therefore should also contribute to funding. While in principle some differentiation by gambling code according to the risk of becoming a problem gambler might be appropriate — for example, lottery games rarely contribute to problem gambling — in practice this would be too difficult to administer over time. Gaming machine revenue should be the predominant source, and this should be regardless of venue.

The Commission is of the view, therefore, that the funding arrangements for problem gambling counselling and support services, as well as research and public education programs, should include compulsory contributions from all gambling codes. This should not negate government responsibilities in broader health areas.

Are funding levels for problem gambling strategies adequate?

A number of participants commented on the adequacy of the funding arrangements in their jurisdiction. Reporting on the experience in South Australia, the Adelaide Central Mission stated that:

Existing services for problem gamblers are over stretched and subjected to unreasonable uncertainty regarding their future funding. The scope of services available is restricted and does not adequately meet the needs of particular groups of people, particularly families of problem gamblers and problem gamblers facing criminal charges. At Adelaide Central Mission the complexity and number of cases that are arising has meant that our limited staff have difficulty maintaining manageable caseloads (sub. 108, p.18).

In relation to Tasmania, Tascoss (sub. 114) considered current funding of problem gambling services to be inadequate in a number of respects. They suggested that the Community Support Levy should be broadened (to include a contribution from the profits obtained from gaming machines within the casino complexes) and increased (by 2 percentage points) to allow (sub. 114, pp. 3-4):

- an extension of the community education program;
- a broader range of programs to be funded under Break Even; and
- research into problem gambling to be carried out.

According to Tascoss:

The Break Even program [in Tasmania] has now developed a ‘closed shop’ approach with a limited number of programs funded on an annual basis. This has been undertaken without community consultation and has excluded a notable service provider, Gamblers Anonymous (sub. 114, p. 4).

A review of gambling legislation in the ACT by the Allen Consulting Group (1998) recommended earmarking 0.5 per cent of all gambling-related tax revenue to fund baseline research into problem gambling, measures to prevent problem gambling, and counselling for problem gamblers. This would correspond to funding of around \$230 000 per year, compared with the \$85 000 per year allocated at the time of the review. But according to Lifeline, even that higher level of funding:

would not be sufficient to adequately fund the necessary research on gambling, provision of education programs, a 24-hour telephone service (G-line), an adequately resourced counselling service and independent evaluation of those programs (sub. 96, p. 3).

But in a more general context, to what extent are available problem gambling counselling services adequate to meet the demand for those services? A recent study by Walker (1998a) examined two aspects of problem gambling services delivery in New South Wales:

- whether clients face long waiting periods to see a counsellor; and
- the usage of services in relation to capacity (capacity being gauged as the maximum number of clients who could be seen if counsellors were to maintain their current standards).

The survey conducted by Walker (1998a) of 78 counsellors at 45 problem gambling agencies found that:

- only 3 of the 78 counsellors surveyed indicated that they had a waiting list (defined as whether a new client had to wait longer than seven days to see a counsellor); and

-
- services in New South Wales were generally working at around one-third of capacity.

However, because the number of problem gamblers seeking help in New South Wales appears to be increasing rapidly, if the number doubles again in the coming twelve months then more than 50 per cent of the maximum capacity of current services will be used in providing counselling and treatment (Walker 1998a, p. 16).

A similar assessment has been carried out for counselling agencies in SA as part of an evaluation of the GRF (Elliot Stanford & Associates 1998). Across the seven Break Even agencies examined, they found a variation in the utilisation of service capacity ranging from 34 to 99 per cent, with only one agency operating above 70 per cent capacity (Adelaide Central Mission). They also found that country services tended to have a lower utilisation rate than metropolitan services (28 per cent compared with 70 per cent respectively).

But the notion of what waiting time should be considered acceptable (say up to seven days) is debatable. Because waiting lists are a deterrent to a gambler's commitment to seek help, Eckhardt (1998) reports that agencies in Tasmania consider there is a need to reduce client waiting times — such as ensuring that a client can obtain counselling within 24 hours of the initial telephone contact.

Wesley Gambling Counselling Service also commented on waiting times as an indication that funding is inadequate for them to meet the needs of clients:

We are now operating on a 'waiting list' of two weeks which is *not on* when dealing with problem gambling. During that waiting period, clients often go and gamble and fail to return (sub. 26, p. 17).

A Queensland agency reported that:

This particular gambling counselling service has been severely under-resourced. We have been running a waiting list since October 1995. As at end March 1999, 52 per cent of those waiting have dropped out without accessing any assistance whatsoever (Respondent to *Survey of Counselling Services*).

To investigate how common this situation might be, the Commission's *Survey of Counselling Services* sought information on the frequency and duration of waiting times. Results are reported in table 17.20 for a metropolitan/regional breakdown of agencies.

Overall, slightly more than one-third of the 82 agencies reported that clients seeking counselling faced a waiting list, and the average waiting time for those agencies was 11 days. However, the survey also indicated that:

- the majority of agencies with waiting lists were able to schedule an appointment for clients in the coming week; and
- the proportion of agencies with a waiting list was systematically lower in regional areas.

Among the 22 New South Wales agencies which responded, four (18 per cent) reported a waiting list of longer than seven days. This proportion is somewhat higher than that obtained by Walker in three annual surveys of New South Wales agencies providing services for problem gamblers (sub. D287). Walker found that the number of agencies not able to offer appointments within a week was typically very small — for example, 3 out of 78 counsellors (from 46 agencies) in the 1998 survey. Two factors might account for the apparent differences. First, there are differences in coverage between the two surveys — of the 22 respondents to the Commission's survey, 16 are common to 45 agencies surveyed by Walker while 6 are not included in Walker's survey. Second, the fact that the Commission's survey was conducted at a different time of the year may also be part of the explanation — the Commission's findings may be representative of that different point in time.

Table 17.20 Waiting list for clients with gambling problems seeking help

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
<i>Proportion of agencies with a waiting list</i>							
Metropolitan	64	44	33	50	38	17	43
Regional	36	0	40	0	50	0	28
Total	50	30	38	17	44	14	37
<i>Proportion of agencies with a waiting list longer than 7 days</i>							
Metropolitan	36	19	33	0	13	0	20
Regional	0	0	20	0	38	0	11
Total	18	13	25	0	25	0	16
<i>Average waiting time in days for agencies with a waiting list</i>							
Metropolitan	10	10	15	7	7	7	10
Regional	4	0	17	0	15 ^b	0	10
Total	8	10	16	7	11	7	10

^a Tasmania, ACT and NT. ^b Includes two regional services where counselling was only available on one day per month.

Source: PC Survey of Counselling Services.

Overall, there appear to be some agencies which because of waiting lists of longer than seven days may not be delivering fully effective services to problem gamblers. But generally speaking, the availability of problem gambling counselling and treatment services appears adequate to meet existing demand for those services. However, there is also the issue of latent demand — any advertising to increase

public awareness of the help services available would put increased pressure on some agencies to meet any resultant increase in demand.

Funding arrangements with problem gambling service providers

Nature of funding agreements

Some participants in jurisdictions where counselling agencies are required to seek funding on an annual basis were in favour of longer term agreements. For example, in relation to the New South Wales arrangements, the Society of St Vincent de Paul stated that:

In our opinion the current rounds of annual funding are inadequate and counterproductive and we would prefer a three year funding period instead of the current annual one (sub. 36, p. 4).

Similarly, Wesley Gambling Counselling Service reported on the problems that arise for agencies from the annual funding mechanism:

When the yearly round of funding ends, our agency is required to wait until the next round of funding submissions is called for. In our case, our first year of funding ended on May1 1998, [and] ... submissions [for the next round of funding] were not called for until August, [which left] agencies waiting until end-November to find out if they were successful. ... This process is so time consuming and exhausting and it takes away from the very service we offer to the community (sub. 26, p. 18).

In a review of the Gamblers Rehabilitation Fund (GRF) in South Australia, Elliot Stanford & Associates also favoured a longer funding agreement for problem gambling counselling service providers:

GRF funded services are one of the few Departmentally funded services [in SA] not to receive funding on a minimum three year cycle. This is an anomaly and needs rectification. There are concerns that the temporary nature of the funding arrangements impacts adversely on the development and retention of staff competency and service continuity (1998, p. 66).

In its Report on charitable organisations in Australia, the Commission favoured funding agreements with community social welfare organisations for a period longer than a year. The conclusion expressed in that Report is also relevant for funding agreements with problem gambling counselling agencies:

Longer term agreements would provide greater stability of funding and allow [service providers] to plan with greater certainty. This would give [them] greater flexibility and offer increased opportunities to innovate rather than waste resources on repetitious negotiations (1995, p. 382).

Who should receive funding?

Because of the many different reasons why people take up gambling, and the broad range of harms that many gamblers experience, there is unlikely to be a single counselling or treatment solution for all problem gamblers. Hence the Commission favours the funding of a diverse range of problem gambling services, so as to ensure that:

- *clients have choice in relation to counselling and treatment approaches* — ranging from self-help and group support, to individual and group outpatient services, to inpatient or residential care (in cases, for example, where there is a suicide risk or where a co-morbid condition is present); and
- *needs of particular client groups are being met* — such as people of culturally and linguistically diverse backgrounds, aboriginal people, and women.

But with the proviso that it is also important that:

- *funding should not be wasted on treatments that are ineffective.*

On the second point, Walker (1998a, p. 18) reports that there are few services in New South Wales that cater specifically for the problems faced by the immediate family of the problem gambler, and suggests that such services might be made more available. Currently, the main support for family members is provided by the GamAnon self help groups. In relation to Tasmania, Eckhardt (1998, p. 27) also reported that services for families and victims of gambling need to be considered.

GABA indicated that they would like to provide more help for particular groups in the community such as the aboriginal community and elderly citizens groups. These communities have been approached and information presented but the response has been low (Eckhardt 1998, p. 23).

Rolling triennial funding arrangements for agencies, such as applies in Victoria, have merit because of associated advantages for service delivery in terms of planning, training and retention of skilled people. But such arrangements should be contingent on processes being in place to evaluate the effectiveness of the counselling and treatment services provided by agencies.

The efficacy of different types of counselling/treatment

While problem gambling counselling agencies use a wide variety of techniques and approaches to treat problem gambling behaviour, the question arises as to whether the techniques that are actually being used are the most effective. As Blaszczynski, Walker et. al. have stated:

There is limited knowledge as to the best counselling and clinical strategies that should be applied for the management of problem gambling. There is a need for psychologists to carry out controlled treatment outcome studies to develop ‘best practice’ approaches in the management of problem gambling (1997, p. 23).

The Society of St Vincent de Paul suggested the value of funding clinical trials to compare the efficacy of different treatment methods:

... we feel the need for more research of the Brief Solution Focused approach [we use] to make more substantive claims about our therapeutic efficacy. We would welcome the opportunity to participate in a comparative outcome study with other applications (sub. 36, p. 4).

After reviewing the various approaches used to treat problem gambling (such as psychodynamic, behavioural, cognitive, addiction-based and self-help) and the available international literature on their effectiveness, the US Committee on the Social and Economic Impact of Pathological Gambling concluded that:

At this point, we do not know which treatments work best and why they work, and we do not know the extent to which gamblers can recover naturally (1999, p. 211).

In view of the uncertainties surrounding the effectiveness of the various treatment approaches, the Commission sees merit in providing funding to allow:

- **problem gambling agencies routinely to carry out follow-up assessments of clients, at (say) 6 and 12 month intervals after counselling; and**
- **on a more limited scale, longitudinal research on client outcomes at (say) two and five year intervals after treatment.**

Such evaluations are important for determining best practice treatments for problem gambling and thus achieving more cost effective funding.

Needs of people of culturally and linguistically diverse backgrounds

The particular help needs of people with culturally and linguistically diverse backgrounds were raised by several participants. For example, Break Even-Western (Victoria) pointed out that many such people with gambling problems are not using mainstream counselling services to any significant degree (sub. 64).

The Chinese Community Problem Gambling Action Group (Victoria) stated that one reason for this is that mainstream counselling approaches are not appropriate for the Chinese and other ethnic communities:

The Action Group is not convinced that therapeutic counselling, the organisation of self help groups and financial counselling provide an adequate range of service responses to

the needs of Chinese people with gambling problems. ... Service providers (and government departments charged with the disbursement of funds to alleviate problem gambling) need to be much more 'open' to new suggestions as to effective ways to both inform and help those adversely affected by gambling activities (sub. 139, p. 4).

The Ethnic Affairs Commission (NSW) listed a number of factors why people in ethnic communities have particular difficulties in accessing problem gambling help services (sub. D281):

- lack of proficiency in English;
- a stigma about problem gambling that prevents them seeking help;
- a cultural tradition against discussing emotional problems, particularly with people outside the family;
- cultural values different from those that underpin Western concepts of counselling; and
- a lack of knowledge of available services.

Some Break Even agencies in areas with relatively large ethnic communities reported initiating projects to improve service delivery to these groups. For example, the issue of the most effective form of intervention was raised by Broadmeadows Care and Kildonan Child and Family Services. These two agencies commenced a joint project in December 1997 to work with ethno-specific communities in their regions to provide information about problem gambling counselling services and financial counselling. However, in their view, their experience so far:

... raises questions about the effectiveness of therapeutic intervention and financial counselling models as they are currently practised with such communities. ... [S]ignificant research about these two questions needs to be undertaken to inform Government and the community sector about the most effective form of intervention (sub. 77, p. 4).

The Commission sees benefit in the funding of further research on approaches for determining how best to deliver problem gambling help services to particular groups in the community for whom mainstream approaches may not be suitable.

Other counselling needs

Links between problem gambling and criminal offences are discussed in chapter 7 (and appendix H). Many problem gamblers turn to crime to finance their gambling habits once legitimate sources of funds are exhausted. The Commission's *Survey of Clients of Counselling Agencies* revealed that around 40 per cent of clients seeking

help had committed a gambling related crime at some stage of their gambling careers. While the majority of offences committed by problem gamblers do not result in legal action, typically around 40 per cent of offenders are charged and convicted. In relation to such problem gamblers, Blaszczynski, Walker et al. (1997) suggest that:

Psychological rehabilitation programs should be recommended for offenders in addition to any penalty imposed by the courts (p. 23).

In considering the referral sources for new clients of counselling agencies (table 17.6), the detailed information available for some jurisdictions provides evidence of court order/legal system referrals. For example, around 5 per cent of new clients who attended Victorian Break Even services in 1997-98 did so to fulfil legal requirements that they receive counselling for issues associated with their gambling.

In relation to problem gamblers who receive custodial sentences, Marshall, Balfour and Kenner stated that:

There is a gap in [problem gambling counselling] services for problem gamblers in custody and there is an urgent need to provide them with rehabilitation services (sub. 116, p. 15).

But whether problem gambling counselling and treatment alone for this group is likely to be effective (in the sense of making such people less likely to re-offend) depends on the nature of the crimes committed (Blaszczynski et al. 1989, pp. 150–1):

- for those committing only gambling related offences, treatment programs for the problem gambling may well be associated with a reduced likelihood to re-offend;
- but problem gamblers who engage in both gambling and non-gambling related offences would be expected to have higher recidivist rates and be less responsive to treatment; and
- for problem gamblers who engage in non-gambling related offences only, treatment for problem gambling only would be expected to be effective in reducing some gambling-related problems but to have little impact on their re-offending.

For the last two groups, there is a need for counselling and treatment for psychological and psychiatric co-morbidity as well as for problem gambling.

Coordination of services

An important consideration is the extent to which the current organisational structure of help services result in problem gamblers having their problems assessed adequately and receiving the most appropriate treatment.

In discussing assessment procedures in counselling agencies in the previous section, it was concluded that standards across jurisdictions and agencies are somewhat mixed. Because the most appropriate form of treatment for a problem gambler is likely to depend on the severity of the gambling problem, poor assessment may limit the ability to adequately deal with the problem.

In addition to assessment there is also the issue of referral. Even if organisations accurately assess the severity of the gambling problem, they may be reluctant to refer the client to the most appropriate treatment, instead attempting to help the clients themselves. As one participant reported:

There were several opportunities for professionals in generic services to refer me on to a more appropriate, knowledgeable service ... [but] most of these professionals appeared to want to retain my appointments for themselves which is service-centred care not client/family-centred care (confidential submission by the spouse of a problem gambler).

This raises the issue of whether there is a need for problem gamblers and those affected by problem gambling to have access to an independent source to assess their problems and then a subsequent referral to the most appropriate counselling or treatment.

Most states have contracted the ARI to provide a telephone counselling and referral service (G-Line). While providing a much needed service, the independence of G-Line is questionable given that it has been contracted to supplement the existing organisational structure in most states. G-Line, however, are only able to refer people to those organisations that actually exist, which largely depends on whether or not they receive government funding. These organisations are predominantly counselling agencies, some of which may be using relatively ineffective techniques in dealing with problem gambling. In addition, referrals made by G-Line are to some extent also geographically based rather than determined by what treatment is best for the individual.

Who should control the funds for problem gambling services?

Several participants raised concerns about the potential scope for the gambling industry to influence funding decisions. For example, a counselling agency in Western Australia stated that:

One of the major constraints in WA is the funding body — given that the gaming industry funds our agency and has the desire to be involved in most decision making processes about funding allocation (Respondent to *Survey of Counselling Services*).

Similarly, a counselling agency in South Australia commented that:

Whilst funding is through the State government, the actual funds are a donation from the Australian Hotels Association (AHA). As a result, they sit on the funding committee and have a greater than necessary influence on how funds are allocated. Also, funding is meant to be targeted at EGM gamblers as the other gambling codes refuse to pay a similar levy [as that] paid by the AHA (Respondent to *Survey of Counselling Services*).

However, the Australian Hotels Association disagreed with the counselling agency's view:

The AHA does not have the balance of power on the GRF so therefore any recommendations the AHA makes can be rejected by the GRF. ... We believe that the AHA's involvement on the GRF has been essential, facilitating better understanding between welfare agencies and industry (sub. D231, p. 79).

Given the potential for competing incentives with industry-based involvement, in chapter 22 the Commission presents a model with the funding of problem gambling programs being placed under the control of an independent board, established under the auspices of an independent gaming control authority.

18 Policy for new technologies

Box 18.1 Key messages

- Current use of internet and interactive gambling by Australians is negligible, but is expected to grow strongly.
- Online gambling offers significant potential benefits to some consumers and scope for commercial returns.
- On the other hand, online gambling also poses significant new risks for problem gambling. It represents a quantum leap in accessibility to gambling, and is likely to involve new groups of people in gambling.
- Risks to minors, a major concern for many, are potentially less significant where there are properly licensed sites — given screening requirements, ease of monitoring of accounts and the inability to access any winnings.
- It is not clear that liberalising internet gambling would involve significant tax losses.
- The Commission considers that, regardless of what regulatory approach is taken, there are strong grounds for governments to pursue palliative measures, such as:
 - warning people of the hazards of offshore online gambling;
 - providing information on the internet about gambling help services and gambling sites which meet consumer protection criteria; and
 - making available or promoting software for providing consumers with greater control over their gambling.
- However, there are also grounds for regulation of internet gambling, along the lines of regulations applying to other gambling forms. The Commission considers that there are ways of controlling online gambling sufficiently to exercise such regulations.
- Prohibition of online gambling would clearly reduce gambling problems associated with the internet, but would also eliminate any benefits of the technology.
- Managed liberalisation — with tight regulation of licensed sites to ensure integrity and consumer protection — has the potential to meet most concerns, as long as the approach is national.
- Uncertainty about the magnitude of the possible impacts of internet and Interactive gambling, would normally suggest a more gradual implementation of liberalisation, but this may not be feasible given the nature of the technology.

18.1 Introduction and framework

Technological changes are having a rapid impact on the ways in which gambling services are delivered. New technologies such as the internet and cable and digital television allow the delivery of gambling services into the homes of consumers. These new technologies pose fresh challenges for regulation, harm minimisation and taxation, with concerns about youth gambling, exacerbated problem gambling, supplier integrity, and an eroded tax base. On the other hand, these new gambling technologies also offer the potential for gains to consumers and businesses.

These competing effects have made it difficult for governments to determine the appropriate policy response. The Western Australian Government, for example, stated:

The emergence of broadband interactive technologies such as the internet and Pay TV has a number of far-reaching implications for gambling in Western Australia. These include both new market opportunities for existing industries in the State and new sources of competition; with associated threats and opportunities for tax revenue. However, the potential for interstate and international gambling operators to sell their products directly into Western Australian homes also poses a particular dilemma in that it directly challenges the State's firm policy stand prohibiting access (outside of the casino) to electronic gaming (sub. 76, p. 56).

Central to the debate is whether the downside risks can be effectively controlled by regulation and/or technology.

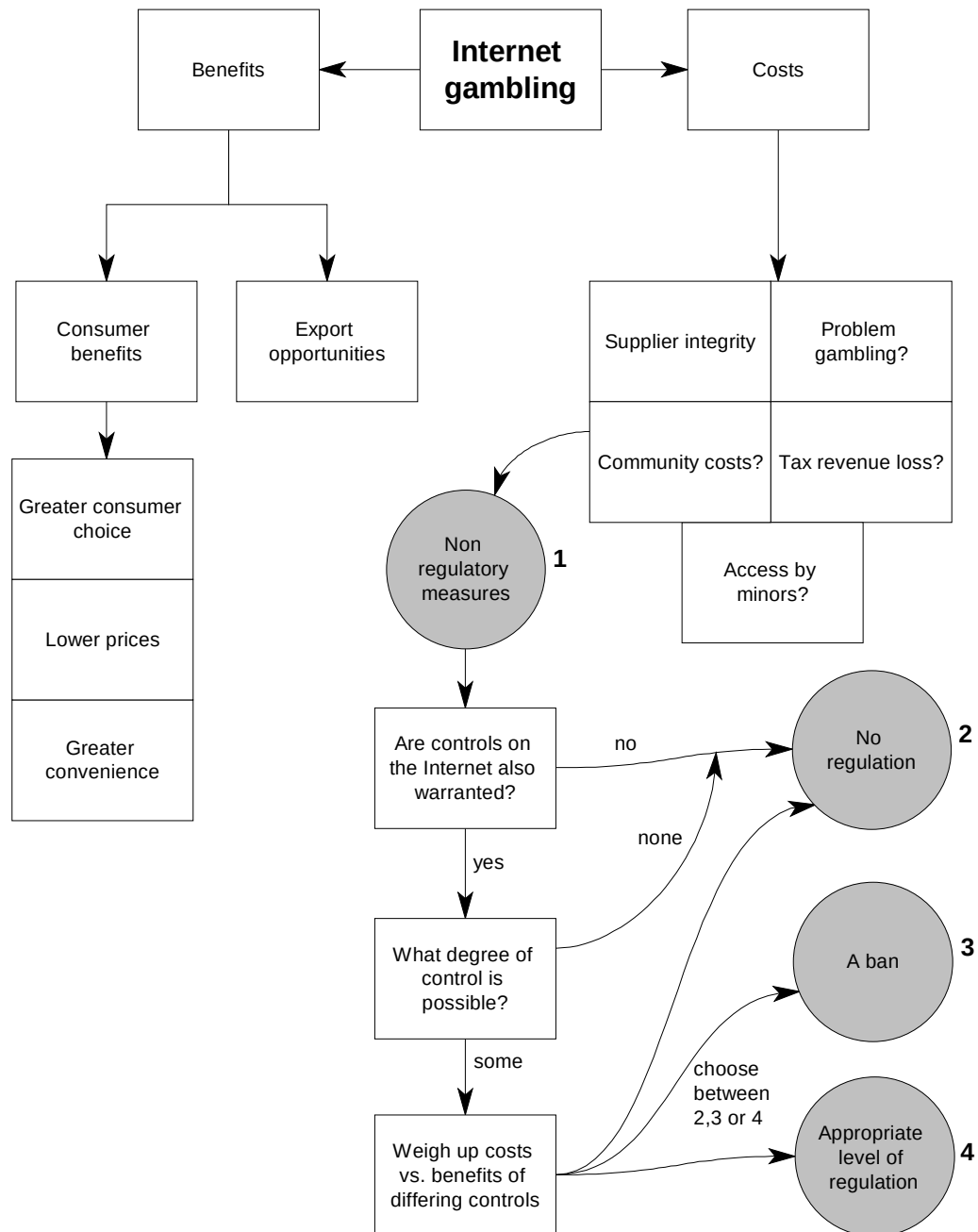
Figure 18.1 illustrates the relevant issues in assessing the role of the new gambling technologies, on which the structure of the chapter is based. Firstly, the chapter presents background information about internet and other interactive gambling (section 18.2) and explores the benefits associated with these new technologies (section 18.3). It then examines the costs which may arise from expanded gambling using these technologies, and what non-regulatory 'palliative' measures might partly address these concerns. It also assesses whether the costs are important enough to warrant regulatory controls on internet or interactive TV gambling. However, quite unlike other existing forms of gambling, these technologies poses special dilemmas for regulators wishing to control it, and so critical policy relevant questions are:

- to what extent can internet or interactive TV gambling be controlled?; and
- what are the costs associated with control, both for interactive gambling as a consumer good, and for internet users and other operators as a whole?

Finally, drawing on the Commission's views on the previous questions, we consider regulatory options, including prohibition of gambling using these technologies (as is

proposed in the United States) and current regulatory responses by state and territory governments.

Figure 18.1 Assessing internet and other interactive technologies for gambling



18.2 Background

What is internet gambling?

A few years ago, the buying and selling of goods and services over the internet seemed a futuristic notion. Now the proliferation of the internet is changing the way we communicate, bank, shop and are educated. Gambling, too, is undergoing significant changes.

Internet gambling is a form of interactive gambling. Interactive gambling involves gambling through a communication channel such as a computer terminal, television or telephone. Telephone gambling is not new — TABs have had telephone betting facilities available for over 30 years. But gambling through a computer terminal by accessing the internet is a new and growing mode of interactive gambling.

The internet is a network which connects groups of smaller computers used by millions of individuals and organisations around the world. It is a delivery mechanism which makes possible the exchange of information and ideas in a manner not possible via traditional electronic and print media. For gamblers, the internet enables them to place bets directly from a computer terminal in their own home.

To gamble on the internet a personal computer, modem and internet access from an Internet Service Provider (ISP) are required. Gambling sites can be accessed on the internet by using a search engine or by typing a known address. A web search for 'internet gambling' on the Alta Vista search engine for example, yields about 7000 hits (as at 11 October 1999). However, many of these are not genuine internet gambling sites, but provide information about internet gambling or other aspects of gambling, such as problem gambling services. Evidence from internet directories of gambling sites suggests that in October 1999 there were around 500 internet gambling sites where people could win or lose money while gambling online (table 18.1). A recent study suggested that there were 700 online gambling sites run by about 200 different companies (based on Faust 1999).

To make a bet, a gambler must first register and establish an account with the gambling service provider. The account is debited when a gambler places a bet and credited when a gambler wins a bet. The account must be funded prior to betting. Funding of the account can be by transfer from a credit card, cheque, money order, or direct bank transfer.

Table 18.1 Internet gambling sites

October 1999

<i>Gambling type</i>	<i>Source 1</i>	<i>Source 2</i>	<i>Source 3</i>	<i>Source 4</i>
Online casinos and games	..	35	179	443
Online (sports) betting	..	28	..	143
Online lotteries	..	11	63	39
Slots and video poker	..	..	..	50
Total	497	74	242	675 ^a

^a Some sites offer multiple forms of gambling so that the total number of online gambling sites will be less than the sum of the individual numbers. Only sites which offer gambling for money stakes are included in the above counts. The data for source 1 does represent a true estimated total for gaming sites, since duplicate sites are not counted twice.

Source: The sources are www.internetcommission.com (source 1), www.wheretobet.com (source 2), www.gamblinglinks.com (source 3) and www.gambling.com (source 4) accessed on 11 October 1999. Other than the first source, these are commercial sites which receive commissions for listing, and are not comprehensive.

Two distinct types of gambling are available on the internet — virtual online gambling and gambling on a separate physical event. Virtual online gambling includes software-generated games such as slot machines, blackjack, roulette and baccarat. This form of gambling exists only in the virtual arena — the games are not played physically in a gaming room and the outcome of the event is determined by a random number generator on the operator's server. These games are either played 'on site' using the gambling provider's server or by downloading software which communicates results to the host. Generally the software gives the gambler the option of playing in *practice mode* (not for real money) or playing *online* (for real money).

Alternatively, gamblers can use the internet to place bets on separate physical events such as horse and dog races and football, cricket and tennis events that take place on a *real* race track or playing field. Or they may use the internet to place bets on lotteries, where there are physical draws. Unlike virtual gaming, this form of gambling is a new *mechanism* for placing wagers, rather than a new form of gambling per se.

Who are the providers of internet gambling services?

The first internet gambling sites were launched in 1995. They provided slow casino-type games with simple graphics. Since then, advances in internet speed, security and graphics have enabled the industry to boom. The development of Java-based software allows players to gamble directly from their web browser without having to download large files onto their computers (Frost and Sullivan 1999).

The majority of internet gambling providers are smaller companies, licensed by local governments — often in the Caribbean or South America — and largely unregulated. However, the place where a site is licensed typically differs from the location of the server that contains the computer programs, which may be different again from the location of the ultimate owners of the sites (table 18.2). The computer servers and owners tend to be based in western countries, particularly North America.

Table 18.2 Traces on some typical internet gambling sites^a

<i>Name</i>	<i>Internet address</i>	<i>Licensed</i>	<i>Ultimate owner</i>	<i>Domain server/s location</i>
Casino Australia	www.casinoaustralia.com	Netherlands Antilles	US	Canada, US
Casinos Australasia	www.casinosaustralasia.com	Vanuatu	UK	Australia
Australian Casino	www.australiancasino.com	?	US	US
Oz Gaming	www.ozgaming.com	Costa Rica	?	US
Kenny Rogers Casino	www.kennyrogers.com	Netherlands Antilles	US	US
Plus Lotto	www.pluslotto.com	Liechtenstein	Liechtenstein	Liechtenstein
Aces Casino	www.acescasino.com	Venezuela	US	US
Action Sports Wagering	www.actionssportswagering.com	Netherlands Antilles	?	Puerto Rico
Avalon Casino	www.avaloncasinos.com	Commonwealth of Dominica	US?	US
Cyberbetz	www.cyberbetz.com	Commonwealth of Dominica	US	Canada
Festival Casino	www.fecasino.com	Commonwealth of Dominica	Canada	Canada
Golden Jackpot	www.goldenjackpot.com	Venezuela	Germany(?)	Germany
Twinkling Casino	www.twinklingcasino.com	Antigua	Canada(?)	Canada
Lasseters Casino	www.lasseters.com.au	Australia	Australia	Australia
Centrebet	www.centrebet.com.au	Australia	Australia	Australia
Mega-Sports	www.megasports.com.au	Australia	US	US

^a Information about licences was sourced from each internet providers site or from www.internetcommission.com ; registrant details and the IP addresses for the servers were traced using a WHOIS program (www.swhois.com), supplemented by information on contact addresses and information provided by the online gambling sites. The location of the servers associated with the IP addresses were obtained using an IP address finder (www.mjhb.mdr.ca.us). The location of the ultimate owner is usually conjectural, except where a site explicitly indicates their final ownership (as in Casino Australia, CyberBetz, Lasseters and Centrebet). Details are correct for 13 October 1999.

In Australia a number of companies offer online racing and/or sports betting services. Centrebet (www.centrebet.com), for example, is one of the largest providers of internet sportsbetting services (box 18.2).¹ Lasseters Casino

¹ Other Australian online sportsbetting providers include: Canbet (www.canbet.com.au — Australian Capital Territory); City Index (www.cityindex.com.au — Australian Capital Territory); Mega-Sports (www.megasports.com.au — Australian Capital Territory); NSW TAB (www.tabnsw.com.au — New South Wales); Ozbet (www.ozbet.com.au — Western Australia);

(www.lasseters.com.au), Australia's first online casino, offers virtual casino games (box 18.3).²

The cost of entering the market as an internet gambling provider is small compared with the cost of establishing on-site gambling services. Flatt (1998) for example, reports that the necessary equipment and software to develop a site can cost as little as \$US 135 000. And operating costs are similar whether a company has 50 or 5000 customers. For example, Internet Casinos Incorporated, one of the first online casinos, was developed for \$US1.5 million and employs 17 people. In contrast it may cost \$US 300 million to build and operate a resort casino which employs thousands. Further, the costs of updating games is also less costly on the internet than for *physical* forms of gambling. Machine replacement is not necessary; games can be updated with new software, and the fixed costs spread over thousands of users.

Who are the internet gambling users?

The Commission's *National Gambling Survey* (table 18.3) suggests that in 1998-99 around 90 000 Australians gambled on the internet (including casino games, sports betting and racing) — which amounts to 0.6 per cent of Australian adults. The surveys commissioned by the VCGA of gambling patterns in Victoria suggest an even smaller proportion (0.1 per cent). Their most recent survey (Roy Morgan Research 1999, p. 241) surprisingly finds no evidence of an increasing trend in internet gambling, although given the small number of participants this may be a statistical illusion.

Darwin All Sports (www.betthe.net — Northern Territory); and TAB Queensland (www.tabq.org.au — Queensland).

² On 3 June 1999, the Queensland Government issued the first interactive gambling licence under its Interactive Gambling (Player Protection) Act 1998 to GOCORP Ltd. This is the first licence to be issued in Queensland under its legislative and regulatory regime emanating from the Draft Regulatory Control Model for New Forms of Interactive Home Gambling agreed in principle by Gaming Ministers from all Australian jurisdictions in May 1997. However, controversy arose over governance arrangements and probity associated with GOCORP, but legislative and other changes have remedied these.

Box 18.2 **Centrebet**

Founded in 1992, Centrebet in Alice Springs has grown to be one of the largest sports betting providers in the southern hemisphere and one of the world's leading internet gambling operators. After the first 12 months of operation Centrebet's turnover was about \$1 million. Today, turnover is around \$3 million per week, with a third coming from overseas.

Licensed by the Northern Territory Government and regulated by its Racing and Gaming Commission, Centrebet pays a tax on gambling turnover of 0.5 per cent or over \$500 000 annually. It employs 25 full time staff and 21 casual workers and is a net exporter receiving over \$2.5 million annually from the losses of overseas punters.

Centrebet accepts wagers on diverse range of sporting codes and events worldwide that are sanctioned by a reputable controlling body. Betting is offered on such sports as Australian Rules Football, baseball, basketball, boxing, cricket, golf, Olympic and Commonwealth Games, tennis and ice hockey. All wagers are based on fixed odds and can be made in person at their office, over the telephone or via the internet. About 300 books are open at any one time.

Prior to betting a client must open a Centrebet betting account. Consumers must be over the age of 18 to bet and proof of identity is required eg. a passport or drivers licence. All deposits and winnings are credited to the account and wagers are debited. Deposits can be made using credit cards, money orders or cheques, telegraphic transfers, or by depositing money directly into Centrebet's account. Centrebet uses encryption technology on the internet and provides a password to account holders to ensure security of transactions.

The majority of Centrebet's clients are offshore — 20 per cent are from Australia, 20 per cent from the United States, 20 per cent from Scandinavia, 15 per cent are from Asia (predominantly Singapore) and 25 per cent are from other overseas countries. Centrebet observe their typical client as male, aged 25–36, who wagers between \$20 and \$50 per bet, about 10 to 12 times a year.

Centrebet's web site was launched in July 1996. Today, it is apparently ranked in the world's top 5 internet sites receiving 20 000 to 100 000 hits every day, or over 20 million hits annually. The site is fast and user friendly. It provides an editorial on each sports book and includes information such as the regulations and rules for betting and a link to tourist information on Alice Springs. In addition, gamblers can gain access to their full history of transactions over the internet.

About 30 per cent of Centrebet's business is carried out of the internet with 10 000 bets taken over the internet each week. In 1997, Centrebet sales over the internet accounted for 50 per cent of Australia's electronic commerce.

Sources: sub. 75 and www.centrebet.com.au.

Box 18.3 Lasseters online casino

Australia's first internet casino, Lasseters Online was launched in April 1999. The site offers a range of casino games including roulette, blackjack, poker, sicbo and slots. The online casino is available to international players and residents of Northern Territory. Lasseters plans to make online gambling available throughout Australia once a national approach to internet gambling regulation has been determined.

The site took \$5 million and two years to develop. In its first six months of operation it has taken over \$13.5 million in turnover. In addition, the revenue generated online has exceeded the returns from table games at its Alice Springs casino. This financial year Lasseters online is expected to contribute 37 per cent of Lasseters total revenue and 40 per cent of total profits.

Demand and growth for Lasseters online gambling products has risen above Lasseters targeted levels:

- Over 12 000 players are currently registered, of which 82 per cent are from overseas.
- Players are registered from 154 countries.
- Player's registrations have been nearly doubling each month since the site's launch. In September alone the site recorded turnover of \$4.3 million, a 70 per cent increase in players and more than one million visitors.

Lasseters predicts continued strong growth and a market worth \$100 million within the next two years.

Source: Information provided by Lasseters Casino.

Table 18.3 Internet gamblers in Australia, 1998-99

	<i>Casino games</i>	<i>Bet on the races</i>	<i>Sports betting</i>	<i>All internet gambling^a</i>
Number playing in last 12 months	58 266	17 738	16 881	89 787
Proportion of Australian adults (%)	0.41	0.12	0.12	0.64 ^b

^a This is less than the sum of the three types of internet gambling because some internet gamblers gambled on more than one form. ^b The unweighted proportion is 0.7 with a 95 per cent confidence interval of 0.4 to 1.0 per cent. The Commission also estimated the share of internet gamblers who were problem gamblers (based on SOGS 5+). This was 13.3 per cent, 0 per cent and 0 per cent for casino games, betting on the races and sports betting respectively. However, the standard errors associated with these estimates are very high, and it is not possible to be certain that levels of problem gambling among internet gamblers are statistically significantly different to other gambling forms.

Source: PC National Gambling Survey.

Internet gamblers tend to be much younger than other adults, with about 53 per cent aged 18 to 24 years (compared with only 13 per cent of other adults). Their mean age was 33 years compared with 44 years for other adults. They also had

significantly higher personal income, at \$39 000 compared with \$32 000 for other adults. Otherwise it was not possible to discover significant socio-demographic differences between internet gamblers and other adults.³

As internet capable computers and interactivity spreads throughout Australian society — including through digital television, it can be expected that the socio-demographic profile of internet gamblers will even more closely match the characteristics of the Australian adult population as a whole.

What are the future directions in technology?

The internet is still in its infancy and subject to rapid change. As a result it is only possible to speculate about what developments are possible for the delivery of internet gambling services.

There is likely to be an expansion in the types of gambling products delivered by the new technology beyond the traditional casino and poker machine games. One likely feature is an increase in the pace of gambling as more gambling modes become continuous. Instant keno and continuous lotteries, for example, are already available on the internet (figure 18.2) and a Perth-based company has recently signed a contract to manage an internet bingo product.⁴ One participant commented that network adventure games are difficult to convert to forms of gambling because they are not always a game of chance — players can control the odds by developing skill or by upgrading computer systems. However in the future, these problems may be overcome and network adventure games resembling *Doom* may be played for money. Finally, a significant number of virtual casinos also provide adult or pornographic content as either part of the gambling experience, or as a prize.⁵

Virtual reality may be used to make gambling online more closely akin to real-world casinos:

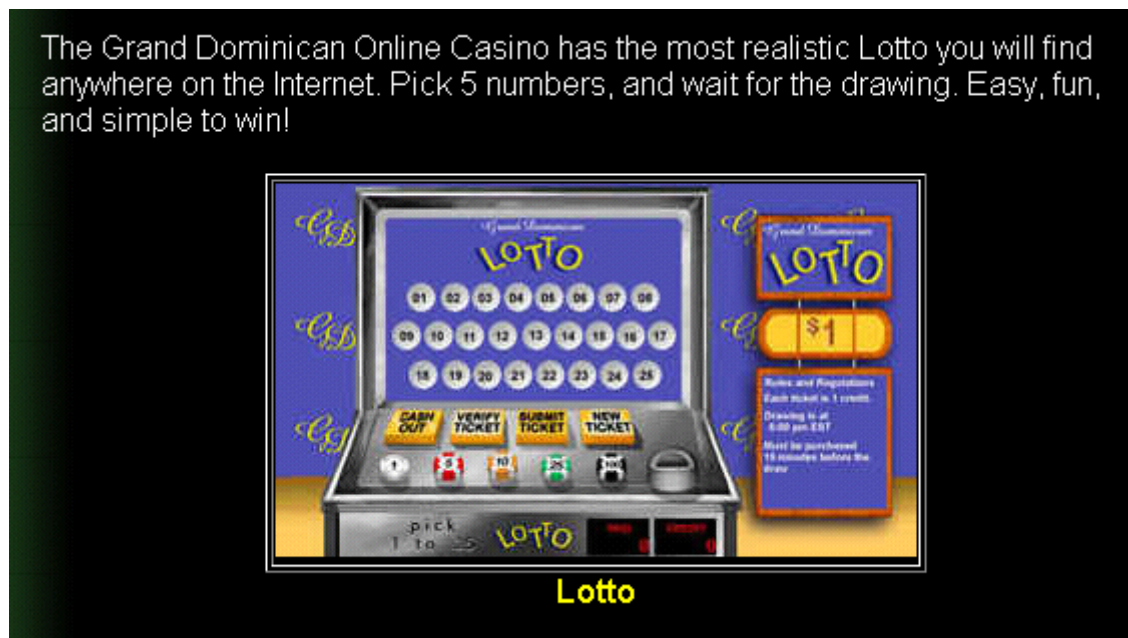
³ A logistic regression of internet use was estimated on a variety of socio-demographic variables, most of which were statistically insignificant (including education, marriage and work status). However, both age and income were highly significant. For example, the model suggested that a person with income of \$50 000 a year aged 25 years was about 60 times more likely to be an internet gambler than someone with annual personal income of \$25 000 aged 65 years.

⁴ Mitchell (1999, p. 80) and <http://www.it.fairfax.com.au/breaking/19990730/A627441999Jul-30.html> (accessed 25 November 1999).

⁵ For example, <http://play.at/astroncasino>, www.xxxsexcasino.com, www.asexysportscasino.com, www.vegasxxxcasino and www.adultclubcasino.com. Many more are listed at www.50hotcasinos.com. A number of these casinos share an internet protocol address with www.Australiancasino.com.

If you become bored with the comfort of your lounge room you put on the virtual balaclava, a glove and you vanish into virtual reality. You are no longer staring at your computer screen, you are walking into a casino but you have not left your lounge room. You stroll around your lounge room (accidentally kicking the cat) admiring the “casino construction”, play a few hands of blackjack, move onto a poker machine and then sit at the Keno lounge and strike up a conversation with the person in the chair beside you, another visitor to the casino who lives on the other side of the globe (Toneguzzo 1997, p. 27).

Figure 18.2 **Virtual Lotto**



Source: <http://www.granddominican.com/info5.htm>.

The new technology is capable of generating a range of safeguards to reduce the social harm of gambling (see later). Star City said:

... it is likely that some computer systems will be able to identify hand or finger prints as a way of accessing internet gambling. Parents would, therefore, be able to prevent their children gaining access to online gaming (sub. 33, p. 35).

On the other hand, the new technologies may create more manipulative environments for gamblers. It is possible that virtual intelligence will be used to influence the behaviour of the individual gambler in ways that are far more subtle than existing gaming machines. This reflects the fact that, through electronic trails, the new technologies are able to collect more information about participants than was previously possible in the gambling industry. A computer, for example could record the type of play (and if the person has used a membership card, look closely at the history of the play) and interact with the player accordingly. It could also

record the nature of that person's involvement with other internet services to build up a picture of their customer profile.

Internet and interactive gambling offers the prospect, therefore, of an infinitely flexible gaming machine in every Australian household.

Convergence of internet and TV technologies

In the near future with the spread of broadband cable and digital TV, it will be possible for gambling operators to bring a range of interactive products into consumers' homes through television. Interactive television can be provided by combining pay TV with a telephone modem (set-top box) to relay messages back to the service provider or by connecting a computer to a cable modem. Ultimately the distinction between TVs and internet-connected computers may largely vanish (Noam 1995 and News Limited 1998, p. 3).

McMillen considers that interactive TV gambling will become particularly important:

The greatest potential for commercial development and increased gambling participation is with interactive digital television. This already operates in the United Kingdom and is anticipated in Australia by early 2001. The capacity for the medium to develop and promote interactive sportsbetting will result in a rapid expansion of this form of gambling in Australia and other nations. If legalised, I predict that interactive television sportsbetting rapidly will become as popular as gaming machines are now (sub. D274, p. 8).

Products are already being developed in Australia to provide home television gambling. One example is a hand held interface (similar to a remote control) which allows a player to select a racing field, access tips, place bets, watch the event live and check account balances. Other possibilities are:

- betting while watching television sports programs — for example on the Australian Football League or the cricket (box 18.5);
- a television channel dedicated to displaying results and selling tickets in lotto and keno style games;
- simulated scratch tickets;
- the televising and simultaneous betting on roulette and other casino games; and
- connection of the TV to the internet so that the full internet network is available.

To the extent that these emerging TV technologies are based on globally *open* networks where there are potentially millions of global content suppliers (unlike existing TV content), then there are no essential differences between gambling on a

computer or that on a TV. However, where TV gambling services are provided from a closed network, in which service suppliers have to have a mandate from the Australian Government to supply content, then they are more akin to traditional gambling forms — such as TAB phone betting. In the latter case, some of the problems posed by internet gambling do not apply (for example, issues of controllability), while others, such as the probity of the services and harm minimisation remain relevant.

The remainder of this chapter emphasises internet gambling. However, the same issues would largely arise whether TVs or PCs are the delivery mechanism, and the same prudent policy approaches would need to be applied.

Access outside the home

While the household is where it is likely that most internet capable computers and interactive TVs will be located, it is possible that the internet or other forms of computer networks may still play an increasingly important role in the provision of gambling services in traditional gambling venues. For example, it is possible that instead of stand-alone machines dedicated to a given game, a venue might have a series of large-screen generic machines connected to an intranet which provides many game options on any given machine. This would provide consumers with instant access to new forms of games, and also facilitate games with interaction between players. It is conceivable that groups of venues may cooperate (for example, clubs or hotels) in developing a computer site on which they have game content, and then connect to this content remotely from each of their venues. The advantage to consumers of in-venue rather than home access to gambling is that they could combine computer network gambling with a social outing, a meal and other entertainment options, and also use computer technology (screen quality and size, sound) which would be prohibitively expensive at home.

The expansion of the internet into new areas outside the home (cafes, malls, and planes) will also raise challenges for regulatory authorities, and may blur the distinction between gaming and non-gaming venues. For example, should an internet cafe which promotes its internet gambling facilities be regarded as a gambling venue and be subject to the probity requirements of other gaming venues? What harm minimisation measures should be mandated for such venues? In section 18.9, the Commission suggests some options for policy which are not affected by *where* the network is accessed.

18.3 What are the potential benefits of interactive gambling?

For recreational gamblers the internet increases the accessibility of gambling products, and offers a greater choice of gambling services and suppliers, potentially at lower prices:

- Casino games, such as roulette and blackjack, which have high initial outlays can be offered more cheaply, because the internet avoids the high overheads associated with such games in casinos.⁶ For example, Lasseters online casino offers the European version of roulette with 36 numbers and only one zero.
- People can play at a pace they find comfortable, rather than one dictated by physical casino conventions (for example, in games like blackjack).
- Game variety can be much greater at any one time, while the internet also offers the scope for the rapid development of new games. This reflects the fact that to introduce a new game, an internet gambling provider only has to change some software, rather than re-configure machines in remote venues.
- Home-based sports betting — for example, on the Australian Football League — may increase the entertainment value of sports media.
- There are many people who are not highly mobile or are distant from gambling venues — the old, disabled and isolated rural dwellers — who may be able to enjoy gambling in their own home.
- It offers gambling to people who dislike the ambience of existing gambling venues.

While the major benefits of internet gambling are likely to go to recreational consumers, there may also be some other economic benefits — in terms of higher returns on resources in the economy. These arise from the higher productivity of internet gambling providers and their export potential — particularly if, as many suggest, Australian technology and probity regulation provide significant competitive advantages.

Perceptions of the commercial potential of internet gambling vary considerably. This in part reflects the infancy of the industry, as well as uncertainties in

⁶ Some participants suggested that gambling would cost more on the internet than physical forms (eg sub. 167, p. 4) because of the costs of the ISP. However, these costs are low relative to the costs of operating physical machines, and are likely to fall as telecommunications and cable technologies develop. It is already possible to obtain 100mb and unlimited hours a month of internet services for about \$30, which would exceed the required capacity of most internet gamblers. For those who were using the net anyway, the *marginal* costs of online gambling are even lower.

legislation, and the technology itself. Some see vast opportunities driven by growth in new markets and technologies. For example, International Gaming and Wagering Business (sub. 16, p. 4) estimate that internet gaming turnover will grow from US\$5 billion currently to US\$25.4 billion by the year 2000. Bell (1999, p. 3) estimates that the online casino segment of this market will have revenues of \$7.9 billion by the year 2001. Data cited by Mitchell (1999), Faust (1999) and Ledbetter and Viuker (1999) suggests that worldwide internet gambling expenditure (not turnover) amounted to around \$US 651 million in 1998, \$US 1.485 billion in 1999 and could grow to around \$3 billion (US) by 2002, even if the US Government enacts a ban.

McMillen and Grabosky (1998, p. 2) see emerging opportunities in Asia, America and Europe:

Notwithstanding the current Asian economic crisis, there are tremendous profits which await those entrepreneurs who can meet the gambling demands of the emerging Asian middle class, whose own governments may discourage gambling on their own soil. Similar market opportunities exist in America and Asia.

They also argue that Australia is in a good position to benefit from these commercial opportunities:

Australia can take the lead to foster an industry based on state of the art technology, and with a worldwide reputation for integrity. Australian policy makers can assist Australian entrepreneurs to maximise the upside potential of the new technologies, to minimise their downside risks, and to encourage competitiveness in Australian enterprise (p. 5).

Some argue that the benefits from internet gambling are already evident — Centrebet, for example, reported:

Centrebet is a technology-driven business and spends hundreds of thousands of dollars in the Northern Territory each year on state-of-the-art internet and software development. This has generated not only employment in that industry onshore, but has also opened up export opportunities, such as Octa4 in Darwin, that have piggy-backed their development work for Centrebet into new markets around the world (sub. 75, p. 5).

Other Australian online betting services are reporting significant increases in demand (Mitchell 1999):

- Turnover in the year to July 1999 was \$1.17 million on eBet's racing and sports betting internet site, which was 10 times higher than that achieved in the previous corresponding year.
- Takings rose to more than \$3 million in July this year for Canbet, up from \$1 million in July 1998 before it offered internet betting.

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- SportOdds, has generated 40 per cent of its revenue via its online gaming presence in its first five months of operation.

However, as noted in chapter 5, it is important not to count all the investments or employment in such a growing industry as if they were added economic benefits, when they largely represent resources displaced from other uses.

Other commentators, are more unsure about the commercial potential of internet gambling, because of current uncertainties in internet gambling legislation in the United States and elsewhere, and with the technology itself (discussed later). The Office of Strategic Crime Assessments (1998, p. 2) for example stated:

At a global level, technical difficulties, the lack of a uniform secure payment method, low consumer confidence and other problems are constraining the growth of internet commerce (and gambling).

However the predominant view is that, corresponding to growth in information technology and electronic commerce, internet gambling is a growth industry and has the potential to generate significant export earnings (see box 18.4) and consumer benefits. The advent of digital TV in the next few years, combined with the existing large number of cable TVs, suggest that there is also large scope for an expansion of gambling —probably as sports betting — on that medium too.

18.4 What are the costs of interactive gambling?

Participants in the inquiry raised a number of problems associated with interactive gambling in any unregulated market, including exacerbated problem gambling, accessibility of minors to gambling, supplier integrity, adverse community impacts and a loss of revenue. The Australian Institute for Gambling Research, for example, noted:

It should be emphasised however that online gambling is different from other forms of e-commerce, just as more conventional gambling is different from other industries. The potential social, economic and regulatory impacts are likely to be profound. Sportsbetting, although currently only a small part of the Australian gambling market, will experience dramatic growth especially after the advent of digital television in 2001. However, it would be erroneous to concentrate primarily on the potential economic benefits that might accrue if Australian licensed operators establish market advantage over other nations. It is imperative that the full social and economic costs and benefits of online gambling are effectively monitored to inform policy adjustments that will maximise community benefits and minimise costs wherever possible (sub. D216, p. 18).

Box 18.4 **Growth in Information technology and electronic commerce**

ABS survey data (1999) suggest that

- At May 1999, nearly 50 per cent of households (3.2 million) had a home computer, a 13 per cent increase since May 1998.
- Over 22 per cent of households (1.5 million) had home internet access in May 1999, an increase of 57 per cent (553 000) since May 1988. A further 684 000 households expected to get internet access in the next year.
- 5.5 million adults or 40 per cent of Australia's adult population accessed the internet at some time over the 12 month period to May 1999. In the previous year 26 per cent of Australia's population accessed the internet.
- Over 74 per cent of 18-24 year olds accessed the internet from any site (home or other) in the year to May 1999, compared with 49 per cent in the previous year. 53 per cent of people aged 25-39 accessed the internet compared with 34 per cent in the previous year. 39 per cent of 40-54 year olds accessed the internet (28 per cent in the previous year). People over 55 are least likely to access the internet — 10 per cent accessed the internet in the year to May 1999 compared with 5 per cent in the previous year.
- Couples with children account for 55 per cent of internet households — 36 per cent of households of the family type couple with children had internet access, 16 per cent of households of the type couple with no children had internet access and 13 per cent of households of the type single parent were connected to the internet.
- 5 per cent of Australians used the net for purchasing goods and service in the past year, corresponding to 650 000 shoppers.

However, a prior ABS survey into household use of information technology (1998d), suggests that interest by Australian consumers in internet gambling was relatively low, with less than 4 per cent of adults stating an interest in internet gambling services.

A report published by the National Office for the Information Economy (1998, p. 3) also notes the small demand for electronic commerce in Australia, but highlights its potential for growth:

The market for electronic commerce in Australia is still small, despite the intense interest and activity surrounding it. But predictions are that it will grow by a factor of ten by the year 2000, and keep on growing. The global market for goods and services bought and sold over the internet is around US\$3 billion per year; by 2000 it is likely to be \$US150 billion. Optus predicts that the value of Australian electronic commerce will be A\$2 billion by 2000.

The growth in internet use and commerce points to the future. In 1996 only 40 million people around the world were connected to the internet. By the end of 1997 that number had reached 100 million. Traffic on the internet has been doubling every hundred days. America's first on-line bookstore sold \$16 million worth of books and CDs in 1996; in 1997 it made internet sales of \$148 million. In Australia in 1995, two percent of Australians bought things over the net; in 1997, six percent of the population did so.

Problem gambling

While problem gambling is an issue for both venue-based and internet gambling the concern is that the characteristics associated with internet gambling make it a particularly troublesome medium. A key aspect of the risks of online gambling is the degree to which it increases accessibility:

- Access is 24 hours per day.
- Gambling can be slotted into very small periods, increasing convenience, but also of impulsive gambling. As noted by the Interchurch Gambling Taskforce, an office worker, might for example, try to double their paycheck on a whim during an office break (sub. 167, p. 4).
- There is no longer any issue of scarcity of machines (such as occurs through caps or venue licensing restrictions) — if a person has an internet-connected computer they have access to a myriad of gambling forms.
- Other than having determined a payment method, there are no conditions of entry, dress requirements, expectations of patron behaviour or capacity to exclude children. A person can be disorderly, drunk or on drugs, and play at the home casino — so long as they can guide their mouse or still push the keys on their keyboard.
- The technology is, however, relatively socially inaccessible at the moment, reflecting the differential receptiveness of people to computer technology, which explains why it is the young (and well-off) who currently dominate as internet gambling customers. However, this pattern of use will change. It can be expected that the majority of households will soon have internet capable machines. If 70 per cent of households acquire this technology in the next five years, this will imply that there will be about five million (home) casinos offering gaming machines, casino table games and other gambling opportunities in Australia — a massive increase in accessibility. As well, people will be able to access gambling opportunities from internet cafes or from hundreds of thousands of workplaces.
- Advertising of online gambling (whether deceptive or not) or inducements to gamble are much harder to control than for other media, again acting to stimulate demand. For example, a Commission staff member set up an email account for an under-18 year old with a well known free email provider (indicating the status of the client as a minor). Within days, unsolicited messages were received inviting the mail recipient to gamble at online casinos.
- Games can be multilingual, increasing their accessibility to non-English speaking people.

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- Initial outlays to play casino-type games, such as roulette and blackjack can be very low, because of the greater productivity of online casinos.
 - Ease of use is high, because patrons can get help about how to play any game at their own pace, without the social stigma of displaying ignorance in a crowded casino.

Other aspects of internet gambling also pose problem gambling risks. The fact that all transactions are electronic, combined with the similarity of the games to non-cash computer games, may mean that people are less aware of the amount of money they are spending.

Online casino games — like gaming machines and roulette — are continuous forms of gaming, with high frequency low payoffs. As in their physical counterparts, such continuous forms of gambling present substantial risks for problem gambling — especially as these also tend to be the more popular forms of gambling. Online sports betting, at least as currently operating, is less likely to involve problem gambling.

For people with past problems on physical forms of gambling, the ready availability of internet gambling may also increase the risk of relapse, or force them to give up the useful aspects of internet technology for fear of relapse. This fear was voiced, for example, by one problem gambler speaking to the *Conference on the Responsible Service of Gambling Within the Club Industry* (August 1999).

Finally, while there may be substitution effects from other, more expensive gambling forms (this being the likely basis for concern about online gambling by many traditional gambling providers), it is also likely that online gambling will establish a new market, just as gaming machines introduced many women to gambling. This in turn implies that a proportion of this newly exposed group will develop problems with gambling. The Interchurch Gambling Taskforce considered that the characteristics of the people attracted to internet gambling would accentuate the risks:

This is due primarily to the fact that most problem gamblers are of a young age, and it is this younger population which are most internet literate and will take to the technology fastest (sub. D200, pp. 5–6).

Echoing these risks, many participants expressed concern that the greater accessibility of interactive gambling and its structural characteristics may increase the harm of gambling and intensify tendencies towards addiction (box 18.5).

Box 18.5 **Some views on problem gambling and the internet**

Internet and interactive gambling presents one of the greatest social threats ... to individuals, communities and government. The ability for innumerable gambling opportunities to be broadcast into every home at all times could result in devastating social and economic effects (Interchurch Gambling Taskforce, sub. 167, p. 2).

Technology has removed the reality check or natural barrier which going to the races, or waiting for a croupier, imposes. It enables opportunity to participate uninterrupted in a way which presents a constant, irresistible, financially devastating lure to many ... We have particular concern because of the ability of patrons to participate in their own home, making those individuals at risk of developing a problem even more at risk (Anglicare, sub. 110, p. 4).

Internet gamblers are as susceptible to becoming problem gamblers as those who prefer more traditional forms of gambling. (Australian Medical Association, sub. 53, p. 12).

Interactive home gambling poses a significant challenge to regulators, and to the community generally, given the potential for a rapid increase in problem gambling with increasing levels of accessibility of the internet, and the universal accessibility (within the next ten years) of digital TV and the increased potential for interactive home gambling (Xenophon, sub. 98, p. 9).

Shane Warne ambles back to his bowling mark, tossing the ball from hand to hand, contemplating how best to bamboozle the batsman with his next ball. Should it be a leg spinner, top spinner, wrongun', flipper or zooter, he muses? [In] a suburban home ... a young cricket fanatic is watching ... With a click of the television remote or the press of a couple of buttons, instantaneously he bets, just prior to its delivery, that Warne's next delivery will be a wrongun'. Warne delivers the ball but sadly for the young fan it turns out to be a standard leg spinner and his money is gone. Never mind. He can try again next ball, or the one after that (Senator Grant Chapman, sub. 23, p. 2).

The advent of internet gambling has opened up a whole new range of concerns. For problem gamblers it has the potential to isolate from their community, and from others who can warn of a potential problem. We agree with the Commission's view that (without harm minimisation measures and appropriate regulation) on-line gambling will pose significant new risks for problem gambling (Anglicare Riverina, sub. D227, p. 2).

...The AHA (NSW) believes that there is potential for online gambling to exacerbate problem gambling. The convenience and privacy of a home computer will replace the need to make a positive decision to get cash and get to a gaming location (sub. D208).

Ameliorating features

On the other hand, there are some features of internet gambling which may moderate problem gambling. While it is possible that internet gambling might take place in locations other than people's homes (such as cafes), it appears that the high growth market will be home-based internet gambling. Here, the demands of other

household members and their readier scrutiny of what a gambler may be doing may act as a brake on lengthy or hazardous gambling⁷:

... consumers who log on from home computers will find it impossible to escape yelling kids, barking dogs, and all the other distractions of the real world. Internet gambling thus offers a more wholesome environment than its real world counterpart (Bell 1999, p. 11).

Since cash is not used for transactions, there will be other evidence of gambling transactions that will be easier for other household members to detect (for example, credit card records and cheque clearances to a gambling venue).

Further, if the odds are better for internet gambling, because of lower tax rates and lower technology costs, then this implies that player losses will tend to be smaller for a given duration and intensity of playing, which could thereby reduce some of the harms.

As well, counsellors contacted by the Commission indicated that many existing problem gamblers were inherently social in nature, and liked to get out of the home to gamble in social settings (even if, ironically, they did so alone). If this is generally true, then this particular vulnerable group may not find gambling on the internet very attractive.⁸

Overall, however, the Commission considers it likely that (without harm minimisation measures and appropriate regulation) online gambling will pose significant new risks for problem gambling.

Accessibility of minors

Children are banned from physical gambling venues and this can be enforced by on-site gambling operators and staff. However, many participants expressed concern that internet gambling operators cannot determine the age of gamblers, so that minors could gamble online by using an adult's credit card:

We have all seen young teens hunched over machines in video parlours, oblivious to their surroundings. This behaviour, in itself, mirrors gambling addiction. While age rules apply in the more formal gambling outlets, I defy any computer, no matter how smart, to be able to detect if a minor is placing bets using their parents' credit facilities (Senator Grant Chapman, sub. 23, p. 6).

⁷ Of course, these distractions and demands do not apply to single person households.

⁸ Tabcorp noted that its research and experience on customer motivations suggested that participants at gaming venues are attracted by much more than just gambling (such as a meal and a social outing), and that gambling at home on the internet was more likely to appeal to a subgroup seeking a gambling opportunity only (sub. D232, p. 14).

In an online environment of anonymous identity, the ease with which teenagers and children can access internet gambling, coupled with their proclivity for gambling addiction, will exacerbate this worrying trend (Janower 1996).

A further concern is that minors will become more exposed (and culturally conditioned) to gambling in general via the proliferation of internet gambling:

Children will be present while adults gamble and will be more likely to develop gambling problems as adults (Wesley Community Legal Service, sub. 46, p. 11).

[A cost will be the] Potential exposure to children and others, with the cultural shift of children now being able to observe parents' gambling behaviour in the home (Interchurch Gambling Taskforce, sub. 167, p. 3).

Notwithstanding such perceptions, underage access is not an insurmountable problem with internet gambling, even in an uncontrolled environment. The motivation and capacity for unsupervised and *regular* gambling by minors on the internet is weak:

- A minor cannot make any financial gain if money is won (unless the parent endorses the gambling). A consumer under the age of 18 can only legally obtain a credit card as a secondary card holder on an adult's account. If a minor uses an adult's credit card or account details to gamble, the winnings are paid by cheque, or credited to the account holder and cannot be accessed by the minor.
- The minor would also need to know a password to access the gambling supplier.
- Gambling by a minor can be easily detected by parents. Money for gambling withdrawn from accounts or credit cards will be listed on account statements.

There will be a small group of technologically astute minors who will be able to gamble on the internet for money without parental consent. However, this is not a unique problem. Some children look like adults and can gain admission to casinos, TABs and hotels to gamble. Some venues act irresponsibly and admit underage clients. An ACOSS study into *Young People, Gambling and the Internet* (1997), revealed that from its sample there were 14 to 16 year olds who regularly placed bets at the races, and minors that occasionally or regularly played gaming machines in clubs. If anything, the statistics on youth gambling (chapter 16) suggest that current levels of entry to physical gambling venues is likely to be much more prevalent than their future access to online gambling.

It is also likely that some minors will engage in internet gambling with their parents' consent, as they do now with racing and scratchies. This appears to be less problematic than unsupervised gambling. Arguably, socially restrained consumption of gambling within a family environment — even if notionally illegal — may

potentially have the benefit of teaching responsible gambling (as in the case of alcohol consumption).

It is too early to assess the social impacts of minors' exposure to gambling via the internet and other interactive technologies. Minors are already exposed to gambling through advertising, and are largely aware of whether and how their parents gamble. Nevertheless, home-based gambling does represent an increase in exposure, which may further normalise gambling. Whether this is seen as an adverse outcome depends on complex judgments about community and family norms.

Community impacts

Internet and interactive gambling represents a new level of community accessibility to gambling. Its impacts on the nature of community and family life will depend on its uptake and use. It may have some desirable social impacts — for example, by making gambling a less socially isolating pursuit for some individuals. On the other hand, it may further reduce social interaction outside the family, and affect social values.

Uncertainty about such effects would suggest a cautious approach to liberalisation of online gambling. In part, however, the fact that existing online casino games are slow to play (and therefore often not as entertaining as their physical counterparts) and that a relatively small share of households have the technology for accessing the internet, provides a natural (if short-lived) constraint on the pace at which online gambling will grow over the next few years.

Supplier integrity

Integrity concerns about online gambling include security and privacy issues, as well as whether operators are providing *fair* games of chance.

McMillen and Grabosky (1998) list problems including:

- a gambling site on the other side of the world may or may not be legitimate;
- a gambling service provider may close down a site before paying winnings or returning deposits;
- credit card or account details provided over the internet may be intercepted by a hacker and used fraudulently; and
- there is a potential for invasion of privacy.

Clearly, if the internet's amorphous and global nature precludes control, people will be able to gamble effortlessly on foreign and unregulated sites and it is likely that some consumers will fall victim to unscrupulous suppliers. However, even in an uncontrolled environment, it is likely that consumers and markets would at least partly respond to some of the problems.

Most consumers are likely to take a cautious approach to internet gambling and develop methods to test the integrity of suppliers. For example, a gambler may bet minimal amounts of money until confidence in payments mechanisms is attained. They may search for information about the reputation and nature of online casino operations before using their services. For example:

- www.internetcommission.com provides a listing of online gambling sites, and the extent to which they are likely to meet consumer expectations (covering issues such as algorithm testing, minimum and maximum bets, payment methods and transactions costs).
- www.gamblingmagazine.com has a black list of non-recommended gambling sites (numbering 245 in October 1999).

Furthermore, consumers will not fall victim to patently unscrupulous operators more than once — if an operator fails to pay winnings the consumer will gamble at an alternative site. In this sense, gambling on the internet is no different from other transactions on the internet, which require a degree of consumer caution and common-sense.

On the other hand, unlike physical goods purchased over the net, like books or CDs, it is difficult in some cases for consumers to verify if they have bought a 'lemon' or not, even after purchase. Even marked differences between the stated odds on virtual gaming machines and the real odds would be very hard for consumers to verify (given the volatility of outcomes on such machines — see appendix U and chapter 16). Accordingly, it would easily be possible for an unscrupulous unregulated online provider to claim player returns of 93 cents per dollar, and yet only return 90 cents (a 43 per cent increase in actual prices). Similarly, a gambler who participated in an online lottery does not expect to win a large jackpot, even over a lifetime, and could not therefore verify through experience whether an operator was fair or not. In contrast, sports betting is far more secure since the gamble relates to an event outside the control of the gambling provider.

In response to these consumer uncertainties, high quality operators will want to signal their quality and probity to clients. They would use a number of strategies to achieve this. They might:

- develop codes of practice;

-
- use payment systems which were more reliable;
 - seek out independent scrutiny of their operations (for example, the International Red Cross internet lottery is audited by Coopers and Lybrand). Many of the online casinos listed by www.internetcommission.com have their operations scrutinised by one of the big seven global accounting companies;
 - put in place dispute resolution procedures;
 - establish an alliance with (or be a subsidiary of) an existing corporation which has a strong reputation (and which would consequently lose too much from fraudulent or deceptive behaviour with its clients; and
 - actually invite the government to regulate them to provide endorsement of their quality.

It is notable that Centrebet and Lasseters, which are outside the jurisdiction of the regulatory authorities of most countries to which their customers belong, have used just these sorts of strategies to secure a competitive advantage through reputation.

While online gambling providers would find some ways of differentiating their quality from those of unscrupulous operators, this does not mean that this is the most efficient outcome. An appropriate regulatory framework — combined with credible monitoring and enforcement — may decrease probity risks more efficiently than under an uncontrolled environment. For example, in an unregulated environment, small online providers without a reputation would probably find it hard to secure a long term future, even if their products were innovative and their prices low. A regulatory environment, by more cheaply certifying quality, may therefore provide efficiency benefits for consumers.

Are adverse impacts on ‘off-line’ gambling providers a cost?

Many existing gambling providers are hostile to internet gambling, because they fear that they will lose some of their customers to less highly regulated and taxed online providers (box 18.6). This concern by established gambling interests is not a peculiarly Australian phenomenon. Bell (1999, p. 3) notes that much of the lobbying for a ban on internet gambling in the United States stems from threatened incumbents:

The established offline gambling industry has huge sunk and overhead costs that nimble new competitors might prevent it from recovering.

However, whether in fact the fears of incumbents will be realised is unclear. In the past, the introduction of new forms of gambling appears to have had relatively minor substitution effects away from existing forms of gambling. Whether internet

gambling follows this trend depends on the extent to which the attributes of internet gambling are intrinsically new, drawing increased expenditure on gambling and a new market of consumers, or whether the internet represents a more convenient access to games that are already widely available in a physical form. The effects are likely to vary significantly by gambling mode.

Box 18.6 Impacts of internet gambling on existing gambling providers

From the casino industry's point of view, the spread of internet gambling could threaten the competitive position of individual casinos. Casino operators have paid large up front and ongoing licence fees as well as high taxes for the right to operate exclusive location-based casinos. The advent of large numbers of internet competitors undermines the rules of operation already in place and raises questions about how appropriate current tax arrangements might be (existing casinos pay large taxes and interactive casinos pay none) in light of this new competition (Australian Casino Association, sub. 124, p. 27).

Internet gambling has various forms and represents a new development that has the ability to render the established principles and mechanisms of regulation and control traditionally applied to gaming ineffective. In addition, it has the potential to cause significant structural change to the club industry which over the years has invested and continues to invest hundreds of millions of dollars into both the community and the supporting industry infrastructure and facilities (Council of Community Clubs of Australia and New Zealand, sub. 63, p. 13).

... technology and internet gambling represents the ultimate threat to Australia's gambling industries. In the absence of taxation, online offshore virtual casinos can provide substantially superior paybacks to gamblers that only a small percentage of consumers would ultimately resist ... (Australian Hotels Association (NSW), sub. D208).

It is likely that expenditure incurred through gambling at home will be largely in substitution for other gambling expenditure (NT Select Committee 1996).

Internet gaming players are a different group to those of typical gamblers in traditional forms of gambling. Access understands that most problem gambling occurs with poker machines played by the less well off in society. If this is the case, we consider that these are the least likely to have access to home computing and the internet. This indicates a relatively low level of transfer of gambling from traditional venues to the internet — from which one may conclude that internet gambling is likely to be in addition to existing gambling, rather than replacing it in part (Access Systems, sub. 16, p. 5).

Racing and lotteries

Gamblers who bet on racing, or purchase lotto or lottery tickets may find the internet a more convenient method of gambling — just as phone betting increased the convenience of TAB wagering. For these gamblers the product or wager on the internet is the same as that offered by a venue. The difference is that the product can be purchased from home — the provision of gambling in these forms via the internet will likely lead to some substitution in the *medium* by which gambling takes place, but not the country of the supplier, and indeed, in most cases not even the

supplier. It should be noted that internet wagering represents a relatively small technological step since people could already lodge their bets remotely by phone.

Sports betting

Sports betting is still a relatively new form of gambling, and is highly suited to internet and home-based gambling. It is likely that it will grow rapidly via the internet, largely creating a new market, though there may be some shift away from wagers on racing.

Casino tables games and gaming machines

The effect of internet gaming on venue-based gaming is less clear. Gamblers who play gaming machines and casino table games typically enjoy playing in a social setting (figure 18.3). While it is possible for venues, such as internet cafes, to provide a social setting for virtual gambling, the atmosphere of a casino or gaming machine room cannot be fully replicated. The virtual product may be viewed as intrinsically different from the physical product. In the virtual realm the player cannot touch the cards or chips, experience the excitement of others or obtain the personal attention of a venue employee.

However, a sizeable minority of gamblers who go to the casino, play gaming machines or Club Keno, do so to win, to pass the time or because they enjoy the nature of the game (figure 18.3) — motivations for gambling which can be as readily met by internet as venue-based gambling. Internet gambling may, therefore, reduce gambling by these people in some existing venues.

At the same time, online gaming is likely to tap a new market of gamblers. For example, Star City said:

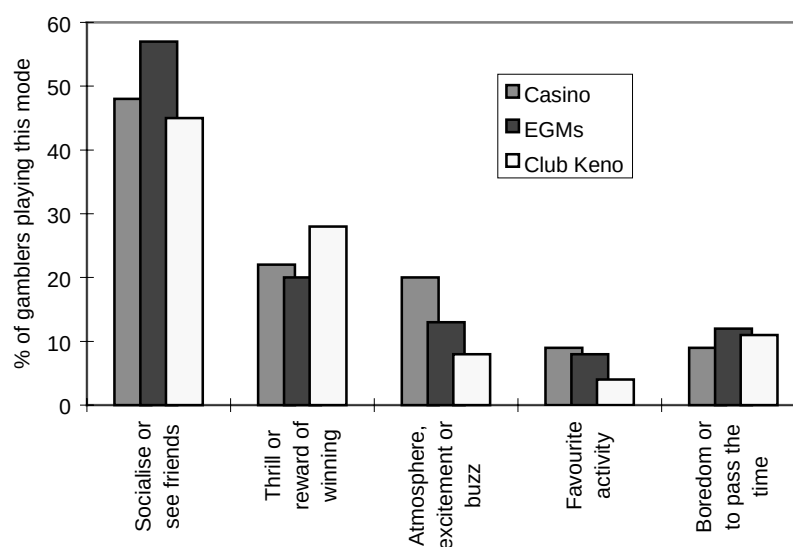
Many people are reluctant to leave their homes to go to a club or casino to bet alone. Others feel intimidated by the prospect of sitting at a gaming table with other players. There will be a temptation for many of these people to take the option of betting privately at home so the internet has the potential to open up a vast new gaming market (sub. 33, p. 35).

Online gaming will be attractive for those who:

- live in remote locations, are house bound or live with a disability may find that gambling services that were previously difficult to access are now readily available;
- are concerned about safety at venues and when travelling to and from gambling venues (notably women);

- do not like the atmosphere of venue eg the smoke or noise;
- are intimidated by other gamblers at gaming tables; and
- are already heavy users of the internet.

Figure 18.3 **Motivations for gambling on traditional gambling forms**
Victoria 1998



Data source: Roy Morgan Research (1999) for the VCGA.

In summary, the expansion of online gambling will have repercussions for existing suppliers. For many it will largely represent a new medium for gambling transactions (such as lotteries). For others it will partially erode existing markets, but also create new ones.

Whether any adverse impacts on incumbents should figure as policy relevant costs depends on how these impacts have arisen. To the extent that they arise due to the more stringent regulatory treatment of physical gambling forms compared with virtual ones, then this can be inefficient and inequitable, a point emphasised by the AGMMA (sub. D257, p. 24). The Commission's policy option — explored in section 18.9 — would involve regulatory treatment for virtual forms that were in close parity to physical forms (although the issue of appropriate tax treatment is more complex).

However, to the extent that any adverse impacts on incumbents arise from the technological advantages of the internet, they constitute little basis for remedial policy action. The existing gambling industries have generally denied the policy relevance of the displacing impacts of the growth of gaming machines on retailing

(chapter 10) — it seems scarcely consistent to regard the potential impacts of online gambling on traditional gambling forms in any different a light. In general, societies do not prohibit technological change because some existing businesses lose as new businesses form. The appropriate barometer for accepting or denying technological growth is net social benefits — which in this case, is largely determined by consumers.

Taxation

Many participants expressed concern that internet gambling may diminish state/territory taxation revenue and affect community services. The Australian Racing Board, for example, stated:

In terms of the Australian Racing Industry, a significant proportion of the revenue earned from wagering on racing is returned to:

- The Industry to fund prize money, racetrack facilities and the major employment that is associated with the industry;
- Consolidated revenue to contribute to community obligations such as, hospitals, schools etc.

The erosion of this revenue lifeline would have serious consequences for the economy of the Racing Industry and the State Governments, as well for the Australian economy in general. Accordingly, there is significant concern that unlawful internet wagering operators should not be afforded the opportunity to establish themselves. Moreover, is such operators established a significant Australian subscriber base during these early days then it is considered that they will be that much more difficult to displace (sub. 48, p. 2).

Similarly, AUSTRAC reported that:

Internet gambling and the resulting access to offshore gambling sites also has the potential to undermine State and Territory revenues. Estimates from the Office of Strategic Crime Assessments indicate that by the year 2015 the NSW government alone could be losing up to \$16 million per annum in taxation revenue through consumers utilising offshore gambling sites (sub. 43, p. 7).

However, the overall tax implications of expanded internet gambling are more complex than simply one of revenue lost abroad to foreign gambling providers (box 18.7).

Box 18.7 Tax revenue losses?

A simple model may be useful to illustrate the potential tax effects of the expansion of internet gambling.

Australians spend on four goods:

$$M = E_{NG} + E_{TG} + E_{IA} + E_{IOS}$$

where E_{NG} is expenditure on non-gambling goods and services, E_{TG} is spending on traditional gambling, E_{IA} is spending on internet gambling in Australia and E_{IOS} is expenditure on internet gambling overseas. Suppose that *overall* expenditure by consumers was constant (M is fixed) — which abstracts from any efficiency dividends emanating from the expansion of internet gambling.

Tax collected on goods and services by Australian governments is:

$$T = \tau_{NG} E_{NG} + \tau_{TG} E_{TG} + \tau_{IA} E_{IA} + \tau_{XG} E_{XG}$$

noting that no taxes on spending by Australians on overseas-provided online gambling services are repatriated to Australia (and where τ is the tax rate associated with each of the differing expenditure categories), but that Australia does collect tax on exports of internet gambling services (E_{XG}).

The change in the tax revenue from the expansion of internet gambling services is:

$$\Delta T = \{ \tau_{IA} \beta - \tau_{NG} (1 - \alpha) - \tau_{TG} \alpha \} \{ \Delta E_{IA} + \Delta E_{IOS} \} + \tau_{XG} \Delta E_{XG}$$

where $(\Delta E_{IA} + \Delta E_{IOS})$ is the expansion in gambling internet services consumed by Australians, α is the share of this expansion displaced from traditional gambling expenditure (E_{TG}), while β is the share of the expansion that is met by Australian internet gambling suppliers (cf foreign internet gambling providers).

The impact of this internet expansion on the sales of traditional Australian gambling suppliers is:

$$IMPACT = - \left\{ \alpha \frac{\Delta E_{IA} + \Delta E_{IOS}}{E_{TG}} \right\}$$

Source: Commission calculations.

The overall tax impact will depend on:

- the size of the expansion in Australian consumption of internet gambling services. This is unknown, but with online TABs, lotteries, sports betting and new virtual casinos, it seems plausible that growth could be highly significant. If Australian consumers were to account for about 5 per cent of the global player losses projected for 2002 (section 18.3), then Australians could be spending around \$230 million on online gambling in the next few years.
- how much of this expansion represents substitution from (highly taxed) traditional gambling forms (compared with other goods and services, which are more lightly taxed).
- the share of expanded internet gambling by Australians which is met by domestic online gambling providers. As noted previously, it seems likely that

gambling on internet racing and lotteries by Australians will still favour domestic suppliers, as will sports betting. Australia's comparative advantage in gaming also suggests that a significant share of online gaming will be retained in Australia in the shorter run, though this would be open to erosion if reputable offshore internet providers were to secure a technological lead or to obtain significant tax advantages.

- the extent to which domestic online gambling suppliers sell services to foreigners. Australia appears well set to provide significant gambling internet services to foreigners — reflecting a comparative advantage in gambling technologies, regulatory regimes and reputational advantages. Centrebet, for example, sells far more to foreign customers than to Australians. These foreign earnings generate tax revenue which offsets that which is lost abroad. The scenarios which follow assume that Australia captures around 5 per cent of the market.
- the tax rates levied by Australian governments on domestic and foreign consumers of Australian internet gambling services. For example, Lasseters online casino has a tax rate of 8 per cent on gross revenue from all its virtual games (compared with 22.5 per cent on gaming machines and about 8 per cent on table games in the 'real' casino). However, the lower tax rate on the internet apparently recognises the upfront costs of developing the site and will be subject to yearly review. In the case of CentreBet, internet sportsbetting is taxed at the same rate as phone betting.

Using the model outlined in box 18.7 — based on provisional settings for the major variables — the Commission examined the tax outcomes of varying scenarios (table 18.4).

It is conceivable that tax revenue may *increase* with the expansion of internet gambling, under managed liberalisation. This is due to two factors. First, tax rates on non-gambling goods and services are relatively low at around 10.3 per cent, so that expenditure displaced to Australian domiciled internet gambling services would probably earn more revenue. Second, while some tax revenue is lost when Australians buy overseas-provided internet gambling services and when more highly taxed traditional gambling forms are displaced, there is offsetting revenue from taxes on online gambling exports. Revenue gains can be very significant if online gambling mainly represents a new market (scenario 2). This result, however, does depend on the extent to which Australia has a competitive advantage in online gambling (scenario 3).

On the other hand, if Australian provision of gambling is prohibited, then Australian governments lose any export revenue as well as revenue displaced from lower taxed

non-gambling domestic goods and services. Nor does prohibition stem the flow of taxes abroad, as some consumers could still be expected to buy overseas even if it was illegal. Consequently, prohibition would still be likely to generate overall revenue losses (relative to the benchmark) — though these would be less than the most pessimistic scenario under managed liberalisation.

Table 18.4 Projected tax impacts of the expansion of online gambling in Australia^a

	Managed liberalisation			Prohibition ^e	Tax competition ^f
	Scenario 1 ^b	Scenario 2 ^c	Scenario 3 ^d		
Change in revenue from non-gambling sources (\$m)	-9.8	-19.6	-9.8	-1.0	-9.8
Change in revenue from traditional gambling (\$m)	-47.9	-16.0	-47.9	-4.8	-47.9
Change in revenue from Australian online gambling providers (\$m)	32.3	32.3	13.8	0.0	8.1
Change in revenue earned from online exports (\$m)	92.3	92.3	92.3	0.0	23.1
Change in gambling revenue (\$m)	76.7	108.6	58.2	-4.8	-16.8
Revenue lost abroad (\$m) ^g	17.3	10.7	40.4	5.8	17.3
<i>Change in net revenue (\$m)</i>	66.9	89.0	48.4	-5.8	-26.6
α	0.6	0.2	0.6	0.6	0.6
β	0.7	0.7	0.3	0.0	0.7
τ_{IA}	0.2	0.2	0.2	0.2	0.05
τ_{XG}	0.2	0.2	0.2	0.2	0.05
E_{XG}	461.5	461.5	461.5	0.0	461.5
$E_{IA}+E_{IOS}$	230.8	230.8	230.8	23.1	230.8

^a The model in box 18.7 was calibrated as follows. In the benchmark case, gambling expenditure is \$11 billion (Tasmanian Gaming Commission 1997–98), non-gambling household expenditure is equal to \$321.3 billion (ABS National Accounts, Cat. no. 5204.0, 1997–98), τ_{NG} =10.6 per cent (calculated from the ratio of taxes on non-gambling goods and services over non-gambling household expenditure, with tax data from ABS Cat. no. 5506.0) and τ_{TG} =34.6 per cent (calculated from the Tasmanian Gaming Commission) and since current values are small, it was assumed that $E_{IA}=E_{IOS}=E_{XG}=0.0$. The projections relate to the year 2002 (based on a 5% share of the global market from Faust 1999). ^b In this scenario, it is assumed that a large 60 per cent of the expenditure on online gambling comes from traditional gambling forms — though note that given other parameters, this only generates a 1.3 per cent contraction in expenditure on traditional gambling modes. It is also assumed that 70 per cent of online gambling consumption by Australians is met by local producers. Tax rates on online gambling are assumed to be much smaller than on traditional gambling forms, reflecting greater global mobility of punters. ^c In this scenario, it is assumed that only 20 per cent of the expenditure on online gambling comes from traditional gambling forms — which, given other parameters, generates only a 0.4 per cent contraction in expenditure on traditional gambling modes. ^d In this scenario it is assumed that only 30 per cent of online gambling consumption by Australians is met by local producers. ^e Under domestic prohibition of internet gambling services, E_{XG} and β are by definition zero. However, notwithstanding prohibition, some Australians will still gamble abroad (because of the difficulty of detection), albeit at a much lower level than under a liberal regime. It is assumed that gambling abroad is only \$23 million. ^f Under intensified tax competition, tax rates on online gambling are competed away by different Australian jurisdictions and by global competitors, until tax rates fall to 10 per cent only. ^g Revenue lost abroad is calculated as $\alpha(1-\beta)*(E_{IA}+E_{IOS})*\tau_{TG}+(1-\alpha)*(1-\beta)*(E_{IA}+E_{IOS})*\tau_{NG}$. Note that the net revenue change already takes account of tax lost abroad, and so revenue lost abroad should not be subtracted from the previous item in the table.

If different Australian jurisdictions and other countries compete away tax rates, then there is the potential for more significant tax losses.⁹ However, the notion that tax competition would be fierce is unclear. Certainly, differential tax rates may influence the ability to attract high rollers. But normal punters betting modest amounts may not be that responsive to (or even aware of) the small price changes achieved by lowering taxes. They are more likely to choose sites which are reputable and have entertaining games.

It is misleading to examine revenue lost abroad without taking account of other revenue effects. For example, more tax is lost abroad under managed liberalisation than under prohibition, but the *net* tax collected is higher under the former than the latter.

Finally, while preservation of tax revenues is an objective of government, it should only be one consideration when determining the appropriate policy stance for online gambling.

18.5 Non-regulatory responses to problems

Regardless of whether internet gambling is subject to regulation, Australian governments could offset some of its potential adverse social effects by palliative measures.

Promoting responsible practice

The Government could promote responsible internet gambling practices, warning people of the risks of using offshore sites which do not meet adequate standards of consumer protection, with graphic illustrations of some of the worst possible risks (for example, 'Careless moments with a mouse can cost you your house').

Help services

It seems sensible to use the internet itself as a vehicle for helping people with problems. For example, the government could establish a single national self-help and diagnosis site, and advertise the existence of this site widely on the net (for example, via search engine companies). This site could have links to problem gambling counselling agencies and to online counselling if the demand were sufficient.

⁹ These tax losses do not appear to be large relative to existing gambling taxes for the forecast horizon that has been used, but may be more significant over the longer run.

A reputable site listing service

Consumers may not be well informed about which sites conform with adequate consumer protection standards or even know where the site is located. None of the first four gaming locations listed in table 18.2 that imply an Australian origin are owned or licensed in Australia.

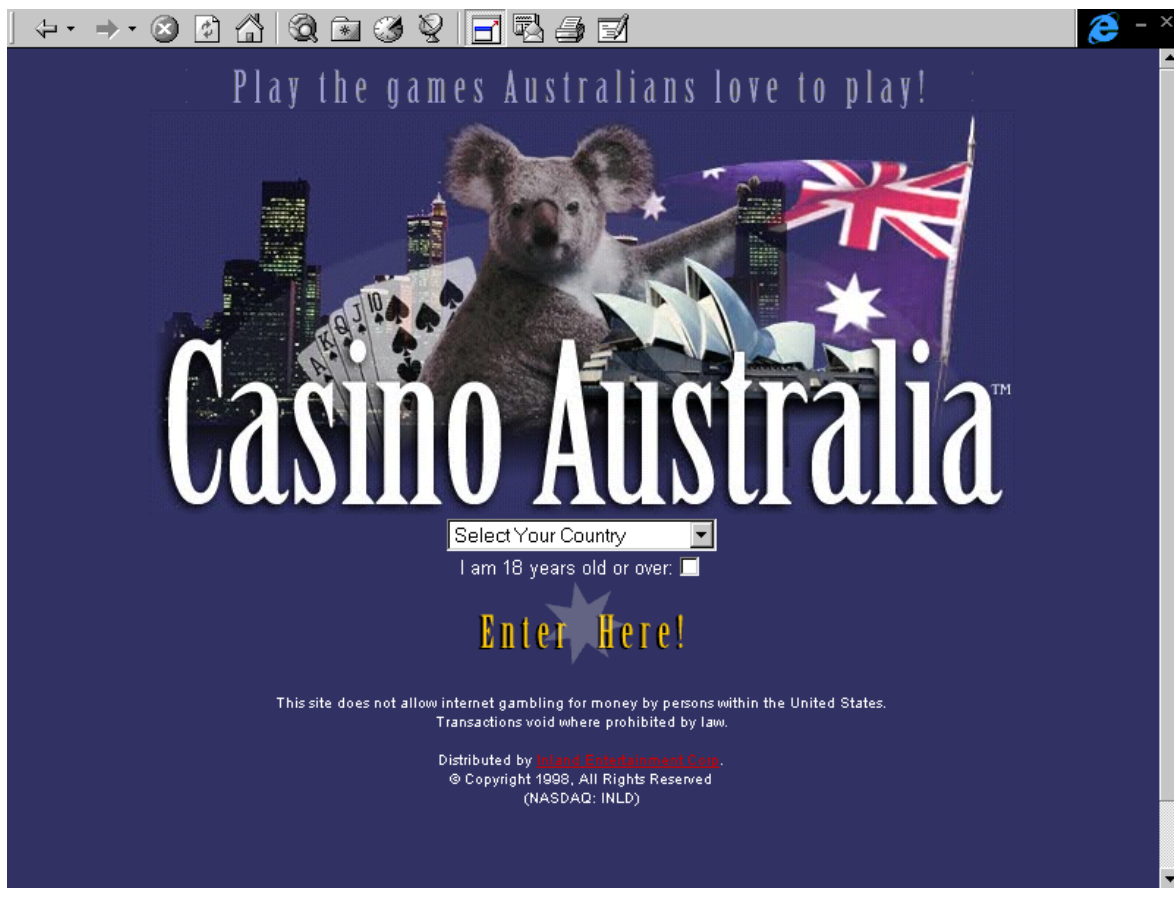
- For example, Casino Australia (which strongly portrays an Australian image — figure 18.4) is licensed in the Netherlands Antilles, run from a server in the United States and Canada, and owned by a US company.
- One online site, www.Australiancasino.com, shares internet protocol numbers (which point to the computer server where the sites are hosted) with a range of casinos purporting to be from other countries. These other online gambling sites include www.Britishcasino.com, www.Canadiancasino.com, www.Russiancasino.com, www.Europeancasino.com and www.Chinacasino.com, as well as a range of pornographic online gambling sites. The owners are said to be a consortium of US corporations and others, but no details are provided. Nor are licensing conditions revealed on their sites. The registrants for the sites typically provide a common UK address. The servers are all on a popular internet service provider in the United States.

There may, therefore, be advantages in creating a site which lists and has links to reputable gambling sites. In this way consumers may be better informed about which sites meet consumer protection standards, with any costs of certification met by any site which wishes to be considered for certification.

This information site could also provide basic information about all known online gambling sites (which are still relatively few in number):

- what are the licensing conditions?;
- are they regulated by a government which is trustworthy?;
- are they audited?;
- how sure can the consumer be that the games have integrity?;
- where is the site?;
- what are the prices?; and
- are there peculiarities in the rules?
- can you self-exclude or limit your gambling if you wish to do so?

Figure 18.4 The site entrance to Casino Australia



Source: www.casinoaustralia.com.

The site www.internetcommission.com partly achieves this end already, but does not cover all of the above points, and has not been able to check the authenticity or characteristics of many currently operating online casinos.

It is important that any such listing site not be seen as government promotion of gambling, which suggests that it would be best managed by a non-government body subject to government determined guidelines.

PC-based technologies for obtaining informed consent

In chapter 16 the Commission set out some measures for increasing informed consent in the use of gambling. As the internet is mediated by computers under the control of the consumer, there is potentially significant scope for technological solutions which widen their scope for self-control. Filters, labels and safe zones are technological tools developed to block undesirable material on the internet (box 18.8). For example, the Western Australian Ministry of the Premier and Cabinet recommended the use of start-up warnings on gambling web pages, the

utilisation of ratings on such pages and help facilities so people know how to block future access if they wish to (sub. D261, pp. 4ff).

Box 18.8 Overview of blocking tools

Filtering software such as *Webkeys Prowler*, *CyberPatrol* and *Net Nanny* can be installed on home computers. Filtering products have a list of banned sites, keywords and phrases which are used as a basis to block unsuitable material on the internet. Some filtering products block access to newsgroups, chat rooms and e-mail. Other additional features provided by some filtering products include:

- the ability to create a personalised list of bad sites and words;
- different levels of access can be established for different family members;
- the filter can block by either providing a warning or shutting down the computer;
- time spent on-line can be restricted; and
- internet access can be restricted to pre-determined times in the day.

Labelling: Some internet sites are labelled according to content (in a similar way to the rating of television programs). Rating systems are generally based on the Platform for Internet Content Selection (PICS) which was developed by the World Wide Web Consortium as a system to attach labels to internet sites. Labels can be read by browsers and a site blocked if it does not conform to a users deemed minimum rating. However most web sites are unlabelled. In addition, the dynamic nature of the internet means that labelling tools are not fully effective as a content blocking mechanism. Labelling tools are therefore generally operated in combination with filters.

Safe zones are suitable for young children. Safe zones are secured networks, separated from the rest of the internet. Some such as Kidz.net and Kahootz are provided on a subscription basis. Others such as Bonus.com are free, supported by advertising.

Source: www.aba.gov.au/family/

Governments could act by promoting (through listing reputable products) software available to people that is loaded onto personal computers, and offers greater control over whether they wish the family to gamble, at which sites, and under what conditions.

As software installation would be entirely voluntary it would not affect consumer choice, and because it would not be on an ISP's server, it would have no effects on overall internet efficiency. As noted by the Internet Society of Australia (IIA 1999, pp. 2–3):

If filtering of internet content is to be done, the best location for this is at the point

of consumption, the end user's machine. This has advantages in that:

- The choice may be made by the consumer as to the level, if any, of filtering they desire;
- No burden is placed on the internet industry;
- Enhanced avoidance measures may be implemented which are not possible at the service provider or higher level. For example, only information which may be inspected and filtered may be allowed, disabling the use of encryption techniques and other avoidance measures.
- No delays or restrictions are placed on the general populace, businesses or e-commerce merchants.

Many products already exist to allow some self-control of household internet use (such as *WebKeysProwler*, *CYBERsitter*, *SurfWatch*, *Net Nanny*, *Cyber Patrol*, *ifilter*, *iseek*¹⁰ and others listed at <http://www6.pilot.infi.net/~carolyn/guide.html> — table 18.5).

The more simple of software tools would allow families to restrict access to gambling sites and time spent on the internet. But it is conceivable that smarter AI software could be developed which could act as an additional interface with *any* gambling site — providing options for limiting expenditure or time (as described for gaming machines in chapter 16) — and issuing warnings if analysis of the site suggests that it is hazardous.

For example, such software could interrogate an online database periodically for sites which have been found to lack probity or may be otherwise risky for consumers, and inform the consumer. It is likely that the technical difficulties for effective home-based blocking of active gambling sites is much easier than generalised blocking or filtering of content (such as mentions of sex, which sometimes also block quite appropriate sites).¹¹

Employers are also increasingly using blocking and other software technologies to filter content and to monitor internet use — both to increase worker productivity and to reduce some of the risks of litigation that might arise from inappropriate content flowing through their networks (see for example, www.rulespace.com). Such blocking could presumably encompass gambling sites.

¹⁰ The latter two are Australian products, which provide filtering of sites, and were launched by the Australian Government on March 1999.

¹¹ See, for example, Electronic Frontiers Australia (1997, p. 9).

Table 18.5 Overview of selected filtering software

	How it works	What it blocks	Features
Webkeys Prowler Free copy available at www.webkeys.com	Blocks access to sites deemed unsuitable according to chosen rating — child, preteen, teen, adult and x-rated Provides a list of over 1000 sites safe for children	Words and phrases Web sites	Sites and 'bad' words can be added to the default list Default 'bad' sites and words can be switched off which allows the user to create a personalised filter Different levels of access can be established for a number of users Option to keep a log of internet activity
CyberPatrol Trial version for windows 3.1/95/98/NT and Macintosh available from www.cyberpatrol.com	The software either blocks access to sites deemed unsuitable or allows access only to a list of children's sites. It also allows filtering by PIC labels. The block list is overseen by a review committee Updates to blocked lists can be downloaded weekly	Words and phrases Web sites URLs Newsgroups, Chat groups Outgoing information	Sites can be added and deleted Different levels of access can be established for a number of users Time spent on-line can be limited Internet access can be restricted to pre-determined times of the day
CYBERSitter Trial version for windows 95/98/NT available at www.cybersitter.com	Blocks access to sites deemed unsuitable for children Blocks searches of material deemed inappropriate Blocks sites deemed adult content by PICS ratings systems	Words and phrases in context (to prevent blocking of safe sites) Options to block FTP sites, IRC chat rooms, Usenet newsgroups and outgoing information	Words and phrases can be added to blocked list but sites from the list cannot be deleted Automatic updates to block list Monitors and records Internet activity and attempts to access blocked sites
Net Nanny Trial version for windows 3.1/95/98 available at www.netnanny.com	Blocks access to unsuitable sites Designed for parents to set up their own list of 'bad' phrases. A default 'bad' list is provided but it is not effective until words are added. Provides a list of sites safe for children	Words and phrases Web sites IRC chat rooms Newsgroups Outgoing information	Monitors attempts at violations Can be set up to issue warnings or shut down the computer on attempts to access blocked sites

Source: NOIE Web sit summary of filtering and labelling tools, www.aba.gov.au/family/family/tools.html and testing by the Commission

And like the pre-commitment mechanisms in chapter 16, it would be possible to make it hard to reverse the options selected by the consumer prior to the agreed time. For example, the software could not be uninstalled or have its preferences altered unless the consumer keyed in a special code. A person who wanted to pre-commit would give the code to someone else.

However a few limitations of blocking software should be noted:

- Filters can block access to safe sites.
- The software decreases the speed of access to sites.
- None are completely foolproof — sites on the internet are constantly changing — filtering software which blocks sites (rather than words or phrases) needs to be reviewed and updated constantly.

The Commission considers that, regardless of what regulatory approach is taken, there are strong grounds for governments to:

- **take measures to warn people of the hazards of offshore online gambling,**
- **provide information on the internet about gambling help services and gambling sites which meet consumer protection criteria; and**
- **make available or promote software for providing consumers with greater control over online gambling.**

18.6 Are non-regulatory responses enough, or are regulatory controls warranted?

While non-regulatory responses have the virtue that they may solve some problems without compliance costs for gambling providers or ISPs, they are unlikely to deal with significant concerns. They cannot deal with taxation issues, and their method for controlling consumer protection is to equip consumers with better information rather than to reduce hazards directly. This is akin to telling people which cars have faulty brakes, but not fixing the brakes.

Nor is a laissez faire approach consistent with the regulatory approach adopted for other gambling modes. Arguably a consistent approach to regulation of gambling is blind to the medium used to provide that gambling:

... if we talk about the regulation of gaming, one must appreciate that regulatory measures should address the activity itself rather than the medium on which the activity takes place. That is, if it is illegal to gamble in a jurisdiction, it is illegal to gamble in a jurisdiction. The law should be independent of the medium (Toneguzzo, 1997, p. 16).

... the established casino and club gambling industry is already heavily regulated. This provides the legitimate basis for strongly arguing that the same standards of regulation should be applied to internet gambling, otherwise an erosion in the overall level of regulation could result (Surebet Gaming Systems Pty Ltd, sub. D263, p. 12).

This would imply that ideally internet gambling should be subject to the same set of regulatory principles as other forms of gambling, such as licensing of approved operators, probity checks on management, consumer protection and confirmation of game integrity.

However, other aspects of current regulatory approaches to gambling are difficult to separate from the medium. For example, it is hard to see how a venue or state-wide cap on gaming machines could have an equivalent in online gambling — and it is precisely the absence of this equivalent method for controlling accessibility which drives concern over internet gambling. Nevertheless the purpose for venue and other caps on physical machines is to reduce problem gambling, and it may be that there are other ways in which this goal could be achieved with online gambling, which should then be incorporated into any regulatory framework. In this sense it may be possible to derive a regulatory framework for online gambling which is consistent with the objectives, if not the form, of the framework applying to other gambling modes.

The Commission considers that some form of regulation of internet gambling, is, *subject to controllability*, an important objective, and is consistent with the aspirations of other regulations applying to gambling — consumer protection, probity and preservation of revenue.

One reason why regulatory frameworks for internet gambling tend to depart from principles adopted in other gambling modes is that regulators are aware of the profound difficulties of implementing a similar framework for the essentially anarchic internet. Building in these implementation problems is a sensible aspect of good regulatory design, but the Commission considers that the *starting* point for an internet regulatory framework should seek to mimic the principles applying to other gambling forms and *then* see how implementation problems necessitate modification of these principles. These regulatory measures include controls relating to:

- the probity of suppliers. These must meet certain criteria to be licensed as a gambling provider (relating to, for example, probity and financial security), provide certain records of their transactions, and be able to be monitored and pay their taxes;

-
- harm minimisation, typically achieved by specifying features of the gambling environment (such as where it is, what modes of gambling are permitted, signage and the use of credit);
 - the integrity of the gambling product. This must meet certain known standards (for example, that the dice are not weighted, the chip algorithm in a poker machine has been verified and tested);
 - prohibited access to gambling by minors; and
 - taxation of gambling.

Clearly stating these as common goals of all regulation of gambling, including internet gambling, stops potentially important regulatory options from being prematurely discarded following cursory consideration of pragmatic hurdles. We turn next to these pragmatic hurdles to see how they might require modification of these principles.

18.7 To what extent can internet gambling be controlled?

Regulation of internet gambling is overshadowed by perceptions of intractable control problems (box 18.9). Traditionally, gambling has been limited to venue based forms of gambling, whereby gamblers had to leave home to participate. This made gambling relatively straightforward to control. By regulating the venue, state and territory governments were able to control gambling. Venue based gambling also made it difficult for residents (unless living close to state/territory borders) to shop interstate for gambling products. The key to these control mechanisms is the ability of governments to use sanctions against non-complying operators.

Internet gambling has changed this. The difficulty for regulators is that accessibility to a gambling internet site is currently only constrained by language and culture, rather than by distance or venue. As one commentator put it: ‘All sites are equal to the mouse click’. Once consumers in one jurisdiction can readily use gambling operators located in another — be they in other states within Australia or internationally — then government control is diluted. This poses a number of challenges for existing gambling regulatory models. The Queensland Government, for example, said:

Developing telecommunications technology and the uptake of interactive broadband services will result in increasingly more players having free access to interstate and overseas gambling products in circumstances where there will not be any ability to intervene in transactions between a player and the gambling service provider (sub. 128, p. 49).

Box 18.9 **Doubts about controllability**

I think there is a component of futility because information is very hard to manage and can slip through the smallest crack (Hal Varian, Dean of the School of Information Management Systems, University of California, Berkeley in Ludlow, 1999).

The very architecture of the internet renders gambling prohibition futile ... sending a message over the internet is a bit like writing a letter, chopping it up, and mailing each piece separately to the same address. The recipient can put it together, but anyone snooping on your correspondence has a tougher go of it ... The internet's inherently open architecture hobbles law enforcement officials, and relentless technological innovation ensures that they will only fall further and further behind (Bell 1999, pp. 7-8).

Right now, gaming on the internet is probably illegal but nearly impossible to regulate due to the offshore location of many of the Cyber-casinos, certain encryption technologies that make the gamblers virtually anonymous and certainly difficult for law enforcement to trace ... (Gordon 1996).

Given the state of technology and the nature of the internet, it is difficult to see how the US ban would work. Even if the ban could be somehow enforced in the US, experience shows that prohibition of an activity which the community at large regards as acceptable, and people would like to pursue, does not work (Australian Casino Association, sub. 124, p. 27).

[The option of prohibiting electronic gambling or internet gambling] is simply unlikely to be viable ... We are not aware of any technologically advanced jurisdiction that has attempted with any success to prevent its citizens from accessing parts of the internet by creating a specific offence for the activity (Horner and Bradfield, Department of Internal Affairs, New Zealand, 1998).

... interactive gaming is already here and is here to stay — legally or otherwise. Legislators can seek to ban it, but risk losing control if they do (Tattersall's, sub. 156, p. 59).

What mechanisms are available for control?

It should be emphasised that the relevant question for public policy is not *whether* online gambling can be controlled, but the *extent* to which it can be controlled. Full control is an unattainable objective, which would be undesirable to achieve because of its attendant costs. A reasonable objective is to significantly reduce demand for and access to unlicensed sites. This is the same principle that applies to illegal 'physical' gambling — it is not argued that SP bookies and unlicensed casinos be made legal simply because there is a possibility that some will remain operating.

International agreement

In theory, one response to the regulatory challenges posed by the internet is to replicate some of the global reciprocity arrangements that exist elsewhere (for example, aspects of telecommunications, international maritime rescue, air services, patent protection and taxation). These measures effectively give one jurisdiction

proxy control over aspects of another's jurisdiction (and vice versa). This, however, would require considerable time to negotiate, may be subject to power imbalances between the competing interests of different jurisdictions, and may be subject to erosion by renegade jurisdictions.

Making unlicensed sites illegal

Another possible way of increasing control is to make it illegal for consumers or businesses to use or run a site which has not been issued with a license by Australia or other cooperating jurisdictions. This is consistent with the treatment of other unlicensed gambling suppliers, such as illegal SP bookies and casinos. It would be relatively easy for regulatory authorities to police illegal *domestic* sites (although there are some significant technical challenges, especially when the site may appear to be operating from abroad — Clarke and Dempsey 1998). On the other hand, it would be very difficult to directly deal with offshore sites.

Toneguzzo (1998, pp. 5–6) has outlined some possible methods for penalising Australian gamblers who use illegal offshore sites — but these would breach norms about acceptable practice:

A Government anti-cybercrime computer is designed to stake out the virtual address of offshore cyber-casinos ... It then identifies the owner of the destination packet ... The computer has the audit trail for evidence, and so automatically withdraws \$50 000 (or whatever the penalty may be) from the bank account of the line owner as a fine. If the money isn't in the bank the Government could automatically take out a mortgage over the person's house ... Finally, depending on the international agreements Australia has with the country of origin, it launches a cyber-terrorism attack to bring down the offending provider's site, and sends a message to the punter advising of the felony, that the government now owns their house and to have a nice day.

But draconian enforcement measures may not be required for the measure to be reasonably effective. Small fines or/and confiscation of winnings for the (few) people who are caught using illegal offshore sites may be quite sufficient. Most people do not like to break the law, even if detection probabilities are low. It is likely that most consumers would find such a managed approach to liberalisation of online gambling acceptable, so long as they had some access to clearly certified regulated sites.¹²

¹² This suggests that it will be important to find mechanisms to enable consumers to know which sites are illegal and legal — along the lines of the software solutions discussed in the chapter.

There are other advantages to this option. By making unlicensed sites illegal, the government strongly signals their hazardous nature.¹³ And it would clearly be inconsistent for a government to make domestic unlicensed online gambling sites illegal (because they are more readily policeable), but expediently allow unfettered legal use of unlicensed offshore sites.

Blocking

Clarke and Dempsey (1998, p. 12) differentiate between ‘hard’ and ‘soft’ protection. Making gambling on unlicensed sites illegal constitutes ‘soft’ prevention. Blocking unlicensed sites through ISPs to *preclude* illegal activities is ‘hard’ protection. There are technical questions relating to the efficacy of such measures (box 18.10).

However, the objections to internet ISP blocking as a generic approach are less applicable to gambling:

- the intention of blocking is to eliminate a small number of active illegal gambling sites, rather than the hundreds of thousands of sites that offer some potentially inappropriate function or content.¹⁴ The costs of checking a database of a moderate number of illegal site addresses is relatively small (in terms of delay);
- blocking a gambling site is unlikely to incidentally remove access to other potentially acceptable content — casino gaming sites are not usually part of broader sites;
- there would be little ambiguity about what would constitute an illegal site. The relevant authority would only have to check whether a site were licensed or not, rather than make subjective judgments about whether its content or function were appropriate; and
- blocking does not require any filtering of the content of an internet transaction — which has many limitations. Rather, ISPs would only need to respond to notifications of illegal addresses.

¹³ Some argue that illegality adds to the excitement and participation, but that does not appear to be true for other forms of gambling. There is a consensus that managed liberalisation of other forms of gambling — such as casinos — led to the closure of illegal casinos.

¹⁴ For example, an Alta Vista search using the words ‘Internet gambling’ revealed 6 967 sites compared with 4 971 234 sites identified by a search for sites which combined ‘XXX’ and ‘sex’ (on 12 October 1999). In both cases, the number of sites overestimate the number of active sites offering such material — but the ratio of 1 to 700 is probably indicative.

Box 18.10 **Blocking on the internet**

Blocking on the internet can occur at two levels — the application level and the packet level. At the application-level internet sites are blocked by specifying the URL (address) of the site, a page or file within the site or by blocking an entire news group. With this type of blocking, ISPs direct access to the internet via a proxy server which performs the blocking of material. The consumer configures his/her web browser to 'point to' the ISP proxy server and the server can then compare clients requests with a supplied 'black list'. This type of content blocking is conducted in countries such as Singapore and China.

At the packet-level content is blocked on the basis of the *source address* or where the packets have come from. This blocking technique requires a router. A router is a computer which examines the destination address of a packet, and directs the packet towards an output port. To block the packet the router examines the address of the sender of a packet, in addition to the destination address, and compares it with a supplied 'black list'. This level of blocking can be implemented within an organisation, at the ISP or Backbone Service Provider level, or at international internet provider gateways.

A recently published report on *Blocking Content on the Internet* by CSIRO found that while technically possible, both packet-level and application-level blocking are not always effective. Specifically, the report found that consumers can overcome blocking by methods such as tunnelling (an IP packet is received inside another IP packet). Some web sites offer free anonymous surfing. A further possibility is that black listed sites may develop software to overcome blocking and this would require counteraction with the development of more sophisticated blocking techniques.

In the short term, CSIRO recommends the use of filtering software to control content problems. A wide range of filtering software is available including *Net Nanny*, *Cyber Patrol* and *Cybersitter*. They can operate on an ISP's proxy server or at the customers end. While this approach cannot be guaranteed to prevent every consumer from gambling on illegal sites it is likely to work for the majority of gamblers. In addition the incentive for consumers to overcome the filtering of illegal gambling sites may not be very strong as legal sites would offer similar forms of gambling (albeit probably at lower odds).

In addition, CSIRO recommends that ISPs be encouraged to offer differentiated services to clients, based on access to the internet through a proxy server. The ability of industry to provide this service will depend on the cost, who bears the cost and whether the service will impact on the services provided by the ISP. For example, using proxy servers to access the internet is likely to slow down the speed of the internet.

In the long term CSIRO proposes that Australia enter in international forums to work out ways for ISPs to determine the jurisdiction of the user. Once a jurisdiction is established the server can establish whether the requested content is legal in the users jurisdiction.

Source: McCrea, Smart and Andrews (1998).

Even if blocking is not fully effective because some illegal gambling sites and some technically able Australian gamblers could circumvent blocking, it may work adequately for most people.

Many internet service providers are hostile to *generalised* blocking at the ISP level, because of concerns about individual freedom, the uncertain legal liabilities of ISPs and the unintended consequences for internet efficiency. However, it appears that they concede that some level of blocking is technically and economically feasible. For example, the code of practice for ISPs developed by the IIA notes:

Code Subscriber ISPs will take reasonable steps to prevent users of their service from placing on the internet, obtaining through the internet or transmitting using the internet, illegal content (IIA 1999, p. 11).

In any case, there are now at least 17 ISPs¹⁵ such as www.cleansurf.com in the United States that offer blocking at the ISP level as a competitive strategy. It is claimed that access speeds are reduced only slightly:

The software itself does not slow down your system. However, by accessing our proxy server, there is a potential for a slightly increased access time -- not download time, but actual time to query (or initiate a "conversation") a server, since all queries have to pass through our proxy server. This is usually unnoticeable, however, and takes place much faster than your actual modem speed. To make up for any lost internet access time, however, FamilyConnect includes Microsoft Proxy, a program on our server which PRE-caches commonly accessed sites (like CNN, Disney, etc.) to our server to allow for quick downloads without having to brave the web traffic.

Apart from the potential technological limitations of blocking, there are a number of other possible issues:

- First, it is not certain how costly such technologies might be, including the costs of combating responses by illegal sites.¹⁶ However, some evidence from the United States suggests that blocking is not highly costly. For example, CleanSurf indicated to the Commission that it licenses its server-based filtering system to ISPs for about US\$2 a user¹⁷, and that the ISP would also have to install a proxy server (costing about US\$5000) for each dial up location. The less the

¹⁵ See [http://dir.yahoo.com/Business_and_Economy / Companies/Internet_Services/ Access_Providers / National__U_S_/Filtered_Access/](http://dir.yahoo.com/Business_and_Economy/Companies/Internet_Services/Access_Providers/National_U_S/Filtered_Access/) accessed on 13 October 1999.

¹⁶ It is possible that some of the costs of blocking at the ISP server level could be reduced through random blocking (only checking some internet requests) or by only interrogating the database of illegal gambling sites for internet requests that are waiting in a queue. Such an approach would serve to frustrate rather than stop use of illegal sites, but it would probably be achievable at lower cost to ISPs (and thereby, internet users in general).

¹⁷ For ISPs with more than 10 000 users.

imperative for complete control and the more that blocking is targeted at high risk sites, the lower the costs of blocking. A key problem is that blocking illegal gambling would only be one of many government imperatives for regulating internet content (pornography, copyright infringements etc), and the sum of these imperatives may be unmanageable.

- Second, who should bear any costs? The sites where the technology may be deployed — the ISPs — may not be the appropriate bearers of the costs (and in any case would pass these costs onto all internet users, regardless of whether they gambled on the net or not). If controls on internet gambling were regarded as primarily benefiting internet gamblers, then it would be appropriate to levy some additional tax on internet gambling. On the other hand, if control was seen as providing a benefit for the public as a whole, then it might be appropriate for government — and ultimately taxpayers — to bear the costs.
- Third, how acceptable is such blocking to the general public? Would they perceive blocking arrangements as part of a wider agenda for social control or just one of the ad hoc minutiae of regulation (like insisting on a tax return)? As long as consumers were able to use legal licensed gambling sites this would probably allay concerns that blocking was an inappropriate form of censorship. In effect, all that governments would be doing with internet gambling is applying existing laws in a consistent fashion to virtual as well as physical games.

The Commonwealth Government has recently passed legislation — mainly intended to deal with pornography — to control illegal material on the internet (box 18.11).

However, the Australian Broadcasting Authority considers that the legislation does not provide a basis for blocking illegal offshore gambling sites:

The online services legislation was not designed as a broad consumer protection measure. It does not provide for other features which may be desirable in regulating online gambling, such as surveillance of the internet to identify illegal gambling sites... The scheme to regulate online content as set out in the online services legislation appears to have a number of limitations of readily accommodating the regulation of internet gambling sites and providing for the type of features that are likely to be desirable in such a scheme (sub. D241, p. 2).

This suggests that new legislation would be necessary to achieve the blocking of unlicensed online gambling sites¹⁸, as well as measures for identifying gambling sites and assessing compliance. Under any such new legislation, ISPs should be required to block only notified sites, as in the case of pornography, rather than

¹⁸ Although those gambling sites that also posted pornographic content, could be subject to the existing legislation.

having to themselves search for potentially illegal gambling sites.¹⁹ As noted by the National Office for the Information Economy (1999, p. 2), ISPs are primarily content hosts and mediators rather than the creators of the content. In many cases they will be unaware of the material that passes through their servers. Accordingly, as in the ABA legislation, the ISPs should not, arguably, be subject to liability where they have no knowledge of its nature. But once advised, they would be required to act by the relevant authority (which might be a new part of the ABA or some other body).

Box 18.11 Recent changes to the regulation of online content

The Broadcasting Services Amendment (Online Services) Act 1999, an Act to amend the Broadcasting Services Act 1992.

Amongst other things, the Act:

- establishes a complaints-based legal regime;
- ensures that internet service providers (ISPs) are not, in the first instance, liable for material carried on their service;
- ensures that, once notified of the existence of illegal or highly offensive material on their service, ISPs have a responsibility to remove or block access to such material;
- ensures that, in the case of overseas-hosted material, ISPs develop a Code of Practice which sets out the “reasonable steps” that an ISP will take to block access to illegal or highly offensive overseas-hosted material;
- provides that the ABA, rather than a service provider, will be the first point of contact for complaints about internet content;

The Act was passed following a report by the Senate Select Committee on Information Technologies.

Source: www.dcita.gov.au/cgi-bin/trap.pl?path=3891.

Controlling financial flows to and from illegal sites

Gambling online requires payment — both to place bets and to receive wins — which potentially provide means of controlling illegal gambling. For example, it could be made illegal for financial institutions to participate in transactions by unregulated gambling operators (Toneguzzo 1998, p. 4; Festival of Light, sub. 107, p. 12 and Farago and Griffiths 1999, p. 16). This may be easier for some modes of

¹⁹ ISPs would be notified by the responsible authority of the descriptive domain names (and associated internet protocol numbers).

transactions than others (for example, credit cards²⁰ compared with cheques). But it seems likely that internet gambling operators could change their trading names very quickly, complicating detection of illicit financial flows. Checking every credit card transaction or cheque clearance for illegal transactions would also be very costly. It is possible that a risk management approach could be applied, which would target certain patterns of transactions from certain locations, with the costs being met by government. Again, only partial success may still serve an important function — any attraction from betting abroad may be obviated by the risk for punters that they may not get paid if they win.

In summary, there are a number of options for controlling the internet. All have some disadvantages. Nevertheless, it would appear technically feasible for governments to exercise some cost effective but imperfect control over internet gambling. As well, a number of measures acting together will increase the effectiveness of control.

18.8 Current policy responses by Australian governments

As there are some options for albeit, partial, control of internet gambling, regulation is a feasible objective. This then raises the question of how internet gambling could be regulated such as to achieve the objectives set out in section 18.6. We first briefly examine the current responses of state and territory governments before considering policy options for online gambling in the next section.

Australian states and territories are currently putting in place arrangements for the regulation of internet gambling. In May 1996, state and territory Gaming and Racing Ministers agreed on a set of principles for a draft national regulatory model on interactive gambling (box 18.12). The model put in place a number of principles for regulating internet gambling while providing scope for state and territory governments to individually determine how such principles should be applied.

Queensland was the first to regulate internet gambling when it introduced the *Interactive Gambling (Player Protection) Act 1998*. The Act is very detailed, covering more than 150 pages with a further 20 pages of regulations. It follows the principles of the draft regulatory model, and places great weight on consumer protection issues. Since then the Northern Territory, ACT and most recently, Victoria, have introduced legislation specifically related to online gambling.

²⁰ For example, it is understood that Provident National Bank, a large Visa card issuer in the US, will deny approval for most online wagers made by its customers (news.cnet.com/news accessed on 25 October 1999).

Box 18.12 Model code for interactive gambling

On May 3 1996, state and territory Gaming and Racing Ministers agreed on a set of principles for a *Draft Regulatory Control Model for New Forms of Interactive Home Gambling*. The draft model report states:

A cooperative approach by all State and Territory Governments is the only effective means of regulating interactive home gambling products at this level. A non cooperative approach is likely to result in individual States and Territories maintaining barriers to interstate products. In the short term this will limit the ability of Australian based service providers to effectively market their products to a critical mass of consumers and provide advantages to overseas based providers. In the long term a non cooperative approach can only result in the ineffective regulation of interactive home gambling products and erosion of the gambling taxation revenue of all States and Territories.

Further, the report states:

Provided all States and Territories participate in the Model the assistance of Federal bodies is unnecessary to provide effective regulation of interactive home gambling products sourced from within Australia.

Implementation of the model requires each state and territory government to enact complementary legislation based on the principles of the Draft Regulatory Model. Principles include:

- licensing of service providers pursuant to background checks and financial capacity;
- requirements for player identification to prevent gambling by minors;
- the prohibition of betting on credit;
- periodic audits of providers accounts and gaming software by regulatory authorities;
- facilities for players to specify protection measures such as self-exclusion and limits on wagering;
- the provision of contact information for assistance with problem gambling;
- requirements for the maintenance of privacy of player information;
- a code of conduct developed by the industry; and
- taxation applied on the location of residence of the player.

A number of states and territories have since enacted legislation, some such as Queensland's approach is in complete accordance with the model code but others, such as Tasmania's, is not.

Source: Working party of State and Territory Gaming Officials (1997), Draft National Regulatory Model for Interactive Home Gambling, 23 May.

Many aspects of the legislation introduced by various states have conformed to the draft model, though there are a number of significant differences:

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- As set out in the draft agreement, legislation introduced in Queensland, the ACT, the Northern Territory and Victoria prohibits credit betting, establishes requirements for player privacy and enables players to self exclude and set betting limits.
 - The Victorian Act is the only one which legislates minimum returns to players — a rate of 85 per cent.
 - The draft agreement proposed that contact points for problem gambling services be made available at gambling sites. However none of the state/territory interactive gambling acts explicitly make this provision. However a number of Australia's online sites, for example, Lasseters and Tattersall's, do provide links to such services.
 - All legislation follows the draft agreement in prohibiting minors from registering as players and establish requirements for the verification of the identity, ages and addresses of players. The Northern Territory legislation extends further, with a requirement that software which limits access to minors be made available at gambling sites. Lasseters online, for example, has links to Net Nanny and CyberPatrol, where trial software can be tested.
 - The state/territory acts are similar in legislating that licensed internet providers can only use approved computer and control systems. However, Victorian legislation has no explicit provision for periodic auditing of accounts and software.
 - Arrangements for taxing internet gambling differ between jurisdictions. Queensland and ACT legislation distinguishes between three types of taxation — taxation on gambling by domestic residents, taxation on residents of participating jurisdictions and taxation on residents of non-participating jurisdictions. In contrast, the Victorian and Northern Territory Acts do not explicitly establish provisions to remit taxation back to the players jurisdiction (table 18.6).

In Tasmania, Federal Hotels has to date had exclusive rights to gaming and this has been interpreted to include internet gambling. This single operator can only provide services to non-Tasmanians and intends only to provide services to non-Australians. As a result, the Tasmanian approach to internet gambling has not yet incorporated the principles of the draft agreement.²¹ However, in late 1999 the Tasmanian

²¹ There are also some attempts by jurisdictions to try and preserve tax revenue by reducing cross-border online gambling. For example, NSW has recently amended legislation (the *Racing Administration Act 1998*) so that information on non-NSW racing and betting operations cannot be provided by a person operating in that state via the internet. This would stop someone setting up a site in NSW which posted information on sporting events in other states and which had links to non-NSW betting operations, such as Centrebet. However, NSW gamblers would still be able

Government introduced legislation to enable licences for internet casinos, sport betting, lotteries and fixed odds wagering to be issued to any applicants meeting the required regulatory, financial and probity standards. It is not proposed that licensees be restricted to customers from outside Tasmania or Australia.

The other jurisdictions have not, as yet, introduced internet gambling regulations.

Table 18.6 Taxation arrangements for Australian internet gambling

<i>Draft agreement</i>	<i>Queensland and ACT</i>	<i>NT</i>	<i>Victoria</i>
Applied on the basis of the location of the resident — the rate determined by the players jurisdiction.	Licensed providers required to pay an interactive gambling tax for each authorised game. Taxation revenue from licensed providers has three components:	Taxation and license fees, paid according to the license agreement. For example, Lasseters gambling revenue is taxed at 8 per cent.	Licensed provider to pay a supervision charge in instalments each financial year.
The jurisdiction where the service provider is located is responsible for collecting, auditing and verifying that the service provider has remitted the appropriate tax to each jurisdiction.	1. Tax on gross profits from residents. If the game is a game to which a gaming act applies the tax rate is that specified in the act. Otherwise the tax rate is 50% 2. Tax on gross profit from residents of participating jurisdictions. The tax rate is the tax rate specified under a law corresponding to the jurisdiction. If no rate is specified by law the rate is that specified by regulations of the participating jurisdiction. If there are no laws in Queensland (ACT) or in the participating jurisdiction the rate is 50%. 3. Tax on gross profit from residents of non-participating jurisdictions. If the game is a game to which a gaming act applies the tax rate is that specified in the act. Otherwise the tax rate is 50% License fee paid according to conditions of license		Licensed provider to pay each month 50 per cent (or another prescribed percentage) of gaming revenue (turnover less winnings) into the Consolidated Fund.

Source: Information from various Acts.

The case of Norfolk Island

In addition to the online casinos now authorised in the Northern Territory and Queensland, an internet casino gambling service is being planned for Norfolk Island (box 18.13).

to bet via the internet on sites outside NSW, so the impact of the legislation on cross-border gambling is likely to be extremely weak.

As is currently the case in Tasmania, it is planned that any online gambling provider established on Norfolk Island would be precluded from taking bets from Australian or Norfolk Island registered addresses:

We want to maintain a good relationship with our counterparts in Australia and, being a Commonwealth Territory, we consider it would not be acceptable to diminish in any way a revenue stream available to States and Territories of Australia (sub. 177, p. 2).

However, the Government of Norfolk Island also noted that:

... any adverse economic and social impacts that are often mentioned as being associated with gaming are avoided in so far as the Island is concerned ... adverse impact on others will be carefully watched and guarded against even though no resident of Norfolk or Australia should be affected because of the ban on players [from those jurisdictions] (sub. 177, p. 3).

This stance may simply reflect an unwillingness to become embroiled in fiscal or regulatory disputes with other Australian Commonwealth jurisdictions, in the same way that Lasseters Casino in the Northern Territory does not take bets from other Australian jurisdictions. Offering online gaming services to other Australian jurisdictions would immediately raise taxing and tax-sharing questions.

Box 18.13 Norfolk Island's proposal for online gaming licences

The Government of Norfolk Island has passed legislation to allow the establishment and operation of internet gaming on the island. It has established a gaming authority to regulate this activity. The Government's objective is to provide an additional revenue source to supplement the island's tourism activity, and to obtain, through this development, an upgrade of the island's communication facilities.

Legislation has been passed to provide for a regulatory framework:

... to at least match to standard of regulatory control that is required by ... Queensland and the ACT ... well regulated gaming, which presents and maintains integrity throughout, is a very marketable commodity and one that is best able to engender public confidence (and hence revenue) ...

Once the technical requirements are finalised, prospective applicants for licences will be notified. Some 'unsolicited inquiries' are being handled at present.

There is ... a vast reservoir of internet business - both gaming and commerce - that is available ... we appear to be uniquely placed to take advantage of that market ... It is really a case of if we don't take this step someone outside the Australian sphere will. Why should that be allowed to happen?

Online gaming would be taxed by the Norfolk Island government.

Source: sub. 177.

18.9 Policy options for internet gambling

Existing policy measures by individual states and territories represent pragmatic responses to the rapidly evolving opportunities and threats posed by online and interactive gambling. They do not necessarily represent the optimal policy response. This section examines a number of policy options for the internet.

Is a policy of prohibition feasible, cost effective or desirable?

One possible policy response to the risks entailed by internet and interactive gambling is a ban.

There are a number of relatively strong arguments for prohibition. Online gambling presents the risk of a quantum leap in accessibility to gambling and presents new risks for problem gambling. Unlike physical gambling technologies, it is hard to gradually increase access, because the number of gambling opportunities is determined by the number of internet-ready computers rather than by the number of gambling websites. It is unlikely that any Australian regulatory agency would be content to approve 1.5 million new gambling venues, but that is what access to online gambling incidentally achieves.

The taxation revenue consequences also represent a gamble for state governments. They may make more revenue, but under worst-case scenarios, may lose significant sources of revenue if Australians divert gambling to online sites in offshore tax havens, or if tax competition between jurisdictions erodes rates.

The grounds for bans are strongest for gaming technologies (casino-type games such as roulette and virtual gaming machines). The case for banning internet wagering (sports betting and racing) or traditional lotteries are weaker, reflecting likely lower risks and the fact that other mediums for making these gambles, such as phone-betting, are close substitutes for the internet.

Some participants advocated that Australia should prohibit internet gambling. For example, the Festival of Light said:

We urge the federal government to use its powers under the Broadcasting Act 1992 and the Telecommunications Act 1991 to prohibit absolutely any gambling via these media. Australian banks and other financial institutions should be prohibited from processing transactions via credit cards which relate to internet or TV gambling. The Commonwealth government should seek to negotiate an international agreement to ban internet gambling worldwide (sub. 107, p. 12).

Similarly, Xenophon stated:

Given the current levels of problem gambling in Australia, a prohibition of this form of gambling should be a legislative priority at a Federal level (given Commonwealth powers over banking and telecommunications) (sub. 98, p.10).

The Woman's Christian Temperance Union of Victoria, in responding to the Commission's draft report, said:

We agree with the Commission that it is likely that (without harm minimisation measures and appropriate regulation) online gambling will pose significant new risks for problem gambling. Whether such regulatory policies can be implemented is problematic. We would like interactive gambling on the internet to be banned ... If the US Senate believes that a ban is feasible it should be possible to outlaw it here (sub. D195, p. 4).

Echoing concerns about the social consequences of online gambling, attempts have been made in the United States to prohibit internet gambling, and these have been given further weight through the endorsement by the United States National Gambling Impact Study Commission (box 18.14).

However, a policy of prohibiting access or provision by Australians of online gaming is likely to be less enforceable than allowing some licensed sites. The principles behind some of the control mechanisms discussed in section 18.7 is that they increase the cost to consumers of accessing illegal sites, so that they decide to use legal sites instead. If *all* sites were illegal, then the measures would work less effectively.

Even so, making it illegal to operate or use online gaming sites would have the likely effect of significantly reducing their use, albeit while also creating a black market.²²

... while a regime of prohibition will not suppress gambling entirely, it would certainly dissuade involvement on the part of legitimate gaming operators who would be loathe to jeopardise their land-based casino licences through involvement in prohibited activity. Prohibition might ... create a black market in online gambling services (McMillen and Grabosky 1998).

²² But a significant reduction in use would presumably still reduce exposure and risks of problems for a sizeable number of people — the objective of a ban is reduction not eradication of use.

Box 18.14 US initiatives on internet gambling

Legislation

Currently, the law most applicable to internet gambling is the 1962 Federal Wire Communications Act which prohibits the use of telephone lines for betting or wagering. However, it is not clear how applicable the Act is to internet gambling, and accordingly, attempts have been made at both the federal and state level to enact legislation which unambiguously has the power to ban internet gambling.

In some states gambling is prohibited and there have been some attempts by state Attorneys General to prosecute on-line operators. The Attorneys General of Minnesota and Missouri have launched actions against internet gambling operators under their local consumer protection laws. And in March 1998 the FBI indicted 14 operators for providing bookmaking services on the internet (Office of Strategic Crime Assessments 1998).

The proposed *Internet Gambling Prohibition Act of 1997* (the Kyl Bill), first introduced by Republican Senator Jon Kyl in March 1997, sought to extend the 1961 Wire Act's prohibition on interstate sports gambling conducted by telephone or wire to newer forms of technological transmission, including the internet. The Kyl Bill included provisions for fines of at least \$20 000, and four years imprisonment for people operating internet casinos and fines of at least \$500 and three months imprisonment for those betting on internet casinos. In addition it required telephone companies and internet service providers to terminate service to the internet gambling operator. The Kyl Bill was passed by the Senate in August 1998 by 90-10. The Bill was subsequently introduced to the House of Representatives, where its penalties and constitutionality was questioned, and as a result a vote on its passing was deferred.

In response to these criticisms, in March 1999, Senators Kyl and Bryan introduced s. 692, the *Internet Gambling Prohibition Act of 1999*, which changed the nature of penalties. In June, the Act was approved by the full Judiciary Committee. The bill was unanimously approved by the Senate in November 1999, and is expected to go before the House of Representatives in the year 2000.

If passed — and some question whether it will do so — then the legislation would prohibit any person engaged in a gambling business from using the internet or any other interactive computer service to place, receive or make a bet or wager or assist in the placing of a bet or wager.

The US National Gambling Impact Study Commission

In May 1999, this Commission recommended that the Federal government should prohibit internet gambling within the United States, and asked that the DOJ develop enforcement strategies included but not limited to Internet Service Providers, credit card providers, and money transfer agencies. Further, the Commission recognises that internet gambling is expanding rapidly, bringing gambling into the home of every family with a computer. Since it crosses State lines, it is difficult for States to adequately monitor and regulate such gambling.

The Commission also recommended the passage of legislation prohibiting wire transfers to known internet gambling sites, or the banks who represent them. Furthermore, the Commission recommends the passage of legislation stating that any credit card debts incurred while gambling on the internet are unrecoverable.

Finally, the Commission recommended that because internet gambling is expanding most rapidly through off shore operators, the Federal government should take steps to encourage or enable foreign governments not to harbour internet gambling organisations that prey on U.S. citizens (NGISC 1999).

The across-the-board prohibition of online gambling has a number of other potential disadvantages. It would:

- make it impossible for governments to regulate consumer protection features as part of legal ‘safer’ sites, consistent with a general approach of harm minimisation. The people who use unregulated offshore sites because of the absence of safer regulated local sites may be exposed to significant risks;
- reduce the choice of gambling products and suppliers available to consumers; and
- eliminate domestic commercial opportunities and exports of gambling services.

A transitional disadvantage is that banning would lead to adjustment costs for existing internet gambling providers.

Managed liberalisation

An alternative option is one of managed liberalisation within a nationally agreed framework. Managed liberalisation would have harm minimisation and consumer protection as its chief goal. It would require regulation of Australian sites and bans on offshore sites which do meet minimum consumer protection standards. The bans on offshore sites could be achieved using the control mechanisms discussed in section 18.7, and would probably be relatively effective because consumers would still be able to gamble on the (safer) legal internet sites with ease. Lighter handed regulation may achieve more than prohibition, as noted by Bell (1999, p. 12):

...proponents of a ban on internet gambling have argued that, if prohibition will not work, then neither will any scheme of regulation. Such an argument fundamentally misunderstands a basic principle of governance: if they offer greater benefits than burdens, regulations can succeed even where prohibition fails. The comparative advantage of limited regulation over prohibition explains why people do not illegally shoot craps in Las Vegas alleys.

A key advantage of managed liberalisation is that it allows the development of measures to counter the problems occasioned by gambling in a way that is consistent with other codes — and possibly, more successful.

Problem gambling

In chapter 16 a range of measures were suggested for ameliorating problem gambling. Some of these have already been implemented as part of Australian internet gambling sites. For example, Lasseters Online Casino (www.lasseters.com.au) has:

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- scope for self-exclusions, of initially 7 days, but indefinitely after three successive self-exclusions. Self-exclusions of this sort are likely to be highly effective compared with those offered in physical venues, where people may not be detected;
 - a link to the website of Amity Community Services, which includes a self-diagnosis test of problem gambling;
 - links to downloads of Net Nanny and Cyber Patrol for controlling child access to internet material deemed inappropriate by parents;
 - records of transactions so players know what they have spent; and
 - possibly, most significantly, the facility to set expenditure limits — which are currently impossible in physical venues. To date (October 1999), 541 subscribers to Lasseters' online services have set a bet limit (about 4 per cent of total subscribers).

Gambling providers noted the potential for *regulated* internet sites to be inherently safer than other licensed venues:

Internet gambling systems are much more able to closely monitor a player's activity and habits than in traditional gambling activities for example by collecting data by player on what games are played, when, how many times, for how long and with what results. Thus these systems are able to provide powerful means to monitor and control the amount a player bets and may also limit a player's gambling in other ways, such as the length of time they wish the system to permit them to gamble ... Regulators, as a matter of good practice, will probably need to place more emphasis on aspects other than player fairness — especially protecting problem gamblers (Access Systems, sub. 16, pp. 4, 7)

Interactive gaming is a new form of gaming that will naturally raise questions in the community. However, Tattersall's believe that interactive gaming (if properly regulated) has the potential to create less problems than more traditional forms of gambling (Tattersall's, sub. 156, p. 59).

In theory, nearly all the informed consent and harm minimisation measures described in chapter 16 can be readily incorporated into online gambling sites — including time reminders, self-imposed time limits, betting rate limits and breaks. It is also possible that the dual pricing strategies discussed in chapter 16 may be more feasible in online gambling than physical machines, because of the lower costs of operating virtual casinos. Surebet Gaming Systems (sub. D263, p. 18) and Access Systems (sub. 16, p. 5) have also floated the option of identifying problem gambling from playing patterns — which may be useful in providing early assistance to gamblers. For example, Access Systems notes:

A properly designed licensed system gathers huge quantities of raw data automatically, as a standard part of an internet gaming system, so it will be a relatively minor step to

develop software to analyse this data and search for patterns of behaviour within prudent limits on privacy. Planning should be put in place early to select and analyse data gathered on real internet gambling activity ... with the prospect of using these patterns to identify possible problem gamblers in live systems.

One flaw in current online harm minimisation measures is the lack of coordination between different sites. A person who self-excluded on one site could subsequently enter another licensed site. This might be solved at the PC-level using the software methods described in section 18.5. Or it may be that Australian online gamblers could store some player preferences (such as self-exclusion, player expenditure limits or time limits) in a central database, which all would interrogate. This is similar to the way that EFTPOS facilities can be accommodated by thousands of participating retailers because they have links to central computers with the account information. **The Commission sees benefits in technical measures, such as a central database, that may enable a gambler to credibly pre-commit to time or money limits and self-exclusion (if they wish to do so) across all Australian licensed online gambling sites.**

It is also important that people with expertise on the functioning of the internet be represented among regulators, so that consumer protection and other regulatory measures take account of the realities of the evolving technologies.

Minors

In a controllable environment, a number of measures could be introduced to limit the accessibility of minors and to detect gambling by minors. These include:

- making it illegal for minors to gamble on the internet and advertising its illegality at gambling sites;
- a requirement that gamblers must fax identification papers (such as a passport or drivers license) to a licensed gambling provider to verify age;
- cheques (which are a more secure payments mechanism), rather than credit cards be used to establish gambling accounts;
- the issuing of a password once registration is complete;
- a requirement that when money is transferred into a gambling account an electronic e-mail is sent to the gambler so that unauthorised financial transactions can be detected; and
- gambling providers to provide players with a regular log of all past play so that unauthorised gambling can be detected.

These features are now incorporated into existing Australian sites, so that the risk of access by minors without parental consent is likely to be significantly lower than for physical venues. However, minors will be able to gamble on the internet if their parents provide consent.

Integrity

In a controlled environment integrity problems can be minimised with encryption and regulation.

Encryption is a means of scrambling data so that only the holder of the electronic key can read the message. It is a method used to guarantee privacy of information and to ensure security of financial transactions over the internet. Encryption is already being used by internet gambling providers such as Centrebet to ensure security in payments mechanisms. In addition, financial institutions worldwide have demonstrated confidence in the technology and are using encryption so that customers can securely operate accounts over the internet.

Other integrity problems such as whether an internet gambling provider is providing a fair game of chance, or has the financial capacity to pay winnings can be controlled by regulations including:

- the licensing of internet gambling providers pursuant to background checks and financial capacity,
- approval of internet games and control systems by a regulatory authority and
- the periodic testing of games to verify odds.

Coms21 Ltd reported that under its proposed regulatory model:

The manager cannot bias the outcome as the outcome random process algorithm and its installation is verified by the regulator; the generation of the random number is directly supervised by the regulator, with there being no opportunity for the manager or any other party interfering with equipment or software and once the random number is determined the outcome of the bet is determined and recorded independently by the regulator (Weston 1998, p. 5).

Further, Coms21 conjectured that while an internet gambling operator may go bankrupt, a player's account, under regulation, could remain protected. In their proposed model a regulator would control funds equal to the players account plus an amount to cover winning streaks and jackpots.

These integrity features provide a major incentive for consumers to prefer licensed sites to offshore unregulated sites:

The reality of it is that to cyber-gamble outside of Australia, you would send money thousands of miles away to an unregulated, uncontrolled and probably illegal enterprise, give them a credit card number, then trust them to tell you when you've won (Toneguzzo 1997, p. 13).

Taxing internet gambling

As noted earlier, it is quite possible that managed liberalisation of online gambling will produce more, not less tax revenue for states. States, however, have two major concerns about internet taxation.

First, they want to ensure that they receive tax from transactions undertaken by their citizens. This is readily achieved, as under the model code, by requiring:

- the taxation of internet gambling based on the player's jurisdiction rather than the location of the provider;
- registration of providers contingent upon an agreement that both interstate and overseas providers remit taxation back to the jurisdiction of the gambler; and
- appropriate records to be kept by providers. Providers would be responsible for establishing the jurisdiction of each player, apply the tax rate of the jurisdiction to the gross profit in proportion to the jurisdiction's share of player turnover, and remit the tax to the government.

Second, they wish to avoid wasteful tax competition. While the first measure removes the incentive for one state to lower tax rates to encourage inter-state trade, it does not deal with the incentive to lower taxes on online transactions for foreigners. Each state might then bid down tax rates applying to internet gambling by foreigners in order to increase their share of this market — lowering overall tax revenue from internet gambling for Australia as a whole. This could be solved by agreeing on a set gambling tax rate on foreigners for all jurisdictions. If state governments wished to bind themselves to a credible long term taxation regime, another alternative would be for the Commonwealth Government to administer and collect internet gambling taxation and remit the taxation back to the state or territory, a similar approach to the proposed GST.

Another important facet of the tax treatment of gambling, raised by traditional suppliers of gambling, such as the AGMMA (sub. D257, p. 24), is that lower taxes imposed on internet gambling have the potential to disadvantage local suppliers of physical forms of gambling. This raises a number of issues and implications, some of which extend far beyond the boundaries of internet gambling to the appropriate tax treatment of e-commerce in general (Surebet Gaming Systems Pty Ltd, sub. D263, pp. 10ff).

In principle, it is desirable to levy similar sales tax rates on close substitutes. Existing sales taxes on goods and services traded through traditional means treat imports and domestic goods and services equally. For example, a motor vehicle made in Australia or overseas faces equal sales taxes. Internet traded services have escaped this principle, largely because of practical limitations of taxing such transactions. However, there is widespread agreement that it would also be desirable to introduce tax neutrality for virtual transactions. For example, the Joint Committee of Public Accounts and Audit (JCPAA 1998) noted:

... in GST regimes operating in other countries, the supply of functionally equivalent 'products' would be expected to attract the same rate of tax, whether in tangible or intangible form (p. 85).

The ATO, similarly, has espoused the principle of equality of tax treatment between internet businesses and online ones (submission to JCPAA 1998, p. 89).

However, while this may be desirable in theory, it raises the question of how it could be achieved in practice. For example, Australia could seek to tax gambling winnings at the Australian services tax rate as a condition for providing a license for an overseas site to sell gambling services to Australians. Or government could seek to detect and tax internet gambling transactions by Australians (with the obvious difficulties that implies). Or there could be cooperative measures between governments to work out protocols for taxing internet transactions, and agreed standards for reporting and verification.

In the short term, the prospects for significant damage to local 'physical' providers of gambling (and to domestic gambling tax revenue) appears small. This reflects the relatively modest projected demand for internet gambling. This in turn suggests that consideration of regulations to facilitate tax collection from either Australian customers of foreign online gambling services, or from those services themselves, should weigh up the gains to economic efficiency (and equity) from neutral tax treatment, and the possibly substantial compliance costs of developing an effective e-commerce tax system. In its submission to the JCPAA's inquiry into internet commerce, the Industry Commission stated that:

At current relatively modest levels of internet commerce, the costs of monitoring and enforcing the taxation of these transactions could easily outweigh the benefits (IC 1998).

In the longer run, however, it is likely that online commerce, including gambling, will exhibit significant growth, and failure to tax transactions could erode Australia's tax base. That will increase the benefits of finding ways of taxing internet transactions — gambling among them — in a way that does not destroy the advantages of the internet.

The question then arises as to what should be done in the meantime. While Australian governments will not, in the short run, be able to tax foreign suppliers of internet gambling services, they can set the tax rates of Australian internet gambling providers. Should they set such tax rates at parity with domestic traditional gambling suppliers, or should they seek to tax them at rates which will increase the capacity to compete with foreign internet suppliers?

The answer depends on the extent to which physical and virtual forms of gambling are close substitutes. The AGMMA, by postulating significant damage to local traditional forms of gambling, presuppose that:

- the different tax rates create significant price differences; and
- the customers of gaming machines react to any price margins that are created by differential tax rates.

Theoretically, tax rate differentials can make a significant difference to prices. Lasseters Online Casino, which faces an 8 per cent tax on its gross gaming revenue, has better odds on its virtual gaming machines than the average for physical gaming machines in Australia. For example, its prices are about 25 per cent lower than gaming machines in New South Wales clubs (table 18.7). However, it is hard to disentangle the extent to which technology, competition and taxes bear on the price of virtual versus physical gaming machines. Internet technologies are cheaper than physical gaming technologies, and may explain some of the difference in the price. In any case, it is certainly not assured that lower taxes necessarily make a very large difference to the posted price of gaming machines relative to other factors (chapter 19).

Table 18.7 Gaming machine return rates in virtual and physical venues

	<i>Lasseters</i>	<i>NSW clubs^a</i>
	%	%
Bar 7 Classic	92.33	..
Prehistoric Wonderland	91.85	..
Priceless Gems	92.80	..
Space Race	91.66	..
Lasseters Gold	93.04	..
Coral Paradise	91.95	..
USA Classic	93.39	..
Average	92.43	89.91

^a These clubs paid an average 21.6 per cent tax rate on their gross revenue compared with the 8 per cent applying to Lasseters. The gaming machine 'price' is 100 minus the odds.

Source: Information provided by Lasseters and from NSW Department of Gaming and Racing, 1999, *Registered Clubs Quarterly Gaming Analysis*, February 1999, August for NSW clubs.

Even where differential tax rates create a significant price margin, it is not clear that customers will necessarily respond to it. The AGMMA itself acknowledges that:

AGMMA members do not concern themselves with price or demand elasticity because they lack moment and generate little of consequence to successful design and marketing of games (sub. D257, p. 11).

If, in fact, the users of electronic gaming machines do not react strongly to price differences, then there should be a relatively small shift between the physical market and the virtual. This would be all the more true because other attributes of physical and virtual games are quite different (the sound and graphics quality, speed, game features and the experience of the venue as a whole).

However, the degree of substitution between virtual games offered on one site at one price and at another virtual site at a different price, is likely to be greater than that between physical and virtual forms. This reflects the fact that both sites are a mere mouse click away and that the nature of the experience is more similar. It is unlikely, however, that price will play a very significant role in determining most player choices. This is because other facets, such as the integrity of the operator, and the speed, special features and appearance of the games, will probably be more important to recreational players. Overall, this suggests that while there may be grounds — at least until e-commerce tax systems have been developed generally — to tax Australian internet gambling services at lower rates than on other Australian physical forms, any tax margin should be modest.

Should Australian online gambling providers export to countries where gambling is banned?

It is clear that many jurisdictions perceive online gambling as another potentially rich source of revenue, and will seek to export services around the world, in some cases to people in countries where gambling in this form is illegal. Should regulators permit Australian online gambling providers to offer internet services to such countries? To not do so, would be to lose significant markets. To do so, however, means that ‘the regulator becomes a co-conspirator to aiding a foreign citizen break the laws of its country’ (Toneguzzo 1997, p. 20).

Arguably, the appropriate stance is to follow a ‘best endeavours’ approach to avoiding transactions with countries which outlaw such transactions. This will work for online gamblers who use an ISP located in their own country, but will not stop transactions occurring where an ISP is located outside the destination country and contrived mailing addresses are used for payment.

Who should regulate online gambling policy?

There are significant advantages in taking a national approach to internet and interactive gambling, both to preserve tax revenues from the risk of tax competition (as noted above) and to ensure that standards of consumer protection are uniformly high and coordinated. For example, arguably it would be better to have:

- one (excellent) national site for information, self-diagnosis and referral for problem gambling linked to each online provider — regardless of which jurisdiction the online gambler was located in — rather than a multiplicity of lower quality help sites;
- a single database which would allow consumers to self-exclude, if they wished, from any Australian online gambling provider;
- standards for the ‘look and feel’ of the menu of options consumers can give for achieving informed consent while playing (eg similar ways of invoking budget or time limits);
- a single national system for blocking access to illegal sites and in policing infringements (similar to the recent amendments to the Commonwealth Broadcasting Act);
- one system for tax setting and collection;
- standards for the way sites advertise themselves both within Australia and abroad;
- equality of treatment of all Australians, regardless of their location; and
- a single voice when negotiating multilateral agreements relating to consumer protection and taxation issues on the internet.

Given historic rivalry and competition between the states and territories it is not clear whether a coordinated approach to internet gambling can be achieved. McMillen and Grabosky (1998) foresee problems with the draft model approach, and argue for Commonwealth involvement:

The Draft Regulatory Model embraces the classic themes of federalism — unity within diversity in application. Inevitably such an approach involves contradictions and tension which could be reflected in the policies which evolve in the various States.. Without Commonwealth involvement, interstate rivalry and competition may erode standards, drive down the tax benefits and expand the market with the inevitable social costs.

There are clearly already significant departures from the goals of the draft agreement (section 18.8). This may reflect concerns over the either the social harms or tax impacts of online gambling, but underlines the need for a coordinated national approach.

The Commission considers that there would be major benefits to the states and territories from pursuing a national approach to online gambling, in cooperation with the Commonwealth.

The case of Norfolk Island raises some particular difficulties. While their proposed online services would not be sold to Australians and so would not directly affect revenue streams from Australian gamblers, they could have some adverse indirect impacts on other Australian jurisdictions.

First, they might have some revenue effects to the extent that they used lower tax rates to poach offshore customers who would otherwise have gone to another Australian online site.

Second, there are grounds for any site which will be identified as part of the Commonwealth of Australia following similar consumer protection and ethical principles. This would include, for example, any ruling about not selling services to another country which regards participation in internet gambling as illegal. Otherwise, other Australian sites may suffer from a weakened reputation. The Commonwealth Department of Transport and Regional Services noted:

It may also be that Norfolk Island would be an attractive jurisdiction for operators of questionable integrity, affording them the benefits attached to Australia's good reputation, without being subject to the rigorous legal regime from which that reputation is born. In this context it is worthy of note that some Commonwealth legislation such as the Corporations Law and the Trade Practices Act 1974, does not extend to Norfolk Island. Although the current Island proposals are for online services which would not be sold to Australians, this may change in the future (sub. D271, p. 2).

Finally, while companies owned by Norfolk Island residents do not pay Commonwealth income tax, the picture is less clear when an offshore associate is involved (Kennedy 1999).

There are grounds for trying to tax some of the income that might otherwise flow offshore and for including Norfolk Island in any national approach to online and interactive gambling.

Summing up

Regulation of online gambling under this 'managed liberalisation' model has mutual advantages for consumers and operators, and creates a market which drives the unscrupulous operators — the 'lemons' — out of the market. Consumers know that regulated sites will guarantee payment, have secure databases, meet privacy concerns, have fair games and be managed by people of good character. They will also know that the site has been designed to increase their informed consent — with

features such as self-imposed limits, records of transactions and self-exclusion. They face few incentives to seek to circumvent blocking to illegal offshore sites which may appear to be a little cheaper, but where the quality of the good is suspect.

Operators benefit by obtaining the certification from the government that they are a reputable operator — which increases the likelihood of attracting clients from Australia and abroad. A good regulatory framework is likely to be a more important feature for export success than comparative tax rates.

In implementing any policy towards gambling on the internet, it has to be acknowledged that there remains considerable uncertainty about the magnitude of its possible impacts, which might suggest caution. As Access Systems noted: ‘No-one really knows what effect internet gambling will have’ (sub. 16, p. 5).²³

Reflecting these uncertainties, New Zealand, for example, has adopted what it considers a cautious attitude to establishing internet gambling sites:

There are many issues relating to electronic commerce in general that have yet to be resolved ... We believe there is a significant step in moving from recognition of the availability of cross border electronic gaming to people residing in New Zealand, which is where we are now, to the Government setting up a regime to license such operations within New Zealand ... We also recognise that no one jurisdiction is likely to reach a satisfactory end point to this debate on its own (Horner and Bradfield 1998, p. 10).

The advantage of staging access to internet gambling is that it may provide time to assess effects and develop responses. However, notwithstanding the desirability of such a cautious approach, the concept of gradualism is less tenable for internet gambling than for other forms — for example, just one site can be visited by millions of people. Accordingly, it is not clear what scope there is for staging as a feature of managed liberalisation. It is possible that apparent caution, which proscribes local internet gambling while not effectively limiting foreign provision, simply exposes a countries’ citizens to the risks entailed in consuming gambling from unregulated foreign sites.

²³ In this context, it should be noted that the Senate Select Committee on Information Technologies announced on 31 May 1999 an inquiry into the nature, extent and impact of online gambling in Australia. The Committee said it was ‘particularly concerned to look at the impact this new form of gambling is having on children and young people and the feasibility of implementing controls on access’ (www.aph.gov.au/senate/committee/media/gamble.htm).

19 The taxation of gambling

Box 19.1 Key messages

- The gambling industries in Australia are subject to a wide range of state and territory taxes, as well as licence fees and a range of levies.
- Revenue from gambling has almost doubled in the last 10 years, to \$3.8 billion in 1997-98, and now averages about 12 per cent of state own-tax revenue:
 - the increase is almost entirely due to the expansion in the number of gaming machine and casino licences.
- Gambling is taxed more highly than most activities, and lotteries are particularly highly taxed.
- To the extent that the demand for gambling is relatively insensitive to its price, the excess burden of existing taxes on recreational gamblers may not be particularly high. With the possible exception of lotteries, reducing taxes on gambling may thus not yield significant gains in efficiency.
- In the face of remaining government restrictions on gambling, high taxes also have a role to play in appropriating for the community the excess profits that would otherwise go to gambling operators.
- High taxes can impact adversely on existing problem gamblers, but lowering taxes could serve to encourage increased gambling activity by people who are at risk of becoming problem gamblers. *Overall, taxes are not an effective instrument for managing problem gambling.*
- Gambling taxes are regressive, particularly for lotteries and gaming machines. But consideration of lower taxes on equity grounds would need to take account of the available options for raising other taxes, some of which are also regressive.
- There are both efficiency and equity grounds for experimenting with lower lottery taxes.
- While the levels of other gambling taxes are unlikely to be optimal, on the basis of available information there is not a strong or unambiguous case for general reductions.

19.1 Introduction

The taxation of gambling is primarily undertaken by state and territory governments. Government revenue from gambling is collected via direct taxes, licence fees, mandatory contributions to specific community programs or funds, and where governments own the gambling provider (such as TABs and lotteries) revenue may be obtained by the distribution of profits. While the specific arrangements differ, broad levels of taxation are similar between jurisdictions.

Gambling has expanded rapidly over the last decade as a result of deregulation, notably the legalisation of casinos and the expansion of gaming machines. State and territory government revenue from gambling has risen, from a low of 8 per cent of own-source tax revenue in 1988-89 to 12 per cent in 1997-98.

Government revenue from gambling averaged 34 per cent of the money spent by consumers on gambling products in 1997-98. However, different gambling forms are taxed at different rates. The share of consumer spending going to government revenue (including taxes, licence fees and other charges) is 82 per cent for lotteries/lotto, 34 per cent for wagering, 30 per cent for gaming machines and 21 per cent for gambling at casinos (table 19.6 on page 12).

The following sections examine the structure of taxes in more detail, followed by a discussion of whether the levels of gambling taxes are appropriate.

Tax arrangements and levels also differ between different providers of the same form of gambling, the most notable being the concessional tax arrangements provided for clubs. This issue is examined in chapter 21.

19.2 The changing pattern of gambling tax revenue

State and territory revenue from gambling has risen rapidly over the last decade, increasing, in real terms, from \$2 billion in 1987-88 to \$3.8 billion in 1997-98.

- All of this growth in revenue has come from the expansion of gaming, notably gaming machines and gambling in casinos.
- Revenues from traditional forms of gambling — wagering and lotteries/lotto — have been broadly unchanged in real terms over the period (table 19.1).

The importance of gaming machines as a growing source of revenue is even more pronounced than is indicated in the table, as an estimated 46 per cent of the governments' revenue from gambling in casinos is derived from gaming machines in those venues.

Table 19.1 Gambling revenue has grown quickly^a

Real revenue from gambling (1997-98 dollars) and per cent of total revenue from gambling: All states and territories (1987-88 to 1997-98)

Year	Wagering		Lotteries and pools		Casino gaming		Gaming machines		Other gaming		Total
	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m
1987-88	678	35.0	816	41.5	78	4.0	377	19.2	16	0.8	1 964
1988-89	711	35.9	780	39.4	92	4.6	382	19.3	16	0.8	1 981
1989-90	728	33.5	814	37.4	86	4.0	376	17.3	16	0.7	2 174
1990-91	713	32.3	938	42.5	109	4.9	431	19.5	19	0.9	2 209
1991-92	704	31.3	976	43.4	110	4.9	440	19.6	20	0.9	2 250
1992-93	723	29.7	955	39.2	129	5.3	607	24.9	20	0.8	2 434
1993-94	726	26.5	981	35.8	164	6.0	853	31.1	18	0.7	2 743
1994-95	677	22.3	994	32.8	238	7.8	1115	36.7	16	0.5	3 040
1995-96	635	19.4	982	29.9	355	10.8	1290	39.3	15	0.5	3 281
1996-97	616	18.0	956	27.9	391	11.4	1451	42.4	12	0.4	3 426
1997-98	575	15.0	1,004	26.2	460	12.0	1786	46.6	9	0.2	3 833

^a Revenue includes taxes, licence fees and other levies paid to the government by gambling operators

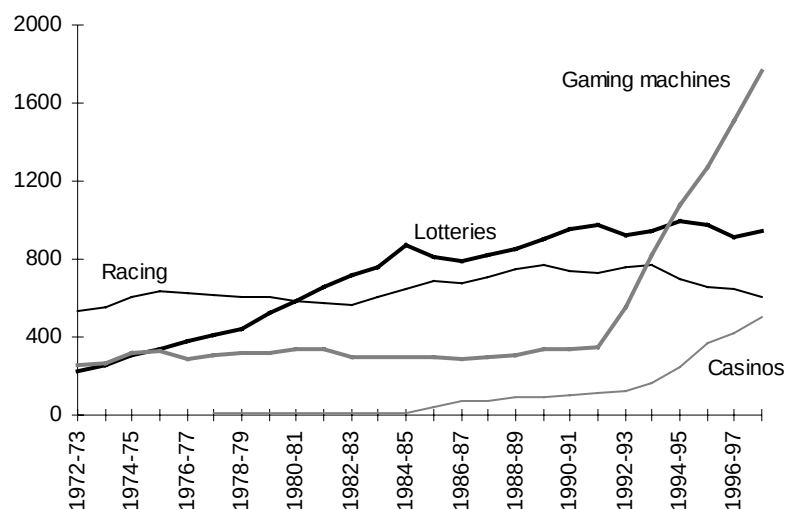
Source: Tasmanian Gaming Commission (1999).

The composition of gambling revenues has been changing over a much longer period as well (figure 19.1).

- During the 1970s, wagering was the predominant source of gambling tax revenues.
- By the early 1980s, the rapid growth of expenditure on lotteries had displaced wagering as the major revenue source.
- The growth in lottery revenues peaked in the mid 1980s, growing much more slowly during the rest of the 1980s and into the 1990s.
- Revenue from gaming machines took off in the early 1990s, and revenue from casinos later in the decade, displacing lotteries as the principle revenue source by 1993-94.
- While the revenue from wagering grew very slowly over the period, it did not decline in real terms until the mid 1990s, following the introduction of gaming machines and casino gambling.

Figure 19.1 New forms of gambling provide revenue growth

Total state and territory revenue from different forms of gambling: 1972-73 to 1997-98 (1997-98 dollars million)



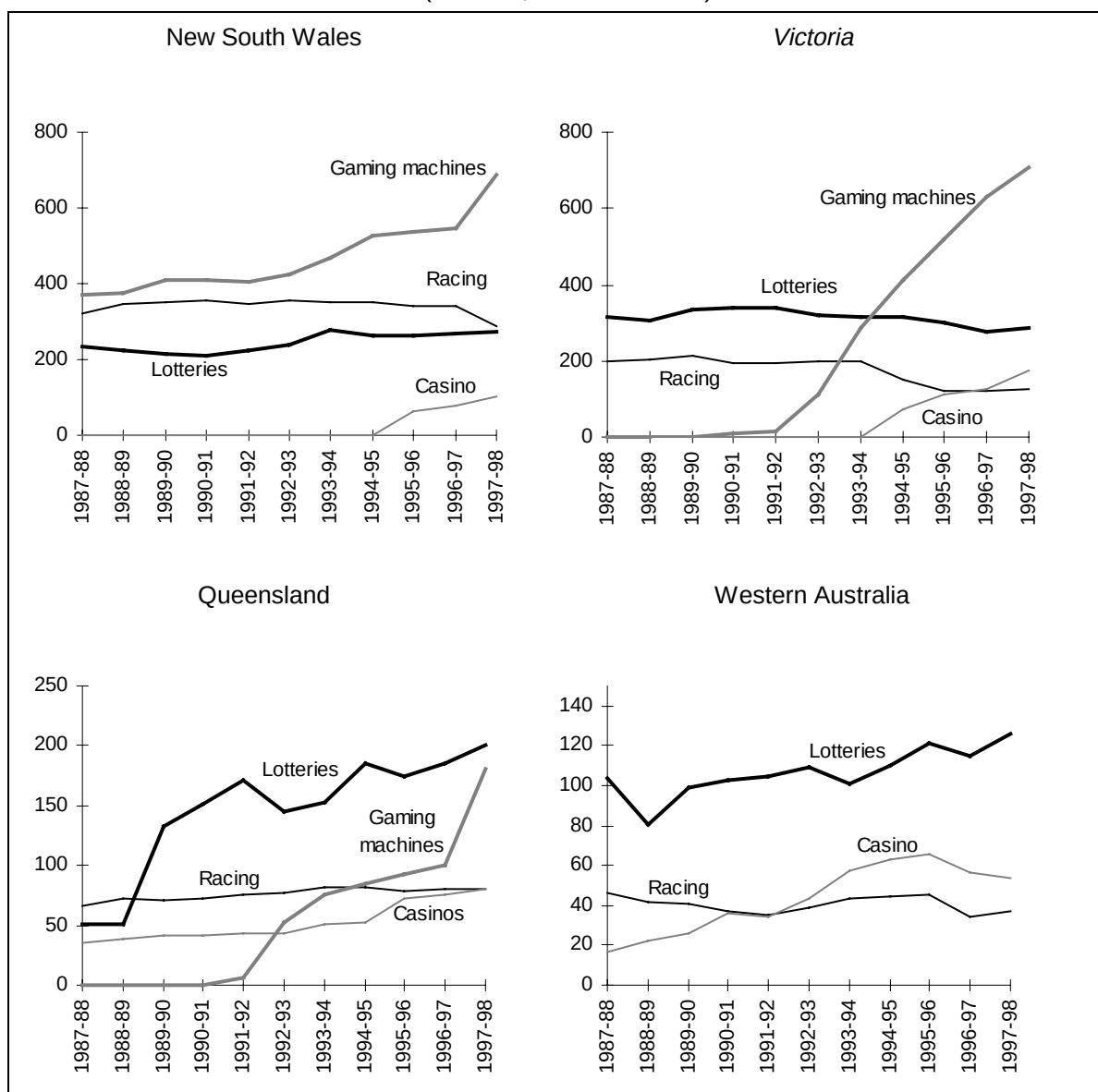
Data source: ABS (1998c and earlier issues); and PC estimates.

The aggregate data masks some variation in the composition of gambling revenue among jurisdictions (figure 19.2). Notable features are:

- the rapid rise in gaming machines as a source of revenue, with the commencement of growth in each jurisdiction determined by the differing dates of liberalisation;
- that Western Australia is the only state which continues to prohibit gaming machines outside of the casino;
- that even in states such as New South Wales where access has been liberalised for some time, revenues from gaming machines grew rapidly in real terms;
- while revenue from other forms of gambling appears to have stabilised, revenues from gaming machines remains on a steep growth path in all jurisdictions (other than Western Australia); and
- the decline in revenues from the casino in the ACT coincides with the opening of the Star City casino in Sydney.

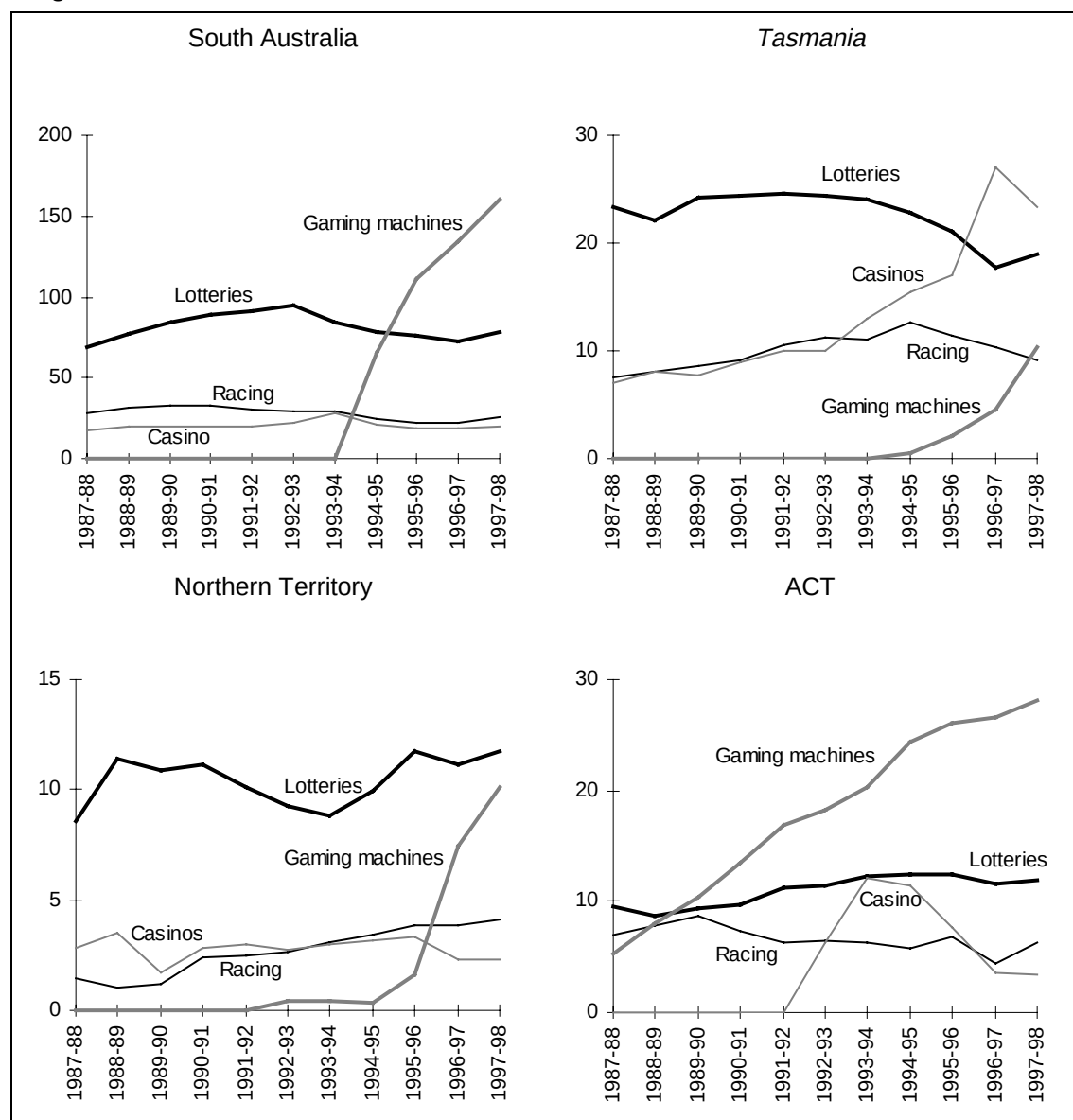
Figure 19.2 Gaming machines dominate revenue growth in most jurisdictions

Gambling taxation revenue in each state and territory by major type of gambling, 1987-88 to 1997-98 (\$ million, 1997-98 dollars)



(Continued)

Figure 19.2 continued



Source: Tasmanian Gaming Commission (1999).

19.3 The importance of gambling taxes in state and territory revenues

As a proportion of state and territory own-tax revenues, gambling revenues declined in most jurisdictions in the 1980s. This was due to a rapid rise in non-gambling own-source revenue rather than any decline in the revenue from gambling. Revenues from traditional forms of gambling — lotteries and wagering — still increased in real terms over this period (figure 19.1), but this growth was slow compared to the rate of increase in revenue from other sources. The licensing of casinos and introduction of gaming machines in many states has led to a significant

growth in gambling revenues in the 1990s, and a rise in gambling as a share of state and territory own-source revenue (table 19.2). Western Australia is the last state with significant restrictions on gaming machines, and this is reflected in the low share of revenue from gambling from that state.

Table 19.2 Gambling taxes are a significant share of state tax revenue^a
Gambling tax revenue as a percentage of total own-tax revenue

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
1975-76	12.8	9.4	6.7	6.4	5.1	6.0	na	na	9.8
1980-81	13.6	10.3	6.1	5.6	6.8	9.2	na	na	10.5
1985-86	11.6	9.1	10.1	5.8	7.6	9.6	na	na	7.9
1990-91	9.7	9.1	11.1	7.7	9.5	8.1	6.9	9.3	9.4
1991-92	9.4	8.5	10.3	6.6	8.8	7.7	7.2	4.3	8.9
1992-93	10.2	9.6	11.9	6.7	8.2	8.3	8.8	3.9	9.7
1993-94	10.1	10.7	12.8	6.4	7.8	8.1	9.7	4.3	10.0
1994-95	10.6	12.2	13.5	7.0	10.0	8.5	10.1	6.0	11.0
1995-96	11.0	12.6	13.1	7.4	11.5	8.8	10.1	8.4	11.4
1996-97	10.2	13.0	12.8	6.4	13.0	9.8	8.6	9.4	11.2
1997-98	10.4	15.2	12.5	5.7	13.8	10.3	8.3	9.6	11.7

^a Figures for 1997-98 are preliminary; Tax includes licence fees and charges

Source: ABS (1998e and earlier issues), Alchin (1989).

The recent expansion of state gambling tax revenues also reflects a rise in tax revenue per adult resident.

- In the past, New South Wales residents paid higher gambling taxes per adult than residents of other states. However, by 1995-96, Victoria had overtaken New South Wales.
- Currently, Victoria, New South Wales and South Australia lead other states in the gambling tax revenue collected per resident. In 1997-98 Victoria collected \$375 per person in gambling taxes, compared with a low of \$130 per person collected in Western Australia (table 19.3).

However, given that not every person over the age of 18 years gambles, this underestimates the tax collected from the average gambling consumer (to some extent, this effect is offset by gambling revenues obtained from interstate and overseas visitors to the jurisdiction in question, which have not been identified separately).

Table 19.3 Gambling taxes per adult are rising^a

Average gambling taxes per adult resident, 1991-92 to 1997-98, (1997-98 dollars per person)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
1991-92	218	176	159	122	146	143	174	71	177
1992-93	228	201	184	121	138	140	211	71	192
1993-94	241	249	208	131	139	144	244	89	214
1994-95	251	286	225	146	180	158	256	134	235
1995-96	261	315	220	152	212	164	239	194	249
1996-97	261	338	223	132	247	182	223	233	256
1997-98	285	375	216	130	279	191	218	258	275

^a Tax includes licence fees and charges

Source: ABS (1998e), 1997-98, Tasmanian Gaming Commission (1999)

Differences in the gambling tax revenue per adult between the states and territories are largely the result of different levels of expenditure on gambling in each jurisdiction (table 19.4). There are also differences in the share of expenditure that each jurisdiction takes as revenue which contribute to the variability in gambling revenue (table 19.6).

Table 19.4 Gambling spending per adult varies greatly across states

Expenditure on gambling per adult, \$, 1997-98

<i>Gambling form</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
Wagering	134.5	124.9	113.3	111.9	92.9	90.4	91.4	223.7	121.7
Lotteries/lotto	77.3	86.2	103.3	125.3	67.8	54.4	67.5	117.3	87.7
Gaming machines	636.0	493.1	239.6	-	351.4	68.0	555.3	153.0	424.1
Casino	94.9	214.0	186.6	270.8	67.8	217.4	75.5	367.6	161.4
Other	20.5	2.7	51.6	19.5	37.4	77.8	7.9	-	24.0
Total	963.2	921.0	694.3	527.5	617.2	507.7	797.6	861.5	818.8

Source: Tasmanian Gaming Commission (1999).

19.4 The role of Commonwealth/State financial arrangements

Considerable comment has been made about the financial pressures on state and territory governments to exploit the revenue raising potential of gambling. The Western Australian Government commented:

... it seems certain that the revenue motive would have played a bigger role [than the desire to regulate gambling for the public good] in the more recent rapid expansion of

legalised gambling in most parts of Australia (in the last 10 - 20 years), due to: the States' excessive reliance on Commonwealth grants (commonly known as Vertical Fiscal Imbalance or VFI) and substantial cuts in those grants: and very limited own source revenue raising options for the States (sub. 76, p. 39).

The Western Australian Government also said that:

... 20 years ago the Commonwealth returned 34% of its taxes as grants to the States. By 1988/89 this had fallen to 24% and this year it is expected to be only 21%. This has placed considerable pressure on State budgets;

... increased gambling opportunities and associated taxes are a relatively "easy" option (to the extent that gambling is "voluntary") to fill the funding gap for growth in demand for essential services.

This increasing reliance on state and territory own-source revenue was also noted in a review of the taxation of gambling in Australia by Smith (1998). She commented (p. 13):

However, with relatively generous Commonwealth grants during the 1970s, states had eroded their major tax bases by granting various concessions and exemptions, notably land and payroll taxes, and abolishing estate and gift duties. They were thus forced to respond to heavy cutbacks under the Hawke and Keating governments by raising revenues from their remaining increasingly inequitable, narrow and distorting taxes, including on gambling. State and local government own-source taxes increased from around 20% of national taxation in the 1970s and 1980s to around 24% by 1996-97.

The mechanism by which the distribution of funding between the states and territories is calculated reinforces the pressure to collect gambling revenue. States and territories that do not fully exploit their capacity to raise taxes from gambling are 'penalised' to the extent that the recommended levels of Commonwealth funding are calculated on the basis of their *capacity* to raise revenue (including from gambling) rather than the actual revenue raised.

In other words, once a form of revenue-raising becomes widespread and contributes significantly to the revenue base of some jurisdictions, the revenue raised becomes the benchmark, and the capacity to raise that revenue is taken into account when estimating the need for Commonwealth funding in jurisdictions with lower gambling revenue.

While this approach is soundly based on the need to ensure that individual states and territories do not transfer the cost of funding their services to other jurisdictions (by failing to raise their own taxes and then relying on top-up from the Commonwealth), it also has the effect of placing pressure on those not collecting gambling taxes to do so.

In calculating recommended levels of transfers from the Commonwealth to the states and territories, the Commonwealth Grants Commission calculates each state's:

- *index of revenue raising capacity* — to indicate their potential to raise revenue through gambling tax — which is based on the level of household disposable income in each state; and
- *index of the revenue raising effort* — to indicate how intensively (the severity of taxation or charges) the states are using their revenue bases (table 19.5).

A state with relatively high incomes will have a high capacity index. If it applied low taxes to gambling relative to the Australian average, or restricted some gambling forms, it would have a relatively low effort index. By contrast, if it taxed or promoted gambling more heavily than other states, it would have a high effort ratio. In general, the capacity of a state is determined by circumstances outside government control, whereas 'effort' is mostly determined by government decisions.¹

**Table 19.5 Some states have greater capacity to raise gambling taxes
some use their capacity more intensively**

Indices of revenue raising capacity and effort, gambling taxes, 1997-98

<i>State or Territory</i>	<i>Capacity^a</i>	<i>Effort^b</i>
New South Wales	104.10	99.52
Victoria	102.05	133.94
Queensland	94.10	82.70
Western Australia	96.11	59.53
South Australia	96.72	93.18
Tasmania	90.12	82.47
Australian Capital Territory	112.55	66.37
Northern Territory	86.88	87.44
Average	100.00	100.00

^a Indicates the ability of a state to raise revenue relative to the Australian average. It is broadly based on each state's average household disposable income.

^b Indicates the intensity (the severity of taxation or charges) of use of a revenue base made by individual states to raise revenue relative to the Australian average effort.

Source: CGC (1999, vol. II, pp. 134-5).

According to the way revenue raising capacity is measured, the ACT, Victoria and New South Wales were better placed to raise revenue through gambling taxes than

¹ Effort is not wholly determined by government decisions. For instance, in the ACT gambling is taxed at similar rates to other states and there are no greater restrictions on forms of gambling than in other states (ie government effort seems to be similar to other states). Yet it appears that ACT residents choose not to gamble as much as other states so the measured effort ratio appears to be low.

other jurisdictions in 1997-98. This is because their adjusted household disposable income per capita exceeded the Australian average (CGC 1999, vol. II, p. 210).

Victoria and, to some extent, New South Wales have used their gambling tax bases more intensively than have other states and territories. The lower gambling revenue raised in most of the other states and territories can be attributed to:

- the absence of poker machines in clubs and hotels in Western Australia;
- below standard revenues from lotteries, wagering and the casino in the ACT;
- below standard wagering turnover in South Australia and the Northern Territory; and
- a declining trend in the revenue from wagering and lotteries in Tasmania (and Tasmania only began the phased introduction of poker machines in clubs and hotels in January 1997).

19.5 Differences in revenue collected between types of gambling

In 1997-98, Australians spent (lost) \$11.3 billion on various forms of gambling. In the same year, state and territory governments collected \$3.8 billion in revenue — one third of the amount spent — in gambling taxes, licence fees and other charges.

The share of gambling expenditure appropriated by government varies widely for different forms of gambling. For example, in 1997-98, government revenue averaged ²:

- 82 per cent of expenditure on lotteries, lotto and pools;
- 34 per cent of expenditure on wagering;
- 30 per cent of expenditure on gaming machines; and
- 21 per cent of gambling expenditure in casinos.

This mirrors the pattern in the individual states and territories (table 19.6).

² It is conventional to express gambling tax rates as a percentage of post-tax expenditure (tax as a proportion of expenditure). However, often indirect tax rates are expressed as a percentage of pre-tax expenditure (this is the tax paid as a proportion of expenditure less tax). For instance, the GST rate is expressed in this way. Gambling tax rates expressed in pre-tax terms are: lotteries 455 per cent; casinos 26 per cent; gaming machines 42 per cent; and racing 52 per cent. For total gambling the tax rate is 52 per cent.

Table 19.6 States collect similar shares of expenditure from each form of gambling^a

State and territory government revenue from gambling as a share of expenditure by different forms of gambling (1997-98), per cent

<i>Form of gambling</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>AUST</i>
Wagering	45	29	28	25	25	29	31	14	34
Lotteries, lotto and pools	75	96	77	76	87	100	77	77	82
Casino gaming	23	24	17	15	27	31	20	5	21
Gaming machines	22	41	30	-	41	44	22	51	30
Average all gambling	30	41	31	31	41	35	28	25	34

^a Figures for gaming machines in New South Wales include Keno. Figures for Lotteries etc in South Australia include Keno.

Source: Tasmanian Gaming Commission (1999).

While there are broad similarities in the level and form of taxation for the same type of gambling in the different jurisdictions, there are nonetheless differences in the average rate of revenue collected.

- Differences in the average rate of revenue collection of gambling in casinos is largely the result of different compositions of gaming machine and table game activity in each jurisdiction. For example, game machine revenues can account for up to 80 per cent of an individual casino's total gaming revenue.
- Differences in the average rate of revenue collection for lotteries reflects differences in administration costs among jurisdictions, rather than differences in tax rates.
- Low rates of revenue collection on gaming machines in New South Wales and the ACT (particularly in relation to Victoria) are probably the result of the dominance of clubs in gaming machine gambling in those jurisdictions. Clubs receive concessional tax treatment in most jurisdictions, but these are more pronounced in New South Wales and the ACT as is the dominance of clubs in the provision of gaming machine gambling.
- Government revenue from wagering — and thus the revenue-to-expenditure ratios presented in table 19.6 — do not include revenues transferred to the wagering industry. In all jurisdictions a share of the gambling expenditure on wagering (and in Victoria a share of the expenditure on gaming machine gambling) must be distributed to the wagering industry. While the amounts being distributed to the wagering industry vary between jurisdictions, they are typically similar to the amounts collected directly by government as revenue from wagering (table 19.7).

Table 19.7 Some government revenue from wagering is given back to racing clubs^a

Government revenue and funds distributed to the racing industry from TABs in each jurisdiction (\$ million; 1997-97)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Revenue to government	247	Na	80	37	21	9	5.4	na
Distributions to the racing industry	142	118	79	43	32	11	4.7	na

^a Information for SA, and the ACT are for 1996-97.

Source: PC estimates.

Impact of tax reform

The New Tax System involves the introduction of a 10 per cent tax on goods and services. Gambling is to be included in the ambit of this tax, with a rate of 10 per cent levied on industry revenue (net player loss).

The ACA (sub. 124, p. 18) has said:

... the ACA has concerns about how the blind application of a GST to gambling in general, and casinos in particular, would discriminate against casinos relative to other activities. The tax reform package currently under consideration in Australia will, if implemented, apply a 10 per cent GST on the net win of casinos. The net win is the mirror image of consumer expenditure... In effect, casinos would not be able to pass on a GST to consumers of their gaming products (because, as noted above, the rules of the game are effectively fixed). A GST would be a business tax on casinos, not a consumption tax, and would make the gaming tax burden faced by casinos even more severe.

The Commonwealth Government has acknowledged the problem saying:

... operators cannot always adjust their prices because these are often set by the rules of the game, or by State government legislation relating to levels of pay-out. As the States already tax gambling highly there may need to be corresponding reduction in State gambling taxes (Commonwealth Government 1998, p. 98).

Thus, although the new tax system may involve a change in the collection arrangements for some gambling taxes it is envisaged that it will not change the rates of tax on different gambling forms.

19.6 Are the levels of gambling taxes appropriate?

Determining the appropriate level and form of gambling taxes, as for any tax, involves assessing the tax against three criteria — economic efficiency, equity and administrative simplicity.

As discussed, gambling taxes are higher than those imposed on most other goods and services, the exceptions being alcohol, tobacco, luxury cars and petrol. They are much higher than the proposed GST rate of 10 per cent. The rates of taxation also vary significantly between different gambling products.

There are three possible efficiency related arguments for taxing gambling products at a higher rate than other products — and indeed, for taxing different gambling activities at different rates:

- high gambling taxes may be efficient. That is, the efficiency costs from taxing gambling at higher rates (distorting peoples' behaviour) may be lower than for other goods;
- government restrictions on competition may create excess profits which should be returned to the community;
- the negative social consequences of gambling may justify raising the price of gambling to deter people from spending as much.

These arguments are examined in turn.

Efficiency costs of gambling taxes

Taxes generally change the behaviour of those who bear them. Where taxes increase prices, consumers will consume less than otherwise, and the level of production will be lower. Because taxes distort the behaviour of consumers and producers, these groups lose more than just the revenue that goes to government. Economists typically describe these losses as the 'excess burden' of taxation — but also as 'efficiency losses', 'welfare losses', or as the 'deadweight loss'. They represent a reduction in the consumer surplus derived from gambling (chapter 5).

As already noted, it is only appropriate to discuss the excess burden of gambling taxes in relation to gamblers who derive 'consumer surplus' from their gambling activity. For problem gamblers, normal assumptions about benefits from gambling are inapplicable. The effects of taxes on problem gamblers are also important for policy but are considered separately.

An efficient tax system is one that raises the necessary amount of revenue for the government (and the community) at least cost. The size of excess burden depends on:

- the responsiveness of demand for a product (in this case, gambling) to changes in its price (that is, the degree to which a tax causes behaviour to change); and
- the size of the tax (and thus the price change).

For instance, the excess burden would be relatively high if a large tax was imposed on a product for which demand was particularly sensitive to price. In this case, people would consume significantly less (and be significantly worse off). Conversely, if a tax did not change the demand for a product at all, it would not affect economic welfare (‘merely’ transferring income from people to the government). The responsiveness of demand for a good to changes in price is known as its *demand elasticity*.

Sensitivity of demand to price changes

In principle, it would be efficient to vary the rates of taxation on goods and services inversely to their demand elasticities. Thus, higher taxes would be imposed on goods for which demand was insensitive to price changes, whereas lower taxes would be imposed on goods for which demand was more elastic. While this may be sound in principle, there are significant practical difficulties in measuring elasticities on a widespread basis, and the administrative costs of a system with numerous rates would be high. This has led most policy makers to reject this approach as a basis for designing a general tax regime.

Nevertheless, some goods with inelastic demand — such as petrol, alcohol and tobacco — have always been taxed at relatively high rates. Under proposals for implementing a GST they are to remain so. High rates for these goods are often partly justified on the basis that demand for them is insensitive to price, and hence taxes do not involve significant efficiency losses. This argument also applies to gambling. Table 19.8 shows that, with the notable exception of lotteries, average tax rates on gambling are not high in this country.

A number of participants considered that the current level of taxes could not be justified on the basis of insensitive demand. For instance, in the case of lotteries, Tattersall’s (sub. 156, p. ix) considered that:

the rate of tax on lotteries is higher than can be justified on efficiency grounds... The demand for gambling products may have been price inelastic in the past. However, it is likely that this is becoming less true as different forms of gambling proliferate.

Table 19.8 Gambling is not highly taxed compared to alcohol, tobacco and petrol

Ad valorem tax rates for selected commodities ^a

<i>Product</i>	<i>Taxes</i>	<i>Ad valorem tax rate</i>
		<i>Percent</i>
Lotteries, lotto and pools	Various	455
Spirits	Excise, WST, BFT	234
Tobacco	Excise, BFT	211
Leaded petrol	Excise, BFT	130
Unleaded petrol	Excise, BFT	120
Beer	Excise, WST, BFT	89
Wagering	Various	52
Wine	WST, BFT	42
Gaming Machines	Various	42
Cars	Tariff, WST, Stamp	38
Casino gaming	Various	26

^a Gambling taxes are expressed as a percentage increase on the pre tax price. That is tax as a proportion of expenditure-net-of-tax.

Data Source: Albon (1997), Tasmanian Gaming Commission (1999)

Knowing the sensitivity of the demand for gambling to price changes is, therefore, a key to understanding the excess burden of gambling taxes. It is also important to determining whether taxing gambling at different rates is efficient, or whether rates should be made more uniform. As discussed in appendix D, very little data are available on the sensitivity of the demand for gambling as a whole or on particular activities. However, it appears that demand for most forms of gambling is relatively insensitive to price:

- the demand for lotteries appears to be the most insensitive across a broad range of prices;
- gaming machine demand also appears to be insensitive (eg AGMMA, sub D257, p.11) although less so than lotteries; and
- while casino and wagering demand may also be slightly insensitive to price changes, some sections of these markets, such as casino high rollers, are likely to be quite sensitive (which has implications for tax rates — box 19.2).

Two factors explain, at least in part, why most gambling forms are likely to be relatively insensitive to price:

- As discussed in chapter two, unlike normal consumer goods, the price of gambling is not readily apparent. To the extent that consumers do not know the price, it is reasonable to suggest that they will not be particularly responsive to price changes.

-
- Secondly, there appears to be only limited substitution of one gambling form for another by consumers. As illustrated in figure 19.2 the introduction of gaming machines and casinos in a number of states drew more gamblers into the market, rather than drawing significant revenue from existing forms of gambling. The less substitutable a good is, in general, the less price responsive it is.

Box 19.2 Less tax for the rich?

Casinos pay a lower rate of tax on the revenue earned from high rollers — gamblers who bet significant amounts — than on the revenue earned from other gamblers. Typically, high roller activity is taxed at 10 per cent as against 20 per cent for other activity. In normal circumstances a lower tax rate will be passed on to consumers.

Casinos have argued — and governments agreed — that the lower tax rate is necessary to attract high rollers to Australian casinos (or casinos in particular states). Underpinning this argument is that high rollers (both from Australia and overseas) are internationally mobile and will gamble where they receive the best price. Lower tax rates allow casinos to offer inducements to high rollers — such as free accommodation and other services, or discounting losses by a certain percentage — which effectively lowers the price of gambling. If Australian casinos did not match the “prices” offered by other casinos, the economic activity generated by high rollers would be lost.

Thus the lower taxes on high rollers are based on the assumption that they are highly sensitive to changes in price. The casinos’ and governments’ argument in a nutshell is that 10 per cent of something is better than 20 per cent of nothing.

There is some force to this argument. Taxing economic activity which is price sensitive will significantly depress the level of the activity and be ineffective in raising revenue. On the same basis Australian exports (including some services exports such as tourism) will be zero rated under the GST, and there is a debate about the extent to which mobile international capital should be taxed.

Understandably, however, the community is suspicious of arrangements whereby the rich are given a better deal than the poor. And it is difficult to determine the lengths to which the argument should be taken. Should we levy no tax on high rollers because these gamblers increase the level of economic activity?

To maximise revenue, governments may need to set taxes for high rollers at a lower rate than other gamblers. But state governments should be wary of competing directly for high roller business among themselves as this could erode any revenue gains.

A number of economy-wide models have been used to assess the impact of current levels of gambling taxes on the economy, including work commissioned for this inquiry using the Econtech model. This work was primarily commissioned to assess the impact on the economy of regulatory restrictions, but it also contains some analysis of gambling taxes. Consistent with the above conclusion these models each

assume that demand for gambling is relatively unresponsive to price. However, they obtain quite different of results depending on how the model is structured and operated (box 19.3), ranging from significant gains from reducing gambling taxes to virtually no gains. While each model provides a particular insight on how gambling taxes may affect the economy, from the collective results it is difficult to draw conclusions about the appropriate level of gambling taxes, even from a narrow efficiency perspective.

Box 19.3 Economy-wide modelling of the impact of gambling taxes

Econtech (commissioned by the inquiry), the Centre for International Economics and ACIL have used 'general equilibrium models' to investigate the impact of gambling taxes on the economy. In each of the models the demand for gambling was assumed to be relatively insensitive to price.

Econtech modelled the impact of reducing taxes on gambling to the GST rate of 10 per cent (offset by income tax increases). Econtech concluded that there would be gains of between \$477m and \$735m a year. It also found that there would be significant gains from more uniform taxes.

Underpinning this result is the principle that uniform tax rates do not cause efficiency losses because they do not change relative prices. Thus, the model is not structured to explore the option of Ramsey pricing. Ramsey pricing is impractical for general application to a tax regime. However, given the distortions present in the state and Commonwealth tax system, the inelastic demand for gambling has emerged as a key consideration in assessing the impact of tax reductions. In addition, evidence to the inquiry suggests there is less substitution between different gambling forms than normal modelling parameters would suggest. For these reasons the Commission has not used the results of the Econtech model for examining taxation options.

ACIL modelled the impact of a 50 per cent cut in gambling taxes offset by income tax increases. It found that a reduction of taxes on gambling has *almost no* impact on consumer behaviour and the level of industry output in both the short and long run. It attributed this result to the inelasticity of demand for gambling services. Only when ACIL modelled a 50 per cent reduction in taxes without offsetting tax increases elsewhere — effectively a 'free lunch' — did their model show gains to the economy. However, these gains stem from an assumed increase in government efficiency, or reduced outlays, (allowing other taxes not to increase) rather than to the lowering of gambling taxes.

(continued)

Box 19.3 continued

The **Centre for International Economics** modelled the effect of a tax increase that would reduce the level of gambling activity by 1 per cent. It found that the tax increase would reduce Gross Domestic product by \$160m and consumption by \$130m. However, the model was run in short-run mode, which limits the ability of the capital and labour displaced by the reduction in activity to be used for other purposes.

None of the models are able to incorporate the impacts of problem gambling.

In summary, there are many complexities associated with general equilibrium modelling, particularly for modelling gambling which does not have a straightforward price like other goods, and which has addictive qualities for some people. For these reasons there are advantages in analysing gambling taxes using a partial equilibrium approach.

Source: Econtech 1999; ACIL sub. 155 p. 195; CIE (1997).

The conclusion that the demand for lotteries, and other gambling forms, is relatively unresponsive to price provides some support for the argument that taxing gambling at higher rates than other goods may be efficient. However, this does not mean that current tax rates are optimal. The efficiency, or excess burden of a tax depends on its price responsiveness *and* the tax rate. A very high tax on a good which has inelastic demand can still be inefficient.

Economists describe inefficient taxes as having a high Marginal Excess Burden (MEB). The MEB is the efficiency cost of raising another dollar of tax. For instance, income taxes are typically estimated to have a MEB of around 20 cents and are generally considered to be quite efficient. If gambling taxes are efficient, their MEBs will be comparable to that of other relatively efficient taxes such as income or payroll tax. This provides a benchmark for assessing the efficiency of gambling taxes.

Lotteries

Lotteries are very highly taxed — at a rate of 455 percent when the tax is expressed in the same way as we express the GST. This raises the issue of whether it has a high MEB, notwithstanding its unresponsiveness to price. In the absence of reliable estimates of the elasticity of demand for lotteries the MEB cannot be calculated directly. However, it is possible to identify what different elasticities would imply for the efficiency of lottery taxes. For instance:

-
- if lotteries have an elasticity of -0.5 (significantly inelastic) it implies they have a marginal excess burden of around 70 cents. That is, there is an efficiency loss of 70 cents for every dollar raised — clearly an inefficient tax;³
 - on the other hand, if lotteries have an elasticity of -0.3 or lower (highly inelastic), it implies they have an MEB of around 20 to 30 cents — comparable to other efficient state taxes.

While the elasticity of lotteries is unknown, very high tax rates imply that very low elasticities are necessary for lotteries to be an efficient tax. Very low elasticities (highly unresponsive to price) are possible, indeed four out of the six elasticities for Tattersall's lottery products calculated by Access Economics are -0.24 or below (appendix D). Yet it is also possible that the price responsiveness is higher. Certainly, a large majority of goods and services have elasticities higher than -0.3 .

In this situation what should governments do?

The Commission considers that with such a high tax rate there is an in-principle case to experiment with lower lottery taxes on efficiency grounds. However, governments' actions should be guided by whether they have scope to efficiently raise the revenue from other means that would be lost from lowering lottery taxes:⁴

- if state governments have scope to increase relatively efficient taxes, such as payroll tax or land tax, they should experiment with lottery taxes (say an increase in the payout ratio from 60 per cent to 65 per cent) to determine if lower rates would provide benefits to the community; and
- if, governments do not consider there is scope to raise other taxes — or there is scope only to raise taxes which themselves have a high MEB (such as stamp duty) — there would be little value in experimenting with lottery tax rates.

Gaming machine taxes

In contrast to lotteries, the case for experimenting with gaming machine taxes on efficiency grounds is weaker. The demand for gaming machines is also likely to be relatively unresponsive to price (although not to the same degree as lotteries). However, the tax rates on gaming machines are only one tenth of those on lotteries (averaging around 42 percent compared to 455 percent). Over a reasonable range of elasticities this translates into MEBs associated with gaming machine taxes that are

³ The MEB calculations are based on the methodology presented in Albon 1997.

⁴ Another relevant factor is whether Lottery taxes are likely to be the most inefficient state tax. If other taxes are more inefficient, given the ability to raise other revenue is limited, then the most inefficient tax should be reduced before any experimentation with lottery taxes.

not markedly higher than other efficient taxes. For instance at an elasticity of -0.75 the MEB on the average gaming machine tax rate would be around 30 cents.⁵

Another relevant consideration is whether any tax reductions would be passed on to consumers.

Normally, tax cuts can be expected to reduce prices. However, in the gaming machine market there is evidence that this may not always occur. In the United States, tax rates among states vary widely, yet prices do not exhibit much variation. For instance, the differences in gaming machine prices in Nevada, New Jersey, Colorado, Illinois and Missouri do not appear to be at all correlated with the substantially different tax treatment that is applied to gaming revenue in each state.⁶

In Australia, both cross-sectional and time series information also indicates that tax rates do not significantly affect prices (table 19.9 and box 19.4). For instance, tax rates are higher in Victoria than New South Wales, but Victoria has a lower price (or a higher return to players). Paradoxically, in some jurisdictions, the payout to players seems to have increased as the tax rate has increased.

Table 19.9 Gaming machine prices and taxes, 1997-98

1997-98	NSW	VIC	QLD ^a	SA	TAS	ACT	NT
Turnover (\$m)	30 540	18 098	4 058	3 292	207	1 249	232
Expenditure (\$m)	2 989	1 711	601	395	24	127	20
Tax (\$m)	690	707	180	161	10	28	10
Return to player	90.2%	90.5%	85.2%	88.0%	88.4%	89.8%	91.4%
Av tax rate	23%	41%	30%	41%	42%	22%	50%
Price per dollar gamble	10c	9c	15c	11c	11c	10c	9c

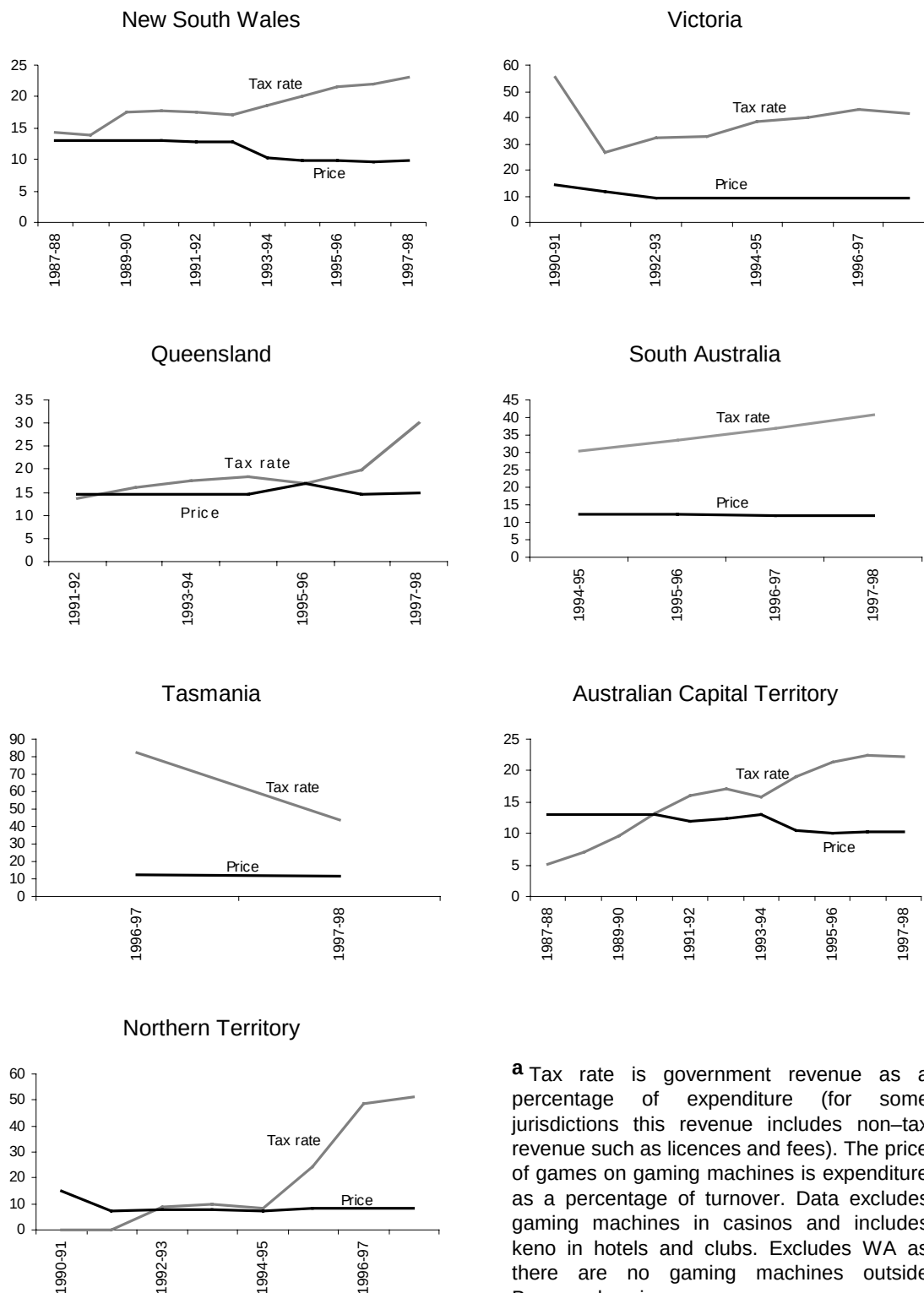
^a Queensland previously had a fixed return to player rate of 85 per cent. This fixed percentage has recently been removed.

Source: South Australian Government (sub. D284, p. 19).

⁵ Of course, the MEB in more highly taxed jurisdictions would be higher, and correspondingly, the MEB in jurisdictions with lower gaming machine taxes would be lower.

⁶ Based on data on machine prices from www.thewizardofodds.com and tax rates from Dunstan (1997).

Box 19.4 Gaming machine prices and taxes, selected years^a



^a Tax rate is government revenue as a percentage of expenditure (for some jurisdictions this revenue includes non-tax revenue such as licences and fees). The price of games on gaming machines is expenditure as a percentage of turnover. Data excludes gaming machines in casinos and includes keno in hotels and clubs. Excludes WA as there are no gaming machines outside Burswood casino.

Source: Tasmanian Gaming Commission (1999).

It is difficult to explain why higher taxes appear to be associated with lower prices. Indeed, the whole question of the relationship between taxes and prices would be a fruitful area for further research.

However, whatever the explanation, based on the evidence, the Commission could not be confident that tax cuts would necessarily deliver better prices to consumers, rather than higher profits to gaming machine operators.

Of course, governments could increase the minimum payout ratio to ensure the tax cut is fully passed onto consumers. However this approach could have significant drawbacks. To ensure larger venues with low cost operations passed on the tax cut, the payout ratio would have to be set quite high. In turn, this may render gaming machine business in smaller venues (with higher costs) uneconomic.

Overall, the lack of evidence that gaming machine taxes are particularly inefficient at current levels, and potential problems in ensuring that any reductions were passed onto consumers, suggests there is not a strong case for reducing gaming machine taxes on efficiency grounds.

On the contrary, as discussed in chapter 21, there are arguments for increasing the tax rates for clubs to that of hotels.

Other gambling taxes

Casinos are the lowest taxed form of gambling. While some sections of the casino market are highly responsive to price changes, overall it is likely that casino gambling is somewhat unresponsive to price changes. Owing to the relatively low tax rate it is, therefore, unlikely that the MEB associated with casino taxes is relatively high.

Wagering faces many different tax rates on different types of bet (for instance bets for a win are generally taxed at a lower rate than a trifecta bet). Overall, it is taxed at a slightly higher rate than gaming machines — around 50 per cent overall. However, like gaming machines there is little evidence that there are high MEBs associated with wagering taxes.

Summary of efficiency arguments

In summary, drawing on the material presented in appendix D as a guide to the MEBs associated with various gambling taxes, the Commission considers that:

- with the possible exception of lottery taxes, the evidence of low responsiveness to price changes (while not definitive) should caution against assuming that

simply because gambling taxes are high, there would be large efficiency gains (via recreational gamblers) from reducing them; and

- the likely variation in responsiveness to price changes among different forms of gambling should caution against assuming that a move towards uniformity among gambling forms would significantly improve resource allocation or improve welfare.

Thus, while the pattern of taxes may not be optimal, on the basis of the available information the Commission does not consider that a case can be made for changing gambling taxes on efficiency grounds, with the possible exception of lotteries.

Taxing excess profits

The second ground for higher gambling taxes is based upon the restrictions governments impose on the availability of different forms of gambling. Governments restrict the supply of gambling activities in many ways, including restrictions on the number of gaming machines (in total and in each establishment), the number of lottery operators, and the number of casino licences. Restricting the range and quantity of gambling services available will tend to increase prices and allow gambling operators to earn greater than normal profits. Gambling taxes and licence fees are one means by which states can capture these windfall profits on behalf of the community.

ACIL (sub. 155, p. 133) considered that the excess profit argument for high taxes may be overstated:

... whether there might be a case for such high taxes to extract economic profit is not as clear cut as it might first appear... In some market segments, for example, casino commission play, the market is highly competitive and this will ensure that economic rents are practically non-existent. In other markets, the question should be asked as to what extent licence fee arrangements already deal with economic rents.

ACIL is correct to point to the difficulty of determining the level of excess profits for different forms of gambling; however, there is clear evidence that they exist for some gambling services.

Potential excess profits will depend on the restriction imposed, the competition remaining in that form of gambling and the competition from other forms of gambling. For instance, despite restrictions there is a degree of competition in the gaming machine market. Otherwise operators would be likely to offer only the minimum legislated payout rates of 85-87 per cent rather than the 89-91 per cent rates observed. On the other hand, New South Wales has the least restrictive gaming machine regulations, yet hotels have bid significant amounts (up to \$60 000) for

additional gaming machine licences. This indicates that the restrictions generate an element of excess profits at current tax rates for operators who have not had to pay licence fees for their machines.

Thus, as noted, reducing the tax rate could potentially increase profits to existing operators rather than lead to increased payout rates.

Similarly the casino operators in New South Wales and Victoria paid over \$300 million each in upfront licence fees, on the basis of the tax regime that would apply to their operations. Again, these bids are a reflection of the after-tax profits they expected to generate.

While lotteries are restricted to one operator in most states, they are mostly operated by governments. As such, problems with windfall gains accruing to private operators generally do not arise.⁷

The approach of a number of governments in combining a tax regime with the auction or tender of licences, is one method of ensuring that the government collects potential windfall gains. It is difficult to determine the exact level of profits resulting from restrictions on competition so it is hard to set a tax rate that would exactly collect this excess profit. Auctioning licences in association with a well defined tax regime, allows the market to determine the value of the licence and helps ensure that any expected windfall gains or excess profits are transferred to government.

Another method of ensuring that windfall profits do not accrue to operators would be for governments to regulate payouts. Governments could set payout ratios on gaming machines, the TAB, and lotteries so that operators could earn only a normal return on their investment despite restrictions on access (although, as discussed, this could cause problems for smaller gaming machine operators). Under this approach consumers would benefit from better 'odds', whereas under the taxation approach government revenue will benefit.

Thus, taxes (and licence fees) are a legitimate way, but not the only way, of ensuring gambling operators do not earn excess profits that are created by restricting access to gambling.

If anti-competitive restrictions were eased, this general rationale for higher taxes would be similarly reduced. Moreover, if despite the restrictions, competition

⁷ In Victoria the lotteries are operated by a private monopoly. Even in the absence of high taxes, unless minimum payout ratios are imposed by the government prices may be higher than the costs of production. Thus, any reduction in the tax rate in Victoria would need to be accompanied by an increase in the payout level to prevent rents accruing to the operator.

increased from, say, internet or other new gambling forms, this rationale for higher taxes could again be weakened.

Reducing social costs of gambling through taxes and funding problem gambling services

There is a high degree of consensus that gambling taxes should be used to fund problem-gambling services and community awareness campaigns. While this is a strong argument for taxing gambling, it does not in itself justify high taxes. The resources required to fund these services at appropriate levels are likely to be only be a small proportion of the taxes raised from gambling (less than one per cent).

The third argument for taxing gambling more highly than most other goods is to *reduce* the level of problem gambling. According to this argument, raising the price of gambling reduces the demand for gambling and hence the level of problem gambling.

However, the proportion of recreational gamblers to problem gamblers is high. For recreational gamblers, raising the price will produce no benefit, indeed an efficiency loss, so at best, using taxes in this way is a blunt instrument.⁸

Although this point can also be made with respect to alcohol taxes, there is an important difference between the effect of these taxes on the respective target groups. In most cases problem drinking relates directly to the effects of the excess consumption of alcohol rather than to the financial cost of consumption. In contrast, the financial cost of gambling is the principal problem.

⁸ Simple externality arguments whereby a tax reduces output of a 'bad' to a socially optimal level are difficult to apply to gambling. While all pollution may have a negative impact on the community, gambling is not like pollution. Gambling yields recreational benefits to the large majority of gamblers; only some gamblers suffer problems. A tax reduces the benefits people derive from gambling as well as the costs to some people.

Box 19.5 Do taxes help or hurt problem gambling?

Taxes, and tax breaks, are often used to discourage socially damaging activities and promote socially good activities. However, it is uncertain whether taxes on gaming machines can play a role in assisting problem gamblers.

Taxes raise the price of gaming. For most goods, consumers' can observe prices and price changes directly, and react accordingly. This is more difficult in the case of gaming machines. Gamblers generally can only observe prices and payouts indirectly. For instance, they may observe how much money they lose in a period of time, or how much it costs to play for a certain period.

If taxes were reduced it would be possible to increase payout rates. If problem gamblers did not change their behaviour they may lose their money at a slower rate. For many problem gamblers this could reduce the total amount they lost because the time they have available to gamble is limited by work or family commitments. Thus, reducing tax rates could help existing problem gamblers.

However, for this to occur, gamblers would have to maintain the same intensity of gaming (the amount wagered on each credit and the number of credits played at one time). If problem players increased their intensity of play in response to the tax decrease, potential benefits of the reduction would be lost. The behaviour of problem gamblers is poorly understood and it is uncertain how they would react to a tax reduction. For instance, if they lost less, would they no longer feel a pressure to recoup losses through more intense play? Or would they increase the amount they bet in response to better payouts?

Thus, if governments were considering lowering taxes to help existing problem gamblers, they would need to also regulate the intensity of play to ensure problem gamblers spent less. Even then, reducing taxes could increase the attractiveness of gaming machines and encourage more people into problem gambling over time.

Alternatively, to decrease the attractiveness of gambling, governments could consider a policy of raising taxes. But problem gamblers may not notice small tax increases because of the difficulty of observing price. If they maintained the same intensity of play they would lose money more quickly, which would exacerbate their problems. Again it is uncertain whether they would maintain, reduce or even increase their intensity (to chase losses) in this situation.

Large tax increases would affect payouts significantly and could break the illusion problem gamblers hold that they can win. Large increases would also reduce the number of people who become problem gamblers.

However, this policy would work by fundamentally altering the attractiveness of gaming, and would reduce the enjoyment of recreational gamblers.

Until more is known about the profiles and behaviour of problem gamblers, taxes should be regarded as a blunt instrument to address problem gambling. More focussed instruments to assist problem gambling are those discussed in chapter 16.

Depending on the behaviour of *existing* problem gamblers, high taxes will either not assist, or indeed could worsen their situation.

- if problem gamblers spend to a certain limit on gambling regardless of its price, high taxes will not significantly affect their behaviour — they will simply lose their money more quickly; but
- if raising the price of gambling though higher taxes causes problem gamblers to spend more than they otherwise would (in some cases raising additional funds through crime) it will exacerbate their problems.

Different problem gamblers are likely to exhibit either types of behaviour. In either case, unless taxes were so high as to almost prohibit gaming, high taxes are not a good policy to assist *existing* problem gamblers. This might suggest that *lower* taxes could assist existing problem gamblers. However, at least for gaming machines, the practical scope to do this is limited given the existing level of taxes. Even if the tax rate was reduced from present levels to the GST rate, payout ratios would only increase by 2 percentage points or so — which may not be enough to materially affect the expenditure of problem gamblers. In addition, the behaviour of problem gamblers needs to be better understood to be confident that low taxes, even in principle, would assist them (box 19.5).

As well as assisting *existing* problem gamblers, preventing people *becoming* problem gamblers should also be an aim of policy makers. It is possible that, in principle, gambling taxes have a more beneficial effect in preventing people developing gambling-related problems. Higher prices would tend to reduce the total level of gambling in the community to some extent, and may deter some people from gambling who would later develop gambling problems. However, if, as seems apparent, the demand for gambling is relatively insensitive to its price, taxes need to be relatively high to reduce the level of gambling activity significantly. Again, in relation to gaming machines, the effect of current taxes is to lower payout ratios by about three percentage points, which is probably not enough to significantly reduce the attraction of gaming machines.

In any case, while this argument may be used to support relatively high taxes on some forms of gambling, such as gaming machines, it cannot be used to support high taxes on all gambling forms. For instance, there is no evidence that lotteries are a significant contributor to problem gambling yet they are the highest taxed activity.

Overall, until more is known about the behaviour of problem gamblers, it is not clear that taxes — either high or low — have a large role to play in preventing problem gambling.

The impact of gambling taxes on equity

The principle of equity, or fairness, includes both the concepts of *horizontal* and *vertical* equity.

- horizontal equity is achieved when those with similar incomes or wealth pay similar levels of tax;
- vertical equity implies that higher levels of tax should be paid by those with a greater capacity to pay.

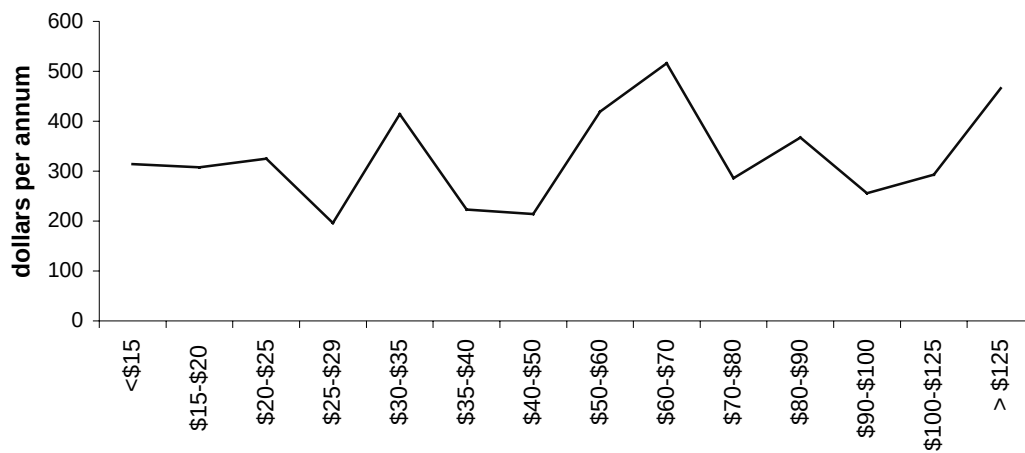
In relation to vertical equity, a tax is defined as *progressive* if the proportion of a taxpayer's income paid in tax rises with income; it is *regressive* if the tax paid as a proportion of income falls as income rises.

The Commission has analysed the equity impacts of gambling taxes using data from its *National Gambling Survey*. As shown in figure 19.3, people on different incomes tend to pay similar amounts of gambling tax (the variation is more likely to be a reflection of the survey sample than actual behaviour). According to the *Survey*, about 65 per cent of gambling taxes are paid by people with an above average household incomes.

Expressing taxes paid as a proportion of income, however, confirms that gambling taxes are regressive (figure 19.4). This result is consistent with the work by Access Economics (sub. 156) and Smith (1998).

Figure 19.3 **Most gamblers pay a similar amount of gambling tax**

Tax paid by each household income group (for people that gamble). Income is in thousands



Data source: PC National Gambling Survey.

Figure 19.4 Gambling taxes are regressive
Gambling tax as a proportion of household income



Data source: PC National Gambling Survey.

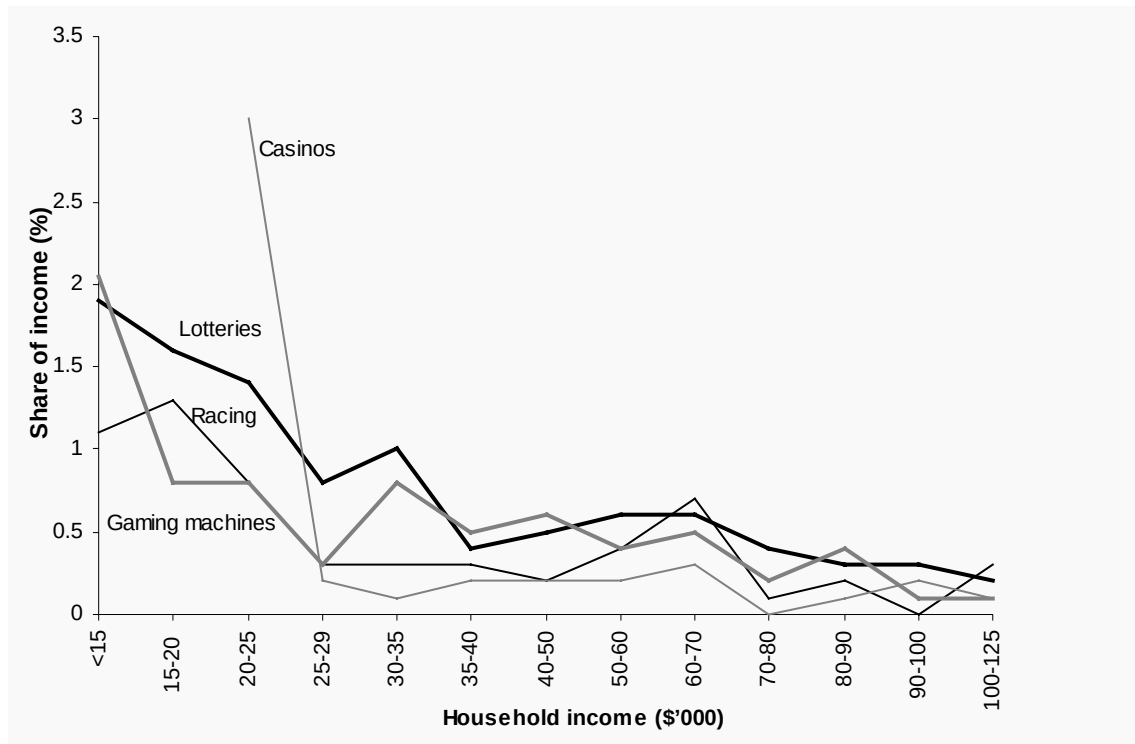
Low income earners pay a greater proportion of their income in tax because they spend proportionately more of their income on gambling. Using Household Expenditure Survey data that takes into account amounts wagered, Smith (1998, p. 35) concluded:

... the pattern of gambling expenditures and player losses has become more concentrated in lower income groups over the decade to 1993-94. Lower income groups have increased their gambling proportionally more than those on higher incomes. According to the HES, gambling spending has nearly doubled as a share of income in the poorest 40 per cent of households, while falling from already low levels in the incomes of the most affluent 40 per cent of households.

While the Commission's survey has shown that, overall, gambling taxes are regressive, the level of regressivity differs among different gambling forms (figure 19.5):

- taxes on lotteries and gaming machines are the most regressive;
- wagering taxes appear to be regressive, although there is significant variability among income groups; and
- other than for the lowest income groups (in which there are few casino players), casino taxes are proportional.

Figure 19.5 Regressivity differs by gambling form^a
 Gambling tax as a proportion of household income



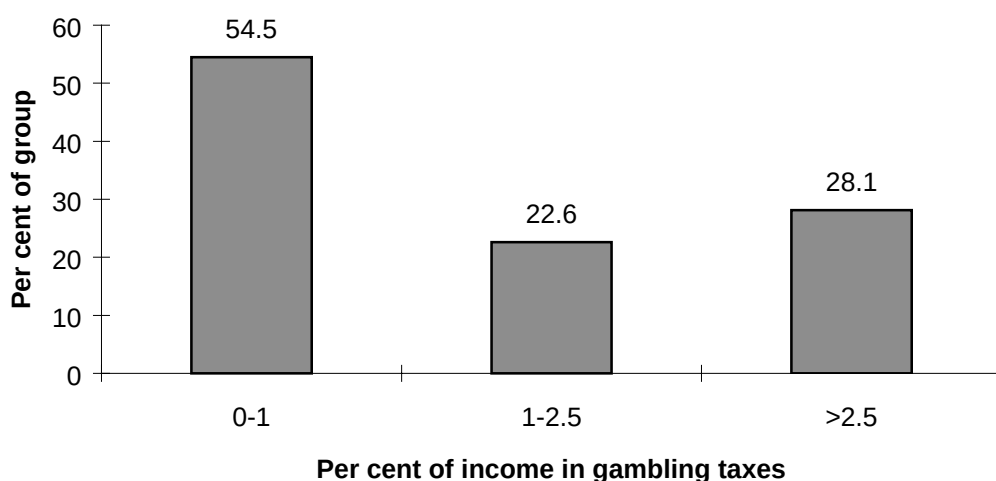
^a Casino data has been presented for incomes under \$25 000 because of low sample numbers (ie few players) at lower income categories.

Data source: PC National Gambling Survey.

Lottery and gaming machine taxes, therefore, provide the most cause for concern on equity grounds.

The regressivity of lotteries and gaming machines is of particular concern because, the distribution of gambling taxes among the poorest 20 per cent of households is uneven (figure 19.6). One half of the group pay less than one per cent of their income in gambling taxes, whereas one quarter pay above 2.5 per cent (10 per cent of the group pay more than 5 per cent). For these latter groups, gambling taxes constitute a significant burden. But, in contrast to taxes on products such as food which is consumed by everybody, it is difficult to identify which low income earners are paying the tax. Whereas the government could effectively compensate low income earners for a tax on food, it would be difficult to provide targeted compensation to offset the regressivity of gambling taxes.

Figure 19.6 **Low income gamblers pay differing amounts of gambling tax**
Percentage of the lowest income quintile paying different levels of gambling tax



Data source: PC National Gambling Survey.

Notwithstanding these concerns, the Australian Hotels and Hospitality Association (sub. 154, p. 24) summed up a common attitude toward gambling taxes in the community:

It is true that gambling taxation is regressive. Lower income people are highly represented amongst gamblers who use gaming machines. Thus lower income people pay a high percentage of the gambling tax. This is a universal fact in respect of all indirect taxes and is unavoidable. *At least gambling is a discretionary spend and no lower income person is forced to pay the tax.* [emphasis added].

Although these comments help explain why there is community acceptance of high taxes on gambling, the so called ‘voluntary’ nature of gambling taxes, like that of many other consumer items, should not mean that their negative equity effects are ignored when devising tax policy.

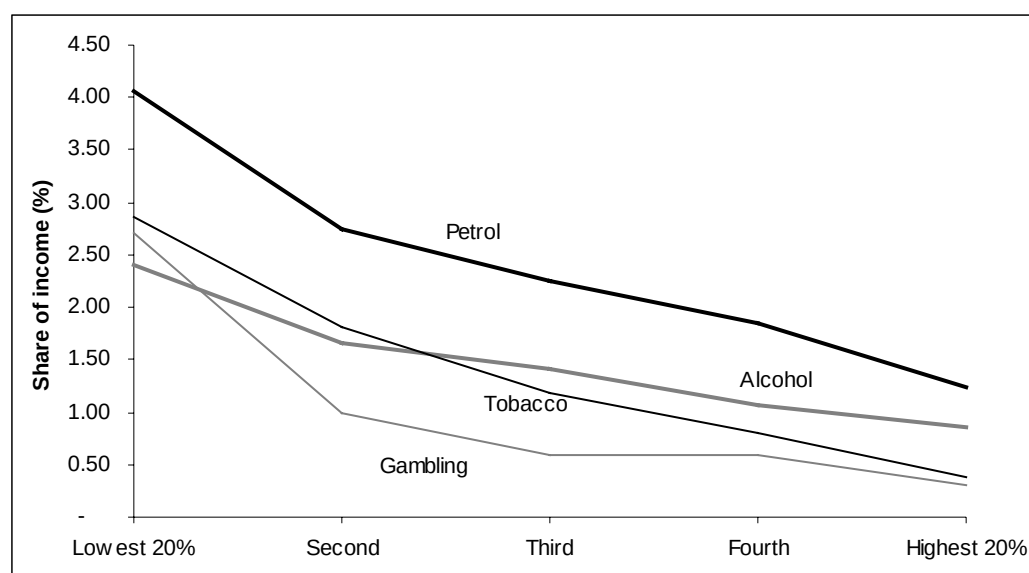
Reducing lottery taxes (and raising the minimum payout ratios) would by definition reduce the regressivity of lottery taxes — the expected return to all gamblers would increase, and lower income earners as a group would not pay as much in lottery taxes. As ACIL (sub D233) has pointed out gamblers would benefit because they would be purchasing a better value product — they would have a greater chance of winning, or a chance at winning a greater amount of money for the same ticket price.⁹

⁹ However, to the extent that the tax reduction were to be reflected in higher prize money rather than lower ticket prices there are two qualifications to this analysis. Firstly, as noted earlier,

Similarly, if as the Commission has concluded, the demand for gaming machines is not particularly sensitive to price, reducing taxes will lead to players spending less on gaming machines. Lower income earners would be left with more money in their pockets. Consideration of lower taxes to improve equity outcomes should, therefore, centre on gaming machines taxes and lotteries.

Such an assessment would need to take account of a range of wider factors, such as the potentially offsetting progressivity of income taxes within the system as a whole, and the available options for raising other state taxes (some of which, such as alcohol, tobacco and petrol are also regressive — figure 19.7).

Figure 19.7 Some other state taxes are also regressive
Expenditure as a proportion of household income by quintile



Data source: Gabbitas and Eldridge (1998), PC estimates.

gamblers find it very difficult to compute the odds of winning lotteries. And for some lotto games it is not possible to calculate them in advance. If gamblers do not know the odds of winning now, it is not clear that if taxes were reduced what *ex ante* benefit they will get from better odds that would also be unknown. Secondly, to the extent that the governments motivation for reducing lottery taxes would be to increase the spending power of low income earners for other goods (i.e. put money back in their pockets) then the policy could fail. The distribution of lottery prizes is highly skewed. A few people win a lot: most people win nothing or very little.

Administrative simplicity

There appears to be considerable debate surrounding the administrative costs of raising taxation revenue. Summarising this debate Smith (1998, p. 47) comments that:

Gambling taxes typically cost more to collect than most other taxes, although how much so is a matter of debate... At issue is whether to count the payment of prizes and the costs of regulating or running gambling enterprises as tax-collection costs.

An apparent source of confusion in this debate is the notion that legalised gambling is simply a device for governments to raise revenue and has no social purpose. For instance Smith (1988) cites Clotfelter and Cook (1989) as saying:

... it is widely accepted that the primary purpose of state run lotteries is to raise revenue (p. 49).

If legalised gambling is solely a revenue-raising activity then all operating costs of gambling operators could be treated as costs of raising this revenue. This would obviously generate very high estimates of the administrative costs of raising gambling taxes.

However, this argument ignores the fact that lotteries (and other forms of gambling) are an entertainment service that many people wish to buy regardless of who runs them and whether they are taxed or not. That governments often restrict people's ability to gamble, does not alter that fact. Indeed, the argument that all gambling is a form of tax collection is analogous to arguing that the costs of producing a movie should be included in the costs of administering the GST.

In short, the collection costs of gambling revenue should be assessed on the same basis as the costs of collecting tax on other goods and services. They include the compliance costs for gambling operators — record keeping, assessing liability, making payments — and the costs to government of processing receipts and ensuring taxes are paid. They do not include the costs of regulating the activity or ensuring probity, as these are costs that will be incurred regardless of taxation arrangements.

Looked at in this way, the administration costs of collecting most gambling revenue appear to be quite low. While tax arrangements across jurisdictions appear to be complex, this need not raise compliance costs for individual operators. Taxes are collected from relatively few sources compared to most state taxes and remittance processes can be automated. Indeed the costs of collecting lottery revenue are likely to be very low. Estimates are not available for the collection costs of other gambling taxes, but they are likely to be no higher than other state taxes.

Conclusion: should gambling taxes be lower?

The taxation of gambling has evolved in an adhoc way, mirroring developments in the gambling industry and the way it is regulated. In this environment, it would be unlikely if gambling taxes were at the most appropriate levels. However, given the poor state of information about how gamblers react to changes in tax rates, it is uncertain what those levels should be.

Analysis of the impact of gambling taxes on problem gambling reflects this uncertainty. Given the lack of knowledge about the gambling behaviour of problem gamblers (and not all problem gamblers are alike) it is not clear that tax is a useful instrument for assisting them or preventing new problem gamblers. Thus, at the present time, problem gambling does not provide a rationale for either maintaining high taxes, or having lower taxes.

Nor is there a sufficient case, based on the evidence, for changes in gambling taxes on efficiency grounds. Because the demand for most gambling forms appears to be relatively insensitive to price changes across a broad range of prices, there may not be significant efficiency gains from reducing rates of tax. In addition, the likely variation in price sensitivity among gambling forms means that there may be little efficiency gain from greater uniformity of tax rates. Lotteries may constitute an exception, however, because of the very high tax rates applying to them.

Taxing gambling at higher rates than other goods is also justified in order to collect the excess profits that arise from restricting gambling. Indeed, in the case of gaming machines in clubs, the current taxes appear to be too low in some cases (chapter 21).

However, on equity grounds high gambling taxes are problematic. They are regressive overall, with this being most pronounced for lotteries and gaming machines. However, equity outcomes from reducing gambling taxes would also depend on what alternative taxes were available to states and territories to replace lost revenue, and their degree of regressivity.

In sum, there are both efficiency and equity grounds for experimenting with lower lottery taxes. While the levels of other gambling taxes are unlikely to be optimal, on the basis of available information there is not a strong, or unambiguous case for general reductions.

19.7 Design issues

As described in appendix M, there is enormous variation in the design of taxation arrangements between forms of gambling and between jurisdictions. Many of these

variations are of little material importance. However, concerning wagering, two issues of significance are the use of turnover taxes for bookmakers, and the implications of a national market for wagering. Another design issue that policy makers should examine is the use by a number of jurisdictions of sliding scales of taxation (based on revenue) for gaming machines.

Wagering

Turnover taxes

Turnover is used as the base for bookmakers tax in all jurisdictions and for sports betting in the Northern Territory. While this arrangement is longstanding there are a number of disadvantages for bookmakers associated with the tax. The most significant disadvantage is that it places all risk for variation in cashflow with the industry. The profits of bookmakers vary significantly from race to race and meeting to meeting. However, under the turnover tax, bookmakers pay a certain proportion of all bets wagered regardless of whether a race or a meeting yielded any profits. While over time bookmakers will achieve some average return, the turnover tax will exacerbate any lumpiness in the timing of profits. The tax arrangements, therefore have the effect of raising the risk (both positive and negative) faced by bookmakers (and probably short term financing costs) relative to a tax that used gross profit as the tax base.

Turnover taxes have traditionally been used, because they have represented the most verifiable and auditable measure of bookmakers takings. There have been concerns that gross profits may be open to manipulation and therefore an unreliable tax base.

However, the Commission notes that, increasingly, bookmakers' operations, like most gambling operations, are electronically based, or at least involve an electronic record of all bets. For instance, Centre Bet in the Northern Territory keep audio records of all bets. This presents an opportunity to begin to move to gross profit taxes. Initially governments could introduce a gross profit tax for those bookmakers that can present verifiable profit figures. This would provide an incentive for bookmakers to make any improvements required to their recording systems.

The national market for wagering

Like gaming machine taxes, wagering and sports betting taxes are set at the state level. However, in contrast to gaming machine gambling, wagering and sports betting can more easily take place in a national rather than state market — such as

by placing bets on interstate races through the local TAB, or by placing bets on local races through a telephone bet with an interstate bookmaker.

In a national market differences in state taxes can potentially affect the level of wagering activity among states.

As described in appendix M, wagering taxes differ across jurisdictions. Although these differences appear relatively slight for TAB (racing) and bookmaker taxes, they are more marked in the case of sports betting. For example, most jurisdiction's taxes on bookmakers vary by only one percentage point, whilst for some sports betting there can be differences of up to ten per cent.

It is unclear how significant cross border bets are in the turnover of TABs and bookmakers. In fact, to minimise leakage to local government revenues, most jurisdictions do not allow advertising by non-local betting operators (these provisions are currently being reviewed under the legislative review requirements of the Competition Principles Agreement) (NSW Dept of Gaming and Racing 1999).

Nevertheless, the differences in taxes across jurisdictions give operators in lower tax jurisdictions the potential to undercut the prices offered by operators in higher tax jurisdictions. Although the extent to which this actually occurs is unclear, there is certainly a stronger incentive to pass on tax cuts where consumers may choose from operators in different states and territories.

While this creates a better deal for consumers, it may erode government revenues in the more highly taxed jurisdictions, and would be likely to place pressure on state and territory government to further align rates.

Sliding scales of tax rates for gaming machines

A number of jurisdictions — New South Wales, Queensland, and South Australia — have a scale of tax rates for gaming machines based on the level of revenue (gross profit) from machines. As shown in figures 19.8 and 19.9 tax rates (on additional revenue) increases as revenue increases. For instance in New South Wales clubs, the tax rate is 20 per cent on between \$200 000 and \$1 million, but rises to 25 per cent on revenue above \$1 million. This obviously has the effect of taxing venues with smaller numbers of gaming machines at a lower rate than larger venues.

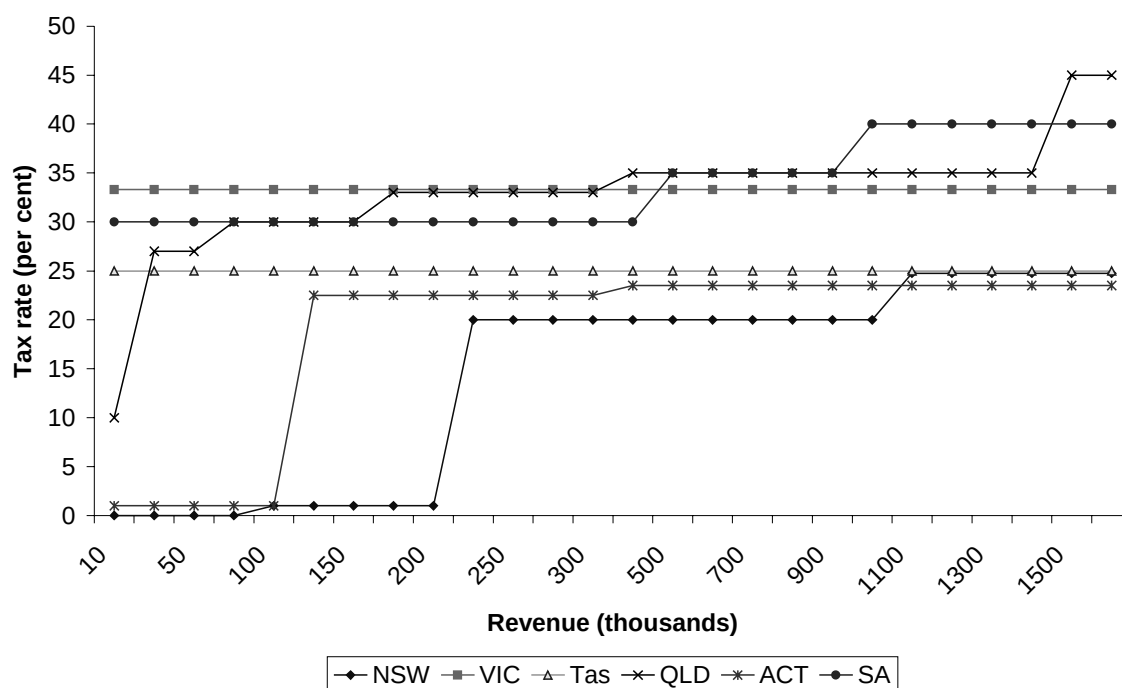
In terms of costs, aside from a revenue loss to government, the policy could serve to increase the penetration of gaming machines in the community. All small clubs

have a strong incentive to have a number of gaming machines since at low tax rates they will be highly profitable.

In the case of hotels, it is difficult to find a justification for providing tax advantages to smaller hotels relative to larger hotels. Consistent with the arrangements in most jurisdictions, taxing all hotels as a single rate would appear to be a sensible policy.

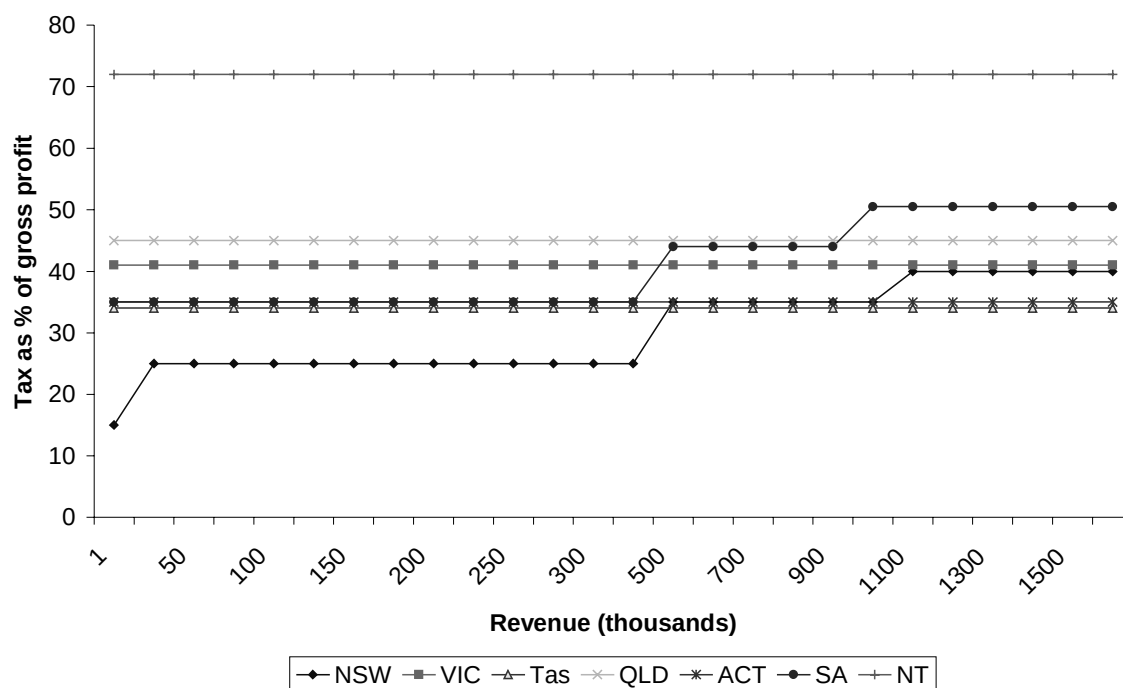
While there could also be some advantages in taxing all clubs at the same rate, any moves to uniformity would need to take account of the impact on smaller clubs — which often exist for specific community purposes — and the resulting impact on local communities. The taxation of clubs is discussed further in chapter 21.

Figure 19.8 Tax scales for gaming machines in clubs



Data source: NSW Treasury (1999).

Figure 19.9 Tax scales for gaming machines in hotels



Data source: NSW Treasury (1999).

20 Earmarking

Box 20.1 Key messages

- About \$1.5 billion, or one third, of gambling revenues are earmarked for specific purposes.
 - Health services receive the majority of earmarked funds (\$1.1 billion).
 - Problem gambling related services are often funded through earmarking but the amounts are a small proportion of total earmarking (less than two per cent of the total).
- Budget funding is generally preferable to earmarking arrangements, because earmarking makes it more difficult for governments to set and reset funding priorities.
- However, earmarking for problem related gambling services, gambling research and community awareness campaigns is appropriate, since gambling has created the need for such services, which otherwise may not be adequately funded.
- Earmarking for other uses does not appear to have created widespread distortions to budget spending (although there are problems at the margin). However, it offers no particular advantages over budget funding and plays a dubious role in promoting some forms of gambling.

All governments, to varying extents, earmark (or hypothecate) part of gambling taxation to social programs. Earmarking has a long history in Australia and overseas. A number of lotteries were established in Australia in the 1920s and 1930s to provide funds for community projects (as well as to combat illegal gambling). Large-scale projects such as the Sydney Opera House were partly funded from gambling revenue, and funds continue to be earmarked for such purposes.

Of the total gambling revenue (taxes charges and other levies) of \$3.8 billion in 1997-98, nearly \$1.5 billion, or a third, is earmarked for specific purposes. Victoria accounted for over one billion of earmarked revenue in 1997-98 (table 20.1).

Gambling taxes are earmarked for a variety of purposes. All states earmark revenue to fund gambling-related activities, such as problem gambling services and research into the impact of gambling on the community. However, hospitals are the major beneficiaries of earmarked funding, particularly in Western Australia (\$60.5 million in 1997-98) South Australia (over \$80 million) and Victoria (where around

\$1 billion went to the Hospitals and Charities fund). Other activities that receive earmarked revenue include sports, cultural activities such as the Perth Festival, and a wide range of charity and community-run activities.

Earmarking takes three broad forms, with most states employing more than one model.

- The first model involves gambling revenue being channelled into ‘community benefit funds’. Grants are then made from these funds to projects that are consistent with the funds’ purposes. Although funds are distributed via grants, they often support ongoing activities. Most problem gambling services are funded from community benefit funds, although the revenue is also distributed to a much wider range of activities.
- Hospital funds represent the second type of earmarking and are used in South Australia, Victoria and Western Australia. These funds receive a fixed percentage of revenue from particular gambling activities which is then reappropriated to the hospital sector, as part of normal budget processes.
- The third form of earmarking is through direct grants, such as operate in Western Australia and New South Wales. In Western Australia, the Lotteries Commission administers a program to distribute revenue to community groups. In New South Wales, registered clubs can distribute up to 1.25 per cent of gaming machine revenue to health and community groups, as an offset to the tax they would otherwise have to pay. Generally direct grants are made as one-off payments to community groups, often for relatively small amounts.

In considering the merits of earmarking, a distinction can be drawn between earmarking gambling revenues for problem gambling services and earmarking for other purposes such as health, sport or cultural activities.

Table 20.1 Community benefit levies on gambling

<i>Fund</i>	<i>Funding</i>	<i>Expenditure estimates (\$'000) 1997-98 unless indicated</i>	
New South Wales			
Casino Community Benefit Fund	2% of casino revenue	Problem gambling	3 729
		Gambling research	257
		Gambling programs	795
		Health	913
		Aged Care	115
		Other	3 115
Sport and Recreation Fund	28.2% of Sports TAB player loss		1 429
	Sub-total		10 353
Victoria			
Community Support Fund	8.33% of gross profit from gaming machines in hotels	Health	1 358
		Other	84 172
Hospitals and Charities Fund	1% of casino revenue		8 043
	12.5% of keno revenue		2 590
	33% of gaming machine revenue in clubs and hotels		553 785
	28.2% of player loss from TABs		261 382
	lottery revenue allocated by treasurer.		120 560
Mental Hospitals Fund	Lottery revenue allocated by treasurer		62 115
Tourism Victoria	5 yearly payments of \$1m from the casino		1 000
	Sub-total		1 095 005
Queensland			
Gaming Machine Community Benefit Levy	4% of Keno tax and an allocation of 8.5% of gaming machine tax	Health	1 552
Children's health	Fixed annual sum from Golden Casket revenue	Other (1996-97)	13 967
			1 500
Casino Community Benefit Funds	1% of casino revenue		4,700
Charities and Rehabilitation Fund	A (variable) percentage of gaming machine and keno revenue		26,400
Sports and Recreation Benefit Fund	1% of commission of 25% of Queensland's pool of Footy TAB		43,700
	Sub-total		134.119
South Australia			
Hospitals fund	Lotteries revenue and 14% of keno subscriptions		73 500
	45% of TAB surplus		10 125
Gamblers Rehabilitation Fund	Voluntary contributions by the Australian Hotels Association and Licensed Clubs Association		1 500
Community Development Fund	Allocation from gaming machine taxation	Health	6 000
		Other	13 500
Allocation by the Department of Recreation and Sport	35% of net soccer pools sales		93
Racing Industry Development Authority	0.5% of net sports betting sales		4
Recreation and Sports Fund	15-18% of net sports betting sales		131
(continued)			

(continued)

Table 20.1 continued

<i>Fun'd</i>	<i>Funding</i>	<i>Expenditure^a (\$'000)</i> <i>1997-98 unless indicated</i>	
South Australia (cont.)			
Housing Improvement Fund	1% of casino gaming revenue (administered by SA Housing Trust)		na
Charitable and Social Welfare Fund	from gaming machine revenue		3 000
Sport and Recreation Fund	from gaming machine revenue		2 500
	Sub-total		110 353
Western Australia			
			(1997)
Hospital Fund	16% of lottery turnover		60 500
Lotteries Discretionary Fund	Voluntary contributions from the Lotteries Commission of WA, Burswood Resort Casino and WA Totalisator Agency Board		8 309
Lotteries Direct Grants	5% of lottery receipts plus remaining funds after lottery costs		45 105
Allocation by the Minister for Sport and Recreation	20-25% of net sports betting sales		189
Upkeep of Burswood Island	1% of casino gaming revenue		3 588
	Sub-total		117 691
Tasmania			
			(1996-97)
Community Support Levy	2% of gross profit from gaming machines in clubs and 4% of gross profit from gaming machines in hotels.	Health	203
		Other	506
	Sub-total		709
Northern Territory			
Community Benefit Levy	25% of gross profit from gaming machines in hotels	Fund balance ^a	2 000
Australian Capital Territory			
Community Services Grants program	Derived from a percentage of gambling revenue	Problem gambling	86
Clubs and Racing Development Fund	4% (of the net % of totalisator revenue received by government)		223
Distributed to Clubs	0.25% of 1.25% of sports betting taxes		not available
	sub-total		309
Sum of states and territories			1 470 539

^a In the NT payments to the Community Benefit Fund were suspended in July 1997, pending the Gaming Machine Industry Review, however the balance of the fund is over \$2 million.

Source: Submission 155; Alder (1998) for NT data; the ACT Department of Education and Community Services for ACT Community Grants data; expenditure estimates for health and problem gambling funds from submission 163 and expenditure on sports, recreation and other funds were estimated using data from the Tasmanian Gaming Commission eg. NSW Sport and Recreation fund expenditure was estimated as 28.2% of expenditure on sports betting.

20.1 Earmarking revenue for problem gambling services

Earmarking for problem-gambling services, gambling research and community awareness campaigns currently account for less than two per cent of total earmarked funds. Given that these services are directly related to gambling activity, earmarking for these purposes has been relatively uncontroversial. Indeed, it was generally supported by participants. For instance, the Mental Health foundation stated:

The Foundation endorses the practice adopted by the Victorian and NSW Governments, wherein a specified portion of gambling revenue is channelled directly to fund services that assist gamblers. In Victoria, the Break Even and G-Line problem gambling services were introduced with specific allocations from the Community Support Fund, and did not exist prior to the Fund being established by Government (sub. 51, p. 3).

In addition to a clear community perception that gambling operators should be seen to fund problem gambling services, there are two practical reasons for doing so.

- Firstly, earmarking funds for problem gambling is a form of pre-commitment by government to support these services. This can remove the perception, reasonable or not, that governments may be reluctant to fund these service adequately because of the revenue benefits from gambling.
- Secondly, requiring operators to fund these services may reinforce the link between gambling and the problems it can cause for some people. If the public is aware that gambling taxes fund problem-gambling services it can implicitly act as a form of warning to balance some of the more positive messages that are conveyed by using gambling taxes to fund worthwhile community projects.

The Commission accordingly supports the earmarking of gambling revenue for problem-gambling, harm minimisation, and community awareness campaigns, and for the funding of problem-gambling related research and data collection.

However, there are a range of questions about the design of earmarking schemes. A key one is whether *all* gambling activities should fund these services, or just those that contribute most to problem related gambling?

In principle, one benefit of earmarking a percentage of funds to problem gambling is that if gambling increased, funding would automatically become available to handle any increase in the number of problem gamblers. On the other hand, it is not clear that falling gambling levels would immediately lead to less problem gambling, so mechanisms are needed to ensure gambling-related services do not suffer if gambling revenue declines in certain markets. In addition, it is also important to ensure that services funded through earmarking are subject to the same level of accountability as other government funded programs.

20.2 Earmarking for other programs

In contrast to problem gambling services, the merits of earmarking revenue for services that are unrelated to gambling such as core health, sporting or cultural activities are more contentious.

One issue is the role earmarking appears to serve to promote gambling. For instance, the Western Australia Government echoes a common view among researchers that the rationale for earmarking is political, not economic or social:

These forms of revenue hypothecation are often justified on the basis that they increase gambling's acceptability to the community, making it easier for agencies such as the Lotteries Commission to market their products, while at the same time negating opposition from socially concerned groups over gambling's social costs (sub. 82, p. 49).

This view is supported by the Institute of Public Affairs which stated that earmarked funds have been set up 'in order to ameliorate pressure groups opposed to gambling' (sub. 12, p. 8). The Commonwealth Department of Health and Aged Care also considered that:

... there is a risk that this hypothecation is disguising the impact both of the revenue raised and of the gambling activity being promoted (sub. 163, p. v).

Whether the promotional role of earmarking is a cause for concern in itself, depends largely on the activity being promoted, and whether or not it is harmful. For instance, it would obviously be of concern if governments promoted smoking by earmarking smoking taxes to cultural or sporting activities. In the case of gambling, some forms contribute more to problem gambling than others. Lotteries do not contribute significantly to problem gambling, so earmarking their funds to social purposes is unlikely to cause problems. Lottery customers may even derive some additional benefit if they feel they are contributing to charitable causes.

However, to the extent that earmarking promotes gaming machines, casino gambling and wagering — activities which do attract a significant level of problem gambling — its role is questionable.

This issue aside, participants considered earmarking or hypothecation has both advantages and disadvantages compared to budget funding.

Support for earmarking

The Commonwealth Department of Health and Aged Care recognised that there were potential problems with earmarking, but considered that:

... earmarking, per se, does not necessarily result in these negative impacts. Rather, it is the way in which hypothecated funds are managed that is critical (sub. 163, p. vi).

The Department considered that earmarking should be regarded as a complementary process to normal government funding processes rather than a replacement — that is, it should serve to increase total funding for earmarked activities. It particularly supported the community-based nature of some earmarking arrangements.

... the pattern of mostly one-off grants established by the States has the capacity to foster self help particularly in the States which require communities to make their own contribution to costs ... At times, communities need ‘a bit extra’ to cope with set-up costs or large maintenance items, but can manage day to day costs (sub. 163, p. viii).

Some participants also suggested that earmarking was as a way of returning gambling taxes to the communities that generated them. This view was strongly put by participants from disadvantaged areas with high concentrations of gaming machines. As the City of Greater Dandenong said:

Due to high density of gaming machines in Greater Dandenong, the community is contributing a substantial and disproportionately high level of taxes and charges ... Council is concerned that Greater Dandenong should receive an appropriate level of benefit and return from these taxes and charges (sub. 82, p. 7).

The Break Even – Western Gambling Service also said:

The distribution of funds should consider the areas of highest gambling usage and hence contribution to taxation ie. Low-income areas. Through our community education services we hear a common request that these funds should be directed back into these communities (sub. 64, p. 1).

One aspect of this argument is that earmarking funds for disadvantaged communities is a response to the regressivity of gambling taxes. The motivations behind this approach are sound, and it would be feasible to make grants of gambling revenue to councils based on the average income of households in the council area.

However, this approach may not effectively target the problem of regressivity, nor address regional inequality comprehensively. The basic drawback is that individuals gamble, not communities. Within any community there are widely differing levels of gambling. Earmarking funds for disadvantaged communities would assist many people who do not gamble, as well as the gamblers who contributed gambling revenue. Such an approach would, therefore, be a blunt instrument for offsetting the regressivity of gambling taxes.

Another aspect of this argument is that gambling causes a drain of resources away from already disadvantaged areas. While the level of economic activity in disadvantaged regions is of concern to policy makers, it is generally more

appropriate to address this in a holistic sense, rather than devising policies to address the financial impact of individual government policies.

Potential problems associated with earmarking and hypothecation

Hypothecation arrangements are subject to a number of criticisms. These include, lack of budget scrutiny for earmarked programs, uncertainty of funding, and additional administrative costs for recipients. These need to be explored in the case of gambling revenue.

Lack of budget scrutiny

The Western Australian Government summarised the potential problems associated with earmarking as follows:

the hypothecation of State revenues such as these can be criticised on the grounds that it affords a privileged budgetary position to specified functions (ie. these functions are not subject to the scrutiny of the annual budget process). Revenue hypothecation can also reduce budgetary flexibility and may, over time, result in a distortion of priorities and allocation of resources (sub. 76, p. 49).

Ideally, earmarked revenue should be taken into account by Governments when deciding the level at which activities should be funded. Otherwise, budget funds may not be allocated to the highest valued uses in the community. Spending may be biased in favour of earmarked programs.

The extent to which earmarked gambling revenue is taken into account is difficult to determine.

Hospital funding is the ‘big ticket’ item in hypothecation of gambling revenues. The Department of Health and Aged Care found little evidence that earmarking has had an impact on overall hospital funding. States that earmarked funding to hospitals provided neither higher or lower funding in total than states that did not use earmarked funding (sub. 163, p. 30).

This finding is consistent with the conclusion of Smith (1998, p. 41) who stated that:

The consensus is that earmarking revenue does not severely restrict legislatures flexibility in spending if expenditures can be substituted within the general budget. Earmarking merely reshuffles government spending and revenues rather than increases resources for the funded social programs.

On the other hand, activities that receive earmarked revenue via *grants* appear more likely to escape normal budget scrutiny. For instance, the Western Australian

Lotteries Commission receives around 2500 applications for funding each year, of which around 90 per cent are successful (sub. 82, p. 55). Such a high success rate suggests that the funding criteria for the program are very broad, which would make it difficult to assess the effectiveness of funding. Although the nature of grant programs to community groups is such that it is often more difficult to assess their effectiveness than for other programs, the Western Australian program appears to be a unique product of earmarking.

In New South Wales, clubs with gaming machine revenue greater than \$1m can make donations of up to 1.5 per cent of their gaming machine revenue toward general community development and support activities, to offset a proportion of the tax they would otherwise pay. Funding must be provided to community groups serving the disadvantaged (at least 0.43 per cent escalating to 0.75 per cent in the third year), or to other community development and support activities, including certain sporting and recreational activities (0.83 per cent decreasing to 0.75 per cent in the third year). This is a form of earmarking that is administered privately by clubs, but which is also required by the enabling legislation to be informed by advice from social welfare agencies.

While this scheme may appear attractive because grants are made in the regions that raise gaming machine taxes, there appears to be minimal scrutiny of the effectiveness of these arrangements by government, and it is difficult to tell whether funding is allocated to the highest priority areas in the community. Certainly, it is almost impossible for the New South Wales Government to take this form of funding into account when deciding other budget allocations. **The Commission considers that this arrangement is unlikely to deliver the level of benefits to the community that would be delivered if the tax were paid into consolidated revenue and allocated as part of normal budget processes.**

Uncertainty of funding

While gambling revenue has in total increased, some newer forms of gambling such as casinos may have increased at the expense of traditional forms, such as racing. If an activity depends on hypothecation of revenue from one form of gambling its funding could be subject to fluctuation as revenue from that activity fluctuates.

The degree of uncertainty associated with government funding will depend upon the extent to which earmarked funding is integrated with budget priority-setting processes. If hypothecation is well integrated with these processes, it is likely that major fluctuations in gambling revenue — either positive or negative — can be handled though adjusting other budget allocations.

Since earmarking does not appear to affect significantly the level of spending on social activities, the majority of earmarked funding appears to be well integrated with budget processes.

However, there is evidence that for some activities fluctuation in gaming revenue has caused fluctuation in funding. For instance, in its 1996-97 Annual Report, the Western Australian Lotteries Commission reported that:

The Commission's failure to achieve revenue targets this year has had consequences, in particular for our 'statutory funding' recipients, the Health Department, the Ministry of Sport and Recreation and the Department for the Arts, who receive funding based on a percentage of turnover. For these recipients uncertainty in the gaming market makes longer term planning particularly difficult (p. 17).

As a result of the fall in lotteries revenue, it appears that funding for hospitals in Western Australia contracted by \$2 million in 1996-97. It is clearly undesirable for funding to hospitals to be dependent on outcomes in a particular gaming market, rather than being based on an assessment of health priorities against other areas of expenditure.

Even though cases like this may not be widespread, they do illustrate the danger of relying of earmarked revenue for funding rather than normal budget funding.

Administrative and accountability issues

Some participants alleged that there were some administrative problems with the grant processes under some of the 'community benefit funds'. For instance, the Wesley Gambling Counselling Service in New South Wales said that:

Funding needs to be regular and ongoing to these types of services as the time taken in yearly submissions and the angst of waiting to see if your submission is accepted is not a professional way of managing a counselling service (sub. 26, p. 18).

However, this is not a feature of all community benefit funds. Under the Victorian program, funds can be committed for up to a three year period.

Other concerns related to the accountability of earmarking programs. For example, in 1996 the Auditor General in Victoria concluded that:

There is a need for application of a consistent approach to assessment and approval of distributions from the Fund and for participation in the decision-making process by all relevant Ministers (VAGO 1996, p. 3).

He also pointed to the need to develop annual reporting on the funds effectiveness, as a means of reinforcing the Government's accountability for management of the fund (p. 4).

These concerns relating to individual funds and grant arrangements illustrate that good program design principles — embodying transparent funding criteria and clear accountability measures — need to apply as much to earmarked programs as to any government program. They are thus not a problem inherent with earmarking as a concept, but with its implementation in particular jurisdictions.

However, one potential problem with earmarking, no matter how well administered, is that of agencies having to apply for funding from multiple sources. For instance, the Wesley Gambling Counselling Service receives some funding from the Community Benefit Fund and some from the Department of Community Services. This creates duplication of administrative effort and possibly the need to meet multiple performance criteria. Funding activities entirely from one source would overcome these problems, although this may not be practical in all cases.

20.3 Conclusions

The Commission supports earmarking gambling revenue to fund problem related gambling services, gambling research and community awareness campaigns. Since gambling directly creates the need for these services it is appropriate that gambling revenues explicitly fund them, particularly given potential for them to be under-funded otherwise.

While earmarking revenue to other activities is widespread, there do not appear to be particular advantages of earmarking over budget funding:

- although earmarking need not reduce accountability, distort budget spending or create uncertainty in funding for particular activities, there is a greater chance of these problems occurring than if gambling revenue were directed through consolidated revenue;
- earmarking gambling revenue to disadvantaged communities to offset the regressive effects of gambling taxes could have some benefits, but is unlikely to adequately target those who pay the gambling taxes; and
- earmarking of gaming machine and casino revenue can also serve to promote these activities. Such mechanisms for promotion are questionable in view of the social costs of these gambling forms.

21 Mutuality

Box 21.1 Key messages

- Clubs play a major role in Australian society, providing significant benefits to both their members and to the local communities in which they operate.
- However, the growth of gambling has led to significant (and because of the mutuality principle, largely untaxed) income flows to *some* clubs in *some* jurisdictions, changing the character of a segment of the club sector.
- The Commission estimates that the tax forgone arising from the application of the mutuality principle to clubs was around \$100 million in 1997-98.
- In some clubs the revenue from poker machines amounts to 80 per cent or more of total revenue, higher than is found in some casinos. Gambling revenues have grown rapidly in clubs — especially in New South Wales and the ACT. For example, real losses per adult from gaming machines in New South Wales clubs grew by a factor of about 17 from 1957 to 1998 — and are currently around \$500.
- Overall, gambling income was just below 60 per cent of income earned by all clubs in New South Wales in 1997-98, and nearly 70 per cent in ACT clubs. In South Australia, by comparison, it was about 22 per cent, while for Tasmania, Western Australia and the Northern Territory combined it was around 10 per cent.
- There is evidence that clubs use gambling revenue to subsidise bar and other services to members. The odds for gaming machines are also slightly better in clubs than hotels. However, these better average odds appear to be more a product of some scale advantages enjoyed by super clubs (which are unencumbered by venue caps) than mutuality itself.
- The growth of gambling revenues in clubs, combined with mutuality, has the potential to result in excessive capital allocation in club facilities and other investments. It may also reduce equity by reducing tax revenues, which in turn crowds out government expenditure.
- The principle of mutuality is not, by itself, the source of the problems identified above. Mutuality has had unintended consequences for equity and efficiency when segments of the club industry gained access to substantial revenue from gaming machines.
- There are a number of options for addressing the problems raised by mutuality. Of these, the one which appears to offer the best prospects for remedying the worst problems, while allowing for the different contexts of clubs in different states, is the imposition of a higher level of state tax on gambling in clubs in some states.

21.1 Introduction

Clubs serve a very important role in Australian communities, providing:

- a mechanism by which people can pool resources for a common purpose;
- a focal point for local communities;
- a means of strengthening social cohesion; and
- a way of funding many charitable, sporting, recreational and community groups, which by themselves, lack the ability to raise funds efficiently.

But gambling has changed the circumstances of some parts of the club industry. While clubs play a pivotal role in Australian communities, the privileged access by clubs to highly profitable gambling opportunities, particularly gaming machines, *combined* with mutuality (which protects much of the revenue of clubs from income taxation) has been seen by some as unfair, inefficient and socially undesirable (Australian Hotels Association (NSW), sub. 68, p. 137). There has been a large expansion of part of the club sector in some states and an increased concentration on gambling as their main business. This has skewed the traditional nature of clubs — and has led to the development of ‘super clubs’ in some areas. This then raises the question of whether the club cocktail of mutuality, and a heavy and rapidly growing dependence on gambling revenues by a segment of the club industry, is one which policymakers should accept without restraint.

The chapter is organised as follows:

- section 21.2 is concerned with defining the mutuality principle;
- section 21.3 then examines how mutuality affects clubs, examining which sorts of income are taxed, and which are not;
- in considering any change to the current tax treatment of clubs, it is important to understand the context in which these clubs exist and the meteoric rise of super clubs in the 1990s in some states (section 21.4);
- the chapter then assesses the economic grounds for mutuality, and examines how, in special circumstances, equity or efficiency concerns could arise out of its application (section 21.5);
- section 21.6 then examines the combined efficiency, equity and social impacts of the combination of untaxed gaming machine revenues and the rapid growth of the club industry; and
- finally, the chapter assesses the scope for policy change, indicating the strengths and weaknesses of different approaches for dealing with the adverse outcomes of the existing arrangements (section 21.7).

21.2 What is the mutuality principle?

The mutuality ‘principle’ relates to the notion that a person cannot make a profit from selling to him or herself. An amount received from oneself is not regarded as income and is therefore not subject to tax. The concept has been extended to defined groups of people who contribute to a common fund, controlled by the group for a common benefit. Any amount surplus to that needed to pursue the common purpose is said to be simply an increase of the common fund and as such not considered income, and not subject to tax. Over time, groups which have been considered to have mutual income have included church groups, bodies corporate, clubs (including licensed clubs), friendly societies, credit unions, automobile associations, insurance companies and finance organisations.

Mutuality is not a form of organisation, even if the participants are often called members. Any organisation can have mutual activities. A common feature of mutual organisations in general, and of licensed clubs in particular, is that participants usually do not have property rights to their share in the common fund, nor can they sell their share. And when they cease to be members, they lose their right to participate without receiving a financial benefit from the surrender of their membership. A further feature of licensed clubs is that there are both membership fees and, where prices charged for club services are greater than their cost, additional contributions. It is these additional contributions which constitute mutual income.

Over the years there have been a number of challenges in the courts involving the mutuality principle (box 21.2). These challenges have generally not been concerned with the validity of not taxing mutual income. Rather, the challenges have been concerned with whether the surplus was mutual or not.

21.3 Clubs, mutuality and taxation

For many clubs the mutuality principle is irrelevant, because they are non-profit associations exempt from income tax by statute. These include, for instance, sporting clubs which satisfy the requirements of Taxation Ruling TR97/22. The main thrust of this ruling is that clubs will only be eligible for an exemption if they can demonstrate that their main or dominant activity is the encouragement or promotion of a sport (figure 21.1).

Box 21.2 The mutuality principle at common law

One of the earliest modern judicial statement of the mutuality principle is by Lord Watson in the House of Lords, in 1889, in *New York Life Insurance Co v Styles*:

... when a number of individuals agree to contribute funds for a common purpose ... and stipulate that their contributions, so far as not required for that purpose, shall be repaid to them. I cannot conceive why they should be regarded as traders, or why contributions returned to them should be regarded as profits. (14 App Cas 318; 2 TC 460)

The High Court of Australia first considered the mutuality principle in *Bohemians Club v the Acting Federal Commissioner of Taxation* in 1918:

A man is not the source of his own income ... A man's income consists of moneys derived from sources outside of himself. Contributions made by a person for expenditure in his business or otherwise for his own benefit cannot be regarded as his income ...

The contributions are, in substance, advances of capital for a common purpose, which are expected to be exhausted during the year for which they are paid. They are not income of the collective body any more than the calls paid by members of a company upon their shares are income of the company. If anything is left unexpended it is not income or profits, but savings, which members may claim to have returned to them. (24 CLR 334-339)

In *Colonial Mutual Life Assurance Society v Federal Commissioner of Taxation* (1946) the High Court considered the issue of an association's surplus:

Where a number of people, associated together for a common purpose, have contributed to a common fund in which all contributors are interested, the surplus of their contributions remaining after the fund has been applied to the common purpose, is in essence a return of their own moneys which they have overpaid and is not a profit. (73 CLR 604)

In 1965, the High Court appeared to consider the issue as settled. In *Revesby Credit Union Co-operative Ltd v Federal Commission of Taxation*, McTiernan J stated:

The principle of mutuality seems to me to be settled. Where a number of people contribute to a fund created and controlled by them for a common purpose any surplus paid to the contributors after the use of the fund for the common purpose is not income but is to be regarded as a mere repayment of the contributor's own money ... (112 CLR 574-575)

In *Royal Automobile Club of Victoria v Federal Commissioner of Taxation* (1973) it was held that where the activity is mutual, the fact that only some members chose to take advantage of the benefits did not affect the element of mutuality. Losses and outgoings between the organisation's mutual and non-mutual activities needed to be separately accounted; income from those which were non-mutual were taxable (4 ATR 471).

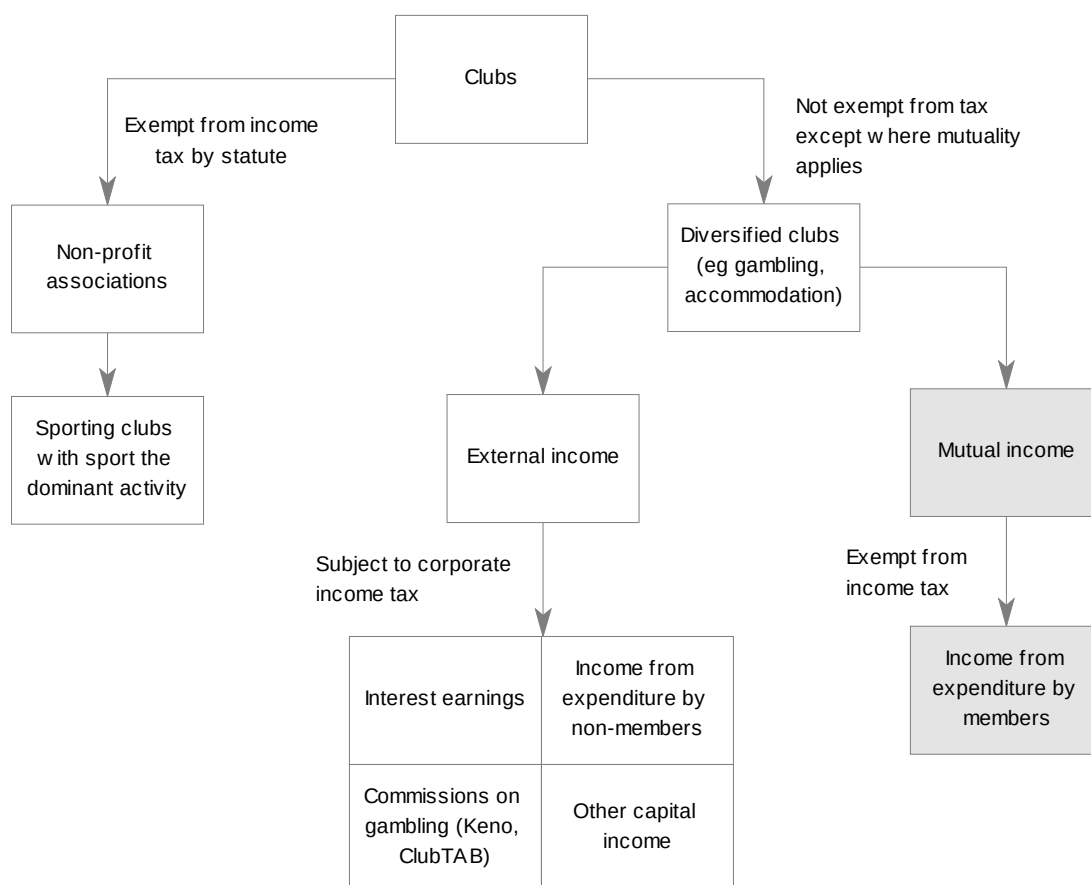
Source: sub. 137; sub. D265 to inquiry into private health insurance (PC 1997).

Many licensed clubs started off as sporting clubs. Indeed, many still provide sporting facilities. However, most are no longer eligible for an exemption by statute. That is because the provision of restaurant and bar services, as well as poker machines, and often additional services, such as entertainment and holiday accommodation, has become so large a proportion of their activities that the sports related activity is no longer dominant. Nevertheless, all or part of the surplus

generated by such clubs may not be considered income for the purposes of income tax because of the application of the mutuality principle.

Not all the surpluses of licensed clubs are subject to the mutuality principle, and consequently non-taxable. Whether they are, depends both on the rules governing the club and on how the income is generated.

Figure 21.1 Where does the mutuality principle apply?



Member receipts

Both membership fees and receipts from trading with members are covered by the mutuality principle. As stated in the Australian Master Tax Guide (CCH 1999), the member receipts of licensed clubs will be excluded from assessable income where the rules of the club:

- (1) prohibit any distribution of surplus to the members; or

(2) provide that any surplus may be distributed only among members who have contributed to the common fund and in substantial proportion to the amount of their respective contributions (p. 126).

In practice, as regards clubs, the latter condition is irrelevant, as licensed clubs must be ‘non-profit’ organisations. That also means that in the case of a club being wound up, any proceeds must be distributed to a comparable non-profit organisation or charity. It does not mean clubs cannot generate surpluses through member trading, but they must use their surpluses for purposes other than distribution to members. Licensed clubs are also governed by individual state legislation. For instance, in New South Wales clubs are regulated by the *Registered Clubs Act 1976*. This Act prescribes in detail all the conditions licensed clubs must satisfy (box 21.3).

Non-member receipts and investment income

Not all income earned by clubs is free of income tax. Three categories of income are assessable.

First, if a person entering a club is not a full member (that is, they are either a guest or a temporary member) and purchases club goods and services, including playing gaming machines owned by the venue, then this is regarded as external income earned by club members, and is subject to tax.

Second, income from external investments, such as interest on accounts or dividends is fully taxable.

Finally, gambling income earned as commissions is fully taxable. For example, keno and TAB surpluses are taxable whether they are generated by members or by non-members. That is because these games are played under licence and the commission received is considered to be ‘external’ income. In Victoria, because poker machines in clubs are owned by an external operator (box 21.4) and the clubs receive a commission, the ATO has ruled (after initial disputation by the clubs) that all gaming machine income is taxable (TD1999/38).

To arrive at taxable income, the expenditure associated with earning assessable income may be deducted. Expenditure, therefore, also needs to be allocated between that attributable to members, that attributable to non-members and that attributable to other income (box 21.5).

Box 21.3 **New South Wales licensed clubs**

Licensed clubs were first established in New South Wales in the period following World War II, as licensed clubs for returned servicemen, to provide a congenial environment for socialising and pursuing common interests. In most places where they were established they existed side by side with hotels. Court decisions in 1947 first confirmed the clubs' entitlement to serve their members liquor outside the licensed premises trading hours which had to be observed by hotels. The concept of 'licensed club' spread to clubs promoting some game or sport, and those with cultural or other objectives.

In 1956, following considerable community debate, poker machine gaming in New South Wales clubs was legalised. A per machine licence fee applied, which was to be directed to the Hospitals' Fund. No cap was set on the number of poker machines allowed. In the following decades New South Wales clubs enjoyed rapid growth, some growing into large entities, providing a large variety of services. Apart from gaming, bar and restaurant services the larger clubs today often provide entertainment for both members and non-members, sometimes holiday and/or motel accommodation, and even invest in hairdressing establishments or butcher shops.

There are now more than 1500 licensed clubs in New South Wales, just under 60 per cent of which are located in rural areas. They employ around 65 000 people and hold a similar or slightly larger number of poker machines.

The *Registered Clubs Act 1976* (of New South Wales) requires that members of licensed clubs shall not be entitled to derive directly or indirectly, any profit, benefit or advantage from the club that is not offered equally to every full member of the club. It also requires that any profits or other income shall be applied only to the promotion of the purposes of the club and shall not be paid to or distributed among the members of the club. In the case of a club being wound up, any proceeds must be distributed to a comparable non-profit organisation, charity or an association exempt from income tax.

Licensed clubs are not prohibited from trading with non-members. So long as they are living at least 5 kilometres away from the club premises or are members of another similar registered club, non-members can be granted temporary membership status and still use club facilities. However, if a person does not meet these conditions, they are not eligible for temporary membership and can only be admitted as the guest of an accompanying member.

Box 21.4 The structure of the Victorian poker machine industry – implications for mutuality

In most states, clubs own the gaming machines and any surpluses generated by members is mutual income and not assessable for income tax purposes. Only that proportion of poker machine surpluses generated by non-members is assessable.

In Victoria this is not so. Poker machines were introduced in Victoria in 1992. However, Victorian clubs do not own the poker machines installed on their premises. Under Victoria's gaming regulation, the two gaming operators, Tabcorp and Tattersall's, who are each permitted to operate 50 per cent of the 27 500 gaming machines permitted to be available for gaming in all licensed venues, remain the owners of the poker machines. A club takes the money out of the poker machines and banks all of the proceeds in a trust account. The relevant operator later pays one third to the club, one third to the Victorian Government and retains one third for itself.

The Victorian clubs initially assumed that the member portion of the commission received on the poker machine proceeds was mutual income and not assessable. Self-assessment led to this situation continuing until the introduction of keno in New South Wales clubs in 1995, and the decision that keno surpluses were taxable because they were in the nature of commission earned, and therefore income from outside the club. The Victorian circumstances then also came to the notice of the ATO. The ATO subsequently informed the Victorian clubs that their poker machine income was derived by the gaming operator and not the club venue operator, and was therefore fully assessable.

Initially the Victorian clubs were informed that they would be taxed retrospectively to 1992. This was later relaxed to retrospection to the 1996-97 tax year. The Victorian clubs initially disputed this matter but ATO Taxation Determination TD1999/38 stated:

If a club enters into an arrangement with an external gaming operator under which gaming machines are installed on the club's premises, the gaming income is derived by the gaming operator from the players ... The amounts paid or allowed to a club by the gaming operator under such an arrangement is derived by the club from the external operator and not from the members/non members. Therefore, such income is fully assessable to the club because it is derived from an external source and is not subject to the principle of mutuality (TD1999/38).

Source: Australian Taxation Office.

Taxing non-mutual income

All clubs are regarded as companies for income tax purposes (except where exempted as non-profit associations) and, where there is taxable income, the normal company tax rate (currently 36 per cent) applies. For non-profit companies, including clubs, there is a phasing in of the full 36 per cent rate. No tax is payable if taxable income (for the 1998-99 tax year) is less than \$417. Once taxable income reaches \$1204, the full rate applies to the whole of the taxable income.

Box 21.5 Assessable income and expenses of a licensed club

The assessable income of a licensed club may comprise:

- any investment income (rents, interest, etc);
- the 'non-member percentage' of gross trading income (eg gross poker machine, bar and restaurant receipts).

Expenses relating specifically to members are not allowable deductions. The allowable deductions may comprise:

- expenses relating specifically to non-members (eg non-members only promotions, visitor sign-in books);
- expenses relating to wholly assessable income (eg investment expenses);
- non-apportionable deductions (eg contributions to staff superannuation, donations and costs of preparing tax returns) and
- the 'non-member percentage' of the apportionable expenditure (ie the remaining expenditure, other than expenditure relating solely to members and non-allowable items such as expenditure of a capital nature).

Source: CCH 1999.

As receipts from members are excluded from taxable income, clubs need to isolate those receipts from those of non-members and investment income when preparing tax returns. This is not likely to be a problem in the case of investment income, but presents difficulties in the case of receipts from non-members. To overcome this problem, the ATO has adopted a formula (box 21.6) to calculate the proportion of club receipts which are attributable to non-members. The formula has been accepted by tribunals as reasonable in the absence of evidence from clubs to show that it is unjustified. Clubs do not have to use the formula but can use any alternative method which they can demonstrate produces reasonable and accurate results.

Tax paid by clubs

Information extracted from the annual reports of 28 licensed clubs in New South Wales indicates that the total amount of income tax paid by those clubs in 1996-97 was just over \$8 million (a selection is given in table 21.1). Since the rate of income tax was 36 per cent, total taxable income for income tax purposes could have been around \$22 million. Total reported surpluses for the clubs involved were nearly \$80 million. From this it can be deduced that the proportion of net income attributable to non-members and investment income was around 28 per cent.

Box 21.6 The 'Waratahs' formula

To isolate a club's receipts and expenses from trading with non-members from those from trading with members, the ATO assumed that expenditure by non-members is the same as that by members, and developed the formula below. It is known as the 'Waratahs' formula, so called after a decision in *Waratahs Rugby Union Football Club v Federal Commissioner of Taxation* (1979) 10 ATR 33; 79 ATC 4337). The proportion of income which is assessable (p) is:

$$p = \frac{B \times 0.75 + C}{(R \times S \times T) + A}$$

where:

A = total visitors for the year of income;

B = members' guests, ie visitors who are accompanied to the club by a member and signed in by that member. The formula assumes that 25 per cent of members' guests do not contribute to the club's assessable income, ie they are non-paying guests or non-working spouses of members;

C = A - B;

R = average number of subscribed members for the year of income;

S = the percentage of members that attend the club on a daily basis; and

T = the number of trading days for the year of income.

Factor A can be determined by summation of the visitors' books. Clubs are required by law to keep a register of members' guests and visitors. A club should conduct surveys to determine the percentage of members attending the club on a daily basis.

Source: CCH 1999.

For Australia as a whole, clubs earned operating profits before tax of \$561 million (of which \$530.9 million are accounted for by clubs with gambling). If this surplus was taxed at the company tax rate, this would generate revenue of \$202 million. Assuming that 28 per cent of the income was already subject to tax suggests that the additional revenue forgone through the mutuality principle is around \$145 million. However, this somewhat overstates the true tax forgone as a result of mutuality since Australia has a dividend imputation system in place. If club income was treated like other corporate income, it is ultimately taxed at the average marginal rates of personal taxpayers. Supposing this tax rate to be around 25 per cent for the average club 'shareholder', this would imply tax forgone of around \$100 million in 1997-98 as a result of the mutuality principle, principally from New South Wales clubs. Over time, this loss could be expected to grow. Moreover, the real loss of tax may be higher than this, as operating profits may be artificially low due to subsidised services — in principle, governments should be taxing any implicit income earned by club members (section 21.5).

Table 21.1 Income tax paid by selected clubs, 1996–97

	<i>Operating profits before income tax^a</i>	<i>Gaming net profit^b</i>	<i>Income tax paid</i>	<i>Income tax as % of operating profit</i>	<i>Income tax as % of poker machine net profit</i>
	\$000	\$000	\$000	%	%
Penrith Rugby League Club	573	28 926	73	13	3
Canterbury-Bankstown League Club	6 846	21 242	863	13	4
Rooty Hill RSL Club	6 682	18 970	795	12	4
Mt Pritchard & District Community Club	6 686	15 810	1 014	15	6
Bankstown District Sports Club	4 069	23 899	126	3	<1
North Sydney Leagues Club	4 017	..	94	2	..
Eastern Suburbs Leagues Club	2 472	12 158	380	15	3
Blacktown Workers' Club Limited	1 896	13 384	201	11	2
Cabra-Vale Ex-Active Servicemen's Club	5 341	12 016	747	14	6
Revesby Workers' Club	1 120	9 467	119	10	1
Western Suburbs Leagues Club	3 009	10 780	309	10	3
Canterbury-Hurlstone Park RSL Club	1 598	9 534	171	11	2
Manly-Warringa Rugby League Club	2 562	10 785	..	..	..
Liverpool Catholic Club	2 632	9 383	136	5	1
Campbell Town Catholic Club	4 009	9 767	148	4	2
North Ryde RSL Club	3 018	10 268	180	6	2
Marrickville RSL Club	661	7 235	235	36	3
Burwood RSL Club	2 223	7 861	184	8	2
Gosford RSL Club	648	3 264	5	<1	<1

^a Operating profits represents total revenue less costs, before income tax.

^b Poker machine net profit comprises net receipts (takings less payouts and prizes) less direct costs attributable to poker machines.

Source: Club annual reports.

21.4 The club industry

Currently there are some 5600 registered and licensed clubs in Australia. They cover a large variety of interests, including sports, workers, cultural, ethnic, religious, RSL, ex-services, community and social objectives. Sporting clubs make up about half of all registered and licensed clubs, but many clubs not initially established to promote a sport provide a range of subsidiary clubs and organisations devoted to some sport or game. Other clubs were established to bring together ethnic groups, those belonging to a specific religion, ex-service personnel or some other group within the community with similar interests. Total membership Australia-wide is estimated at around nine million (sub. 142, p. 1) although that is likely to be an overestimate as many people belong to more than one club. Many of the clubs offer gaming facilities other than poker machines, such as TAB and keno,

but, as shown in table 21.2, poker machines provide by far the largest proportion of gambling revenue.

Table 21.2 Net profit/loss from selected club activities

Selected clubs, \$'000s, 1997

<i>Club</i>	<i>Poker machine net profit</i>	<i>Other gaming</i>	<i>Bar trading</i>	<i>Catering</i>
Penrith Rugby League Club	28 926	43	3 070	621
Canterbury-Bankstown League Club	21 242	n/a	(353)	(499)
Cabra-Vale Ex-Active Servicemen's Club	12 016	(31)	(137)	(649)
Western Suburbs Leagues Club	10 780	(84)	(187)	(4)
Canterbury-Hurlstone Park RSL Club	9 534	45	(50)	(383)
Burwood RSL Club	7 861	23	407	(310)
Eastern Suburbs Leagues Club	12 158	236	314	(328)
Liverpool Catholic Club	9 383	146	245	(51)
Revesby Workers' Club	9 466	(39)	579	(424)
Blacktown Workers' Club Limited	13 384	99	390	(289)
Rooty Hill RSL Club	18 970	163	141	(278)
Mt Pritchard & District Community Club	15 810	n/a	(457)	(242)

Source: Club annual reports.

The licensed club industry is extensively regulated, mainly through state legislation. Much of each state's regulation was put in place at the time poker machines were first introduced in that state. State regulation generally covers such matters as state taxes, numbers of poker machines permitted, compulsory contributions to the community, the physical location of poker machines in clubs, minimum age of persons permitted to play poker machines, ownership of poker machines, and minimum payout ratios. Table 21.3 provides some information about the number of clubs and poker machines in Australia and some of the regulatory provisions applied to them.

In particular table 21.3 reveals the high dependence on gambling (mainly gaming machines) by clubs in the ACT and New South Wales:

- About 60 per cent of income of clubs with gambling facilities is derived from gambling in New South Wales. This dependence reaches nearly 70 per cent in the ACT. In contrast, it is around 50 per cent in Victoria and Queensland, and about 35 per cent in South Australia;
- Other data from the ABS reveal that in 1997-98, those states in which club gambling was most intense had the smallest non-gambling club sector. For example, non-gambling clubs accounted for only 1.4 per cent of total club income in New South Wales and 1.8 per cent in the ACT. In contrast, non-

gambling clubs accounted for just over 35 per cent of total club income in Victoria and South Australia.

Table 21.3 Clubs with gambling facilities, 1997–98

<i>State</i>	<i>Number of clubs 1997-98</i>	<i>Gambling revenue to total sales</i>	<i>Numbers of poker machines 1997-98^a</i>	<i>When machines introduced</i>	<i>Maximum permitted per club</i>	<i>Payout ratio</i>	<i>Owned by</i>	<i>Does mutuality apply?</i>
	No.	%	No.					
NSW	1 474	60.8	65 000	1956	No limit	85% min	Club	Yes
Vic	205	49.7	13 230	1991	105	87% min	Operator	No
Qld	615	46.7	16 624	1992	270 ^b	85%-92%	Gov/club ^c	Yes
WA	9 ^d	np	0	..	0	..	..	..
SA	93	35.7	..	1994	40	85% min	Club	Yes
Tas	42	np	..	1997	No limit	85% min	Operator	No
ACT	63	69.4	4 376	1976	No limit	85% min	Club	Yes
NT	25	np	404	1996	No limit	89%-92%	Gov ^e	Yes
Australia	2 525	57.5	..					

^a 1997-98 figures shown for comparability. See table 13.1 in chapter 13 for most recent gaming machine numbers in each jurisdiction. ^b Phasing up to 300 from 1 July 2001. ^c In transition from government to club ownership. ^d Western Australia does not allow electronic gaming machines into clubs or hotels, but does allow video lottery terminals and other gambling forms. ^e No lease fee applies.

Source: Data for the number of clubs with gambling facilities and gambling dependence is from ABS (1996b). Other data are from subs. 103 and 128.

Overall, gambling income was just below 60 per cent of income earned by all clubs in New South Wales in 1997-98, and still nearly 70 per cent in ACT clubs. In South Australia, by comparison, it was about 22 per cent, while for Tasmania, Western Australia and the Northern Territory combined it was around 10 per cent. Clubs are located both in urban and metropolitan centres. For example, of the registered clubs in New South Wales, 57 per cent are located in rural areas, often being the largest business operating in the community. The total net worth of Australian clubs at 30 June 1995 was \$4 billion. Capital expenditure during 1994-95 was \$714 million (ABS 1996b).

Clubs are a considerable source of employment, full-time as well as part-time. Total employment by Australian clubs as at 30 June 1998 was 67 272. Around 59 543 or 88.5 per cent of these worked in clubs with gambling facilities. By far the largest proportion of those employed in clubs with gambling facilities worked in New South Wales (69 per cent).¹

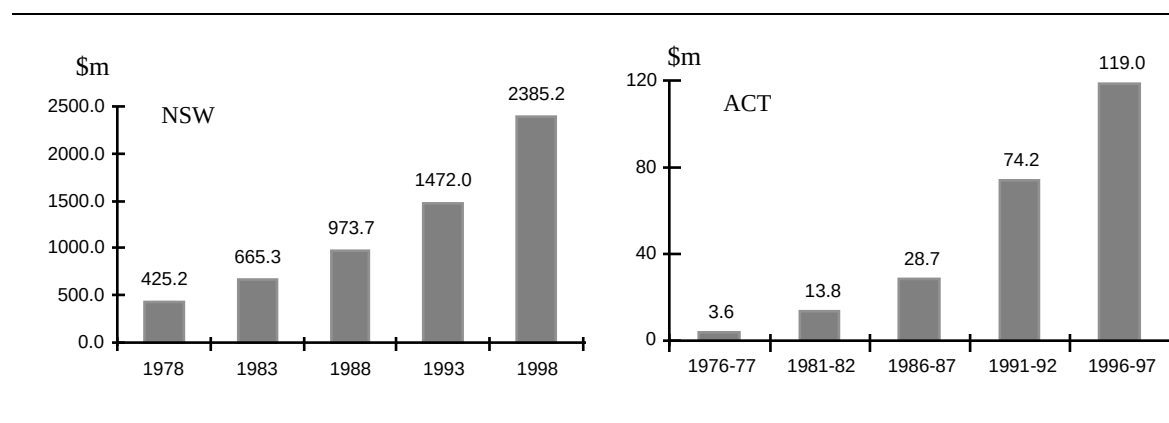
¹ Based on data from ABS (Cat. no. 8687.0, June 1999).

The growth of licensed clubs

Even before poker machines were introduced in Australian clubs, licensed clubs formed an important part of the social life of many Australians. However, they generally remained relatively small, having a minimal impact on the economic environment of the area in which they operated.

Currently, in New South Wales and the ACT there are a number of very large clubs — ‘super clubs’ — with significant ‘members’ equity’ (in a number of cases exceeding \$30 million) and turnovers of many millions of dollars, mainly from poker machines. Figure 21.2 shows the rapid growth in poker machine revenue in New South Wales clubs, where poker machines became legal over forty years ago, and ACT clubs, where poker machines were introduced in 1976. Real losses per adult from gaming machines in New South Wales clubs grew by a factor of about 17 from 1957 to 1998, and are currently around \$500.

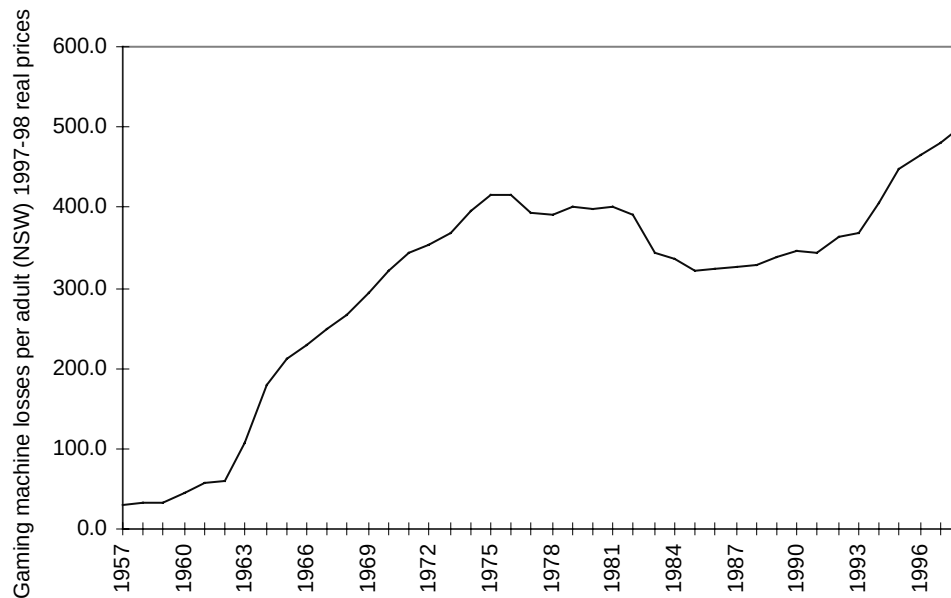
Figure 21.2 New South Wales and ACT clubs – gaming machine revenue
\$ million



Data source: NSW Department of Gaming and Racing 1999, *Gaming Analysis 1997-98; Registered Clubs, Quarterly Gaming Analysis May 1998*; and Revenue Management Branch, Office of Financial Management, Chief Minister's Department, ACT.

However, while revenues in New South Wales have grown rapidly in the last decade, this has not been true for all periods since the removal of the prohibition on gaming machines in the early 1950s (figure 21.3). This suggests that the rapid growth seen recently may not persist. However, even if growth were to abate, it would be expected that the stock of club assets would continue to grow significantly over time.

Figure 21.3 Gaming machine revenue per adult
New South Wales real (1997-98) prices (\$)



Data source: NSW Department of Gaming and Racing, *Gaming Analysis 1996-97* (1998) and *Registered Clubs, Quarterly Gaming Analysis May 1998* (1999); and data on the adult population and the Sydney CPI from ABS data in Econdata.

In some cases the revenue from poker machines amounts to as much as 80 per cent or more of total revenue (table 21.4), while the net surpluses from poker machines can be more than 60 per cent of machine revenue (table 21.5). In those states where poker machine numbers are capped, or not permitted at all, clubs have tended to remain smaller, with fewer and less luxurious facilities. Examination of the annual accounts of some of the large 'super clubs' also reveals that poker machine surpluses offset losses made from other club services, predominantly restaurant and bar services (table 21.2). The implication is that prices for non-gambling goods and services are subsidised by gambling.

In New South Wales, Queensland and the ACT, the commencement of rapid growth in club facilities and expansion in club services appears to have coincided with the introduction of gaming machines. The Council of Community Clubs of Australia & New Zealand said there can be no doubt:

... that the major social impact of clubs came about as a direct result of the licensing of poker machines in the mid-1950s [in New South Wales]. This ... saw an expansion of the Club Movement which was neither predicted nor planned, and has culminated in the huge leisure industry that clubs represent today (Directors Guide, 5th edition, Registered Clubs Association of New South Wales, quoted in sub. 142).

Table 21.4 Club poker machine revenue as a proportion of total revenue

Selected clubs, 1997

<i>Club</i>	<i>Total revenue</i>	<i>Poker machine revenue</i>	<i>Proportion of total revenue</i>
	\$000	\$000	%
Canterbury Bankstown League Club	42 577	37 340	88
Marrickville RSL Club	15 569	13 338	86
North Sydney Leagues' Club	25 173	20 956	83
Dee Why RSL Club	16 594	13 459	81
Cabra-Vale Ex-Active Servicemen's Club	25 087	20 167	80
Western Suburbs Leagues Club	22 078	17 331	79
Manly-Warringa Rugby League Club	20 696	16 005	77
Canterbury-Hurlstone Park RSL Club	22 319	16 620	75
Burwood RSL Club	16 104	11 951	74
Eastern Suburbs Leagues Club	25 385	18 397	73
Liverpool Catholic Club	22 540	15 197	67
Revesby Workers' Club	24 394	16 042	66
Blacktown Workers Club	31 705	20 410	65

Source: Club annual reports.

Table 21.5 Poker machine net profit as a proportion of poker machine revenue

Selected clubs, 1997

	<i>Poker machine revenue</i>	<i>Poker machine net profit</i>	<i>Net profit as a proportion of revenue</i>
	\$000	\$000	%
Canterbury Bankstown League Club	37 340	21 242	57
Marrickville RSL Club	13 338	7 236	54
Cabra-Vale Ex-Active Servicemen's Club	20 167	12 016	60
Western Suburbs Leagues Club	17 331	10 780	62
Manly-Warringa Rugby League Club	16 005	10 785	67
Canterbury-Hurlstone Park RSL Club	16 620	9 534	57
Burwood RSL Club	11 951	7 861	66
Eastern Suburbs Leagues Club	18 397	12 158	66
Liverpool Catholic Club	15 197	9 383	62
Revesby Workers' Club	16 042	9 467	59
Blacktown Workers Club	20 410	13 384	66

Source: Club annual reports.

With distribution of surpluses as cash dividends to members not an option, clubs have several alternatives. They can use surpluses to reduce membership charges, to lower the prices charged for services, they can use them to provide benefits for the community as a whole, to make donations to charities, or they can use them to expand services provided to members. Many clubs do all of these, and indeed, state

regulation, and sometimes local government by-laws, require contributions to be made to the community as a condition of licence. Sometimes these requirements are very specific and spell out precisely the contributions required. Annual membership charges are already low, and, in New South Wales, cannot legally be less than \$2. However, club objectives generally provide that surpluses be used for the benefit of members, and members are likely to prefer the majority of surpluses to be so used. With poker machine surpluses constituting the bulk of club surpluses, it seems clear that it is those which are driving the expansion of clubs.

The question then is whether the changed nature of parts of the Australian club sector — associated with burgeoning profits from gambling — form a basis for re-evaluating the application of the mutuality principle. To consider this question, the next section looks at the economic principles that should underlie tax exemption. These principles are then used as a basis for assessing the economic and social impacts of club expansion in section 21.6.

21.5 What are the *economic* grounds for the mutuality principle?

There are a number of key issues when considering whether mutuality is an appropriate basis for exemption from income tax.

Is mutual income genuine income?

One threshold issue is whether any part of the surpluses generated by mutual organisations constitute genuine economic income (box 21.7). If that were so, this would provide an in-principle rationale for some taxation of mutual income, consistent with the treatment of other economic income.

Whether mutual surpluses can be considered as economic income to members depends on the way in which they have been derived. If, for example, the surpluses arise because members pay membership subscriptions or higher than market prices for goods or services in order to buy some common facility, then they are not income, but rather capital contributions. In this instance, there would be no economic grounds for taxation of these surpluses.

Box 21.7 A story about beer and gambling

John is a member of a club (which, through mutuality, is exempt from income tax) that sells its beer at \$1.50 a glass, 50 cents below the asking price at nearby hotels. At face value, it appears that John is receiving untaxed 'in-kind' income of about 50 cents for every glass of beer drunk. But matters are more complex than this. How can the club sell the beer at a price lower than that in hotels? Say that the beer is subsidised by gambling in the club. But to subsidise beer means that gambling prices must be higher than they would otherwise be. That means that John and other club members might get benefits from cheap beer, but these benefits are exactly offset by more expensive gambling. It looks like the apparent 'in-kind' income represented by cheap beer has just disappeared!

The story is similar if the beer is priced at the same price as hotels, but gambling is still priced higher than its full economic cost to the club — in this case, the club makes a surplus, and it is precisely that surplus which the mutuality principle protects from income taxation.

But what happens if the costs of gambling in clubs are *lower* than in hotels — not because of any natural advantage of clubs — but because of the different ways in which governments treat clubs versus pubs? Gambling in pubs will be more expensive than in clubs for three reasons. Pubs have to:

- pay bigger state taxes on gambling losses made by their customers;
- pay hefty license fees for new gaming machines (when they want to have more than 15 machines);
- bear income tax on any profits from gambling.²

In that case, whatever the club charges for gambling compared to hotels, there is a *component*, equal to the subsidy afforded clubs through preferential regulatory and taxation treatment, which represents implicit income to club members.

It is this subsidy which allows the club to sell its overall package of goods and services at cheaper prices than their members could get from commercial operators.

The story has some important implications. In particular, the surplus of any club will only imperfectly match the implicit income received by members. For example, imagine two clubs. One makes its beer very cheap and exhausts all of the surpluses it receives from gambling, so that its overall surplus is zero. Another, maintains beer at market prices and accumulates a large surplus. In both cases, members have received exactly the same implicit income — one in current consumption, the other in future consumption.

However, in other circumstances, members do receive benefits, which could be seen as intangible income. These benefits may be derived from receiving the services

² If the income tax system imposed neutral pure profit taxes on capital it would not affect the price of gambling in hotels — but Australia's tax system is not like this (and nor is anybody else's).

provided by the mutual organisation at prices lower than those charged by commercial enterprises. Or, if prices *paid* are not actually lower, the environment in which the services are enjoyed may be more luxurious than those of commercial establishments providing the same service at the same price. These benefits are hard to measure, but in theory they are income which, like other income, should be ideally subject to tax. In fact, for pragmatic reasons, generally only financial flows are taxed under the Australian income tax system. For instance, home owners are not taxed on the imputed rent earned from living in their own home.

There is another complication. While members collectively ‘own’ the club, and the benefits derived by members from club services can be seen as a return on their share in the club, ownership of club assets carries a reduced level of property rights compared with a shareholding in a publicly listed company. Shares in a publicly listed company can be sold. A club member, on ceasing to be a member, loses all property rights in the assets of the club, without being able to sell his or her share in the club’s assets. Strictly speaking, that could be seen to constitute a capital loss. In contrast, a new member, through gaining a share in the assets of the club simply by paying a (generally very low) membership fee, could be said to be making a capital gain.

Thus, notwithstanding the different nature of property rights that exist for members of mutual organisations, that does not alter the fact that members sometimes enjoy services and facilities at lower prices than would be charged by other commercial enterprises — in effect, they earn untaxed income.

The mutuality principle is a common law principle which establishes a useful rule-of-thumb for the tax treatment of surpluses generated by mutual groups. It recognises that in many cases any surpluses generated by a mutual organisation are really savings, rather than genuine profits. In other instances, the application of the principle may be rationalised by the pragmatic difficulties of assessing and taxing any implicit income to members. But where it is justified, is practicable and meets standard taxation principles — a fairly stringent test — then it may be appropriate to tax some of the income of mutual organisations.

One illustration of some of the problems in the application of the mutuality principle is the different tax treatment of gambling commission income from Club Keno and Club TAB, and of commission income from gaming machines in Victorian clubs. In New South Wales, clubs pay no corporate tax on the income earned from gaming machines, because the machines are owned by the club and the expenditure is made by members. However, New South Wales clubs do pay corporate tax on commission income from Club Keno and Club TAB, even where the expenditure is made by members. Similarly, in Victoria, although the

expenditure is made by members, the fact that payments are mediated through a third party (the owner of the machines) and then repatriated to the club as commission income, means that the income is regarded as external — and therefore subject to taxation.

Does mutuality create the right incentives for efficiency?

As noted above, a key feature of mutuality is limited property rights for members. Amongst other things, this means that mutual organisations cannot distribute surpluses to members, but must either invest them or provide additional services at prices that do not reflect their costs.

Normally, this does not have significant economic implications. Many mutual organisations charge prices which are close to the full economic costs of the services that they provide, and any residual profits are very small. For example, in 1997-98 the operating profit per club without gambling facilities was about \$13 000.³ With close to zero surpluses it is likely that any changes to the tax treatment of these clubs would fail to collect any significant revenue, would not correct any inefficiencies and would adversely affect their ability to maintain valuable community facilities.

But when mutuality is combined with a highly profitable and growing activity — such as gambling — this implies substantial surpluses are available for investment or subsidisation of other goods. The existing odds for gaming machines appear to provide significant profits to clubs in excess of what would be required to cover costs associated with the machines (including provision for a normal rate of return on the assets used) — so-called economic ‘rents’. The evidence for this is that:

- hotels in New South Wales have to bid for licences for gaming machines in excess of 15 up to the cap limit of 30, with the bid prices per machine licence being in excess of \$50 000. Clubs, in contrast, are able to buy additional machines without paying such costs. Moreover, hotels face a top tax rate of 40 per cent on machine revenues, whereas clubs face a maximum tax rate of 24.75 per cent. The implication is that clubs not only are exempt from federal income tax on the profits they make, but that the profits include a substantial rent that has not been appropriated for the wider community by the New South Wales government; and

³ In contrast, the operating profit per club with gambling was around \$201 000 per year (about 16 time bigger). Based on data from ABS (Cat. no. 8687.0, June 1999).

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- gaming machine prices in Victoria are lower than in New South Wales, despite a higher tax rate on machine revenue and the existence of large license fees paid by the duopoly machine owners to the Victorian Government.

Thus it is the particular combination of rents from gambling *and* mutuality, which provide the greatest potential for inefficiency.

The policy implications

Once it is recognised that it might sometimes be appropriate to tax (at least part of) mutual income, then this suggests the application of broadly accepted taxation principles — a good tax system aims to collect revenue in a way that is equitable and efficient, taking into account the transactions costs of collection (such as administrative and compliance burdens) and other feasibility issues.

Tax relief arising from mutuality has the *potential* to distort prices or investment in the economy, with possible adverse efficiency, equity or social impacts. **The Commission is of the view, that *where this is the case, and it is feasible and cost-effective to tax any relevant income — or to find other ways of effectively countering the inefficiencies that mutuality generates — the application of the mutuality ‘principle’ should be open to examination.***

21.6 The consequences of growth

Clubs potentially serve a useful social purpose when they are formed by groups of people who pool their resources to pursue a common purpose (for instance craft clubs, church groups, bodies corporate). Often they fill a void, where the service provided by the club is not available commercially. CCCANZ said:

It is important to note that clubs locate their facilities according to community need and not potential commercial return ... Private entrepreneurs are different because they seek to maximise shareholder value. This is not, and can not be, an objective of a not-for-profit club ... (sub. D226, p. 13).

While clubs retain their club nature, and provide services generally not available in the market place, their character can be said to be truly mutual. However, it has been asserted that the super clubs that have developed cannot be characterised this way.

The nature of the large clubs

The large licensed clubs, providing bar, restaurant, poker machine, entertainment and often other services to members and non-members alike, often with turnovers exceeding \$20 million annually, are in character very different from the common purpose clubs described above. While many may have started off as sporting clubs exclusively, often the sporting objective has been eclipsed by gambling, bar, restaurant and entertainment services. In addition, there are few restrictions on who can use club facilities. Membership appears to be open to all (at a token 'membership' fee), and in any case, non-members are generally welcome, with few if any restrictions, to use club facilities. They have the appearance of being more like commercial enterprises, with expert commercial management and ambitious expansion plans.

Looked at from the members' perspective, in the case of the large clubs, do members still feel a sense of ownership, a sense of common purpose? Or has the club taken on a 'life of its own', separate and removed from the members? It is true that clubs publish annual reports and members are invited to elect the board, but how aware are members of how decisions are taken? How accountable really is the board and club management? Importantly also, when people use club services, is it just the same for them as going to some commercial establishment?

The fact that some clubs now have the character of large commercial enterprises raises the question of whether the surpluses earned by the clubs can still be regarded as mutual. The Australian Hotels Association (NSW), while not questioning the application of the mutuality principle to certain types of organisations, said the large clubs, having become huge commercial enterprises, lack a mutual character (sub. 137). The Industry Commission also, in its report on tourist accommodation, found that:

... given the changing nature and scope of some large clubs, the Tax Commissioner may need to review their eligibility for access to concessions under the mutuality principle (IC 1996, p. 176).

In a countervailing viewpoint, the Council of Community Clubs of Australia & New Zealand said:

The size of the club is immaterial to mutuality, as the larger the club the greater the membership, and the more extensive the facilities available to these members and to that section of the community that extends beyond the club's membership (sub. 142, p. 19).

It also said that 'members do join particular clubs because they have an affinity with that club' (sub. D226 p. 25).

The Commission accepts that the fact that some clubs are large, is not, by itself, an argument for revoking mutuality for those clubs. Size has potential advantages to members and the communities in which they are located. For example, large clubs may reap economies of scale, which allow them to offer club facilities at lower prices than otherwise. However, the fact that they generate such large surpluses relative to their income — the source of funding for their rapid expansion — is a potential concern, as examined below. As one participant observed, bigness is the result of a problem, not the problem itself.

What are the effects on efficiency and equity?

Private taxable commercial enterprises must finance their reinvestment and expansion out of post-tax profits, as well as providing dividends to owners. Clubs, in addition to not paying tax, do not have to provide a direct financial return to their owners in the same way as commercial enterprises. Club rules, as well as the legislation governing licensed clubs, prohibit the distribution of surpluses to members. The only way in which clubs can provide a return to their members is by:

- subsidising goods and services provided to members;
- upgrading club facilities, or
- expansion into new club activities.

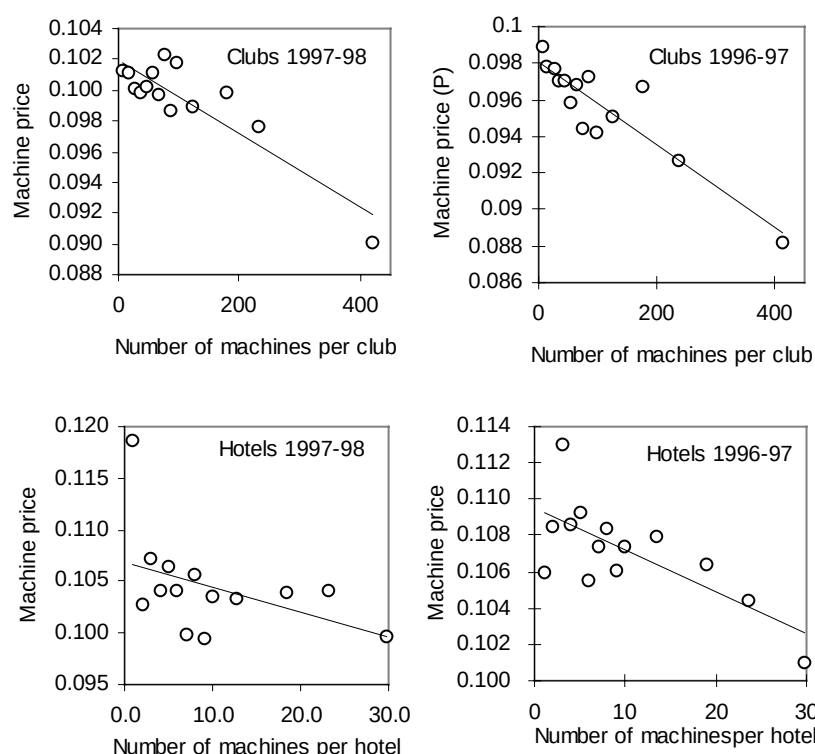
Effect on prices

One potential source of distortion stemming from mutuality are prices which depart from market values. For instance, in 1997, in New South Wales, poker machine payouts in clubs averaged 90.6 per cent, while those in hotels paid out an average of 89.5 per cent (DGR 1998a). This means that in those clubs poker machine services were on average 11 per cent cheaper in clubs than in hotels. However, unlike hotels, clubs have no cap on the number of poker machines they may install, so that the average number of machines in clubs is much greater than in hotels. This points to the possibility of scale advantages in operating gaming machines, so that it may be that the price difference reflects the combination of hotel-specific venue caps and differences in scale, rather than the influence of mutuality.

Indeed, the Commission found a highly significant relationship between price and the number of machines in hotels and clubs in 1996-97 (figure 21.4). Price differences, controlled for the size of the venues, were much smaller than 11 per cent. For venues with 30 machines the price difference was around 5 per cent, while if the cap on machines in hotels were to be relaxed, it appears likely that the price differential would fall even further, and may disappear (or go the other way). This

suggests that the major reason for the more attractive odds on gaming machines in clubs was not mutuality itself, but the fact that clubs, unencumbered by venue caps, could reap some advantages associated with scale.

Figure 21.4 **Prices for playing gaming machines in New South Wales clubs and hotels^a**



^a The machine price is equal to one minus the odds. For example, on a 90 per cent payout machine, the price is 10 cents per dollar of turnover. An assessment was made of the relationship between number of machines per venue and the price. In all cases the relationship was a statistically significant inverse one. The best statistical representation of the data for both venue types and years was:

$$\begin{aligned} \text{Price} = & 0.0981 \text{ Clubs}_{1996-97} + 0.1019 \text{ Clubs}_{1997-98} - 0.000023 M_{\text{clubs}} + 0.1095 \text{ Hotels}_{1996-97} \\ & (118.8) \quad (123.3) \quad (5.1) \quad (122.0) \\ & + 0.1068 \text{ Hotels}_{1997-98} - 0.00024 M_{\text{hotels}} \quad N=56, \bar{R}^2 = 0.81 \text{ (t's in parentheses).} \\ & (119.4) \quad (4.0) \end{aligned}$$

where Clubs_t and Hotels_t are 'dummy' variables that are equal to 1 if the observation is a club at time t or a hotel at time t respectively. M is the number of machines per venue. The hypothesis that the 'scale' effects for hotels and clubs were the same could be rejected, but not the hypothesis that the 'scale' effects for each separate venue form were constant over the two years. However, there was a statistically significant upward shift in gaming machine prices for clubs from 1996-97 to 1997-98, and a small, but statistically significant, fall in hotel gaming machine prices over this period. The 'scale' effect was significantly larger for hotels than clubs.

Data source: Department of Gaming and Racing, *Gaming Analysis 1996-97 and Gaming Analysis 1997-98*, March 1998 and February 1999; and Commission calculations.

Both Clubs Queensland (sub. D273) and the CCCANZ (sub. D226) disputed that it was economies of scale which resulted in the difference in payout prices. They said

that prior to 1 April 1997 hotels in New South Wales were only able to offer machine gaming via Approved Amusement Devices and that gaming duty on these machines was based on machine turnover and not on revenue. This meant that player returns offered by hotels were lower than those offered by clubs where the poker machines were subject to a revenue tax. With the introduction of poker machines to hotels on 1 April 1997 turnover tax was replaced by revenue tax. Figures from the NSW Department of Gaming and Racing now indicate that the average loss rate for hotel players for the quarter ended March 1999 was 10.24 per cent and to club players for the quarter ended February 1999 was 10.09 per cent (a modest 1.5 per cent difference).

Analysis of the *annual* data for 1997-98, which should be subject to less volatility than quarterly data, also confirms that the price gap between hotels and clubs has fallen (figure 21.4). The Commission found that returns to player appear to have risen in hotels, while they have fallen in clubs. However, there remains a statistically significant relationship between the odds and the number of machines per venue, which holds over both 1996-97 and 1997-98 and for both venue types (figure 21.4). These results suggest that mutuality has probably played a minor role in the disparity of gaming machine prices between the two venue types. The disparity has, in any case, narrowed significantly.

What of other prices, such as for bar services and meals? With regard to price discounting and cross-subsidisation, Clubs Queensland said that while:

... there may be isolated cases of this activity amongst its members, however, on an industry-wide basis, there is no evidence to support the assertion that clubs engage in below-market pricing and cross-subsidisation (sub D273, p. 32).

However, a survey of prices charged by hotels and clubs in the Brisbane metropolitan area undertaken by KPMG Consulting on behalf of Clubs Queensland (sub. D273) appears to show some price differences. With regard to beer and spirits the survey found average full strength 10 ounce beer prices to be 4 per cent less in clubs than in hotels, average reduced alcohol 10 ounce beer prices to be 4.5 per cent less in clubs than in hotels, and basic mixed spirit 7 ounce prices to be 5.9 per cent less in clubs than in hotels. However, the survey found that 'special' discounted prices are generally lower in hotels than in clubs. The survey did not cover meal prices in hotels and clubs as meals are a less homogeneous product and prices much more difficult to compare.

The Commission accepts that there are likely to be many clubs which do not engage in cross-subsidising services. Nevertheless, those club annual accounts examined by the Commission show operating results for meals and bar services consistent with cross-subsidisation and below market prices for these services. However, these

results could also be an indication of inefficient production due to lack of pressure on management to produce services at minimum cost.⁴ Clubs also tend to provide free or cheap auxiliary services, such as coffee and tea, meeting rooms, and exercise classes.

Cross-subsidisation of one good by another is not necessarily inefficient if it is a commercial decision made to maximise overall profits (and is not anti-competitive). And hotels are also likely to cross-subsidise services if that is seen to be at their advantage. For instance, it is generally accepted within the community that the ‘counter meals’ served in hotels may be cross-subsidised by bar prices. However, the concern in the case of mutuality is that the taxpayer is an unwitting participant in an arrangement whereby club members receive goods at below market prices. Of course, it is possible that many members of the public may still value clubs sufficiently to approve the allocation of tax revenue for such purposes.

Effect on investment

While some of the surplus of clubs may be dissipated through subsidised food, bar or other services, clubs still make large surpluses which cannot be distributed to members as cash dividends. These surpluses from gaming machines must end up in investment, either in upgrading club facilities or commercial expansion into areas not usually associated with club activities. The Australian Hotels Association (NSW) stated:

Many clubs have entered the commercial world by operating businesses in accommodation, gymnasiums, hair dressing salons, butcher shops, cinemas and a range of activities that have sent many small businesses in the State of NSW to the wall ... (sub. 68, p. 10).

The most rapid expansion of clubs appears to be occurring in those states where there is no limit on the number of poker machines that clubs can install — that is, New South Wales and the ACT. In 1997, members’ equity in a number of the large clubs in New South Wales increased by more than \$1 million, and in a small number by more than \$5 million (various annual reports). As catering, bar and other services are often operated at a loss, it seems clear that it is the poker machine surpluses which are financing the capital expenditure by those clubs.

⁴ ABS survey data (Cat. no. 8687, June 1999) suggest that price margins on bar services and other purchases tend to be *lower* in bars than clubs. If the prices of inputs are the same, this suggests that average prices are actually lower in hotels than clubs. However, around 50 per cent of the sales of alcohol and other beverages from pubs is for consumption outside the premises (ie bottle shops) where margins would be very low. If account is taken of this, it appears that margins on sale of beverages for consumption on the premises is higher in hotels than clubs — which is consistent with cross-subsidisation from funds earned from gambling surpluses.

The Commission was unable to obtain information about club capital expenditure by state. However, in 1997-98 clubs in New South Wales accounted for 77.3 per cent of club gross income, the average income per club being \$1.68 million, compared with the average for other Australian clubs of \$0.69 million (ABS 1999a). Total capital expenditure Australia-wide in 1994-95 was \$714.5 million (ABS 1996b). It is likely that the majority of that expenditure occurred in New South Wales.

Whether expanded investment has adverse effects is dependent on whether the pre-tax rates of return are comparable to investments made elsewhere in the economy. If they are, there are no impacts on efficiency. However, for a variety of reasons it appears likely that the investments made by clubs will be less efficient than those made by fully taxable commercial enterprises:

- Some of the investments are in club facilities, whose costs are not represented in the prices of the goods and services sold on the premises. For example, the Australian Hotels Association (NSW) said:

The massive amount of money has not been put back into the servicing the community, charitable community organisations or research into problem gamblers and like issues. These vast billions have gone into bigger and better marble staircases within the clubs and the branching out of many clubs into other businesses (transcript, p. 305).

- While Clubs Queensland (sub. D273, pp. 45–7) denies that this is the case, the governance arrangements in clubs may be weaker than those in most private commercial businesses. This is not to suggest that club boards might engage in dishonest practices. However, small business owner managers have direct and powerful incentives to make investments which maximise their income, while the managerial performance of public companies is subject to self-interested scrutiny by shareholders, and disciplined by the threat of takeover. In contrast, while club members do have some controls over club boards, they have weaker incentives to demand the best rates of returns on investment since they can only benefit through improved club facilities (and at some point, the value of incremental improvements in facilities is lowly valued by members), rather than through cash dividends.
- Even if current investments made by clubs achieve competitive pre-tax rates of returns, this implies that the surpluses must continue to rise (because they are untaxed). Without recourse to cash dividends, club managers must reinvest the surpluses. To avoid significant inefficiency, the clubs would, over the long run, have to become diversified conglomerate businesses, with investments in disparate industries across Australia. If they do not pursue this strategy, then the clubs would saturate investment in the hospitality industry — with inevitably lower rates of return on those assets than alternatives. In this sense, diversification by clubs into areas in which they formerly were not involved may

be preferable on efficiency grounds than if they invested in a narrow range of assets related only to traditional club hospitality — though this would take such clubs far away from the purposes for which they were established. Moreover, there are equity problems associated with unfettered expansion of clubs — whether in the hospitality industry or wider.

In the current regulatory environment, the bulk of resource allocation effects are confined to New South Wales. However, no one fully anticipated the expansion of club facilities that occurred in New South Wales or fully appreciated its consequences. A similar expansion is conceivable in other states, depending on machine capping and taxation policies, widening the resource allocation effects of mutuality.

Recent data from the ABS suggest annual operating profits before taxes of clubs with gambling facilities are over \$0.5 billion dollars (compared with \$30.1 million for clubs without gambling facilities). Surpluses are also growing rapidly (at an average 6.9 per cent per annum from 1994-95 to 1997-98). Over a number of years, therefore, it can be expected that the club industry will make investments of many billions of dollars. If these assets earn a rate of return just two percentage points below the competitive market rate, that represents a loss to society of \$20 million per year for every billion dollars of assets. It is therefore conceivable that as the industry grows further, there may be efficiency costs of over \$100 million dollars per year.

In summary, the Commission considers that the exemption of club mutual income from tax, combined with the inability to distribute surpluses to members, has the potential to result in excessive capital allocation in club facilities and other investments.

Effect on equity

Equity encompasses many issues, but here it is defined in its more narrow sense that either:

- people on the same income are treated equally by the tax system (horizontal equity); and
- people on higher incomes pay higher taxes than people on lower incomes (vertical equity).

Equity is therefore largely concerned about who gets what.

In 1956, when the New South Wales Government authorised registered clubs to operate gaming machines, it did so on the basis that the profits derived from gaming

would go back into club amenities and the community. Much later, in Queensland regulations also favoured clubs to ensure that profits from gaming machines would be returned to the community. In effect, most jurisdictions now have community benefit levies in place, or some other kind of arrangements to ensure that some proportion of club profits are used for the benefit of the wider community, as well as that of club members (sub. 41, p. 14). In Queensland and South Australia, community benefit funds are raised within the state gaming taxation arrangements. But in New South Wales, a system of Community Development and Support Expenditure was put in place in 1998, under which expenditure of 1.5 per cent of gaming machine revenue must be spent on approved projects by clubs with surpluses in excess of \$1 million per annum. And in Victoria, under self-regulating gaming machine industry codes of practice, clubs make an annual contribution of \$5 per gaming machine to fund the costs of the Gaming Independent Complaints Resolution process and the self exclusion process for problem gamblers.

Apart from these more formal arrangements, clubs also make voluntary contributions to their local communities. The Council of Community Clubs of Australia and New Zealand said the value of community support provided in 1996-97 by the New South Wales club industry alone was around \$155 million (sub. 63). In a later submission (sub. D226, p. 15) it said this figure was derived from a survey undertaken by Pannell Kerr Forster on behalf of the New South Wales Government and the Registered Clubs Association. The CCCANZ said the amount of \$155 million consisted of 39.2 per cent (or around \$60.8 million) in cash support to external parties, and 15.7 per cent (or around \$24.2 million) in non-cash support to external parties. Non-cash support takes several forms including the provision of capital equipment and maintenance, club facilities, and the services of club employees. CCCANZ provided the information presented in table 21.6, which shows that community support by New South Wales clubs to external organisations was 16.9 per cent of operating profit in 1997.

CCCANZ illustrated the club movement's contributions to the promotion of tourism by noting that the Registered Club Association donated \$250 000 to the Sydney 2000 Olympic Bid. It also pointed to the Royal Perth Yacht Club hosting the Challenge for the America's Cup. Penrith Rugby League Club said in the 12 months before the introduction of the Club Community Benefit Levy it donated \$1.3 million in community support. Further, it said:

For the past few years, Panthers has averaged donating over 20% of its annual profit to a range of worthwhile causes with the main emphasis on charities and junior sport. Note that this figure excludes all donations to our NRL team. (sub. D268, p. 3).

Penrith City Council (sub. D244) said registered clubs fulfil many of the community service obligations that Council or other service providers are unable to deliver. For

instance local clubs provide facilities, free of charge, for the meetings and other functions of service organisations and charities, and contribute to the maintenance of sports facilities, as well as being a major source of local employment. It said further, that under the *Liquor and Registered Clubs Legislation Amendment (Community Partnership) Act 1998*, Council and six registered clubs have formed a partnership, which distributed around \$12 million to community welfare, community development, social services and employment assistance projects in the 12 months to 30 November 1998. It concluded its submission by saying:

If Penrith is to meet the social, environmental and economic needs of a large and vibrant urban community, we will rely upon registered clubs playing an active role in supporting community and recreation endeavours, while also offering diverse leisure and entertainment facilities to satisfy expanding community needs. Our view is that registered clubs play a valuable role in the life of our City and Council's Strategic plan places substantial emphasis on our partnership with those clubs (sub. D244, p. 4).

Table 21.6 Community support by New South Wales clubs as a proportion of operating profit, 1997
per cent

	<i>Metropolitan clubs</i>	<i>Country clubs</i>	<i>Total</i>
Cash in house	4.8	11.9	7.0
Cash to external parties	5.8	19.8	10.7
Non-cash in house	15.5	8.9	10.9
Non-cash to external parties	3.9	7.2	6.2
Total	30.0	47.8	34.8

Source: CCCANZ, sub. D226, p. 16.

In a joint submission, the Club Managers Association Australia and Leagues Club Association of New South Wales said the community role played by registered clubs is not fully acknowledged by many commentators, and:

The fact remains, however, that the 'club' plays an important role in the lives of literally millions of people, particularly in New South Wales. Clubs provide community support in-house to members and community groups as well as support to external organisations. In many municipalities clubs relieve the financial pressures on councils to provide social, sporting and cultural infrastructure. This contribution is particularly valuable in provincial towns, regional centres and the rapidly growing urban fringes of sprawling Australian cities (sub. 41, p. 14).

Clubs Queensland said that in addition to gaming taxes and levies to the Queensland Government, it provides around \$35 million in cash support annually to sporting groups, charities and welfare organisations and the general public. In addition to this it provides in-kind support equivalent to approximately \$44 million. This equated to 7.6 per cent of gaming machine revenue for cash contributions and 9.7 per cent of gaming machine revenue for in kind-contributions, summing to

discretionary contributions to the community in total of 17.4 per cent of gaming machine revenue.

The Commissioner for ACT Revenue has provided estimates of community contributions for the ACT (table 21.7). These suggest total contributions on a self-assessed basis by clubs for the year 1998-99 of around 8.4 per cent of player losses, an increase of around half a percentage point over the previous year. The ACT Government has been working towards a more stringent test of what constitutes an acceptable community contribution by clubs and it considers only those contributions it categorises as primary contributions to be contributions to the broader and general community, as distinct from those of benefit to club members. Primary contributions constituted a little over 3 per cent of gross gaming machine revenue in 1998-99, or close to 5 per cent of net gaming machine revenue. The extent of community support provided by clubs in the ACT has been subject to criticism. Tax increases and the requirement for minimum community contributions were announced by the ACT Government in the 1999 budget.⁵

Clearly, whatever estimates are most accurate, clubs do provide benefits to their local community and very substantial ones to their members. Mutuality, by protecting club incomes from taxation, provides a major funding source for these benefits.

However, it is important to emphasise that the cash flows to members and local communities facilitated by mutuality are funded from the tax system. The forgone taxation revenue implies lower levels of government expenditure.⁶ This raises the question of whether the types of club expenditure funded by the tax forgone represent a better investment for Australians as a whole than those made by the governments. Expressed another way, in the absence of mutuality would Australians support subsidies of around a hundred million dollars per year to clubs?

As noted above, clubs provide resources for local communities (much of it in support of community sporting and recreational activities), invest in larger and more pleasant club facilities with more amenities, and invest in a range of other activities less directly linked to clubs as community organisations (such as large accommodation projects). This expenditure supports a narrower base of activities than government expenditure (for example, health, education and welfare) and lacks the assessment of competing needs characteristic of government budget processes.

⁵ Media release, Chief Minister, 4 May 1999.

⁶ Or higher Commonwealth taxes elsewhere in order to meet expenditure needs, with consequent equity effects on those who bear this tax burden, and with efficiency costs associated with a narrower tax base which bears higher tax levels.

In this sense, it is likely that investments by clubs generate less equitable outcomes than expenditures made by governments.

Table 21.7 Community contributions by ACT clubs, 1998-99

	<i>Category</i>	<i>Total contributions</i>	<i>Share of gross gaming machine revenue^a</i>	<i>Share of net gaming machine revenue^b</i>	<i>Share of total contributions</i>
	Primary contributions	\$	%	%	%
1	Charity	1 343 580	0.91	1.45	10.90
2	Sports	2 005 018	1.36	2.16	16.27
3	Non-profit	575 171	0.39	0.62	4.67
4	In-kind	581 578	0.40	0.63	4.72
5	Public asset	112 463	0.08	0.13	0.90
	Sub-total	4 617 810	3.14	4.99	37.46
	Secondary contributions				
6	Associated organisations	2 288 586	1.56	2.47	18.57
7	Infrastructure assets	4 542 592	3.09	4.90	36.85
8	Political/union	878 083	0.60	0.95	7.12
	Sub total	7 709 261	5.25	8.32	62.54
	TOTAL	12 327 072	8.39	13.31	100

^a Gross gaming machine revenue is defined as total money inserted into machines less winnings to players.

^b ACT Revenue Office estimates.

Source: Commissioner for ACT Revenue, 1999.

On the other hand, others would argue that clubs are integral parts of a local community and have the detailed knowledge of local needs to be able to channel resources into activities which the local community highly values. The CCCANZ (sub. D226) said it recognises that a central perspective is necessary for deciding on cross-regional priorities, but that Australia's three tiers of government make centralisation complex, cumbersome and costly in terms of administration and compliance costs, reducing the funds available. It also said that political considerations rather than need can result in politically marginal areas receiving benefits at the expense of communities in other areas providing the taxes. CCCANZ argued that the current system provides a balance between local priorities and central priorities, and:

Club members are a part of the local community and reflect the values and understand the issues of their community. Their boards are elected democratically. Their boards reflect the wishes of the membership in providing the support donations to groups and individuals in their community (sub. D226, p. 18).

Penrith Rugby League Club said:

It makes a lot of sense for Clubs to be able to allocate funds in their own areas. They are best placed to know where the funds are best used. They can respond immediately to urgent requests. A central body administering a pool of funds, would not have detailed knowledge of the needs of the Penrith area. In order to obtain that knowledge, they would need to build an infrastructure of some size and the cost of that bureaucracy would impact on, and eat into, the amount of allocations (sub. D268, p. 3).

The Australian Hotels Association (NSW) (sub. 137) also raised a separate equity issue concerning providers of capital. It said the application of the mutuality principle to club poker machine surpluses is inequitable as it results in some gaming establishments (clubs) being favoured over others (hotels) and a competitive advantage for clubs.⁷ It is certainly true that the mutuality principle does not treat hotels and clubs *equally*. However, the differential tax treatment between clubs and hotels has been in place a long time, and there is no evidence to suggest that the rates of return on capital in hotels are permanently reduced by the advantages afforded clubs by mutuality.⁸ On the contrary, there is evidence that the value of capital invested in hotel assets in New South Wales has been increasing rapidly since gaming machines were introduced in hotels. And if the favourable tax treatment of clubs were to be abolished, hotels would be at an advantage for a period, compared to the situation as it exists currently. But any increased returns to hotels would soon be competed away through greater investment in hotel assets.

In its draft report the Commission said that if rates of return on hotel capital were reduced due to the favourable tax treatment of clubs, hotel owners would no longer find it profitable to invest in hotel assets and capital would move out of hotels into higher performing assets elsewhere. The Australian Hotels Association (NSW) disputed that statement. It said this represented an unrealistic appreciation of the issues:

All sorts of market imperfections (imperfect knowledge, imperfect access etc) prevent capital from being totally mobile. Our hotel owners cannot be put into a box of 'capital users'. In many cases generations of families have owned and operated the same hotel. It is almost unbelievable that the argument should be put that if the Government taxes one group of people at a much higher tax rate than other people engaged in the same activity then it is not acting inequitably. The fact that capital providers can go elsewhere doesn't remove the inequity created by the Government (sub. D208, p. 60).

⁷ Sentiments which were echoed by a report by the House of Representatives Standing Committee on Banking, Finance and Public Administration, entitled *Taxing Relaxing* (March 27, 1995).

⁸ ABS statistics suggest that operating profit margins in hotels with gambling facilities were around 8.9 per cent in 1997–98 compared to 9.6 per cent in clubs. It does not seem likely that sales to assets ratio of hotels are lower than that of clubs, which implies that, if anything, rates of return on assets are likely to be currently higher in hotels than clubs (for venues with gambling facilities).

Where clubs are expanding into areas of economic activity previously untouched by club entrepreneurship, such as hairdressing, butcher shops, motels and holiday accommodation, and cinemas, they may undermine the profitability of those enterprises, and generate inequitable capital losses for existing owners. For example, Forresters Resort (sub. 157, p. 4) said gambling surpluses enabled clubs to compete with existing businesses at subsidised rates. CCCANZ (sub. D226) commented on the concern expressed by the Commission in the draft report about clubs entering into competition with commercial enterprises. It said that in the quoted example of a club purchasing a butcher shop, the shop in question was facing closure and club members had sought the club's support to keep it open, and there was no evidence to show that any other butcher in the region had been materially affected by the club's decision to keep the shop open. Furthermore, it said:

Clubs have different arrangements for what might be called ancillary business services for members. In many cases it is treated as non-mutual income and therefore treated appropriately under income tax rules (sub. D226, p. 27).

It remains the case that, any commercial activity operated by a club, whether on a mutual or a non-mutual basis, does not need to make a profit, enabling it to undercut prices charged by commercial enterprises, if it so wishes.

Summary of concerns

Clubs play a pivotal role in Australian communities. However, the preferential regulatory and taxation treatment of gambling in clubs by some state governments, has provided a substantial source of income to clubs. This, combined with the virtual protection of this income from tax by the mutuality principle, has led to a more significant expansion of club assets and price subsidisation of club services than otherwise would have been possible. This, in turn, can have adverse impacts for economic efficiency and equity, concerns which are likely to intensify as the relevant segment of the club industry expands further in the future. The benefits that clubs bestow on local communities are unlikely to outweigh these impacts.

21.7 Can anything be done?

The first point to emphasise is that the principle of mutuality is not, by itself, the *source* of the problems identified above. Mutuality has had unintended consequences for equity and efficiency when some segments of the club industry gained access to the potential for substantial profit growth from gaming machines.

Nor does the fact that, in this context, the mutuality principle poses some threats to efficiency and equity, mean that policy could effectively remedy these without either high transactions costs or other adverse effects. In particular, one suggested 'reform' — the taxation of all club income as corporate income — would be unlikely to be at all effective at realising the objectives of fairness or efficiency, unless the inability of clubs to distribute surpluses to members was also amended. Nothing requires any entity to make a profit. Clubs forced to pay income tax on any surpluses would find ways of avoiding large surpluses by:

- subsidising other goods and service to a greater extent, with even more profound effects on price distortions and greater (if transitory) costs to competitors; and
- possibly borrowing heavily to expand their businesses, offsetting interest charges against income.

This posts a warning that attempts to solve one set of problems can perversely create a fresh and even worse set of difficulties.

Notwithstanding this, there are a number of options for change. They are assessed below against the following criteria:

- investment distortions;
- price distortions;
- equity, including to members, owners of competing businesses and to the local community; and
- their feasibility.

Tax poker machine surpluses?

The Australian Hotels Association (NSW) (sub. 137) proposed that gaming income from both members and non-members be quarantined from other club income and taxed. It considered gaming income to be the heart of the problem to be solved by treating it as non-mutual income. There is already the prospect of this being realised in Victoria, where clubs do not own the gaming machines. The ATO's assessment is that club poker machine surpluses are not mutual income, consistent with the tax treatment of commissions from keno and TABs.

Effect on investment and pricing

Quarantining the tax to machine surpluses removes the ability of the club to offset machine surpluses with other trading losses (such as interest burdens or cross-subsidised prices on other goods). However, it leaves one avenue for subsidisation

still open — the prospect of better odds for gaming machines. Clubs would have an incentive to somewhat reduce the price of playing, since this would provide a tax-free benefit to members. This would tend to increase the attractiveness of playing the machines somewhat, and have all the uncertain effects on problem gambling that have been discussed in chapter 19.

Taxing surpluses would reduce the scope for unfettered expansion of clubs, but it provides little or no incentive for improved governance.

Effect on equity

The Licensed Clubs Association of Victoria said that if gaming income is quarantined for clubs and not for other venues supplying poker machine services, clubs might pay a higher rate of tax than other venues with the same gaming income. This would occur because other venues would be able to write off inadvertent losses from other activities against poker machine surpluses, while clubs could not. Moreover, under dividend imputation, the returns of other businesses are ultimately taxed in the hands of shareholders at their marginal personal tax rates, not at the corporate rate. Accordingly, any tax rate on gaming machine surpluses, should arguably be below the corporate tax rate.

However, even if a lower tax rate were implemented, this would fail to take account of the differing marginal tax rates among members — everyone is being implicitly taxed at the same rate. It is not clear that there is any workable system for taking account of this, without adding significant additional complexity to the tax system.

If clubs increase their payout, those members (and non-members) who mainly visit the clubs to play the poker machines would benefit. The reduced ability of clubs to cross-subsidise other club services would mean a reduced benefit to those members (and non-members) who use those services. The effect on equity would depend on the socioeconomic composition of each group (but would probably represent a gain, given evidence on the parallel issue of regressivity discussed in chapter 19).

As with demutualisation, clubs would reduce contributions to the community. However, here also the Government would have increased funds for its welfare programs.

Feasibility

There would be no or few administrative barriers, as the clubs already prepare poker machine profit and loss accounts and the ATO already processes club tax returns. There would however be some implementation issues. These might include:

-
- the possible exclusion of clubs with less than a threshold level of poker machine profits;
 - the determination of eligible gaming machine-related expenses which could be deducted from gaming machine revenue to determine the taxable base;
 - legislation to exclude poker machine surpluses derived from members from mutual income; as well as
 - legislation to quarantine poker machine profits for tax purposes so that they cannot be reduced by losses incurred on other activities.

Clubs Queensland (sub. D273, p. 50) was of the view that this option would be unworkable, because:

- it penalises all clubs, whatever their size;
- it would not address any of the issues raised by the Commission;
- it is likely to lead to the adoption of tax minimisation strategies; and
- it would impose an administrative burden and additional compliance costs on both the clubs and the government, possibly resulting in further inefficiencies.

CCCANZ termed this option ‘partial demutualisation’ and agreed with Clubs Queensland who said that the imposition of income tax on member activities would cause clubs to reassess their operations to minimise the tax burden, and would increase administrative costs.

Should gaming machines only be available on a commission basis?

In most Australian states, gaming machines are owned by the clubs. However, this is not true in Victoria or Tasmania, where a third party owns the machines, and clubs are provided with commission income. Other gambling forms — such as keno and TABs — also provide commission income to clubs throughout Australia. Under the current tax system, commission income is regarded as external income by the ATO and is subject to corporate income tax. Accordingly, one measure for bringing gaming machines into line with the treatment of other gambling forms in clubs is to have them provided by a third party (not necessarily along the lines of the Victorian model, which has its own defects). This would render all gaming income as taxable.

Effect on investment and pricing

The impacts on investment and prices would be similar to the option above, except that clubs would not have the ability to lower prices, since the machines would be owned by a third party.

Equity

Equity effects are again similar to the previous option, except that there would be no anticipated benefit for people on lower incomes who use gaming machines, because prices would not be likely to fall.

Feasibility

Adoption of the measure would not require amendment of any existing tax laws. However, it would require considerable restructuring of gaming machines in states other than Victoria and Tasmania, with significant structural adjustment costs. Depending on how it was implemented it might also generate some of the anti-competitive problems present from having one or a few owners of poker machines. The Australian Hotels Association would not support such an approach:

Such an arrangement potentially leads to problems associated with the third party provider exerting considerable pressure on establishments that wish to offer gambling services.

If the allocation of gaming machines is entirely dictated by the licensed third party there is likely to be frustration with venues not being able to access gambling facilities while their competitors are able to offer the service (sub. D231, p. 94).

Clubs Queensland (sub. D273, p. 51) said this option would be inappropriate as well as unworkable, because:

- it could result in an anti-competitive market, increasing the market power of gaming operators;
- it would divert gaming revenue from the community sector to the private sectors; and
- it would contravene the recent amendments to Queensland's *Gaming Machine Act 1991*.

Introduce a higher revenue tax rate on gaming machines in clubs?

This is again similar to the option of taxing the surplus on gaming machines, but would involve a state (consumption) tax rather than an income tax.

Effect on investment and pricing

The impacts on investment and prices would be similar to the first option above, except that, unlike the quarantined income tax approach, the price of playing gaming machines would tend to rise rather than fall. If clubs operated in a perfectly

competitive environment, then patrons would bear the full burden of the tax. However, as noted in section 21.6, it appears likely that clubs, at least in New South Wales, earn ‘super’ profits, typical of an incompletely competitive market. This implies that the extent to which prices will rise is indeterminate. Since governments already apply price regulations, it is possible that an increased state tax could be combined with a price cap set at a level which reduces any price increase.

The advantage of increasing the tax rate on gross gaming machine revenue in clubs, rather than an income tax, is that it can both redress some of the adverse impacts of mutuality *and* extract (at least some of) the rents that appear to be earned by clubs. If most of the rents were removed, it would cut substantially the flow of funds that underlie price subsidisation and excess club investment. This option does not affect mutuality as a principle — rather it removes the source of the ‘super’ profits that are the source of the problem.

Equity

Equity effects are similar to the previous option.

Feasibility

It would require minimal legislative change and in principle could be readily implemented by those state governments who were concerned by the inefficiencies in the current tax treatment of clubs. Tax changes have occurred in the past. For example, the rate of tax levied on clubs’ gaming machine revenue of under \$2.5 million increased on 1 February 1998 in New South Wales.

Furthermore, state governments could decide, depending on the very different contexts of their local club/hotel markets, what tax rate would be appropriate. In New South Wales it would be feasible to levy higher tax rates, in keeping with the existing, arguably overly generous treatment afforded clubs, whereas in Victoria and Tasmania no change may be required.

The Australian Hotels Association supported this option, saying that it believed that the Australian clubs sector should be taxed at the same rate as hotels when offering gaming services. It added:

The large differential between each state as well as each type of venue in the State should be addressed and placed high on the priority of State and Territory Governments throughout Australia (sub. D231, p, 94).

CCCANZ (sub. 226, p. 29) said increased taxation would have an adverse impact on the viability of clubs and their contributions to the local community. It said a

financial analysis had shown that more than 20 per cent of clubs in New South Wales would become unprofitable or financially marginal under tax equalisation. However, if such an increase were to be implemented, a phasing in of the higher tax rates over a number of years would allow clubs to prepare for the change. Clubs Queensland (sub. D273, p. 51–2) gave the following reasons for not supporting this option:

- there is no evidence that increasing taxes results in increased prices for gambling and reduced demand;
- there is no evidence that funds are distributed better by governments than the community sector; and
- clubs are best placed to distribute funds to the community as they have local knowledge, and no political bias.

Limit the number of poker machines permitted in clubs?

The problems occasioned by the treatment of gaming machine income under mutuality appear to arise mainly in those states where unlimited numbers of poker machines are permitted in clubs, and particularly New South Wales. One option, proposed by Star City, would be to limit the number of poker machines permitted in clubs in New South Wales (sub. 33, p. 3).

Effect on investment and prices

Depending on the limit set, it would tend to reduce the flow of funds to investment and cross-subsidised goods and services — reducing the distortions associated with these. By reducing the economies of scale associated with large gaming machine venues, it could be expected that costs would rise, and some (but not all) of these would be recovered from consumers through higher prices.

The impact of caps would encourage the formation of more clubs, partly circumscribing the intent of the policy. However, there are limits on the number of bodies which could pass the appropriate tests for club status.

Effect on equity

Higher prices would fall on gaming machine players, though the magnitude of such price increases is likely to be relatively modest. There would also be fewer poker machines available and in some cases this might create crowding. This might be beneficial in the case of problem gamblers, but result in costs for recreational players who have to wait to play.

Feasibility

There would be a number of implementation issues. Firstly, any such measure can only be implemented by state governments. This is an advantage as it recognises the diversity of the club/hotel markets across Australia and could take account of any existing regulations that affect these venues.

Secondly, the case for venue caps as a way of reducing the flow of concessionally taxed gaming machine revenues into club coffers is greatest in New South Wales, but the transitional costs of any cap which credibly reduced those flows would be substantial. Setting machine numbers at existing levels for any club would have a modest impact on the problems related to clubs' mutual status — caps would have to be more akin to those operating in Victoria (105) or South Australia (40) to have a real impact.

Any realistic plan would thus require a gradual phasing down of machine numbers for those clubs with machine numbers which significantly exceeded any relevant cap. This reflects the fact that many of these clubs would have financial commitments which depended on poker machine surpluses. At the end of May 1998, for example, clubs in New South Wales with over 100 machines accounted for 11.9 per cent of clubs, but for 50.8 per cent of machines and 66.2 per cent of machine revenue⁹ — underlining the magnitude of any transition to a cap of under 100 machines.

The Australian Hotels Association (sub. D231, p, 96) said the numbers of poker machines allowed to operate in clubs is a major concern. If the numbers were to be limited, however, clubs currently offering gaming facilities in excess of the limit should be able to continue to operate but subject to full taxation. Clubs Queensland (sub. D273, p. 52) did not object to a limit provided it is not a state-wide cap, as this would result in a shift of machines from smaller to larger clubs. In commenting on the fact that caps already exist in Queensland, it added that further capping of hotels would help to address the continued dilution of the concept of community-owned gaming in the state. CCCANZ said caps were a very blunt and inefficient method of addressing the Commission's concerns and it could foresee severe problems for clubs which are planning, or which already have commitments with regard to investments. It also said:

Capping will reduce consumer benefit because access limitations will lead to queuing effects and possibly price effects such as lower payouts (sub. D226, p. 28).

⁹ Department of Gaming and Racing, *Registered Clubs — Quarterly Gaming Analysis May 1998*, January 1999.

Demutualisation?

An extreme option, which would represent a fundamental shift in the approach to Australian clubs, would be enforced demutualisation of relevant clubs. Demutualisation involves a change in the corporate form of an organisation that results in members surrendering their rights to participate mutually in any common fund that constitutes the organisation. Upon demutualisation there is effectively a distribution or allocation of any accumulated mutual surplus, with former members receiving tradeable shares in the new entity or an equivalent cash payment. The new entity is taxed on its profits and the former members, who become shareholders, would receive franked dividends.

Effect on investment and prices

Pressure from shareholders for a return on their investment would place the new entity on a par with other commercial enterprises as regards investment and pricing decisions, as well as create pressure for efficiency in production.

In normal corporate entities, shareholders are not the exclusive or even dominant consumers of the goods and services of the entity of which they are owners. They wish any surpluses to be paid to them. However, in the case of demutualised clubs, the initial group of shareholders would also be the dominant customers. Might not they still wish to see subsidised services to members because these provide untaxed benefits? This is unlikely over the medium or longer run, because:

- members who use the club less frequently — and there are many of these — will prefer a dividend to subsidies on services they rarely consume;
- members with zero or low marginal tax rates, can obtain bigger benefits from cash dividends (which they can use to buy anything) than implicit ‘dividends’ hypothecated only to club services; and
- clubs have used their surpluses to invest in assets other than club facilities, and many members will prefer some dividend, rather than reinvestment of all retained earnings.

For these reasons, demutualisation appears to stem all the inefficiencies associated with price subsidisation or excess investment associated with current policy settings.

Effect on equity

Currently the more often members use club services the more they contribute to the surplus. As member attendance and individual expenditure are not recorded (and

could, in any case, not easily be done), some other basis for the allocation of shares would have to be devised. The most likely one would be to initially allocate equal shares to all members. Some windfall gains to those members who rarely visit the club would be inevitable and inequitable.

Fewer funds would be available for community contributions. The CCCANZ said that if clubs were to be taxed as companies and pay fully franked dividends this would entail a fundamental shift in the overall philosophy of being a club member and would:

... result in a decline in funds available for non-financial benefits available to members and non-members using the club's facilities and for support of the community at large (sub. 142, p. 23).

Indeed, the Club Managers Association Australia and Leagues Club Association of New South Wales argued that the concessional taxation treatment conferred on clubs recognised the contribution clubs make to local communities. However, abandonment of mutuality would not preclude tax deductible donations, which would still apply to a very wide range of charitable and other community groups. Moreover, taxing club surpluses does not necessarily reduce funds available for community purposes, as the Government would have increased tax revenue to fund improved education, health and social infrastructure in Australian communities. The people who would benefit — the incidence of these contributions — would however be different than under current club community contribution arrangements.

With regard to taxation, the shareholders of the demutualised club would receive franked dividends. The imputation system would ensure that those shareholders earning high incomes would pay a larger amount of tax on these dividends than those on low incomes.

Feasibility

Demutualisation is currently a voluntary process. Members are most likely to vote for demutualisation if they expect to gain access to significant capital gains or dividend streams. Currently there are taxation anomalies associated with demutualisation, particularly in the area of capital gains tax, which would deter such voluntary demutualisation (because taxpayers would be subject to double taxation). In its 1997-98 Budget, the Commonwealth Government announced its intention to develop a generic framework for determining the tax consequences of transactions associated with the demutualisation of non-insurance organisations.¹⁰

¹⁰ The taxation treatment for demutualisation of insurance organisations is already covered by specific provisions contained in the *Income Tax Assessment Act 1936*.

Subsequently, in February 1999, the Government released a draft of proposed amendments to the *Income Tax Assessment Act 1936* to deal with demutualisation of mutual entities other than insurance companies. When implemented, this legislation will ensure, inter alia, that the capital gains tax provisions will not apply to the surrender of a membership interest, and that on the issue of demutualisation shares, no amount is included in a member's assessable income.

Further legislative changes would be required were demutualisation to become compulsory. Moreover, the transition costs of demutualisation may be high, relative to any gain, for smaller clubs. Some participants commented that while the mutuality principle should not apply to the large licensed clubs, it should not be 'abolished' altogether. In a study prepared for the Australian Hotels Association (NSW), Firmstone & Feil said:

The principle of mutuality currently applies to many organisations which rightly benefit from its application. Apart from bodies corporate, small church groups and 'non-commercial' clubs all benefit from mutuality. It is an important principle and should not be abolished by statute (attachment to sub. 137, p. 1).

Prof McGregor-Lowndes said it would have an adverse impact on many small non-profit organisations if mutuality were no longer to apply, and:

... it is important that [the abolition of the mutuality principle] not be broad-brush, and be targeted specifically at clubs ... otherwise [it] will bring a whole range of non-profit and community organisations into the tax system ... I want to impress upon you that to broadly say mutuality ought to go by the wayside is not appropriate ... (transcript, p. 100).

This suggests that it would be necessary to set a threshold for any demutualisation. The threshold could be based on the number of poker machines, on total assets or on turnover. Senator Andrew Murray, took the view that:

The loophole in the mutuality principle must be reformed. The large super clubs continue to dominate, adding to the concerns of not only private business but also smaller clubs that are, in fact, operating within their original charter and are within their right to claim the mutuality principle exemption (sub. D276, p. 2).

He suggested a turnover of \$1 million might be an appropriate threshold (p. 3). But while any regulation concerned with demutualisation would apply Australia-wide, it would be irrelevant in those states where the clubs for one reason or another remained small enough to stay below the threshold.

Thresholds, however pose their own problems for efficiency and equity. Clubs just under and over the threshold are treated very differently. The existence of thresholds might lead to complex club structures in which a super club breaks into an apparently large number of small cooperating sub-clubs operating at the same

site, each one under the legal threshold for demutualisation. This would require countervailing measures, and inevitably leads to more complex regulation.

With regard to administrative feasibility, the larger clubs already produce professionally executed accounts, scrutinised by auditors. And clubs might elect no longer to distinguish between members and non-members, as there would be no taxation advantage from doing so. In the case of the ATO, there would be no additional complexity, as the mechanics for dealing with business taxes are already in place.

The Australian Hotels Association (sub. D231, p. 96) supported demutualisation provided small, legitimate sporting or cultural clubs were not disadvantaged, and suggested a threshold based on either turnover or gaming machine numbers. CCCANZ did not support this option, for the same reasons it did not support quarantining and taxing gaming machine income. Clubs Queensland (sub. D273, p. 53) considered demutualisation inappropriate for the following reasons;

- this would go against the concept of community-owned gaming;
- it would result in a purely profit-driven club industry;
- in such an environment, self-regulated responsible gaming strategies would be more difficult to implement.

Conclusion

The Commission has outlined a number of possible options for dealing with the problems that arise when mutuality is combined with a substantial and growing source of revenue to clubs — in this case, gambling. All have some advantages, but none are free of limitations. The Commission has rated the various options in table 21.8. In doing so, judgments have been made about difficult issues like equity. In particular, the Commission has judged that tax revenues collected by governments have more equitable outcomes in principle than if the same amount of money is collected by a club that then distributes resources to its members and to community purposes of its choosing. Participants from the club movement disagreed with this judgment, as did Penrith City Council.

Of the options, the one which appears to offer the most scope for remedying the distortions is the imposition on clubs of a higher rate of state tax on gambling. This would need to occur only in some states, recognising the different contexts of clubs in different jurisdictions. But any such move would need to involve phasing to minimise transitional losses on existing investments.

Table 21.8 Effects of current club structure and options for reform^a

<i>Criteria</i>	<i>Current club structure</i>	<i>Demutualise clubs</i>	<i>Tax poker machine income</i>	<i>Gaming machines only available on a commission basis</i>	<i>Increase tax rates on poker machine revenues</i>	<i>Limit number of poker machines</i>
Efficiency in Investment decisions	●	●●●●●	●●●	●●●	●●●●●	●●●
Efficiency in pricing decisions	●●	●●●●●	●●●	●●●	●●●●●	●●●
Equity						
• for the wider community	●●	●●●	●●●●	●●●●	●●●	●●●
• for other businesses	●●●	●●●●	●●●●	●●●●	●●●●	●●●●
Feasibility	n/a	●	●●●	●	●●●●●	●

^a The dots represent a rating from ● (low) to ●●●●● (high).

22 Regulatory processes and institutions

Box 22.1 Key messages

- Current institutional arrangements for gambling policies and regulation have some positive aspects, but also some deficiencies:
 - regulatory responsibilities are sometimes unnecessarily divided;
 - some regulators are part of government, some are independent;
 - mechanisms for obtaining community input are generally insufficient; and
 - there is inadequate information for good decision making.
- Key questions concern the appropriate level at which different decisions should be made, the information which should inform such decisions, and how that information, including community views, should be accessed.
- A regulatory ‘model’, drawing on the best aspects of current arrangements — though going beyond what is to be found in any jurisdiction — would comprise:
 - ‘big picture’ policy decisions being made by each government/Parliament, but informed by more open processes and better information;
 - an independent gambling control authority in each state and territory:
 - * with the primary objective of furthering the public interest;
 - * its charter emphasising a high standard of consumer protection as a central objective; and
 - * with the role of making decisions in accordance with legislative criteria, as well as providing objective information to government and the community.
 - * It would have:
 - > *a structure* which facilitates its statutory independence;
 - > *coverage* of all gambling activities; and
 - > *processes* based on transparency and public consultation;
 - an enforcement function separate to the control authority or the policy department;
 - an independent board with responsibility for (a) administering the Community Benefit Fund, (b) funding of counselling and harm minimisation programs, and (c) research and information gathering and dissemination (see also chapter 23).

22.1 Introduction

Previous chapters have only touched upon part of the complex web of government controls and requirements designed to regulate Australia's gambling industries. Nevertheless, it is apparent that current regulatory structures are characterised by a wide variety of approaches, heavily influenced by the changing views of governments and societies at different times and by specific arrangements entered into with particular providers. In addition, chapter 12 has shown that governments have not been wholly clear or consistent about their reasons for regulating gambling.

There are many positive aspects to current arrangements, and the ongoing process of review, through racing and gaming ministers conferences, NCP reviews and the like, have led to changes in regulations and the associated governmental structures. The changing nature of the gambling market itself has added impetus to this.

However, there are some perverse features. In part, this is because governments continue to face conflicting pressures. They wish to reduce the social harms of gambling, but also to expand gambling tax revenues. They promote and provide some forms of gambling. They inflate the prices of gambling products to consumers through exclusivity arrangements and high taxes, while imposing ceilings on the prices of some gambling products.

These matters raise questions about how decisions are made, and whether there are better ways to structure policy making and regulatory processes to get better outcomes in the future. Indeed, a concern frequently expressed to the Commission was that there was insufficient emphasis upon proper processes for reaching decisions, a general lack of transparency in those processes, and that decision making was insufficiently independent from the various interests involved (including arms of government). The variety of processes and governance arrangements used in different jurisdictions suggests that there may be lessons to be learned.

These issues are not unique to Australia. The United States National Gambling Impact Study Commission said that one of its key arguments for a 'pause' in the expansion of gambling in that country was:

... to encourage governments to do what to date few if any have done: To survey the results of their decisions and to determine if they have chosen wisely ... virtually no state has conformed its decisions in this area to any overall plan, or even to its own stated objectives. Instead, in almost every state whatever policy exists toward gambling is more a collection of incremental and disconnected decisions than the result of deliberate purpose (NGISC 1999, p. 1.7).

Across Australia, the development of regulatory regimes is in a state of flux. Several states and territories are reviewing or changing aspects of their policy towards one form of gambling or another. For example:

- the Queensland Government is nearing completion of a review into the economic and social impacts of gaming machines, and has announced several policy changes it will seek to implement;
- the ACT is setting up a Gambling and Racing Commission to be responsible for all forms of gambling, following a report by an ACT Legislative Assembly committee;
- the newly elected Victorian Government has announced that it intends to make some wide-ranging changes to aspects of that state's gambling policies, including with respect to caps on machine numbers, local community consultation and greater independence for the VCGA;
- New South Wales has enacted the *Gambling Legislation (Responsible Gambling) Act 1999* to, among other things, strengthen controls over the industry and foster harm minimisation measures;
- New South Wales and South Australia, among others, are undertaking public NCP reviews of their racing and wagering industries; and
- at the federal level, a Senate committee is examining the implications of growth in online gambling.

This chapter looks at some central questions about the structures and processes which lead to good policy outcomes. It asks:

- what functions need to be undertaken by a regulatory regime?
- at what level should different decisions be made?
- how should regulatory institutions be structured?
- how broad should their respective ambits be?
- what rules and processes should be followed by regulators and policy makers?

The next section looks at the functions which need to be undertaken within a regulatory regime for gambling industries, and briefly notes how some of these are being undertaken now. It also highlights some concerns raised by participants during the inquiry. The chapter ends with the Commission's views on what the most appropriate regulatory regime might look like, drawing on the experiences of different jurisdictions.

22.2 What regulatory functions need to be undertaken?

Previous chapters, the work of analysts such as McMillen and recent reports such as that by IPART (1998) point to the need for a regulatory regime for gambling to be organised around several key functions, namely:

- *the development of policy* — settling the ‘big picture’ questions on threshold matters with significant community-wide impacts;
 - this includes decisions about the liberalisation and accessibility of gambling, what forms of gambling should be legal, tax rates, harm minimisation and consumer protection policies, the number of provider licences to be issued, the nature of exclusivity arrangements entered into with particular providers, issues of government or private ownership of some gambling providers and caps on gaming machines;
- *control* — more ‘administrative’ decisions and independent advice within the established broad policy framework:
 - deciding, within the context of the principles so established, who should get licences, which venues get machines, which persons may operate or work in venues, which games may be played, technical standards for machines, and penalties for breaches of licence conditions; broadly, this is about making decisions, approving standards and (perhaps) deciding appeals;
- *enforcement* — monitoring to ensure compliance with the rules and standards;
 - the day-to-day surveillance of the conduct of gaming and enforcing the rules already in place, checking that technical standards are complied with, investigating complaints and ensuring that consumer protection requirements are met;
- *adjudication* on appeals against decisions made under the control and enforcement functions;
- *revenue assessment and collection*; and
- *programs* — such as those covering community awareness of the risks of gambling, support services for problem gambling, research programs and data collection.

The boundaries between these functions can be difficult to delineate precisely. In particular, separating the control and enforcement functions poses some practical difficulties. But what is clear is that there is currently some confusion of roles and functions, and that these are likely to lead to poor decision making, with the consequence that community concerns about aspects of gambling policy may not be properly addressed.

How are these functions undertaken now?

Each of the regulatory functions listed above is carried out in each jurisdiction, but in different ways. For example, each jurisdiction has a department or office with responsibility for administering a range of gambling legislation (box 22.2), responsible to a Minister who has the major responsibility for gambling policy and regulation — in several cases, within the Treasury portfolio. But a number of other agencies (for example, departments of health or community services, racing clubs and the police) may also have particular responsibilities.

The broad approaches are summarised in tables 22.1 and 22.2, which capture some of the main features and differences.

In addition, each jurisdiction has a statutory authority with a particular set of responsibilities. Typically, the authorities comprise independent commissioners, appointed for fixed terms, but the scope of their activities varies considerably. Some have a fairly broad focus (the VCGA, for example, and the ACT's proposed Gambling and Racing Commission), while others have a narrower set of responsibilities. Some have their own staff (the VCGA, for example, has 146, the Casino Control Authority of New South Wales has 22 and the ACT's Casino Surveillance Authority has 12), but more commonly they are serviced by secretariats from the regulating agency (the Queensland Gaming Commission is an example).

Some independent authorities have the semi-judicial right to determine certain matters, rather than recommend action to a Minister. In Queensland, where the regulation of gambling is almost wholly the responsibility of the QOGR, the power to grant, suspend or cancel licences (or to issue sanctions) for gaming machines in clubs and hotels is given to an independent statutory authority, the Queensland Gaming Commission. Similar powers are vested with:

- the VCGA (with respect to gaming machines and the casino);
- the Casino Control Authority of New South Wales (with respect to the casino); and
- the New South Wales Licensing Court and the Liquor Administration Board (with respect to gaming machines).

In many other cases, these functions are carried out by regulators, Ministers and the courts. In South Australia, for example, the Liquor and Gaming Commissioner has these powers, as does the Office of Racing, Gaming and Liquor in Western Australia (which also performs some functions for the Gaming Commission of Western Australia).

Box 22.2 Main legislation governing gambling

New South Wales:

Bookmakers (Taxation) Act 1917
Casino Control Act 1992
Gambling (Two-up) Act 1998
Liquor Act 1982
Lotteries and Art Unions Act 1901
Public Lotteries Act 1996
Racing Administration Act 1998
Racing Taxation (Betting Tax) Act 1952
Registered Clubs Act 1976
Totalisator Act 1997
Unlawful Gambling Act 1998

Victoria:

Casino (Management Agreement) Act 1993
Casino Control Act 1991
Club Keno Act 1993
Gaming No. 2 Act 1997
Gaming and Betting Act 1994
Gaming Machine Control Act 1991
Interactive Gaming (Player Protection) Act 1999
Lotteries, Gaming and Betting Act 1966
Racing Act 1958
Tattersall Consultations Act 1958
Trans-Tasman Line Gaming Act 1993

Queensland:

Art Unions Act 1992
Breakwater Island Casino Agreement Act 1982
Brisbane Casino Agreement Act 1992
Cairns Casino Agreement Act 1993
Casino Control Act 1982
Charitable and Non-profit Gaming Act 1999
Gaming Machine Act 1991
Interactive Gambling (Player Protection) Act 1998
Jupiters Casino Agreement Act 1983
Keno Act 1996
Lotteries Act 1997
Racing and Betting Act 1980
Wagering Act 1998

Western Australia:

Betting Control Act 1954
Casino (Burswood Island) Agreement Act 1985
Casino Control Act 1984
Gaming Commission Act 1987
Lotteries Commission Act 1990
Totalisator Agency Board Betting Act 1960

South Australia:

Casino Act 1983
Gaming Machines Act 1992
Lottery and Gaming Act 1936
Racing Act 1976
State Lotteries Act 1966

Tasmania:

Casino Company Control Act 1973
Gaming Control Act 1993
Racing Act 1983
Racing and Gaming Act 1952
TT-Line Gaming Act 1993

ACT:

Betting (ACTTAB Limited) Act 1964
Bookmakers Act 1985
Casino Control Act 1988
Games, Wagers and Betting-houses Act 1901 of NSW
Gaming and Betting Act 1906 of NSW
Gaming Machine Act 1987
Interactive Gambling Act 1998
Lotteries Act 1964
Pool Betting Act 1964
Racing Act 1998
Unlawful Games Act 1984

Northern Territory:

Gaming Control Act 1993
Gaming Machine Act 1995
Racing and Betting Act 1998
Totalisator Administration and Betting Act
Unlawful Betting Act
Soccer Football Pools Act
Racing and Gaming Authority Act

Table 22.1 Key portfolio and statutory agencies

Excluding taxation and revenue collection

<i>State/ Territory</i>	<i>Agency</i>	<i>Main portfolios</i>	<i>Main roles in relation to gambling</i>
NSW	Dept of Gaming and Racing (incl Director of Casino Surveillance)	Gaming and Racing	has overall responsibility for the proper conduct and balanced development - in the public interest - of the gaming, racing, liquor and charity industries
	Liquor Administration Board		administers liquor licences, assesses and collects gaming machine duty in clubs and hotels, approves gaming machine technical standards
	Licensing Court of NSW		responsible for granting liquor licences to hotels and certificates of registration to clubs, both of which carry entitlements to operate gaming machines; also responsible for issuing licences to gaming machine dealers, sellers, technicians and advisers
	Casino Control Authority		licensing, supervision and control of casino operations, approval of casino games and equipment etc, fund and conduct research into casino-related matters
Vic	Victorian Casino and Gaming Authority VCGA together with its: • Director of Gaming and Betting^a and • Director of Casino Surveillance^a	Gaming	has powers of review, regulation and to fund and conduct research grants licences, decides who is suitable to hold a licence etc quasi-judicial - tasks include making final determination on appeals lodged by external parties against decisions of the Directors
	Office of Racing	Racing	licensing of bookmakers
Qld	Queensland Office of Gaming Regulation	Treasury	regulation of almost all legalised gambling licensing and compliance functions
	Queensland Gaming Commission		has the power to grant, censure, suspend or cancel a range of licences incl gaming machine licences; determines number of gaming machines at each venue; hears appeals against certain decisions; (appeals against its decisions go to Minister or Magistrates Court)
WA	Office of Racing, Gaming and Liquor	Racing and Gaming	carries out many of the Gaming Commission's operational functions, including the provision of licensing, inspection and audit for casino and permitted gaming, together with wagering
	Gaming Commission of WA		policy and procedures in the administration of casino gaming; licensing and regulating minor gambling, VLTs and lotteries

(continued)

^a Appointed statutory positions, with specific functions established in legislation.

Table 22.1 (continued)

<i>State/ Territory</i>	<i>Agency</i>	<i>Main portfolios</i>	<i>Role and activities in relation to gambling</i>
SA	Liquor and Gaming Commissioner	Justice	administers and regulates the casino and gaming machines in clubs and hotels determines applications for licences hears disciplinary action against licensees, and has to power to reprimand, suspend or cancel licences inspects, monitors and gaming machine operations
	Dept of Treasury and Finance	Treasury	some supervisory functions with respect to the casino, gaming and the Lotteries Commission
	Gaming Supervisory Authority	Treasury	review and supervision of the licensing process and of conduct of gaming can hear appeals and conduct inquiries on any matter relating to gaming covers casino and gaming machines
Tas	Dept of Treasury and Finance	Treasury	responsible for most gaming and wagering
	Tasmanian Racing Authority		licensing of bookmakers
	Tasmanian Gaming Commission		oversees and monitors gambling policy administers the Community Support Levy and makes recommendations on allocation of funding
ACT	ACT Revenue Office	Chief Minister	responsible for most gaming and wagering
	Casino Surveillance Authority ^a		supervises the operation of the casino, licences employees, checks and approves gaming equipment, casino layout etc
NT	Racing and Gaming Authority	Racing, Gaming and Licensing	main regulator of all forms of gaming and racing
	Gaming Control Commission		review and advisory functions on gaming matters
	Racing Commission		regulates and controls racing, bookmaking and TAB

^a To be replaced by the Gambling and Racing Commission.

Source: submissions, annual reports.

Table 22.2 Policy, control and enforcement: the main regulators

<i>State/Territory Who handles the gambling policy role?</i>	<i>Regulators</i>	<i>Statutory authority?</i>	<i>Coverage of gambling modes</i>	<i>Mainly control or enforcement?</i>	<i>A research function?</i>	<i>Program adminis- tration^a</i>
NSW <i>Minister for Gaming and Racing</i>	Dept of Gaming and Racing	✗	most	both	✓	✓
	Liquor Administration Board	✓	machine gaming in clubs and hotels	control	✗	✗
	Licensing Court	✗	machine gaming in clubs and hotels	control	✗	✗
	Casino Control Authority	✓	casino gaming	control	✓	✗
Vic <i>Minister for Gaming (also Minister for Finance)</i>	Victorian Casino and Gaming Authority	✓	most	both	✓	✓
	Office of Racing	✗	racing		✗	✗
Qld <i>Treasurer</i>	Queensland Office of Gaming Regulation	✗	most	both	✗	✓
	Queensland Gaming Commission	✓	most	control	✗	✗
WA <i>Minister for Racing and Gaming</i>	Office of Racing, Gaming and Liquor	✗	most	both	✗	✗
	Gaming Commission of WA	✓	most	control	✗	✗
SA <i>Treasurer</i>	Liquor and Gaming Commissioner	✗	casino, clubs, hotels	both	✗	✗
	Gaming Supervisory Authority	✓	casino, clubs, hotels	control	✗	✗
	Dept Treasury and Finance	✗	most	enforcement	✗	✗
Tas <i>Treasurer</i>	Dept Treasury and Finance	✗	most	enforcement	✗	✗
	Tasmanian Gaming Commission	✓	most	both	✗	✓
	Tasmanian Racing Authority	✗	racing		✗	✗
ACT <i>Chief Minister</i>	ACT Revenue Office	✗	most	both	✗	✓
	Casino Surveillance Authority	✓	casino	both	✗	✗
NT <i>Minister for Racing, Gaming and Licensing</i>	Racing and Gaming Authority	✗	most	enforcement	✗	✓
	Gaming Control Commission	✓	gaming	control	✗	✗
	Racing Commission	✓	racing	control	✗	✗

^a Undertaking or funding counselling, community or research programs.

In the past, it was common for casinos, racing and other forms of gambling to be handled separately, and to some extent this still holds in some jurisdictions. For example, control of casinos is vested in an independent authority in New South Wales and (currently) the ACT, but comes under a more broadly-based independent gaming control authority in several other states. For example, the VCGA is responsible for regulating all forms of gambling in Victoria other than the licensing of on-course bookmakers (the responsibility of the Office of Racing).¹

As new gambling forms have been permitted and have expanded in importance, regulatory regimes have sought to adapt to these changes. For example:

- the VCGA was formed in 1994 when Victoria's Gaming Commission, established to control the gaming machine industry, and its Casino Control Authority, established to regulate casino operations, were combined;
- South Australia's Gaming Supervisory Authority has a broader purview than the Casino Supervisory Authority, which it replaced in 1995;
- the ACT Government is about to establish a Gambling and Racing Commission with responsibility for all gambling including the casino and ACTTAB; and
- the QOGR is now responsible for almost all legalised gambling in Queensland (sub. 128, p. 15).

Other institutional changes have also been made. For example, Queensland has separated the operational functions of owning and monitoring gaming machines from the regulatory functions of the QOGR. It has separated the regulatory and business functions of the Golden Casket Lottery Corporation, and is doing the same for its TAB prior to selling off the business function (sub. 128, pp. 6–7). These changes have served to focus the regulatory responsibilities in the one place.

Similarly, the South Australian Government said that, while its TAB and Lotteries Commission are 'self-regulated through the Minister of Government Enterprises':

If they are to be privatised it is the intent of the government that the regulatory functions would be vested with a separate regulatory body (sub. D284, p. 7).

It cited section 4 of the Competition Principles Agreement, which requires that:

Before a party introduces competition to a sector traditionally supplied by a public monopoly, it will remove from the public monopoly any responsibilities for industry regulator (sub. D284, p. 7).

¹ The VCGA's responsibilities are shared between the Authority and the two senior statutory officers, the Director of Gaming and the Director of Casino Surveillance. The Authority and the Directors can provide advice to the Minister for Gaming jointly or separately.

Issues which have arisen during this inquiry

Some of the issues raised by participants were as much about how decisions were made as about the decisions themselves. Several raised concerns about:

- conflicting objectives;
- inconsistency of approaches;
- lack of transparency; and
- the inadequacy of consultation processes.

Conflicts of objectives

As noted elsewhere in this report, there are conflicts among some of the objectives which regulatory regimes seek to meet. Noting the government's reliance on gambling taxes, Logan City Council said:

Current regulation in Queensland appears to have been designed to achieve a mix of objectives that may have detracted from its main role (sub. 66, p. 23).

Some objectives are the cause of controversy. For example, the Casino Control Authority of New South Wales has responsibility for:

... promoting tourism, employment and economic development generally in the State (IPART 1998, pp. 16–17).

And similarly the VCGA is required:

... to promote tourism, employment and economic development generally in the State through the administration of the various Acts (sub. 135, p. 2).

The Interchurch Gambling Task Force and others criticised this clause, referring to 'the inherent contradiction between regulating gaming and promoting tourism'. It argued that that the VCGA 'isn't there to promote tourism and the hospitality industry ... it's there to ... regulate' (transcript, p. 373).

How much effect such a clause has in practice is not clear. Clearly there are some tourism and economic development aspects to gambling, particularly in the case of large destination venues such as casinos. But they should be taken into account in the economic and social impact studies which the agency commissions or carries out. In the Commission's view, *promoting* gambling, whether for tourism or any other reason, should not be a role of the regulator. (In the case of the Victoria, the newly-elected government has announced that it intends to introduce legislation to remove this role from the VCGA.)

The Australian Hotels Association, in its response to the draft report, agreed that:

... the promotion of this industry should be left to those that provide the services ... if privately owned companies wish to advertise their products then they should do so like the majority of other business enterprises and budget it into their general operating costs (sub. D231, p. 97).

While a mix of regulatory objectives is probably unavoidable (and this report has suggested some which the Commission sees as desirable), a key question is how to organise regulatory arrangements so as best to meet those objectives. As part of this, the respective roles of Ministers and regulators need to be kept clear.

For example, Catholic Social Services talked about the need for:

... a clear delineation of ... policy power and decision-making on the part of the government from the oversight and application and implementation of that policy by a body such as the Victorian Casino and Gaming Authority (transcript, p. 387).

In response, the VCGA observed that:

The Authority is responsible for the regulation of the industry; it does not determine gambling policy. This is entirely the province of government — eg whether or not there is to be a moratorium on [gaming machines] or the introduction of Club Keno etc. Legislative amendments would be required if the Authority was to become involved in any policy making procedures (sub. 135, p. 3).

In several jurisdictions, the main regulating agency sits within the Treasury portfolio, but the desirability of this location was questioned. Logan City Council argued that gambling regulation should be a part of the state agency that has responsibility for consumer protection, rather than part of an agency with a primary objective of increasing state revenue. It said that the location of the QOGR in Treasury raised questions about whether its primary objective would be to regulate the impact of the industry on the community, or to provide revenue for the state:

This is not to suggest there has been regulatory failure to date, only to indicate that the existing arrangements mean there are significant risks that regulatory failure could occur (sub. 66, pp. 23–5).

Of major concern to some is the perceived difficulty of regulators remaining immune to the preferences of Ministers and governments for particular regulatory outcomes. And some participants argued that the enormous revenues which gambling generates for the states and territories were unduly influencing the attitudes of governments and their willingness to tackle resulting social problems. For example, the Interchurch Gambling Task Force said:

... in this state I don't think it's an accident that the Minister for Gaming is the Minister for Finance and Gaming. That link is, I think, very undermining of the state government's regulatory role ... there is proper attention that needs to be given to the regulatory role of the VCGA, the role of government, not promoting and sponsoring this, and proper restraints upon the industry (transcript, p. 374).

It added that state governments can be ‘addicted to the gaming dollar almost more than the industry’:

... gaming has grown to nearly ... 14 per cent of recurrent revenue now, and it is growing. I think this has proved in the Victorian experience that ... governments find it almost impossible to be both regulator, in an objective sense for the social good, and revenue collector. This is what my reference is to as minister for finance and gaming. I think there is a fundamental contradiction with those two (transcript, p. 388).

Commonwealth-State funding arrangements have a role to play here. The Women’s Electoral Lobby argued that:

States do have enormous funding responsibilities in terms of provision of education and health and essential services, so it's important that they’re receiving funding which enables them to support that. If they don't, the pressure to raise revenue through fairly socially damaging means becomes more intense (transcript, p. 514).

More broadly, Star City argued that:

... governments of the day are under enormous pressure from gaming operators to approve additional machines and games. No government wants to lose the support of these powerful lobby groups so there has been a tendency for gaming decisions to be based on political considerations rather than on merit (sub. 33, p. 28).

Others expressed concern about the scope for industry to unduly influence regulators. Logan City Council said:

In the face of all the evidence in recent years that single industry regulators are vulnerable to capture from the very industries they regulate, this arrangement creates risks that the regulators will act first to protect the State’s revenue base, particularly if it does not threaten the industry. It raises questions about whether the public is at risk of its legitimate interests being overlooked. McMillen was raising issues about the conflict of interest apparent in the access of commercial interests to the policy-making process as early as 1991 (sub. 66, p. 23).

A concern expressed by several participants is that, in some jurisdictions, there is an undue closeness between government and the gambling industry, which many critics see as inimical to good regulatory practice. This need not be related to questions of government ownership. But government acting as a gambling provider (particularly in the context of heavy advertising by government lotteries and TABs) can reinforce such perceptions.

Inconsistency of approaches

Earlier chapters have noted that there are some significant differences between jurisdictions with respect to the approach in like circumstances. This contributes to some of the inconsistent outcomes mentioned in previous chapters. For example:

-
- in some jurisdictions there are separate regulatory structures for casinos, and probity checks are stringent for casinos but minimal for clubs, some of which are bigger than casinos (in New South Wales, the casino act requires an investigation of the casino licence every three years after its original grant);
 - liquor licences are sometimes handled by the same agency, and sometimes they are not;

The CCA is responsible for issuing and monitoring the Star City liquor licence and other liquor licences within the casino complex. This is in contrast with the rest of NSW which has liquor licensing undertaken by the Licensing Court and the Liquor Administration Board, yet very similar regulatory practices are followed (IPART 1998, p. 17); and

- broadly similar venues are subject to different regulation and taxation in some jurisdictions.

Jurisdictions also vary in the extent to which the regulatory agency is involved in the allocation of funds for counselling services or for harm minimisation programs. For example, New South Wales' Department of Gaming and Racing provides secretariat and administrative support for the Casino Community Benefit Fund, from which funds are allocated for counselling services, harm minimisation programs and gambling research. In South Australia funding for harm minimisation programs is undertaken by a private body funded by voluntary contributions from the clubs and hotels. And in Victoria, allocations from the Community Support Fund are the responsibility of the Premier. The Victorian Local Governance Association expressed concern about this:

... Victoria's own auditor-general has been critical of the fact that less than 5 per cent of the proceeds of gambling go back to research and gambling amelioration activities. We ... are very concerned that the final decisions about the use of funds rests with the premier. That doesn't happen in any other state and currently there is no local government, no community and no independent voice that has any say over the distribution of those funds (transcript, p. 408).

Lack of transparency

In recent times, governments have held public inquiries before changing aspects of gambling policy. For example:

- the Queensland Government released White Papers on proposed changes to its laws covering gaming machines (1996) and art unions (1998) and invited public comment before finalising its position. And in 1999 it has been undertaking a review of the social impact of the recent growth of gaming;
- in New South Wales, IPART held a public review of gaming policy in 1998, again using a process of public inquiry;

-
- the South Australian Parliament's Social Development Committee held a public inquiry into the effects of gambling on that state (completed in August 1998);
 - a Northern Territory inquiry into gaming machines was undertaken in 1998; and
 - NCP reviews in many jurisdictions have involved extensive consultation with stakeholders, including the general public, and the reports have been distributed widely, including by way of the internet (see, for example, Western Australia's NCP review of its racing and betting legislation at www.orgl.wa.gov.au).

This is a welcome development, but a relatively recent one, as public processes have been used only sporadically in the development of gambling policy. More generally, some participants questioned the extent of the transparency and integrity of review or decision making processes (including some NCP reviews). They noted that, for example, reviews vary in the extent to which public input is invited, the openness of the process, and whether they are sufficiently independent.

Later in this chapter, the Commission argues for greater transparency in procedures to be the norm when gambling policy is being reviewed. Such an approach is an important component of good policy making, particularly because gambling touches on issues of 'community norms' and requires judgments to be made about the nature of the public interest in a controversial area.

Inadequate community consultation

Some also argued that there is insufficient consultation with the community or canvassing of different views before decisions are made.

In particular, the inquiry heard consistently (and in most jurisdictions) that there was insufficient consultation of local communities. In particular, several councils in Melbourne expressed concern about their inability to influence the expansion of gaming machines and venues in their local government areas. In their view, low income areas were being targeted by the gaming operators. Local government representatives from Maribyrnong, Dandenong and Moreland argued that several communities were experiencing disproportionate harmful effects from the proliferation of 'convenience gambling'.

The councils said that state government legislation provided them with little scope to control or limit the number or location of gaming machine venues in their communities. For example, Maribyrnong City Council and the Shire of Yarra Ranges said that the powers of local government to regulate venues were very limited. A club or hotel only requires planning permission from council if the proposed restricted gambling area would account for more than 25 per cent of its

licensed floor area. Maribyrnong said, where a planning permit is required, a council's consideration of the application:

... may take into account factors such as car parking, hours, noise, and impact on amenity. Moral concerns do not constitute allowable grounds for refusal or the imposition of particular conditions. It is however arguable that demonstrated social and/or economic impacts may provide such grounds.

... there is some scope for opposition to extended hours on the basis of adverse economic and social impacts, but this issue remains comparatively complex and unclear (sub. 39, p. 5).

The Victorian Local Governance Association noted that Victoria's *Planning and Environment Act 1987*:

... does provide for the consideration of social and economic impacts in town planning decisions as well as traditional planning concerns such as noise, traffic and urban design. This applies to planning decisions where gaming machines exceed 25% of a venue's licensed area.

It added that:

Although many limitations are imposed on consideration of social and economic impacts some recent Victorian Civil and Administration Tribunal decisions have demonstrated a willingness to take into account social and economic impact when there is sufficient evidence. A recent decision endorsed Maribyrnong City Council's requirement that a venue operator demonstrate that there would be no adverse social and economic effects arising from a proposed expansion in gambling hours (sub. D206, p. 14).

The councils sought greater involvement in decisions about the spread of gambling in their local government areas. The Victorian Local Governance Association argued that there is a need for:

... greater local regulation to present an opportunity for local governments to support their communities and work to protect their communities (transcript, p. 409).

Councils from other states made similar requests (box 22.3).

At the draft report hearing, Maribyrnong City Council said:

There can be no systematic approach to ... local consultation which does not incorporate a central role for local government, not only because local government is very closely concerned with local issues but also because of its responsibility for the framework of decision-making about physical planning (transcript, p. 1260).

The Interchurch Gambling Task Force urged the Commission to recommend:

... that local councils have the right to veto further gambling venues and increases in the number EGMs, and to even allow for the removal of EGMs, in their region if they can (sub. D230, pp. 15–16).

Box 22.3 Some local government views

The Local Government Association of Tasmania argued that:

... as local government is the tier of government closest to the communities of Australia, any reforms to decrease the community costs of gambling must give local councils the powers to assess the community impacts and make decisions concerning the introduction of gaming machines and other forms of gambling. It is the local council that is in the best position to have knowledge of the dynamics of the community, and the socio-economic status of the majority of residents (sub. 52, p. 5).

It argued that local government should be given the power to assess whether the adverse effects of the introduction of gambling outweigh the costs to the community:

... the Federal government should urge the states to legislate so that all State regulations on the granting of casino, gaming, and gambling licenses are subject to the approval of the local planning authority – local government. It is local government that is in the best position to ascertain the likely effects of such on their communities (sub. 52, p. 5).

The Victorian Local Governance Association argued that:

... while there is no capacity to control the number of machines in particular areas, the machines just continue to flood into those areas on a performance basis, because that's where people are spending the money on the machines ... local governments must be given the capacity to introduce caps and to regulate the number of machines that they are able to have in their municipalities.

We also think there is a need for greater regulation at a local level over the venues themselves ... [and] over the proceeds of gambling ... an acceptable percentage of the gambling takes must go back into support programs for gamblers and their families ... research [and] gambling revenue really should be returned by formula ... to the communities that are making the major contribution (transcript, p. 410).

A survey of South Australia's local councils showed that 82 per cent of responding councils consider the impact of gaming machines on their community has been 'negative or severely negative'. The Local Government Association of South Australia said that, while over half of the councils prefer the State Government to remain responsible for licensing gaming machines, 73 per cent want to see them subject to greater regulation and 70 per cent want councils to obtain:

... input in the licensing process at least or more significant to the input Councils have into liquor licensing (sub. 171, p. 1).

In a response to the draft report, the Australian Hotels Association said it agreed with the Commission's view that local consultation is necessary:

There must be, however, considerable caution exercised by the authority when consulting ... given the general composition of local council. Many councillors continue to operate businesses that are in direct competition with gambling venues ... the AHA would have significant concerns over councillors with conflicts of interest having a significant say in the granting of licences (sub. D231, p. 102).

In its view, clear guidelines dealing with conflict of interest situations would be needed to deal with any such problems.

Some communities have been successful in preventing the spread of gaming machines. For example, in South Australia, Aboriginal leaders led a successful effort to have an application for additional gaming machines at a South Australian country motel denied (box 22.4). Maggie Brady of the Australian Institute of Aboriginal and Torres Strait Islander Studies argued that the case:

... indicates the degree of concern about gaming machines among these two Indigenous populations (sub. D203, p. 3).

The scope for the Liquor and Gaming Commissioner to uphold community objections is determined by the *Gaming Machines Act 1992*, which, among other things, requires an applicant to satisfy the Commissioner that gaming:

... would be unlikely to result in undue offence, annoyance, disturbance or inconvenience to those who reside, work or worship in the vicinity of the premises (section 15(4)(d)).

As the Nundroo case and the views of some councils show, Australian communities are not alike in their attitudes towards gambling, and, subject to good governance arrangements, there may be merit in mechanisms to better allow communities to have a say in these matters. However, different jurisdictions differ in how much leeway the licensing agency has to prevent or cause alteration to be made to a development.

Moreover, changes are occurring. In recent months, the Queensland and Victorian Governments have announced that they intend introducing processes to allow for greater local community consultation in decision-making. The Queensland Government said that it is considering:

... a stricter licensing process for gaming machines which will include a mechanism through which the community can have a say in how gaming expands in their local community.

One option being considered is a community impact study:

The Queensland Government seeks to establish a better balance between the benefits and costs of gambling, and ensure adequate returns to Queensland communities, particularly those communities and individual most adversely affected by gambling. (sub. D275, p. 7).

The Queensland Government explained:

... some form of impact assessment and the application of guidelines, depending on the social environment in question, to ensure growth is consistent with community

expectations and the community has an opportunity to influence the establishment of new venues in their local area.

The use of the local government urban planning process to assess public need, suitability of premises and impact on the amenity of surrounding areas and residents, is a consideration that may help create an improved licensing procedure. It may also indirectly help address many issues relating to access and problem gambling and would therefore enable the regulator to concentrate on probity issues, supervision of gaming and the control of internal gaming environments (sub. D275, p. 14).

Box 22.4 The Nundroo case

This concerns an application for a licence to operate six gaming machines at the Nundroo Hotel Motor Inn, located on the Eyre Highway at Nundroo, 143 km west of Ceduna in South Australia.

Representatives of two local aboriginal communities, the Yalata Community and the Maralinga Tjarutja, opposed the application on the grounds that granting a gaming licence would result in undue hardship to local aboriginal people.

Nunkuwarrin Yunti of South Australia said that, were the applicant successful, it would have generated economic returns for itself but the responsibility for supporting insolvent community members would have fallen on the local aboriginal people. Nunkuwarrin Yunti emphasised the need for consultation and local self-determination in processing licensing applications, noting that:

... this industry requires a special amount of regulation and control and communities need to be able to set the pace, mix and define the major beneficiaries of gambling at a local level (transcript, p. 974).

It added that:

This is a clear example of an industry participant being insensitive to the wishes of the local ATSI people and insensitivity to the realities of the projected harmful consequences of setting up such a business in this type of region.

South Australia's Liquor and Gaming Commissioner refused to grant the licence, noting that:

... the machines have the potential to drain a substantial amount of money from communities that are already hurt by money spent on alcohol.

... The result of this could be a significant increase in anti-social behaviour in and around Nundroo caused by Yalata and Oak Valley residents.

The motel operator appealed, but the Commissioner's decision was upheld by the Licensing Court of South Australia.

Subsequently, the operator submitted a revised application, but soon thereafter the motel changed ownership.

Source: sub. 106, p. 10 and the Office of the Liquor and Gaming Commissioner.

Summarising on current arrangements

There is a diversity of regulatory arrangements among jurisdictions, but no one system could be described as ideal. These systems change and evolve as governments review regulatory structures and their outcomes. Nevertheless, across jurisdictions, the problems the Commission has observed include:

- conflicts of objectives;
- fragmented responsibilities;
- lack of due process and transparency of procedures;
- patchy consultation processes; and
- inadequate data collection and research.

While each jurisdiction has some of these problems to varying degrees, they each have strengths in particular aspects of their approach to regulation.

The rest of this chapter draws on the best features of each jurisdiction's regulatory regimes in an attempt to describe the elements which would comprise a model regulatory framework. In so doing, it seeks to describe a regulatory regime which is more open, better focused on the broader public interest, and robust and flexible enough to cope with future changes in the industry or in community attitudes.

22.3 Towards a blueprint for gambling regulation

The above discussion, and the experience of states and territories, suggest some fundamentals of good regulatory design. These relate to:

- the structure of the institutions involved;
- the allocation of roles and functions between those institutions; and
- the processes by which each institutional or functional responsibility is carried out.

Importantly, these need to be underpinned by:

- avoidance of conflicting objectives and interests;
- open, consultative and well-informed processes; and
- the guiding principle of the broader public interest.

This approach has much in common with that used for regulation impact statements (box 22.5) and NCP review processes (chapter 14). Both are accepted and used in all jurisdictions in regulation-making and legislative review generally. However,

these processes have generally not been applied in respect of the development of, and changes to, gambling policies and regulation.

Box 22.5 Regulation impact statements

These are becoming widely used by Commonwealth, state and territory governments and by member nations of the OECD. A RIS sets out:

- the problem or issues which give rise to the need for action;
- the desired objective(s);
- the options (regulatory and/or non-regulatory) that may constitute viable means for achieving the desired objective(s);
- an assessment of the impacts (costs and benefits) on consumers, business, government and the community of each option;
- a consultation option; and
- a strategy to implement and review the preferred option.

Source: ORR (1998), p. xv.

We now turn to look in more detail at each of the regulatory functions listed at the beginning of the chapter, namely:

- *policy development* — answering the ‘big picture’ questions about matters with significant community-wide effects;
- *control* — advising the Minister on such matters and making decisions within the established policy framework;
- *enforcement* — surveillance and monitoring to ensure compliance with current rules and standards;
- *adjudication* — deciding on appeals against the decisions of the control or enforcement functions; and
- *program administration* — funding of community awareness, support for problem gambling services, research and data collection.

The policy development function

What is it?

As noted earlier, this is concerned with threshold questions about issues which can have significant community-wide impacts, such as decisions about:

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- the increased liberalisation and accessibility of gambling;
 - the forms of gambling which are acceptable;
 - tax rates;
 - harm minimisation and consumer protection policies.

Who should do it?

In the Commission's view, resolving these basic policy issues is properly the preserve of the Parliament in each jurisdiction, through the responsible Minister.

That said, there is an issue about who the relevant Minister ought to be. For example, some have said that a Minister within the Treasury portfolio is inappropriate because of the risk that decisions about gambling policy may be unduly influenced by revenue considerations. Others argue that a specialist Minister for Gaming or a Minister for Racing may be more vulnerable to lobbying by the industry concerned.

Indeed, some have seen a need to apply in Australia the recommendation of the United States National Gambling Impact Study Commission that the industry be prevented from making contributions to politicians or political parties. But the Australian Hotels Association argued against this:

While the AHA has significant concerns over the amount being donated to political parties by the club sector in Canberra, it is unfair and counterproductive to discriminate against the gambling industry and prevent political donations from this sector alone ... A possible alternative ... is to ensure that political parties do not have a financial interest in gambling enterprises (sub. D231, p. 98).

A core question concerns the amount of discretion which should reside with Ministers, and the extent to which decision making is delegated to others — whether to departmental staff or to a regulatory agency (see below).

How should it be done?

The process by which decisions are informed is crucial. Major policy questions require political debate that is adequately informed by disinterested and publicly available advice. They also require some measure of community awareness and support for legitimacy.

This may be best achieved by public policy processes to ensure that:

- the process of making decisions is well-informed — good information and clear identification of options are critical;

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- public consultation processes are effective — these are particularly important where the issue is controversial and community impacts are not easy to anticipate;
 - independent public reviews are used to identify options, and possible winners and losers, and otherwise inform this process;
 - the assessment of the costs and benefits (both economic and ‘social’) of each are undertaken rigorously, notwithstanding that many will be largely qualitative; and
 - all of these processes are undertaken in a transparent manner.

These processes may be used by the Parliament to inform itself. They should also be an important part of the activities of the regulatory authorities, as they are crucial to inform decisions made by governments.

In view of the need for well-informed political decisions, the use of such processes, including a requirement for independent assessments, should be a prerequisite for legislative change in this difficult area of policy — a government should be required to seek advice from its regulatory authority before implementing major change (and consequent obligations should apply to the authority, as discussed later). Such a requirement is broadly consistent with regulation impact statement (RIS) processes — for example, a RIS is required to accompany any Commonwealth legislative change which has an impact on business.

Once decisions are made, it is important that they be entrenched in legislation to provide transparency, greater surety for industry planning and guidance for administrators and regulators.

The Australian Hotels Association argued that entrenching extensive public consultation and information-gathering processes into legislation would result in some inefficiencies, given the ‘highly distorted and inaccurate public perceptions that exist in the community’:

Public consultation could, therefore, result in an inaccurate picture of the actual effect the gambling venue will have on the community (sub. D231, p. 99).

It also preferred to rely on a mechanism similar to that used for liquor licensing, under which applications are advertised locally and the public are given 40 days to register concern. Following council approval, an application is then made to the licensing court where, again, the application is advertised in local and state newspapers and in the licensing court, and the public given four weeks to register concern. The AHA saw such an approach as allowing:

... the possibility of linking the process of gambling and liquor licensing as well as ensuring that the public has ample opportunity to register their concern (sub. D231, p. 100)

It added that:

The right of appeal to the State Government over any decision must, however, be an element of such a process (sub. D231, p. 99).

While such arrangements (which tend to be specific to a venue or a single proposal) may have a place, the Commission also sees consultation in a wider context. In its view, there remains a need for processes to assess broader community views to inform the development of governments' policies towards gambling generally. Some of these may be triggered by a specific development proposal, but others may relate to questions concerning the forms of gambling which the community sees as acceptable, the extent of accessibility permitted and the efficacy of harm minimisation and consumer protection policies.

In sum, the Commission sees the policy development function as properly the preserve of parliaments. But effective public consultation and information-gathering processes should be prerequisites for legislative change, (supplemented by periodic review of outcomes, in part to inform future decisions). Policy should be entrenched in legislation with clear standards for subsequent decision making by an independent authority in each jurisdiction. Legislation should be reviewed on a regular basis and processes put in place to ensure such reviews are transparent and well-informed.

The control function: the need for an independent regulator

What is it?

Subsequent decision making, within the broad policy framework so established, involves making decisions about licences, approving standards and taking disciplinary action on some matters. This is the control function.

Who should do it?

Regulators will always be the 'meat in the sandwich' — under pressure (overt or otherwise) to give additional weight to the needs of particular interests, be they governments, industry representatives or others. In such circumstances, there is a risk that the broader community interest may at times be given lesser priority.

Such considerations emphasise the importance of an independent regulator with a clearly defined set of responsibilities (specified in legislation), an obligation to take a community-wide view when making decisions or providing advice, and a requirement that it employ public processes for informing its decisions. This is particularly important in areas of regulation (like gambling), where significant community and financial impacts can result from the decisions taken.

This can have several advantages on a number of levels. It can provide assurance to the community that some decision making, and some review and factfinding processes, are being undertaken independently of government and vested interests. It also helps Ministers, who can be independently advised and be seen to be at arm's length from the regulator.

The importance of independence

But what does 'independence' mean, and how is it best assured? In a recent report, the Victorian Auditor-General referred to 'the fundamental principle of independence' which underpins the work of the Ombudsman, Auditors-General, and internal and external auditors in both the public and private sectors. It argued that:

Any organisation charged with the responsibility of reviewing or monitoring the operations of another organisation and reporting the results to a third party must be capable of operating in a totally independent manner. Such a prerequisite is necessary to ensure that the reviewer or monitor is free from any influence or direction so that responsibilities are discharged without fear or favour and reported results can always be regarded as totally impartial in nature (VICAG 1999, p. 66).²

This raises questions of the extent to which direction or control may be exercised, and to whom the body reports or is accountable. In its review, IPART asked:

Is a commission that reports to a minister independent or does independence require that a commission should be only accountable to parliament? If a commission reports to a minister can a minister direct (either formally or informally) the commission? If so, is this still deemed 'independent'? (IPART 1998, p. 33).

Interestingly, venue operators making submissions to IPART all preferred the proposed gaming commission to report to the Minister, while most social welfare groups and problem gambling service providers preferred that it report only to Parliament. In IPART's view:

² The report discussed the role of the Correctional Services Commissioner.

... the Minister should have some control over key decisions in gaming. By contrast, the need for independence is greater where issues of control and property rights are involved (IPART 1998, p. 34).

It noted that New South Wales' Casino Control Authority is not subject to the control or direction of the Minister except in certain limited circumstances and directions given must be notified publicly and tabled in Parliament. In its view, the CCA has:

... functioned well for both the government and the community and could form a model for the commission (IPART 1998, p. 34).

IPART recommended that its proposed gaming commission be fully independent, but with the exception that it could be directed by the Minister in specified circumstances, and that such directions should be in writing, tabled in Parliament and published. It also argued that, before giving a direction, the Minister should be required to call for a report on the matter from the independent commission.

There are several advantages in adopting this approach. Governments remain free to accept or reject advice from the authority. But the public nature of the process would ensure that the subsequent decision making processes were better informed and took place in public.

Its structure and functions

In the Commission's view, the control function ought to be undertaken by an independent body, at arm's length from government and from interest groups. This would require it to be established by an Act of Parliament. The structure of the statutory authority will also have a significant influence on its capacity to be independent. To this end, the statute should specify that:

- the authority comprise a number of Commissioners (of whom one should be full-time), appointed by the Governor;
- appointments should be of fixed term, with terms not able to be terminated by the government of the day without just cause (to be specified in the Act);
- independence may be strengthened by a requirement that Commissioners may only serve one term;
- to avoid the perception of lack of independence, no persons with present or past links to gambling providers, regulators, counselling agencies or the like should be eligible for appointment;
- the authority should have its own budget, voted by Parliament;

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- and should employ its own staff, rather than be dependent on a secretariat from a department.

The Council of Community Clubs of Australia and New Zealand had reservations about this proposal. It saw it as unworkable if independent authorities did not also have responsibility for industry development, promotion or tourism:

Governments are not likely to make policy decisions on gambling in isolation from these other issues (sub. D226, p. 30).

The Council said it would be concerned if:

... the role of the government and the role of the minister was de facto passed down to the independent commission to make policy and make strong recommendations which would enable some politicians or some ministers to say, "Look, this independent commission has recommended this. Clearly that's what should be done," and they would walk away from their policy responsibilities. It's in that narrow area of ... influence where the independent commission would tend to make policy and have it rubber stamped by a government. (transcript, p. 1595).

In respect of the people who would comprise the independent authority, the Council asked:

Where would they come from? Would they come from people who had no knowledge, no involvement with gambling or with hotels and clubs? Would they be people drawn from an area who had no sympathy or empathy ... (transcript, p. 1595).

In contrast, the AHA supported the establishment of:

... an independent body in States where no such body exists to oversee the control function of the gambling industry with input and representation from industry (sub. D231, p. 8).

It agreed that those who have current direct interests in the gambling industry should not be involved in the makeup of the board, but argued that those with past associations and specialist knowledge or industry representatives should be considered:

The gambling industry is ... highly complex and incorporates a broad range of issues that require specialist knowledge ... there should be a range of board representatives that have previously been involved in the industry and fully understand the contentions issues surrounding its operation (sub. D231, p. 101).

The Queensland Government took a similar view on this point. It also saw no value in limiting commissioners to single term (sub. D275, p. 16).

There is merit in these views. But the Commission sees the independence of the regulator as a cornerstone of good regulatory practice. It places considerable weight on the need for the regulator to be, and to be seen to be, independent of the various

interests involved — whether they be gambling providers, regulators, counselling agencies, church groups or the like. Governments should forgo the specialist benefits which such people can bring, in favour of a clear public signal that the industry is being overseen by a regulator who is independent.

In the Commission's view, the independent control authority should have the primary objective of furthering the public interest. Its charter should emphasise a high standard of consumer protection as a central objective.

It should have an independent advisory function, distinct from departmental advice, with respect to major public interest matters, such as gaming machine caps and licences for casinos and TABs. These matters fall within the scope of the policy development function, and are properly decided at the political level.

But once the broad parameters of government policy towards gambling have been set in legislation, the authority should be charged with making decisions in accordance with established criteria. This would encompass, for example, making decisions about the licensing of a hotel or club, or authorising gaming machines.

The authority should also be required to assure itself that the *enforcement* function (discussed below) is carried out effectively. While not a direct supervising role, it should be required to assess the methods used and report and include in its annual report a judgment as to the effectiveness of the process.

Both advisory and decision making functions should be underpinned by an information-gathering and research program. Public dissemination of the results of this work would be a key part of this work.

In view of the sensitivities surrounding gambling policy in all jurisdictions, there are significant advantages in specifying that a government be required to seek the advice of its independent authority on all major policy changes. This in turn would require the authority to carry out a public consultation process, and to publish the advice it gives to Ministers.

There are also some functions that the authority should be *precluded* from undertaking.

- It should have no revenue or taxation functions.
- And it must have no industry development or tourism-related functions, or in any way be involved in promoting gambling.

It should cover all gambling activities

In the past, particular forms of gambling tended to have their own regulatory structures. Racing, in particular, tended to be treated separately because of, for example, the range of structures for regulating racing itself, unrelated to wagering activities per se. Casinos were also subject to special attention because of earlier concerns about possible links with crime.

Having separate regulatory authorities for particular forms of gambling increases the likelihood that inconsistent policies will be put in place in like circumstances. It also runs the risk that special arrangements for particular sectors may be established and maintained, with insufficient attention to the broader public interest.

Partly with these concerns in mind, a more integrated approach to gaming and wagering on racing is increasingly an objective of governments. Several jurisdictions, notably Queensland and Victoria, have already moved in this direction. Indeed, both the QOGR and the VCGA are consolidations of previously more fragmented arrangements in those states.

The Commission sees merit in placing all forms of gambling under the one regulatory umbrella to allow greater consistency of approach. This may also generate efficiencies in the regulation process. As the BetSafe Group of Clubs noted, having:

... one statutory independent central body to administer the entire gambling industry with regard to policy advice and administration of legislation ... would allow for some sort of standardisation in control mechanisms and provision of [Responsible Service of Gambling] policies for consumer protection and in the public interest (sub. D250, pp. 8–9).

In the Commission's view, there is also merit in having all gambling legislation consolidated into a single gaming Act. This would also reinforce the notion of a broadly consistent approach to gambling regulation.

Its processes should be open and transparent

The determination of public policy, particularly in the case of issues which are highly controversial, is helped by government processes which are consultative and open to public scrutiny. Of particular importance are:

- *transparent operating procedures*, to permit public scrutiny of ongoing processes — examples include ensuring the advertising of matters under review, publishing details of the process, and the basis for the decisions it reaches; and

using open tendering processes for the letting of contracts for research, public opinion surveys or other data collection;

- *processes for public consultation* on issues of public importance through, for example, providing opportunities for community input on a wide range of issues, providing open forums for community views to be put, and undertaking public inquiries where major policy changes are being considered.

Box 22.6 The control function: structure and activities

The control function should be undertaken by an independent body, at arms length from government and from interest groups. To this end, it should:

- be established by an Act of Parliament;
- be required to report to Parliament (through the Minister); and
- comprise at least one full-time Commissioner appointed by the Governor
 - appointments should be of fixed term, with terms not able to be terminated by the government of the day without just cause (to be specified in the Act);
 - Commissioners should be limited to one term; and
 - no persons with present or past links to the gambling industry should be eligible for appointment.

The control body should:

- have its own budget, voted by Parliament; and
- employ its own staff, rather than be provided with a secretariat from a department.

Its *activities* should include:

- advising the Minister on major public interest matters, such as gaming machine caps, licences for casinos or TABs;
- undertaking or commissioning social and economic impact studies; and
- deciding such matters as licence applications, suspensions and revocations.

These functions would be underpinned by information gathering and research.

The authority should cover all gambling activities, and have no promotion, industry development or tourism-related functions, and no revenue or taxation functions.

Assessing community views

As noted, several communities expressed concern about the effects of local proliferation of gambling facilities. Councils said they observe first hand the social impacts of gambling, and also expressed concern about money leaving the area, disadvantaging local businesses. Several argued for greater local council and

community input into decisions about the location and expansion of gambling activities.

In the Commission’s view, the principle that local communities should be consulted on these matters is a strong one. Councils are close to the local community, and it is at the local level that most social impacts are concentrated. Councils may have a better perspective on the impacts of gambling on families, households and community life than state government agencies. A typical view was put by Yarra City Council, which said:

Councils are in a key position to monitor these effects both through formal research methods and also through anecdotal evidence gathered through community networks and contacts. Local community services are often a “barometer” of social problem growth (sub. 238, p. 1).

Among participants, there was widespread agreement with the need for a consultation process whereby the local community’s views can have an influence on the decisions of regulators. As noted above, the Queensland and Victorian Governments have recently announced their intentions to implement greater local community consultation processes where gambling is concerned.

A mechanism for more local input would be to require, with the establishment of an independent control authority, that it take explicit account of community impacts of decisions and consult with local communities when matters of likely concern to them are under consideration (for example, in making decisions about licence applications for local venues). This could include the undertaking of surveys or, for occasional major issues, referenda.³

In Victoria, the VLGA (sub. D206) and some councils sought greater control over planning decisions concerning gambling, and sought to impose conditions, such as adherence to a local *Responsible Gaming Charter*, on the establishment and operation of venues. In part, they sought a repeal of the provision which limits their role in cases where the gaming area of a venue does not exceed 25 per cent of the licensed area.

Consideration of these matters raises several questions about the respective roles of state governments and councils, and about the processes most likely to give good outcomes. For example, while councils may be well-placed to evaluate social impacts, there is perhaps less of a case for the economic effects of a particular proposal to be evaluated at the local level. As noted in chapter 12, observed effects on jobs, retail trade, entertainment activities and the like at the local level may be

³ As occurred, for example, prior to the introduction of lotteries in South Australia and the licensing of the Wrest Point casino in Hobart. Referenda are also commonly used in many states in the United States.

only part of a broader reshuffling of economic resources within a region or across the state, with the net gains or losses being unclear when looked at in isolation. For such reasons, economic effects are probably better assessed at the state or regional level.

The most appropriate form and extent of local community input is difficult to judge, and will partly depend on the characteristics of different jurisdictions. As the primary responsibility for gambling policy rests with state or territory governments, which have established policy stances on such matters as the availability of gambling in strip shopping centres, venue or regional caps on gaming machine numbers and so on, careful consideration would need to be given to the range of matters over which further control ought to be passed to local councils.

A proper resolution of these matters would require more detailed and specific analysis than is possible in this national inquiry. Relevant considerations would include:

- the respective roles and responsibilities of councils and state planning and gaming authorities, and available appeal processes;
- the extent to which councils have the capacity or inclination to perform these roles (a survey of South Australian councils (sub. 171) noted that a majority wanted ‘more input’ into the licensing process but preferred that responsibility for licensing of gaming machines remain with the State Government, while Victorian councils sought more direct control over developments in their local areas);
- the adequacy of processes to ensure the appropriateness of decision-making and the quality of the information on which it is based. Some councils have invested considerable efforts in undertaking or commissioning research into the effects of gambling in their local areas. But were councils to have an enhanced role, establishing agreed methodology and criteria would be important, including appeal mechanisms and transparent processes;
- the alternative processes by which local community input may be sought; and
- the quality of governance structures at the local level. As the Commission has emphasised, independence of decision-making is a key to good outcomes which are widely accepted. The Commission is strongly of the view that the independence of the regulator is the cornerstone of good regulatory practice, and has delineated what this function requires in its ‘blueprint’. Some members of councils — who have close personal (and perhaps commercial) links with the

people, businesses or community groups in their area — may not be perceived as sufficiently independent of the interests involved.

Box 22.7 The control function: processes

The control authority should operate on an open, consultative basis, and undertake or commission worthwhile studies before making decisions.

Its guiding principle ought to be furtherance of the public interest for the community as a whole. To this end, it should implement:

- *transparent operating procedures*, to permit public scrutiny of ongoing processes — examples include ensuring the advertising of matters under review, publishing details of the process, and the basis for the decisions it reaches; and using open tendering processes for, for example, letting contracts for research, public opinion surveys or other data collection; and
- *processes for public consultation* on issues of public importance through, for example, providing opportunities for community input on a wide range of issues, providing open forums for community views to be put, and undertaking full formal public inquiries for issues where major changes are being considered.

The control authority should consult with local communities when matters of likely concern to them is under consideration (for example, in making decisions about licence applications for local venues). This could include the undertaking of surveys or, on major issues, referenda.

In addition:

- the authority could require impact studies to be undertaken as part of any proposed change put before it;
- it should have the power to initiate public inquiries into matters which it judged to warrant this; and

Government should be required to seek the advice of its independent authority on all major policy changes.

For such reasons, there is a need to proceed cautiously. One option would be to conduct a trial in a small number of local government areas by providing stronger local government powers over gambling activity for a specified period. In this way, lessons could be learned about the implications of greater control at that level, the most appropriate criteria for permitting expanded gambling and the ability of the appeals process to handle disputed decisions. An important element would be to establish benchmarks against which to judge the success or otherwise of such an trial. (Rough indicators might include the extent to which gambling was encouraged or deterred, the number of cases appealed or overturned on appeal, general community reactions and so on, and comparing experiences across local government areas might help sharpen the benchmarks to be used.)

The enforcement function

What is it?

As noted earlier, enforcement is about the day-to-day surveillance of the conduct of gaming: enforcing the rules already in place. It is about ensuring venue operators comply with the licence conditions and the law, and prosecuting cases of non-adherence.

Who should do it?

There are several ways this could be undertaken. One approach is simply to place this function within the independent control authority, to be handled by its staff.

This would have the advantage of bringing all the relevant regulatory expertise under the one roof, with consequent benefits in terms of skill development, cost efficiencies, maximising corporate knowledge and the like. (Indeed, such benefits partly explain the trend in some states to consolidate their regulators into single agencies with a broad remit.) But it would also require ‘Chinese walls’ to be established between the control and prosecution/enforcement functions to ensure the integrity of both.

Indeed, the appropriate degree of separation of control and enforcement is the key to making a judgment in this area. IPART agreed with the view expressed in a paper prepared for the New Zealand Gaming Review about the importance of keeping them separate. In IPART’s view:

Separation of these two functions for the gaming industry is particularly important, as there has been a history of criminal involvement in some countries in the gaming industry, particularly casinos. The potential for criminal involvement exposes regulators to bribery and corruption to a much greater extent than in other industries (IPART 1998, p. 26).

Moreover:

It is vital to ensure separation of the control and enforcement functions to provide appropriate checks and balances, minimise the potential for corruption, ensure proper accountability and maximise public confidence (p. iv).

Star City demurred, arguing that:

Much of this debate is not relevant to Australia. The policy functions will always rest with the government of the day. The judicial and policing functions may be conducted under a Commission provided their integrity is maintained (sub. 33, p. 28).

But McMillen and others took a similar view to IPART. This idea is also behind the so-called New Jersey model of gambling regulation, reputed to be the strictest gaming regulatory structure in the world (box 22.8).

Box 22.8 The New Jersey model of gaming regulation

The New Jersey Government placed governmental authority over the casino industry in two separate agencies.

The **New Jersey Casino Control Commission** is an independent agency. The Governor appoints the chairman (who is also the chief executive officer) and four full-time members for five-year terms.

The Commission has both regulatory and quasi-judicial functions. It has the power to interpret and enforce the provisions of the Casino Control Act, including the power to issue, deny, revoke, suspend or limit any required gaming affiliated licences and to hear and decide all complaints for violation of the Act.

The Commissioners act as quasi-judicial hearing officers to consider contested licence issues involving casinos, their employees and casino service industries. They preside over hearings, and make evidentiary rulings. They are required to make comprehensive findings of fact and conclusions of law in formal written submissions to the full commission for a final determination. The Commissioners vote on matters ranging from issuing casino licences to establishing rules of games. In addition, they rule on applications for corporate refinancings and restructurings as they affect financial stability.

Commission inspectors monitor compliance with regulations, receive complaints from the public and observe the daily count of casino revenue

The **Division of Gaming Enforcement** of the Attorney General's office investigates all licence applicants for corporations, individual owners, managers, employees and service industries.

It reports its findings and recommendations to the Commission, which has the authority to grant or deny a licence at a public hearing.

The Division also monitors casino equipment and operations, and prosecutes all complaints brought under the Act.

The separation of functions was done for the specific purpose of creating a system of checks and balances. The legislature recognised the need to centralise the regulation of this highly sensitive industry. However, it recognises the need to minimise the possibility of corruption. The Commission and Division act as a check and balance on each other. For example, if the Commission disagrees with a Division recommendation it may disregard that recommendation. Conversely, if the Division disagrees with a final decision of the Commission, it may appeal that decision to the courts.

Source: NJCCC (1998), pp. 7-8 and 16 and Seton Hall Legislative Journal, New Jersey Casino Gaming Symposium, vol. 6 Summer 1982, pp. 17-20, cited in IPART (1998), p. 32.

Under that model, the separation of functions into two agencies was recommended because:

- placing regulatory authority in one agency would be dangerous in an area as sensitive as casino gaming.
- by creating the Commission as an independent, impartial body vested with full quasi-judicial and quasi-legislative authority, the investigative and prosecutorial functions could remain in the Attorney General's office (the principal law enforcement agency of the state) without offending the concepts of fairness or due process. The scenario of one agency serving as investigator, prosecutor, and judge was avoided.

The Queensland Government cautioned that:

The New Jersey model was designed in 1976 to combat the specific issue of organised crime in the regulation of gambling. With there being no evidence relating to organised crime in Australia, such a model could be considered much less relevant than ... an Australian best practice model (sub. D275, p. 17).

It also queried whether there was sufficient evidence to show that a physical separation of enforcement and control functions would be an improvement:

... separation of regulatory functions can potentially lead to the duplication of resources, communication problems, inconsistent policy direction and formation and territorial disputes (sub. D275, pp. 16–17).

The Queensland Government agreed with many of the objectives of the Commission's draft report model, but considered that the criticisms of current arrangements did not adequately distinguish between the different approaches in different jurisdictions. It said that many of the elements of the Commission's preferred model are currently present in the Queensland regulatory structure. Nevertheless, it is reviewing its regulatory structure to ensure, for example, that the regulators are sufficiently independent of government while the policy direction continues to be set by government (sub. D275, p. 17).

The Commission agrees with this approach. While the merits of separating or combining policy and enforcement may be debated, a critical element is having strict separation of the control function from policy development.

Other approaches to the enforcement function include allowing it to be undertaken by:

- a unit within the policy department;
- a unit within another department; or
- a new separate agency.

The first has similar advantages and disadvantages as using the control authority. The second would encompass the New Jersey approach, where enforcement is undertaken by the Attorney General's office. And the third would involve setting up a new, independent enforcement agency, which would achieve the benefits of separation, but at the cost of some duplication of expertise and effort.

In the Commission's view, there are benefits in keeping the enforcement function in an organisation separate to the control authority or the policy department. The control authority should have responsibility to assure itself that the enforcement function is effectively carried out.

The adjudication function

At present, there is considerable variation in the processes by which decisions may be appealed. For example, Star City said that it had access to:

... no appeal processes at all ... There can be no valid reasons for this (sub. D217, p. 26).

A clear and readily available procedure for appealing the decisions of regulators is crucial to good governance.

At one level, the control authority should have the function of deciding upon administrative and disciplinary matters referred to it by the enforcement arm, possibly leading to the suspension or revocation of licences. In respect of decisions made by the control authority, there exist appropriate appeal processes, such as administrative appeals tribunals and ultimately the courts.

In respect of breaches of statute such as fraud or other criminal matters, investigations by the enforcement agency would be referred as appropriate to the police or the public prosecutor.

The program administration function

What is it?

A key question concerns the administration of programs funded by community levies. At present, some control authorities have responsibility for research or for disbursement of funds raised through community levies (for example, the Tasmanian Gaming Commission and the New South Wales Casino Control Authority).

Who should do it?

As noted in chapter 17, there is merit in an independent board having responsibility for all community levies for the funding of:

- counselling, harm minimisation and community awareness programs; and
- research and information-gathering.

The high level of concern about due process in these areas warrants a separate board to oversee the raising of funds through levies and their disbursement. No-one from the industry or from recipient organisations ought to have a place on such a board. Its secretariat could be provided by the independent control authority, although departments of health or human services could equally discharge that role. The board would need to establish appropriate processes and guidelines for undertaking this role.

At the draft report hearing, Reverend Harry Herbert of the Uniting Church (and a trustee of the New South Wales Casino Community Benefit Fund), strongly supported the proposal that support services be funded by an independent body. He saw particular merit in keeping ‘social impact issues’ under the one administration:

For instance, ... it is important that the organisation of public awareness campaigns about gambling is closely connected with the support services that are available [and] research into the incidence and effect of gambling is assisted by being linked with the body that funds support services (sub. D188, p. 2).

In his view, independence is particularly important for the body undertaking public awareness campaigns:

Such campaigns must be distanced from the industry itself, which is bound not to be pleased with them, and distanced also to some degree from the State Governments who are the recipients of funds from the industry (sub. D188, p. 2).

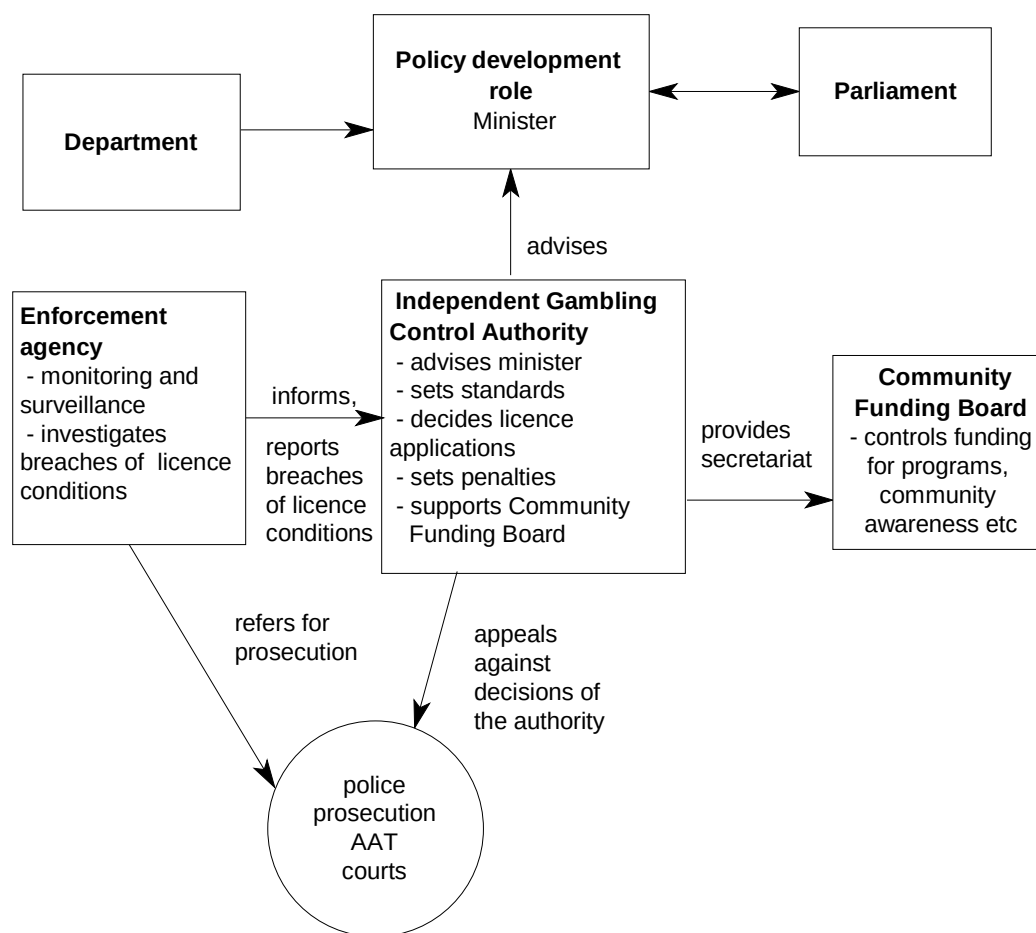
An independent board should have responsibility for:

- **administering the community development fund;**
- **funding counselling, harm minimisation and community awareness programs;**
- **funding research and information gathering and disseminating; and**
- **conducting evaluations of these programs.**

In the case of counselling, harm minimisation and community awareness programs, this board should have responsibility for setting the agenda in each area, in consultation with those groups responsible for service delivery. It should also implement ongoing programs to gather information and evaluate the effectiveness

of the programs implemented (chapter 17). And coordination of activities and sharing of information with boards in other jurisdictions would be likely to enhance the community's knowledge about these matters.

Figure 22.1 Towards a regulatory blueprint for each state and territory
Summary of the Commission's views



And as discussed in the next chapter, similar arrangements should apply with respect of research and information issues. But for these matters, the Commission sees merit in the establishment of a national research facility (chapter 23). There would be additional benefits were each state and territory's independent board to coordinate its activities with that body.

What role for the Commonwealth?

While gambling is primarily a matter for state and territory governments, jurisdictional borders have become increasingly less binding. This is not a recent

development: telephone betting with TABs across borders has been around for 30 years, and lotteries and TABs have entered into interstate pooling arrangements.

More recently, there have been further developments which, some suggest, call for greater Commonwealth involvement. Sports betting (by telephone and internet) and internet gambling, notably casino-type games, are starting to become more important. They are beginning to be offered by both Australian and offshore providers.

Clearly, the Commonwealth has a role with respect to international treaties, payment systems, taxation across national borders and telecommunications matters. For example, internet gambling can really only be effectively regulated and taxed with the assistance of the Commonwealth (chapter 18).

These matters may become more relevant to future developments in gambling. And the involvement of the Territories of Christmas Island and Norfolk Island in gambling activities raises immediate issues for the Commonwealth.

Some participants also pointed to the Commonwealth's interest in the social welfare and community impact aspects of gambling: when some gamblers end up on unemployment benefits or become heavy users of the Medicare system there is some resultant 'cost shifting' between the states and the Commonwealth.

There may also be economies of scale and scope in having some form of national focus for particular issues, such as for the organisation of counselling services. In that case, the program name Break Even is used across Australia, and its objectives are broadly common, although funding is undertaken in a piecemeal manner. There may be benefits in relevant Commonwealth departments and authorities being involved in cooperative arrangements among the states and territories.

And as noted in previous chapters, Commonwealth-State financial arrangements provide the context for the approaches of state and territory governments towards gaming and gambling taxation (chapter 19).

The prime role of the states and territories with respect to gambling is not in dispute. But some of these considerations suggest that there are benefits in the Commonwealth playing some role in cases where its involvement now is minimal or non-existent.

Commonwealth involvement would provide one way of facilitating a more formal process of coordination, notwithstanding that there are already annual conferences of gaming and racing ministers, and other contacts between regulators. This could initially be by way of a forum, such as a Ministerial Council, for reviewing

emerging issues of relevance to all jurisdictions. Increasingly, many issues will have an interjurisdictional and perhaps international dimension, and, in time, other administrative arrangements may develop.

One other area requiring a more significant role for the Commonwealth is in relation to information and research, the subject of the final chapter.

23 Information issues

Box 23.1 Key messages

- There is a need for better quality information to guide policy-making and public understanding about gambling:
 - there are major gaps in research and data; and
 - analysis of changes over time is particularly difficult.
- This would be helped by greater emphasis in each jurisdiction on developing systematic research strategies and programs.
- Guiding principles should include:
 - independence of decision-making about information needs and priorities;
 - transparency of processes;
 - provision of scope for community input; and
 - early public release of results, methodologies and (confidentialised) data sets to allow further research and replication.
- Obtaining information generates administrative and compliance costs, however, which should be taken into account.
- There would be particular value in assigning responsibility for research and data collection to the independent control authority in each state or territory:
 - it should also determine the processes by which priorities are set, projects are commissioned and their results published and disseminated.
- There would also be benefits in facilitating more coordinated approaches to data and research across jurisdictions:
 - the Commission sees merit in establishing an independent national research facility for this purpose.

23.1 Introduction

The terms of reference for this inquiry ask the Commission to report on the adequacy of ABS statistics involving gambling (para 3(h)). However, the issue of the quality and quantity of information on gambling, its relevance to public policy and its usefulness to the community is much broader than this. Each of these matters is discussed in this chapter.

By international standards, Australia is reasonably well served with data and research on gambling. The statistics published by the ABS and the Tasmanian Gaming Commission provide a detailed picture of patterns of spending (or net takings) by state and mode of gambling, employment characteristics, income and profit etc. This provides a better picture of the industry than the Commission has seen for any other country.

Broadly, much current information (and research) originates from departments with regulatory or taxation responsibilities, by way of projects financed by funds compulsorily collected from the gambling industry, from industry-funded projects and through conventional research sources such as universities.

There is detailed information (which is readily available and easily accessible) on particular modes of gambling in some jurisdictions (for example, club and hotel gambling in New South Wales and Queensland). And in Victoria, the VCGA has for some years commissioned and disseminated extensive research on gambling, while that state's Department of Human Services has undertaken separate research on service delivery. Victoria's Auditor-General said of the VCGA's research into the social impact of gambling:

The collective results were an important source of information for the Government in reaching its decision in December 1997 to retain the cap of 27,500 electronic gaming machines until the year 2000 (para 1.1.16 of VICAG (1998), cited in sub. D240, p. 1).

Nevertheless, in the main the information that is available is far from comprehensive and not always relevant to the key policy issues, even in those jurisdictions which have well-developed information sources for some aspects of gambling policy. As McMillen has observed, while government-funded research has increased in recent years, in most states research is still 'unsystematic and ad hoc, providing only a partial picture' (McMillen 1999, p. 213). For example:

- information tends to be fragmented — for example, while there are a number of useful surveys of the prevalence of problem gambling in various jurisdictions, they mostly have relatively small samples and apply different methodologies;
- research projects and data collection have, in many cases, been driven by particular concerns of the moment, rather than by an attempt to obtain systematic information on key policy areas;
- much research is specific to a location or a project, a particular type of impact or a particular group in society (examples include an impact study of a new casino development or studies of crime or problem gambling); and

- research typically tends to cover only a short time frame, rather than providing information on trends or the factors which underlie them.

Box 23.2 Current research efforts: some views

The Queensland Government noted that:

The quality of results of gambling research projects in Queensland and other jurisdictions has, to date, been generally disappointing. While more quality nation-wide research will be helpful in general terms, more jurisdiction specific research needs to be undertaken (sub. D275, p. 12).

It added that:

... existing research into the economic and social costs of gaming is inadequate and not sufficiently state or regional focused to quantify or adequately consider the [net benefits and costs] at a state, regional or community level, or nationally ... For example, there are significant state, regional and community social and economic costs associated with the rapid expansion of gaming machines that need to be more fully addressed (sub. D275, p. 23).

Maribyrnong City Council referred to the need for better information to facilitate debate and allow local communities to determine for themselves the level of gambling that they are prepared to accept. But it noted that:

... the standard of information and ... official research available to assist public debate on these issues has been, to be charitable, undistinguished. It's for this reason that my city in cooperation with three others felt it necessary to commission the original research to assist our understanding of the economic implications of local gambling (transcript, p. 1260).

The Interchurch Gambling Task Force said of the VCGA's research:

... the research has been piecemeal. It has concentrated on certain geographical areas at the expense of others. It has been research which has not been able to be replicated over a period of time, other than those surveys which have actually been attitudinal surveys by way of virtual marketing surveys for the industry, and it has been research which has largely ignored some of the social impacts which the Interchurch Gambling Task Force has been pointing out for some time (transcript, p. 375).

It also acknowledged that:

... in recent months there has been a number of research projects which are really quite significant and which do reflect some of the submissions that the Interchurch Gambling Task Force has been making over a period of time (transcript, p. 375).

The VCGA responded as follows:

All projects undertaken by the Authority are designed to examine aspects of both the social and economic impacts of gambling ... The Authority has consulted on the development and conduct of its research projects [and] the Authority has considered the suggestions put forward by the Victorian Council of Churches Gaming Task Force and, where appropriate, incorporated these suggestions into its programs. At present, there are no matters which the Victorian Council of Churches Gaming Task Force have suggested which have not been incorporated into the Authority's research program (sub. 135, p. 5).

Source: submissions and transcript.

Other participants (in all jurisdictions) criticised current research as being insufficiently focused on the key public policy issues (box 23.2). There were also criticisms of the secrecy which sometimes accompanies the information collection process, of the need to obtain Ministerial approval to release information, and of research and data being copyrighted, rather than freely available to other researchers.

The Commission shares these concerns. In the course of this inquiry, it encountered unexpected difficulty in obtaining data of a kind which ought to be readily available in all jurisdictions. It had some difficulty in obtaining existing survey-based information from some government departments and regulatory agencies. In other cases, information generated as part of an administration or legal function is not subsequently incorporated into some useable form (thus, there is little information on gambling and crime coming out of the criminal justice system, notwithstanding that gambling may be an issue in some criminal and civil cases). Finally, there are many cases where little or no information is collected at all.

23.2 Some specific information gaps

Earlier chapters have highlighted a variety of areas where the Commission has had particular difficulties in obtaining information, or where it became apparent that better information was needed. Without necessarily arguing that all should be undertaken, major information gaps include the following:

- *Effects on children and partners of problem gamblers.* A major gap in the information available to this inquiry concerns the effects which the behaviours of problem gamblers have on children and partners — an important element in the assessment of the social costs of problem gambling.

[chapter 7]

- *Ethnic gambling.* Members of different cultural groups perceive gambling in different ways, and face different problems. This may affect policy interventions such as access, harm minimisation, awareness campaigns and the provision of counselling and welfare services. Some work is being undertaken in some jurisdictions on this matter.

[chapter 6]

- *Gambling in prisons and other institutions.* Little is known about the role of gambling as a contributing factor to imprisonment, about the gambling behaviour of those in prisons and other institutions, or about their behaviour on release.

[chapters 7 and 9]

-
- *Under-age gambling.* Again, a matter about which little is known but where fears are held for its capacity to lead to significant problems in adulthood for some. (The possible ‘conditioning’ of young people and its relationship to greater or lesser problem gambling is a related matter for research.)
[chapter 6]
 - *The emotional and psychological costs of gambling problems.* Most previous studies of the cost impacts of gambling have only counted the readily measured financial costs, such as court and police costs, and the costs of providing counselling services. They have generally not counted the distress suffered by problem gamblers, their families or the community. However, these are likely to constitute the major costs of problem gambling, in the same way that the emotional and psychological benefits (measured by consumer surplus) constitute its major benefits. The Commission has produced some ‘ball-park’ estimates but it is important that more detailed quantitative assessments be undertaken.
[chapter 7]
 - *Interactive home gambling.* There are many views about the likely impact of such developments, but information and research will only become available as the importance of these forms of gambling increases. Major questions concern the social impacts, characteristics of players, nature of play, efficacy of regulatory and taxation arrangements and the like.
[chapter 18]
 - *Co-morbidity aspects of problem gambling.* The role of other factors impinging on problem gamblers are understood in general terms, but little detailed analysis has been done.
[chapter 6]
 - *Indigenous gambling.* Some studies have been done, but there is much more to be learned, both in relation to informal and formal gambling in indigenous communities.
[appendix E]
 - *The effectiveness of harm minimisation programs.* Some proposals in chapter 16 could simply be implemented and monitored to confirm their effectiveness. But implementing others would involve significant changes to the technology of gaming machines and could impose significant costs on venues. These proposals would need to be made the subject of experimental research, for example in a particular confined area or group, prior to general implementation.
[chapter 16]

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- *The effectiveness of counselling services.* Many different approaches are being used, with little agreement as to a core set of protocols. ‘Horses for courses’ is a common approach in treatment, but follow-up work is not widely undertaken because of cost considerations.

[chapter 17]

- *Local and regional assessments of the impacts of gambling.*

[chapter 9]

- *The characteristics of clients of problem gambling counselling agencies.* There is a need for a national minimum data set to be collected, using identical definitions across all jurisdictions and an approach that would allow repeat clients to be identified as well as clients who attend more than one counselling service. The suggested approach would be not unlike that currently in place in relation to hospital admissions.

[chapter 17]

- *The spatial distribution of counselling and treatment services.* Time series data on the spatial distribution of clients would inform analysis of the link between accessibility and problems, and help plan counselling services. Important information would include gender and the source and duration of gambling problems. This could be linked with information on promotional measures by counselling agencies to assess to what extent an increase in demand follows awareness campaigns. It may also allow some evaluation of the effectiveness of the harm minimisation strategies used if policy experiments are undertaken in some areas but not others.

[chapter 17]

- *Taxation and pricing of gaming products.* Normally, reduced taxes lead to lower prices. But in some jurisdictions, payouts to players have increased as the tax rate has increased. It is difficult to explain why higher taxes appear to be associated with lower prices. This relationship would be a fruitful area for further work.

[chapter 19]

Areas where methodologies require further development

Another area for further consideration is work to help refine methodological approaches. It has become apparent during this inquiry that there are some areas which merit further work:

-
- *Longitudinal studies.* In a longitudinal study, subjects are followed over time with continuous or repeated monitoring of risk factors or health outcomes, or both.¹ Longitudinal studies of groups of regular gamblers and problem gamblers, while expensive, may allow better analysis of the causal factors which can lead to the development of gambling problems, and help assess the effectiveness of different counselling/treatment approaches.

[chapters 6 and 17]

- *Measures of incidence and prevalence.* Many studies have attempted to measure the *prevalence* of problem gambling (that is, the proportion of the population classifiable as problem gamblers in a given time period), and there is room for further work here. But it would also be useful to have some indication of the *incidence* of problem gambling (that is, the number of new cases arising each year). One way of contributing to this would be to establish a national database on problem gambling, together with processes for keeping it up-to-date.²

[chapter 6]

- *Verification of test instruments.* The strengths and weaknesses of current test instruments such as the SOGS and the DSM-IV criteria are well known. Continued work is needed to improve these and other measures.³ Survey instruments should also be reviewed. (One approach might be to undertake follow up studies on people identified as problem gamblers, as was done in phase 2 of the New Zealand study of Abbott and Volberg (1992).)

[chapter 6]

- *Estimates of elasticities.* The current evidence on demand elasticities for various forms of gambling was discussed at some length in earlier chapters. Such information is important to help make judgments about, for example, consumer benefits and appropriate taxation regimes. The Commission used a wide range of studies to reflect the uncertainty about such estimates. It would be useful to have more precise indications of the likely magnitude of the elasticities for different gambling modes. However, rather than suggesting more studies using similar methodologies (which would be subject to the deficiencies of current data), this may be an area where there is scope for ‘methodological experiments’ to find new ways to approach estimation of elasticities.

[chapter 5]

¹ In the Commission’s survey, respondents were asked if they would take part in any follow-up survey. Many indicated they would.

² The Australian Medical Association (sub. 224) has published a *Position Statement on the Health Effects of Problem Gambling*, identifying problem gambling as a public health issue and alerting general practitioners to the need to detect and manage such problems.

³ Indeed, the VCGA has commissioned work on this matter.

Participants' views

Inquiry participants also identified a variety of areas where they saw the need for more information. A selection is in box 23.3, while box 23.4 lists those areas which the recent United States Gambling Commission report suggested for future research efforts.

Box 23.3 Data and research needs: some participants' views

Several local governments said they need better information on the provision of gambling services, their economic and social effects, and the views of the community within their local government area.

Gambling counselling, church and social welfare agencies generally sought better information on the social costs of gambling. A typical request came from the Southside Coalition of Emergency Relief Welfare Agencies, which argued for:

A National Research Centre ... to further investigate the on-going impact of gambling on the community. That all research relating to gambling be kept as a unit in order to provide a clear overview of the whole impact on the community. [It] must be kept independent and autonomous of any government [and have no] association with the gaming industry (sub. D235, p. 8).

South Australia's Heads of Christian Churches Task Force on Gambling recommended regular research on the economic and social costs of gambling, gambling by young and elderly people and the concentration of venues and gaming machines in lower income areas. It also saw a need for data collection from the criminal justice system on links between gaming and crime, and more generally for an Australia-wide database to gauge the connection between accessibility and problem gambling (sub. D278, p. 13).

The Australian Medical Association (sub. D224), which seeks a national strategy 'to recognise, reduce and prevent problem gambling' and to identify its underlying causes and health effects,^a argued for research to evaluate the effectiveness of measures put in place to deal with problem gambling.

McMillen suggested the need for:

- a consistent national data framework for all aspects of gambling;
- a national database on, for example, profiles of people presenting with problems, the efficacy of client support services and treatment programs and social and economic impacts;
- consistent data categories at regional, state and national levels to allow comparison;
- comparative regional studies; and
- better information on state gambling tax systems (sub.D274, pp. 10–11).

^a In its *Position Statement on the Health Effects of Problem Gambling*.

Source: submissions.

Box 23.4 United States National Gambling Impact Study Commission: its proposals for future research

The Study Commission's report included a chapter containing wide-ranging proposals for future research, variously recommended to federal, state and tribal governments. Its main proposals were for further work to:

- develop a framework for research on problem and pathological gambling;
- add gambling components to the *National Household Survey on Drug Abuse*;
- consider adding a gambling component to longitudinal research surveys undertaken by federal agencies;
- analyse public awareness campaigns;
- establish reliable instruments to measure non-monetary costs including divorce, domestic violence, child abuse, suicide, bankruptcy and crime;
- undertake an analysis of adult problem gamblers below the pathological gambler threshold;
- add gambling components to studies of prison inmates, parolees and probations who manifest disorders that frequently coexist with pathological gambling; and
- undertake research into:
 - the benefits and costs of legal and illegal gambling (including internet gambling);
 - the age of initiation into gambling, influence of family and correlates with other youth high-risk behaviours;
 - effects on family members, such as divorce, spousal and/or child abuse, severe financial instability and suicide;
 - the development of gambling problems associated with electronic gaming machines and the risk factors that accompany this;
 - effects on the workplace;
 - adolescent participation in legal and illegal gambling;
 - job quality in the gambling industry; and
 - the prevalence of problem and pathological gambling among gambling industry employees.

Source: NGISC (1999), chapter 8.

23.3 Better processes are also needed

The informational shortcomings documented throughout this report underline the need for improved processes for generating and disseminating policy-relevant information.

Most of these processes can be implemented under existing administrative arrangements. **However, in the Commission's view, the ultimate responsibility for commissioning, collecting and disseminating information on gambling should be given to each state and territory's independent control authority (among its other functions).** As noted in the previous chapter, the Commission has indicated that this could best be undertaken through an independent board, which would have responsibility for, among other things, setting the research agenda and funding the research.

Such a responsibility would also help each authority in its decision-making and policy advising roles. But it is especially important as a way of informing community and political debate in this area. It should help overcome the fragmented, piecemeal, inconsistent and sometimes secretive approach to information and research which is commonly found in many areas.

As each jurisdiction's authority will have its own processes and face different policy questions, fragmentation of data across states may continue. In some areas, particularly where they have no experience, authorities may choose to emulate the better examples of what is done in other jurisdictions as a starting point, and this facilitate future comparability. Nevertheless, more formal coordination processes may also be needed (see below).

The importance of having an independent body charged with producing and disseminating public interest information and raising community awareness is highlighted by recent events in the media. An Australian Broadcasting Authority investigation was told by Star City Casino that it had a contract with an influential radio host under which he would promote the casino complex on his talk-back program and avoid adverse comments on gambling (ABA 1999a, pp. 625–6). The Authority was told that the radio host also had a promotional contract with the Registered Clubs Association of New South Wales (ABA 1999b, pp. 217–18).

Developing research strategies and programs

Under the Commission's proposals, each independent authority would have the responsibility and the funding to provide a specialist research and information role for its own jurisdiction, so as to accumulate the kinds of baseline and trend data needed in social analysis.

The role of each authority should be to collect information, or undertake or commission research, of a kind which would inform public policy or provide other public benefits through, for example, community awareness and understanding.

A first step for each would be to look at *what* information should be collected to aid policy formulation and public debate. An important element in this should be a transparent, consultative process for determining the research agenda, with a focus on policy-relevant issues. This could be illuminated by a ‘theme-setting’ process, under which each authority should actively determine its research agenda, rather than react to issues as they arise. And as discussed below, a national focus with respect to the research undertaken and the methodologies used, can increase the policy usefulness of this information.

The VCGA has, for some time, used a research committee to help determine the nature of the projects it commissions. And the Reverend Harry Herbert, a trustee of the New South Wales Casino Community Benefit Fund, advised that the Fund was also taking a more active role in generating research. In the past, it reacted to proposals for research, but:

... we’ve now discovered that’s not a good way to go. It would be better to ask more deliberately, to work out a research program and then go out to people and say “Look, this is what we want to know. Who wants to help us find out about it?” (transcript, p. 1434).

A major advantage of a proactive approach to establishing a research program will be to perpetuate an overarching research perspective. The prime task in each jurisdiction should be to establish a systematic research framework, to help overcome the adhocery and patchwork nature of work undertaken to date. Efforts should be made, particularly in the development and prioritisation stage, to mesh in with work done in other jurisdictions and to avoid unnecessary duplication of research effort.

This would be followed by processes to:

- review what information is already generated through administrative processes but not systematically recorded or produced in a form which is readily useable (examples include data from the criminal justice system, for which much information comes out during the course of an investigation or procedure; data from bankruptcy proceedings where gambling was an element; and statistical information from hospital records);
- encourage more systematic processes (for example, each jurisdiction could ensure that its taxation reporting clearly separates licence fees, contributions to community funds and standard taxation payments) to facilitate analysis and comparison across jurisdictions;
- mine new information from unit record data from already completed studies (including as part of meta-analysis);

-
- set in place mechanisms for generating gambling-related data from other administrative procedures where it may be added at low cost. Gambling might be added to minimum data sets prepared by government-funded service agencies, provided it were not too onerous or expensive to do so. For example, admission records for jails might include information on a prisoner's gambling problems or whether he or she had committed crimes related to gambling; and
 - commission new work.

Apart from establishing a pattern of research across a range of topics and methodologies, components of the subsequent research program might include undertaking and repeating prevalence and impact surveys to provide the kinds of trend data which is needed in social analysis, and establishing programs to look at broader questions such as the relationship between gambling and, for example, mental health issues.

While these are matters for each jurisdiction to determine, a key emphasis ought to be on the development of a comprehensive and forward looking research function to build up an information base for policy development and public information on a controversial subject which has significant social impacts.

And as noted earlier, none of this need await the establishment of an independent control authority.

Procedures to assure quality

There are well-established procedures concerning the way in which research or data collection is commissioned and undertaken which all jurisdictions could employ now to raise the quality of data and research. These include:

- open tendering procedures for selecting researchers, together with safeguards as to the independence of the researchers and the avoidance of perceptions of bias or conflict of interest;
- providing manuals and training for the guidance of departments and others to help provide methodological integrity and a common approach where that is appropriate (counselling and church agencies, for example, usually rely on anecdotal information which, while valuable and often well documented, needs to be supported by evidence with greater scientific rigour);
- independent peer review refereeing of research results, including, as appropriate, by international referees as well as local researchers and 'blind' peer review procedures; and

-
- publication procedures which include a commitment to early release and wide dissemination of research results, and of (confidentialised) unit record data sets for other researchers to analyse, where possible also by way of the internet.

It should be an important guiding principle that:

- **information should be publicly available with minimal delays; and**
- **methodologies and (confidentialised) unit record data should be made available to researchers for subsequent analysis.**

Importantly, research findings need to be actively shared with other jurisdictions. While a commitment to early release and wide dissemination of results would facilitate this, there is also a case for a more formal coordination process among jurisdictions (see below).

In all cases, questions about what data should be collected, or research undertaken, need to be approached carefully, given that collection involves costs to the collecting agency and compliance costs for those from whom the data is collected. (The ABS has implemented processes to reduce the compliance costs of its collections; these could be emulated as appropriate.) The Australian Casino Association cautioned that additional demands for data and information would lead

... to an already overburdened casino industry being required to provide more information, fill in more surveys or be subject to even greater regulation than now. This is unacceptable (sub. D234, p. 1).

The (public and compliance) costs of generating particular types of information should be taken into account and set against the benefits of better information, using a transparent process.

Minimum reporting requirements should be set

While areas for future research ought to be matters for the independent control authority to determine, the analysis in this report suggests that there are some basic matters which ought to be subject to mandatory reporting in all jurisdictions.

Each authority would need to report annually on:

- **changes in the availability of gambling (numbers of venues, machines, gaming tables and the like);**
- **the uptake and effectiveness of counselling services;**
- **tax collections;**
- **licence breaches, prosecutions and their outcomes; and**

-
- **consultation processes and their outcomes, especially at the local level, including assessment of local and regional impacts.**

In addition, there needs to be reporting of any surveys on the prevalence and impact of gambling.

Priorities for research over and above this would be matters for the independent gambling authorities to determine.

How can better coordination be achieved?

While consistency or coordination across jurisdictions is not always essential, there are many cases where the comparisons it facilitates can shed light on particular policy matters, and provide a national picture. Comparisons of the prevalence of problem gambling across jurisdictions with different gaming facilities is one example. There is also a need to achieve better coordination in the data that is collected from, for example, counselling agencies, to provide systematic data across jurisdictions.

The Commission's proposals for each jurisdiction to have its own independent authority commissioning research and information gathering would not overcome this. There will remain a need for administrative arrangements to facilitate cooperation, information sharing and joint research and collection activities where that is appropriate. Without such arrangements, opportunities for obtaining better information or combining research efforts of, for example, the smaller states and the territories, will be left to the vagaries of informal arrangements.

There are several ways of facilitating this, and some are already in place. State and territory gaming and racing Ministers and officials meet regularly, and there are frequent formal and informal contacts among regulators.

While such forums may readily be established to review taxation and regulatory matters, it may be more difficult to maintain ongoing coordination for what may be perceived as the less immediate needs of information and research planning, notwithstanding that these underpin good taxation and regulatory policy.

The Commission sees considerable benefits in a formal process to facilitate the coordination of information-gathering and research efforts between jurisdictions. There would be considerable benefits in terms of providing a central focus for data and research. It would also facilitate a more national focus, and help coordinate such work where that is appropriate.

Possible approaches include:

- *formal consultation and meeting processes*, akin to racing and gaming Ministers' meetings (but having a wider purview), with commitments to meet several times annually and review progress;
- *a national clearing-house*, akin to a (real or virtual) library, where information and research is stored for use by all jurisdictions, but where the decisions and skilled personnel remain wholly with the state and territory authorities; and
- a more active *national research facility*, which might begin as an information clearing-house, but with the capacity to undertake or commission independent research. Its work should complement, rather than duplicate, that of the individual states and territories. In time, such a facility could become a specialist body, able to provide advice to jurisdictions on methodological and research matters, and information to the community on gambling.

At a minimum, any of these approaches could lead to a better sharing of information about statistical collections, research-in-progress and methodological matters, depending on the extent of commitment they received from each jurisdiction. They could also facilitate more joint (or, at least, coordinated) research than currently exists.

So, for example, a clearing house would best be established under rules such that effectively allows it to operate as a central library, where material is contributed by all jurisdictions and made available to all other jurisdictions, to researchers and to the public. Given that its role is to be a central storehouse of information, processes which facilitated information dissemination (including by online means) would be preferred.

However, the Commission sees merit in establishing a national facility, constituted in a manner that encouraged cooperation, interchange of research ideas, discussion of methodological questions and early release of information.

Consistent with the Commission's proposals for independent authorities in each state and territory, the role of the national facility should be to collect information, or undertake or commission research, of a kind which would inform public policy or provide other public benefits through, for example, community awareness and understanding. Research and information about gambling which does not fall within this definition is more properly the role of others, such as university researchers, counselling agencies and the industry itself.

Indeed, the Commission notes the recent announcement by several major gambling providers that they intend to establish their own national research institute to promote an understanding of the industry. This would be likely to become a high

profile source of information about gambling in Australia. But as McMillen observed in another context:

Although the gambling industries undoubtedly commission their own research to assist commercial decisions, industry rarely has funded public research. The most notable exceptions have been the [Registered Clubs Association of NSW's] support for a trial program on responsible gambling in NSW clubs ... and the support from Jupiters Casino and Reef Casino for [the AIGR's] three-year study of casino impacts in Brisbane and Cairns (sub. D216, p. 19).

In the Commission's view, a properly constituted national research facility would be an effective way to facilitate national cooperation and coordination in data collection and research:

- Its success would be helped by having all jurisdictions involved in the process.
- While it could be established by the Commonwealth, there is logic in establishing a co-funded facility.
- It should be supervised by a board, which included representatives from all states and territories.
- Its activities should be limited to information and research only — it should have no policy role.
- It should operate to quality assurance principles for its own research and for the work it commissions:
 - but this requirement should not act to hinder the accumulation of incomplete data from state regulatory agencies — those which generate relevant data in the course of their responsibilities should be encouraged to supply that to the facility for use by researchers.
- It should operate under rules which specify that data ought to be released in a timely manner.
- Processes should be implemented such that lessons learned in one jurisdiction could readily be picked up by others.

One task for a national facility might be to replicate the Commission's *National Gambling Survey* on a regular (say, three-yearly) basis to build up an information base which would facilitate trend analysis.

Box 23.5 **National research coordination: participants' views**

The Queensland Government said:

... there should be a national research facility to provide a central focus for data collection and research, including greater consistency of information. This should establish an accessible one-stop shop of consistent and accessible information relating to gambling for the use of regulators, the industries and the public in general. Such a facility would also be beneficial in establishing trends and possible links between gambling venue accessibility and problem gambling on a national basis (sub. D275, p. 12).

The Reverend Harry Herbert of the Uniting Church Board for Social Responsibility argued that there is:

... clear evidence of the need for ongoing research on the industry and the benefits of a large amount of this being undertaken nationally ... Although there would continue to be some research which would be relevant to particular jurisdictions, a national unit would be very helpful to analyse broad national issues as well as to ensure the flow of information from one jurisdiction to another (sub. D188, p. 1).

And the Australian Hotels Association argued that:

A national research facility would ensure that policy and legislative responses are formulated on hard evidence rather than 'gut feeling' ... Gambling research, being the highly emotional topic that it is, should be based on sound research and comprehensive data (sub. D231, p. 103).

The South Australian Government advised that a working party established by Gaming Ministers had not been successful in its attempts to coordinate research, with each state and territory commissioning its own research projects. But the working party did establish a database of all known gambling research and studies:

South Australia is currently looking at whether this information can be provided on the Internet and for each State and Territory to then assume responsibility for updating it in relation to research conducted in that jurisdiction (sub. D284, attachment, p. 9).

McMillen strongly argued for:

... collaborative research that involves active participation of the key stakeholders — government (national, state and local authorities), industry and community representatives (sub. D216, p. 20).

Source: submissions

23.4 **What role for the ABS?**

The terms of reference for this inquiry asked the Commission to report on:

... the adequacy of ABS statistics concerning gambling (para 3(h)).

The ABS produces information on gambling in two main forms — through surveys of gambling providers and a survey of spending by households. ABS statistics were used extensively by the Commission in preparing this report.

Industry statistics

A key element of the ABS's Service Industry Surveys strategy is a program of studies of selected service industries:

Within that program, a detailed study was undertaken in 1994-95 of businesses involved in the ... gambling industries (sub. 141, p. 4).

The surveys cover businesses classified to the following Australian and New Zealand Standard Industrial Classification classes:

5720 — Pubs, taverns and bars

5740 — Clubs (hospitality)

9321 — Lotteries

9322 — Casinos

9329 — Gambling services not elsewhere classified.

The surveys provide information on the number of businesses, net takings and commissions, employment and its characteristics, and labour and other industry costs.⁴ The results have been drawn on by the Commission.

Subsequent to the 1994-95 study, annual surveys have been undertaken of the casino industry. In 1997-98, further surveys of the gambling industries and clubs, pubs taverns and bars were undertaken, and the results published in 1999.

Household statistics

The Household Expenditure Survey (HES) is conducted every five years and is designed to provide information on the spending patterns of Australian households. The HES asks householders, among other things, to record their net spending on gambling. The results are reported in *Household Expenditure Survey, Australia: Detailed Expenditure Items* (cat. no. 6535.0). The latest issue is for 1993-94.

However, as noted in earlier chapters, there are significant differences between the estimates of gambling expenditure derived from the HES, and estimates arrived at by examining the income of businesses providing gambling services as measured by industry surveys (and published by the Tasmanian Gaming Commission). The ABS advised that there are a number of potential sources of difference between the two. These include:

⁴ The results are published in *Casinos, Australia* (cat. no. 8683.0), *Gambling Industries, Australia* (cat. no. 8684.0) and *Clubs, Pubs, Taverns and Bars, Australia* (cat. no. 8687.0).

-
- reporting errors (such as householders having difficulty in recalling or isolating gambling expenditure from other forms of spending such as food, drink and entertainment; or finding it easier to recall winnings rather than losses); and
 - conceptual differences (for example, the HES excludes gambling expenditures by overseas visitors) (sub. 141, p. 3).

Nevertheless, the ABS acknowledged that the ‘supply estimates’ as recorded by the Tasmanian Gaming Commission demonstrate that there is extensive under reporting in the HES, indicating that:

... respondents are deliberately failing to report the full extent of their gambling activities. This may be due to a concern that they have that other members of the household and ABS staff will see the diary of expenditures and may judge their gambling activities as excessive and/or anti social (sub. 141, p. 3).

To illustrate the problem, the ABS noted that HES figures for 1993-94 showed net *winnings* for the household sector in several states from TAB and on-course betting.

Other sources

The Population Survey Monitor (PSM) is an ABS quarterly social survey in the ‘omnibus’ style, which means that ‘slots’ on the questionnaire can be taken up by both external (fee paying) and internal ABS users.

In the thirteen quarters between May 1994 and May 1997, the ABS asked respondents two questions in respect of their gambling. And in the four quarters between February 1996 and November 1996, the ABS also asked a question about whether respondents would consider using their television or computer for gambling at home. The results were reported in subsequent publications.

The ABS advised that:

The PSM collection on the incidence of gambling is user funded. Its continuation will be dependent on the continued availability of such funding (sub. 141, p. 6).

Future developments in ABS gambling statistics

Few participants to this inquiry made any comment on ABS statistics. However, the Queensland Government said:

... the [ABS] gambling statistics in previous years were usually on a national basis and therefore of limited use to Queensland in terms of informing state gambling policy decision making (sub. D275, p. 12).

The ABS is attempting to improve its services sector data collections. It has changed the wording of the gambling items for the 1998-99 HES, to try to improve reporting of gambling expenditure. But it cautioned that:

... these changes are unlikely to substantially improve the reporting of gambling expenditure, and there is no reason to believe that this survey will be any different to earlier HES collections in terms of reporting ... of gambling losses (sub. 141, p. 5).

It added that:

... within the broader scheme of a HES design, it is ... highly unlikely that such reporting problems can be fully addressed in a systematic fashion. The problems with accurate reporting of gambling expenses in HES are an international problem, not just restricted to Australia (sub. 141, p. 5).

In respect of 'supply side' statistics, the ABS considers that its collections, together with the data produced by the Tasmanian Gaming Commission:

... provide a comprehensive picture of the economic impact and significance of the gambling industries (sub. 141, p. 6).

It added that:

The inclusion of gambling industries in the future program [of service industries studies] will be dependent on user requirements and the relative cost of undertaking the collection. It is expected that similar supply side data will continue to be available on a periodic basis (sub. 141, p. 6).

While the faults in the HES are well-recognised by the ABS, which is pessimistic about the scope to overcome them within the context of the HES itself, the value of such statistics suggests that further efforts to obtain similar information by other means would be worthwhile. This might, for example, involve testing whether different ways of asking questions might yield better results — for example, whether expenditure may be better estimated by asking about the gross amounts wagered (rather than the net amounts spent) and applying an estimation factor derived from aggregate industry data. But even if successful, this implies long delays in obtaining this information from the ABS.

In any case, future developments in ABS statistics, or continuation of existing collections, will in part be determined by demands on ABS resources from many quarters. The Commission's proposals for independent authorities in each jurisdiction with information and research responsibilities, and for better coordination across jurisdictions, may also have implications for the ABS down the track.

One area where information about gambling may be gathered by the ABS as the opportunity arises would be by way of the its occasional social surveys. The ABS

has in the past conducted surveys which may well have been conducive to the adding of gambling questions. While surveys are expensive to undertake, once one is planned, adding questions on gambling may not be unduly expensive. In this way, there may be scope for future specialist surveys on social issues to generate further information on gambling behaviour. This might, for example, be particularly useful to shed light on the activities of some marginal groups such as the homeless, prison populations and the like.

The statistics produced by the ABS and the Tasmanian Gaming Commission together provide a valuable database on gambling in Australia. There may be benefits from the ABS undertaking further pre- and pilot-testing to assess different ways of obtaining better information on spending in gambling by way of the HES. And, if a national research facility were to be established, there may also be opportunities for the ABS to extend its activities in the area of gambling statistics by tendering for any surveys that it commissioned. But for the present, the statistics it produces shed considerable light on this activity, notwithstanding the deficiencies in expenditure data.

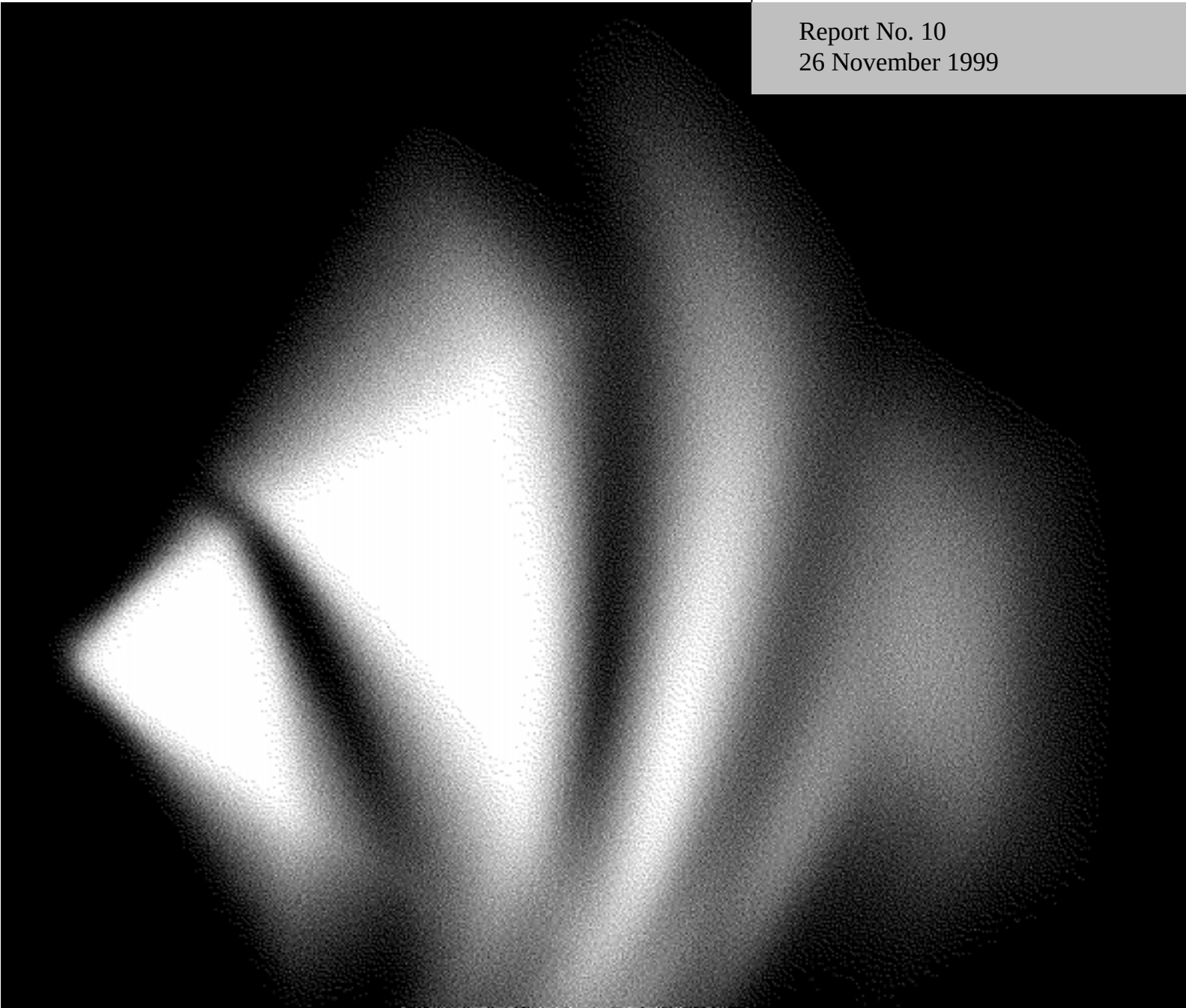


Australia's Gambling Industries

Inquiry Report

Volume 3: Appendices

Report No. 10
26 November 1999



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A Participation and public consultation

The Commission received the terms of reference for this inquiry on 26 August 1998. The inquiry was advertised widely and an Issues Paper was sent to a large number of individuals and organisations. During the inquiry the Commission held informal discussions with a wide range of people and organisations (section A.2), organised six roundtable meetings (section A.3) and held public hearings in all states and territories (section A.4). In addition, 290 public submissions were received (section A.5), together with 39 confidential submissions. The Commission is grateful to all those who participated in the inquiry.

A.1 The research team

The following staff assisted in the preparation of this report:

Ralph Lattimore (team leader)

Bronwyn Fisher

Marty French

Catherine Knox

Greg McGuire

Geraldine Martisius

Tom Nankivell

Robert Phillips

Robert Wells

John Williams

Ross Wilson

Stuart Wilson

A.2 Visits with individuals and organisations

The Commission made an extensive round of visits, holding discussions with the following people and organisations.

Australian Capital Territory

Federation of Ethnic Communities' Councils of Australia
Norfolk Island Gaming Authority

New South Wales

Access Systems
Dr Clive Allcock, University of Sydney & Cumberland Hospital
Aristocrat Leisure Industries
Australian Hotels Association (NSW)
Australian Retailers Association
Betsafe group of clubs
Assoc Prof Alex Blaszczyński
The Cabinet Office
Casino Community Benefit Fund
Casino Community Development Fund
Department of Gaming and Racing
EMIGRE
Gamblers Help Line
Gambling Research Unit, University of Sydney
Rev Harry Herbert, Uniting Church in Australia
Prof Jan McMillen, Australian Institute for Gambling Research
Nepean Rowing Club
NSW Lotteries
Online Gambling Association of Australia
Penrith Panthers Club
Registered Clubs Association of NSW
Society of Vincent de Paul, GAME program
Star City
Paul Symond, St Edmunds Private Hospital
TAB Ltd
Wesley Gambling Counselling Services

Victoria

Australian Hotels Association (Vic)
Break Even counsellors
Crown Casino
Department of Premier and Cabinet
Interchurch Gambling Task Force
Assoc Prof Alun Jackson
Licensed Clubs Association of Victoria
Office of Racing
Tabcorp Holdings Ltd
Tattersall's
Victorian Casino and Gaming Authority

South Australia

Adelaide Central Mission
Department of Premier and Cabinet
Liquor and Gaming Commissioner
Treasury
The Hon Nick Xenophon MLC

Queensland

BreakEven
Department of Families, Youth and Community Care
Department of Premier and Cabinet
Jupiters Casino
Queensland Council of Social Services
Queensland Office of Gaming Regulation
Racing Industry Taskforce
Relationships Australia, Queensland
Treasury
Rev John Tully

Western Australia

BreakEven
Burswood International Resort Casino
Department of Treasury
Lotteries Commission of WA
Ministry of Premier and Cabinet
Office of Racing, Gaming and Liquor
TAB
Tourism Commission

Northern Territory

Amity Community Service & Anglicare
Centrebet
Chief Minister's Office
Ethnic Communities Council
Department of Health
Lasseters Hotel Casino
Menzies School of Health Research
MGM Grand Darwin Hotel/Casino
Racing and Gaming Commission
Treasury

Tasmania

Wrest Point Casino

New Zealand

Dr Max Abbott, Auckland Institute of Technology
Compulsive Gambling Society of New Zealand
Department of Internal Affairs
Lotteries Commission of New Zealand
New Zealand TAB

Washington

National Gambling Impact Study Commission

A.3 Roundtables

Canberra, 10 September 1998

Mr Jack Ball AM	Council of Community Clubs of Australia and New Zealand
Mr James Connolly	Wesley Gambling Counselling Services
Rev Tim Costello	Interchurch Gambling Task Force
Prof Mark Dickerson	University of Western Sydney
Prof Anne Edwards	Flinders University
Dr Peter Grabosky	Australian Institute of Criminology
Mr John Harris	Tattersalls
Mr Jim Hoggett	Star City
Ms Margo McGregor	Australian Hotels Association (SA)
Prof Jan McMillen	Australian Institute for Gambling Research
Mr Toby O'Connor	Australian Catholic Social Welfare Commission
Mr Michael Schilling	Consultant

Goulburn, 26 October 1998 — regional issues

This roundtable was organised for the Commission by the Goulburn City Council.

Margaret O'Neill	The Mayor
David Mantle	Workers Club
Martin Tattersall	Goulburn Correctional Centre
Richard Simmer	Secretary, AHA Goulburn & District

Allison O'Brien	Country Women's Association of NSW
Rob Watson	Goulburn Golf Club/Chamber of Commerce
Keith Cole	Goulburn Soldiers' Club
Garry Easterby	Goulburn Soldiers' Club
Alex Gilroy	Psychologist
Louis Maroya	Mulwaree Shire Council
Sen. Sgt. Ken Topham	Goulburn Police

Canberra, 27 October 1998 — methodology and surveys

Prof. Mark Dickerson	University of Western Sydney
Dr Michael Walker	University of Sydney
Prof Jan McMillen	Australian Institute for Gambling Research
Assoc Prof Alun Jackson	University of Melbourne
Dr Paul Delfabbro	Flinders University of South Australia

Port Augusta, 9 December 1998 — regional issues

This roundtable was organised for the Commission by the City of Port Augusta.

Anne Marie Sharp	Department of Family and Youth Services
Cephas Stanley	Pika Wiya Health Services
Trish Munn	Centacare Whyalla
Joan Carcuro	St Vincent de Paul
David Hervey	Port Augusta Focus
David Curnow	Port Augusta Prison
Peter Taylor	Pastoral Hotel
Roy Pool	Port Augusta Racing Club
John Elley	Port Augusta Bowling Club
Robert Cugley	Salvation Army

Canberra, 12 February 1999 — gambling and crime

This roundtable was organised for the Commission by the Australian Institute of Criminology.

Mandy Carter	National Crime Authority
Det. Supt. Denis Edmonds	South Australian Police
Janelle Ford	Wesley Community Legal Service
Dr Peter Grabosky	Australian Institute of Criminology
Bill Horman	Crown Casino

Marianne James	Australian Institute of Criminology
Prof Jan McMillen	Australian Institute for Gambling Research
Peter O'Brien	University of Technology, Sydney
Jelena Popovic	Melbourne Magistrates Court
Ass. Comm. Clive Small	New South Wales Police
Supt. Ray Sweeny	Australian Federal Police

Sydney, 18 October 1999 — assessing the incidence and costs of problem gambling

Prof Jan McMillen	Australian Institute for Gambling Research
Assoc Prof Blaszczynski	Psychiatry Research and Teaching Unit, University of Sydney
Dr Clive Allcock	University of Sydney & Cumberland Hospital
Dr Michael Walker	Gambling Research Unit, University of Sydney

A.4 Public hearings and submissions

The following people and organisations participated in public hearings.

Perth, 2 November 1998

Western Australian Council of Social Services, Coalition Against Pokies
Independent Gaming Corporation
Wendy Silver
Lockridge Community Group
Anglican Social Responsibilities Commission of Western Australia

Brisbane, 9 November 1998

J.D. Davis
Rev John Tully
Dr Myles McGregor-Lowndes, Queensland University of Technology
Relationships Australia
Logan City Council

Darwin, 12 November 1998

Dr Bill Tyler, Northern Territory University, Centre for Social Research

Sydney, 16-17 November 1998

Council of Community Clubs of Australia and New Zealand
New South Wales Council on Problem Gambling
Wesley Community Legal Service
Don Beggs
Star City
Betsafe
Peter Mair
Norm Hooper
Access Systems Pty Ltd
Australian Hotels Association (NSW)
Marea Donnelly
St Vincent de Paul, GAME program

Melbourne, 23-25 November 1998

Springvale Legal Service
Interchurch Gambling Task Force
Melbourne Anglican Social Responsibilities Committee
Catholic Social Services
Victorian Local Governance Association
Maribyrnong City Council
City of Greater Dandenong
Moreland City Council
Committee on Problem Gambling
Compulsive Gambling Society of New Zealand
Ian Murphy
Good Shepherd Youth and Family Services
Women's Electoral Lobby
Financial and Consumer Rights Council and Broadmeadows Care
Tabcorp Holdings Ltd
G-Line
Australian Vietnamese Women's Association
Licensed Clubs Association of Victoria
Gabriella Byrne
Australian Labor Party, Victorian Branch
Australian Hotels Association (Vic)
Jane Pashallis

Canberra, 30 November 1998

Senator Grant Chapman
Gambling Crisis and Counselling Service
John Beagle
Lifeline Canberra

Adelaide, 7-8 December 1998

The Hon Nick Xenophon MLC
Australian Hotels Association (SA)
Anglicare
Terry Coughlin
The Australian Family Party
Richard Balfour
Adelaide Central Mission
National Association of Gambling Studies
Festival of Light, South Australian Branch
Relationships Australia
National Centre for Education and Training on Addiction
Adelaide Crusade Centre
Nunkuwarrin Yunti

Hobart, 14 December 1998

Anglicare Tasmania
Local Government Association of Tasmania and Brighton Council
Australian Hotels Association
Retail Traders Association of Tasmania
Tasmanian Council of Social Services

Melbourne, 30 March 1999 (supplementary)

ACIL Consulting
TAB Ltd
Tabcorp Holdings Ltd
Crown Casino
Tattersall's
Access Economics

Canberra, 20 August 1999

The Hon Nick Xenophon MLC

Dr Anne Hawke and Prof Richard Blandy, University of South Australia

Melbourne, 25-26 August 1999

BreakEven Services in Victoria

Interchurch Gambling Task Force

Gabriela Byrne

Kelly & Donna

Jesuit Social Services

Springvale Legal Service

Victorian Women's Trust

Broadmeadows Progress Association

Neville Ford

Woman's Christian Temperance Union of Victoria

BJ mAsters Pty Ltd Professional Blackjack School

Hobart, 31 August 1999

Kim Peart

Brighton Council

Anglicare Tasmania

Melbourne, 1 September 1999

Victorian Local Governance Association

Boroondara City Council

Moreland City Council

Licensed Clubs Association of Victoria

Adelaide, 13 September 1999

Relationships Australia

Dr Anne Hawke and Prof Richard Blandy, University of South Australia

Festival of Light

Adelaide Central Mission

Nunkuwarrin Yunti

Sydney, 16-17 September 1999

Rev Fred Nile, Christian Democratic Party
Australian Hotels Association
Rev Harry Herbert, Uniting Church Board for Social Responsibility
Star City
Wesley Community Legal Service
Public Interest Advocacy Centre
St Vincent de Paul, GAME Program
Prof Jan McMillen, Australian Institute for Gambling Research
New South Wales Community Benefit Fund
Norm Hooper

Brisbane, 30 September-1 October 1999

Sunshine Coast Community Services Council
Rev John Tully, New Life Ministry at Street Level
Australian Hotels Association (Vic)
Community Clubs Association of Australia and New Zealand
ACIL Consulting
Tabcorp Holdings Ltd
Interchurch Gambling Task Force
Jim Stewart
Clubs Queensland
Australian Casinos Association
Southside Coalition of Emergency Relief Agencies

A.5 Public submissions¹

<i>Participant</i>	<i>Sub. no.²</i>
Doug Buckley	1
Michael Kuschert	2
Peter Mair	3
Michael Moll	4
N M Lewis	5
V A Wigzell	6
Anglican Social Responsibilities Commission (WA)	7
Peter Logan	8
Gabriela Byrne	9
Wyndham City Council	10
Terry Coughlin	11
Institute of Public Affairs	12
Caloundra Community Centre	13
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Lotteries Commission of Western Australia	25
Wesley Gambling Counselling Service	26
John Anthony McDermott	27

¹ In addition to their submissions, many participants provided the inquiry with pamphlets, annual reports, research studies and other publications. (The VCGA, for example, provided copies of all of its research studies.) This material was very helpful. Many are cited in the reference list at the end of this report.

² Submissions with a number prefaced by the letter D were received after completion of the draft report.

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Western Australian Accredited Newsagents Association	58
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Victorian Casino and Gaming Authority	135
Licensed Clubs' Association of Victoria	136
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Maribyrnong City Council	D202
Australian Institute of Aboriginal & Torres Strait Islander Studies	D203
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Kim Peart	D205
Victorian Local Governance Association	D206
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Public Health Association of Australia (WA branch)	D212

Festival of Light (SA)	D213
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Wesley Community Legal Service	D215
Prof Jan McMillen, Australian Institute for Gambling Research	D216
Star City	D217
St Vincent de Paul – GAME Program	D218
City of Unley	D219
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Christian Democratic Party (Fred Nile group)	D221
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Australian Medical Association	D224
Frank G Thompson	D225
Council of Community Clubs of Australia and New Zealand	D226
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Rev John Tully, New Life Ministry at Street Level	D228
Jim Stewart	D229
Interchurch Gambling Task Force	D230
Australian Hotels Association	D231
Tabcorp Holdings Ltd	D232
ACIL Consulting	D233
Australian Casino Association	D234
Southside Coalition of Emergency Relief Welfare Agencies	D235
Clubs Queensland	D236
Australian Hotels Association (Vic)	D237
Yarra City Council	D238
Banyule City Council	D239
Victorian Casino and Gaming Authority	D240
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Geelong Catholic Social Justice Committee	D242
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Penrith City Council	D244
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Rev John Tully, New Life Ministry at Street Level	D264
Maribyrnong City Council	D265
Aristocrat Leisure Industries	D266
Adelaide Central Mission	D267
Penrith Rugby League Club	D268
Prof John Quiggin	D269
National Civic Council	D270
Department of Transport and Regional Services	D271
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Clubs Queensland	D273
Prof Jan McMillen, Australian Institute for Gambling Research	D274
Queensland Government	D275
Senator Andrew Murray	D276
Ian Stewart	D277
The Hon Nick Xenophon MLC	D278
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Australian Hotels Association (NSW)	D283
South Australian Government	D284
BJ mAsters Professional BlackJack School	D285
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B Participation in gambling: data tables

Chapter 3 summarised the participation profiles of gamblers based on findings from the Commission's *National Gambling Survey*. This appendix presents the more detailed survey data.

The tables provide information on the socio-demographic profiles of gamblers as a whole, by state and territory, location, gender, age, income, education, and personal status.

The following information is provided by each socio-demographic characteristic:

- the proportion of gamblers who participated, in a particular gambling activity (non-bracketed figures in each column);
- of those who gambled, the proportion of gamblers who participated in a particular activity (bracketed figures in each column); and
- the proportion of each group in the population (bracketed figure under each column heading).

For example, table B.1 shows that:

- 45 per cent of Victorians played gaming machines compared with 39 per cent of Australians; and
- of those that gambled on gaming machines 29 per cent were from Victoria. This is more than Victoria's representation in the population — Victorians form 25 per cent of Australia's population.

Similarly, table B.2 shows that:

- 40 per cent of people aged between 18 and 24 purchased a lottery product compared with 60 per cent of all adults; and
- of those that purchased a lottery product 9 per cent were aged between 18 and 24. This is less than their representation in the adult population — 13 per cent of adults are aged between 18 and 24.

Table B.1 Participation in gambling by state and location, all gamblers

Per cent of adults who participated in the last 12 months (per cent of gamblers)

<i>Form of gambling</i>	<i>Australia</i>	<i>NSW (34)</i>	<i>Vic (25)</i>	<i>Qld (18)</i>	<i>SA (8)</i>	<i>WA (10)</i>	<i>Tas (2)</i>	<i>ACT (1)</i>	<i>NT (2)</i>	<i>Metropolitan (65)</i>	<i>Non-metropolitan (35)</i>
Played poker or gaming machines	39	39 (34)	45 (29)	41 (20)	41 (9)	16 (4)	36 (2)	37 (2)	33 (1)	38 (64)	39 (35)
at a club	30	35 (39)	34 (29)	36 (22)	19 (5)	5 (2)	18 (1)	37 (2)	12 (..)	28 (61)	33 (39)
at a hotel/pub	18	14 (28)	23 (33)	17 (17)	37 (17)	3 (2)	25 (4)	3 (..)	10 (1)	17 (63)	19 (37)
at a casino	17	12 (23)	22 (32)	20 (22)	18 (9)	15 (9)	27 (4)	5 (..)	27 (1)	18 (70)	15 (30)
Bet on horse or greyhound races	24	26 (36)	25 (26)	20 (15)	19 (6)	27 (11)	31 (3)	28 (2)	28 (1)	25 (66)	23 (33)
on-course	13	14 (35)	15 (29)	11 (15)	8 (5)	17 (12)	12 (2)	13 (2)	9 (1)	13 (64)	14 (36)
off-course	19	21 (37)	19 (25)	17 (16)	16 (7)	18 (9)	26 (3)	21 (2)	22 (1)	19 (66)	19 (34)
by phone	3	3 (31)	4 (33)	3 (19)	3 (8)	2 (6)	3 (3)	2 (1)	1 (..)	3 (63)	3 (36)
via the internet	..	.. (68)	.. (11)	.. (21)	.. (..)	.. (..)	.. (..)	.. (1)	.. (..)	.. (54)	.. (46)
Played lotto or other lottery game	60	54 (31)	62 (26)	64 (20)	55 (7)	74 (12)	52 (2)	53 (1)	63 (1)	58 (63)	63 (37)
a weekly lottery game	57	47 (28)	60 (27)	64 (20)	54 (8)	74 (13)	50 (2)	52 (1)	60 (1)	56 (63)	59 (37)
a daily lottery game	12	29 (79)	4 (9)	.. (..)	8 (5)	4 (3)	9 (2)	14 (2)	1 (..)	12 (60)	14 (40)
Bought instant scratch tickets	46	47 (35)	33 (18)	66 (26)	32 (6)	53 (11)	40 (2)	43 (1)	39 (1)	42 (59)	53 (41)
Played keno at a club/hotel/casino/other	16	16 (33)	11 (18)	25 (29)	14 (7)	9 (6)	34 (5)	13 (1)	21 (1)	15 (59)	18 (41)
Played table games at a casino	10	10 (34)	14 (35)	7 (12)	7 (6)	9 (9)	9 (2)	8 (1)	12 (1)	12 (74)	8 (26)
Played bingo at a club or hall	5	5 (38)	5 (30)	4 (16)	3 (5)	3 (6)	5 (3)	5 (2)	4 (1)	4 (58)	5 (42)
Bet on a sporting event	6	8 (42)	5 (20)	3 (10)	8 (10)	9 (13)	6 (3)	6 (2)	4 (1)	7 (68)	6 (32)
Played an internet casino game	..	.. (21)	1 (64)	.. (12)	.. (..)	.. (..)	.. (3)	.. (1)	.. (1)	.. (67)	.. (34)
Played games privately for money	5	5 (30)	6 (29)	4 (14)	10 (15)	5 (9)	6 (3)	4 (1)	3 (1)	6 (70)	5 (30)
Played any other gambling activity	1	1 (29)	.. (15)	1 (23)	.. (4)	1 (23)	.. (..)	.. (1)	4 (6)	1 (62)	1 (39)
Participated in any gambling activity	82	80 (33)	81 (25)	86 (19)	77 (8)	84 (10)	77 (2)	80 (2)	80 (1)	80 (63)	84 (37)

a .. indicates less than 0.5 per cent; Numbers in brackets beneath the headings represent the per cent of each group in the adult population eg. 18 per cent of adult Australians are from Queensland.

Source: PC National Gambling Survey.

Table B.2 Participation in gambling by gender and age, all gamblers
Per cent of adults who participated in the last 12 months (per cent of gamblers)

<i>Form of gambling</i>	<i>All groups</i>	<i>Males (49)</i>	<i>Females (51)</i>	<i>18 to 24 (13)</i>	<i>25 to 34 (20)</i>	<i>35 to 49 (30)</i>	<i>50 to 64 (23)</i>	<i>65+ (13)</i>
Played poker or gaming machines	39	40 (50)	38 (50)	56 (19)	36 (19)	35 (27)	37 (22)	37 (12)
at a club	30	32 (52)	28 (48)	40 (18)	27 (18)	27 (27)	31 (24)	31 (13)
at a hotel/pub	18	20 (55)	16 (45)	33 (24)	18 (21)	17 (29)	14 (19)	10 (7)
at a casino	17	17 (50)	17 (50)	33 (26)	16 (19)	14 (25)	15 (20)	12 (9)
Bet on horse or greyhound races	24	27 (55)	21 (45)	30 (16)	30 (25)	24 (30)	20 (19)	18 (10)
on-course	13	16 (57)	11 (43)	17 (17)	17 (26)	14 (30)	11 (19)	8 (8)
off-course	19	22 (58)	16 (43)	24 (17)	23 (25)	18 (29)	17 (20)	13 (9)
by phone	3	5 (76)	2 (24)	3 (10)	4 (24)	3 (28)	3 (22)	4 (15)
via the internet	..	.. (73)	.. (27)	.. (13)	.. (13)	.. (41)	.. (12)	.. (22)
Played lotto or other lottery game	60	62 (51)	58 (49)	40 (9)	59 (20)	66 (33)	67 (26)	54 (12)
a weekly lottery game	57	59 (51)	55 (49)	39 (9)	57 (20)	64 (33)	63 (26)	49 (11)
a daily lottery game	12	13 (52)	12 (48)	7 (8)	10 (16)	15 (36)	14 (26)	13 (13)
Bought instant scratch tickets	46	43 (46)	49 (54)	45 (13)	47 (21)	50 (32)	46 (23)	37 (10)
Played keno at a club/hotel/casino/other	16	17 (52)	15 (48)	25 (21)	15 (19)	16 (29)	16 (24)	10 (8)
Played table games at a casino	10	14 (65)	7 (35)	27 (34)	14 (27)	7 (21)	6 (13)	4 (4)
Played bingo at a club or hall	5	3 (29)	6 (71)	9 (25)	4 (16)	4 (24)	4 (19)	6 (16)
Bet on a sporting event	6	10 (75)	3 (25)	11 (24)	10 (32)	6 (29)	3 (12)	2 (4)
Played an internet casino game	..	.. (25)	.. (75)	2 (66)	.. (3)	.. (19)	.. (4)	.. (9)
Played games privately for money	5	7 (68)	3 (32)	9 (22)	7 (27)	4 (24)	4 (16)	4 (11)
Played any other gambling activity	1	1 (56)	1 (44)	1 (15)	.. (11)	1 (28)	1 (36)	1 (10)
Participated in any gambling activity	82	83 (50)	80 (50)	85 (14)	84 (21)	82 (30)	82 (23)	74 (12)

^a .. indicates less than 0.5 per cent; Numbers in brackets beneath the headings represent the per cent of each group in the adult population eg. 49 per cent of adult Australians are males.

Source: PC National Gambling Survey.

Table B.3 Participation in gambling by personal income and education attainment, all gamblers

Per cent of adults who participated in the last 12 months (per cent of gamblers)

<i>Form of gambling</i>	<i>All groups</i>	<i><\$10K (20)</i>	<i>\$10k-25k (25)</i>	<i>\$25k-\$35k (19)</i>	<i>\$35k-\$50k (18)</i>	<i>\$50k+ (18)</i>	<i>Year 10 or less (28)</i>	<i>Senior high (27)</i>	<i>TAFE or Tech. (10)</i>	<i>CAE or University (32)</i>
Played poker or gaming machines	39	41 (20)	40 (25)	50 (23)	36 (16)	35 (16)	42 (31)	41 (29)	41 (11)	33 (28)
at a club	30	28 (18)	35 (27)	40 (24)	27 (16)	28 (16)	35 (34)	33 (31)	32 (11)	23 (25)
at a hotel/pub	18	19 (20)	18 (23)	25 (24)	19 (18)	16 (15)	19 (30)	20 (31)	21 (12)	14 (27)
at a casino	17	16 (18)	16 (23)	24 (25)	18 (18)	15 (16)	15 (26)	19 (32)	16 (10)	17 (33)
Bet on horse or greyhound races	24	17 (13)	26 (25)	32 (23)	26 (19)	27 (20)	23 (27)	28 (33)	18 (8)	24 (32)
on-course	13	9 (12)	11 (19)	19 (24)	17 (22)	17 (22)	11 (24)	17 (36)	11 (8)	13 (32)
off-course	19	13 (13)	21 (26)	26 (23)	20 (18)	22 (20)	18 (28)	21 (32)	15 (8)	18 (32)
by phone	3	2 (9)	2 (16)	5 (29)	3 (17)	5 (29)	5 (41)	4 (34)	3 (8)	2 (16)
via the internet	..	.. (..)	.. (..)	.. (1)	.. (18)	.. (81)	.. (27)	.. (24)	.. (1)	.. (49)
Played lotto or other lottery game	60	56 (18)	59 (23)	61 (18)	68 (20)	68 (20)	67 (32)	62 (29)	67 (12)	50 (28)
a weekly lottery game	57	54 (18)	56 (23)	59 (19)	62 (19)	66 (20)	64 (32)	60 (29)	61 (11)	48 (28)
a daily lottery game	12	9 (12)	16 (29)	13 (18)	14 (19)	17 (22)	15 (34)	12 (27)	20 (17)	8 (22)
Bought instant scratch tickets	46	44 (18)	51 (26)	45 (17)	49 (19)	50 (19)	51 (32)	48 (29)	52 (12)	38 (27)
Played keno at a club/hotel/casino/other	16	13 (14)	19 (26)	26 (27)	15 (16)	16 (16)	20 (35)	18 (32)	18 (12)	10 (21)
Played table games at a casino	10	11 (18)	8 (18)	10 (17)	10 (17)	19 (30)	6 (17)	11 (29)	10 (11)	14 (44)
Played bingo at a club or hall	5	8 (34)	7 (39)	3 (11)	2 (8)	2 (9)	7 (42)	4 (27)	3 (8)	3 (23)
Bet on a sporting event	6	4 (11)	4 (14)	8 (19)	10 (25)	12 (31)	4 (20)	7 (30)	7 (11)	8 (39)
Played an internet casino game	..	.. (15)	1 (57)	.. (22)	.. (..)	.. (5)	.. (32)	1 (33)	.. (..)	.. (35)
Played games privately for money	5	6 (20)	5 (19)	6 (20)	7 (20)	7 (21)	5 (28)	5 (28)	4 (8)	6(37)
Played any other gambling activity	1	2 (45)	1 (16)	.. (8)	.. (4)	1 (28)	1 (45)	.. (21)	.. (3)	1 (31)
Participated in any gambling activity	82	82 (19)	81 (24)	86 (19)	86 (19)	84 (18)	84 (29)	84 (28)	86 (11)	76 (30)

a .. indicates less than 0.5 per cent; Numbers in brackets beneath the headings represent the per cent of each group in the adult population eg. 25 per cent of adult Australians have annual incomes between \$10 000 and \$25 000.

Source: PC National Gambling Survey.

Table B.4 Participation in gambling by employment status and personal status, all gamblers

Per cent of adults who participated in the last 12 months (per cent of gamblers)

<i>Form of gambling</i>	<i>All groups</i>	<i>Married (66)</i>	<i>Separated or divorced (6)</i>	<i>Widowed (4)</i>	<i>Single (24)</i>
Played poker or gaming machines	39	36 (61)	41 (6)	32 (3)	47 (29)
at a club	30	29 (63)	34 (6)	22 (3)	35 (28)
at a hotel/pub	18	15 (57)	19 (6)	11 (3)	25 (34)
at a casino	17	15 (58)	17 (6)	11 (3)	24 (33)
Bet on horse or greyhound races	24	23 (62)	25 (6)	13 (2)	30 (29)
on-course	13	13 (63)	14 (6)	6 (2)	16 (29)
off-course	19	18 (62)	22 (6)	10 (2)	23 (29)
by phone	3	3 (67)	4 (7)	2 (2)	3 (23)
via the internet	..	.. (82)	.. (..)	.. (5)	.. (13)
Played lotto or other lottery game	60	65 (72)	59 (6)	51 (3)	48 (19)
a weekly lottery game	57	62 (72)	55 (6)	44 (3)	46 (19)
a daily lottery game	12	13 (70)	15 (7)	14 (5)	10 (19)
Bought instant scratch tickets	46	49 (70)	50 (6)	37 (3)	40 (21)
Played keno at a club/hotel/casino/other	16	15 (64)	18 (7)	10 (2)	18 (27)
Played table games at a casino	10	7 (47)	6 (4)	3 (1)	21 (48)
Played bingo at a club or hall	5	4 (58)	6 (7)	8 (7)	5 (28)
Bet on a sporting event	6	5 (54)	7 (7)	1 (1)	10 (39)
Played an internet casino game	..	.. (28)	1 (9)	.. (..)	1 (63)
Played games privately for money	5	4 (53)	6 (6)	2 (2)	9 (39)
Played any other gambling activity	1	.. (42)	4 (31)	1 (4)	1 (23)
Participated in any gambling activity	82	81 (66)	85 (6)	71 (4)	83 (24)

^a .. indicates less than 0.5 per cent; Numbers in brackets beneath the headings represent the per cent of each group in the adult population eg. 66 per cent of adult Australians are married.

Source: PC National Gambling Survey.

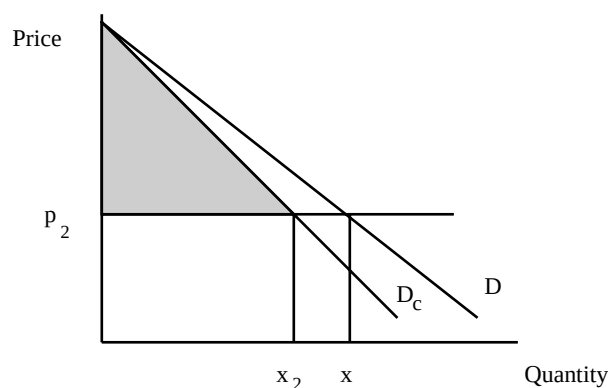
C Estimating consumer surplus

C.1 What is consumer surplus?

The consumer surplus from the purchase of any quantity of a product is the difference in dollars between the amount which the consumer pays for this product and the maximum amount which the consumer would be prepared to pay rather than do entirely without the product.

For a group of consumers, this can be understood by observing that at a given price a certain quantity of a product will be sold in the market. If the price falls, more of the product is sold, and both the original and new consumers who purchase at the new lower price are better off. The original consumers, who had been willing to pay the higher price, have gained a consumer surplus on their original purchases equivalent to the difference between the old and new prices. In other words, consumer surplus occurs when consumers pay less for a good or service than they are willing to pay for that good or service. The gain, in terms of consumer surplus, from the introduction of a new product is illustrated in figure C.1 below.

Figure C.1 Consumer surplus



The consumer surplus resulting from the introduction of a new product can be represented by the area underneath the demand schedule (or demand curve) for that

product in excess of the price paid. The demand schedule D in figure C.1 represents the quantity that consumers are willing to purchase at different prices. As the price rises, less is purchased, but the remaining buyers value the product at that higher price.

In theory, consumers would be willing to pay all the area under the demand schedule in excess of the market price and would still purchase the product. Indeed, some businesses sell essentially the same product at different prices to different customers (for example, movie theatres sell tickets at varying discounts) in an attempt to capture consumer surplus.

The demand curve D measures the price–quantity tradeoff for the new product or service in a situation where the consumer does not need to actually pay the consumer surplus. This is the demand curve that would typically be observed or estimated using information on prices and quantities of goods and services purchased over time.

The slope of the demand schedule (which is derived from information on the own price elasticity of demand for the product) is critical to the size of the consumer surplus. A product with a very flat demand schedule (a high price elasticity or elastic demand) will, other things being equal, have a lower consumer surplus than a product with a very steep demand schedule (lower price elasticity or inelastic demand). A product will have a high price elasticity when, for example, there are many substitutes for that product and if the price were to rise consumers would readily switch to other products.

Requiring consumers to pay the consumer surplus would, however, reduce consumers' income, thus reducing the amount actually purchased. A slightly steeper 'compensated demand schedule' (D_c) can be drawn representing the impact on income that actual payment of the consumer surplus would have. The more 'trivial' the product is in the consumers budget and/or the lower the income elasticity, the closer will the compensated demand schedule be to the uncompensated demand schedule.

The consumers' surplus in each case equals the area under the compensated demand schedule D_c above the relevant price level. The shaded area in figure C.1 thus shows the size of the consumers' surplus when the price of the new commodity equals p_2 .

Bohm (1987) commented:

We now know which area under what curve defines the exact size of the consumer's surplus. The next step is to note that the D_c curve is often close enough to the D curve

for the area under the latter curve - the ordinary demand curve - to give a reasonably good approximation of the consumer's surplus.

Similarly, Mishan (1971, p. 338) commented that:

Goods having zero income effect are hard to come by, but for a great many purposes the income effect involved is small enough for economists to make use of the area under the demand curve as a close approximation of the relevant benefit or loss.

A number of economists have presented ways of estimating the difference between the observed demand schedule and the compensated demand schedule (Willig 1976, Hausman 1981).

Because the budget share of gambling for some gamblers — particularly problem gamblers — is high, the compensated demand schedule is potentially significantly different from the observed demand schedule. As a result, the Commission has used the relationship presented by Willig (1976) to estimate the surplus from the compensated demand schedule for gambling in its estimates of consumer surplus contained in this appendix.

Adding consumer surpluses

When the price of a particular product falls, or when a new product is introduced, a consumer surplus is generated as consumers purchase the same amount at a lower price or as consumers switch to the new product. A reasonable question to ask is whether there is any loss in consumer surplus elsewhere as a result of the shift in consumption to the new product. Is there a decline in consumer surplus in those products where the consumer is consuming less? The answer, according to the economic literature, is no (Mishan 1971).

The demand schedule for an individual product represents the net position in relation to the consumers' choice between various products. It represents how much of other products they are willing give up to purchase the new one. It represents the judgement that the benefit generated by the new product is greater than that of the old. If there were somehow any remaining loss resulting from switching away from other products, consumers would not be prepared to pay as much to make the shift. The elasticity of demand for the new product would be greater (that is, they would purchase less at any given price), and the consumer surplus of the new product would be correspondingly lower. Essentially, the consumer surplus for the new product is a measure of the net gain for the consumer, and already implicitly includes the 'losses' resulting from consuming less of the alternative.

C.2 Consumer surplus in the gambling industries

Legalising gambling is equivalent to the introduction of a new good or service. Once the price has been set (in a competitive market this would be determined by the costs of production), the area under the (compensated) demand schedule above that price is the consumer surplus resulting from the introduction of the new product. Consumers have received this benefit by shifting consumption to gambling and away from less preferred goods and services.

The key information needed to estimate consumer surplus in the gambling industry comprises:

- estimates of the price and income elasticities of the demand for gambling;
- the significance of gambling expenditure in consumers' total spending (budget shares); and
- information on current consumption of gambling — quantity and price.

Estimates of price elasticities

There is a paucity of up-to-date estimates of the price elasticity of gambling, and Australian estimates are even more scarce. There are a number of reasons for this, notably the difficulty of making an accurate measure from the data available. In Australia, as in other countries, access to gambling has been heavily restricted. The large changes in the quantity of gambling products purchased have been driven primarily by changes in regulations rather than changes in price. Changes in market shares between different forms of gambling are largely a result of the sequencing of the deregulation process, rather than changes in the relative prices of gambling products offered. In Australia, the decline in the average price of gambling that has been associated with the rapid rise in consumption is a result of the sequencing of liberalisation, with high priced forms of gambling such as lotteries being introduced before lower priced forms such as gaming machines and casinos.

The Commission has come across a range of elasticity estimates in the literature, which are presented in table C.1.

Table C.1 Elasticities of demand for different types of gambling

<i>Author</i>	<i>Period</i>	<i>Area</i>	<i>Preferred price elasticity</i>
Horse racing			
Suits (1979)	1949-71	24 US states	-1.36 to -1.82
Suits (1979)	1974	Nevada	-1.64
Gruen (1976)	1940-69	New York City	-1.57
Morgan and Vasche (1979)	1958-78	California	-1.48
Berl (1997)		New Zealand	-0.7
Bookmakers			
Suits (1979)	1974-75	Nevada	-1.64
Sports betting			
Suits (1979)	1974-75	Nevada	-2.17
Lotteries			
Clotfelter and Cook (1990)			-2.55 (lotto)
Clotfelter and Cook (1990)			-3.05 (numbers game)
Farrel and Walker,	1998, 1997	UK	-1.55 to -2.6
Berl, (1997) (Lotto and Instant Kiwi)		New Zealand	-1.054
Access Economics (1998)			
Tattslotto - low turnover		Australia	-2.19
Tattslotto - high turnover		Australia	-0.24
Ozlotto		Australia	-0.2 to -0.8
Powerball		Australia	-0.03 to -0.2
Other			
Swan (1992)			
All gambling		NSW	-1.6
Poker machines		NSW	-1.7
Casino		NSW	-1.9
Berl (1997) (EGMs and casino)		New Zealand	-0.8

While there is some variability in the estimates of the price elasticity of gambling, most studies indicate that the demand for gambling is quite sensitive to changes in price. The Commission, nevertheless, finds it difficult to believe that they provide an accurate picture of the price sensitivity of demand for gambling. The main reasons for suggesting that the literature overstates the price sensitivity of demand for gambling are:

- price (the odds of winning) is difficult for gamblers to observe, particularly for low probability games such as lotteries;
- there seems to be little substitution between various forms of gambling, indicating that consumers do not have abundant alternatives if prices rise; and
- gambling has been significantly deregulated over the last two decades, both in Australia and in other countries. It is difficult to disentangle the effects of price changes, which are typically falling as availability and competition increases,

from increased consumption resulting from increased accessibility and growing community acceptance of gambling as a legitimate form of entertainment.

In its modelling for Aristocrat (sub. 111), the CIE used a range of elasticity measures (-0.3, -1 and -1.7) but chose to present results based on an elasticity of -1. The CIE (p. 24) said:

While a consensus estimate from these studies seems to be around -1.7 for gambling as a whole, a difficulty in utilising estimates from these studies is that in a number of cases the studies are fairly old (the studies quoted in Haig and Reece date back to the 1940's).

We adopt a more conservative approach in this modelling allowing the elasticity of demand for gambling to take on different values. We conduct simulations assuming a price elasticity of demand (in absolute terms) of 0.3, 1 and 1.7. The measure of 0.3 is in line with what might be regarded as reasonable price elasticity estimates for other heavily taxed products such as tobacco. The value of 1.7 is based upon the estimates from the studies presented in table 3.1. The value of unity is simply a mid range estimate and is the basis for the results presented below.

Similarly, ACIL (Sub. 155), in modelling undertaken on behalf of a group of major gambling providers, used an own price demand elasticity for gambling products of $-\frac{1}{3}$.

Despite widespread reservations about estimates of high price sensitivity in the gambling industries, they may not be as unreasonable as first appear. Gambling is undertaken widely in the community. The vast majority of consumers spend modest amounts, treating gambling as a recreational activity. The majority of expenditure (some two thirds) comes from this group of recreational gamblers, for whom gambling is just one of a number of alternative forms of entertainment. Such consumers may well be quite sensitive to the price of gambling because of these alternatives, and it may be the response of this group to price changes that we are seeing when we observe high price elasticities.

It is, however, reasonable to presume that problem gamblers are less sensitive to changes in the price of gambling products, but the literature in this field does not attempt to distinguish between problem and recreational gamblers.

As a consequence of these uncertainties, the Commission has used a range of price elasticities for the demand for gambling — from -0.3 to -1.3. The components of this are discussed in more detail later in the appendix.

Estimates of income elasticity

Estimates of income elasticity are even more scarce than estimates of price elasticities (table C.2).

Table C.2 Estimates of income elasticity from the literature

<i>Study</i>	<i>Demand</i>	<i>Elasticity estimate</i>
Haig and Reece (1985)	Horse racing in the U.S.	0.6 to 1.0
Mason et al (1989)	Las Vegas gambling	0.3 to 0.8
Swan (1992)	Gambling in NSW	1.2

In the modelling work undertaken for the Commission in this inquiry (ECONTECH 1999), an income elasticity of 0.79 was used. The Commission has used this income elasticity in the estimates of consumer surplus contained in this appendix.

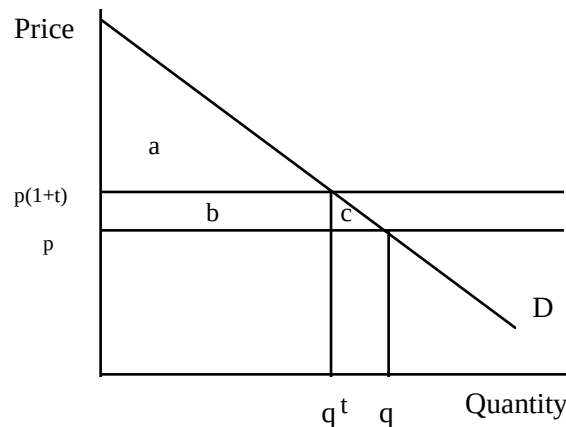
Accounting for high taxation

The level of taxation on gambling is very high. This varies significantly from product to product, but out of the \$11 billion that consumers spent on gambling in 1997-98, over one third (\$3.8 billion) went to government (equivalent to an average tax rate of 51 per cent). In the Commission's estimates of consumer benefit, the estimated annual equivalent of licence fees paid by the industry (\$233 million) and the community contribution of clubs (\$246 million) out of their gaming machine revenues have also been included. The total of taxes, licences and community contributions is estimated to be \$4.3 billion in 1997-98.

When estimating the benefit from a new product, the question of the level of taxation needs to be considered. Taxation transfers part of the available consumer surplus to the government. There is also an efficiency loss to the community in the form of a small component of potential consumer surplus forgone as a result of the reduction in demand caused by the introduction of the tax. Chapter 18 discusses the loss (marginal excess burdens) associated with the range of taxes on gambling products in Australia.

This is illustrated in figure C.2, where p represents the price without tax, at which price q would be the quantity of the product consumed. The surplus generated would be the areas $a+b+c$. With the imposition of a tax increasing the price to $p(1+t)$, the quantity demanded falls to q^t . At q^t , the consumer surplus remaining for consumers is the area a , while the area b is transferred to government in the form of tax revenue. The area c of consumer surplus is lost as demand falls.

Figure C.2 **Tax and consumer surplus**



The consumer surplus is measured by looking at consumers' expenditure and information on their price elasticity, and would be represented by the area *a* in figure C.2. To measure the total level of benefit we must include tax revenue — that component of consumer surplus that is transferred to government. In the absence of the taxes, the price faced by consumers would be *p*, and the total consumer surplus they would enjoy would be the area *a*+*b*+*c*.

Accounting for problem gambling

Unlike most other forms of entertainment, gambling can have adverse effects for a small minority. While the number may be small, their contribution to total spending on gambling is much higher, and the cost to them and those close to them, can be severe. This cost also extends to the wider community as it attempts (through the health and welfare system) to assist those harmed by gambling. As a result of its national survey, the Commission has estimated that 2.1 per cent of the adult population are problem gamblers (those who score 5 or more on the SOGS), and these gamblers account for around one-third of the money spent on gambling each year.

How do we value consumer surplus for problem gamblers?

In most cases, we assume that consumers gain a benefit equal to the amount of money that they spend on the product or service, and gain the net benefit of the consumer surplus involved. Does this assumption hold when it comes to the spending of problem gamblers? If problem gamblers are treated in the same way as other consumers, their consumer surplus would be large. This is because they each spend, on average, some 20 times more than recreational gamblers, and because their demand is expected to be less sensitive to changes in price. In most cases, this

insensitivity to price changes is a signal that consumers value the product highly, and thus a high consumer surplus is generated. But in the case of problem gamblers, it could be argued that this insensitivity to price changes is the result of an inability to control consumption rather than the result of a high value placed on the product. Many, if not most problem gamblers, say that they would not gamble at all or would gamble considerably less if they could control their compulsion. As problem gamblers account for around one third of the money spent on gambling in Australia, these questions can have a major effect on estimates of the benefits of the gambling industries.

How should demand by problem and recreational gamblers be treated?

The demand schedule for any product or service is a composite of the demand schedules of individual consumers. For gambling, the two major groups of consumers that are of interest in this analysis are non-problem or recreational gamblers and problem gamblers. In the analysis in this appendix, each group is treated separately, and problem gamblers are further disaggregated into moderate problem gamblers and severe problem gamblers (appendix P). The key differences between the two groups are assumptions about their responsiveness to changes in the price of gambling, and assumptions about the nature of the benefit received by problem gamblers.

As noted, it is reasonable to presume that the demand of problem gamblers is less sensitive to price changes than is the demand of recreational gamblers.

In making estimates of consumer surplus and the benefits from gambling, two elasticity scenarios were used, a low elasticity scenario and a high elasticity scenario. The elasticities chosen should not be treated as precise estimates. They are, however, a reasonable indication of the likely demand by gamblers based on the Commission's judgement of the market for gambling products. The following price elasticities of demand for gambling products by the identified groups of consumers have been used (table C.3).

Table C.3 Price elasticities of demand for gambling used in the Commission's estimates of benefits

	<i>Low demand elasticity</i>	<i>High demand elasticity</i>
Recreational gamblers	-0.8	-1.3
Moderate problem gamblers	-0.6	-1
Severe problem gamblers	-0.3	-1

As mentioned earlier, the use of these elasticities, particularly those for problem gamblers would generate a high level of consumer surplus. But, many problem gamblers express a wish to discontinue gambling or at least control it to a much greater extent than they are currently able to do. Many other studies of the costs of gambling assume that problem gamblers receive no benefit from their gambling, that is, that all the money spent represents a cost for which there is no matching benefit and, by implication, no consumer surplus. The Commission considers that this assumption is too extreme. It is reasonable to presume that problem gamblers do gain some benefit from their expenditure, but the question is the likely level of that benefit.

There are two ways of looking at this issue. The first is to consider the level of consumption that problem gamblers are likely to undertake were they to be 'cured' of their obsessive gambling behaviour. Information from problem gamblers in treatment indicates that some 80 per cent seek to cease gambling altogether, with the remainder seeking to control their gambling expenditure at a much lower level (chapter 6). The second way of looking at this issue is to consider the likely expenditure by problem gamblers were they not to develop their compulsive gambling habit. This is likely to be a higher overall level of expenditure than that which would result from 'cured' problem gamblers. As problem gamblers typically start out as more intensive players than the average recreational gambler, it is reasonable to consider a pre-problem level of play similar to that of regular recreational gamblers.

While we can only speculate on the level of demand that problem gamblers would exhibit in the absence of the compulsion, there is sufficient information available to presume that it would be considerably less than their current level — as mentioned earlier, those who successfully 'kick the habit' typically spend nothing or very little on gambling, and even regular recreational gamblers are spending considerable less than the average problem gambler.

In estimating consumer surplus for problem gamblers in the absence of the compulsion, the Commission has assumed that they would spend an amount similar to that spent by regular recreational gamblers. This is estimated to be some \$1500 each per year compared to their 1997-98 average spend of \$12 200 each (box C.3

for an explanation of how the alternative level of spending was derived). Recreational gamblers are estimated to spend only \$645 each in a year.

This results in an estimated annual expenditure by all problem gamblers of \$438 million, less than 15 per cent of their current spending of \$3.6 billion.

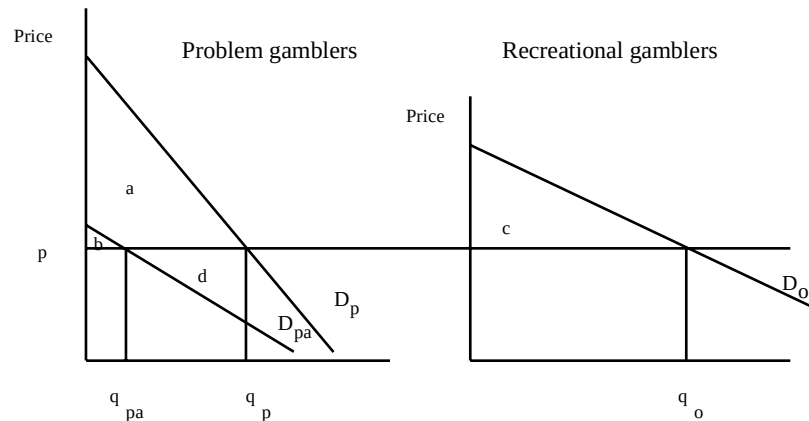
The demand condition for problem and recreational gamblers is illustrated in figure C.3. Two demand schedules are drawn for problem gamblers. The first is their observed demand (D_p), representing current consumption and the assumption that their demand is less sensitive to price changes than that of recreational gamblers. Their demand schedule in the absence of their compulsion is depicted as D_{pa} , representing the assumption that problem gamblers would consume considerably less in the absence of their compulsion.

For problem gamblers in the absence of the compulsion, there is an element of consumer surplus indicated by area b , where the value they receive is more than the price. As the quantity of gambling they would undertake in the absence of the compulsion is small (typically problem gamblers spend almost 20 times the amount per annum as recreational gamblers and 5 times the amount per annum than regular recreational gamblers), this surplus is likely to be small.

Importantly, spending in excess of the ‘recreational’ level is not all ‘lost’ to the problem gambler. It does have some value, even if this value is less than the amount of money paid. The value is represented by the area under the demand schedule in excess of the ‘recreational’ level of consumption. The loss that they face is represented by the area d . This area can be seen as representing ‘negative’ consumer surplus in that the real benefit (represented by D_{pa} in the absence of the compulsion) is less than the price they are paying. This may exceed the amount of ‘true’ consumer surplus (area b) that they derive from the activity.

For recreational gamblers, their consumer surplus is indicated by the area c .

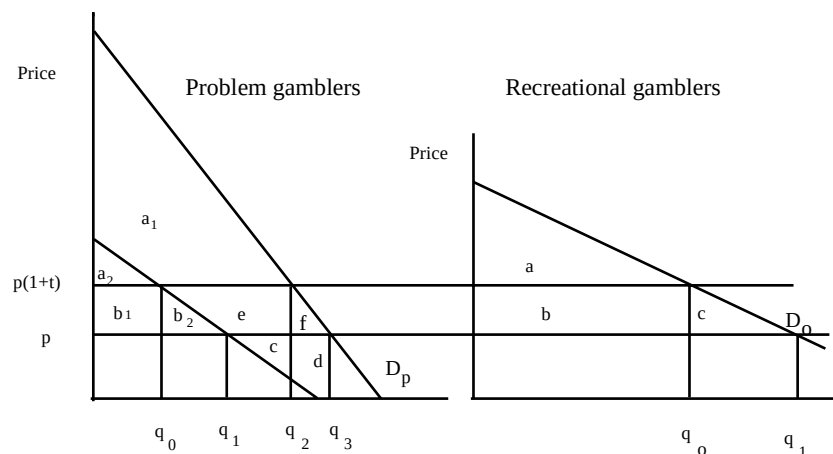
Figure C.3 Consumer surplus for problem and recreational gamblers



Accounting for tax and problem gamblers

The impact of taxation for problem and recreational gamblers is explored in more detail in figure C.4. For recreational gamblers, the situation is the same as that described in figure C.2, with the benefit being estimated as the areas *a* and *b*, being respectively the surplus retained by consumers and the tax transfer to government.

Figure C.4 Consumer surplus and tax: problem and recreational gamblers



For problem gamblers, the calculation is more complex. As developed previously, problem gamblers are seen as having two relevant demand schedules. The first (D_p) representing their observed demand, and a second ‘non-compulsive’ demand schedule representing their assumed demand if they did not gamble compulsively. In the absence of tax, ‘observed’ demand would be q_3 while their non-problem level of demand would be q_1 . A surplus of $a_2 + b_1 + b_2$ would accrue to the consumer, to be offset against the ‘negative’ surplus of the areas $c + d$.

With the imposition of tax, the price increases to $p(1+t)$, actual consumption contracts to q_2 , while consumption by recreational gamblers would fall to q_0 . A problem gambler accrues a surplus of area a_2 , while the government receives tax revenue b_1+b_2+e from problem gamblers. But area e represents a payment to government for which the gambler does not receive matching satisfaction and thus this area represents a loss to the gambler. The net gain in the tax collected is only the areas b_1 and b_2 . The area c represents payments to the industry for which the gambler does not receive a matching level of benefit, and is thus a cost to the gambler.

While the area c goes to the industry, it pays for productive resources used to provide the product and thus it is not a net gain for the industry. However, the consumer is not getting a matching benefit from the money spent equivalent to the area c which thus represents a true loss to society. By comparison the area e represents a similar cost to the gambler but, because productive resources are not involved with the tax collected (ignoring for the moment the cost of running the tax system), others in society receive a benefit equivalent to the loss for the gambler, and thus the area e is neither a benefit nor cost for society, simply a transfer.

The net position is represented by benefits from areas a_2 , b_1 and b_2 , offset by the loss of area c .

Box C.1 Problem gamblers: each area of the diagrams explained

(a_2) Surplus on the assumed 'recreational' (non-compulsive) level of spending by problem gamblers. This area is a benefit to the consumer as it represents consumption on which consumers place a higher value than the cost they pay.

(b_1+b_2+e) Tax paid to government. As (for simplicity) we assume that there are no costs associated with government collecting the tax, this area represents a net benefit to government. It, however, represents a cost to the consumer but, in most cases, the consumer receives satisfaction equivalent to that cost and thus it usually does not represent a net cost to the consumer. In such situations, the revenue to government would represent a benefit overall. For problem gamblers the area is divided into two components outlined below.

(b_1+b_2) That part of the tax for which consumers receive a benefit in the form of satisfaction, as it lies under the 'recreational' (non-compulsive) demand schedule which measures the satisfaction that consumers are assumed to receive. While the consumer pays the money to government this cost is offset by this satisfaction. To the extent that the revenue to government is not offset by collection costs, this part of the total tax represents a benefit overall.

(continued)

Box C.1 continued

(e) That part of the tax for which consumers do not receive matching benefit. This area represents a loss to the consumer but this loss is offset by the gain to government. Thus, overall the area represents a transfer between groups and is neither a loss or benefit overall.

(c) That part of the consumers' payment to industry for the purchase of the product for which consumers do not receive a matching benefit. For the consumer this area is a loss. The payment to industry covers the cost of production and thus it is not a benefit for that group. Thus this area represents a loss overall.

C.3 The Commission's estimates

The Commission has used the depiction of demand by problem and recreational gamblers outlined above to arrive at a range of estimates of the benefits from the introduction of gambling. The following sections of this appendix outline in more detail the key data used (table C.4) and calculations undertaken by the Commission to estimate the benefits presented in chapter 5.

Table C.4 Key data used

		<i>Wagering</i>	<i>Lotteries</i>	<i>Scratchies</i>	<i>Gaming machines</i>	<i>Casino games</i>	<i>Other</i>	<i>All gambling</i>
Share of total spending by Australians accounted for by:								
MPGs	%	9.5	3.7	11.3	8.7	8.2	8.5	8.3
SPGs	%	23.5	2.1	7.8	33.7	2.5	16.5	24.8
All PGs	%	33.1	5.7	19.1	42.3	10.7	25.0	33.0
Total expenditure	\$m	1 600.2	1 179.1	246.4	6 400.8	1 431.6	449.2	11 307.3
NPGs	\$m	1 071.1	1 111.4	199.2	3 690.7	799.4	337.0	7 208.9
MPGs	\$m	152.4	43.4	28.0	554.1	73.3	38.2	889.4
SPGs	\$m	376.7	24.3	19.2	2 156.0	22.4	74.0	2 672.6
All PGs	\$m	529.1	67.7	47.2	2 710.1	95.7	112.2	3 562.0
foreign	\$m	0	0	0	0	563.5	0	563.5

Note: MPG = moderate problem gamblers, SPG = severe problem gamblers; PG = problem gamblers; NPG, non-problem (recreational) gamblers. **a** Gamblers and problem gamblers engage in more than one mode of gambling thus the number of gamblers in each mode cannot be added to arrive at the total number. **b** Per head spend in individual modes is low because gamblers and problem gamblers spend in modes other than those which account for the bulk of their expenditure. **c** estimated from ABS household disposable income divided by the adult population.

Source: PC National Gambling Survey, Tasmanian Gaming Commission, and Commission estimates.

Table C.4 **continued**

		<i>Wagering</i>	<i>Lotteries</i>	<i>Scratchies</i>	<i>Gaming machines</i>	<i>Casino games</i>	<i>Other</i>	<i>All gambling</i>
Tax	\$m	610.9	832.1	173.5	2 365.0	279.9	50.8	4 312.2
NPGs	\$m	408.9	784.3	140.3	1 363.6	170.3	38.1	2 826.4
MPGs	\$m	58.2	30.6	19.7	204.7	15.6	4.3	348.7
SPGs	\$m	143.8	17.1	13.5	796.6	4.8	8.4	1 047.8
All PGs	\$m	202.0	47.8	33.2	1 001.3	20.4	12.7	1 396.5
foreign	\$m	0	0	0	0	89.3	0	89.3
Price		0.14	0.40	0.38	0.10	0.11	0.33	0.16
Price elasticity (high)								
NPGs		-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
MPGs		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
SPGs		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Price elasticity (low)								
NPGs		-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
MPGs		-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
SPGs		-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Income elasticity		0.79	0.79	0.79	0.79	0.79	0.79	0.79
Number of NPGs ^a	'000	3 279.7	8 235.8	6 342.2	5 196.6	1 366.6	3 134.8	11 185.6
Number of MPGs ^a	'000	84.5	133.3	105.3	141.5	53.1	105.6	163.4
Number of SPGs ^a	'000	68.5	99.2	79.3	112.9	36.1	80.5	129.3
Total PGs ^a	'000	152.9	232.6	184.6	254.4	89.2	186.1	292.7
Spend per head ^b								
NPGs	\$	327	135	31	710	585	108	644
MPGs	\$	1805	325	266	3915	1382	362	5443
SPGs	\$	5502	245	242	19,104	619	919	20 662
All PGs	\$	-	-	-	-	-	-	12 168
Disposable income (1997-98) per head ^c	\$	25 095	25 095	25 095	25 095	25 095	25 095	25 095
Gambling budget share								
NPGs	%	1.30	0.54	0.13	2.83	2.33	0.43	2.57
MPGs	%	7.19	1.30	1.06	15.60	5.51	1.44	21.69
SPGs	%	21.92	0.98	0.96	76.12	2.47	3.66	82.33
All PGs	%	13.79	1.16	1.02	42.45	4.28	2.40	48.49

Note: MPG = moderate problem gamblers, SPG = severe problem gamblers; PG = problem gamblers; NPG, non-problem (recreational) gamblers. **a** Gamblers and problem gamblers engage in more than one mode of gambling thus the number of gamblers in each mode cannot be added to arrive at the total number. **b** Per head spend in individual modes is low because gamblers and problem gamblers spend in modes other than those which account for the bulk of their expenditure. **c** estimated from ABS household disposable income divided by the adult population.

Source: PC National Gambling Survey, Tasmanian Gaming Commission (1999), and Commission estimates.

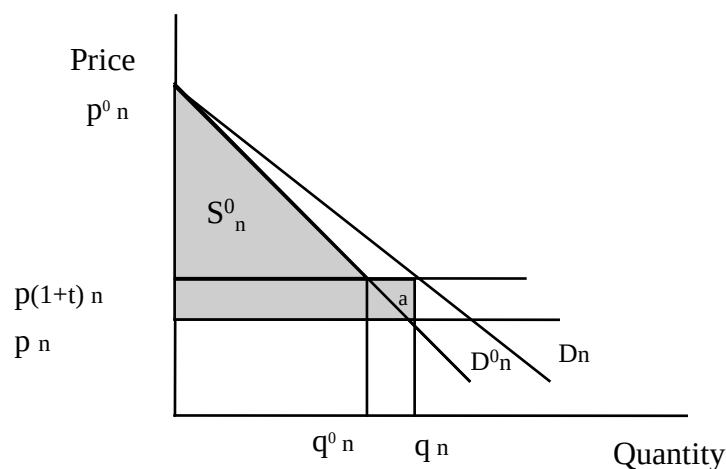
Table C.4 **continued**

		<i>Wagering</i>	<i>Lotteries</i>	<i>Scratchies</i>	<i>Gaming machines</i>	<i>Casino games</i>	<i>Other</i>	<i>All gambling</i>
MPG 'recreational spend'	\$m	38	12	4	155	27	10	244
SPG 'recreational spend'	\$m	31	9	3	124	19	8	194
Tax on 'recreational' spend								
MPGs	\$m	13.4	8.1	3.1	47.8	4.5	1.1	85.0
SPGs	\$m	10.9	6.1	2.3	38.1	3.1	0.8	67.3
PG 'recreational' budget share	%	1.78	0.34	0.17	4.37	2.04	0.37	5.96

Note: MPG = moderate problem gamblers, SPG = severe problem gamblers; PG = problem gamblers; NPG, non-problem (recreational) gamblers. **a** Gamblers and problem gamblers engage in more than one mode of gambling thus the number of gamblers in each mode cannot be added to arrive at the total number. **b** Per head spend in individual modes is low because gamblers and problem gamblers spend in modes other than those which account for the bulk of their expenditure. **c** estimated from ABS household disposable income divided by the adult population.

Source: PC National Gambling Survey, Tasmanian Gaming Commission, and Commission estimates.

Recreational gamblers

Figure C.5 **Demand for gambling by recreational gamblers**

Where:

$p(1+t)_n$ = the price of gambling (including tax 't') faced by recreational gamblers. This is assumed to be (1-the probability of winning).

p_n = price excluding tax.

p_n^0 = the price at which demand equals zero for a linear demand schedule (D_n).

q_n = the 'quantity' of gambling product consumed by recreational gamblers at the current price. This is estimated by dividing the known amount of money spent (lost) on gambling in a year by the price.

D_n = the demand schedule for gambling products by recreational gamblers.

ϵ_n = the price elasticity of demand for gambling products by recreational gamblers estimated around the current price.

The area $[p(1+t)_n * q_n]$ is the total expenditure (loss) by gamblers in a year.

The area $[(p(1+t)_n - p_n) * q_n]$ is the total annual amount of tax revenue collected.

D_n^0 = the demand for gambling if gamblers were actually required to pay up front the benefit (consumer surplus) from gambling. Because paying this surplus requires income, less can be spent on all products including gambling. Key influences on the extent of the difference between D_n and D_n^0 are the share of income spent on the product and the income elasticity of demand for the product (that is, the extent to which consumption changes as income changes.)

q_n^0 = the quantity of gambling consumed by recreational gamblers after adjusting for the effect on income of actually paying consumer surplus.

Consumer surplus is the area above the price line and below the demand schedule. It is a measure of the value that consumers place on the product in excess of the price that they are required to pay for it. In the simple linear example outlined here, the value of consumer surplus 'S' (prior to any adjustment for the effect on income of paying for the surplus) has been estimated by the Commission as:

$$(1) \quad S_n = (p(1+t)_n * q_n) / 2\epsilon_n$$

The adjusted consumer surplus (adjusted for the effect on income of having to pay for the consumer surplus) is estimated by:

$$(2) \quad S_n^0 = S_n - 0.5S_n(\epsilon_n^i)(s_n)$$

where:

ϵ_n^i = income elasticity of demand for gambling by recreational gamblers.

s_n = share of gambling expenditure in income.

This method of estimating the adjusted surplus is from Willig (1976).

The total benefit from the consumption of gambling by recreational gamblers is calculated as the adjusted consumer surplus plus the total tax revenue collected [the shaded area in figure C.5].

Note that this slightly overstates the benefit as it includes all the tax collected at the current level of consumption (q_n) to the extent of the triangular area (a) in figure C.5. Adjusting for this is, however, quite complex, and the difference is small (less than 1 per cent) in the overall estimate of consumer surplus, and has thus not been presented in the Commission's estimates.

Problem gamblers

For problem gamblers, two calculations have been made. First, the calculation of the benefit (adjusted consumer surplus and tax) on the basis of their existing observed demand. The method of calculation is the same as for recreational gamblers and assumes that problem gamblers are fully rational in their consumption. The calculation uses equations (1) and (2) incorporating information on the expenditure by problem gamblers, their elasticity of demand, income elasticity, and share of income spent on gambling at their current level of activity.

The second calculation assumes that problem gamblers are not rational consumers in the traditional sense and consume gambling at their current high levels 'involuntarily'.

To make the second calculation, the Commission has compared existing levels of gambling by problem gamblers with 'normal' levels of expenditure. The Commission has estimated the 'non-problem' or recreational level of spending by problem gamblers using information on the level of spending of regular recreational gamblers. Such an approach assumes that any gambling activity in excess of the assumed 'non-compulsive' level does not represent value-for-money for the problem gambler and represents a loss rather than a benefit to the gambler.

Box C.2 Estimating spend by problem gamblers in the absence of their compulsion

The Commission looked at the median per capita outlay of regular recreational players in each mode (except for table games, where the median for all recreational gamblers was chosen) as the base for its estimate of the alternative spend by problem gamblers.

The median was chosen rather than the average, because the average is skewed by a few heavy gamblers. That is, the average is not representative of the behaviour of most regular recreational gamblers, whereas the median is more representative of what most of them spend.

In the case of casino table games, the median of all recreational gamblers was chosen rather than the median of regular recreational gamblers, because there are very few regular recreational gamblers in this category. The characteristic mode of play for NPGs in the casino table game category, even 'enthusiastic' recreational players, appears not to play weekly.

The elements of the calculations were as follows:

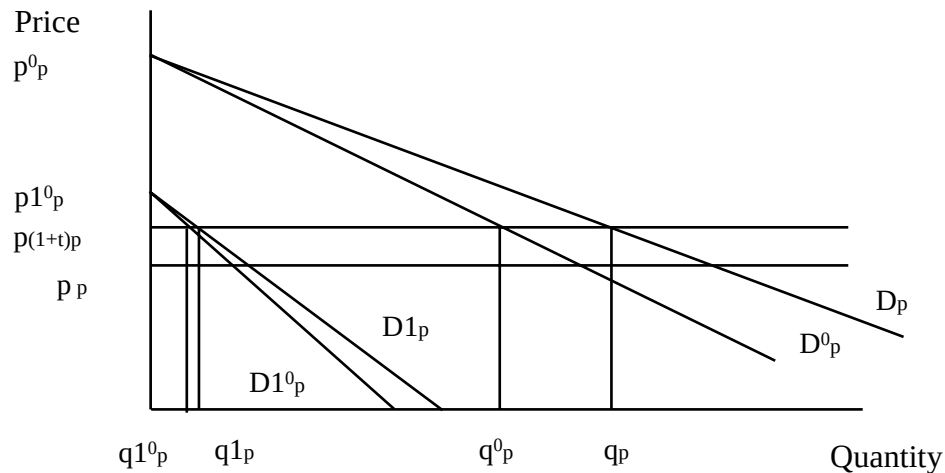
- Calculate the median of outlays per head of regular recreational gamblers in each mode, except for casino table games where the median of all recreational gamblers was used.
- Calculate the ratio of reported expenditure (loss) to reported outlays for all NPGs for each mode of gambling. This accounts for the lower tendency of non-problem (recreational) gamblers to recycle their winnings.
- Multiply the median outlay per head by this ratio to obtain an estimate of the 'benchmark' expenditure (loss) per head for regular NPGs
- Look at the per head outlays by each problem gambler in each mode. If this is greater than the median outlay for that mode, assume that their recreational level of expenditure is the estimated 'benchmark' amount.
- If their outlay is less than the median, then their expenditure is assumed to be their reported expenditure.

Added together, this provides an estimate of what the expenditure by problem gamblers would be if their spending patterns were similar to that of regular recreational players.

Adjust the total of expenditure to match the known expenditure as reported by the Tasmanian Gaming Commission and the ABS.

The reason that problem gamblers in each mode were identified as those outlaying more than the median and those outlaying less than the median is that, in each individual mode of gambling there are a number of problem gamblers whose primary mode of gambling is different from the one in question. It would be unrealistic to assume that those who spend little in that particular mode would increase their expenditure to the level of regular recreational gamblers in that mode.

Figure C.6 Demand for gambling by problem gamblers



For current consumption:

$p(1+t)_p$ = the price of gambling (including tax 't') faced by problem gamblers. This is assumed to be (1-the probability of winning).

p_p = price excluding tax.

p_p^0 = the price at which demand equals zero assuming (for simplicity) a linear demand schedule (D_p).

q_p = the 'quantity' of gambling product consumed by problem gamblers at the current price. This is estimated by dividing the known amount of money spent (lost) on gambling in a year by the price.

D_p = the demand schedule for gambling products by problem gamblers.

ϵ_p = the price elasticity of demand for gambling products by problem gamblers estimated around the current price.

The area $[p(1+t)_p * q_p]$ is the total expenditure (loss) by problem gamblers in a year.

The area $[(p(1+t)_p - p_p) * q_p]$ is the total annual amount of tax revenue collected on the expenditure by problem gamblers.

D_p^0 = the demand for gambling if gamblers were actually required to pay the consumer surplus associated with consuming gambling products.

q_p^0 = the quantity of gambling product consumed by problem gamblers after adjusting for the effect on income of actually paying consumer surplus.

For 'normal' level of consumption:

$q1_p$ = the 'quantity' of gambling product consumed by problem gamblers at the current price if they consumed at a 'normal' level.

$D1_p$ = the demand schedule for gambling products by problem gamblers if they consumed at a 'normal' level.

$\epsilon1_p$ = the price elasticity of demand for gambling products by problem gamblers if they were to consume gambling products in the same way as recreational gamblers.

$p1_p^0$ = the price at which demand equals zero, assuming for simplicity a linear demand schedule ($D1_p$) for the 'normal' level of consumption.

The area $[p(1+t)_p * q1_p]$ is the total expenditure (loss) by problem gamblers in a year if they consumed at a 'normal' level.

The area $[(p(1+t)_p - p_p) * q1_p]$ is the total annual amount of tax revenue that would be collected on the expenditure by problem gamblers if they consumed at a 'normal' level.

$D1_p^0$ = the demand for gambling if gamblers were actually required to pay the consumer surplus associated with consuming gambling products if they consumed at a 'normal' level.

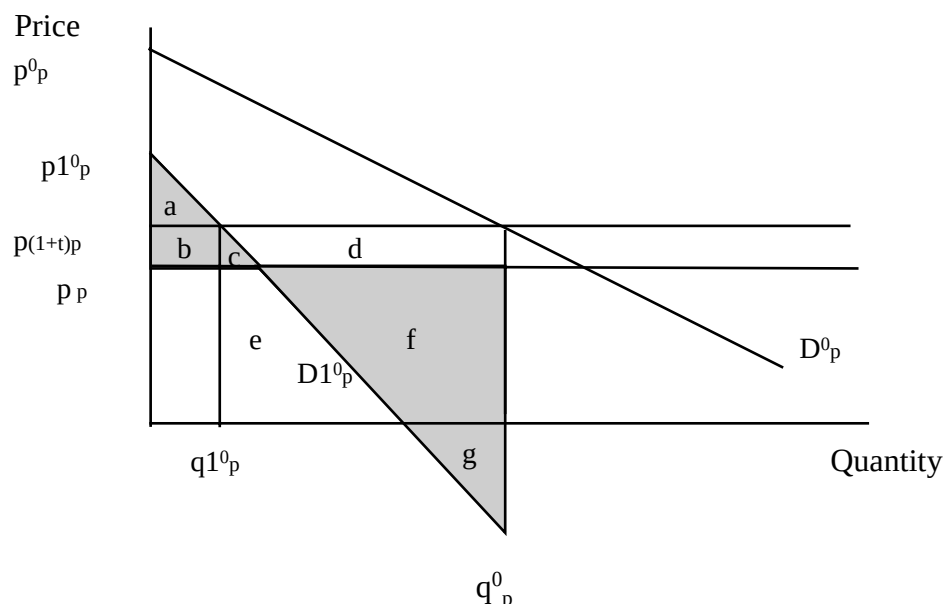
$q1_p^0$ = the quantity of gambling product consumed by problem gamblers after adjusting for the effect on income of actually paying consumer surplus if they consumed at a 'normal' level.

The Commission has calculated the benefit for problem gamblers as follows:

- the adjusted surplus on the 'normal' level of gambling ($S1_p^0$) [the triangular area 'a' in figure C.7]; plus
- the tax on the adjusted 'normal' level of gambling [the rectangular area 'b']; less
- expenditure on gambling by problem gamblers in excess of the adjusted 'normal' level [areas 'c', 'd', 'e', and 'f']; plus
- the satisfaction gained from the 'excess' gambling [the triangular area 'c' and 'e']; plus
- the tax collected on 'excess' spending [the rectangular area 'c' and 'd'].

- the triangular area 'g' which can be seen as representing consumption in excess of a satiation point (box C.3) has not been included in the calculations.

Figure C.7 Areas included in the calculation of the benefit for problem gamblers



This figure has, for simplicity, been drawn using only the income adjusted demand schedules.

Note that the tax revenue for recreational gamblers is a net benefit to society as the consumer receives benefits in the form of satisfaction to cover the cost including the tax paid. As the tax paid is in excess of the cost of producing the product, it represents a net benefit to those in receipt of the tax revenue but not a loss to those paying the tax. For problem gamblers, the tax on gambling in excess of the 'normal' level of consumption represents a gain to others, but it is a cost to the problem gambler because it is not matched by 'normal' satisfaction from consumption. Thus, the tax collected from this group is not an unambiguous gain for society.

The adjusted surplus on the 'normal' level of gambling for problem gamblers (S^0_p) is estimated using equations (1) and (2) as it is for recreational gamblers, together with information on the assumed level of 'normal' consumption. The 'normal' level of gambling is presumed to be twice the per capital level of recreational gamblers multiplied by the estimated number of problem gamblers.

The adjusted 'normal' level of expenditure 'E' is estimated as:

$$E = p(1+t)_p * q^1^0_p$$

where: $q1_p^0$ (the quantity consumed at the 'normal' level of expenditure adjusted for the income effects of paying the surplus) is estimated by:

$$q1_p^0 = (2 * S1_p^0) / (p1_p^0 - p(1+t)_p) \text{ where:}$$

$$p1_p^0 = (2 * S1_p / q1_p) + p(1+t)_p$$

The tax on the adjusted 'normal' level of expenditure is estimated using the known ratio of tax collected on all expenditure and applying this to the adjusted 'normal' level of expenditure.

Gambling by problem gamblers in excess of the 'normal' level is estimated by subtracting the adjusted 'normal' level from the total amount spent by problem gamblers in a year.

The satisfaction gained from the 'excess' spending [the area 'c' and 'e' in figure C.7) is estimated as:

$$\text{adjusted 'normal' expenditure} * (\epsilon 1_p / 2)$$

The difference between the value of spending on gambling in excess of the 'normal' level and the satisfaction gained from this 'excess' spending can be seen as a measure of the extent to which problem gamblers do not get value-for-money for their spending. Another way of looking at this is to say that the economy is using resources to produce a good whose 'true' value to consumers (as indicated by the 'normal' demand schedule) is less than the cost of the resources being used.

The tax collected on 'excess' gambling is estimated by subtracting the estimated tax that would be collected on the adjusted 'normal' level of gambling from the total amount of tax collected on spending of problem gamblers.

Box C.3 'Satiation'

Note that the demand schedule representing the 'normal' level of demand typically intersects the zero price line at a quantity considerably less than the quantity currently consumed by problem gamblers. In essence, this is saying that recreational gamblers, even if the price of gambling were zero, would not consume as much of the product as problem gamblers. For recreational gamblers this can be seen as a situation where you would need to pay them to spend as much time and effort on gambling as problem gamblers, in effect a negative price. This situation represents satiation effects of high levels of consumption. There is therefore, potentially an area below the zero price line [area 'g' in figure C.7] which could be added to our estimate of lack of value for money for problem gamblers. The Commission has not included this in its estimates of the net benefit for gambling.

The Commission's treatment falls between the two approaches typically taken by those estimating costs and benefits for gambling. Many studies of the costs of gambling treat all the expenditure by problem gamblers as a cost and presume that problem gamblers receive no benefit at all in exchange for their expenditure. The alternative approach treats the consumption of gambling in the same way as other products. This means that problem gamblers' surplus is very large. This latter approach assumes that, as problem gamblers choose to gamble at that level, they do so because the benefits exceed or are matched by the cost, including all the other costs in the form of unhappiness, marriage breakdown etc that are borne by the problem gambler.

The Commission has considered that both the approaches are unrealistic. Arguably there is some benefit gained by problem gamblers from their activity — all their expenditure cannot be considered to represent a net cost. Conversely, it is equally unrealistic to presume that problem gamblers consumption decisions are fully informed and perfectly rational.

Total benefits are the sum of the benefits estimated for recreational gamblers and the value of benefits (typically negative) estimated for problem gamblers.

C.4 The results

The estimates of consumer surplus for recreational, problem and all gamblers and for different forms of gambling are presented in the following tables.

Table C.5 **Estimated consumer surplus retained by recreational gamblers 1997-98 (\$ million)**

	<i>Range</i>
Wagering	410 — 666
Lotteries	427 — 693
Scratchies	77 — 124
Gaming machines	1 404 — 2 281
Casino games	305 — 495
Other	129 — 210
All gambling	2 745 — 4 460

Source: PC estimates.

Table C.6 Estimated loss for problem gamblers, 1997-98 (\$ million)

	<i>Annual spending by moderate problem gamblers</i>	<i>Annual spending by severe problem gamblers</i>	<i>Loss for moderate problem gamblers</i>	<i>Loss for severe problem gamblers</i>
Wagering	152	377	76 — 77	315 — 315
Lotteries	43	24	20 — 20	7 — 7
Scratchies	28	19	19 — 19	13 — 13
Gaming machines	554	2 156	244 — 245	1 908 — 1 910
Casino games	73	22	18 — 19	(15) — (15)
Other	38	74	18 — 18	59 — 59
All gambling	889	2 673	404 — 406	2 288 — 2 290

Figures in brackets mean that problem gamblers receive a net benefit rather than a loss on their gambling expenditure in that category.

Source: PC estimates.

Note that the estimated loss for problem gamblers varies little between the two sets of elasticities used by the Commission. The reason for this is that there are two offsetting effects from changing the elasticity of demand. For example, with a lower elasticity, the 'normal' demand schedule ($D1^0_p$ in figure C.7) rotates around the point where it intersects the price line. As a consequence, the consumer surplus benefit to consumers (area *a*) increases, but the size of the loss area *f* also increases.

By chance, with the elasticities chosen by the Commission to represent demand by recreational gamblers (-0.8 and -1.3) these two effects almost exactly cancelling out (box C.4).

Table C.7 Estimates of consumer surplus: all gambling (1997-98) (\$ million)

		<i>High elasticity</i>	<i>Low elasticity</i>
Spending by recreational gamblers		7 209	7 209
Recreational gamblers' consumer surplus	a	2 745	4 460
Spending by problem gamblers		3 562	3 562
Apparent surplus from problem gamblers	b	1 440	3,841
Tax, licence fees and community contributions	c	4 312	4 312
Total benefit if <i>all</i> consumers are 'rational'	(a+b+c)	8 497	12 613
Spending if problem gamblers consume at the rate of recreational regular gamblers		438	438
Surplus on problem gamblers' reduced spend	d	165	267
Loss on excess spending by problem gamblers	e	(2 856)	(2 963)
Net loss for problem gamblers	f = (d-e)	(2 692)	(2 696)
Adjusted consumer surplus	(a+c+f)	4 365	6 076

^a Figures in brackets represent a loss

Source: PC estimates.

Box C.4 Explaining the lack of variation in problem gambler loss

The change in the net benefit/loss position for problem gamblers is determined by the difference between the net position for problem gamblers under the high elasticity scenario and the net position under the low elasticity scenario.

$$(A) \quad \Delta NP_0 = \{(E \cdot 0.5 \cdot 1/\epsilon_0) - (H - E \cdot 0.5 \cdot \epsilon_0)\} - \{(E \cdot 0.5 \cdot 1/\epsilon_1) - (H - E \cdot 0.5 \cdot \epsilon_1)\}$$

Where:

E = expenditure in the absence of the gambling compulsion.

H = 'excess' spending by problem gamblers, being their current expenditure less E.

ϵ_0 = high demand elasticity (-1.3); and

ϵ_1 = low demand elasticity (-0.8).

The relationship above simplifies into

$$(B) \quad \Delta NP_0 = E \cdot 0.5 \cdot (1/\epsilon_0 + \epsilon_0 - 1/\epsilon_1 - \epsilon_1)$$

As it happens, the two elasticities chosen to represent the alternative demand characteristics of recreational gamblers (-1.3 and -0.8) happen to be very close to the inverse of each other. Thus in the formula above, the expression in the brackets largely cancels out leaving little change in the net position of problem gamblers.

Similarly, the closer the elasticities are to a unitary elasticity (-1) the smaller will be any change. For example:

let $\epsilon_0 = (1-m)$; and

$$\epsilon_1 = (1+m).$$

Placing these expression in formula (B), the expression for the change in the net position becomes:

$$(B) \quad \Delta NP_0 = E \cdot 0.5 \cdot (2m^3/(1-m^2))$$

As m approaches zero, then the denominator approaches one and the numerator approaches zero, leaving a change approaching zero.

Table C.8 Estimates of consumer surplus by type of gambling: 1997-98 (\$ million)

	<i>Consumer surplus for recreational gamblers</i>	<i>Tax, licences and community contributions</i>	<i>Consumer loss for problem gamblers</i>	<i>Net total benefit/surplus</i>
Wagering	410 — 666	611	391 — 392	629 — 885
Lotteries	427 — 693	832	27 — 27	1 232 — 1 498
Scratchies	77 — 124	174	32 — 32	219 — 266
Gaming machines	1 404 — 2 281	2 365	2 152 — 2 155	1 617 — 2 491
Casino games	305 — 495	280	3 — 4	580 — 769
Other	129 — 210	51	77 — 77	103 — 184
All gambling	2 745 — 4 460	4 312	2 692 — 2 696	4 365 — 6 076

Source: PC estimates.

D The sensitivity of the demand for gambling to price changes

Unfortunately, very little reliable data are available on the price sensitivity of the demand for gambling as a whole or for particular gambling activities. This appendix examines what is known about the demand for different forms of gambling. It concludes that most forms are unlikely to be particularly sensitive to changes in price, although there is likely to be significant variation in price sensitivity among different gambling forms.

Two factors explain, at least in part, why most gambling forms are relatively insensitive to price:

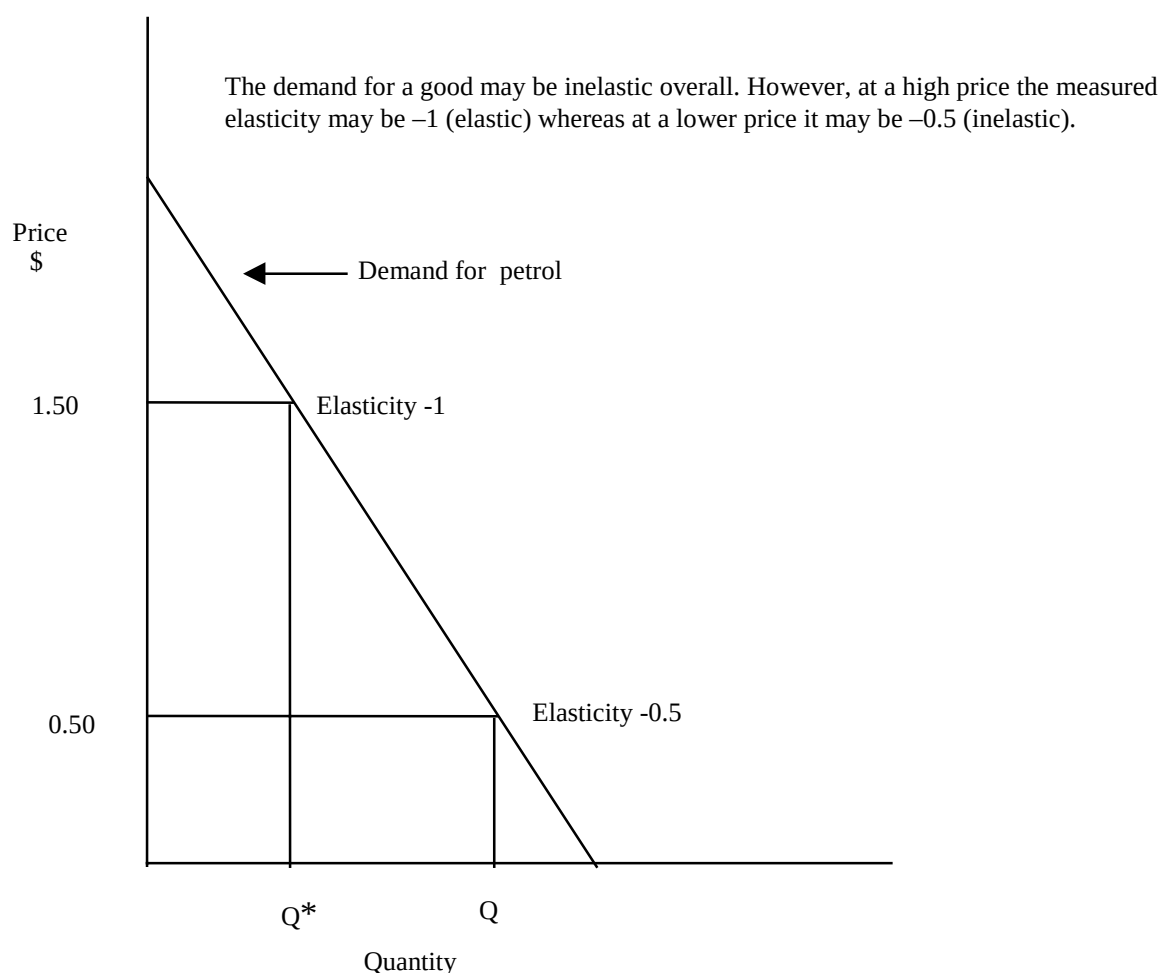
- As discussed in chapter two, unlike normal consumer goods, the price of gambling is not readily apparent. To the extent that consumers do not know the price, it is reasonable to suggest that they will not be particularly responsive to price changes. It is particularly difficult to determine the price where there are infrequent or highly variable payouts. As Weinstein and Deitch (1974) contend ‘gamblers will be more concerned about the odds and hence more responsive to tax/price changes, where there is a good chance of winning any particular bet’.
- Secondly, there appears to be only limited substitution of one gambling form for another by consumers. The less substitutable a good is, in general, the less price responsive it is.
 - As illustrated in figure 19.2 (in chapter 19) the introduction of gaming machines and casinos in a number of states drew more gamblers into the market, rather than drawing significant revenue from existing forms of gambling.
 - Gaming machines have a significantly lower payout ratio than most casino table games (ie a much higher price), yet gaming machines are still very popular within casinos, indicating a lack of substitution by these gamblers based on price.

In the discussion that follows it is important to recognise that the responsiveness of the demand for a gambling game overall, can be different to the responsiveness as measured at a particular tax rate. For instance, as shown in figure 1 the demand for petrol is inelastic over a large range of prices. Yet at a high price of \$1.50 a litre,

demand may become elastic, as people eventually move to other forms of transport, or drive their cars less. In general, the higher the price, or tax rate, the more elastic demand for the good will become.

Figure D.1 The higher the price the more price responsive demand for a product is likely to be

Demand elasticity for petrol at a high and low price



(a) Lotteries

Lotteries — which are characterised by a low ticket cost combined with a very low chance of winning — are likely to be highly insensitive to price across a broad range of prices. For instance, Lyons and Ghezzi's time series study of lotteries in Oregon and Arizona found that 'reducing the odds was unrelated in either state to changes in betting, suggesting that people like low stakes and do not discriminate [between] different odds or changes in odds when the odds are small anyway (National Research Council 1999, p. 246). In fact, it is unlikely that lotteries could operate at their current levels in the presence of such high tax rates (82 per cent of expenditure,

or 455 per cent if expressed in pre-tax prices) if their demand was not unresponsive to price/odds. The taxation of lotteries in Australia is not unique; lotteries in other countries also tend to be highly taxed. Moreover they are often have lower payout ratios than in Australia, further suggesting inelastic demand.¹

Indeed, because the demand for lotteries seems to be insensitive to tax rates, governments tend to treat them as a form of voluntary taxation, and they are often accepted as such by the public (especially if the proceeds are used to fund major projects or good causes).

However, the perception that the demand for lotteries is insensitive to price, contrasts with the findings of some econometric studies. For instance, Clotfelter and Cook (1990), and Farrel and Walker (1999) find that the demand for lotteries and lotto products is highly elastic. Access Economics (1998) find the demand is highly elastic for 'high-turnover' Tattslotto. On the other hand, Access find that the demand is highly inelastic for Ozlotto and Powerball and 'high-turnover' Tattslotto. BERL (1997) in New Zealand found that lotteries were only slightly elastic (table D.1).

Table D.1 Studies appear to show that demand for lotteries is price sensitive

(less than -1 is elastic, greater than -1 is inelastic)

<i>Study and product</i>	<i>Elasticity</i>
Farrel and Walker, UK 1999	-1.55 to -2.6
Access Economics, Aust 1998	
Tattslotto – low turnover	-2.19
Tattslotto – high turnover	-0.24
Ozlotto - low turnover	-0.2
Ozlotto – high turnover	-0.8
Powerball – low turnover	-0.03
Powerball – high turnover	-0.02
BERL, NZ 1997	
Lotto and Instant Kiwi	-1.054
Clotfelter and Cook, US 1990	
Lotto	-2.55
Numbers game	-3.05

Source: Tattersall's, sub. 156, p. 53; other references as in the table.

¹ Australian lotteries typically have payouts of 60 per cent of revenue. US lotteries have an average payout of 51 per cent of revenue (Clotfelter and Cook 1990). The National UK lottery pays out 45 per cent of revenue (Farrel and Walker 1999). The NZ lottery pays out 55 per cent. In price terms (one minus the payout) these differences are significant.

There are a number possible explanations for the apparent difference between some of the econometric findings and the more qualitative assessment that demand for lotteries is insensitive to their price:

- As mentioned above, a finding that demand for lotteries is sensitive at high prices — owing to current levels of taxes — does not mean demand is necessarily sensitive at lower prices and tax rates. In fact, faced with an inelastic demand curve, to maximise profits, a producer will continue to raise prices until eventually demand becomes elastic. Elasticity increases because at high prices substitutes may emerge that are not viable at lower prices (see IC 1994 for further details).
 - With the exception of the Access study, the estimates are based on overseas lotteries, which have lower payout ratios — often significantly lower — than lotteries in Australia. Lower payout ratios are equivalent to higher prices. So as illustrated in the diagram (figure D.1), the studies are based on a price that is further up the demand curve (where we would *expect* demand to be more elastic) than Australian lotteries.
- A number of the studies are based on the demand for particular lottery products. Such demand would be expected to be considerably more sensitive than for lottery products as a whole. For instance, the demand for beer is insensitive to price. However, if one beer brand attempted to put up prices, even slightly, relative to other brands, demand would be expected to fall significantly.
- Most quantitative studies estimate the responsiveness of demand to price using consumers' reaction to occasional big payouts, or 'super draws', that are announced in advance and accompanied by advertising campaigns. It is uncertain whether consumer reaction to these occasional events is a good guide to how the demand for lotteries would change if tax reductions increased payouts on a permanent basis. For instance, just as the consumer response to clothing sales is not a good guide to the elasticity of demand for clothing overall, the response to lottery special draws is similarly not likely to be a good guide to the elasticity of lottery products.

Access Economics (1998) suggests that, on the basis of their empirical work, the demand for Tattsлото is so sensitive that reducing the tax rate would lead to such an expansion in expenditure that tax revenue would actually increase. That is not inconsistent, however, with the demand for lotteries being sensitive at very high tax levels but insensitive at lower levels. In fact, the study supports this proposition. It suggests that if taxes were reduced from 35.5 to 20.8 per cent *of turnover* (equivalent to a reduction from 88 to 52 per cent of expenditure) the deadweight losses could be largely eliminated. If deadweight losses were very low at a tax rate

of 50 per cent — still a higher tax than on other gambling products — this would suggest that demand was quite inelastic up to that price.²

Even so, the Access result must be interpreted with caution. The same study estimates that Powerball and Ozlotto have very inelastic demand, with the implication that taxes could be raised on these goods without much increase in the excess burden. It is difficult to see how virtually identical and highly substitutable products could exhibit such widely differing elasticities of demand — a puzzle acknowledged by Access.

Thus, in the Commission's judgment, while the available studies are useful and raise some questions, they do not undermine the presumption that the demand for lotteries is generally insensitive to price, across a wide range of prices. If the pattern of demand for lotteries is similar in different countries, the lower payout ratios (higher prices) of most overseas lotteries suggest that taxes in Australia may not have pushed the price of lotteries close to the elastic part of the demand curve.

(b) Gaming Machines

Although the price of gaming machines is also very difficult to observe, they provide more feedback to the consumer on total returns than lotteries — the game is played repeatedly, and consumers will have some idea of the rate at which they lose. This in itself may mean that the demand for gaming machines is more price sensitive than that for lotteries. Lower tax rates for gaming machines may mean this view is shared by state revenue authorities. The fact that operators offer payouts above the minimum may also indicate a greater degree of price sensitivity than lotteries, although this is also likely to reflect competition among operators — like the beer brand example — rather than price sensitivity for gaming machines overall.

In New Zealand, BERL (1997) estimated the elasticity of demand for gaming machines and casinos to be -0.8 (somewhat unresponsive to price). While this estimate is subject to the same caveats applying to other econometric studies, anecdotal evidence tends to suggest that demand for gaming machines may be somewhat unresponsive to price, albeit less so than for lotteries.

² In theory, if gambling operators have superior knowledge about demand, and are willing to *guarantee* governments increased tax revenue (through agreeing to pay a specific amount of tax), there is a reasonable argument on efficiency grounds for allowing them to increase payout rates (thereby reducing the implicit level of tax on net expenditure). But this is properly a matter for negotiation between the gambling operator and relevant state government. And if demand for lotteries is price sensitive, the equity implications of any reductions (and associated revenue increases) should be considered.

-
- Firstly, there has been extraordinary growth in revenue from gaming machine since they were legalised in a number of states in the 1990s. While this growth is driven by the greater accessibility of gaming machines, it also provides no support for the view that high tax rates are significantly reducing the level of gaming machine play. Demand also appears to have grown strongly in New South Wales in recent years where they have been legal for many years;
 - Secondly, people on low incomes tend to gamble a greater proportion of their income on gaming machines than people on high incomes. The sacrifices, in terms of other goods forgone, that low income earners are willing to make to gamble on gaming machines shows they place a high value on being able to gamble in this way. In turn, this may indicate that their demand is relatively unresponsive to price.
 - Finally, payout ratios on gaming machines often vary between clubs and hotels. For instance in New South Wales, clubs retained 9.4 per cent of turnover, whereas hotels retained 10.5 per cent of turnover. Thus, the payouts from hotels were about 10 per cent less than for clubs. Lower payouts by hotels appear to be sustainable behaviour, which — allowing for differences in the venues and their clienteles — could also indicate that gamblers are insensitive to relatively small changes in payout rates.³

(c) Casinos

There are no studies solely on the sensitivity of the demand for casino gaming. It is likely, however, that some types of gamblers in casinos are more sensitive to prices than others. ‘High rollers’, who are able to gamble anywhere in the world, are acknowledged to be highly responsive to price, and for this reason are offered commissions to gamble at particular casinos. Since prices are more easily observable for some table games than other gambling forms, the sensitivity of demand for casino gaming is likely to be significantly greater than for lotteries. In practical terms, it may not be possible to tax casinos at the same rate as lotteries (and possibly gaming machines), without changing the rules of table games (such as roulette and blackjack) which have significantly higher payout ratios than gaming machines or lotteries.

³ Within the *one location* there is contradictory evidence about the sensitivity of demand to price. Many people play 2 cent machines at a high level of intensity, betting up to \$1.00 at a time. Yet the payouts on these machines are less than payouts on the \$1.00 machines which may indicate players are insensitive to price. On the other hand gaming machine operators have told the inquiry that gamblers tend to gravitate to machines that they perceive offer the largest payouts.

(d) Racing

Like casinos, racing attracts different types of gamblers who could also be expected to display different levels of sensitivity of demand to price. Traditional racing punters, who follow ‘form’, are not likely to substitute racing for other forms of gambling. However, there is also a category of ‘recreational’ gambler who treats racing in much the same way as gaming — particularly since racing and gaming opportunities are increasingly located in the same venue. This group may substitute one form for another depending on price changes. If any form of gambling has suffered from the introduction of gaming machines and casinos, it is most likely to be racing, although other factors may be behind the slight decline in racing expenditures.

BERL (1997) estimated the elasticity of demand for race betting at -0.7 in New Zealand — somewhat unresponsive to price.

E Gambling in indigenous communities

As noted in chapter 6, the apparent levels of problem gambling are much higher among indigenous people of Australia — a pattern that is repeated also for New Zealand.

The word ‘apparent’ is appropriate because patterns of gambling and its social and personal consequences are very different in Aboriginal communities (Goodale 1987). Card games, such as *Kuns* and *Cuncan*, dominate and are organised usually by the communities themselves (Hunter 1993; Hunter and Spargo 1988). These games may involve nearly the whole community in gambling for money — and may sometimes include children. Such games have important social value:

Many activities have become organised around it, such as drinking and the patterns of re-distribution of credit and obligation within the community. It ... has powerful integrative functions for certain sub-groups (Hunter 1993, p. 250).

In non-Aboriginal communities, large losses are usually accompanied by distress, whereas in Aboriginal communities it is claimed that ‘subjective distress is generally not a feature of indebtedness per se’ but that gamblers feel anxious if they are not able to continue playing because they have no money. There is no significant difference in the prevalence of depression among Aboriginal gamblers versus non-gamblers. However, there is evidence that gamblers have higher average levels of anxiety, especially amongst males (Hunter 1993, p. 249).

Foote (1996 p. 7) says that in community games:

If one is not successful, one is assisted by others ... there is ... no shame to being unsuccessful or losing, except when the loss is the result of foolishness ... With no shame attached to losing there is no need to cover up one’s gambling behaviour ... The individual, as a result, does not suffer post gambling session anxiety. There is a ready source of assistance from all around one.

Altman (1987, p. 167ff) has shown that gambling has a redistributive function in Aboriginal communities, which explains why gambling bouts can go on and on. Indeed, because the games are typically games of chance, rather than of skill, and because there are no taxes or gambling production costs to siphon off money, they operate to randomly redistribute money throughout the community. Such gambling can be a source for small scale accumulation, as a person playing a card game will at

times accumulate enough to purchase something of personal or social value that could not otherwise be afforded:

ATSI community controlled gambling is noted to a large degree to utilise gambling activity as a vehicle to build ... capital and redistribute this capital to community members who would otherwise be unable to achieve such capital accumulation. Goods purchased with the proceeds at times become socially utilised commodities. The majority of the money gambled is redistributed to players ... community gambling is described as being conducted largely in an atmosphere of and in the spirit of reciprocal social responsibility. Gambling also is used for the purposes of social interaction, to facilitate information exchange and to have fun as a group ... Reference to protocols of conduct that actively discourages personal disadvantage are a prominent feature. This includes steps to prevent people playing if impaired by alcohol and steps to prohibit destitution and or disadvantage as a result of incurring losses. This is not to say that this form of gambling is free of negative impacts (Nunkuwarrin Yunti, sub. 106, p. 9).

However, while losses from such games appear initially to stay in the community, they can be dissipated if winnings are spent on capital and luxury items or alcohol (Hunter 1993, p. 248). This in turn reduces the community budget for essentials, such as nutritious food.¹ Social pressures to hand over unspent money may militate against *large* scale financial accumulation (Hunter 1993). Hunter concludes that:

For those communities where gambling is pervasive, it is the conduit for a major drain on resources and energy, contributing to patterns of indebtedness and rapid expenditure that undermine personal and community development (p. 252).

Nunkuwarrin Yunti (sub. D214, p. 1) emphasise that it is important not to overstate the protective function of gambling with peers:

It is critical to state that the 'no impact' of community gambling is not universal to all communities ... A worrisome finding in a gambling study in Canada (n=1821), stated that some probable pathological gamblers were found to have played cards or board games for money with family or friends as their first experience.

Coinciding with the proliferation of modern gambling products, indigenous people have broadened the types of gambling in which they participate and in some indigenous communities card games are no longer the predominant form of gambling:

There are a number of Aboriginal communities where cards are no longer the principle form of gambling activity. TAB and Pokies have impacted on drawing people away from communities to participate in these alternative forms of gambling. This has proved to have far more serious implications on individuals and families especially when people leave communities to travel miles to be close to the gambling venue, be it a pub or casino (Nunkuwarrin Yunti, sub. D214, p. 2).

¹ However, there is apparently little evidence that gambling is counterproductive to gathering bush food (Altman 1987, p. 165).

The pattern of institutionally-based gambling amongst indigenous peoples differs from community-run gambling in that it is demarcated along gender lines, and has included former non-gamblers:

Information ... suggests a pattern of ATSI community gambling largely demarcated along gender lines when engaged with industry business orientated gambling. A more equal ratio of involvement along gender lines exists in ATSI community operated gambling such as card games. Prior to the introduction of gaming machines in South Australia, TAB gambling has been very popular and continues to be popular with ATSI men. Bingo, bingo tickets and scratchies were more popular with ATSI women ... while there has been some migration towards gaming machine gambling by ATSI men, the racing codes still account for the main form of gambling. ATSI women to a larger degree have moved and stayed with gaming machines as the preferred code ... In ... Queensland ... 29% of ATSI people gambling on the pokies reported that prior to their introduction in Queensland, they did not gamble at all (Nunkuwarrin Yunti, sub. 106, p. 8).

Foote (1996) has confirmed that ATSI women tend to be far more frequent users of poker machines in the Darwin casino than men.

While there are concerns about adverse outcomes for Aboriginal communities from community based gambling, these are more pronounced for commercially oriented gambling:

... the radically different social meanings and functions which surround gambling in traditional Aboriginal societies ... suggest that any transfer of cognitive style, of mindset ... could be very disruptive, not to say catastrophic when these are translated into an urban culture in which the 'casino culture' is emergent ... (Tyler 1996, p. 9).

Indigenous communities perceive some severe problems in relation to institutionally based gambling:

When people leave communities with the intention of "winning big bucks" at the casino they have no realistic ideas of their chances of doing so ... They would have saved big money or collected money from relatives ... Once in town the enticement and entrapment of the gambling venue eventually drains all the individuals financial resources. The individual is then stranded in town with no money to get back home ... If the person does not have family or friends to support them while in town they are very vulnerable. This can lead on to all kinds of problems or trauma.

The other obvious negative affects of poker machines on Aboriginal people and the community is that it alleviates the social interaction of card games and the money gambled has left the community and reaped by the gambling institution (Nunkuwarrin Yunti, sub. D214, pp. 2–3).

Indeed, in the Nundroo case (chapter 22) South Australia's Liquor and Gaming Commissioner refused to grant a gaming licence to a hotel located on the Eyre

Highway because of its potential detrimental impact on surrounding indigenous communities. The Gaming Commissioner commented:

I do accept that the machines have the potential to drain a substantial amount of money from communities that are already hurt by money spent on alcohol.

The result of this could be a significant increase in anti social behaviour in and around Nundroo Caused by Yalata and Oak Valley residents.

I am concerned that gaming machines would result in an increase in violence in and around Nundroo (cited in sub. D214, p. 2).

Further, there is a perception that the web of reciprocal social responsibilities and brakes on extreme adverse outcomes are weakened when indigenous people gamble in a commercial setting:

Profiteering forms the primary focus of business oriented gambling. These operations derive benefit from the misfortune of others to a small group or individual who is generally not part of the community. The rules and decisions about profits are not a shared community responsibility (Nunkuwarrin Yunti, sub. 106, p. 8).

A further concern for indigenous communities, cited by some participants, is the link between alcohol and institutionally-based gambling:

Alcohol related problems are reported by the indigenous community to be significant. 58 % of Indigenous people aged over 13 years of age nominated alcohol as a major health problem in their local area. While indigenous Australians are less likely to consume alcohol in comparison to non-indigenous Australians, consumption levels in harmful quantities are statistically higher than that of non-indigenous Australians. 79% of indigenous Australians who drink at least weekly were found to be consuming at harmful levels in comparison to 12% in the general community who consume alcohol at least weekly.

The enmeshment of alcohol and gambling opportunities under the same roof seem to be a trend far more common today than ever before. Pub/TABs are far more common than stand alone agencies in South Australia. Gaming licences are always linked to licensed premises, preventing the setting up of alcohol free venues. Any steps to minimise the opportunity to consume alcohol and gambling in the same venue is supported as a step to minimise associated harm (Nunkuwarrin Yunti, sub. D203, p. 4).

There is some evidence that people from ATSI communities tend to be heavier gamblers than other Australians:

The Aboriginal and Torres Strait Islander community experiences disproportionate harmful consequences ... While not adequately researched, the ATSI community gambling profiles that exist describe greater participation rates in the percentage of people gambling and average expenditure to that of non-indigenous Australians. This situation may in part be explained by ATSI people continuing to endure disproportionate social disadvantage ... This in our view creates a predisposition to

chase the “miracles” offered by gambling enterprises to achieve some equity (Nunkuwarrin Yunti, sub. 106, p. 1).

A survey of 128 members of the ATSI community in gambling venues in Queensland found that average weekly gambling expenditure was \$60 (comprising 20 per cent of average income), of which half was spent on gaming machines (AIGR/LIRU 1995 p. 5). This is far higher than found among Queensland gamblers in general. However, as noted by the study, the method used to recruit indigenous respondents is likely to have imparted a significant upward bias to spending estimates.²

Respondents to this survey reported a range of problems related to their gambling. Eight per cent needed family assistance to help pay gambling debts and 6 per cent said that gambling had put important relationships at risk.

A case study of the Yarrabah community found that around 50 per cent of indigenous people were heavy or weekly gamblers, compared to the general population where this is 4 to 6 per cent of players (AIGR/LIRU 1995 and sub. 106, p. 8). The average gambling expenditure of a group of indigenous gamblers regularly using the newly introduced PubTAB was about \$70 per week — around 25 per cent of their income. The introduction of PubTAB to this community was associated with a significant reduction in local card games, and to the withdrawal from the community of funds that would otherwise circulate repeatedly as part of community gambling. On the other hand, it was also associated with a reduction in apparent alcohol consumption and alcohol-related community violence.

Studies of other indigenous peoples in similar disadvantaged circumstances have found similarly high rates of regular and heavy play (for example, Abbott and Volberg 1992 for Maori and Pacific Islanders in New Zealand; Wynne, Smith and Volberg 1994 and the National Council of Welfare 1996³ for Canadian Aboriginal gamblers; and Volberg 1993 and Elia and Jacobs 1993 for native Americans).

It has also been found that Torres Strait Islanders are disproportionately represented amongst problem gamblers seeking help from counselling services.

² Heavy spenders tend to play more frequently and for longer than the average. This means that random selection of gamblers in a venue will give too high a weight to heavy (and problem) gamblers.

³ A Canadian (Alberta) study cited by the National Council of Welfare found that the Aboriginal sample of problem gamblers spent nearly three times as much on gambling as their non-Aboriginal problem gambling peers. The extent to which this is also true for ATSI problem gamblers is unknown in Australia.

There is much to be learned, both in relation to community and institutionally based gambling in indigenous communities:

Anthropological research has focused on card games which continue to be very popular in Aboriginal communities throughout Australia. However, with few exceptions there is little in the social science literature about Aboriginal participation in commercial gambling such as machine gambling, TAB, bingo or lotteries. The limited research into casino gambling by Aboriginal people has methodological flaws and does not satisfy basic standards of reliability and validity.

Preliminary research ... has shown that Aboriginal people do gamble on these forms of gambling when it is available to them — but the extent of that participation, the types of gambling preferred by Aboriginal people, and the nature of commercial gambling impacts on Aboriginal communities have yet to be investigated systematically in any state.

Of particular concern is the extent to which commercial gambling (TAB betting, gaming machines) impact on Aboriginal communities, including the impacts on ‘traditional’ community based gambling (such as card games) The association between gambling and drinking also merits research attention (McMillen, sub. D274 p.6).

F National Gambling Survey

F.1 Introduction

Background

The only so-called ‘national’ gambling survey previously undertaken for Australia was carried out in 1991-92 (Dickerson et al. 1996), but its coverage was national in only a limited sense:

- it covered four large capital cities (Sydney, Melbourne, Adelaide and Brisbane); but
- there was no coverage of rural populations.

More recently, statewide surveys have been undertaken which cover metropolitan and country populations: Tasmania (Dickerson and Baron 1994b, Dickerson and Maddern 1997); Western Australia (Dickerson, Baron and O’Connor 1994); New South Wales (Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern 1996a, Dickerson, Allcock, Blaszczyński, Maddern, Nicholls and Williams 1998); South Australia (Delfabbro and Winefield 1996); and Victoria (Market Solutions and Dickerson 1997, Roy Morgan Research 1999).

In October 1998, a Roundtable was held at the Commission which brought together key Australian researchers in the gambling field, including: Professor Mark Dickerson, Professor Jan McMillen, Associate Professor Alun Jackson, Dr Paul Delfabbro, and Dr Michael Walker. At the Roundtable, issues discussed included:

- limitations of existing Australian prevalence surveys;
- whether a new national gambling survey should be conducted;
- survey methodology and design issues for any proposed survey; and
- gaps in the available data.

The Roundtable endorsed the conducting of a new National Gambling Survey. The advantages of such a survey are that it would:

- assemble a contemporary national unit record database, using a uniform set of questions asked at the one time across adults in all metropolitan and country regions;

-
- fill in some gaps for some states — such as Queensland (only metropolitan data are available from the 1991 ‘national’ study), the Northern Territory and the ACT;
 - establish a national baseline for future research;
 - secure more reliable data by paying careful attention to the wording of particular questions; and
 - shed some light on changes in statewide gambling patterns over time — though any inferences might be complicated by differences in survey methodologies.

The surveys of gambling behaviour undertaken in Australia have focused on the general adult population (18 years of age or older). Two survey approaches have been used — face-to-face (doorknock) interviews and telephone interviews. It is sometimes suggested that telephone surveys tend to have limitations that make identifying problem gamblers difficult, such as:

- *problems with contacting some gamblers* — some problem gamblers might have their telephones disconnected because of unpaid bills, or might be too poor to have a phone. They are also more likely to be “not at home” because they are at a race track, or a casino, or gambling at some other location.
- *problems of nonresponse and refusal* — when contacted, problem gamblers are more likely to refuse to participate because they are unwilling to answer potentially embarrassing questions.
- *problem of denial* — even where problem gamblers agree to participate in a survey, they are more likely to be reluctant to provide truthful responses and to minimise the problems their gambling has created for themselves or others (Lesieur 1994).

But as Delfabbro and Winefield (1996) have pointed out, all of these limitations can also arise with face to face interviews — the ‘not at home’ problem can be just as important, refusals can still be high, and people are probably just as reluctant, if not more so, to provide information in person as over the phone.

Approach

Against this background, the Commission decided to undertake a national telephone survey of gambling patterns and behaviour among the general adult population (18 years or older), covering all states and territories, and metropolitan and country areas within those regions.

F.2 The questionnaire

Development of the questionnaire

In early 1999, a draft questionnaire was developed which drew on:

- suggestions made by the Roundtable participants;
- previous Australian surveys; and
- key recent overseas surveys, including those for Nova Scotia (Focal Research 1998) and Alberta (Wynne Resources 1998).

The draft questionnaire was distributed to the Roundtable participants and other eminent researchers in the field. Advice on the questionnaire content was provided by Professor Mark Dickerson, Professor Jan McMillen, Associate Professor Alex Blaszczyński, Dr Paul Delfabbro, and Professor Jan Carter.

A final questionnaire was developed on the basis of this feedback. The consultant which undertook the survey field work (Roy Morgan Research) also made useful suggestions for making the survey more user friendly.

Survey approach

Two key objectives of the survey were to obtain:

- an estimate of problem gambler prevalence; and
- an adequate set of data on problem gamblers.

A sampling strategy for the national survey was developed in the form of a two-phase approach:

- *Phase 1* — a brief questionnaire (or ‘screener’) was designed for the purpose mainly of identifying whether a respondent was a regular gambler, a non-regular gambler or a non gambler. The sample size was set at 10 500 completed interviews.
- *Phase 2* — a more detailed questionnaire was completed by respondents on the basis of a selective (random) interview strategy:
 - all respondents classified as regular gamblers were interviewed;
 - 1 in 4 respondents classified as non-regular gamblers were interviewed; and
 - 1 in 2 respondents classified as non gamblers were interviewed.

In choosing this approach, the Commission was guided by the optimal allocation strategy suggested by Shaffer et al. (1997) who state that:

If the purpose of the research is to understand the attributes or clinical needs of disordered gamblers, we suggest a survey sampling strategy that is different from the traditional random sampling approach. This strategy does not simply concentrate on respondents selected at random from the general population. Instead, this strategy encourages investigators to focus on selecting respondents who most likely will represent disordered gamblers (p. 117).

The approach of interviewing *all* regular gamblers identified from the screener questionnaire and randomly selecting non-regular gamblers and non gamblers for full interviews was adopted as being a cost effective strategy because:

- it enabled a larger overall sample size to be interviewed for a given survey cost, with only a small sacrifice in precision for the non gambler and non-regular gambler groups; and
- the larger sample size enabled more regular gamblers to be identified, and hence more accurate estimates to be achieved for this group — which is the main focus of interest because they are the most likely to experience gambling related problems.

The large initial sample size of 10 500 respondents meant that even with the 1 in 2 sampling of non gamblers and the 1 in 4 sampling of non-regular gamblers, the sizes of the groups administered complete surveys were much larger than any previous Australian gambling survey.

In arriving at the particular sampling ratios used, estimates of the proportions of non gamblers, non-regular gamblers and regular gamblers likely to be obtained from the Phase 1 screener were made on the basis of existing Australian statewide surveys. Such estimates were approximate not only because these proportions varied across surveys but also because the definitions proposed for ‘gambler’ and ‘regular’ gambler in the *National Gambling Survey* were not necessarily identical to all previous studies.

These estimated proportions therefore gave an indication of the likely sample sizes of the three groups of respondents. Given the decision to administer the full Phase 2 interview to *all* regular gamblers, the sampling ratios for the non gambler and non-regular gambler groups were determined on the basis of achieving similar sample sizes across all three groups. Taking account of refusals and terminations in Phase 2, the sampling of 1 in 2 non gamblers and 1 in 4 non-regular gamblers resulted in fully completed interviews from 1225 regular gamblers, 1290 non-regular gamblers and 983 non gamblers. This allowed comparisons of results among the three groups to be made with similar statistical precision.

The use of this sampling approach meant that a slightly more complex weighting scheme needed to be used in Phase 2. The data for non gamblers and non-regular gamblers were weighted up, using weighting factors from the information on the population for non gamblers and non-regular gamblers obtained in the screener questionnaire (see section F.7).

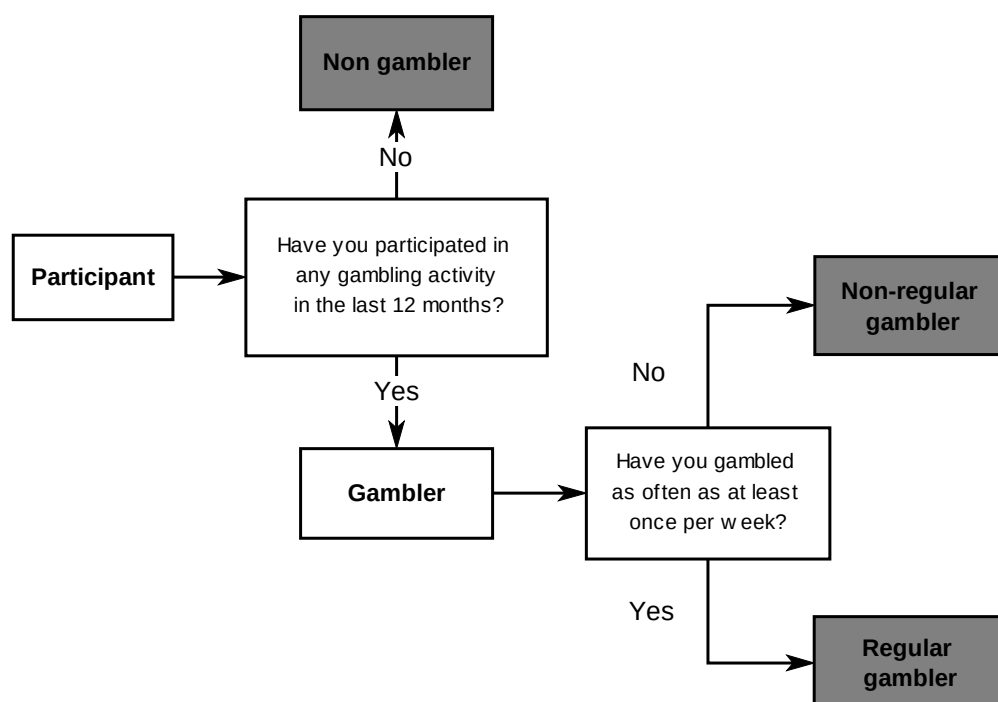
F.3 Phase 1 — the screener questionnaire

The screener questionnaire sought information on:

- gender of respondent; household size (number of adults in the household); and age of respondent;
- whether respondents had participated in one or more of twelve gambling activities in the last 12 months; and
- how frequently respondents had participated in each of these gambling activities in the last 12 months.

The questions on gambling participation and frequency served as filters for distinguishing between non gamblers, non-regular gamblers and regular gamblers. A simplified schematic representation is provided in figure F.1.

Figure F.1 Simplified operation of filters in screener questionnaire



The main reason for identifying these three categories of respondents was because not all questions in the main interview were relevant for all three groups. In particular, because previous gambling surveys have found that problem gamblers are generally *regular* (weekly) rather than infrequent gamblers, the problem gambling screening instrument used (the South Oaks Gambling Screen, SOGS) was only administered to the ‘regular’ group.

The approach of administering the problem gambling screen to the subset of gamblers most likely to experience problematic behaviour is commonplace in the gambling survey literature. The filtering approaches used to determine that subset have typically been based on:

- *frequency of play* — with ‘regular’ or ‘frequent’ gamblers generally defined as those who gamble at least once per week (or even once per month, as in Focal Research 1998);
- *expenditure on gambling*; or
- *losses experienced* — for example, in the recent US NORC study (Gerstein et al. 1999) the focus was on those respondents who acknowledged experiencing significant losses (defined as \$100 or more in a single day of gambling).

The *National Gambling Survey* used a combination of the first two points — frequency of play (filter 2) and annual gross expenditure on gambling (filter 3, described below) — to define the subset of gamblers most likely to experience problems from their gambling.

Filter 1 — to classify respondents as gamblers or non gamblers

Respondents were asked if they had participated in any gambling activity in the last 12 months, from the list of twelve presented in box F.1:

- if a respondent answered no to all forms of gambling, or yes only to raffles, they were classified as a non gambler; or
- if a respondent answered yes to at least one gambling activity (excluding raffles), they were classified as a gambler and proceeded to filter 2.

Filter 2 — to classify gamblers as regular or non-regular

Respondents who had undertaken one or more gambling activities in the last 12 months were asked how often they had participated in each of those activities (in terms of how many times per week, per month or per year). This filter allowed a respondent to be classified as a regular or a non-regular gambler.

Box F.1 List of gambling activities

- Played poker machines or gaming machines
- Bet on horse or greyhound races (*excluding* sweeps)
- Bought *instant* scratch tickets (eg. Instant Scratchies, Scratch'n'win)
- Played Lotto or any other lottery game (eg. Tattslotto, Ozlotto, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, Tatts Keno)
- Played table games at a casino (eg. roulette, blackjack)
- Played Keno at a club, hotel, casino or any other place
- Played bingo at a club or hall
- Bet on a sporting event (eg. football, cricket, tennis)
- Played casino games on the internet
- Played games privately for money (eg. cards, mahjong) at home or any other place
- Bought raffle tickets
- Played any other gambling activity

Regular gamblers

Regular gamblers were defined as respondents who either:

- participated in any single gambling activity (apart from lottery games or instant scratch tickets) at least once per week; or
- whose overall participation in gambling activities (apart from lottery games or instant scratch tickets) was the *equivalent* of weekly (that is, at least 52 times per year).

While it was decided that mainly regular gamblers would be asked the questions for the problem gambling screen in the main interview, weekly lottery (and instant scratch ticket) players were excluded from the definition of regular gamblers because:

- previous Australian surveys have found that playing lottery games only rarely contributes to problem gambling (though it was decided to include big spending 'lottery only' players via filter 3 described below); and
- the number of regular 'lottery only' players is relatively large and to have administered the SOGS to all of this group would have imposed a significant burden on these respondents and increased the overall cost of the survey appreciably but with little offsetting benefit in terms of obtaining significantly greater precision in the problem gambling prevalence estimates.

The second aspect of filter 2 captures those gamblers who gamble less frequently than weekly on individual activities, but often enough across several forms to be gambling the equivalent of weekly. For example, suppose a respondent played poker machines three times a month, bet on horse races twice a month and played table games at a casino once a month. The annual rate of play is therefore $(3*12) + (2*12) + (1*12) = 72$ times per year. Hence, because this overall rate of play is more frequent than once per week, the respondent is classified as regular even though no single gambling activity is played weekly.

Even though lottery games are excluded from this filter, the regular group will still contain gamblers who play lottery games weekly because it includes:

- those who participated in individual ‘other’ gambling activities weekly (and who may or may not have played lottery games weekly); and
- those who participated in ‘other’ gambling activities the equivalent of weekly (and who may or may not have played lottery games weekly).

Non-regular gamblers

Those gamblers not classified as regular are, of course, non-regular and comprise in the main:

- those who participated in any single gambling activity less often than weekly, or gambling activities overall less often than the equivalent of weekly.

But because the filter for classifying gamblers as regular excludes all lottery games, among the non-regular group will also be:

- those who *only* played lottery games weekly; and
- those who participated in ‘other’ gambling activities less often than the equivalent of weekly (and who may or may not have also played lottery games weekly).

Filter 3 — to re-classify some non-regular gamblers as ‘regular’

While Australian gambling surveys have found that ‘lottery only’ players rarely experience problems related to their gambling, a third filter was included in the main questionnaire to re-classify some gamblers from the non-regular group to the regular group, based on their annual gambling expenditure, in order for them to be administered the SOGS. Such a filter sought to capture the following two groups of respondents:

-
- *Big spending regular or less frequent lottery only players* — there has been a proliferation of lottery games in Australia in recent years, such that players in the different states and territories can participate in weekly lottery draws on as many as four to even seven days per week — Tattslotto, The Pools, Lotto, Oz Lotto, Powerball, and Lucky 7. There are also daily lottery games that are played every day of the week (Tatts 2, Tatts Keno, Cash 3 and \$2 Lottery) and some games played as frequently as every 5 minutes (5-minute Keno). Because of this increase in the number of opportunities to play lottery games, it was therefore considered desirable to ask the gambling screen of ‘big spending’ lottery only players.
 - *Other big spending non-regular gamblers* — it was also considered desirable to identify ‘binge’ gamblers who participate only occasionally (perhaps only a couple of times a year) but who spend a relatively large amount when they do gamble.

In the phase 2 questionnaire, all respondents were asked for information on how much they spent on any single gambling activity each time they gambled. Combined with the information obtained on frequency of play, this enabled their annual gambling expenditure to be calculated as follows, as the interview proceeded:

$$\sum freq_i * spend_i,$$

where $freq_i$ is the number of times a respondent gambled per year on activity i , and $spend_i$ is the amount of money outlaid each time the respondent gambled on activity i , and the expenditure was summed across all gambling activities.

For this filter, a cutoff value of annual expenditure was required to be set that was neither too low as to be all-encompassing nor too high as to exclude cases where expenditure might be symptomatic of a ‘problem’.¹ A cutoff value of annual gross expenditure across all gambling activities of \$4000 per year was set. This filter therefore captured non-regular gamblers who spent on average \$80 per week or more either on lottery games only, or on lottery games and/or any other forms of gambling.

However, in practice this filter operated in a more inclusive way than intended. Because the survey consultant unfortunately allowed ‘can’t say’ responses to

¹ While expenditure on gambling activities *relative to* income is a preferable indicator of whether gambling might be perceived as being ‘excessive’ or contributing to financial problems for an individual, a more complex filter was not feasible given the question sequence of the interview. The implication of this is that the problem gambling prevalence estimates may well be conservative — because some non-regular gamblers spending less than \$4,000 per year but a relatively high proportion of their income on gambling might not have been offered the SOGS.

expenditure questions in some cases to be coded as ‘99999’, this rendered the calculation of gross expenditure spurious in those cases. As the filter operated, it included virtually all of the high spenders as intended — 29 of the 30 non-regular gamblers with annual gross expenditure of \$4000 or more were re-allocated to the ‘regular’ category and offered the SOGS. However, 342 respondents in total were re-allocated.

F.4 Phase 2 — the main questionnaire

Because not all questions were relevant for all three groups of respondents, a summary of the main sections of the questionnaire asked of the different groups is given in table F.1. To minimise respondent burden, some information was not sought which was available from other Australian and overseas studies (such as motives for gambling); and complementary data was sought in another survey undertaken for the inquiry — a *Survey of Clients of Counselling Agencies* (appendix G).

Table F.1 Broad categories of questions asked of different types of respondents in main questionnaire

<i>Non gambler</i>	<i>Non-regular gambler</i>	<i>Regular gambler</i>
• perceptions about aspects of gambling • knowledge of anyone with gambling problems? • personal characteristics	• perceptions about aspects of gambling • knowledge of anyone with gambling problems? • personal characteristics • further details of gambling participation and frequency • how much time is devoted to each gambling activity? • how much money is spent on each gambling activity? • how would the money spent on gambling otherwise have been used?	• perceptions about aspects of gambling • knowledge of anyone with gambling problems? • personal characteristics • further details of gambling participation and frequency • how much time is devoted to each gambling activity? • how much money is spent on each gambling activity? • how would the money spent on gambling otherwise have been used? • problem gambling screen (SOGS) • other effects of gambling on the gambler and ‘significant others’ • help seeking behaviour for problem gambling?

Questions asked of all respondents

Information was obtained from regular gamblers, non-regular gamblers and non gamblers in the following broad areas:

- *Perceptions about gambling* — such as the extent to which respondents perceived that gambling does more good than harm for the community; perceptions about the number of gaming machines in local communities, and their location in different venues; and the extent to which respondents perceived that the wider availability of gambling had provided more opportunities for recreational enjoyment.
- *Knowledge of people with gambling problems* — whether respondents knew personally of someone who had experienced serious problems with their gambling; the type of gambling in which that person experiencing problems was mainly involved; and whether that person was obtaining help for their gambling problems.
- *Personal characteristics* — information on gender, age and household size was obtained in the screener questionnaire. The main interview obtained information on a range of socio-demographic items, including: ethnicity (country of birth of respondent and of respondent's father and mother, main language spoken in the household), marital status, household composition, employment status, main source of household income, personal and household income, and educational attainment.

Questions asked of gamblers (regular and non-regular) only

Details of gambling participation and duration

Respondents who indicated in the screener that they had participated in a particular form of gambling in the last 12 months were asked more detailed information in relation to each activity played, including:

- *Gambling venues and modes* — for example, whether a respondent played gaming machines at a club, a hotel or a casino; or bet on horse or greyhound races on-course, off-course, by phone or via the internet.
- *Time devoted to each gambling activity* — for example, the amount of time a respondent played gaming machines each time they visited a venue; and the amount of time a betting gambler took each week to study the form, place the bets, and listen to and/or watch the races.

Gambling behaviour

Because previous Australian research has revealed gaming machines ('pokies') to be the main form of gambling associated with problematic behaviour, information was obtained from respondents on particular facets of their play, including:

- denomination of gaming machine usually played; and
- nature of play (number of lines played, number of credits bet per line, use of bill acceptors, use of loyalty bonus cards).

Use of ATM machines

Gamblers can augment the amount of money they take with them to gamble by accessing funds from an ATM machine at some types of venues. Accordingly, information was obtained from players of gaming machines (at clubs, hotels and casinos) and players of table games at casinos on:

- how often gamblers withdrew money from an ATM when they played the gaming machines and/or table games.

Expenditure on gambling

A study by Blaszczyński, Dumlao and Lange (1997) has shown that one question often asked in gambling surveys — “how much money do you spend gambling?” — can be interpreted by respondents in a number of ways, and only between half and two-thirds appear to interpret it in the preferred ‘net expenditure’ sense. As Blaszczyński, Dumlao and Lange (1997) state:

Net expenditure [is] calculated as the difference between the initial amount available at the commencement of a gambling session and the amount remaining at its conclusion. ... This reflects the actual amount of money the gambler has gambled and represents the true cost of gambling to the individual (pp. 248–9).

Accordingly, the *National Gambling Survey* used mainly a two-question approach to allow net expenditure to be calculated. For example, in relation to the playing of gaming machines, the questions were worded along the following lines:

- (a) When you visit a venue, how much money do you usually take with you to play the machines, including any additional money withdrawn or borrowed during the period of play?
- (b) And how much money do you usually have left when you finish playing the machines?

Comparisons of aggregate expenditure on different gambling modes obtained from the *National Gambling Survey* with that reported by the Australian Bureau of Statistics and Tasmanian Gaming Commission are presented in appendix P.

Other aspects of gamblers' expenditure

The *National Gambling Survey* also asked respondents:

- perceptions about the effect that gambling has had on the quality of their life, in terms of a 5-point scale ranging from making their life 'a lot more enjoyable' to 'a lot less enjoyable';
- how would people otherwise spend the money gambled? — there is a paucity of information available on the extent to which gamblers would have otherwise spent or saved the money they used for gambling, and if they would have spent it, where they would have directed that expenditure.

Questions asked of 'regular' gamblers only

The South Oaks Gambling Screen

The use of the SOGS as the problem gambling measurement instrument was endorsed by the panel of experts at the Roundtable, comprising Professor Mark Dickerson, Professor Jan McMillen, Associate Professor Alun Jackson, Dr Paul Delfabbro, and Dr Michael Walker. While other screening instruments are being devised in different countries to replace the SOGS — such as the NODS (the National Opinion Research Centre at the University of Chicago DSM Screen) — the use of the SOGS in the *National Gambling Survey* allows comparisons of results with previous Australian and most overseas surveys.

In the original version of the SOGS (Lesieur and Blume 1987) the questions were framed in 'lifetime' terms ('have you *ever* ...?'). Since that time, most surveys have used slightly modified versions, depending on whether the aim was to assess the prevalence of lifetime and/or current problem gambling:

- SOGS-R (revised SOGS) — developed by Abbott and Volberg (1991). The SOGS items are framed initially as 'lifetime' questions, and for those where a yes response is given, the question is asked again with a shorter timeframe (6 months in New Zealand, 12 months in most other studies); and
- SOGS-M (modified SOGS) — the questions are framed with a current timeframe only ('have you *in the last 12 months* ...?').

For the *National Gambling Survey*, the modified version of the SOGS was used not only because the shorter time frame is most appropriate for assessing *current* prevalence (which is of greatest policy relevance) but also because the way in which the SOGS was asked of respondents was more comprehensive than is normally the case. That is, the SOGS questions were asked:

- in the conventional way — mainly requiring a yes or no response; and
- in terms of a frequency scale — if a respondent answered yes to a question, they were then asked ‘is that rarely, sometimes, often or always?’; or if a respondent answered no, they were then asked ‘do you mean rarely or not at all?’

The approach of asking the SOGS questions to allow responses in terms of a frequency scale has been used by Professor Mark Dickerson in virtually all previous Australian gambling prevalence surveys. The Commission’s approach of following both the conventional and the Dickerson approaches therefore allows comparisons of results with previous Australian and most overseas surveys. However, to have asked the SOGS in the SOGS-R version as well as in terms of a frequency scale would have imposed too big a burden on respondents and for that reason the SOGS-M was used.

The *National Gambling Survey* did not administer the SOGS to all respondents — indeed there are good reasons why gambling surveys do *not* ask the problem gambling screen of *all* participants:

- questions about what people do when they gamble are clearly of *no relevance* to non gamblers. In the *National Gambling Survey*, respondents were classified as a non gambler only after they had answered ‘no’ to thirteen separate questions about whether they had participated in any of twelve specified gambling activities and an ‘any other’ gambling category. Hence, this detail of questioning should reliably identify a genuine non gambler.
- a problem gambling screen is of *little or no relevance* to infrequent gamblers because their gambling is very unlikely to be associated with problematic behaviour; but
- it is most appropriate to administer a problem gambling screen to those respondents whose gambling has a greater likelihood of giving rise to problems.

Indeed, as the NORC study (Gerstein et al. 1999) noted:

We chose to use these “filter” questions in the national survey after our pretesting indicated that nongamblers and very infrequent gamblers grew impatient with repeated questions about gambling-related problems (p. 19).

For these reasons, the problem gambling diagnostic instrument was administered only to that subset of gamblers considered most likely to experience problems

related to their gambling — all ‘regular’ gamblers as defined by filter 2 and ‘big spending’ and other non-regular gamblers captured by filter 3.

Self-designated assessment of problems

One of the SOGS questions asks a respondent: “Do you feel you have had a problem with your gambling?” The *National Gambling Survey* followed this with questions relating to:

- *how long* a respondent had felt they had experienced problems; and
- how they would rate their gambling at the present time on a scale of 1 to 10 — where 1 means their gambling is not at all a problem and 10 means they feel their gambling is a serious problem (see Focal Research 1998).

Other impacts of gambling on respondents

As a complement to the SOGS, other information was sought on impacts of gambling on respondents. Each question was framed initially in terms of lifetime experience (‘have you ever ...’) and for those questions receiving a yes response there was a follow-up question on experience ‘in the last 12 months’. The questionnaire was careful always to relate an impact to a respondent’s *gambling* behaviour. The impacts canvassed included:

- *employment* — loss of work efficiency, job changes, sacking.
- *legal* — obtaining money illegally; involvement with the police, appearance in court.
- *financial* — incurring gambling-related debt; converting personal items to cash; bankruptcy.
- *personal/family* — depression; time devoted to looking after family interests; break-up of important relationships; divorce or separation; suicide ideation.

An example of the type of question asked was: ‘Have you ever suffered from depression because of your gambling?’ For respondents answering yes, there was a follow-up question to gauge current prevalence: ‘And in the last 12 months, have you suffered from depression because of your gambling?’

The consultant to the AHA (sub. D231) criticised such an approach as being both double-barrelled and suggestive — double barrelled in the sense that some people may respond ‘yes’ if they have suffered from depression, even if gambling was not the main cause; and suggestive because the question suggests gambling as a cause of depression without putting forward other possible causes.

But because the *National Gambling Survey* was a survey on gambling behaviour and these questions were asked only of gamblers, it would be very surprising if someone were to answer ‘yes’ to this question if gambling were not actually a source of their depression (either ever or in the last 12 months). To further clarify how important gambling was as a source of depression, respondents answering yes to the ‘in the last 12 months’ question were asked: ‘And in the last 12 months have you suffered from depression because of your gambling rarely, sometimes, often or always?’ For those answering ‘often’ or ‘always’ it seems reasonable to assume that gambling is an important (probably the main) source of their depression.

The survey findings do *not* suggest that the *National Gambling Survey* question elicited positive responses from people who may have suffered from depression, but not due to their gambling. For example, as noted in chapter 7, non-problem regular gamblers nevertheless reported extremely low levels of enduring depression — 0.4 per cent reported often or always suffering from depression in the last 12 months because of their gambling. By contrast, the corresponding prevalence among problem gamblers was 22 per cent. Furthermore, administering the same questions to problem gamblers in the Commission’s *Survey of Clients of Counselling Agencies* revealed that the proportion of problem gamblers in counselling who reported that they often or always felt depressed because of their gambling was similar to that determined using clinical evaluation techniques for such groups.

Overall, it appears that the questions used in the Commission’s surveys picked up depression related to gambling, and other impacts of gambling, relatively well. A detailed analysis of the survey findings in relation to impacts of gambling on relationship breakdown and divorce/separation is provided in appendix T.

Help seeking behaviour

Regular gamblers were asked a short set of questions in relation to:

- whether they had *wanted* help in the last 12 months for problems related to their gambling; and whether they had *tried to get* help for these problems; and

Those respondents who reported that they had tried to get help in the last 12 months were then asked:

- the ways in which they had found out about the gambling help services available;
- the people/organisation they had first turned to for help; and
- the organisation/service from which they had actually received counselling for problems related to their gambling.

Interview duration

As with any questionnaire design, the *National Gambling Survey* weighed up the tradeoff between obtaining all the information that was considered of key importance for the inquiry while at the same time minimising respondent burden. The average interview durations for the three categories of respondents (covering the screener questionnaire and main questionnaire) were as follows:

- non gambler — 10 minutes;
- non-regular gambler — 14 minutes; and
- regular gambler — 24 minutes.

F.5 Sample size and stratification

Problem gambler prevalence rates in general population surveys are typically small. This means that a relatively large sample size is needed for a reasonable number of problem gamblers to be identified and for the prevalence of problem gambling to be estimated with acceptable precision.

In determining the size of the sample necessary to be adequately representative of the Australian adult population, the Commission was guided by the approach used by the Australian Bureau of Statistics (ABS) in two surveys most relevant to the *National Gambling Survey* — the *Household Expenditure Survey* (ABS 1995) which used a sample of around 8 500 households; and the *National Survey of Mental Health and Wellbeing of Adults* (ABS 1998d) which obtained information from approximately 10 600 people aged 18 years or over.

The original specification for the *National Gambling Survey* was that completed interviews be obtained from 10 500 respondents. To ensure the representativeness of the sample, it was stratified by:

- area — all states and territories were included, with metropolitan and country areas separately identified (except in the ACT), resulting in 15 geographic areas;
- age — 4 categories were identified (18-24 years, 25-34 years, 35-49 years, and 50 years or older); and
- gender.

Taking account of 15 geographic areas, four age categories and gender thereby resulted in a stratification of the sample across 120 area/age/gender cells.

The distribution of the sample across state/territory and metropolitan/country areas was roughly in proportion to population, using the latest available ABS census data

(table F.2). However, coverage in the smaller states/territories was boosted to increase statistical precision. Overall, the sample structure by area was very similar to that used by the ABS for the *Household Expenditure Survey*.

While the original sample size for the *National Gambling Survey* was 10 500 respondents, interviews were actually completed by more than 10 600 participants. The larger than originally specified number of respondents was needed in order for all minimum quotas in the 120 area/age/gender cells to be met (see section F.7).

Table F.2 Distribution of national sample by geographic area

<i>State/Territory</i>	<i>Population share (18+) %</i>		<i>Sample distribution (No.)</i>		<i>Total</i>
	<i>Metropolitan</i>	<i>Country</i>	<i>Metropolitan</i>	<i>Country</i>	
NSW	62	38	1 620	980	2 600
Vic	73	27	1 605	595	2 200
Qld	46	54	684	816	1 500
WA	74	26	813	287	1 100
SA	74	26	742	258	1 000
Tas	42	58	334	466	800
NT	42	58	252	348	600
ACT	100	-	700	-	700
Total	62	38	6 750	3 750	10 500

F.6 Procedures for selecting respondents

Two features of any survey are the *coverage* and the degree of *non-response*. As noted by Steel, Vella and Harrington (1996):

Non-respondent units are selected in the sample but not measured, whereas non-covered units have no chance of selection (p. 21).

While surveys generally aim to be representative samples of the general population as a whole, there is a degree of non-coverage because some groups in the general population tend to be excluded, such as:

- people in treatment settings, in hospitals, or in prisons; and
- the homeless.

With telephone surveys, a further element of non-coverage is that some households either do not have a telephone or have an unlisted number. The former problem is generally unimportant in Australia (though it may be relatively more important for some groups such as problem gamblers who have had their phones disconnected

because of non-payment), while there are telephone number selection methods that can be used to minimise the latter problem.

Household selection method

Three alternative methods were considered for drawing the sampling frame for telephone interviewing:

- randomly from residential telephone numbers in the latest electronic White Pages directory (RWP);
- using random digit dialling (RDD); or
- using an adaptation of random digit dialling (MRDD) — such as selecting residential telephone numbers at random from the White Pages directory and incrementing the last digit by one (to get unlisted or not yet listed numbers).

There are advantages and disadvantages associated with each approach.

RWP has the highest proportion of usable contacts, because the number of telephone numbers dialled that turn out to be faxes or businesses or out of service is lower than for either RDD or MRDD. But it has two main disadvantages:

- individuals with silent (unlisted) numbers are excluded from the listings; and
- individuals who have only recently moved or been connected are excluded.

The advantages of RDD arise precisely in these two areas: it throws up silent numbers and it can capture recent movers. But it also has disadvantages:

- it produces a much higher level of unusable numbers than RWP — even RDD systems which automatically cross check the sample with the Yellow Pages cannot avoid selecting numbers which are either faxes, not in use or unlisted business numbers; and
- contacting unlisted numbers is not necessarily an advantage — individuals who have a silent number have signalled that they do not wish to be annoyed by unsolicited calls, and hence there is a much greater likelihood of refusal.

Modified RDD lies somewhere in between — it tends to generate fewer non-usable numbers than RDD, but still much greater than RWP. So more dialling is required than for RWP, which yields a higher proportion of possible contacts.

Overall, while RDD reduces several sources of bias inherent in RWP (unlisted numbers and recent movers), it does so at higher cost and with greater likelihood of more refusals. So on balance, the Commission opted for the RWP approach.

Respondent selection method

A commonly used and recommended procedure for selecting individuals randomly within households is some variant of the birthday approach — such as the individual having the ‘nearest’ birthday or the ‘last’ birthday. For this survey, once a household was contacted, the respondent was selected randomly as the adult (aged 18 years or older) normally living in the household who had the last birthday.

As advised by some of the survey consultants approached by the Commission, while the last birthday method is a rigorous method of respondent selection, it can have a limitation. If used on its own, without sufficient callbacks, it can result in an undersampling of younger people and an oversampling of older people, because younger people (especially younger males) are more often ‘not at home’ and therefore more difficult to contact. It is therefore important that survey protocols using the last birthday method also allow for a sufficiently large number of callbacks.

One survey consultant (ACNielsen) noted that with a last birthday selection method, there will inevitably be some under-representation of young males, but that:

In any case, the distortion can be corrected [by] age/gender weighting ... and while the extent of the need to correct a distortion with weighting will impact in terms of increasing the sampling error of any estimates from the sample, it is arguable that this increase in sampling error is still appreciably less than the increase in non-sampling error that comes from the non-response bias inherent in quota sampling systems (personal communication).

ACNielsen also argued that from its experience, the last birthday method is preferable to alternatives such as Kish-grid type selection methods:

... over a series of tests we conducted ... we found that anything approaching a Kish-type grid, or a last birthday method which started with asking the number of people in the household was ultimately unproductive, as refusals and mid-screening terminations increased, and overall the process slowed down interviewing significantly (personal communication).

F.7 Quotas and weighting

While the last birthday method of respondent selection coupled with an adequate number of callbacks should generate a sample that is generally random and representative, it is still likely that adjustments will be needed either by the use of quotas, or weighting or both. This study used an approach of:

- having ‘strict’ quotas based on area (by state/territory and metropolitan/country), and ‘loose’ quotas based on age and gender; and

-
- post-weighting the sample data for phase 1 (screener questionnaire) and phase 2 (full interview) respondents.

Quotas

The strict quotas for completed screener interviews based on area are those set out in table F.2. Approximate rather than strict age and gender quotas were used to ensure sufficient representation of each age/gender group, as a compromise solution to survey accuracy and cost. This involved setting minimum and maximum bounds (of ± 33 per cent) around the strict quotas, and monitoring the degree to which the quotas were being met as the survey proceeded. Such an approach means that modest differences between each age/gender/area cell size in comparison with those that would apply with strict quotas are acceptable, bringing about a major reduction in the cost of the survey but only a small reduction in accuracy. The deviations from ABS age/gender/area population data are then corrected by applying weights to the sample data.

In relation to the ‘loose’ quotas, it became apparent towards the end of the fieldwork phase that some of the minimum age/gender quotas would not be met in some of the smaller States. Hence, in place of the last birthday method — which was used to complete 10 365 interviews — the approach taken was to ask to speak to the youngest male aged 18 or older (and then the youngest female) before substituting for another adult within the household. This enabled all minimum quotas to be met, but the number of screener interviews needed to be completed slightly exceeded the original 10 500 — 10 609 participants completed the screener.

Weighting schemes for population estimates

Information for the sample respondents was multiplied by weighting factors to provide estimates for the whole population. Because of the selective (random) interview strategy used in phase 2 of the questionnaire, separate weights are appropriate for the screener respondents and the full interview respondents.

Phase 1 weights — Screener respondents

As noted in section F.5, the sample was stratified across 120 area/age/gender cells. The weight for each screener respondent in a given cell was calculated as:

$$WTSCR = (HHSIZE) * [\text{cell population} / \Sigma HHSIZE].$$

That is, within each of the cells, weights were calculated for each respondent as the product of two factors:

- the number of adults in the household (*HHSize*), to adjust for the random selection of one adult respondent per household; and
- the ratio of the cell population to the adjusted sample size, where the adjusted sample size is calculated as the sum of the household size of each respondent in the cell.

The screener weights sum to the total number of adults in the Australian population in 1997-98 (14.126 million).

Phase 2 weights — full interview respondents

Respondents to the screener were classified as either a regular gambler, a non-regular gambler or a non gambler and, as noted above, given a full interview on the following basis:

- regular gamblers — *all* respondents were interviewed;
- non-regular gamblers — every fourth respondent was interviewed; and
- non gamblers — every second respondent was interviewed.

Accordingly, the weight for each full interview respondent in a given cell was calculated as:

$$WTGAM = (Adjust * HHSize) * [cell\ population / \Sigma(Adjust * HHSize)].$$

That is, for each phase 2 respondent in each of the 120 cells, a sampling adjustment factor based on gambling status (*Adjust*) was calculated as the ratio of the cell sample size from the screener to the cell sample size of those who completed full interviews.

Because all regular gamblers were interviewed, the sampling adjustment factors were unity for all regulars across all cells. But the corresponding factors were not necessarily exactly 1 in 4 or 1 in 2 for non-regular gamblers or non gamblers respectively. The sample was set up on the CATI system as separate surveys for the 15 geographic regions, and the number of participants within each of the regions was not necessarily an exact multiple of 2 or 4 — the *overall* interview ratios for non-regular gamblers and non gamblers turned out to be 1 in 4.11 and 1 in 1.95 respectively.

But within individual area/age/gender cells, the sampling ratios can differ somewhat from the 1 in 4 or 1 in 2. For example, if there turned out to be 7 non-regulars in a

particular area/age/gender cell from the screener, then in effect only the fourth would have been interviewed (a sampling ratio of 1 in 7) whereas if there had been eight then the eighth would also have been interviewed (and the sampling ratio would have been 1 in 4). For each cell, adjustment factors reflecting the specific sampling ratios were calculated for non gamblers and non-regulars, so that no biases are introduced from the random interview strategy.

As with the phase 1 screener weights, the phase 2 weights sum to the total number of adults in the Australian population in 1997-98 (14.126 million).

F.8 Other survey protocols

Protocols were put in place in the *National Gambling Survey* to maximise the contact rate and minimise non-response (refusals).

Procedures for maximising the contact rate

The following procedures were used with the aim of achieving as high a contact rate as possible:

- generally calling in the evening or at weekends when individuals were more likely to be at home;
- allowing the phone to ring at least 10 times before hanging up;
- making up to 4 callbacks (that is, 5 contact attempts) to achieve an initial contact — most survey research shows that the impact on contact rates is minimal after this number of attempts (see Steel, Vella and Harrington 1996);
- allowing a further 5 callbacks to achieve an interview, once contact was made and a respondent identified;
- varying the time of day and day of week for callbacks, to increase the chance of catching gamblers who might be out during the evening; and
- allowing a fieldwork phase of sufficient duration to ensure that the proportion of numbers dialled that did not have their full number of callbacks completed was minimal.

Procedures for maximising the respondent participation rate

Another important consideration was to have protocols in place to maximise the participation rate once a respondent was contacted. This included:

- wording the introduction to the survey to encourage participation by stressing:

-
- the importance of the survey;
 - the importance of the respondent's participation in the survey; and
 - the confidentiality of information provided by participants.
- making a special effort to schedule callbacks at the convenience of the respondent;
 - having foreign language interviewing capability; and
 - having specially prepared responses for interviewers in case a respondent indicated any reservation about participating.

F.9 Conduct of the survey

Pilot testing of the questionnaire

The survey was conducted using a CATI (Computer Assisted Telephone Interview) approach. The CATI system was programmed to calculate annual frequency from the individual gambling activity frequency questions in the screener, thereby automatically identifying a respondent as either a non-regular gambler or a regular gambler. The CATI system guided the interviewer through the relevant set of questions appropriate for each of the three types of respondent. By programming the CATI system in this way and building in logic checks where appropriate, the validity of responses and hence the quality of the survey data was maximised.

The questionnaire was piloted in late March, with around 30 completed interviews carried out. The piloting was important for ensuring that all of the CATI programming worked correctly, that the sections of the questionnaire to be completed by the three groups of respondents ran smoothly, and to ensure that all questions were easily understood by respondents.

As a result of the pilot, a couple of questions were simplified, but most particularly the questionnaire's introduction to encourage a respondent to participate was re-phrased more positively, to stress the importance of the survey and in turn the importance of the respondent's participation.

Fieldwork phase

The *National Gambling Survey* commenced on 30 March 1999 and was completed by 27 April 1999 — a fieldwork phase of four weeks. While this period took in Easter and two weeks of school holidays in six of the eight states/territories, it is unlikely to have had an appreciable impact on the contact rate. As noted in the following section, a very satisfactory contact rate of 86 per cent was achieved. This

result in turn reflects the survey protocols in place to maximise the contact rate — such as requiring up to five call attempts to make a contact, scheduled over a period of time. This meant that most respondents who could not be contacted on the first attempt were able to be contacted after the subsequent callbacks were completed.

F.10 Response rates in gambling prevalence surveys

Elements of a response rate — contact and participation rates

The response rate to a survey can be defined as the ratio of the number of respondents that participate in the survey to the total number of respondents eligible to participate. In the case of gambling surveys which generally interview one respondent per household, it can be described as the outcome of the following two determinants:

- the *contact* rate — the proportion of eligible individuals that are contacted; and
- the *participation* rate — the proportion of eligible individuals contacted that participate in the survey.

The response rate can therefore be defined as $RR = (H_c / H_e) * (H_p / H_c)$,

where H_e = number of eligible individuals surveyed;

H_c = number of eligible individuals contacted; and

H_p = number of individuals that participate.

The number of eligible individuals can differ from the number of individuals selected to be surveyed. Sample loss arises when selected units are subsequently found to be ‘out of scope’ of the survey. For example, in the case of a telephone survey, a selected telephone number dialled at random would be invalid if it turned out to be a business number, a fax number, or a disconnected number. A household would also be out of scope if no occupant met the age requirements for the survey (in gambling surveys of adults, persons 18 years of age or older).

Once an eligible individual is contacted, the respondent can either agree to participate or refuse; or after initially agreeing, may terminate the interview before it is completed. Another category of contact is one where an individual indicates that it is not a convenient time to be interviewed, and an appointment is made. However, they will turn out to be a non-response if subsequent callbacks fail to elicit a completed interview.

How have response rates been calculated in practice?

In relation to US experience, Volberg (1997) has commented that response rates for telephone surveys have generally declined in recent years because of the proliferation of fax machines, answering machines, blocking devices and other telecommunications technology that make it more difficult to identify and recruit eligible individuals. According to Volberg, the consequence has been that:

... response rates for telephone surveys are now calculated in several different ways although all of these approaches involve dividing the number of respondents by the number of contacts believed to be eligible. *Differences in response rates result from different ways of calculating the denominator, ie. the number of individuals eligible to respond* (1997, p. 6, emphasis added).

Two main approaches for calculating a survey response rate can be distinguished:

- *Upper bound method* — with this approach, the numbers that cannot be reached (the no reply/no answer category) are treated as ‘eligibility not determined’ and deducted from the total numbers dialled before ineligible numbers are taken into account. Other numbers dialled also treated in this way in Gerstein et al. (1999) include those where ‘language barriers’ prevent the relevant respondent being identified and those picked up by an ‘answering machine’.
- *Conservative method* — an alternative approach is to treat the no replies as eligible numbers. This is the view of Shaffer et al. (1997) who regard deleting from the denominator those households that fail to answer the phone as improperly inflating the response rate.

To illustrate how these different methods can influence the magnitude of the response rate, some calculations are presented for selected surveys:

- Volberg (1997) — a survey for Oregon yields an upper bound response rate of 61 per cent, whereas the use of more conservative approaches result in a response rate of around 50 per cent.
- Abbot and Volberg (1991) — a survey for New Zealand reports a response rate of 66 per cent; however, if the no replies are treated as eligible, the lower bound response rate is 59 per cent.
- Wynne Resources (1998) — a survey for Alberta, Canada reports a response rate of 67 per cent; however, if the no replies are treated as eligible, the lower bound response rate is around 46 per cent.
- Gerstein et al. (1999) — a national survey for the United States, reports a response rate of 58 per cent; however, if the ‘no answers’, ‘foreign language’ and ‘answering machine’ categories are treated as eligible, the lower bound response rate is 51 per cent.

F.11 Contact and participation rates achieved

Because of the two phase nature of the survey, contact and participation rates are reported for the screener and the main questionnaire (table F.3). The following discussion details the conservative approach to calculating the response rate, though calculations for the screener questionnaire are reported in terms of both the conservative and upper bound approaches to allow comparisons with other studies.

Phase 1 — the screener questionnaire

Of the 31 886 numbers originally dialled, 6 623 were classified as ineligible for a variety of reasons:

- they were a disconnected number, or a business or fax number;
- there was no-one in the household aged 18 years or over; or there was no-one available in the younger age groups when the respondent selection was changed from the last birthday method to the respondent that had the age-gender description needed to fill the quotas to their minimum level; and
- other reasons for ineligibility (such as cellular phone numbers, respondents having two numbers, hearing problems/elderly).

A total of 22 460 calls can therefore be regarded as ‘eligible’ numbers. Two categories of ‘no replies’ are reported in the table — the ‘no replies 4+ callbacks’ (those where there was no answer even after 5 call attempts) and the ‘no replies < 4 callbacks’ (those that did not have their full number of callbacks completed by the cut-off date for the end of the fieldwork phase). Ideally the latter number should be as close as possible to zero; but it is still small relative to the total numbers dialled (around 1 per cent).

The contact rate achieved was 86 per cent. After taking account of terminations, refusals, and appointments not met, 10 609 completed screeners were obtained — a participation rate of 55 per cent. The overall response rate for the screener was therefore 47 per cent. Using the upper bound method (treating the no replies as ‘eligibility not determined’ and therefore excluded from eligible numbers) gives a response rate of 55 per cent. The results for the *National Gambling Survey* are therefore similar to the best of the surveys that have been carried out in recent times.

Table F.3 Contact and participation rates for National Gambling Survey

<i>Item/nature of respondent</i>	<i>No.</i>	<i>No.</i>
Conservative method		
Total numbers dialled		31 886
Ineligible — disconnected number, business, fax	6 623	
Ineligible — no-one fits introductory/quota criteria	1 719	
Ineligible — mobile phone, other reasons	1 084	
Eligible numbers		22 460
No replies (< 4 callbacks)	375	
No replies (4+ callbacks)	2 683	
Engaged	39	
Eligible Contacts		19 363
Upper bound method		
Total numbers dialled		31 886
No replies (< 4 callbacks)	375	
No replies (4+ callbacks)	2 683	
Engaged	39	
Total less eligibility not determined		28 789
Ineligible — disconnected number, business, fax	6 623	
Ineligible — no-one fits introductory/quota criteria	1 719	
Ineligible — mobile phone, other reasons	1 084	
Eligible numbers		19 363
Appointments	78	
Refusals (before relevant respondent identified)	7 657	
Foreign language ^a	230	
Other terminations ^b	96	
Screener questionnaire		
Relevant respondent identified	11 302	
Refuses to continue	450	
Agrees and starts screener	10 852	
Terminates mid-screener	243	
Completes screener	10 609	
Screener contact rate (conservative method) (%)		86
Screener participation rate (conservative method) (%)		55
Screener response rate (conservative method) (%)		47
Screener response rate (upper bound method) (%)		55
Main questionnaire		
Qualifies	3 809	
Refuses to continue	260	
Agrees and starts interview	3 549	
Terminates mid-interview	51	
Completes interview	3 498	
Main questionnaire participation rate (%)		92

^a While foreign language interviews were undertaken, this category represents those who the interviewers were unable to get back to. ^b Includes 'did not wish to continue'; 'no reason given'.

Source: PC National Gambling Survey.

Being aware of the need to minimise refusals, the CATI system for the *National Gambling Survey* included several help screens for interviewers to assist them to persuade people who indicated an unwillingness to participate to change their minds. However, virtually all of the refusals occurred right at the outset, so that interviewers had little or no opportunity to convert them to participants.

The issue of refusals is important only if it is likely to bias the results — and bias will arise if non-respondents have characteristics and gambling behaviour patterns different from those persons who respond to the survey. In relation to gambling surveys, the presumption is usually that because of the sensitive nature of problem gambling, people with gambling problems are more likely to refuse to participate — in which case the problem gambling prevalence rates obtained will be *under*-estimates. But on the other hand, refusals may be more evenly divided between gamblers and non-gamblers. As Abbot and Volberg (1992) noted in relation to the first New Zealand survey:

While it is not possible to provide data about those who refused to take part, anecdotal evidence points to refusals coming both from those who were sensitive about the subject, and also from those who were disinterested because of lack of involvement (p. 75).

An approximate independent check is available for the *National Gambling Survey* on whether the gambler/non-gambler split obtained is representative of the population as a whole. In the *ABS Population Survey Monitor* for 1995-96, data were obtained on participation by persons aged 18 years or over in different types of gambling. While this information is somewhat dated and gambling participation would be expected to have increased since that time, an advantage of the *Population Survey Monitor* is that the response rate was relatively high (around 80 per cent) so that non-response bias would be expected to be small.

In the *Population Survey Monitor*, 10 803 adults Australia-wide were asked whether they had participated in a form of gambling in the week prior to the interview. The survey yielded the result that around 48 per cent of the adult population in 1995-96 had participated in a gambling activity in the previous week. The *National Gambling Survey* obtained information on gambling participation on a different basis — 10 633 adults reported on whether they had participated in a form of gambling in the *twelve months* prior to the interview. As discussed elsewhere in the report, this yielded the result that around 82 per cent of the adult population had gambled on at least one occasion during the 12 month period (excluding raffles only participants).

To enable a comparison between the surveys, the information obtained from the *National Gambling Survey* was recalculated to estimate what proportion of the

population would most likely have played in any single week in the twelve month period. The approach used was as follows:

- those who participated at least once per week can be assumed to have participated in any given week;
- those who participated between 1 and 3 times per month were assumed to have a 24/52 probability of participating in any given week; and
- those who participated less frequently than once per month were assumed to have a 5/52 probability of participating in any given week.

On this basis, results from the *National Gambling Survey* suggest that around 50 per cent of the adult population would have participated in some form of gambling activity in a typical week in 1998-99. Allowing for differences in time periods and gambling activities captured in the surveys, the similarity of the gambling prevalence estimates (48 and 50 per cent) suggests that respondents to the *National Gambling Survey* are likely to be representative of the adult population as a whole in relation to the gambler/non-gambler split.

Phase 2 — the main questionnaire

Of the 3809 participants who were offered a phase 2 interview, fully completed questionnaires were obtained from 3498 — a participation rate of 92 per cent. These completed interviews comprised: 1225 regular gamblers, 1290 non-regular gamblers and 983 non gamblers. The 1225 regulars comprised 889 respondents who participated in any single gambling activity (apart from lottery games or instant scratch tickets) at least once per week, or whose overall participation in gambling activities (apart from lottery games or instant scratch tickets) was the equivalent of weekly; and 336 ‘big spending’ and other respondents transferred from the non-regular category by filter 3.

F.11 The questionnaire

The CATI version of the *National Gambling Survey* is attached.

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31-MAY-99

STRICTLY CONFIDENTIAL
CC-2133
MARCH 1999

NATIONAL GAMBLING SURVEY

Have you participated in any gambling activities in the last 12 months, such as poker machines, betting, scratchies, lotteries, casino games, keno, and bingo, but not raffles or sweeps?

Yes..... 1
No..... 2

In what country were you born?

Australia..... 1
United Kingdom... 2
New Zealand..... 3
USA..... 4
Canada..... 5
Greece..... 6
Italy..... 7
Lebanon..... 8
China..... 9
India..... 10
Vietnam..... 11
Malaysia..... 12
Philippines..... 13
Hong Kong..... 14
South Africa..... 15
OTHER (PLEASE SPECIFY)..... 97

Q2. RECORD SEX OF RESPONDENT

MALE..... 1
FEMALE..... 2

Good %A. My name is (say name) from Roy Morgan Research, the people who conduct the Morgan Gallup poll. Today we are conducting an important survey for the Commonwealth Government about people's attitudes to gambling, and would like your help please.

Could I please speak to the person aged 18 years or over in your household who had the last birthday. (IF REQUIRED PERSON IS NOT AVAILABLE, ASK FOR A SUITABLE TIME TO CALL BACK. RECORD FIRST NAME AND DETAILS FOR CALL BACK) IF RESPONDENT CHANGES: REPEAT FIRST PARA OF INTRODUCTION.

WHO IS THE RESPONDENT?
IF RESPONDENT NOT PERSON WITH LAST BIRTHDAY, ENTER REASON FOR SPEAKING TO CURRENT RESPONDENT

PERSON WHO HAS LAST BIRTHDAY.... 1

AWAY FOR DURATION OF SURVEY..... 2
INCAPABLE/DEAF/ILLNESS/DISABILITY/TOO OLD..... 3
DON'T KNOW WHOSE BIRTHDAY WAS LAST 4
OTHER (PLEASE SPECIFY)..... 97

You might have read about the study in the newspaper or heard about it on TV. Your views are very important and we would like you to participate. I am asking only a few quick questions to start with, to see if you qualify for the survey. They will take only a couple of minutes, and your answers will be strictly confidential.

IF DOES NOT AGREE TO PARTICIPATE, SAY: I realise I am intruding on your time, but the results of this survey are for a very important Government study, and by participating the results will be more accurate. Please can you spare just a couple of minutes to participate in the initial part? IF RESPONDENT SAYS THEY ARE NOT A GAMBLER AND CAN'T SEE THE POINT OF PARTICIPATING, SAY: We are just as interested to speak to non-gamblers as gamblers. It is particularly important that we get everybody's views.

IS THE RESPONDENT WILLING TO CONTINUE?

WILLING TO CONTINUE..... 1
STILL REFUSES.... 2

If still refuses then say: I understand that (REPEAT REASON FOR REFUSAL, E.G. YOU ARE BUSY) but before hanging up, could you please give me answers to just three quick questions?

Thank you for your time and assistance.

IF RESPONDENT ASKS HOW WE GOT THEIR NUMBER, SAY: Your phone number was selected randomly from the White Pages phone book. IF RESPONDENT WANTS INFORMATION ABOUT WHO'S CONDUCTING THE SURVEY, SAY: The survey is being conducted on behalf of the Commonwealth Government. For more information about the survey you can contact Dr. Robert Phillips on 02 6240 3222

NATIONAL GAMBLING SURVEY

SQ1a. First, could you please tell me how many people aged 18 or over usually live at this address?
 ENTER NUMERIC CODE
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

1 1 1 +

SQ1b. For demographic purposes, would you mind telling me your age please?
 IF BELOW 18, THANK AND CLOSE.
 IF REFUSES, READ OUT:

BELOW 18.....	1
18 - 24.....	2
25 - 29.....	3
30 - 34.....	4
35 - 39.....	5
40 - 44.....	6
45 - 49.....	7
50 - 54.....	8
55 - 59.....	9
60 - 64.....	10
65 - 69.....	11
70+.....	12
REFUSED.....	13

IF AGED UNDER 18, SAY:

Thank you for your time, but we only wish to speak with people aged 18 and over
 THIS WILL NOW TERMINATE

SQ2a. I am now going to read out a list of popular gambling activities. Could you please tell me which of these you have participated in during the last 12 months?
 READ OUT

Played poker machines or gaming machines..	1,
Bet on horse or greyhound races EXCLUDING sweeps.	2,
Bought INSTANT scratch tickets..	3,
Played lotto or ANY OTHER lottery game like Tattsлото, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, or Tatts Keno....	4,
Played Keno at a club, hotel, casino or any other place.....	5,

Played table games at a casino, such as Blackjack or Roulette.....	6,
Played bingo at a club or hall.....	7,
Bet on a sporting event like football, cricket, or tennis.....	8,
Played casino games on the Internet.....	9,
Played games like cards, or mahjong, privately FOR MONEY at home or any other place..	10,
Bought raffle tickets.....	11,
Played any other gambling activity EXCLUDING raffles or sweeps (PLEASE SPECIFY) (FIRST OTHER MENTION - SINGLE CODE).....	96,
Played any other gambling activity EXCLUDING raffles or sweeps (PLEASE SPECIFY) (ALL OTHER MENTIONS - MULTICODES).....	97,
(DO NOT READ) NONE OF THE ABOVE	98,

IF ONLY "BOUGHT" RAFFLE TICKETS" OR "NONE OF THE ABOVE" GETS CODED (CODE 11 OR 98 AT SQ2A), THEN SAY:

I still have a few other questions to ask you. Is this a convenient time for you to take part in the rest of the survey?
 It will only take about 5 minutes.

YES - AGREES TO TAKE PART.....	1
NO.....	2

ALL NOT A CONVENIENT TIME

IF NOT A CONVENIENT TIME, SAY: When is it convenient for me to call you back? Who should I ask for? I only need a first name [RECORD DETAILS FOR CALL BACK]

IF DOES NOT AGREE TO PARTICIPATE, SAY: I realise I am intruding on your time, but the results of this survey are for a very important Government study, and by participating, the results will be more accurate. Please can you spare 5 minutes to participate?

YES - AGREES TO TAKE PART.....	1
NO.....	2

IF NOT WILLING TO PARTICIPATE, SAY:

Thank you for your time and assistance THIS WILL NOW TERMINATE

IF MORE THAN ONE OTHER MENTION (CODES 96 AND 97 ON SQ2A), ASK:

SQ2B1. Of these other gambling activities that you just mentioned, which one have you played THE MOST in the last 12 months?
 SINGLE RESPONSE. RESPONDENT SAID %0124. AT SQ2A

OTHER (PLEASE SPECIFY)..... 97

(DO NOT READ)
 CAN'T SAY..... 98

IF GIVES ONE MAIN OTHER ACTIVITY (CODE 96 AND NOT 97 AT SQ2A, OR CODE 97 AT SQ2B1)

SQ2b2a. In the last 12 months, how many times per week OR per month OR per year have you played %0124. %0128.?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK PLAYS OTHER ACTIVITY
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH PLAYS OTHER ACTIVITY
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR PLAYS OTHER ACTIVITY
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF HAVE played poker machines or gaming machines (CODE 1 AT SQ2A)

SQ2c1. In the last 12 months, how many times per week OR per month OR per year have you played poker machines or gaming machines?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT played poker machines or gaming machines
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT played poker machines or gaming machines
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT played poker machines or gaming machines
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF HAVE bought INSTANT scratch tickets (CODE 3 AT SQ2A)

SQ2c3. In the last 12 months, how many times per week OR per month OR per year have you bought INSTANT scratch tickets?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT bought INSTANT scratch tickets
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT bought INSTANT scratch tickets
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT bought INSTANT scratch tickets
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_____|_____|+

IF HAVE Played lotto or ANY OTHER lottery game like Tattsлото, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, or Tatts Keno (CODE 4 AT SQ2A)

SQ2c4. In the last 12 months, how many times per week OR per month OR per year have you Played lotto or ANY OTHER lottery game like Tattsлото, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, or Tatts Keno? ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT Played lotto or ANY OTHER lottery game like Tattsлото, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, or Tatts Keno IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT Played lotto or ANY OTHER lottery game like Tattsлото, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, or Tatts Keno IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT Played lotto or ANY OTHER lottery game like Tattsлото, Powerball, the Pools, \$2 Jackpot lottery, Tatts 2, or Tatts Keno IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF HAVE Played Keno at a club, hotel, casino or any other place (CODE 5 AT SQ2A)

SQ2c5. In the last 12 months, how many times per week OR per month OR per year have you Played Keno at a club, hotel, casino or any other place? ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT Played Keno at a club, hotel, casino or any other place IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT Played Keno at a club, hotel, casino or any other place IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT Played Keno at a club, hotel, casino or any other place IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF HAVE Played table games at a casino such as Blackjack or Roulette (CODE 6 AT SQ2A)

SQ2c6. In the last 12 months, how many times per week OR per month OR per year have you Played table games at a casino such as Blackjack or Roulette? ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT Played table games at a casino such as Blackjack or Roulette IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT Played table games at a casino such as Blackjack or Roulette IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT Played table games at a casino such as Blackjack or Roulette IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF HAVE Played bingo at a club or hall (CODE 7 AT SQ2A)

SQ2c7. In the last 12 months, how many times per week OR per month OR per year have you Played bingo at a club or hall?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT Played bingo at a club or
hall
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT Played bingo at a club or
hall
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT Played bingo at a club or
hall
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF HAVE Played casino games on the
internet (CODE 9 AT SQ2A)

SQ2c9. In the last 12 months, how many
times per week OR per month OR per
year have you Played casino games on
the internet?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT Played casino games on the
internet
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT Played casino games on the
internet
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT Played casino games on the
internet
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF HAVE Played games like cards, or
mahjong, privately FOR MONEY at home
or any other place (CODE 10 AT SQ2A)

SQ2c10. In the last 12 months, how
many times per week OR per month OR
per year have you Played games like
cards, or mahjong, privately FOR MONEY
at home or any other place?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT Played games like cards, or
mahjong, privately FOR MONEY at home
or any other place
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT Played games like cards, or
mahjong, privately FOR MONEY at home
or any other place
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT Played games like cards, or
mahjong, privately FOR MONEY at home
or any other place
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF HAVE bet on horse or greyhound
races EXCLUDING sweeps (CODE 2 AT
SQ2A)

SQ2c2. In the last 12 months, how many
DAYS per week OR per month OR per year
have you bet on horse or greyhound
races EXCLUDING sweeps?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF DAYS PER WEEK
RESPONDENT bet on horse or greyhound
races EXCLUDING sweeps
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF DAYS PER MONTH
RESPONDENT bet on horse or greyhound
races EXCLUDING sweeps
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN DAYS PER YEAR

ENTER NUMBER OF DAYS PER YEAR
RESPONDENT bet on horse or greyhound
races EXCLUDING sweeps
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

NATIONAL GAMBLING SURVEY

IF HAVE Bet on a sporting event like football, cricket, or tennis (CODE 8 AT SQ2A)

SQ2c8. In the last 12 months, how many DAYS per week OR per month OR per year have you Bet on a sporting event like football, cricket, or tennis?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF DAYS PER WEEK
RESPONDENT Bet on a sporting event like football, cricket, or tennis
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF DAYS PER MONTH
RESPONDENT Bet on a sporting event like football, cricket, or tennis
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN DAYS PER YEAR

ENTER NUMBER OF DAYS PER YEAR
RESPONDENT Bet on a sporting event like football, cricket, or tennis
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

GAMBLE VALUE FOR QUOTAS

|_|_|_|_|_|_|+

REGULAR VALUE FOR QUOTAS

REGULAR..... 1

NON REGULAR..... 2

NON GAMBLERS..... 3

REGULAR VALUE FOR QUOTAS

OVERALL REGULAR.. 1

OVERALL NON
REGULAR..... 2

OVERALL NON
GAMBLERS..... 3

Thank you for your time and assistance.

We think you will make an ideal participant for the rest of the survey. Is this a convenient time for you to continue?

The rest of the survey could take only about 10 or 20 minutes, and if you can not finish it now, we can call you back at another time.

IF NOT A CONVENIENT TIME, SAY:
When is it convenient for me to call you back? Who should I ask for?

I only need a first name [RECORD DETAILS FOR CALL BACK]

IF DOES NOT AGREE TO CONTINUE, SAY:
The results of this survey are part of a very important Government study, and by participating, the results will be more accurate. Please can you spare the time to participate?

YES - AGREES TO
TAKE PART..... 1

NO..... 2

IF NOT WILLING TO PARTICIPATE, SAY:

Thank you for your time and assistance

THIS WILL NOW TERMINATE

As you know, gambling is a popular leisure activity for many people. I am going to read out some statements about gambling that I would like to hear your opinion about.

B1. What do you think of the statement that overall, gambling does more good than harm for the community? Do you ...%1230./strongly agree, slightly agree, neither agree nor disagree, slightly disagree, or strongly disagree/strongly disagree, slightly disagree, neither disagree nor agree, slightly agree or strongly agree/?

STRONGLY AGREE... 1

SLIGHTLY AGREE... 2

NEITHER AGREE NOR
DISAGREE..... 3

SLIGHTLY DISAGREE 4

STRONGLY DISAGREE 5

DON'T KNOW/CAN'T
SAY..... 6

B2. Do you think the number of poker machines and other gaming machines currently available in your local community should be increased, decreased or stay the same?

PROBE: And do you think the increase/decrease should be small or large?

A LARGE INCREASE. 1

A SMALL INCREASE. 2

NATIONAL GAMBLING SURVEY

STAY THE SAME.... 3

A SMALL DECREASE. 4

A LARGE DECREASE. 5

HAVE NO
OPINION/CAN'T SAY 6

IF NUMBER OF MACHINES SHOULD BE
INCREASED OR DECREASED (CODES 1, 2 4
OR 5 AT B2), ASK:

B3 Poker machines and gaming machines
are located in clubs, hotels and
casinos. Where do you think the number
of machines should be
%1234,/increased/decreased/? Would you
say ...

in clubs?

Yes..... 1

No..... 2

Can't say..... 3

B3 (Poker machines and gaming machines
are located in clubs, hotels and
casinos. Where do you think the number
of machines should be
%1236,/increased/decreased/? Would
you say ...

in hotels?

Yes..... 1

No..... 2

Can't say..... 3

B3 (Poker machines and gaming machines
are located in clubs, hotels and
casinos. Where do you think the number
of machines should be
%1238,/increased/decreased/? Would
you say ...

in casinos?

Yes..... 1

No..... 2

Can't say..... 3

B4. Some people say that the wider
availability of gambling in recent
years has provided more opportunities
for recreational enjoyment? Do you
...%1240,/strongly agree, slightly
agree, neither agree nor disagree,
slightly disagree or strongly
disagree/strongly disagree, slightly
disagree, neither disagree nor agree,
slightly agree or strongly agree/?

Strongly agree... 1

Slightly agree... 2

Neither agree nor
disagree..... 3

Slightly disagree 4

Strongly disagree 5

Don't know/Can't
say..... 6

IF GAMBLER (CODE 1 OR 2 AT REGULAR)

IF PLAYED POKER MACHINES OR GAMING
MACHINES (QUESTION sq2A CODED 1)

Next, some questions about the
GAMING MACHINES YOU PLAYED IN THE
LAST 12 MONTHS.

C0. What type of gaming machine do you
USUALLY play?
READ OUT

Poker machines
(('pokies'))..... 1

Video card
machines..... 2

Video keno
machines..... 3

Or some other
gaming machine
(PLEASE SPECIFY). 97

(DO NOT READ)
CAN'T SAY..... 98

C1a. In the last 12 months, how many
times per week OR per month OR per
year have you visited a CLUB and
played %1247,/poker// %1249,/video
card// %1251,/video keno//
%1253,/other gaming// %1255,/poker//
machines?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT VISITED A CLUB AND PLAYED
%1259,/POKER// %1261,/VIDEO CARD//
%1263,/VIDEO KENO// %1265,/OTHER
GAMING// %1267,/POKER// MACHINES
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT VISITED A CLUB AND PLAYED
%1271,/POKER// %1273,/VIDEO CARD//
%1275,/VIDEO KENO// %1277,/OTHER
GAMING// %1279,/POKER// MACHINES
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT VISITED A CLUB AND PLAYED
%1283,/POKER// %1285,/VIDEO CARD//
%1287,/VIDEO KENO// %1289,/OTHER
GAMING// %1291,/POKER// MACHINES
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

NATIONAL GAMBLING SURVEY

C1b. And in the last 12 months, how many times per week OR per month OR per year have you visited a PUB or HOTEL and played %1293,/poker// %1295,/video card// %1297,/video keno// %1299,/other gaming// %1301,/poker// machines?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4
NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT VISITED A PUB OR HOTEL AND PLAYED %1305,/poker// %1307,/video CARD// %1309,/VIDEO KENO// %1311,/OTHER GAMING// %1313,/poker// MACHINES

IF CAN'T SAY ENCOURAGE BEST GUESS

||_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT VISITED A PUB OR HOTEL AND PLAYED %1317,/poker// %1319,/video CARD// %1321,/VIDEO KENO// %1323,/OTHER GAMING// %1325,/poker// MACHINES

IF CAN'T SAY ENCOURAGE BEST GUESS

||_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT VISITED A PUB OR HOTEL AND PLAYED %1329,/poker// %1331,/video CARD// %1333,/VIDEO KENO// %1335,/OTHER GAMING// %1337,/poker// MACHINES

IF CAN'T SAY ENCOURAGE BEST GUESS

||_|_+

C1c. And in the last 12 months, how many times per week OR per month OR per year have you visited a CASINO and played %1339,/poker// %1341,/video card// %1343,/video keno// %1345,/other gaming// %1347,/poker// machines?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4
NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK RESPONDENT VISITED A CASINO AND PLAYED %1351,/poker// %1353,/VIDEO CARD// %1355,/VIDEO KENO// %1357,/OTHER GAMING// %1359,/poker// MACHINES

IF CAN'T SAY ENCOURAGE BEST GUESS

||_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH RESPONDENT VISITED A CASINO AND PLAYED %1363,/poker// %1365,/VIDEO CARD// %1367,/VIDEO KENO// %1369,/OTHER GAMING// %1371,/poker// MACHINES

IF CAN'T SAY ENCOURAGE BEST GUESS

||_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR RESPONDENT VISITED A CASINO AND PLAYED %1375,/poker// %1377,/VIDEO CARD// %1379,/VIDEO KENO// %1381,/OTHER GAMING// %1383,/poker// MACHINES

IF CAN'T SAY ENCOURAGE BEST GUESS

||_|_+

C2. For how long do you usually play the %1385,/poker// %1387,/video card// %1389,/video keno// %1391,/other gaming// %1393,/poker// machines when you visit a venue?

RECORD HOURS HERE AND RETURN TO RECORD MINUTES

IF CAN'T SAY ENCOURAGE BEST GUESS

IF STILL CAN'T SAY ENTER <F11> D

||_|_+

C2. (For how long do you usually play the %1397,/poker// %1399,/video card// %1401,/video keno// %1403,/other gaming// %1405,/poker// machines when you visit a venue?)

RECORD MINUTES HERE

IF CAN'T SAY ENCOURAGE BEST GUESS

IF ANSWER ONLY GIVEN IN HOURS, ENTER 0 MINUTES

||_|_+

C3. How often do you withdraw money from an automatic teller machine (ATM) at a venue when you play the %1407,/poker// %1409,/video card// %1411,/video keno// %1413,/other gaming// %1415,/poker// machines?

Is that %1417,/never/rarely/sometimes/often or always/ always/often/sometimes/rarely or never/?

NEVER..... 1
RARELY..... 2
SOMETIMES..... 3
OFTEN..... 4
ALWAYS..... 5
CAN'T SAY..... 6

C4. When you visit a venue, how much money do you usually take with you to play the %1419,/poker// %1421,/video card// %1423,/video keno// %1425,/other gaming// %1427,/poker// machines, including any additional money withdrawn or borrowed during the period of play?

ENTER AMOUNT IN \$'S.

IF CAN'T SAY ENCOURAGE BEST GUESS

IF STILL CAN'T SAY ENTER <F11> D

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NATIONAL GAMBLING SURVEY

C5. And how much money do you usually have left when you finish playing the
%1429,/poker// %1431,/video card//
%1433,/video keno// %1435,/other
gaming// %1437,/poker// machines?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF CAN'T SAY AT C4 OR C5, ASK:

C5b. Do you usually lose or win when you play these machines?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT C5b)

C5b2. So how much money do you USUALLY WIN?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT C5b)

C5b3. So how much money do you USUALLY LOSE?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

C6. What kind of machine do you usually play?
READ OUT

1 cent machine... 1

2 cents machine.. 2

5 cents machine.. 3

10 cents machine. 4

20 cents machine. 5

50 cents machine. 6

\$1 machine..... 7

\$2 machine..... 8

Higher than \$2
machine..... 9

(DO NOT READ)
CAN'T SAY..... 10

IF POKER MACHINE (CODE 1 AT C0)

C7. Do you bet more than 1 line at each press of the button?

YES..... 1

NO..... 2

CAN'T SAY..... 3

IF BET ON MORE THAN ONE LINE (CODE 1 AT C7)

C8. Is that %1449,/rarely/
sometimes/often or always/always/
often/sometimes or rarely/?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

C9. And how many lines do you usually play on those occasions?
ENTER NUMBER OF LINES.

IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_+

IF POKER MACHINE (CODE 1 AT C0)

C10. Do you bet more than 1 credit per line?

YES..... 1

NO..... 2

CAN'T SAY..... 3

IF BET MORE THAN 1 CREDIT/LINE (CODE 1 AT C10)

C11. Is that %1453,/rarely/
sometimes/often or always/always/
often/sometimes or rarely/?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

C12. And how many credits do you usually play on those occasions?
ENTER NUMBER OF CREDITS.

IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_+

IF PLAYED POKER MACHINES OR GAMING
MACHINES (CODE 1 AT SQ2A)

C13. Do the machines you usually play allow you to insert notes rather than coins?

YES..... 1

NO..... 2

CAN'T SAY..... 3

IF MACHINES USUALLY ALLOW NOTES (CODE 1 AT C13)

C14. Do you insert notes
%1457,/never/rarely/ sometimes/often
or always/always/
often/sometimes/rarely or never/?

NEVER..... 1

RARELY..... 2

NATIONAL GAMBLING SURVEY

SOMETIMES..... 3
 OFTEN..... 4
 ALWAYS..... 5
 CAN'T SAY..... 6

IF PLAYED POKER MACHINES OR GAMING
 MACHINES (QUESTION sq2A CODED 1)

C15. Do you have a card which you can
 use to earn bonus points when you play
 the machines?

YES..... 1
 NO..... 2
 CAN'T SAY..... 3

IF HAS CARD FOR BONUS POINTS (CODE 1
 AT C15)

C16. Do you insert this card into the
 machines
 %1461, never/rarely/sometimes/often or
 always /always/often/sometimes/rarely
 or never?

NEVER..... 1
 RARELY..... 2
 SOMETIMES..... 3
 OFTEN..... 4
 ALWAYS..... 5
 CAN'T SAY..... 6
 REFUSED..... 7

IF PLAYED POKER MACHINES OR GAMING
 MACHINES (QUESTION sq2A CODED 1)

C17. On how many separate visits have
 you won \$250 or more from playing the
 machines in the last 12 months?
 ENTER NUMBER OF TIMES.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_+

IF BET ON HORSE OR GREYHOUND RACES
 (CODE 2 AT sq2A)

Next some questions about your
 BETTING ON HORSE OR GREYHOUND
 RACES IN THE LAST 12 MONTHS.

D1a. In the last 12 months, on how
 many DAYS per WEEK or per MONTH or per
 YEAR have you bet on the races AT A
 RACETRACK?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1
 MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4

NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF DAYS PER WEEK BETS ON
 THE RACES AT A RACETRACK
 IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF DAYS PER MONTH BETS ON
 THE RACES AT A RACETRACK
 IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN DAYS PER YEAR

ENTER NUMBER OF DAYS PER YEAR BETS ON
 THE RACES AT A RACETRACK
 IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

D1b. And in the last 12 months, on how
 many DAYS per week or per month or per
 year have you bet on the races at an
 OFF-COURSE VENUE such as a TAB agency,
 club or hotel?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1
 MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4
 NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF DAYS PER WEEK BETS ON
 THE RACES AT AN OFF-COURSE VENUE
 IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF DAYS PER MONTH BETS ON
 THE RACES AT AN OFF-COURSE VENUE
 IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN DAYS PER YEAR

ENTER NUMBER OF DAYS PER YEAR BETS ON
 THE RACES AT AN OFF-COURSE VENUE
 IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

D1c. And in the last 12 months, on how
 many DAYS per week or per month or per
 year have you bet on the races by
 PHONE?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1
 MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4
 NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF DAYS PER WEEK BETS ON
THE RACES BY PHONE
IF CAN'T SAY ENCOURAGE BEST GUESS

____+
|_|_|_|_|

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF DAYS PER MONTH BETS ON
THE RACES BY PHONE
IF CAN'T SAY ENCOURAGE BEST GUESS

____+
|_|_|_|_|

IF ANSWER GIVEN IN DAYS PER YEAR

ENTER NUMBER OF DAYS PER YEAR BETS ON
THE RACES BY PHONE
IF CAN'T SAY ENCOURAGE BEST GUESS

____+
|_|_|_|_|

D1d. And in the last 12 months, on how
many DAYS per week or per month or per
year have you bet on the races VIA THE
INTERNET?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3
CAN'T SAY.....	4
NONE.....	5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF DAYS PER WEEK BETS ON
THE RACES VIA THE INTERNET
IF CAN'T SAY ENCOURAGE BEST GUESS

____+
|_|_|_|_|

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF DAYS PER MONTH BETS ON
THE RACES VIA THE INTERNET
IF CAN'T SAY ENCOURAGE BEST GUESS

____+
|_|_|_|_|

IF ANSWER GIVEN IN DAYS PER YEAR

ENTER NUMBER OF DAYS PER YEAR BETS ON
THE RACES VIA THE INTERNET
IF CAN'T SAY ENCOURAGE BEST GUESS

____+
|_|_|_|_|

GAMBLE ON COURSE

____+
|_|_|_|_|_|_|_|

GAMBLE OFF COURSE

____+
|_|_|_|_|_|_|_|

GAMBLE ON PHONE

____+
|_|_|_|_|_|_|_|

GAMBLE ON INTERNET

____+
|_|_|_|_|_|_|_|

IF BETS ONCE A WEEK OR MORE OFTEN IN
ANY FORM, THEN ASK:

D2. In a usual week, overall how much
time do you take to study the form,
place your bets, and listen to and/or
watch the races?
RECORD HOURS HERE AND RETURN TO RECORD
MINUTES

IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

____+
|_|_|_|_|

D2. (In a usual week, overall how much
time do you take to study the form,
place your bets, and listen to and/or
watch the races?)
RECORD MINUTES HERE

IF CAN'T SAY ENCOURAGE BEST GUESS
IF ANSWER ONLY GIVEN IN HOURS, ENTER 0
MINUTES

____+
|_|_|_|_|

IF BET ONLY ONCE IN LAST 12 MONTHS,
THEN ASK:

D3a. How much money did you outlay on
that occasion?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

____+
|_|_|_|_|_|_|_|

D4a. And how much, if any, did you
win?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

____+
|_|_|_|_|_|_|_|

IF BET MORE THAN ONCE ON COURSE IN
LAST 12 MONTHS, THEN ASK:

D3b Thinking of when you go to a
racecourse, how much money do you
usually take with you to bet on the
races, including any additional money
withdrawn or borrowed during your time
at the races?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

____+
|_|_|_|_|_|_|_|

D4b. And how much money do you usually
have left when you leave the races?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

____+
|_|_|_|_|_|_|_|

IF CAN'T SAY AT D3B OR D4B, ASK:

D5b1. Do you usually win or lose
during a day at the races?

USUALLY WIN.....	1
USUALLY LOSE.....	2
CAN'T SAY.....	3

IF USUALLY WIN (CODE 1 AT D5B1) OR D3B
LESS THAN D4B

D5b2. So how much money do you USUALLY
WIN during a day at the races?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT D5B1 OR D4B
LESS THAN D3B)

D5b3. So how much money do you USUALLY
LOSE during a day at the races?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF BET MORE THAN ONCE OFF COURSE IN
LAST 12 MONTHS, THEN ASK:

D3c How much money do you usually
outlay on the races each day you bet
off-course at a TAB, club or hotel?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

D4c. And how much money do you usually
have left at the end of the day's
betting?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF CAN'T SAY AT D3C OR D4C, ASK:

D5c1. Do you usually lose or win
during a day's betting off-course at
the TAB, club or hotel?
ENTER WIN/LOSE THEN RETURN FOR AMOUNT

USUALLY WIN.....	1
USUALLY LOSE.....	2
CAN'T SAY.....	3

IF USUALLY WIN (CODE 1 AT D5c1)

D5c2. So how much money do you USUALLY
WIN during a day's betting off-course
at the TAB, club or hotel?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT D5c1)

D5c3. So how much money do you USUALLY
LOSE during a day's betting off-course
at the TAB, club or hotel?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF BET MORE THAN ONCE BY PHONE IN LAST
12 MONTHS, THEN ASK:

D3D How much money do you usually
outlay on the races each day you bet
by phone?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

D4D. And how much money do you usually
have left at the end of the day's
betting?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF CAN'T SAY AT D3D OR D4D, ASK:

D5d1. Do you usually lose or win
during a day's betting by phone?
ENTER WIN/LOSE THEN RETURN FOR AMOUNT

USUALLY WIN.....	1
USUALLY LOSE.....	2
CAN'T SAY.....	3

IF USUALLY WIN (CODE 1 AT D5d1)

D5d2. So how much money do you USUALLY
WIN during a day's betting by phone?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

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IF USUALLY LOSE (CODE 2 AT D5d1)

D5d3. So how much money do you USUALLY
LOSE during a day's betting by phone?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF BET MORE THAN ONCE VIA THE INTERNET
IN LAST 12 MONTHS, THEN ASK:

D3E How much money do you usually
outlay on the races each day you bet
via the internet?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

D4e. And how much money do you usually
have left at the end of the day's
betting?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

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IF CAN'T SAY AT D3E OR D4E, ASK:

D5e1. Do you usually lose or win
during a day's betting via the
internet?
ENTER WIN/LOSE THEN RETURN FOR AMOUNT

USUALLY WIN.....	1
USUALLY LOSE.....	2

CAN'T SAY..... 3
 IF USUALLY WIN (CODE 1 AT D5e1)
 D5e2. So how much money do you USUALLY
 WIN during a day's betting via the
 internet?
 ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT D5e1)
 D5e3. So how much money do you USUALLY
 LOSE during a day's betting via the
 internet?
 ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF BOUGHT INSTANT SCRATCH TICKETS
 (CODE 3 AT sq2A)

You mentioned earlier that you
 bought INSTANT SCRATCH TICKETS
 \$148.\$150.\$152. per \$146. IN THE
 LAST 12 MONTHS.

E2. How much money do you usually
 outlay each time you buy instant
 scratch tickets?
 ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

E3. And approximately how much money
 would you say you have won from the
 instant scratch tickets you have
 bought in the last \$146?
 ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF CAN'T SAY AT E2 OR E3, ASK:

E4. Do you usually lose or win from
 the instant scratch tickets?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT e4)

E4B. So how much money do you USUALLY
 WIN?
 ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT e4)

E4c. So how much money do you USUALLY
 LOSE?
 ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED LOTTO OR ANY OTHER LOTTERY
 GAME (QUESTION sq2a CODED 4)

interview area for MF1

NSW..... 1

VIC..... 2

QLD..... 3

WA..... 4

SA..... 5

TAS..... 6

NT..... 7

ACT..... 8

F1. Thinking about the lottery games
 you have played in the last 12 months.
 I will now read out a list of games.
 Please tell me if you have played that
 game IN THE LAST 12 MONTHS.

Lotto..... 1,

Lotto Strike..... 2,

TattsLotto..... 3,

Gold Lotto..... 4,

Oz Lotto..... 5,

Powerball..... 6,

Super 66..... 7,

The Pools..... 8,

Lucky 7 Lottery.. 9,

\$5 Jackpot

Lottery..... 10,

Casket Lottery... 11,

Territorian

lottery..... 12,

Tatts 2..... 13,

Cash 3..... 14,

\$2 Lottery..... 15,

Tatts Keno..... 16,

5--minute Keno... 17,

(DO NOT READ)

NONE OF THESE.... 18,

IF PLAYED Lotto IN LAST 12 MONTHS
 (CODE 1 AT F1)

F2A. How many times per week OR per
 month OR per year DO you play Lotto?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

NATIONAL GAMBLING SURVEY

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3A. And how much money do you usually
outlay each time you play Lotto?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED Lotto Strike IN LAST 12
MONTHS (CODE 2 AT F1)

F2B. How many times per week OR per
month OR per year DO you play Lotto
Strike?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3
CAN'T SAY.....	4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Lotto Strike
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Lotto Strike
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Lotto Strike
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3B. And how much money do you usually
outlay each time you play Lotto
Strike?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED Tattslotto IN LAST 12 MONTHS
(CODE 3 AT F1)

F2C. How many times per week OR per
month OR per year DO you play
Tattslotto?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3
CAN'T SAY.....	4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Tattslotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Tattslotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Tattslotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3C. And how much money do you usually
outlay each time you play Tattslotto?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED Gold Lotto IN LAST 12 MONTHS
(CODE 4 AT F1)

F2D. How many times per week OR per
month OR per year DO you play Gold
Lotto?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3
CAN'T SAY.....	4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Gold Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Gold Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Gold Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

NATIONAL GAMBLING SURVEY

F3D. And how much money do you usually
outlay each time you play Oz Lotto?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|+

IF PLAYED Oz Lotto IN LAST 12 MONTHS
(CODE 5 AT F1)

F2E. How many times per week OR per
month OR per year DO you play Oz
Lotto?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Oz Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Oz Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Oz Lotto
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

F3E. And how much money do you usually
outlay each time you play Oz Lotto?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|+

IF PLAYED Powerball IN LAST 12 MONTHS
(CODE 6 AT F1)

F2F. How many times per week OR per
month OR per year DO you play
Powerball?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Powerball
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Powerball
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Powerball
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

F3F. And how much money do you usually
outlay each time you play Powerball?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|+

IF PLAYED Super 66 IN LAST 12 MONTHS
(CODE 7 AT F1)

F2G. How many times per week OR per
month OR per year DO you play Super
66?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3
CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Super 66
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Super 66
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Super 66
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_|+

F3G. And how much money do you usually
outlay each time you play Super 66?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|+

IF PLAYED The Pools IN LAST 12 MONTHS
(CODE 8 AT F1)

F2H. How many times per week OR per
month OR per year DO you play The
Pools?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK..... 1
MONTH..... 2
YEAR..... 3

NATIONAL GAMBLING SURVEY

CAN'T SAY..... 4
 IF ANSWER GIVEN IN WEEKS
 ENTER NUMBER OF TIMES PER WEEK
 RESPONDENT PLAYED The Pools
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN MONTHS
 ENTER NUMBER OF TIMES PER MONTH
 RESPONDENT PLAYED The Pools
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR
 ENTER NUMBER OF TIMES PER YEAR
 RESPONDENT PLAYED The Pools
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

F3H. And how much money do you usually
 outlay each time you play The Pools?
 ENTER AMOUNT IN \$'S
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

_____|_|_|_|_+

IF PLAYED Lucky 7 Lottery IN LAST 12
 MONTHS (CODE 9 AT F1)

F2I. How many times per week OR per
 month OR per year DO you play lucky 7
 Lottery?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1
 MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
 RESPONDENT PLAYED Lucky 7 Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
 RESPONDENT PLAYED Lucky 7 Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
 RESPONDENT PLAYED Lucky 7 Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

F3I. And how much money do you usually
 outlay each time you play Lucky 7
 Lottery?
 ENTER AMOUNT IN \$'S
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

_____|_|_|_|_+

IF PLAYED \$5 Jackpot Lottery IN LAST
 12 MONTHS (CODE 10 AT F1)

F2J. How many times per week OR per
 month OR per year DO you play \$5
 Jackpot Lottery?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1
 MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
 RESPONDENT PLAYED \$5 Jackpot Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
 RESPONDENT PLAYED \$5 Jackpot Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
 RESPONDENT PLAYED \$5 Jackpot Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

F3J. And how much money do you usually
 outlay each time you play \$5 Jackpot
 Lottery?
 ENTER AMOUNT IN \$'S
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

_____|_|_|_|_+

IF PLAYED Casket Lottery IN LAST 12
 MONTHS (CODE 11 AT F1)

F2K. How many times per week OR per
 month OR per year DO you play Casket
 Lottery?
 ENTER WEEK/MONTH/YEAR THEN RETURN FOR
 FREQUENCY

WEEK..... 1
 MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
 RESPONDENT PLAYED Casket Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
 RESPONDENT PLAYED Casket Lottery
 IF CAN'T SAY ENCOURAGE BEST GUESS

_____|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Casket Lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3K. And how much money do you usually
outlay each time you play Casket
Lottery?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED Territorian lottery IN LAST
12 MONTHS (CODE 12 AT F1)

F2L. How many times per week OR per
month OR per year DO you play
Territorian lottery?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3
CAN'T SAY.....	4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Territorian lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Territorian lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Territorian lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3L. And how much money do you usually
outlay each time you play Territorian
lottery?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED Tatts 2 IN LAST 12 MONTHS
(CODE 13 AT F1)

F2M. How many times per week OR per
month OR per year DO you play Tatts 2?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Tatts 2
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Tatts 2
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Tatts 2
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3M. And how much money do you usually
outlay each time you play Tatts 2?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED Cash 3 IN LAST 12 MONTHS
(CODE 14 AT F1)

F2N. How many times per week OR per
month OR per year DO you play Cash 3?
ENTER WEEK/MONTH/YEAR THEN RETURN FOR
FREQUENCY

WEEK.....	1
MONTH.....	2
YEAR.....	3
CAN'T SAY.....	4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Cash 3
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Cash 3
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Cash 3
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|_+

F3N. And how much money do you usually
outlay each time you play Cash 3?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_+

IF PLAYED \$2 Lottery IN LAST 12 MONTHS
(CODE 15 AT F1)

F20. How many times per week OR per month OR per year DO you play \$2 Lottery?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED \$2 Lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED \$2 Lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED \$2 Lottery
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

F30. And how much money do you usually outlay each time you play \$2 Lottery?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|+

IF PLAYED Tatts Keno IN LAST 12 MONTHS
(CODE 16 AT F1)

F2P. How many times per week OR per month OR per year DO you play Tatts Keno?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED Tatts Keno
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED Tatts Keno
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED Tatts Keno
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

F3P. And how much money do you usually outlay each time you play Tatts Keno?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|+

IF PLAYED 5--minute Keno IN LAST 12 MONTHS (CODE 17 AT F1)

F2Q.487. . . How many times per week OR per month OR per year DO you play 5--minute Keno?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2

YEAR..... 3

CAN'T SAY..... 4

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
RESPONDENT PLAYED 5--minute Keno
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
RESPONDENT PLAYED 5--minute Keno
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
RESPONDENT PLAYED 5--minute Keno
IF CAN'T SAY ENCOURAGE BEST GUESS

|_|_|_|+

F3Q.487. . . And how much money do you usually outlay each time you play 5--minute Keno?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|+

F4. Have you played any other lottery games in the last 12 months?

IF YES, RECORD NAME OF LOTTERY

YES (PLEASE SPECIFY)..... 97

NO..... 98

CAN'T SAY..... 99

IF PLAYED ANY OTHER LOTTERY GAMES IN LAST 12 MONTHS (CODE 97 AT F4)

F2. How many times per week OR per month OR per year DO you play OTHER LOTTERY GAMES?

ENTER WEEK/MONTH/YEAR THEN RETURN FOR FREQUENCY

WEEK..... 1

MONTH..... 2
 YEAR..... 3
 CAN'T SAY..... 4
 NONE..... 5

IF ANSWER GIVEN IN WEEKS

ENTER NUMBER OF TIMES PER WEEK
 RESPONDENT PLAYS OTHER LOTTERY GAMES
 IF CAN'T SAY ENCOURAGE BEST GUESS

____+

IF ANSWER GIVEN IN MONTHS

ENTER NUMBER OF TIMES PER MONTH
 RESPONDENT PLAYS OTHER LOTTERY GAMES
 IF CAN'T SAY ENCOURAGE BEST GUESS

____+

IF ANSWER GIVEN IN TIMES PER YEAR

ENTER NUMBER OF TIMES PER YEAR
 RESPONDENT PLAYS OTHER LOTTERY GAMES
 IF CAN'T SAY ENCOURAGE BEST GUESS

____+

F3. And how much money do you usually
 outlay each time you play other
 lottery games?

ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

F5. Approximately how much money would
 you say you have won from the lottery
 games you have played in the last 12
 months?

ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

IF PLAYED TABLE GAMES AT CASINO
 (QUESTION sq2a CODED 6)

You mentioned earlier that you
 play TABLE GAMES AT A CASINO, SUCH
 AS ROULETTE OR BLACKJACK,
 \$172.\$174.\$176. times per \$170. IN
 THE LAST 12 MONTHS.

G2. For how long do you usually play
 the table games when you visit a
 casino?

RECORD HOURS HERE AND RETURN TO RECORD
 MINUTES

IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

G2. (For how long do you usually play
 the table games when you visit a
 casino?)

RECORD MINUTES HERE
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF ANSWER ONLY GIVEN IN HOURS, ENTER 0
 MINUTES

____+

G3. How often do you withdraw money
 from an automatic teller machine (ATM)
 at a casino when you play the table
 games?

Is that
 \$1758./never/rarely/sometimes/often or
 always/ always/often/sometimes/rarely
 or never/?

NEVER..... 1

RARELY..... 2

SOMETIMES..... 3

OFTEN..... 4

ALWAYS..... 5

CAN'T SAY..... 6

G4. How much money do you usually take
 with you to play the table games,
 including any additional money
 withdrawn or borrowed during the
 period of play?

ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

G5. And how much money do you usually
 have left when you finish playing the
 table games?

ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

IF CAN'T SAY AT G4 OR G5, ASK:

G6. Do you usually lose or win when
 playing the table games?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT g6)

G6b. So how much money do you USUALLY
 WIN?

ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

IF USUALLY LOSE (CODE 2 AT G6)

G6C. So how much money do you USUALLY
 LOSE?

ENTER AMOUNT IN \$'S.
 IF CAN'T SAY ENCOURAGE BEST GUESS
 IF STILL CAN'T SAY ENTER <F11> D

____+

IF PLAYED KENO AT A CLUB, HOTEL,
 CASINO, OR ELSEWHERE (QUESTION SQ2A
 CODED 5)

You mentioned earlier that you
 have played KENO \$164.\$166.\$168.
 times per \$162. IN THE LAST 12
 MONTHS.

H2. For how long do you usually play Keno on those occasions?
RECORD HOURS HERE AND RETURN TO RECORD MINUTES
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_+

H2. (For how long do you usually play Keno on those occasions?)
RECORD MINUTES HERE
IF CAN'T SAY ENCOURAGE BEST GUESS
IF ANSWER ONLY GIVEN IN HOURS, ENTER 0 MINUTES

|_|_|_+

H3. How much money do you usually take with you to play Keno, including any additional money withdrawn or borrowed during the period of play?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

H4. And how much money do you usually have left when you finish playing Keno?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF CAN'T SAY AT H3 OR H4, ASK:

H5. Do you usually lose or win when you play Keno?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT h5)

H6A. So how much money do you USUALLY WIN?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT h5)

H6B. So how much money do you USUALLY LOSE?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF PLAYED BINGO AT A CLUB OR HALL (QUESTION SQ2A CODED 7)

You mentioned earlier that you have played BINGO \$180. \$182. \$184. times per \$178. IN THE LAST 12 MONTHS.

I2. For how long do you usually play Bingo when you visit a venue?
RECORD HOURS HERE AND RETURN TO RECORD MINUTES
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_+

I2. (For how long do you usually play Bingo when you visit a venue?)
RECORD MINUTES HERE
IF CAN'T SAY ENCOURAGE BEST GUESS
IF ANSWER ONLY GIVEN IN HOURS, ENTER 0 MINUTES

|_|_|_+

I3. How much money do you usually take with you to play Bingo, including any additional money withdrawn or borrowed during the period of play?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

I4. And how much money do you usually have left when you finish playing Bingo?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF CAN'T SAY AT I3 OR I4, ASK:

I5. Do you usually lose or win when you play Bingo?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT i5)

I6A. So how much money do you USUALLY WIN?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF USUALLY LOSE (CODE 2 AT i5)

I6B. So how much money do you USUALLY LOSE?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF BET ON A SPORTING EVENT (EG. FOOTBALL, CRICKET, TENNIS) (QUESTION SQ2A CODED 8)

Next some questions about your sports betting in the last 12 months.

J0. How do you usually place your sports bets?

By phone..... 1

In person..... 2

Via the Internet..... 3

(DO NOT READ)
CAN'T SAY..... 4

You mentioned earlier that you
have PLACE SPORTS BETS
\$212.\$214.\$216. times per \$210. IN
THE LAST 12 MONTHS.

J2. How much money do you usually
outlay each day you place sports bets?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

J3. And how much money do you usually
end up with at the end of the day's
betting?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

IF CAN'T SAY AT J2 OR J3, ASK:

J4a. Do you usually lose or win during
a day's betting?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT j4a)

J5A. So how much money do you USUALLY
WIN?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

IF USUALLY LOSE (CODE 2 AT j4a)

J5B. So how much money do you USUALLY
LOSE?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

IF PLAYED CASINO GAMES ON THE INTERNET
(QUESTION SQ2A CODED 9)

You mentioned earlier that you
played casino games on the
internet \$188.\$190.\$192. per \$186.
IN THE LAST 12 MONTHS.

K2. For how long do you usually play
casino games when you gamble on the
internet?
RECORD HOURS HERE AND RETURN TO RECORD
MINUTES
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

K2. (For how long do you usually play
casino games when you gamble on the
internet?)
RECORD MINUTES HERE
IF CAN'T SAY ENCOURAGE BEST GUESS
IF ANSWER ONLY GIVEN IN HOURS, ENTER 0
MINUTES

_____|_____|_____|_____|_____|_____|+

K3. How much money do you usually
outlay each time you play casino games
on the internet?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

K4. And how much money do you usually
have left when you finish playing
casino games on the internet?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

IF CAN'T SAY AT K3 OR K4, ASK:

K5. Do you usually lose or win when
you play Casino games on the INTERNET?

USUALLY WIN..... 1

USUALLY LOSE..... 2

CAN'T SAY..... 3

IF USUALLY WIN (CODE 1 AT k5)

K6A. So how much money do you USUALLY
WIN?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

IF USUALLY LOSE (CODE 2 AT k5)

K6B. So how much money do you USUALLY
LOSE?

ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

_____|_____|_____|_____|_____|_____|+

IF PLAYED GAMES PRIVATELY FOR MONEY
(QUESTION SQ2A CODED 10)

You mentioned earlier that you
played games privately for money
\$196.\$198.\$200. per \$194. IN THE
LAST 12 MONTHS.

L0. What games have you played
privately for money in the last 12
months?
RECORD NAMES OF GAMES

CARDS
(UNSPECIFIED)..... 1,

POKER..... 2,

BLACKJACK..... 3,

BRIDGE/ CONTRACT
BRIDGE..... 4,

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PONTOON.....	5,	USUALLY LOSE.....	2
EUCHRE.....	6,	CAN'T SAY.....	3
MAJONG.....	7,	IF USUALLY WIN (CODE 1 AT 15)	
RUMMY (GIN/ ROYALE).....	8,	L6A. So how much money do you USUALLY WIN? ENTER AMOUNT IN \$'S. IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D	
TWENTY ONE.....	9,	_ _ _ _ _+	
THIRTY ONE.....	10,	IF USUALLY LOSE (CODE 2 AT 15)	
500.....	11,	L6B. So how much money do you USUALLY LOSE? ENTER AMOUNT IN \$'S. IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D	
SOLO.....	12,	_ _ _ _ _+	
RED ACE.....	13,	IF PLAYED ANY OTHER GAMBLING ACTIVITY (QUESTION SQ2A CODES 96 OR 97)	
MANILLA.....	14,	You mentioned earlier that you play (OTHER GAMBLING ACTIVITIES) (\$0%124. \$0%128.), \$132.\$134.\$136. times per \$130. IN THE LAST 12 MONTHS.	
ACDC.....	15,		
YUKA.....	16,	M2. For how long do you usually gamble on that activity when you play? RECORD HOURS HERE AND RETURN TO RECORD MINUTES IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D	
IN BETWEEN.....	17,	_ _ _+	
SKAT.....	18,	M2. (For how long do you usually gamble on that activity when you play?) RECORD MINUTES HERE IF CAN'T SAY ENCOURAGE BEST GUESS IF ANSWER ONLY GIVEN IN HOURS, ENTER 0 MINUTES	
CHASE THE ACE....	19,	_ _ _+	
CRIB/ CRIBBAGE...	20,	M3. How much money do you usually outlay each time you play that activity? ENTER AMOUNT IN \$'S. IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D	
DOLLY.....	21,	_ _ _ _ _ _+	
UNO.....	22,	M4. And how much money do you usually have left when you finish playing that activity? ENTER AMOUNT IN \$'S. IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D	
OTHER (PLEASE SPECIFY).....	97,	_ _ _ _ _ _+	
CAN'T SAY.....	98,	IF CAN'T SAY AT M3 OR M4, ASK:	

L2. For how long do you gamble each
time you play?
RECORD HOURS HERE AND RETURN TO RECORD
MINUTES
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_+

L2. (For how long do you gamble each
time you play?)
RECORD MINUTES HERE
IF CAN'T SAY ENCOURAGE BEST GUESS
IF ANSWER ONLY GIVEN IN HOURS, ENTER 0
MINUTES

|_|_|_+

L3. How much money do you usually
outlay each time you play?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

L4. And how much money do you usually
have left when you finish playing?
ENTER AMOUNT IN \$'S.
IF CAN'T SAY ENCOURAGE BEST GUESS
IF STILL CAN'T SAY ENTER <F11> D

|_|_|_|_|_|_+

IF CAN'T SAY AT L3 OR L4, ASK:

L5. Do you usually lose or win each
time you play?

USUALLY WIN.....	1
USUALLY LOSE.....	2
CAN'T SAY.....	3

ASK ALL GAMBLERS (REGULAR CODED 1 OR 2)

IF GIVEN ANSWER AT N1

N2. Looking back over the last 12 months, how would you rate your experience of gambling on #603.? Would you say it has ... ?
READ OUT

Made your life a lot more enjoyable..... 1

Made your life a little more enjoyable..... 2

Made no difference to your life..... 3

Made your life a little less enjoyable..... 4

Made your life a lot less enjoyable..... 5

(DO NOT READ)
DON'T KNOW/CAN'T SAY..... 6

Think about the amount of money you used for gambling in the last \$2030,/WEEK/MONTH/

N3. IF YOU HADN'T SPENT THE MONEY ON GAMBLING, could you please tell me IN WHAT OTHER WAYS YOU MIGHT HAVE USED IT?

DO NOT READ OUT
IF MENTIONS 'SPENT IT ON OTHER ITEMS', RECORD DETAILS

SPENT IT ON GROCERIES OR SMALL HOUSEHOLD ITEMS..... 1,

PUT IT TOWARDS MAJOR HOUSEHOLD GOODS (EG. TV, REFRIGERATOR).... 2,

SPENT IT ON PERSONAL ITEMS (EG. CLOTHING, FOOTWEAR)..... 3,

SPENT IT ON RESTAURANT MEALS. 4,

SPENT IT ON WINE, BEER, ETC..... 5,

SPENT IT ON THE MOVIES OR A CONCERT..... 6,

SPENT IT ON OTHER ENTERTAINMENT OR RECREATION ACTIVITIES..... 7,

USED IT TO PAY BILLS/CREDIT CARDS..... 8,

USED IT TO PAY RENT/MORTGAGE.... 9,

WOULD SPEND IT ON CHILDREN/ GRANDCHILDREN/ FAMILY..... 10,

WOULD SPEND IT ON PETROL..... 11,

WOULD SPEND IT ON CIGARETTES..... 12,

WOULD DONATE IT TO CHARITY..... 13,

BUY MAGAZINES/ BOOKS..... 14,

SPENT IT ON OTHER ITEMS (PLEASE SPECIFY)..... 97,

NOT SPENT IT/SAVED IT/PUT IT IN THE BANK... 98,

DON'T KNOW..... 99,

ASK ALL REGULAR GAMBLERS (CODE 1 AT REGULAR2)

I am now going to read out some questions about WHAT PEOPLE DO WHEN THEY GAMBLE. As I read out each statement, please tell me WHETHER IT HAS APPLIED TO YOU PERSONALLY IN THE LAST 12 MONTHS. Remember that all the information you provide is ANONYMOUS and CONFIDENTIAL, so I need your HONEST ANSWERS.

O1. In the last 12 months, when you gambled, HOW OFTEN DID YOU GO BACK ANOTHER DAY TO WIN BACK MONEY YOU LOST? would you say never/rarely/sometimes/often or always?

NEVER..... 1

RARELY..... 2

SOMETIMES..... 3

OFTEN..... 4

ALWAYS..... 5

CAN'T SAY..... 6

REFUSED..... 7

O2. In the last 12 months, HAVE YOU CLAIMED TO BE WINNING MONEY FROM GAMBLING WHEN IN FACT YOU LOST? would you say \$2036,/never/rarely/sometimes/often or always/ always/often/sometimes/rarely or never/?

NEVER..... 1

RARELY..... 2

SOMETIMES..... 3

OFTEN..... 4

ALWAYS..... 5

CAN'T SAY..... 6

REFUSED..... 7

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For the next set of questions, please initially answer just yes or no.		NO..... 2 CAN'T SAY..... 3 REFUSED..... 4
O3a. In the last 12 months, HAVE YOU GAMBLED MORE THAN YOU INTENDED TO?		IF NOT FELT GUILTY (O5A CODE 2)
YES..... 1 NO..... 2 CAN'T SAY..... 3 REFUSED..... 4	O5B. Do you mean rarely or not at all? RARELY..... 1 NOT AT ALL..... 2	
ALL NOT GAMBLING MORE THAN INTENDED (CODE 2 AT O3A)		IF FELT GUILTY (O5A CODE 1)
O3B. Do you mean rarely or not at all? RARELY..... 1 NOT AT ALL..... 2		O5c. Is that rarely/sometimes/often or always? RARELY..... 1 SOMETIMES..... 2 OFTEN..... 3 ALWAYS..... 4 CAN'T SAY..... 5
IF GAMBLING MORE THAN INTENDED (CODE 1 AT O3A)		O6a. In the last 12 months, HAVE YOU FELT THAT YOU WOULD LIKE TO STOP GAMBLING, BUT DIDN'T THINK YOU COULD? YES..... 1 NO..... 2 CAN'T SAY..... 3 REFUSED..... 4
O3c. Is that rarely/sometimes/often or always? RARELY..... 1 SOMETIMES..... 2 OFTEN..... 3 ALWAYS..... 4 CAN'T SAY..... 5		IF NOT WISHED TO STOP (O6A CODE 2)
O4a. In the last 12 months, HAVE PEOPLE CRITICISED YOUR GAMBLING OR TOLD YOU THAT YOU HAVE A GAMBLING PROBLEM, REGARDLESS OF WHETHER OR NOT YOU THOUGHT IT WAS TRUE? YES..... 1 NO..... 2 CAN'T SAY..... 3 REFUSED..... 4		O6B. Do you mean rarely or not at all? RARELY..... 1 NOT AT ALL..... 2
IF NOT CRITICISED (O4A CODE 2)		IF WISHED TO STOP (O6A CODE 1)
O4B. Do you mean rarely or not at all? RARELY..... 1 NOT AT ALL..... 2		O6c. Is that rarely/sometimes/often or always? RARELY..... 1 SOMETIMES..... 2 OFTEN..... 3 ALWAYS..... 4 CAN'T SAY..... 5
IF CRITICISED (O4A CODE 1)		O7a. In the last 12 months, HAVE YOU HIDDEN BETTING SLIPS, LOTTERY TICKETS, GAMBLING MONEY OR OTHER SIGNS OF GAMBLING FROM YOUR SPOUSE/PARTNER, CHILDREN, OR OTHER IMPORTANT PEOPLE IN YOUR LIFE? YES..... 1 NO..... 2 CAN'T SAY..... 3 REFUSED..... 4
O4c. Is that rarely/sometimes/often or always? RARELY..... 1 SOMETIMES..... 2 OFTEN..... 3 ALWAYS..... 4 CAN'T SAY..... 5		IF NOT HIDDEN BETTING (O7A CODE 2)
O5a. In the last 12 months, HAVE YOU FELT GUILTY ABOUT THE WAY YOU GAMBLE OR WHAT HAPPENS WHEN YOU GAMBLE? YES..... 1		O7B. Do you mean rarely or not at all? RARELY..... 1 NOT AT ALL..... 2

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IF HIDDEN BETTING (07A CODE 1)

07c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

08a. In the last 12 months, HAVE YOU ARGUED WITH PEOPLE YOU LIVE WITH OVER HOW YOU HANDLE MONEY?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT ARGUED (08A CODE 2)

08B. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF ARGUED (08A CODE 1)

08c. Have these money arguments centred on your gambling? Would you say
%2063, /never/rarely/sometimes/often or always/ always/often/sometimes/rarely or never?

NEVER.....	1
RARELY.....	2
SOMETIMES.....	3
OFTEN.....	4
ALWAYS.....	5
CAN'T SAY.....	6

09a. In the last 12 months, HAVE YOU BORROWED FROM SOMEONE AND NOT PAID THEM BACK AS A RESULT OF YOUR GAMBLING?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT BORROWED (09A CODE 2)

09B. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF BORROWED (09A CODE 1)

09c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2

OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

010a. In the last 12 months, HAVE YOU LOST TIME FROM WORK OR STUDY BECAUSE OF YOUR GAMBLING?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT LOST TIME (010A CODE 2)

010B. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF LOST TIME (010A CODE 1)

010c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

Next are some ways people have obtained money to gamble or to pay gambling debts. Again, please answer honestly and tell me whether any of the following questions applied to you personally.

011a. In the last 12 months, HAVE YOU BORROWED FROM HOUSEHOLD MONEY to gamble or to pay gambling debts?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT BORROWED (011A CODE 2)

011B. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF BORROWED (011A CODE 1)

011c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4

CAN'T SAY..... 5

012a. In the last 12 months, HAVE YOU
BORROWED FROM YOUR SPOUSE OR PARTNER
to gamble or to pay gambling debts?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF NOT BORROWED (012A CODE 2)

012B. Do you mean rarely or not at
all?

RARELY..... 1

NOT AT ALL..... 2

IF BORROWED (012A CODE 1)

012c. Is that rarely/sometimes/often
or always?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

013a. In the last 12 months, HAVE YOU
BORROWED FROM OTHER RELATIVES OR IN-
LAWS to gamble or to pay gambling
debts?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF NOT BORROWED (013A CODE 2)

013B. Do you mean rarely or not at
all?

RARELY..... 1

NOT AT ALL..... 2

IF BORROWED (013A CODE 1)

013c. Is that rarely/sometimes/often
or always?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

014a. In the last 12 months, HAVE YOU
OBTAINED CASH ADVANCES USING YOUR
CREDIT CARDS to gamble or to pay
gambling debts? This does not include
using cards to make cash withdrawals
from savings or cheque accounts. ?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF NOT OBTAINED CASH (014A CODE 2)

014B. Do you mean rarely or not at
all?

RARELY..... 1

NOT AT ALL..... 2

IF OBTAINED CASH (014A CODE 1)

014c. Is that rarely/sometimes/often
or always?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

015a. In the last 12 months, HAVE YOU
BORROWED FROM BANKS, FINANCE COMPANIES
OR CREDIT UNIONS to gamble or to pay
gambling debts?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF NOT OBTAINED CASH (015A CODE 2)

015B. Do you mean rarely or not at
all?

RARELY..... 1

NOT AT ALL..... 2

IF OBTAINED CASH (015A CODE 1)

015c. Is that rarely/sometimes/often
or always?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

016a. In the last 12 months, HAVE YOU
BORROWED FROM LOAN SHARKS to gamble or
to pay gambling debts?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF NOT BORROWED (016A CODE 2)

016B. Do you mean rarely or not at
all?

RARELY..... 1

NOT AT ALL..... 2

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IF BORROWED (O16A CODE 1)

O16c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

O17a. In the last 12 months, HAVE YOU CASHED IN SHARES, BONDS OR OTHER SECURITIES to gamble or to pay gambling debts?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT CASHED IN SHARES (O17A CODE 2)

O17b. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF NOT CASHED IN SHARES (O17A CODE 1)

O17c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

O18a. In the last 12 months, HAVE YOU SOLD PERSONAL OR FAMILY PROPERTY to gamble or to pay gambling debts?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT SOLD ITEMS (O18A CODE 2)

O18b. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF NOT SOLD ITEMS (O18A CODE 1)

O18c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2

OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

O19a. In the last 12 months, HAVE YOU WRITTEN A CHEQUE KNOWING THERE WAS NO MONEY IN YOUR ACCOUNT, to gamble or to pay gambling debts?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT FRAUDULANTLY WRITTEN CHEQUE (O19A CODE 2)

O19b. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF FRAUDULANTLY WRITTEN CHEQUE (O19A CODE 1)

O19c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

O20a. In the last 12 months, HAVE YOU SPENT MORE MONEY ON GAMBLING THAN YOU COULD AFFORD?

YES.....	1
NO.....	2
CAN'T SAY.....	3
REFUSED.....	4

IF NOT SPENDING MORE THAN THEY CAN AFFORD (O20A CODE 2)

O20b. Do you mean rarely or not at all?

RARELY.....	1
NOT AT ALL.....	2

IF SPENDING MORE THAN THEY CAN AFFORD (O20A CODE 1)

O20c. Is that rarely/sometimes/often or always?

RARELY.....	1
SOMETIMES.....	2
OFTEN.....	3
ALWAYS.....	4
CAN'T SAY.....	5

Q21. Do you feel you have had a problem with your gambling?
Would you say, yes, in the past but not now; yes, I feel this way now; or no?

YES, IN THE PAST
BUT NOT NOW..... 1

YES, I FEEL THIS
WAY NOW..... 2

NO I HAVEN'T..... 3

CAN'T SAY..... 4

REFUSED..... 5

IF HAD PROBLEM IN PAST (CODE 1 AT Q21)

Q22. And for how long did you have a problem with your gambling?

ENTER NUMBER OF YEARS
IF CAN'T SAY ENCOURAGE BEST GUESS
ROUND TO NEAREST YEAR - IF LESS THAN 6
MONTHS ENTER 0
IF STILL CAN'T SAY ENTER <F11> D

|_|_|+

IF HAS PROBLEM NOW (CODE 2 AT Q21)

Q23. So for how long do you feel you have had a problem with your gambling?

ENTER NUMBER OF YEARS
IF CAN'T SAY ENCOURAGE BEST GUESS
ROUND TO NEAREST YEAR - IF LESS THAN 6
MONTHS ENTER 0
IF STILL CAN'T SAY ENTER <F11> D

|_|_|+

Q24. Now ON A SCALE OF 1 TO 10, where 1 MEANS you feel your gambling is NOT AT ALL A PROBLEM and 10 MEANS you feel your gambling IS A SERIOUS PROBLEM, HOW WOULD YOU RATE YOUR GAMBLING RIGHT NOW?

1 - NOT AT ALL A
PROBLEM..... 1
2..... 2
3..... 3
4..... 4
5..... 5
6..... 6
7..... 7
8..... 8
9..... 9
10 - A SERIOUS
PROBLEM..... 10
CAN'T SAY..... 11

ASK EVERYONE

As you probably know, there is some concern about the number of people who have gambling related problems, such as personal problems or financial problems.

P1. Do you personally know of someone who has experienced serious problems with their gambling?

YES..... 1

NO..... 2

CAN'T SAY..... 3

IF KNOW PROBLEM GAMBLER (CODE 1 AT P1)

P2. Were those problems experienced in the last 12 months?

YES..... 1

NO..... 2

CAN'T SAY..... 3

P3. Could you please tell me, what is that person's relationship to you?
READ OUT

Spouse/partner... 1

Father..... 2

Mother..... 3

Brother..... 4

Sister..... 5

Child..... 6

Other relative... 7

Friend/acquainta-
nce..... 8

Work colleague... 9

MYSELF..... 10

CLIENT/ CUSTOMER/
PATIENT..... 11

EX SPOUSE/
PARTNER..... 12

EX FRIEND/
BOYFRIEND..... 13

EX RELATIVE..... 14

OTHER (PLEASE
SPECIFY)..... 97

(DO NOT READ)

CAN'T SAY..... 98

REFUSED..... 99

P4. In what type of gambling is that person mainly involved?
READ OUT

Poker machines
and gaming
machines..... 1

Betting on the
horses/greyhounds 2

Instant Lotteries 3

Lotto-type games. 4

Table games at a
casino..... 5

Keno..... 6

Bingo..... 7

Sports betting...	8	OTHER (PLEASE SPECIFY)	97
Private games played for money.	9	(DO NOT READ)	
Internet gambling	10	CAN'T SAY.....	98
EVERYTHING/ ANYTHING.....	11	REFUSED.....	99
CASINO/ CASINO BASED ACTIVITIES.	12	P9. In what type of gambling is that person mainly involved?	
Other (PLEASE SPECIFY).....	97	Poker machines and gaming machines.....	1
DON'T KNOW/CAN'T SAY.....	98	Betting on the horses/greyhounds	2
P5. Is that person obtaining help for their gambling problems?		Instant Lotteries	3
YES.....	1	Lotto-type games.	4
NO.....	2	Table games at a casino.....	5
CAN'T SAY.....	3	Keno.....	6
P6. Do you personally know of anyone else who has experienced serious problems with their gambling?		Bingo.....	7
Yes.....	1	Sports betting...	8
No.....	2	Private games played for money.	9
IF KNOW 2nd PROBLEM GAMBLER (CODE 1 AT P6)		Internet gambling	10
P7. Were those problems experienced in the last 12 months?		EVERYTHING/ ANYTHING.....	11
YES.....	1	CASINO/ CASINO BASED ACTIVITIES.	12
NO.....	2	Other (PLEASE SPECIFY).....	97
CAN'T SAY.....	3	DON'T KNOW/CAN'T SAY.....	98
P8. Could you please tell me, what is that person's relationship to you?		P10. Is that person obtaining help for their gambling problems?	
Spouse/partner...	1	YES.....	1
Father.....	2	NO.....	2
Mother.....	3	CAN'T SAY.....	3
Brother.....	4	ASK ALL REGULAR GAMBLERS (CODE 1 AT REGULAR2)	
Sister.....	5	I am now going to read out some questions that relate to what people have told me about their gambling. Again, please answer honestly and tell me whether any of the questions apply to you personally. Remember that your answers are confidential.	
Child.....	6		
Other relative...	7	Q1a. Have you EVER owed money because of your gambling?	
Friend/acquaintance.....	8	YES.....	1
Work colleague...	9	NO.....	2
MYSELF.....	10	CAN'T SAY.....	3
CLIENT/ CUSTOMER/ PATIENT.....	11	REFUSED.....	4
EX SPOUSE/ PARTNER.....	12		
EX FRIEND/ BOYFRIEND.....	13		
EX RELATIVE.....	14		

IF OWED MONEY (CODE 1 AT Q1A)

Q1b. And have you owed money IN THE LAST 12 MONTHS because of your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3

ASK ALL REGULAR GAMBLERS

Q2a. Have you EVER deposited personal items at a pawnbrokers or Cash Converters because of your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3
REFUSED..... 4

IF EVER DEPOSITED ITEMS (CODE 1 AT Q2A)

Q2b. And have you done this IN THE LAST 12 MONTHS?

YES..... 1
NO..... 2
CAN'T SAY..... 3

ASK ALL REGULAR GAMBLERS

Q3a. Have you EVER suffered from depression because of your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3
REFUSED..... 4

IF EVER SUFFERED DEPRESSION (CODE 1 AT Q3A)

Q3b. And have you suffered from that IN THE LAST 12 MONTHS?

YES..... 1
NO..... 2
CAN'T SAY..... 3

SUFFERED IN LAST 12 MONTHS (CODE 1 AT Q3B)

Q3c. And in the last 12 months, have you suffered from depression because of your gambling rarely/sometimes/often or always?

RARELY..... 1
SOMETIMES..... 2
OFTEN..... 3
ALWAYS..... 4
CAN'T SAY..... 5

ASK ALL REGULAR GAMBLERS

Q4a. Has your gambling EVER adversely affected how well you perform in your job?

YES..... 1
NO..... 2
CAN'T SAY..... 3
REFUSED..... 4

IF JOB ADVERSELY AFFECTED (CODE 1 AT Q4A)

Q4b. And has this happened IN THE LAST 12 MONTHS?

YES..... 1
NO..... 2
CAN'T SAY..... 3

HAPPENED IN LAST 12 MONTHS (CODE 1 AT Q4B)

Q4c. And in the last 12 months, has gambling adversely affected your job performance rarely/sometimes/often or always?

RARELY..... 1
SOMETIMES..... 2
OFTEN..... 3
ALWAYS..... 4
CAN'T SAY..... 5

ASK ALL REGULAR GAMBLERS

Q5A. Have you ever changed jobs because of problems relating to your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3
REFUSED..... 4

IF CHANGED JOBS (CODE 1 AT Q5A)

Q5b. And have you done so IN THE LAST 12 MONTHS?

Yes..... 1
No..... 2
Can't say..... 3

ASK ALL REGULAR GAMBLERS

Q6a. Have you EVER been sacked from a job because of your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3

REFUSED..... 4

IF EVER SACKED (CODE 1 AT Q6A)

Q6b. And has this happened IN THE LAST 12 MONTHS?

Yes..... 1

No..... 2

Can't say..... 3

ASK ALL REGULAR GAMBLERS

Q7a. Has your gambling ever left you with not enough time to look after your family's interests?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF NO TIME FOR FAMILY (CODE 1 AT Q7A)

Q7b. And has this been so IN THE LAST 12 MONTHS?

YES..... 1

NO..... 2

CAN'T SAY..... 3

BEEN SO IN LAST 12 MONTHS (CODE 1 AT Q7B)

Q7c. And in the last 12 months, has your gambling left you with not enough time to look after your family's interests rarely/sometimes/often or always?

RARELY..... 1

SOMETIMES..... 2

OFTEN..... 3

ALWAYS..... 4

CAN'T SAY..... 5

ASK ALL REGULAR GAMBLERS

Q8a. Have your gambling debts EVER caused you to be declared bankrupt?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF EVER CAUSED TO DECLARE BANKRUPTCY (CODE 1 AT Q8A)

Q8b. And has this happened IN THE LAST 12 MONTHS?

YES..... 1

NO..... 2

CAN'T SAY..... 3

ASK ALL REGULAR GAMBLERS

Q9a. Has your gambling EVER led to the break-up of an important relationship in your life?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF RELATIONSHIP BREAK UP (CODE 1 AT Q9A)

Q9b. And has this happened IN THE LAST 12 MONTHS?

YES..... 1

NO..... 2

CAN'T SAY..... 3

Q9c. And did the break-up as a result of your gambling lead to a divorce or separation?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

ASK ALL REGULAR GAMBLERS

Q10a. Has your gambling EVER led you to obtain money illegally, even if you intended to pay it back?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF EVER OBTAINED MONEY ILLEGALLY (CODE 1 AT Q10A)

Q10b. And has your gambling led you to obtain money illegally IN THE LAST 12 MONTHS?

YES..... 1

NO..... 2

CAN'T SAY..... 3

ASK ALL REGULAR GAMBLERS

Q11a. Have you EVER been in trouble with the police because of activities related to your gambling?

YES..... 1

NO..... 2

CAN'T SAY..... 3

REFUSED..... 4

IF EVER BEEN IN TROUBLE (CODE 1 AT Q11A)

Q11b. And has this happened IN THE LAST 12 MONTHS?

YES..... 1
NO..... 2
CAN'T SAY..... 3

Q12a. Have you EVER appeared in court on charges related to your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3
REFUSED..... 4

IF BEEN TO COURT (CODE 1 AT Q12A)

Q12b. And has this happened IN THE LAST 12 MONTHS?

YES..... 1
NO..... 2
CAN'T SAY..... 3

ASK ALL REGULAR GAMBLERS

Q13a. Have you EVER seriously thought about suicide because of your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3
REFUSED..... 4

IF EVER THOUGHT OF SUICIDE (CODE 1 AT Q13A)

If you like I can give you the phone number of a counselling agency: 1-800-633-635

Q13b. And have you thought like that IN THE LAST 12 MONTHS?

YES..... 1
NO..... 2
CAN'T SAY..... 3

ASK ALL REGULAR GAMBLERS

The next few questions relate to the gambling support services that are available to help people who are experiencing difficulties related to gambling. Could you please answer from your own experience.

R1. In the last 12 months, have you WANTED help for problems related to your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3

R2. In the last 12 months, have you TRIED TO GET help for problems related to your gambling?

YES..... 1
NO..... 2
CAN'T SAY..... 3

IF TRIED TO GET HELP (CODE 1 AT R2)

R3. How did you find out about services available to help people with gambling problems?
READ OUT. CODE ALL ANSWERS

Signs at a gambling venue... 1,

Pamphlets available at a gambling venue... 2,

Signs or pamphlets available elsewhere (eg. GP's surgery).... 3,

Telephone directory..... 4,

Radio and TV advertising..... 5,

Newspaper and media articles on gambling..... 6,

Referral by a health professional..... 7,

Referral by a financial adviser 8,

Referral by a community service agency..... 9,

Employees assistance program..... 10,

Word of mouth.... 11,

Asked for help from someone..... 12,

DIDN'T/ COULDN'T FIND OUT ANY WAYS OF HELP..... 13,

OTHER (PLEASE SPECIFY)..... 97,

(DO NOT READ) CAN'T SAY..... 98,

(DO NOT READ) REFUSED..... 99,

R4. Could you please tell me who did you first turn to for help for problems related to your gambling?
READ OUT. CODE ALL ANSWERS

Spouse or partner	1,
Family or friends	2,
An employee of a gambling venue...	3,
Doctor (physician).....	4,
Church or religious worker.	5,
G-line or other referral service or help line (such as Lifeline).....	6,
Social worker....	7,
Indigenous or ethnic community worker.....	8,
GAMBLERS ANONYMOUS.....	9,
Someone else (PLEASE SPECIFY) .	97,
(DO NOT READ) CAN'T SAY.....	98,
(DO NOT READ) REFUSED.....	99,

R5. Have you received counselling from any of the following organisations for problems related to your gambling?
READ OUT. CODE ALL ANSWERS

Gamblers Anonymous.....	1,
Lifeline.....	2,
BreakEven.....	3,
Centrecare.....	4,
Amity Community Services.....	5,
Welfare or church organisation (eg. Salvation Army, Wesley, Anglicare).....	6,
Family relationships organisation (eg. Relationships Australia).....	7,
Specialised university or hospital research unit.....	8,
Hospital or clinic.....	9,
Community Health Centre.....	10,
Indigenous or ethnic community agency.....	11,

Somewhere else (PLEASE SPECIFY) . 97,

(DO NOT READ) CAN'T SAY..... 98,

(DO NOT READ) REFUSED..... 99,

ASK EVERYONE

Finally, I need to ask some general questions about you and your household to make sure we have a reasonable coverage of the population.

S1. In what country were you born?
READ OUT

Australia.....	1
United Kingdom...	2
New Zealand.....	3
USA.....	4
Canada.....	5
Greece.....	6
Italy.....	7
Lebanon.....	8
China.....	9
India.....	10
Vietnam.....	11
Malaysia.....	12
Philippines.....	13
Hong Kong.....	14
South Africa.....	15
Other.....	97
Don't know.....	98

S2a. Was your mother born in Australia?

YES.....	1
NO.....	2
REFUSED.....	3

S2b. Was your father born in Australia?

YES.....	1
NO.....	2
REFUSED.....	3

S4. Are you of Aboriginal or Torres Strait Islander descent?

Yes.....	1
No.....	2
REFUSED.....	3

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S3a. Is English the main language spoken in your household?

YES..... 1
NO..... 2

IF ENGLISH NOT MAIN HOUSEHOLD LANGUAGE
(CODE 2 AT S3A)

S3b. What is the main language spoken in your household?

ARABIC..... 1
CANTONESE CHINESE 2
GREEK..... 3
ITALIAN..... 4
KOREAN..... 5
MANDARIN CHINESE. 6
PORTUGUESE..... 7
SPANISH..... 8
TAGALOG
(FILIPINO)..... 9
TURKISH..... 10
VIETNAMESE..... 11
GERMAN..... 12
RUSSIAN..... 13
FRENCH..... 14
CROATION..... 15
PHILIPINO..... 16
ENGLISH..... 17
DUTCH..... 18
POLISH..... 19
MACEDONIAN..... 20
INDONESIAN..... 21
CHINESE..... 22
MALAYSIAN..... 23
OTHER..... 97
CAN'T SAY..... 98

S5. What is your current marital status?
READ OUT

Married or living with a partner... 1
Separated or divorced..... 2
Widowed..... 3
Single..... 4
REFUSED..... 5

S7. Which of the following best describes your household?
READ OUT

Single person.... 1

One parent family with children.... 2
Couple with children..... 3
Couple with no children..... 4
Group household.. 5
Other..... 6
CAN'T SAY..... 7

S6. How many people in total, including children, usually live in your household?

ENTER NUMBER OF PEOPLE
IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D

|_|_|+

IF CHILDREN IN HOUSEHOLD (CODES 2, 3 OR 5 AT S7)

S8. How many children under 15 years of age usually live in your household?

ENTER NUMBER OF CHILDREN
IF CAN'T SAY ENCOURAGE BEST GUESS IF STILL CAN'T SAY ENTER <F11> D

|_|_|+

S9. Which of the following best describes your current work status?
READ OUT

Working full-time 1
Working part-time 2
Home duties..... 3
Student..... 4
Retired
(self-supporting,
in receipt of
superannuation).. 5
Pensioner..... 6
Unemployed (or
looking for work) 7
Other..... 8
(DO NOT READ)
CAN'T SAY..... 9

S10. What is the main source of income in your household?
READ OUT

Wages/salary.... 1
Own business.... 2
Other private
income..... 3
Unemployment
benefit..... 4
Retirement
benefit..... 5
Sickness benefit. 6
Supporting parent
benefit..... 7
Aged pension.... 8

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Invalid pension..	9	Some Secondary School.....	2
Other.....	10	Year 10 / 4th Form (or equivalent).....	3
(DO NOT READ)		Year 11 / 5th Form / leaving certificate (or equivalent).....	4
DON'T KNOW.....	11	Year 12 / HSC / VCE (or equivalent).....	5
S11. Could you please tell me your own annual income from all sources before tax?		Some technical or commercial.....	6
< \$10,000.....	1	Finished Technical School..	7
\$10,000 - \$14,999	2	Commercial College or TAFE..	8
\$15,000 - \$19,999	3	Diploma from CAE..	9
\$20,000 - \$24,999	4	Diploma.....	10
\$25,000 - \$29,999	5	Some University/CAE...	11
\$30,000 - \$34,999	6	Degree from University/CAE...	12
\$35,000 - \$39,999	7	Other.....	13
\$40,000 - \$49,999	8	CAN'T SAY.....	14
\$50,000 - \$59,999	9	REFUSED.....	15
\$60,000 - \$69,999	10	IF REGULAR GAMBLER (CODE 1 AT REGULAR2)	
\$70,000 or more..	11	S15. There is a possibility that I might want to contact participants again in the future to follow up in more detail some of the questions asked today?	
(DO NOT READ)		Could we contact you?	
DON'T KNOW.....	12	YES.....	1
S12. Could you please tell me your total annual household income from all sources BEFORE TAX?		NO.....	2
Include income from ALL HOUSEHOLD MEMBERS.		IF RESPONDENT AGREES TO BE RECONTACTED (CODE 1 AT S15)	
< \$10,000.....	1	NAME DETAILS WILL BE ASKED HERE	
\$10,000 - \$14,999	2	This completes the survey. Thank you very much for your time and assistance. Your participation is greatly appreciated.	
\$15,000 - \$19,999	3	TO BE COMPLETED BY THE INTERVIEWER	
\$20,000 - \$24,999	4	PLEASE RATE THE LEVEL OF THE RESPONDENT'S COOPERATION WITH THE SURVEY.	
\$25,000 - \$29,999	5	HOW WILLING WAS THE RESPONDENT TO BE INTERVIEWED?	
\$30,000 - \$34,999	6	HIGH.....	1
\$35,000 - \$39,999	7	MEDIUM.....	2
\$40,000 - \$49,999	8	LOW.....	3
\$50,000 - \$59,999	9		
\$60,000 - \$69,999	10		
\$70,000 - \$79,999	11		
\$80,000 - \$89,999	12		
\$90,000 - \$99,999	13		
\$100,000 - \$124,999.....	14		
\$125,000 or more..	15		
(DO NOT READ)			
DON'T KNOW.....	16		
S13. What is the highest level of education you have reached?			
READ OUT			
Primary School...	1		

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~~QUOTA GROUPS~~

MALE 18-24.....	1
MALE 25-34.....	2
MALE 35-49.....	3
MALE 50+.....	4
MALE Refused.....	5
FEMALE 18-24.....	6
FEMALE 25-34.....	7
FEMALE 35-49.....	8
FEMALE 50+.....	9
FEMALE Refused...	10

MALE 18-24.....	1

MALE 25-34..... 2

MALE 35-49.....	3

MALE 50+.....	4

MALE Refused..... 5

FEMALE 18-24.....	6

FEMALE 25-34.....	7

FEMALE 35-49.....	8

FEMALE 50+.....	9

FEMALE Refused... 10

NATIONAL GAMBLING SURVEY F.67

G Survey of Clients of Counselling Agencies

G.1 Basic design and purpose

This survey was designed for problem gamblers attending a counselling agency. Its prime intention was to examine the nature of the problems facing people who seek help for their gambling, including measures of the personal and other costs. The larger sample of problem gamblers accessible from a survey of agencies may provide more accurate information about the social/economic impacts of problem gambling than a population survey by itself (because low prevalence rates of problem gambling inevitably mean small numbers of problem gamblers in the sample).

We note, however, that the characteristics of problem gamblers seeking help and the impact of gambling on their lives, families and communities may be different to that experienced by non-help seeking problem gamblers. For this reason, the results were compared with a range of identical questions in the population survey to see if non-help seeking problem gamblers were different from help seeking problem gamblers, as well as comparing behaviour and outcomes for problem gamblers compared to non-problem gamblers.

The Commission sought advice from key experts familiar with problem gambling when designing the survey, and also obtained advice from the Australian Bureau of Statistics regarding questions which may have self-incriminated the client (in relation to previously undisclosed criminal behaviour). The Commission also sought and obtained ethical clearance from the Ethics Committee of the Department of Health and Aged Care, since the survey constitutes human subject research.

The survey was implemented as a face-to-face questionnaire with counsellors as paid interviewers. Counsellors did not *select* clients for the survey to reduce the risk of selection bias. Rather, agencies were asked to interview a pre-determined sequence of clients (depending on the size of their load) — over the period from March to May 1999 (see section G.4). 404 responses from individual clients were received.

Non-response bias can emerge if particular sorts of people systematically fail to answer the survey questions. The Commission asked counsellors to record a few aspects of the 72 non-respondents to the survey (such as their gender, approximate age and a subjective rating of the severity of their gambling problems on a scale of 1 to 5), to see if non-respondents were qualitatively different from respondents. It appeared that younger males were somewhat less likely to respond, but the impact on estimates is slight (table G.1).

Table G.1 Characteristics of non-respondents

<i>Severity</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
	Number	Number	Number
1 Not very serious	2	0	2
2	11	1	12
3	5	8	13
4	18	7	25
5 Very serious	10	10	20
Total	46	26	72
Share	%	%	%
1 Not very serious	4.3	0.0	2.8
2	23.9	3.8	16.7
3	10.9	30.8	18.1
4	39.1	26.9	34.7
5 Very serious	21.7	38.5	27.8
Total	100	100	100
Average age	39.0	41.6	40.0

^a Males were less likely to respond to the *Survey of Clients of Counselling Agencies*, though the overall impact on the estimated gender balance given by the survey is slight. The raw survey results suggest that males account for 51.9 per cent of clients. If adjustment is made for the non-respondents this rises to 53.8 per cent. Similarly, the average age of male non-respondents was somewhat younger than that found in the survey. If adjustment for this is made, the average age for males becomes 43.5 years (compared with 44.6 years unadjusted), the average age for females becomes 40.4 years (compared with 40.3 years unadjusted) and the average age for all clients becomes 42 years (compared with 42.4 years unadjusted). It appears that the bulk of the gamblers who did not respond had relatively serious problems, with 62.5 per cent being rated at least a 4 on the 5 point Likert scale.

Source: PC Non-respondent Survey of Clients of Counselling Agencies.

G.2 Preliminary aspects

Most questions were asked for the *period when the person was experiencing gambling problems*. This is because:

- the key interest is in expenditure levels when gamblers have problems, rather than when they have partially or fully resolved these; and
- there is a higher likelihood of eliciting accurate answers about what may be seen as stigmatised behaviour if it is ‘in the past’.

G.3 Question by question

A1 to A3 — These questions are intended to gather information on frequency and per session expenditure, to provide an overall estimate of expenditure on gambling. It also provides information on the primary mode of gambling for problem gamblers. It is also provides a comparison with problem gamblers and non-problem gamblers in the Commission's national survey, to see what objective patterns emerge which distinguish problem gamblers from non-problem gamblers, and help-seeking problem gamblers from non-help seeking problem gamblers (expenditure levels, frequency etc).

A4 — This indicates the amount of time spent gambling, which is both a check on expenditure questions above (in the sense that long hours and low expenditures would typically indicate an error), and a measure of the opportunity cost of gambling for that person. The amount of time spent gambling by a problem gambler is time denied other things, which should in part figure in the social costs of problem gambling (eg time denied family members). As above, it provides a comparison with the national survey for distinguishing features of problem gamblers.

A5 — This measures the overall financial losses of a problem gambler, to assess the overall financial impact of gambling on their lives so far.

A6 and A7 — These measure gambling indebtedness. This is important because it indicates the magnitude of the stock of obligations that can be left as a result of gambling problems. Thus even if a person has resolved their past gambling problems, their financial difficulties may persist if they have a substantial debt to service.

A8 — This examines the social context in which gambling takes place for problem gamblers. While problem gamblers are said to possess a high degree of social impulsivity and thus to enjoy the social aspects of gambling, there is some evidence that problem players paradoxically play alone. The New Zealand national survey being collected in 1999 also includes a question of this type.

A9 — This is the self-perception by the gambler of the gambling mode which poses the biggest problem for them. It overcomes the deficiency of asking questions about the 'favourite' mode of gambling, and can be compared with frequency and expenditure data to see if the problem gambling mode is always the one where the expenditure is the greatest.

Part B — is only for those who nominate gaming machines as the major source of their problems. Other evidence suggests that electronic gaming machines are the

dominant gambling mode for 70 to 80 per cent of problem gamblers — hence its special treatment here. This part looks at machine-player interaction and choices (such as line, credit, bill acceptor choices). It is useful for seeing whether players with problems play in certain characteristic ways (compared to recreational players answering the same set of questions in the national survey). This may be useful in designing ‘safer’ machines or in providing information to people, if, for example, their behaviour is sharply distinguished from other non-problem players. The Dutch have put in place a range of gaming machine design measures (which have been seen as naive and inappropriate by some commentators) to alleviate problem gambling. The data collected here enables the evaluation of possible design changes with a greater base of evidence.

C1 and C2 — These questions are aimed at looking at the duration and development of gambling problems (eg do problem gamblers start young, how long do their problems typically last up until counselling was first sought as noted in E1).

C3 to C5 — With corresponding data from the population survey, these questions look at the extent to which the propensity for problem gambling may be influenced by a problem in family members. This is important because if there is any ‘inheritability’ then current gambling problems not only generate current and future social costs associated with that problem gambler, but also have expected social costs through a subsequent increased prevalence of problem gambling.

Part D — questions 1 to 21 comprise the South Oaks Gambling Screen (developed by Lesieur and Blume 1987). While subject to a range of criticisms, in particular its possible high false positive rate in general populations (eg Dickerson 1997) it is still the most widely used instrument for diagnosing problem gambling. Given that the survey is to be administered to people with gambling problems (and not for significant others seeking counselling), it will be possible to see which questions from the SOGS most reliably pick up problem gambling and something about the false negative rate, *at least in this setting* (the false negative rate outside a clinical setting is suspected to be much higher). The results were also used to test whether similarly scoring people in the national survey have similar socio-demographic characteristics and experiences of problems as those gamblers in counselling.

D22 — examines another aspect of the false negative rate — the possible disinclination of a gambler who has not yet confronted their problems to divulge them. It has been conjectured that many problem gamblers who are not currently seeking help will conceal the magnitude of their problems when the SOGS is administered. This attempts to provide one perspective on this issue.

D23 — is concerned with the mechanisms which lead a problem gambler to stop a particular session of play. This is policy relevant since it might suggest control mechanisms that could help gamblers to reduce expenditure or harmful play.

E1 and E2 — provide an estimate of the resources used to help the typical problem gambler in terms of number of sessions, and the age at which they sought help.

E3 — is about the reason for seeking help. It is likely that problem gamblers who seek help and those who do not are different in a number of ways. Looking at the trigger point for seeking help provides information about the factors which discriminate help-seeking problem gamblers from non-help-seeking problem gamblers. It also provides information about the nature of the harms posed by problem gambling.

E4 — is about the modes through which problem gamblers became aware of services to help them, which may be used to show which modalities are underexploited.

E5 — is about the more general help-seeking behaviour of problem gamblers, much of which may lie outside the locus of specialised counselling services — and may therefore suggest better access to informal /community resources for how to deal with gambling problems.

E6 — aims to find out what the gambler's intentions are when they have completed counselling.

Part F concerns the impact of gambling on the expenditure decisions of households.

F1 to F2 — relate to the question of whether their households face an immediate budget crisis because of gambling.

F3 to F6 — are about how much and often gamblers seek funds from charities and whether they disclose the reason for needing help (this is important because data from charities on funds provided to gamblers may understate the real magnitude of help).

F7 — is about other actions a gambler takes if they run out of money. This is important, since one of the most obvious social implications of gambling is its impacts on household and others' (eg, friends) budgets, as well as issues of potential illegality and impropriety (eg stealing, lying for money).

F8 — is about the perceptions that problem gamblers have about what they have had to deny themselves to gamble — with implications for the life of their households.

G1 — is about perceptions of impacts on relationships — a major area of potential adverse impact for problem gamblers.

G2 to G4 — look at some of the qualitative and quantitative costs to employers from problem gamblers, including an attempt to estimate the overall impact on work performance (G4).

G5 — is concerned with some of the potentially positive aspects of gambling, which form an important counterbalance to some of the problems. They can also provide insight into some of the psychological aspects of gambling, which have been noted in the literature (particularly in the United States), such as gambling as a way of relieving loneliness, boring jobs, or worrying parts of people's lives.

G6 — is a list, building in severity so as to lower non-response, of possible adverse social impacts of problem gambling. It has been adapted so that the gambler cannot self-incriminate.

G7 — is a self-perception question about depression. We considered a longer set of questions concerning depression, such as the Goldberg or Beck measures, but we gauged that the increase in questionnaire length did not warrant the gain in precision, and there is evidence that this one-shot self-assessment question is a reasonable measure.

G8 and G9 — are about thoughts of, and possible attempted, suicide attempts. Both are indicators of large personal costs of gambling. People of course may be reluctant to divulge such problems, especially attempts, although the setting in which the questions are being posed may increase the prospects for honest disclosure, while also providing for immediate counselling if this is being revealed for the first time.

Part H asks problem gamblers to consider a number of government policies that might be considered as part of a preventative and harm minimisation strategy. Problem gamblers have obvious advantages in assessing whether they think these strategies would really be effective. On the other hand, we note that many considerations, other than the views of problem gamblers themselves, are relevant for appraising the likely efficacy of these measures.

Part I allows the respondent to put in their own words their views about the impact of gambling on their life and on others.

Part J is a standard set of respondent characteristics (shared with the population survey). These will be important in both seeing whether help-seeking problem gamblers are different to non-help-seeking ones, but also to examine other aspects

of problem gambling (eg how many children live in households affected by problem gambling?).

G.4 Interviewer instructions and questionnaire

Interviewers were provided with instructions to ensure accuracy of the survey results. The set of instructions and the questionnaire are attached.

Interviewer Instructions for the Productivity Commission's *Survey of Clients of Counselling Agencies*

Thank you for agreeing to help in this survey. We hope the results will be of help to you and to policy makers in this area. Please read the points below carefully, so that we meet your needs, those of the client, and also ensure accurate survey responses. Also please read the questionnaire carefully, so that you are familiar with it before using it with clients. If you have any queries about any question please call either Ralph Lattimore (ph 02 6240 3242) or Rob Phillips (02 6240 3222).

Who should be selected for the questionnaire?

Select people over 18 years old who are personally experiencing problems with their gambling. Please exclude significant others. The Commission has already spoken with your agency about the number of interviews you can manage per week over the three week survey period. It is important that you do not select clients on the basis that you think they represent interesting cases or would be more willing to participate. This could bias the results.

The best approach for selecting clients for the survey is a sequential one. You have agreed to a certain number of clients out of your weekly caseload that you can survey each week. For example, you might have agreed to survey 5 out of 30 clients you are seeing in a given week. In that case, you would need to survey one in every six of those clients. We suggest you start with client number 1, then client 7, client 13, client 19 and finally client 25. If any given client in this sequence does not want to participate then choose the next client, but otherwise keep to the sequence. For example, if client 1 does not want to participate, then survey clients 2, 7, 13, 19 and 25. The sequence does not have to be equally spaced as in the illustration above. For example, it could be randomly spaced. It could also be changed to reflect the workload of your agency, but how you choose the clients to survey *should not be affected by the nature of the client*.

When should you approach the client about whether they wish to participate or not?

That should be done at the end of a counselling session, and after you have made any arrangements for future counselling sessions. We want to emphasise to the client that if they do not participate, it in no way affects future help from you. By making future appointments prior to asking about the survey, this idea is put into action as well as words.

Do we need the clear consent of the client to participate in the survey?

Yes. It is very important that the client is able to make an informed decision about whether they wish to participate or not. You should raise the subject of the survey, indicating that:

- it is absolutely confidential, with no names appearing on the survey form;
- it is voluntary;
- it will in no way affect the client's continued use of your counselling services whether they participate or not; and
- even if they agree to participate, they can still stop the survey at any time.

You should ask them to read and record their preference for participation on the consent form on page 2 of the questionnaire. If they have questions please answer them if they have been covered here or in the consent form. If they are not covered, we have given our contact details.

What do you do if they do not wish to participate?

If they do not want to participate, please thank them for their consideration of the consent form.

We also have a very brief *Non-response Form* (the pink form) we would like you to fill in if they do not want to participate. This is to try and gauge whether refusals represent an unbiased group of your caseload, or particular kinds of people. It allows us to adjust the results if there are such biases. We pose only three questions to you:

- what is the gender of the person?
- what is their approximate age? and
- your subjective rating of the severity of their gambling problems on a scale of 1 (not very serious) to 5 (extremely serious). The assessment of severity should take account of the psychological distress of the problems to the gambler and others, the seriousness of financial problems, possible effects on employment, and crime.

What is the procedure if they agree to participate?

If they are willing to participate, also thank them, and then proceed with the questionnaire.

Guidance on particular questions

Most questions are self-explanatory or include notes to help you and the client. But some are more complex, or involve delicate issues.

Part A is a complex question, because it looks at three aspects of gambling: whether they played a game or not, how often they played it, and how much was usually lost each time a game was played.

The way of proceeding is to first fill in column 1, ticking only those gambling forms in which they participated when they were experiencing problems.

Then go to the first of the ticked items, and ask how many times they played these per week, month or year. For example, one client might play poker machines 3 times a month. This would be recorded as a 3 in column 2 and with the word 'month' circled in column 3.

Then ask how much they usually lost each time they played this gambling form and enter the amount in column 4. If they usually won, please put the words 'win' next to the appropriate figure in column 4.

Then go to the next ticked box in column 1, and ask the same set of frequency and expenditure questions.

Do this until you have dealt with all of the gambling forms the client played. For every tick in column 1 there should be a frequency in column 2, a circle around a period in column 3 and the amount lost in column 4.

We have provided an example sheet which shows the imaginary return of a gambler called John, which may help you to fill in this question.

Questions G8 and G9

While some questions in the survey are sensitive, this is particularly true for questions G8 and G9, which relate to suicide ideation and attempts. If a person answers that they have seriously contemplated suicide or have made an attempt, and you have not covered this issue in counselling prior to this, it is important to ask the client if they wish to talk about that matter now with you, or to arrange a time to do so.

At the end of the interview

At the end of the interview, please thank the client for their help, and repeat that the form will be sent to us with no name on it.

Also please enter the time it took to complete the interview.

Please put the completed form in a secure place in your office, until the end of the week. Then send us the first group of completed forms, including any non-responses or incomplete returns.

Complaints

If a client complains about the survey, then please contact us to see if we can resolve the problem.

Has this research been cleared by a recognised ethics committee?

Yes. We took the research proposal to the Ethics Committee of the Commonwealth Department of Health and Aged Care and they have indicated that it meets their guidelines.

Thank you for your valuable help

GAMBLING INQUIRY

SURVEY OF CLIENTS OF COUNSELLING AGENCIES 1999

Confidentiality

The completed form will not have the client's name on it, so that their identity is not known to the research team.

Return Address

Please send the completed survey forms in the attached enclosed pre-paid envelope to Dr Ralph Lattimore, Productivity Commission, PO Box 80, Belconnen ACT 2616.

Survey Instructions

First, please read the consent form over the next page before you start the survey. We want to make sure you know about why we are doing this survey and how we will protect your interests. You must be aged 18 and over to complete this form.

It is very important that you provide honest answers to the survey questions so that we can work out how best to assist other people in the future.

Where there are multiple choice boxes, please tick ☒ the appropriate box.

Where we ask you for numbers, try to give us an accurate answer, but if you are a little unsure, estimates are acceptable. Please report all monetary amounts in dollars.

Date of completion of form

/ /

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Consent for participation

What is the survey for?

Please help us find out more about the impacts of gambling on people in Australia. The survey will be analysed as part of the Productivity Commission's national inquiry into gambling, and will be used to provide information about the social impacts of problem gambling and what might be done about it.

Are the results confidential?

Yes. The completed form will not have your name on it, so that your identity is not known to the research team.

What is the role of the counsellor in the survey?

We are using a counsellor from this agency to help you fill out the survey. Because of this, they will see your answers. However, they will not make any record of your answers for themselves or the agency, unless you specifically consent to this. The survey may raise issues that you wish to discuss with the counsellor and, of course, that is up to you and the counsellor concerned.

What happens to the survey form?

It is sent back to the Productivity Commission, which will then analyse the data. Remember again that your name is not linked in any way to the survey form.

Do I have to fill in this survey?

No. It is a voluntary survey, but, of course, we would really like you to take part. You should also know that at any time while you are filling it out, you can decide to stop.

If I decide not to participate will it affect the help I get here?

Absolutely not. We would like to stress that whether you participate in this survey or not in no way affects the help you will get from this counselling agency.

Is there someone I can contact if I have concerns about the survey or survey process?

Yes. You can contact the Commission to discuss any concerns. Please speak to Rob Phillips (phone 02 6240 3222) or Ralph Lattimore (02 6240 3242).

Can I find out what the overall survey findings are?

Yes. If you would like to get a copy of the report, we will send it to you. We have provided a *Background Sheet* on the Commission with details on how you may obtain a copy of the report. It also tells you how to make a submission to us if you would like to do so.

How long will it take to fill in the form?

That will vary a bit. But it should be about 20-25 minutes.

1 Are you willing to participate in this survey?

Tick one box

Yes ☐ Thank you, please turn to the next page
No ☐ Thank you for considering this survey

2 Are you willing to have the anonymous data provided to researchers other than the Productivity Commission?

Tick one box

Yes ☐
No ☐

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Part A — Questions about the nature of your gambling

The following questions relate only to the time when you were experiencing problems with your gambling. This may be before you came to this agency. We are trying to get a picture of what people did when they took part in gambling activities.

- A1 What activities did you play? Tick the appropriate boxes in *column 1*.
- A2 How many times per week, per month or per year did you play? Enter the number in *column 2*, and circle the right period in *column 3*.
- A3 What did you usually spend each time you played? By 'spend' we mean what you usually lost. Enter this value in *column 4*.

	Column 1 Tick which of these you have played	Column 2 Enter the number of times you played these per week, month or year	Column 3 Circle the right period	Column 4 What amount did you usually lose per session of play
<i>Gambling activities</i>				
Played gaming machines (eg poker or video card machines)	☐		times per week/month/year	\$
Bet on horse/harness/greyhound races (<i>excluding</i> sweeps)	☐		times per week/month/year	\$
Bought an <i>instant</i> lottery ticket (eg Instant Scratchies, Scratch'n'win) ...	☐		times per week/month/year	\$
Played lotto or any <i>other</i> lottery game (eg Tanslotto, Powerball)	☐		times per week/month/year	\$
Played table games at a casino	☐		times per week/month/year	\$
Played Keno at a club, hotel, casino or any other place	☐		times per week/month/year	\$
Played bingo at a club or hall	☐		times per week/month/year	\$
Bet on a sporting event (eg football, cricket, tennis)	☐		times per week/month/year	\$
Gambled on the internet	☐		times per week/month/year	\$
Played games <i>privately</i> for money at home/elsewhere (eg cards, mahjong) ☐	☐		times per week/month/year	\$
Played any other gambling activity (<i>excluding</i> raffles)	☐		times per week/month/year	\$

Please **CHECK** that if you ticked any box in column 1, you have also made corresponding entries in column 2, column 3 and column 4.

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A4 Roughly how much time did you usually devote to gambling in a usual week?

Tick one box

Less than 2 hours per week	☐
Between 2 and 6 hours per week	☐
Between 6 and 10 hours per week	☐
Between 10 and 15 hours per week	☐
Between 15 and 20 hours per week	☐
Between 20 and 30 hours per week	☐
More than 30 hours per week	☐
Don't recall	☐

A5 What do you think your total financial losses have been since you first experienced problems with gambling?

Enter value

\$

A6 Do you have any outstanding gambling debt? (Include outstanding debts on credit cards, money lent from friends or loans used to fund gambling)

Tick one box

No ☐ → Go to A8

Yes ☐ → Go to A7

A7 What is your approximate level of gambling debt at present?

Enter value

\$

A8 When you gambled, did you mostly do so:

Tick one box

Alone?	☐
With your partner?	☐
With other family members?	☐
With friends?	☐
With work colleagues?	☐
Other people (please specify)?	☐
Don't recall?	☐

A9 Which form of gambling was the biggest problem for you?

Tick one box

Gaming machines (eg poker, card machines)	☐ → Goto Part B
Betting on horse race, harness race, greyhound race	☐ → Goto Part C
Table games at the casino	☐
Other (please specify)	☐

Part B — Questions about gaming machines (eg poker/card machines)

B1 What type of gaming machine did you usually play?

Tick one box

Poker machines	☐ → Goto B2
Video card machines	☐ → Goto B9
Video keno machines	☐
Other	☐

B2 What type of machine did you usually play?

Tick one box

1 cent	☐
2 cent	☐
5 cent	☐
10 cent	☐
20 cent	☐
50 cent	☐
\$1	☐
More than \$1	☐

B3 Did you bet more than 1 line at each press of the button?

Tick one box

No ☐ → Go to B6

Yes ☐ → Go to B4

B4 How often did you bet more than 1 line at each press of the button?

Tick one box

Never	Rarely	Some-times	Often	Always
☐	☐	☐	☐	☐

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- B5** How many lines did you usually play on these occasions?

Enter number of lines

 lines

- B6** Did you bet more than 1 credit per line?

Tick one box

No ☐ → Go to B9

Yes ☐ → Go to B7

- B7** How often did you play more than one credit per line?

Tick one box

Never ☐ Rarely ☐ Some-times ☐ Often ☐ Always ☐

- B8** How many credits per line did you usually play on these occasions?

Enter number of credits per line

 credits per line

- B9** Do the machines you play allow you to insert notes rather than coins?

Tick one box

No ☐ → Go to B11

Yes ☐ → Go to B10

- B10** How often did you insert notes rather than coins in the machines?

Tick one box

Never ☐ Rarely ☐ Some-times ☐ Often ☐ Always ☐

- B11** Did you have a card which you could use to earn bonus points when you play the machines?

Tick one box

No ☐ → Go to B13

Yes ☐ → Go to B12

- B12** How often did you insert this card into the machines when you were playing them?

Tick one box

Never ☐ Rarely ☐ Some-times ☐ Often ☐ Always ☐

- B13** How many times have you won \$250 or more from playing the machines in the last 12 months?

Number of times

 times

Part C — Gambling duration and family links

- C1** How old were you when you first started gambling *regularly* (including in private games for money)?

Enter age

 years old

- C2** Looking back now, how old were you when you first started having problems with gambling?

Enter age

 years old

- C3** Has anyone else in your family had serious problems with their gambling, now or in the past?

Tick one box

No ☐ → Go to Part D

Yes ☐ → Go to C4

- C4** What is their relationship to you?

If more than one person, tick more than one box

Spouse/partner ☐ Father ☐ Mother ☐

Brother/sister ☐ Child ☐ Other family member ☐

- C5** How did you know there was a problem?

.....

.....

.....

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Part D — Gambling behaviour

Note: The following questions are about what people do when they gamble. Please read each question and answer whether it has applied to you personally in the last 12 months. Remember that all the information you provide is anonymous and confidential. Please try to be as accurate as possible in your answers.

	Tick one of these boxes in each row				
	Never	Rarely	Sometimes	Often	Always
1 Over the last 12 months, when gambling, how often did you go back another day to win back money you lost?	☐	☐	☐	☐	☐
2 Over the last 12 months, have you claimed to be winning money from gambling when in fact you lost?	☐	☐	☐	☐	☐
3 Over the last 12 months, have you gambled more than you intended?	☐	☐	☐	☐	☐
4 Over the last 12 months, have people criticised your gambling or told you that you had a gambling problem, regardless of whether or not you thought it was true?	☐	☐	☐	☐	☐
5 Over the last 12 months, have you felt guilty about the way you gamble or what happens when you gamble?	☐	☐	☐	☐	☐
6 Over the last 12 months, have you felt that you would like to stop gambling, but didn't think you could?	☐	☐	☐	☐	☐
7 Over the last 12 months, have you hidden betting slips, lottery tickets, gambling money or other signs of gambling from your spouse/partner, children, or other important people in your life?	☐	☐	☐	☐	☐
8 Over the last 12 months, have you argued with people you live with over how you handle money?	☐	☐	☐	☐	☐
9 If you answered rarely, sometimes, often or always to D8, have these money arguments ever centred on your gambling?	☐	☐	☐	☐	☐
10 Over the last 12 months, have you borrowed from someone and not paid them back as a result of your gambling?	☐	☐	☐	☐	☐
11 Over the last 12 months, have you lost time from work or study because of your gambling?	☐	☐	☐	☐	☐

The following questions relate to ways in which some people obtain money for gambling. We want to know which of these you have used either to obtain money to gamble or to pay gambling debts over the last 12 months.

	Tick one of these boxes in each row				
	Never	Rarely	Sometimes	Often	Always
To gamble or pay gambling debts...					
12 Over the last 12 months, have you borrowed from household money?	☐	☐	☐	☐	☐
13 Over the last 12 months, have you borrowed from your spouse or partner?	☐	☐	☐	☐	☐
14 Over the last 12 months, have you borrowed from other relatives or in-laws?	☐	☐	☐	☐	☐
15 Over the last 12 months, have you borrowed money using your credit cards?	☐	☐	☐	☐	☐
16 Over the last 12 months, have you borrowed from banks, finance companies or credit unions?	☐	☐	☐	☐	☐
17 Over the last 12 months, have you borrowed from loan sharks?	☐	☐	☐	☐	☐
18 Over the last 12 months, have you cashed in shares, bonds or other securities?	☐	☐	☐	☐	☐
19 Over the last 12 months, have you sold personal or family property?	☐	☐	☐	☐	☐
20 Over the last 12 months, have you written a cheque knowing there was no money in your account?	☐	☐	☐	☐	☐

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D21 Do you feel you have had a problem with gambling? *Tick one box*

- Yes, in the past but not now ☐
- Yes, I feel that way now ☐
- No ☐
- Can't say..... ☐

If you answered 'no' to D21, why are you presenting to a counsellor?

.....

D22 The previous 21 questions are often used to look at whether people are experiencing problems with their gambling. Think about your situation *before* you decided to seek help. If a survey agency had telephoned you and asked you these questions, how do you think you would have answered?

- Tick one box*
- Answered exactly as above? ☐
- Refused to answer the survey agency? ☐
- Somewhat concealed any problems? ☐
- Mostly concealed any problems? ☐
- Completely concealed any problems? ☐
- Exaggerated any problems? ☐
- Told them you didn't know ☐
- I don't know what I would have said then ☐

D23 Think about the type of gambling you have had most problems with. Based on your play over the last 3 months, how often did you finish a session of gambling for the following reasons?

- Tick one of these boxes in each row*
- | | <i>Never</i> | <i>Rarely</i> | <i>Some times</i> | <i>Often</i> | <i>Always</i> |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Ran out of money | ☐ | ☐ | ☐ | ☐ | ☐ |
| You spent your budgeted amount of money..... | ☐ | ☐ | ☐ | ☐ | ☐ |
| You spent your planned amount of time playing..... | ☐ | ☐ | ☐ | ☐ | ☐ |
| You lost interest in gambling or got bored..... | ☐ | ☐ | ☐ | ☐ | ☐ |
| The venue closed or there were no more immediate gambling opportunities (eg last race) | ☐ | ☐ | ☐ | ☐ | ☐ |
| To eat or drink..... | ☐ | ☐ | ☐ | ☐ | ☐ |
| Friends or family left | ☐ | ☐ | ☐ | ☐ | ☐ |
| Other (please specify) | ☐ | ☐ | ☐ | ☐ | ☐ |

Part E — Help for problems with gambling

E1 How long ago did you first receive counselling for problems with your gambling?

Enter number of months ago months

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E2 How many counselling sessions have you been to (here and elsewhere) for your gambling?*Enter number of sessions attended*

sessions attended here

sessions attended in another agency

E3 What prompted you to seek help for your gambling problems?*Tick as many as appropriate*

- Crisis in finances due to gambling ... ☐
- Crisis in relationship due to gambling... ☐
- Legal problems due to gambling ... ☐
- Difficulties at work due to gambling ... ☐
- Someone urged me to come (eg spouse, doctor, friend) ... ☐
- Felt depressed or very worried about my gambling ... ☐
- Other (please specify) ☐

E4 How did you find out about the services for people with gambling problems?*Tick as many as appropriate*

- Signs at a gambling venue ... ☐
- Pamphlets available at a gambling venue ... ☐
- Signs or pamphlets elsewhere (eg doctor's surgery) ... ☐
- Telephone directory ... ☐
- Radio and TV advertising... ☐
- Newspaper and media articles on gambling ... ☐
- Referral by a health professional ... ☐
- Referral by a community service agency ... ☐
- Referred by a financial adviser... ☐
- Word of mouth ... ☐
- Asked for help from someone ... ☐
- Other ... ☐
- Can't say/ don't recall ... ☐

E5 Other than a counselling agency or gambling help line, who else did you turn to for help for problems related to your gambling?*Tick as many as appropriate*

- No one else ... ☐
- Partner, other family or friends ... ☐
- An employee of a gambling venue ... ☐
- Doctor (physician) ... ☐
- Church or religious worker (eg priest) ... ☐
- Community service agency ... ☐
- Indigenous or ethnic community worker ... ☐
- Someone else ... ☐

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E6 After finishing your contact with the agency you currently visit, how much do you aim to gamble?

Tick one box

I hope to limit my gambling to a controlled extent ☐

I hope to stop gambling altogether ☐

I am undecided ☐

Other (please specify) ☐

Part F — Impacts of gambling on household spending

F1 Did you ever run out of money to buy household essentials, pay the rent or meet other urgent bills as a result of your gambling?

Tick one box

No ☐ → Go to F8

Yes ☐ → Go to F2

F2 How often did this happen?

Tick one box

Rarely ☐ Sometimes ☐ Often ☐ Always ☐

F3 Did you ever obtain emergency help from a charity (eg Salvation Army) when the money ran out?

Tick one box

No ☐ → Go to F7

Yes ☐ → Go to F4

F4 Did you usually say that you needed help because you had spent your money on gambling?

Tick one box

No ☐ Yes ☐

F5 About how many times did you get help in the last 12 months? times

F6 About how much money (or equivalent in food or other benefits) did they provide to you per visit

\$ per visit

F7 What else did you do when the money ran out? When the money ran out, have you ever...

Tick one of these boxes in each row

	<i>No</i>	<i>Yes</i>
obtained advance money from Social Security	☐	☐
borrowed from friends and family	☐	☐
not paid or deferred urgent bills (eg phone, rent)	☐	☐
went without	☐	☐
sold personal property and assets	☐	☐
did odd jobs or worked overtime to get more money	☐	☐
obtained money improperly (eg illegally, through trickery, telling lies)	☐	☐

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F8 Have you or your family had to go without things because of gambling?*Tick one box on each line*

	<i>Never went without</i>	<i>Rarely went without</i>	<i>Some- times went without</i>	<i>Often went without</i>	<i>Always went without</i>	<i>Don't know</i>
Food and grocery items	☐	☐	☐	☐	☐	☐
Savings for things you were hoping to buy later ...	☐	☐	☐	☐	☐	☐
Phone, power, suitable accommodation	☐	☐	☐	☐	☐	☐
Buying a car, TV or other household goods	☐	☐	☐	☐	☐	☐
Holidays	☐	☐	☐	☐	☐	☐
Entertainment and going out	☐	☐	☐	☐	☐	☐
Restaurant meals	☐	☐	☐	☐	☐	☐

Part G — Impacts of gambling on your life**G1 What, if any, bad effects has your gambling had on your relationships with:***Tick one box on each line*

	<i>No effect at all</i>	<i>Minor adverse effect</i>	<i>Moderate adverse effect</i>	<i>Major adverse effect</i>	<i>Not appli- cable</i>	<i>Don't know</i>
Your partner	☐	☐	☐	☐	☐	☐
Children	☐	☐	☐	☐	☐	☐
Parents and other relations	☐	☐	☐	☐	☐	☐
Friends	☐	☐	☐	☐	☐	☐
Work colleagues	☐	☐	☐	☐	☐	☐

If you noted that the effects had been moderate or major, please describe what happened:

.....

.....

.....

.....

G2 Were you employed when you were experiencing problems with gambling?*Tick one box*No ☐ Go to G5Yes ☐ Go to G3

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G3 In what ways do you think your gambling affected your work life?

Tick one box on each line

<i>Did gambling affect:</i>	<i>No effect</i>	<i>Minor adverse effect</i>	<i>Moderate adverse effect</i>	<i>Major adverse effect</i>	<i>Not applicable</i>	<i>Don't know</i>
The amount of time spent at work	☐	☐	☐	☐	☐	☐
The quality of my work	☐	☐	☐	☐	☐	☐
My cooperation with colleagues	☐	☐	☐	☐	☐	☐
The speed at which I worked	☐	☐	☐	☐	☐	☐
My prospects for promotion	☐	☐	☐	☐	☐	☐
My concentration on my work	☐	☐	☐	☐	☐	☐
The confidence or trust others placed in me ...	☐	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐	☐

G4 Overall, how much do you think your gambling problems reduced your ability to do your job?

Tick one box

	By a little bit (less than 5%)	By a modest amount (5 to 10%)	By a lot (11 to 25%)	By a very large amount (Over 25%)
Not at all	☐	☐	☐	☐

G5 What have been some of the good things about gambling for you?

Tick one box in each row

	<i>Never</i>	<i>Rarely</i>	<i>Some times</i>	<i>Often</i>	<i>Always</i>
It enabled me to relax.	☐	☐	☐	☐	☐
It has given me pleasure and fun.	☐	☐	☐	☐	☐
It enabled me to meet new friends	☐	☐	☐	☐	☐
It has been a hobby and interest to me	☐	☐	☐	☐	☐
It has given me some hope for a change in my life	☐	☐	☐	☐	☐
It enabled me to get out to a safe and pleasant place	☐	☐	☐	☐	☐
It has given me something to talk about with family and friends	☐	☐	☐	☐	☐
Thinking about gambling has helped me get through a boring job	☐	☐	☐	☐	☐
It took my mind off things that worried me	☐	☐	☐	☐	☐
It made me feel less lonely	☐	☐	☐	☐	☐

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G6 Has gambling led to:*Tick one box in each row*

	<i>Yes</i>	<i>No</i>
you having to change jobs?	☐	☐
you losing a job?	☐	☐
you separating or divorcing from your partner?	☐	☐
you losing contact with your children?	☐	☐
you being declared bankrupt?	☐	☐
the sale/repossession of your house?	☐	☐
the loss of superannuation funds?	☐	☐
you borrowing without permission or obtaining money improperly?	☐	☐
problems with the police?	☐	☐
an appearance in court on criminal charges?	☐	☐
a prison sentence?	☐	☐
incidents of violence involving family, friends or others?	☐	☐

G7 Have you ever suffered from depression because of your gambling?*Tick one box*

Never ☐ Rarely ☐ Sometimes ☐ Often ☐ Always ☐

G8 Have you ever seriously contemplated suicide because of your gambling?*Tick one box*

Never ☐ Rarely ☐ Sometimes ☐ Often ☐ Always ☐

G9 If you answered rarely, sometimes, often or always, have you ever tried to commit suicide because of your gambling?*Tick one box*

No ☐

Yes ☐

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Part H — What actions might help reduce problem gambling?

Some people have suggested that governments, venues or gambling equipment makers might be able to reduce problem gambling in Australia by changing gambling practices. Please rate the following ideas, based on your own experiences, on whether you think they would reduce the likelihood of problem gambling.

Tick one box on each line

	<i>Would not work</i>	<i>Would work a bit</i>	<i>Would work well</i>
The education system should teach children about the risks of gambling and how to understand odds	☐	☐	☐
Information about the odds of winning in any particular gamble should be clearly displayed (eg on a poker machine)	☐	☐	☐
Venues should put up signs warning customers of the risks of gambling	☐	☐	☐
TV and radio advertising campaigns should be used to make people aware of the risks of problem gambling	☐	☐	☐
Promotion of gambling should be banned	☐	☐	☐
Technology should be developed allowing gamblers to self-exclude from gambling, if they wish to	☐	☐	☐
Counselling services should be advertised on national TV and radio	☐	☐	☐
Automatic teller machines should not be located right next to where people gamble ...	☐	☐	☐
Technologies should be developed allowing gamblers to set limits on their gambling, if they wish to	☐	☐	☐
Winnings over a certain amount should be paid by cheque (eg over \$200)	☐	☐	☐
The odds of winning should be reduced to make gambling less attractive	☐	☐	☐
Technologies should be developed allowing gamblers to track their gambling spending over time	☐	☐	☐
Gambling venues should not be open 24 hours a day	☐	☐	☐
Alcohol should not be served to people while they are gambling	☐	☐	☐
Venues should have windows and clocks so that people know how much time they have gambled	☐	☐	☐
Poker machines should only be able to take coins and not notes	☐	☐	☐
Poker machines should have enforced breaks in play so players can think about whether they want to continue gambling	☐	☐	☐
Poker machines should be far less accessible in local communities	☐	☐	☐
Poker machines should remind the gambler how long they have been playing, and ask them if they want to continue	☐	☐	☐
The number of lines and credits playable on poker machines should be reduced ...	☐	☐	☐
Poker machines should not have linked jackpots	☐	☐	☐

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 104

We need to ask some general questions about you and your household to help us combine your answers with those of other people being interviewed for the study.

19

Postcode Suburb State

Male	Female
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
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81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Tick one box in each row

	Yes	No
Father	☐	☐
Mother	☐	☐

Yes ☐

No ☐ → the language spoken is

Yes ☐

No ☐

Tick one box

Married or living with a partner

Separated or divorced

Widowed

Single

Enter number in household

people

Enter number in household

people

G.24 GAMBLING

J11 Which of the following best describes your household?*Tick one box*

- Single person ☐
- One parent family with children ☐
- Couple with no children ☐
- Couple with children ☐
- Group household (unrelated individuals) ☐
- Other ☐

J12 What is the main source of income in your household?*Tick one box*

- Wages/salary ☐
- Own business ☐
- Other private income ☐
- Unemployment benefit ☐
- Retirement benefit ☐
- Sickness benefit ☐
- Supporting parent benefit ☐
- Aged/invalid pension ☐
- Other ☐
- Don't know ☐

J13 Which of the following best describes your current work status?*Tick one box*

- Working full time ☐
- Working part time ☐
- Home duties ☐
- Student ☐
- Retired (self-supporting) ☐
- Pensioner ☐
- Unemployed (or looking for work) ☐
- Other ☐

J14 What is the highest level of education you have reached?*Tick one box*

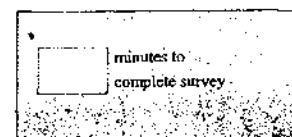
- Primary school ☐
- Some secondary school ☐
- year 10/ 4th form (or equivalent) ☐
- year 11/ 5th form/ Leaving certificate (or equivalent) ☐
- year 12/ HSC/VCE (or equivalent) ☐
- Some technical or commercial ☐
- Finished technical school, commercial college or TAFE ☐
- Diploma from CAE ☐
- Some university/ CAE ☐
- Degree from university/CAE ☐
- Other ☐
- Don't know ☐

J15 Please estimate your annual income (before tax) from all sources at the:*Tick one box in each column*

	<i>Personal level</i>	<i>Household level</i>
\$10,000	☐	☐
\$10,000 - \$14,999	☐	☐
\$15,000 - \$19,999	☐	☐
\$20,000 - \$24,999	☐	☐
\$25,000 - \$29,999	☐	☐
\$30,000 - \$34,999	☐	☐
\$35,000 - \$39,999	☐	☐
\$40,000 - \$44,999	☐	☐
\$45,000 - \$49,999	☐	☐
\$50,000 - \$54,999	☐	☐
\$55,000 - \$59,999	☐	☐
\$60,000 - \$64,999	☐	☐
\$65,000 - \$69,999	☐	☐
\$70,000 - \$79,999	☐	☐
\$80,000 - \$89,999	☐	☐
\$90,000 - \$99,999	☐	☐
\$100,000 - \$124,999	☐	☐
\$125,000 or more	☐	☐
Can't say	☐	☐

*Thank you for completing this questionnaire.**We hope it will help us to help other people.*

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H Problem gambling and crime

H.1 Introduction

In this appendix, some aspects of the relationship between crime and gambling are reviewed. The sequence of events that leads some problem gamblers to turn to crime to finance their gambling habits or to fund gambling-related debts is examined first. A range of data sources is then analysed to shed light on the prevalence of criminal offences among problem gamblers.

The question of whether there is a causal link between problem gambling and criminal behaviour is then examined, based on considerations such as:

- the reasons why problem gamblers commit crimes; and
- the types of crimes that problem gamblers commit.

Arguments are also considered that serve to qualify causality, such as the fact that not all offences committed by problem gamblers are necessarily gambling related, and that some problem gamblers may well be predisposed to commit criminal offences independently of their gambling behaviour.

Finally, the chapter looks at loan shark lending and problem gambling.

H.2 Why do some problem gamblers turn to crime?

Lesieur (1984, 1996) has outlined the sequence of events that lead some problem gamblers to commit criminal offences. To obtain money for gambling or to pay gambling debts, gamblers initially draw on their savings and then make cash advances on their credit cards, borrow from family and friends, or take out loans with banks or other financial institutions.

As the Wesley Community Legal Service noted:

Typically a gambler will borrow increasing amounts of money to gamble, disguising the purpose for which the money is borrowed by shuffling money from one place to another. For example, a personal loan may be taken out to purchase a car, which is then sold to provide gambling money (sub. 46, p. 7).

Problem gamblers may subsequently borrow from loan sharks, or resort to selling personal or family property to obtain funds for gambling. Faced with mounting financial difficulties and gambling-related debts, when all these legal sources of gambling funds are exhausted, problem gamblers may then resort to illegal activities to obtain money. As the Salvation Army noted:

Once they [problem gamblers] have exhausted their income, whether wages, salaries, pensions or benefits, they then borrow on credit cards, take out loans, steal from family/friends, sell personal and family property, and then move to stealing from others (sub. 35, p. 2).

The stresses and pressures experienced by problem gamblers that lead to crime are described by Blaszczynski and McConaghy (1994a) as follows:

As financial circumstances deteriorate, the ability to abstain from gambling is reduced as the pressures to meet financial commitments mount. Such financial pressures [lead] gamblers to utilise any available means or resources to obtain funds to ... gamble and a chance to win. ... Under these conditions, the propensity to use illegal methods to obtain gambling funds [is] substantially increased (p. 120).

While financial difficulties are the main motive for problem gamblers turning to crime, the gambling behaviour that leads to financial difficulties and crime has been referred to as the 'post behavioural cycle' (Lesieur 1984) or 'gambling-offending cycle' (Marshall, Balfour and Kenner, sub. 116; see also Andrew et al. 1997). At the start of the cycle, the problem gambler frequently experiences a phase of wins, which tends to encourage more frequent play in the expectation of further wins. But greater frequency of play increases the likelihood of losses, and so the gambler enters a phase of financial difficulties. As financial problems mount, the gambler resorts to 'chasing losses', which generally results in the rapid depletion of financial resources and mounting levels of debt. As a consequence, the gambler may commit a criminal offence to obtain money to service the debt and to continue gambling. And once a problem gambler has committed a gambling related offence, they generally continue to do so until they are discovered.

H.3 What proportion of problem gamblers commit offences?

To shed light on what proportion of problem gamblers commit offences to support their gambling, information is drawn from Australian surveys of:

- people seeking help from problem gambling counselling services;
- problem gamblers seeking treatment from hospital/university psychiatric units and Gamblers Anonymous;

- prison inmates; and
- the general population.

Clients seeking help at problem gambling counselling agencies

Information from six studies on the proportion of clients at problem gambling counselling agencies who admit to having committed criminal offences is summarised in table H.1.

Table H.1 Criminal activity among clients of problem gambling counselling agencies

<i>Region</i>	<i>Period</i>	<i>Type of clients assessed</i>	<i>Number of clients assessed</i>	<i>% admitting to criminal offences</i>
Victoria	1996–97	New clients of the 18 Break Even problem gambling counselling services	1 452	30
Victoria	1997-98	New problem gambler clients of the 18 Break Even problem gambling counselling services (presenting for gambling behaviour)	2 209	20
Victoria	Nov97-Nov98	New clients at counselling service for Vietnamese gamblers	30	50
Queensland	May93-Oct98	New clients at Break Even-Gold Coast	443	53
Queensland	1993-94	New clients at 5 Break Even centres	174	29
Queensland	1994-95	New clients at 5 Break Even centres	357	64
Australia	1998-99	Clients of problem gambling counselling agencies, Australia-wide	404	44

Sources: Jackson et al. (1997, 1999b); sub. 86; Boreham et al. (1995); sub. 62; *PC Survey of Clients of Counselling Agencies*.

Case studies for agencies

A study by Jackson et al. (1997) presents information on criminal activity among 1452 new clients who registered with problem gambling counselling agencies in Victoria in the period 1 July 1996 to 30 June 1997, and who were assessed in terms of the ten DSM-IV criteria for ‘pathological’ gambling. One of the criteria is whether a subject had committed illegal acts (for example, forgery, fraud, theft or embezzlement) in order to finance their gambling. The study found that:

- around 30 per cent of clients admitted to having committed illegal acts to finance their gambling (Jackson et al. 1997, p. 27).

For a subset of 856 clients in 1996-97, information was also collected on the primary reason for a client attending a problem gambling counselling agency. It was found that:

- around 5 per cent of clients reported legal issues as the *primary reason* for attending counselling for gambling problems (Jackson et al. 1997, p. 22).

An analysis of new problem gambler clients of the 18 Victorian Break Even agencies in 1997-98 (Jackson et al. 1999b) yielded the following findings:

- around 20 per cent of clients admitted to having ever committed illegal acts which were associated with their gambling; and
- 10.5 per cent of problem gamblers revealed illegal actions to be a current source of funding for their gambling.

The Australian Vietnamese Women's Welfare Association Inc. (sub. 86) reported on characteristics of clients who presented at a problem gambling counselling service for Vietnamese gamblers in the western region of Melbourne. In the twelve month period to November 1998, the service provided assistance to 30 people (18 males and 12 females) with gambling related difficulties. Of these clients who sought help:

- 50 per cent were involved with the courts (they had either been ordered by a Magistrate's Court to undergo counselling or were about to appear in court because of their gambling or gambling-related activities);
- 27 per cent were involved in stealing casino chips, cheating at casino games, stealing or shoplifting; and
- 17 per cent were involved with inappropriate money-lending schemes.

One of the Queensland Break Even centres (Gold Coast) provided information on 443 clients who presented for counselling during the five and a half year period 1 May 1993 to 31 October 1998 (sub. 62). An assessment of these clients in terms of the DSM-IV criteria for 'pathological' gambling revealed that:

- around 53 per cent reported they had committed illegal acts to finance their gambling.

Further information on the prevalence of illegal activities among problem gamblers in Queensland is available for samples of new clients attending the five Break Even Centres in Brisbane, Gold Coast, Rockhampton, Toowoomba and Townsville. A breakdown by gender of the proportion of clients reporting adverse legal effects as a result of gambling revealed that (Boreham et al. 1995):

- in 1993-94, gambling had led to some form of legal problem for 31 per cent of male clients and 22 per cent of female clients; but
- in 1994-95, 68 per cent of male clients and 57 per cent of female clients experienced legal problems as a result of their gambling.

Survey of Clients of Counselling Agencies

Results of illegal activity among clients of problem gambling agencies are available from the Commission's *Survey of Clients of Counselling Agencies* (table H.2). As with the *National Gambling Survey*, all questions about criminal activity were asked specifically in relation to a respondent's gambling.

Overall, 44 per cent of clients reported an involvement in some form of gambling related criminal activity at some stage of their gambling career (apart from fraudulently written cheques). Around 16 per cent had appeared in court on charges related to their gambling, and around 6 per cent had received a prison sentence because of a gambling related criminal offence.

Table H.2 Crime among clients of problem gambling counselling agencies

<i>Gambling related crime</i>	<i>% of clients</i>
Fraudulently written cheques (in the last 12 months)	21.2
Borrowing without permission or obtaining money improperly (ever)	42.3
Gambling has led to problems with the police (ever)	18.3
An appearance in court on criminal charges (ever)	15.8
A prison sentence (ever)	6.4
Any gambling related crime (ever)	50.2
Any gambling related crime except fraudulently written cheques (ever)	44.1

^a The percentages refer to 404 clients.

Source: PC *Survey of Clients of Counselling Agencies*.

Information obtained in the *Survey of Clients of Counselling Agencies* can be used to estimate the characteristics of gamblers that are most likely to be associated with criminal activity. Results from a logistic regression are reported in table H.3, where explanators such as age, gender, and level of gambling debt are considered. These suggest that higher levels of debt present a significant risk factor for crime. For example, the estimated regression suggests that a 35 year old, English-speaking male problem gambler with \$10 000 debt has around a 45 per cent chance of having committed a crime. However, with a debt level of \$50 000, the probability of a crime rises to around 78 per cent.

Table H.3 Logistic estimate of influences on gambling-related illegal acts
Australia, clients of problem gambling counselling agencies^a

<i>Variable</i>	<i>Estimate</i>	<i>Chi-square</i>	<i>Chi-square probability</i>	<i>Odds ratio</i>
INTERCEPT	-1.07	1.3	0.25	.
FEMALE (1 if female)	-0.51	3.5	0.06	0.6
JOBLOSE (1 if gambling-related job loss)	2.35	38.6	0.00	10.5
DIVORCE (1 if gambling related divorce)	1.03	12.0	0.00	2.8
ENGLISH (1 if English speaking)	2.62	12.5	0.00	13.7
TRYSUIC (1 if gambling-related suicide attempt)	0.97	6.4	0.01	2.6
DEBT (stock of gambling debt \$)	0.000035	13.2	0.00	1.0
AGE (years)	-0.058	18.5	0.00	0.9

^a Based on 379 observations. The Chi-square test for the joint significance of the parameters is 156.4 with 7 degrees of freedom ($p=0.0001$). Predictions were concordant in 84.7 per cent of cases, and discordant in 15.1 per cent of cases. The odds ratio gives the changed odds associated with a problem gambler 'borrowing without permission or obtaining money improperly' (the definition of an illegal act used here).

Data source: PC Survey of Clients of Counselling Agencies.

Clients receiving treatment and members of Gamblers Anonymous

Detailed information on offences committed by problem gamblers was obtained in a survey of 306 New South Wales problem gamblers (Blaszczynski and McConaghy 1994a, 1994b), comprising 152 hospital treated subjects and 154 members of Gamblers Anonymous. To provide insights into the motivation for crimes, the offences committed were classified as either:

- *gambling* related — those motivated by a specific need to obtain funds for gambling (directly related), or initiated by a need to cover shortfalls in financial commitments caused by gambling losses (indirectly related); or
- *non-gambling* related — those committed for reasons completely unrelated to gambling or problems caused by gambling behaviour.

The study (1994b) revealed that the majority of offences committed by problem gamblers are gambling related. Of the 306 subjects surveyed:

- 59 per cent admitted to committing at least one *gambling* related offence over their gambling careers (and 48 per cent admitted to committing *only* gambling related offences);
- 18 per cent admitted to committing at least one *non-gambling* related offence (and 6 per cent admitted to committing *only* non-gambling related offences);
- 11 per cent admitted to committing *both* types of offences; and
- 35 per cent reported committing no offence at all over their lifetime.

For the two subsets of problem gamblers surveyed — Gamblers Anonymous attenders and hospital treated patients — the proportion of subjects who had committed a gambling related offence during their gambling careers was 66 per cent and 53 per cent respectively.

These criminal offence rates among problem gamblers are similar to those found in overseas studies. For example, rates of 90 per cent have been found in a US study of Gamblers Anonymous attenders (Custer and Custer 1978), 82 per cent in a UK study (Brown 1987) and 54 per cent in a German study (Meyer and Fabian 1990).

Gambling related offences among prison inmates

Findings are presented from two studies of the prevalence of gambling-related offences among inmates at correctional facilities in Queensland and South Australia.

Boreham et al. (1996) surveyed inmates at the Arthur Gorrie Centre — the remand centre for the prison population of Queensland. This facility was selected as the most likely to achieve a representative sample of prison inmates. However, the representativeness of the results is questionable on two grounds: first, a very low response rate was obtained — only 74 of 550 questionnaires distributed to inmates were returned; and second, the survey only sought information on legal problems experienced by inmates arising from poker machine playing. Against this background, of the 74 inmates:

- 11 per cent reported being in trouble with the police because of their poker machine playing, or taking money without permission; and
- 7 per cent reported they had been incarcerated because of the offences committed to obtain money to play poker machines.

The Boreham et al. (1996) study did not seek to screen inmates for problem gambling by means of the SOGS or DSM-IV criteria. But it inferred that a “certain percentage” of inmates in the correctional system are likely to be problem gamblers because of the following findings for the 74 inmates surveyed:

- 27 per cent reported that they gambled daily or a couple of times a week;
- 26 per cent reported spending more than \$40 per session of playing poker machines; and
- 31 per cent reported experiencing personal or financial problems because of their poker machine playing.

Another study of gambling-related crime in a prison setting is by Marshall, Balfour and Kenner (sub. 116). Subjects for that study were chosen from Yatala Labour

Prison, South Australia's main reception jail for sentenced prisoners. The study collected data during the period August to December 1997 on 103 inmates from the 176 who were new intakes from the courts and sentenced for an immediate period of imprisonment.

To determine the prevalence of problem gamblers, these new intakes were screened on the basis of the SOGS. Of the 103 subjects surveyed, 26 admitted to committing gambling-related offences (they had 'been in trouble with the law due to gambling'), and 34 obtained a SOGS score of 5 or more. The *joint* characteristics of these groups are of particular interest:

- all 26 subjects who had committed a gambling related offence scored 5 or more on the SOGS (using a SOGS cutoff score of 10 or more missed out on around one-third of those inmates who committed gambling related offences); but
- 8 of the 34 subjects (24 per cent) with a SOGS score of 5 or more had *not* committed a gambling related offence.

The consultant to ACIL was critical of the relevance of any of these studies to the question of a causal link between problem gambling and crime:

The quoted studies on prisoners do not demonstrate causation. They simply look at the prevalence of 'gambling related' crimes among prisoners (sub. D233, p. 97).

But such an assessment ignores the very elements of these studies which can be used to demonstrate causation. For example, the 7 per cent of inmates surveyed in Boreham et al. (1996) who reported they had been incarcerated *because of the offences committed to obtain money to play poker machines* provides strong evidence of causality. Furthermore, such a refutation of any causation whatsoever ignores an important distinction which does involve causality. For example, Marshall, Balfour and Kenner conclude that:

It cannot be assumed that all illegal behaviours committed by pathological [problem] gamblers are directly gambling related in a prison population. There is a need to differentiate between criminals who gamble excessively and the pathological gambler who turns to gambling-related crime (sub. 116, p. 15).

A similar observation is made by Boreham et al. (1996) who note that there is a distinction:

... between those who carry out criminal acts and gamble excessively and those individuals who gamble excessively and commit criminal acts in support of their gambling or to retrieve a disastrous financial situation that has been caused by their gambling (p. 48).

The findings of the Marshall, Balfour and Kenner study shed light on the relative importance of these two groups. Of the 34 inmates with a SOGS score of 5 or more:

-
- the three-quarters who committed gambling related crimes are problem gamblers in the sense that gambling appears to be a sufficiently important source of financial difficulties for them to turn to crime; but
 - the remaining one-quarter who committed crimes that were unrelated to their gambling may well be ‘criminals who also happen to be gamblers’.

Findings from general population gambling surveys

Information on the extent of gambling related illegal activity among problem gamblers has been obtained in several Australian general population gambling surveys — a 1991 four capital city survey (Dickerson et al. 1996), statewide surveys for NSW (Dickerson et al. 1996a, 1998), and the Commission’s *National Gambling Survey* undertaken for the inquiry.

Australian multi-city or statewide gambling surveys

In 1991, a doorknock survey of gambling behaviour among 2744 participants in Sydney, Melbourne, Adelaide and Brisbane was undertaken (Dickerson et al. 1996). The 22 respondents who scored 10 or more on the SOGS (and on that basis were identified as problem gamblers) reported the following illegal activity:

- 32 per cent had experienced problems with the police because of their gambling;
- 18 per cent had appeared in court on charges related to gambling; and
- 27 per cent had been in prison because of gambling related crime.

Two large-scale gambling studies carried out for New South Wales (Dickerson et al. 1996a, 1998) also examine the prevalence of gambling-related illegal activity. Across the two surveys, the 14 respondents who scored 10 or more on the SOGS reported the following illegal activity:

- 43 per cent had experienced problems with the police because of their gambling;
- 71 per cent had appeared in court on charges related to gambling; and
- 29 per cent had been in prison because of crime related to gambling.

National Gambling Survey

The Commission’s *National Gambling Survey* sought information on the prevalence of gambling-related illegal activity. The questions posed in the survey in relation to crime were:

- “Has your gambling ever led you to obtain money illegally, even if you intended to pay it back?”
- “Have you ever been in trouble with the police because of activities related to your gambling?”
- “Have you ever appeared in court on charges related to your gambling?”

As well as these questions being framed in ‘lifetime’ (ever) terms, they were also asked in relation to experience ‘in the last 12 months’. The results classified in terms of two categories of problem gamblers — those with a SOGS score of 5 or more (5+) and 10 or more (10+) — are presented in table H.4.

Table H.4 Legal system impacts of problem gambling
per cent of problem gamblers in specified SOGS categories

<i>Gambling related crime</i>	<i>Ever SOGS 5+</i>	<i>Ever SOGS 10+</i>	<i>Last 12 months SOGS 5+</i>	<i>Last 12 months SOGS 10+</i>
Any gambling related illegal activity	10.5	26.5	3.3	11.3
Obtained money illegally	7.0	13.2	1.2	3.7
Been in trouble with the police	4.1	13.8	2.2	7.6
In court on gambling related charges	3.1	13.4	0.2	1.4

Source: PC National Gambling Survey.

Around one in four problem gamblers in the ‘severe’ category (SOGS 10+) reported having committed some form of gambling-related illegal activity at some stage of their gambling careers, and around 11 per cent during the past 12 months. Prevalence rates of illegal activity were somewhat less among problem gamblers more generally, with around 11 per cent of those with a SOGS score of 5+ having ever committed a gambling-related criminal offence, and 3 per cent in the last 12 months.

However, it should be noted that of the 23 respondents to the *National Gambling Survey* who admitted to having *ever* committed an illegal activity because of their gambling, 9 scored less than five on the SOGS. Four of these indicated that they used to have a gambling problem in the past but not now, while the other five denied ever having a problem. There is a very high likelihood that the latter respondents are false negatives — because if someone commits a crime to finance their gambling habits then this is normally symptomatic of a significant gambling problem. On that assumption, the prevalence rate of crime among problem gamblers in the severe category would be rather higher than that indicated by the raw data in the *National Gambling Survey*.

The ACIL consultant was critical of this procedure:

The mindset shown ... where the authors argue that the 9 people who admitted to having committed an illegal activity and scored negative on the SOGS are likely to be false negatives is disturbing. Presumably the logic is that if you commit a crime then you must be a problem gambler (sub. D233, p. 98).

But such a statement reflects a misunderstanding about the nature of the questions that were asked in the *National Gambling Survey*. As indicated above, all questions about criminal activity were specifically asked of respondents *in relation to their gambling*. If a person reported that their gambling had led them either to obtain money illegally, or to get into trouble with the police, or to appear in court on gambling related charges, then it would seem reasonable to conclude that in the absence of their gambling problems they would not have committed these acts. If they had committed a crime for a reason not related to their gambling, they would have answered *no* to these questions.

Overall summary of findings on extent of crime by problem gamblers

Marshall, Balfour and Kenner summarised the relationship between problem gambling and criminal behaviour as follows:

Pathological [problem] gambling is a significant risk factor in offending. Depending on the population assessed and the methodology used, the percentage of pathological gamblers that offend to support their gambling ranges from 30 to 50 per cent (sub. 116, p. 2).

The findings on the proportion of problem gamblers committing criminal offences estimated in the various studies summarised above, and brought together in table H.5, is largely consistent with this conclusion in relation to the lower bound but suggests that for some categories of problem gamblers it can be as high as 60 or 70 per cent.

Because the estimates of the proportion of problem gamblers who engage in criminal activities relate to different populations, a difficulty arises in making inferences about the broader population of problem gamblers who either don't seek help from counselling agencies, or don't receive treatment in hospital-based programs, or who don't end up in prison.

For example, as Volberg et al. (1998) have commented, a limitation of relying on surveys of members of Gamblers Anonymous or of people seeking treatment to

elicit information on vocational, financial or criminal impacts of their gambling is that:

members of Gamblers Anonymous and individuals seeking treatment are not representative of problem gamblers in the general population. Hence, it is difficult to say how accurate these figures are for problem gamblers in the community (p. 351).

Table H.5 Summary of proportion of problem gamblers committing offences

<i>Category of problem gambler</i>	<i>Number of clients/subjects studied</i>	<i>% committing gambling related offences</i>
Seeking help at problem gambling counselling agencies	30–1452	30–64
Hospital treated patients	152	53
Gamblers Anonymous members	154	66
Prison inmates identified with SOGS score of 5 or more	34	76
Identified in <i>National Gambling Survey</i>	140	11–27

Sources: Refer tables H.1, H.2 and H.4.

Results from the *National Gambling Survey* can shed light on the representativeness of problem gamblers who seek help compared to the general population of problem gamblers. Of the problem gamblers (scoring 5 or more on the SOGS) who reported that they had tried to get help for their gambling problems in the last 12 months, around 38 per cent reported being involved in gambling-related criminal activity during their gambling careers. This compares with an involvement in gambling-related crime among 6 per cent of problem gamblers who had not tried to get help in the last 12 months. But treating as false negatives those who committed a criminal activity and who recorded less than 5 on the SOGS, then around 10 per cent of problem gamblers who had not sought help had committed a criminal offence at some stage of their gambling careers. Hence, while the help-seeking group contains a higher prevalence of illegal activity, there is still an appreciable rate of crime among the non-help seeking group.

H.4 Is there a causal link between problem gambling and crime?

The material presented in sections H.2 and H.3 can be reviewed to assess the relationship between problem gambling and crime from the viewpoint of two competing explanations:

- that problem gambling leads people to commit crimes because of gambling-related financial difficulties; or alternatively

-
- that crime and problem gambling are associated because some criminals just happen to be gamblers.

Arguments suggesting a causal relationship

Previous empirical research has looked at the question of whether there is a causal link between problem gambling and crime. Perhaps the key argument suggesting a causal link relates to the motivation for the crimes committed:

- the main reason why some problem gamblers turn to crime is because of the *need to obtain funds for gambling* rather than the desire for personal economic gain (Lesieur 1984, Blaszczyński and McConaghy 1994a).

As noted above, in examining causality the Blaszczyński and McConaghy studies of NSW problem gamblers receiving treatment or attending GA (1994a, 1994b) have been careful to distinguish between gambling related and non-gambling related crimes. They found that the majority of crimes committed by problem gamblers were gambling related — in the sense that they were motivated by a need to obtain funds for gambling or to pay gambling debts.

The consultant to ACIL was critical of any suggestion of causation on the basis of these or similar studies:

The main data ... relates to criminal activity given that the subject has presented for counselling. Phrases like ‘illegal acts to finance their gambling’ are used. However, this does not demonstrate causation. They may be using the money to finance other aspects of their life as well. Since, they are attending counselling, they may be more likely to say that crime follows gambling (sub. D233, p. 97).

But the empirical studies suggest that causation is not a simple yes or no because problem gamblers themselves can distinguish between crimes they committed that were either for reasons that were related to their gambling or completely unrelated. If a problem gambler admits that they committed a crime *because of their gambling*, in the Commission’s view this suggests a stronger link between that criminal activity and their gambling behaviour than just mere association.

The Blaszczyński and McConaghy (1994a) survey of 306 NSW problem gamblers also investigated causality by examining links between the onset of problem gambling, the development of financial difficulties and resort to crime. They found that:

- subjects who *had* committed offences had gambled for an appreciably longer period of time than those who had *not* committed an offence (three to five years longer).

This finding is consistent with the argument that a longer period of problematic gambling gives rise to greater financial difficulties. They also found that:

- there was a much longer period of time between when a subject commenced gambling and committed their first *gambling related* offence than was the case for a *non-gambling* related offence (nine years compared to three).

This finding is consistent with the argument that gambling related crimes are linked to financial difficulties. By contrast, non-gambling related offences tended to be committed before any gambling induced financial problems were experienced.

A second argument suggesting a causal link is that the pattern of crimes committed by problem gamblers differs markedly from that found for the general population:

- the crimes committed by problem gamblers are mainly *non-violent offences against property* (such as fraud, forgery, embezzlement, thefts by deception) rather than violent property or non-property crimes.

The consultant to ACIL failed to see any causal link with this explanation:

It is difficult to see how the different spectrum of crimes among non-gamblers demonstrates causation. It may just say that people who tend to do a certain type of crime also like to gamble (sub. D233, p. 98).

But such a comment ignores the key motive which leads problem gamblers to resort to these particular types of crimes — mounting financial difficulties and gambling-related debts (section H.2).

Further details on the types of crimes committed by problem gamblers are provided in the following section (H.5). But there are also arguments that serve to qualify the assumption of a causal link between problem gambling and crime.

Qualifications to a causal link

As noted above, not all offences committed by problem gamblers are gambling related. For example, 6 per cent of problem gamblers in the Blaszczyński and McConaghy (1994b) survey had committed *only* non-gambling related offences, and 11 per cent had committed *both* gambling related and non-gambling related offences. These findings suggest that perhaps 6–11 per cent of the subjects in their survey may well warrant being described as “criminals who also happen to be gamblers”.

A related qualification is that some problem gamblers may well be predisposed to commit criminal offences independently of their gambling behaviour. To test this possibility, Blaszczyński, McConaghy and Frankova (1989) classified a sample of

109 NSW problem gamblers into four groups among — those committing ‘no offences’, ‘gambling related offences only’, ‘non-gambling related offences only’, and ‘both gambling and non-gambling related offences’. Each group of subjects was screened to determine the prevalence of the (DSM-III) diagnosis of Antisocial Personality.

They found that the proportion of subjects meeting the criteria differed little between the ‘no offences’ group and the ‘gambling related offences only’ group (5-11 per cent). However, among the two groups committing non-gambling related crimes, the proportions meeting the criteria were appreciably higher (20 to 47 per cent). Blaszczynski, McConaghy and Frankova (1989) conclude that:

[Problem] gamblers who engage in both gambling and non-gambling related offences come predominantly from lower socioeconomic classes and also exhibit more sociopathic features ... compared to gamblers who committed gambling only related offences. ... The need to differentiate the criminal who gambles from the sociopathic gambler who is also a [problem] gambler is more pertinent for this group (p. 150).

However, in the larger Blaszczynski and McConaghy (1994b) study of 306 problem gamblers, the results were not quite so robust. But consistent with the above view, significantly smaller proportions of subjects were found with antisocial personality disorders among the ‘no offence’ group compared to the ‘gambling plus non-gambling related offences’ group, and among the ‘gambling related offences only’ group compared to the ‘gambling plus non-gambling related offences’ group.

Overall assessment of causal link between problem gambling and crime

In the Commission’s view, the question of whether there is a causal relationship between problem gambling and crime is not a simple yes or no, but the findings reported above strongly suggest that most crimes committed by problem gamblers are gambling related — that is, motivated by a specific need to obtain funds for gambling or initiated by a need to cover shortfalls in financial commitments caused by gambling losses. Two key findings are that:

- while not all crimes committed by problem gamblers are gambling related, the overwhelming majority are; and
- in a minority of cases, crime and problem gambling are associated because some criminals happen to be gamblers.

H.5 What crimes do problem gamblers commit?

A wide range of illegal activities are committed by problem gamblers, and examples were provided in a number of submissions.

Anecdotal evidence of gambling related crime

Illegal activity can take place within the family of the gambler. For example, the Wesley Community Legal Service (sub. 46) described cases where a problem gambler had stolen the property of family members which was then sold or pawned to raise money for gambling, or forged the signature of family members to borrow money.

Break Even–Gold Coast commented that:

Group members reported committing crimes as a result of gambling, ... [including] stealing cash from workplaces, fraud and uttering. A common form of fraud was the writing of cheques to secure goods and then returning the goods for cash refund, thus accessing cash for gambling (sub. 73, pp. 3-4).

The Society of St Vincent de Paul (NSW) commented that more than 20 per cent of its clients have reported legal problems as a result of their gambling. The crimes committed included the following (sub. D218, p. 1):

- taking funds from family and employers using debit and credit cards;
- stealing items from family, friends and employers and then ‘hocking’ or selling them on;
- stealing funds from family, friends and employers in other ways — such as from purses, wallets, social or punters clubs, petty cash theft or fraud using saving and cheque accounts; and
- fraud of government agencies (such as Centrelink).

The Blaszczyński and McConaghy (1994a) survey of problem gamblers reported some of the offences committed as follows:

At the petty end of the spectrum, gamblers forged their spouses signature on cheques or in opening new joint accounts, stole from petty cash, engaged in shoplifting to subsequently sell the goods ... and stole from fellow employees at work (p. 124).

But the illegal activity can also extend to offences such as larceny, embezzlement and misappropriation, and more violent crimes such as armed robbery and burglary. Blaszczyński and McConaghy (1994a) also reported that:

More serious offences included repeated theft of vehicle spare parts for illicit sale, distribution and sale of marijuana, and the embezzlement of significant amounts on a regular basis from large corporations or banks (p. 124).

Among the gambling related crimes reported by Jelena Popovic, Deputy Chief Magistrate in Victoria, were large frauds and thefts by people with gambling problems:

The majority of anecdotes of my colleagues around the State involve defendants who have previously been of good character (offence free), with long standing employment histories who steal large amounts of money from their employers. ... In some cases, long standing social security frauds have been attributed to gambling (1998, pp. 3-4).

Survey evidence on types of offences committed

The Blaszczyński and McConaghy (1994a) survey provides detailed information on the types of gambling related offences committed among the sample of 306 NSW problem gamblers (table H.6).

Table H.6 **Gambling related offences, sample of 306 NSW problem gamblers**

<i>Offence</i>	<i>Number committing an offence ^a</i>	<i>Range in number of offences committed</i>	<i>Total number of offences committed</i>	<i>Median number of offences committed</i>
Larceny	96	1-1000	5 388	13.5
Embezzlement	66	1-600	3 045	5.0
Misappropriation	20	1-500	1 698	11.5
Break and enter	16	1-250	760	6.0
Shop-lifting	13	1-200	592	10.0
Armed robbery	8	1-17	42	3.5
Drug dealing	5	15-200	315	30.0
Other	5	1-10	19	1.0

^a Of the 306 problem gamblers surveyed, 180 admitted to committing criminal offences. However, the sum of the number of gamblers committing individual offences is greater than this number because some gamblers committed more than one type of offence.

Source: Blaszczyński and McConaghy 1994a, table 2.

The most common offences involved the direct theft of money, either through acts of:

- larceny (committed by 31 per cent of problem gamblers surveyed);
- embezzlement (committed by 22 per cent); or
- misappropriation (committed by 7 per cent).

Other more violent crimes such as break and enter, and armed robbery were committed much less frequently (by 5 per cent and 3 per cent of problem gamblers respectively).

Two further features of table H.6 are that some problem gamblers committed more than one type of offence, and some committed a particular type of offence on many occasions. Indeed, some of the problem gamblers surveyed were responsible for up to 1000 acts of larceny, 600 acts of embezzlement, 250 acts of break and enter and 17 acts of armed robbery. It is clear then that a small number of individuals were responsible for committing the vast majority of crimes. When the median number of crimes by types are averaged, it suggests that each problem gambler surveyed who had committed gambling related offences carried out around 10 such offences.

The sample of problem gamblers revealed very substantial variation in the amount of money involved in the crimes committed, ranging from as little as a couple of dollars up to \$250 000. Some indicative statistics are:

- for one third of the problem gamblers surveyed, the average value per offence was \$100 or less, and for two-thirds it was \$1000 or less;
- the approximate average value per offence (as given by the median) was \$300; but
- a small minority of less than 10 per cent of subjects committed offences involving substantial amounts of money.

H.6 How reliable are police/court statistics on gambling related crime?

Not all of the offences that are committed by problem gamblers lead to arrest or prosecution because: some of the offences are not serious enough to be detected; not all crimes that are committed are reported to the police; not everyone who commits an offence gets caught; and only some of the offences end up in the courts.

Are all gambling related offences reported to police?

At the Commission's Roundtable on crime and gambling, one of the participants commented that less substantial crimes are unlikely to be reported:

Police only see large scale embezzlement. When its minor, its resolved in the firm or in the family.

Another participant at the Roundtable mentioned that under-reporting of crime is likely to be more common among ethnic communities:

Cultural beliefs prevent ethnic groups reporting crime. Asians have a different view of the police to some other groups in the community.

Furthermore, much of the crime that is committed by problem gamblers against family members is never reported (box H.1).

Box H.1 Participants' views on under-reporting of crimes

Family members, friends and employers are the most frequent victims. These people are reluctant to report the criminal activity, and will often 'bail out' the problem gambler by advancing funds to pay creditors where criminal charges are threatened (Wesley Community Legal Service, sub. 46, p. 13).

We believe that the incidence of gambling related crime is under reported: very few families will lay charges against another member of their family and many employers are also reluctant to press charges (Relationships Australia (South Australia), sub. 118, p. 12).

Crimes committed against family and friends included stealing and pawning goods and selling family assets without consent. [But because] ... family members rarely choose to prosecute, many of the crimes and their impact on the family and the economy go unnoticed (Break Even–Gold Coast, sub. 73, pp. 3-4).

In the counselling work we undertake we are seeing clear evidence of white-collar crime, both large and small, being used to finance gambling activities. A large proportion of this theft occurs from family members and significant others. It is not reported, but it is crime nonetheless (Adelaide Central Mission, sub. 108, p. 19).

Hence, crime report rates understate by a substantial margin the number of offences that are actually committed.

Are motives for offences always revealed to courts?

Only limited information was provided to the inquiry on the extent to which police/court statistics reveal any changes in gambling related crime over time, and particularly whether there is any relationship with the increased availability of gambling opportunities.

The Australian Hotels and Hospitality Association was sceptical of any such relationship:

... newspaper reports have highlighted an increase in reporting of gambling habits as a motive for crime in the magistrate's court. However, there are no studies showing an increase in overall criminal activity since the introduction of gaming machines (sub. 154, p. 34).

But as noted above, police statistics understate gambling related crime rates because many offences go unreported, and many crimes that are committed for gambling related reasons are not recorded as such.

Jelena Popovic, Deputy Chief Magistrate in Victoria, has summarised recent experience in that State as follows:

My premise after very much thought and discussion with my colleagues around the State is that there has not been a crime wave in the Magistrate's Court brought about by the liberalisation of the gambling laws. The increase in crime directly attributable to gambling has been marginal. ... The view from the Bench is that gambling is a major problem in the community but is largely hidden from the Courts (1998, pp. 1, 9).

There appear to be offsetting influences at work which confound the extent to which crimes that come before the courts are identified as gambling related. On the one hand, it is held that there is an increasing tendency for some offenders to claim the defence of 'gambling addiction' as a mitigating factor in the hope of securing a more lenient sentence. The Australian Institute of Criminality stated that:

There may well be persons who, having committed a criminal act but not suffering any disability, may invoke problem gambling as an excuse. Whilst some criminal activity no doubt does arise from problem gambling, it may be unwise to accept defences without some form of verification (sub. 21, p. 1).

On the same theme, ACIL commented that:

We have been told that already in Melbourne accused thieves have been offering problem gambling (or as it is termed locally, the 'Crown defence') as an excuse for their actions, although to date the courts have not accepted such claims as a reason for leniency (sub. 155, p. 113).

Wesley Community Legal Service reported that the official position in NSW Courts is that problem gamblers will not be afforded any special leniency — pathological gambling is not a 'special circumstance' which will allow the Courts to impose a 'non-custodial' sentence or reduce the minimum term (sub. D215, p. 5). However, Wesley Community Legal Service also reported that there appears to be more flexibility in the Local Court for non-custodial sentenced to be imposed.

But on the other hand, there are also some offenders who suffer from a gambling problem who apparently do not disclose this to the courts as a reason for the offence. As Popovic noted, a number of magistrates in Victorian districts from whom she canvassed opinions believed that:

... gambling was a large social problem in their area, but ... defendants were ashamed to disclose their gambling to the court, or ... somehow the fact of their gambling remained undisclosed to the court (1998, p. 2).

H.7 What happens to problem gamblers who are convicted?

The Blaszczyński and McConaghy (1994a) study also sheds light on what proportion of gambling related crimes actually result in charges being laid. Of the 306 NSW problem gamblers surveyed:

- 24 per cent had been charged with committing a gambling related offence.

This represents around 40 per cent of subjects who admitted to committing a gambling related offence.

Only around one quarter of those committing larceny were charged, and slightly less than half of those committing embezzlement or misappropriation (table H.7, column 3). But typically, the more serious types of offences — such as armed robbery, break and enter, and drug dealing — were associated with a greater likelihood of arrest.

Table H.7 **Convictions and type of sentences, sample of 306 NSW problem gamblers**

<i>Offence</i>	<i>Number charged with an offence^a</i>	<i>Number charged as a % of number committing an offence</i>	<i>Range in number of counts</i>	<i>Number jailed</i>	<i>Number receiving bond</i>	<i>Number receiving fine</i>
Larceny	24	25	1–53	3	12	0
Embezzlement	29	44	1–40	9	15	4
Misappropriation	9	45	1–33	2	4	2
Break and enter	15	94	1–46	7	6	2
Shop-lifting	3	23	1–10	0	3	0
Armed robbery	7	88	1–7	7	0	0
Drug dealing	3	60	1–3	3	0	0
Other	3	60	1–3	0	2	0

^a Of the 306 problem gamblers surveyed, 73 had been charged with an offence. However, the sum of the number of gamblers charged with individual offences is greater than this number because some gamblers were charged with more than one type of offence.

Source: Blaszczyński and McConaghy 1994a, table 6.

For crimes like larceny and embezzlement, the most common sentence imposed was a good behaviour bond. However, all convictions for armed robbery and drug-related offences, and around half the convictions for break and enters, resulted in jail sentences.

Overall, the mean prison term actually served by those receiving jail sentences was 2.6 years — or 1.4 years if two subjects who served especially long sentences are excluded.

H.8 Problem gambling and loan shark lending

Problem gamblers may resort to borrowing money from ‘loan sharks’ (or ‘fringe’ credit providers) when possibilities for borrowing from mainstream avenues such as banks, credit unions, and financial institutions are exhausted. Dealing with loan sharks signals desperation on the part of the borrower because such loans not only entail exorbitant interest rates but also a menacing context in the event of non-repayment. Legal Aid Queensland (sub. D282) reported on loan sharking in South East Queensland, involving a network of credit providers who typically lend amounts of between \$1000 and \$2000 to borrowers at interest rates of 150-200 per cent per annum.

Box H.2 Some loan sharking experiences

Fred is a 26 year old ... club staff member ... [who] only started gambling about two years ago and has developed a very serious problem in the last 12 months. After gambling all of his savings away at the casino, Fred was introduced to some loan sharks who operate there. His financial problem was very severe given his limited income and there is significant pressure building over his failure to make the payments on some personal loans he got at the casino. Fred's debts exceed \$40 000 and he is very depressed. He has attempted suicide recently. The main pressure on Fred is coming from a man who provided money at the casino. ... Another of Fred's personal loans was arranged by a loan shark who charged a fee of \$2 000 in order to arrange a loan of \$10 000 (*BetSafeNews*, April 1999, p. 3).

... some [clients] have been approached by people at the gaming venue to lend them money. ... One of them was ... [for] a loan of \$9 000 and she had to pay \$300 interest a month. There's a lot of issues involving that sort of thing because sometimes its a private individual lender and threats of violence may be used ... towards the gambler (Australian Vietnamese Women's Welfare Association, transcript, p. 563).

There's some pretty awful loan sharking going on down on the Gold Coast. The people are too frightened to even tell you about it, who they are or terribly much about it ... because of the types of threats that have been made to people who don't pay up (Relationships Australia Queensland, Transcript, p. 129).

Group members as gamblers were not only perpetrators of crime, but also witnesses and victims. One group member reported witnessing theft at a gambling venue. Another had been extended credit by a loan shark and received threats when he was unable to meet repayments (Break Even–Gold Coast, sub. 73, p. 4).

Gambling venues like casinos provide problem gamblers with access to loan sharking — people spot at casinos and approach gamblers to take out loans (box H.2). The Australian Vietnamese Women's Welfare Association reported on the experience of some of its clients:

They [the loan sharks] move around the casino and when they see that someone has lost ... money, they say, “Come on, I’ll give you some money. You’ll win everything back”. [And] the person is so keen to get back the money that [they] agree to any terms (transcript, p. 564).

Participants at the Commission’s Roundtable on crime and gambling gave a variety of views on how commonplace loan sharking had become:

In Victoria it’s prolific, people spot in gambling venues and put gamblers in touch with financial institutions.

Loan sharking is a problem in small communities and is becoming more sophisticated. It is difficult to tell when loan sharking begins and a personal loan ends.

Loan sharking evidence is only anecdotal. If it is increasing this may reflect a lack of alternative investment arrangements.

But Star City Casino noted that:

Loan sharking of the overtly threatening kind is virtually impossible at Star City as it would be picked up very quickly by staff, surveillance and/or the Casino Surveillance Division inspectors. Lending activity among patrons does take place. This practice is not illegal and occurs all over NSW. We discourage the practice where it appears to be taking the form of a regular business transaction ... (sub. 33, p. 23).

Wesley Community Legal Service thought this was a surprising admission on the part of Star City:

Firstly, it is hard to imagine that lending between Star City patrons occurs as some sort of benevolent gesture between gamblers. Not many gamblers would be generous or foolish enough to lend money to another gambler. Secondly, if it is a loan for interest or some other return, then it is regulated by the Consumer Credit Code, and requires compliance with the legislation. Thirdly, it is hard to see why Star City would wish to discourage lending activities when they contribute to its overall revenue (sub. D215, p. 2).

The issue of loan shark lending in South East Queensland has been the subject of a recent Report by the Office of Fair Trading (OFT, 1999). The OFT collected information from community groups such as financial counselling organisations and community legal centres, and from consumers via a state-wide Phone-In (conducted between 12 and 16 April 1999). While the OFT study did not specifically ask borrowers whether the reason for having to borrow from a loan shark was related to a gambling problem, the information obtained on loan shark lending characteristics in general is of interest.

Typically, loan shark credit contracts had the following common features: extremely high interest rates — weekly (3 or 4 per cent) or monthly (20 per cent); loan amounts were small — the majority were for between \$1000 and \$2000; weekly

repayments were required — but most were ‘interest only’ repayments and the terms of the loans were open-ended; late payment fees applied — commonly \$5 per day; and loans were described as being for ‘business or investment purposes’ to circumvent the Consumer Credit Code.

Wesley Community Legal Service noted that loan sharking is illegal in that it is in breach of the consumer protection provisions of the Consumer Credit Code — for example, section 22 of the Code provides a maximum fine of \$11 000 for imposing a monetary liability on a loan that is inconsistent with the Code (sub. D215, p. 2).

Among the enforcement practices adopted by loan sharks in cases where a borrower could not meet a weekly repayment included: death threats; other threats to physical safety; intimidatory language; refusal to recognise bankruptcy; and personal collection of payments by the loan sharks or their agents.

Legal Aid Queensland itself reported anecdotal evidence of links between problem gamblers and loan shark borrowing:

This Office has advised in excess of 70 people who have borrowed small amounts of money from loan sharks for personal use. A significant number of the people we have assisted have, in the course of handling their debt problem with the loan shark, disclosed that they have gambling problems. They told us that they have turned to the loan sharks for money either to gamble immediately, or for cash to pay for living expenses, their income having been previously lost in gambling (sub. D282, p. 2).

Some of the consequences of loan shark lending for the gambler and the community include:

- intimidation and physical threats to ensure repayment of loans;
- a problem gambler’s personal debt problem is likely to be magnified rather than relieved;
- gamblers may resort to crime rather than suffer the consequences of not being able to meet repayment conditions; and
- there can be violence and criminal activity associated with loan sharking.

As an illustration of the last point, a recent RAND Institute report (Bennert 1999) on hardware thefts in the US technology industry highlighted a link between gambling and thefts from high-tech businesses involving loan sharks. A typical crime in Silicon Valley involves someone who works for a high tech-firm and has some gambling losses. A loan shark then pressures the worker to provide inside information that is used to perpetrate a theft.

I Regional data analysis

In chapter 10, the Commission discussed the results from a basic analysis of estimating the relationships between income levels, number of gaming machines and expenditure on gaming machines in different regions within New South Wales, Victoria, Queensland and South Australia. The econometric analysis involves the regression of cross-sectional data to provide an indication of the relationships between these variables. Chapter 10 presented a summary of the results *weighted* by the *adult population* in each region.

This appendix outlines the data and methodology underlying those results, as well as presenting similar results, on an *unweighted* basis — that is, not adjusting for the population in a region. The results from the analyses show correlation and not causation between the variables.

I.1 Data sources and issues

The data are sourced from the Australian Bureau of Statistics (ABS) and the state gaming authorities (table I.1) for New South Wales, Victoria, Queensland and South Australia. The Commission did not undertake analyses of other jurisdictions because of data limitations and, in the case of Western Australia, its prohibition on gaming machines outside the casino.

Australian Bureau of Statistics data

The ABS data is the *median weekly income* and *adult population* for regions. It is sourced from *1996 Census of Population and Housing — State Summaries* (ABS 1996a). Regional *median weekly income* per person is the median personal weekly income and the regional *adult population* is the sum of people aged over 18. The only income data provided by the ABS for regions is *median weekly income*. The data is as recorded on 1996 census night for each statistical local area (SLA), as defined by the ABS.

State Gaming Authorities data

The state gaming authorities data mainly includes:

- the *number of venues* — mainly, hotels and clubs — in each region;
- the *number of gaming machines* in each region; and
- data to calculate the *average annual expenditure on gaming machines* per person in each region (total profit, total metered wins and net revenue).

In Victoria, data was unavailable to calculate the *average annual expenditure on gaming machines*.

Table I.1 **Data sources and calculations**

	<i>New South Wales</i>	<i>Victoria^a</i>	<i>Queensland</i>	<i>South Australia</i>
Year	1997-98	1997-98	1997-98	Year ended 31 August 1999
Data sources	Department of Gaming and Racing (DGR 1999b)	Victorian Casino and Gaming Authority (VCGA 1998a)	Queensland Office of Gaming Regulation (QOGR 1998b)	South Australian Liquor and Gaming Commission
Data	Number of venues per region Number of gaming machines per region Total profit on gaming machines per region (table I.6)	Number of venues per Local Government Area (LGA) Number of gaming machines per LGA (tables I.7 and I.8)	Adult population per region Average metered win per gaming machine per region Number of venues per region Number of gaming machines per region (table I.9)	Number of gaming machines per region Net revenue from gaming machines per region
Estimated average expenditure on gaming machines per person per region	Total profit on gaming machines divided by adult population	na	Total metered wins ^b divided by adult population	Net revenue from gaming machines divided by adult population

na not available **a** Data was not available for Victoria to estimate *average annual expenditure on gaming machines* per person in each region. **b** Total metered wins is the average metered win per venue for each region multiplied by the number of venues in each region.

Adjustments and calculations

While there was a reasonable, but not perfect, concordance between the data sourced from the state gaming authorities and the ABS, a number of adjustments and calculations were made to the data to improve this:

-
- In Victoria, the ABS SLAs were aggregated to concord exactly with each local government area (LGA) (ABS 1998a).
 - The *median weekly income* data for regions in New South Wales, Queensland and South Australia were estimated as the weighted-average of median incomes of all SLAs (defined by the ABS) in a region (defined by state authorities). Weights were based on *adult population* size.
 - The *adult population* data for each region in New South Wales, Victoria and South Australia was concorded with the regions defined by the state gaming authorities for their data on the *number of venues* and the *number of gaming machines*. In Queensland, the regional *adult population* data was sourced from the Queensland Office of Gaming Regulation. There was no need to do an *adult population* concordance for Queensland.
 - The *average annual expenditure on gaming machines* per person in a region was estimated from data sourced from state authorities, except Victoria where the data was not available (table I.1).

I.2 Methodology

The regional data was used to estimate the relationships between income, number of gaming machines and expenditure on gaming machines on an *unweighted* and *weighted* basis for each state.

Unweighted estimation

The relationships estimated between *median weekly income*, the *number of gaming machines* and *average annual expenditure on gaming machines* in each state on an *unweighted* basis are represented in table I.2. The equations were econometrically estimated using ‘ordinary least squares’ technique.

Table I.2 **Unweighted estimation**

<i>Median weekly income and the number of gaming machines</i>	<i>Average annual expenditure on gaming machines and the number of gaming machines</i>	<i>Median weekly income and average annual expenditure on gaming machines</i>
$Y_{ij} = \beta_{1j} + \beta_{2j}NGM_{ij}$	$GE_{ij} = \beta_{1j} + \beta_{2j}NGM_{ij}$	$Y_{ij} = \beta_{1j} + \beta_{2j}GE_{ij}$
where:		
Y_{ij} median weekly income per person in region i in state j ;		
NGM_{ij} number of gaming machines in region i in state j ; and		
GE_{ij} average annual expenditure on gaming machines per person in region i in state j .		

Weighted estimation

A potential problem with the *unweighted* approach is that it fails to take account of differences in the size of the adult population between regions. For example, in Victoria the *unweighted* analysis applies the same weight to the Borough of Queenscliff, which has an adult population of 2600, as to the City of Greater Geelong, which has a population of over 130 000. The *unweighted* analysis applies too much weight to regions with small populations and, conversely, too little weight to regions with large populations.

To take account of the differing populations for regions within a state, the Commission included a ‘weighted variable’ in the *unweighted* equations in table I.2. The input for this variable is the *adult population* per region divided by the adult population of all regions with gaming machines in that state. The equations are then estimated using ‘weighted least squares’ where the input for the weighted variable is square rooted and multiplied by each observation of the dependent and independent variables. The weights are then normalised to sum to the number of observations. The weighted variable is represented by the term W_{ij} in the equations in table I.3.

The relationship between *median weekly income*, the *number of gaming machines* in a region and *average annual expenditure on gaming machines* on a *weighted* basis are represented in table I.3.

Table I.3 Weighted estimation

<i>Relationship between</i>	<i>Equations</i>
Median weekly income and the number of gaming machines	$Y_{ij} \times W_{ij} = \beta_{1j} + \beta_{2j} (NGM_{ij} \times W_{ij})$
Average annual expenditure on gaming machines and the number of gaming machines	$GE_{ij} \times W_{ij} = \beta_{1j} + \beta_{2j} (NGM_{ij} \times W_{ij})$
Median weekly income and average annual expenditure on gaming machines	$Y_{ij} \times W_{ij} = \beta_{1j} + \beta_{2j} (GE_{ij} \times W_{ij})$
where:	
Y_{ij}	median weekly income per person in region i in state j ;
NGM_{ij}	number of gaming machines in region i in state j ;
GE_{ij}	average annual expenditure on gaming machines in region i in state j , and
W_{ij}	the population in region i in state j , divided by the population of all regions with gaming machines in state j .

I.3 Results

The *unweighted* and *weighted* analysis yields similar results for the selected states. The *weighted* results are a better estimation of the relationships, but the unweighted provide an indication of the results that can also be shown graphically. The statistical significance of the results have been assessed at the 5 per cent level.

Unweighted results

The *unweighted* results provide an indication of the relationship between income, gaming expenditure and the number of gaming machines in selected states. This analysis has only been provided to show the nature of the relationship diagrammatically. The results from the *weighted* analysis, presented in the following section, are a better indicator of these relationships, but are unable to be shown graphically because of their three dimensional nature.

The Commission's *unweighted* analysis suggests that there is:

- a negative and statistically significant relationship between *median weekly income* and the *number of gaming machines* in New South Wales and South Australia — at lower income levels there were a greater the number of gaming

machines. There is no statistically significant relationship in Queensland and Victoria;

- a positive and statistically significant relationship between *average annual expenditure on gaming machines* and the *number of gaming machines* in all states examined — at higher levels of expenditure on gaming machines there were a greater the number of machines; and
- no statistically significant relationship between *median weekly income* and *average annual expenditure on gaming machines* for all states examined (table I.4 and figures I.1 to I.3).

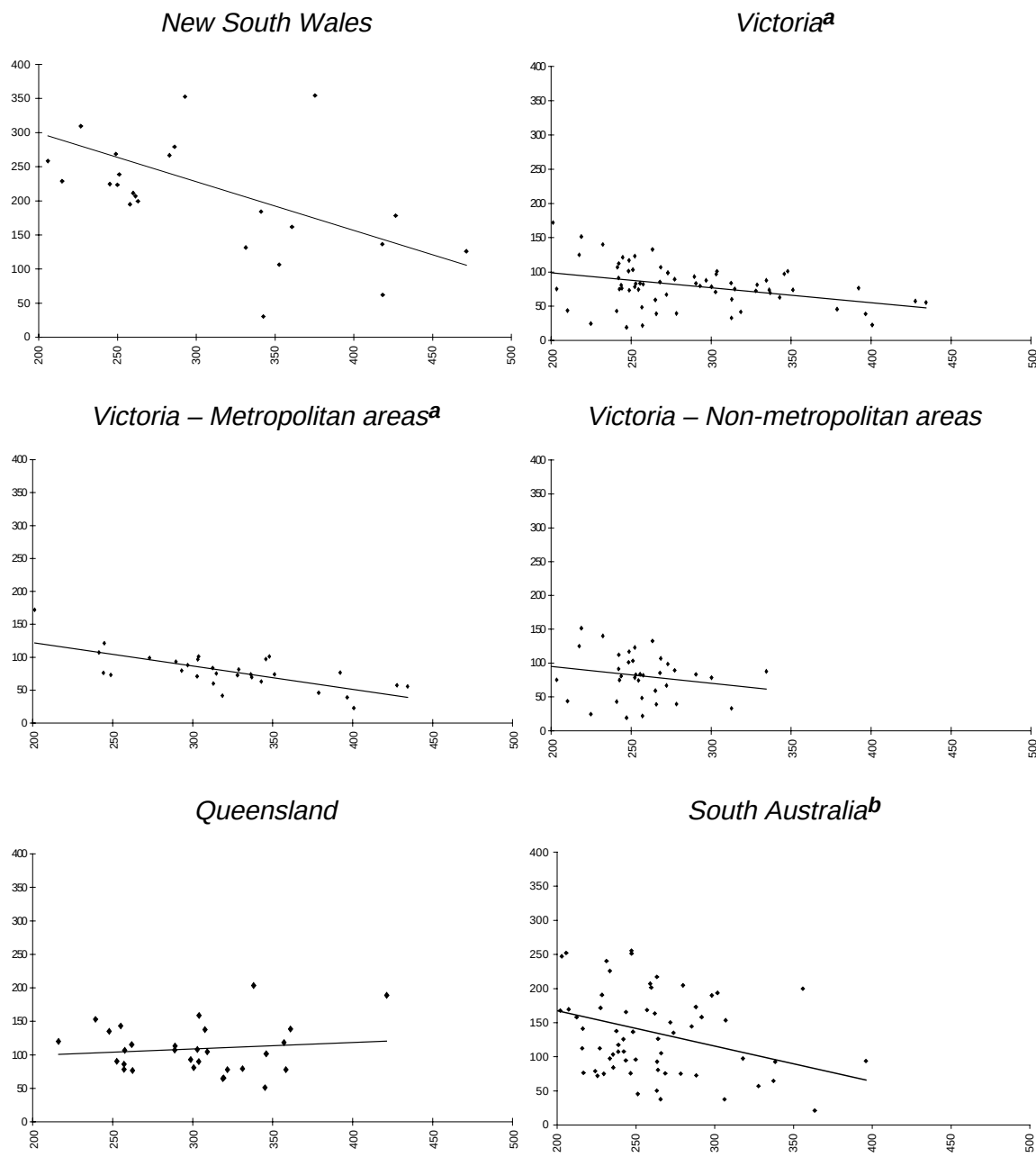
Table I.4 **Unweighted results for selected states^{ab}**

<i>Relationship between</i>	<i>Unweighted coefficient (t statistic)</i>			
	<i>NSW</i>	<i>Vic^{cde}</i>	<i>Qld</i>	<i>SA^f</i>
Median weekly income and the number of gaming machines	Negative and significant -0.71 (-3.48)	No significant relationship -0.05 (-0.62)	No significant relationship 0.10 (0.52)	Negative and significant -0.52 (-2.82)
Average annual expenditure on gaming machines and the number of gaming machines	Positive and significant 2.12 (7.51)	na	Positive and significant 2.76 (8.81)	Positive and significant 1.66 (5.69)
Median weekly income and average annual expenditure on gaming machines	No significant relationship -0.69 (-1.10)	na	No significant relationship 0.50 (0.72)	No significant relationship -0.51 (-0.98)

na not available **a** The data used for *median weekly income*, the *number of gaming machines* and *average annual expenditure on gaming machines* are explained in section I.1. **b** The results are statistically significant at the 5 per cent level. **c** Data are unavailable on *average annual expenditure on gaming machines* in Victoria. **d** Data for the City of Melbourne produces an outlier that has been removed from the analysis. This region has a large number of gaming machines and high median incomes. Including the City of Melbourne yields the following results: *median weekly income* and the *number of gaming machines* 0.01 (0.08). **e** Analysis was also undertaken for metropolitan and non-metropolitan regions. The results for metropolitan regions (excluding the City of Melbourne) are -0.35 (-3.98) and for non-metropolitan regions are 0.07 (0.32). **f** Data for the City of Adelaide and Roxby Downs produce two outliers that have been removed from the analysis. These regions have a large number of gaming machines and high median incomes. Including the City of Adelaide and Roxby Downs yields the following results: *median weekly income* and the *number of gaming machines* 0.06 (0.32), *average annual expenditure on gaming machines* and the *number of gaming machines* 2.09 (10.30) and *median weekly income* and *average expenditure on gaming machines* 1.48 (2.17).

Figure I.1 Income and the number of gaming machines for selected states

Vertical axis – number of gaming machines per 10 000 adults in each region
Horizontal axis – median weekly income per person in each region



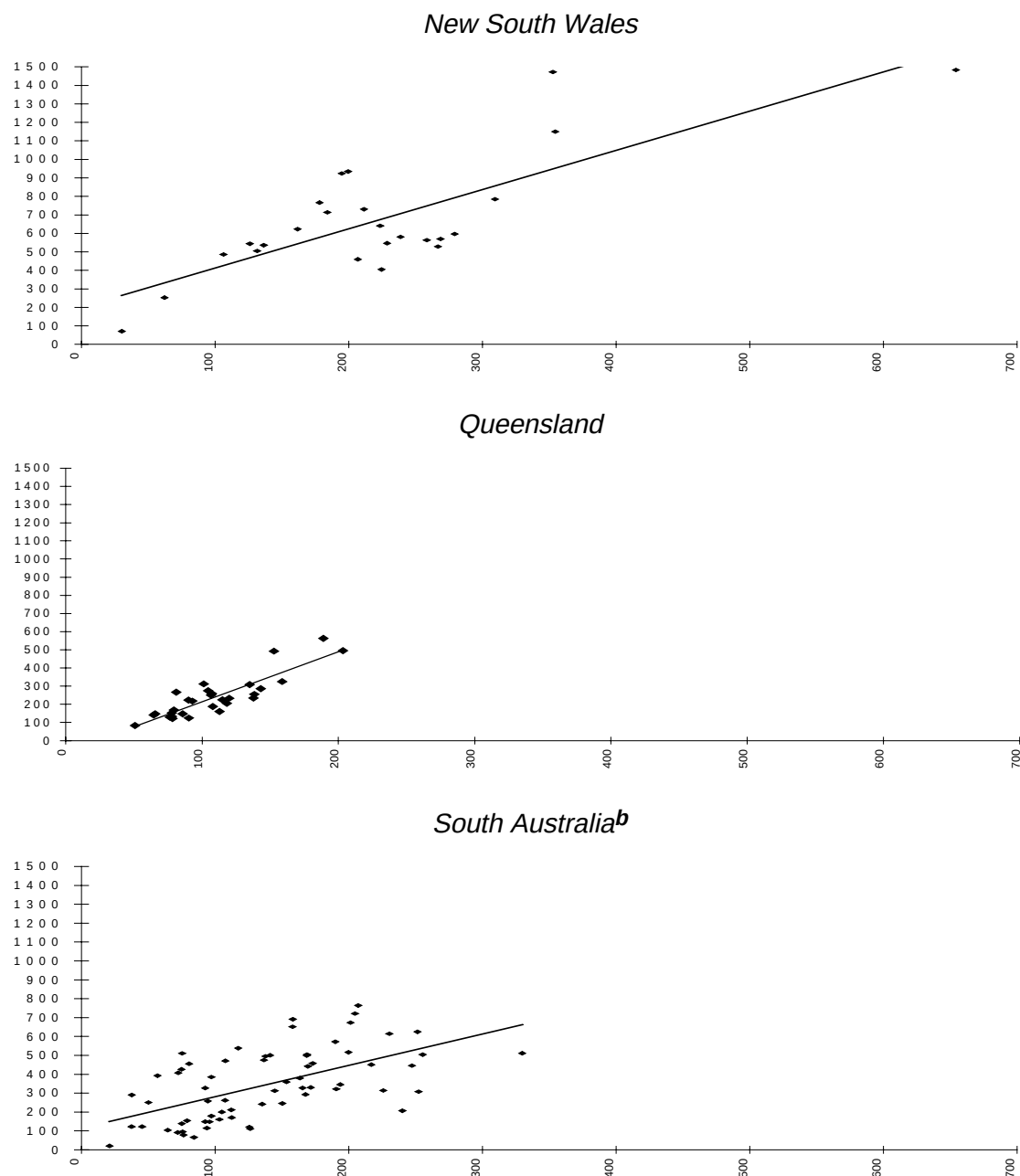
^a Data for the City of Melbourne produces an outlier that has been removed from the analysis. ^b Data for the City of Adelaide and Roxby Downs produce two outliers that have been removed from the analysis

Data source: ABS (1996a), DGR(1996b), QOGR (1998b) and VCGA (1998).

Figure I.2 Expenditure on gaming machines and the number of gaming machines for selected states^a

Vertical axis – average annual expenditure on gaming machines per person in each region

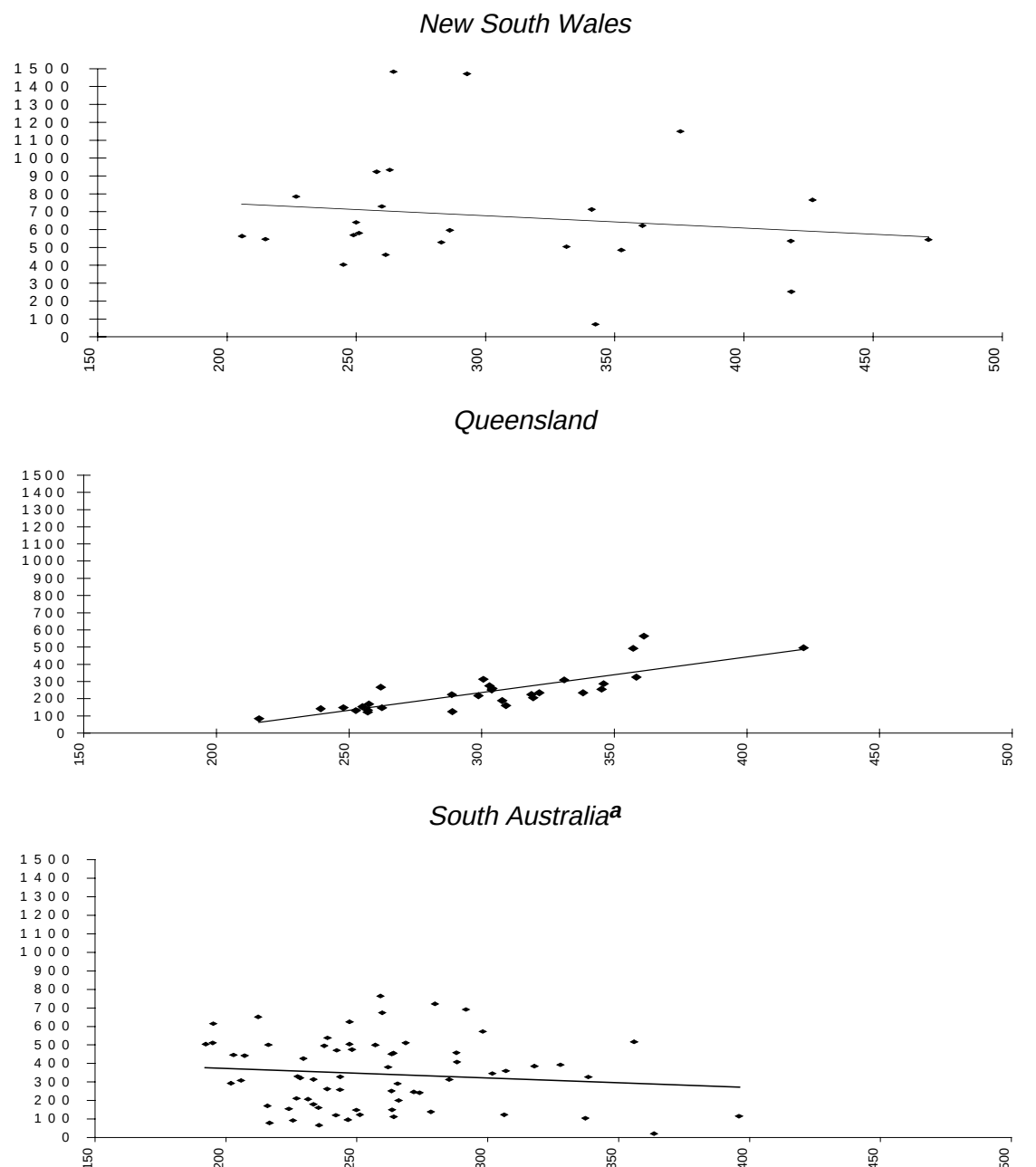
Horizontal axis – number of gaming machines per 10 000 adults in each region



^a Data are unavailable to calculate *average annual expenditure on gaming machines* for Victoria. ^b Data for the City of Adelaide and Roxby Downs produce two outliers that have been removed from the analysis.

Data source: ABS (1996a), DGR (1996b) and QOGR (1998b).

Figure I.3 Income and expenditure on gaming machines for selected states^a
 Vertical axis – average annual expenditure on gaming machines per person in each region
 Horizontal axis – median weekly income per person in each region



a Data are unavailable to calculate *average annual expenditure on gaming machines* for Victoria. **b** Data for the City of Adelaide and Roxby Downs produce two outliers that have been removed from the analysis.

Data source: ABS (1996a), DGR (1996b) and QOGR (1998b).

Weighted results

The Commission's *weighted* analysis shows that there is:

- a negative and statistically significant relationship between *median weekly income* and the *number of gaming machines*, in all states examined (except Queensland) — at lower income levels there were a greater number of gaming machines. In Queensland, there is no statistically significant relationship;
- a positive and statistically significant relationship between *average annual expenditure on gaming machines* and the *number of gaming machines* in all states examined — at higher levels of expenditure on gaming machines there were a greater the number of gaming machines; and
- a negative and significant relationship between *median weekly income* and *average annual expenditure on gaming machines* in South Australia — at lower income levels there were higher levels of the expenditure on gaming machines. In the remaining states, there is no statistically significant relationship (table I.5).

Table I.5 **Weighted results for selected states^{ab}**

<i>Relationship between</i>	<i>Weighted coefficient (t statistic)</i>			
	<i>NSW</i>	<i>Vic^{cde}</i>	<i>Qld</i>	<i>SA^f</i>
Median weekly income and the number of gaming machines	Negative and significant -0.62 (-2.36)	Negative and significant -0.25 (-4.73)	No significant relationship -0.12 (-0.91)	Negative and significant -0.60 (-3.85)
Average annual expenditure on gaming machines and the number of gaming machines	Positive and significant 2.37 (5.98)	na	Positive and significant 2.43 (7.94)	Positive and significant 1.76 (6.04)
Median weekly income and average annual expenditure on gaming machines	No significant relationship -0.72 (-0.83)	na	No significant relationship -0.15 (-0.37)	Negative and significant -1.63 (-3.55)

na not available **a** The data used for *median weekly income*, the *number of gaming machines* and *average annual expenditure on gaming machines* are explained in section I.1. **b** The results are statistically significant at the 5 per cent level. **c** Data are unavailable on *average annual expenditure on gaming machines* in Victoria. **d** Data for the City of Melbourne produces an outlier that has been removed from the analysis. This region has a large number of gaming machines and high median incomes. Including the City of Melbourne yields the following results: *median weekly income* and the *number of gaming machines* -0.23 (-3.08). **e** Analysis was also undertaken for metropolitan and non-metropolitan regions. The results for metropolitan regions (excluding City of Melbourne) are -0.32 (-4.90) and for non-metropolitan regions are -0.40 (-1.63). **f** Data for the City of Adelaide and Roxby Downs produce two outliers that have removed from the analysis. These regions have a large number of gaming machines and high median incomes. Including the City of Adelaide and Roxby Downs yields the following results: *median weekly income* and the *number of gaming machines* -0.25 (-0.98), *average annual expenditure on gaming machines* and the *number of gaming machines* 1.93 (10.68) and *median weekly income* and *average annual expenditure on gaming machines* -0.62 (-1.01).

Table I.6 Summary of New South Wales regional data

<i>Region</i>	<i>Adult population</i>	<i>Median weekly income per person</i>	<i>Venues</i>	<i>Gaming machines</i>	<i>Gaming machines per 10 000 adults</i>	<i>Average annual expenditure on gaming machines</i>
	No.	\$	No.	No.	No.	\$
Sydney						
Canterbury-Bankstown	217 710	263	77	4 343	199	934
Central Western	202 720	293	138	7 149	353	1 472
Eastern Suburbs	188 395	427	98	3 356	178	766
Fairfield-Liverpool	215 058	258	65	4 190	195	924
Inner City	214 963	375	326	7 620	354	1 149
Inner Western	117 832	341	58	2 168	184	713
Lower Northern	214 443	471	80	2 702	126	544
Northern	125 286	245	205	2 813	225	404
Northern Beaches	166 798	418	55	2 276	136	536
North Western	80 920	249	167	2 174	269	570
Outer South Western	139 396	331	41	1 833	131	505
Outer Western	204 271	343	27	618	30	71
Saint George-Sutherland	302 139	361	110	4 885	162	622
South Eastern	132 000	286	183	3 686	279	596
Rest of NSW						
Blacktown-Baulkham Hills	247 751	353	46	2 633	106	486
Central West	120 681	261	221	2 496	207	460
Far West	18 542	206	37	479	258	563
Gosford-Wyong	193 731	260	74	4 096	211	730
Hornsby-Kurringgai	175 814	418	41	1 093	62	253
Hunter	401 931	251	380	9 596	239	581
Illawarra	266 391	250	175	5 954	224	640
Mid North Coast	186 518	215	181	4 266	229	547
Murray	78 383	264	151	5 128	654	1 483
Murrumbidgee	99 402	283	172	2 651	267	529
Richmond-Tweed	143 045	227	125	4 426	309	784

Data source: ABS (1996a) and DGR (1999b).

**Table I.7 Summary of Victorian metropolitan data
by Local Government Area**

<i>Local Government Area</i>	<i>Adult population</i>	<i>Median weekly income per person</i>	<i>Venues</i>	<i>Gaming machines</i>	<i>Gaming machines per 10 000 adults</i>
	No.	\$	No.	No.	No.
City of Banyule	86 643	328	11	628	72
City of Bayside	64 274	379	10	294	46
City of Boroondara	115 135	401	7	261	23
City of Brimbank	107 376	249	15	787	73
City of Casey	98 466	351	10	726	74
City of Darebin	98 446	241	19	1 054	107
City of Frankston	77 086	303	9	545	71
City of Glen Eira	92 211	336	12	681	74
City of Greater Dandenong	95 244	245	15	1 156	121
City of Hobsons Bay	56 692	290	10	529	93
City of Hume	79 590	297	13	699	88
City of Kingston	96 743	303	16	938	97
City of Knox	93 656	346	12	911	97
City of Melbourne	33 049	326	23	1 129	342
City of Manningham	81 357	343	6	511	63
City of Maribyrnong	46 707	201	15	804	172
City of Maroondah	68 589	337	8	477	70
City of Monash	122 585	312	14	1 027	84
City of Moreland	104 936	244	17	800	76
City of Moonee Valley	83 845	304	18	848	101
City of Port Philip	63 135	392	10	482	76
City of Stonnington	70 678	434	8	391	55
City of Whittlesea	72 838	293	9	580	80
City of Wyndham	50 523	348	9	511	101
City of Yarra	54 348	329	13	442	81
Shire of Cardinia	28 669	313	5	172	60
Shire of Melton	26 222	315	3	197	75
Shire of Mornington Peninsula	84 676	273	19	838	99
Shire of Nillumbik	37 870	397	4	147	39
Shire of Yarra Ranges	93 331	319	9	388	42

Data source: ABS (1996a) and VCGA (1998a).

**Table I.8 Summary of Victorian non-metropolitan data
by Local Government Area**

<i>Local Government Area</i>	<i>Adult population</i>	<i>Median weekly income per person</i>	<i>Venues</i>	<i>Gaming machines</i>	<i>Gaming machines per 10 000 adults</i>
	No.	\$	No.	No.	No.
Alpine Shire	8 772	335	3	77	88
Bass Coast Shire	16 161	219	9	245	152
Borough of Queenscliff	2 633	263	1	35	133
City of Ballarat	56 703	242	15	638	113
City of Greater Bendigo	59 973	244	12	485	81
City of Greater Geelong	132 816	251	28	1 372	103
City of Greater Shepparton	37 878	268	7	323	85
City of Moorabool	15 230	278	2	60	39
City of Warrnambool	19 655	252	6	242	123
Rural City of Ararat	8 485	248	2	86	101
Rural City of Horsham	12 814	269	4	137	107
Rural City of Mildura	32 225	252	7	253	79
Rural City of Swan Hill	14 397	255	4	107	74
Rural City of Wangaratta	18 537	272	4	124	67
Rural City of Wodonga	20 627	300	4	162	79
Shire of Baw Baw	23 600	265	3	140	59
Shire of Campaspe	24 510	257	3	119	49
Shire of Central Goldfields	9 454	198	2	114	121
Shire of Colac Otway	14 611	253	5	121	83
Shire of Corangamite	12 585	266	2	49	39
Shire of Delatite	14 175	273	4	140	99
Shire of East Gippsland	28 077	218	12	351	125
Shire of Glenelg	14 723	257	5	121	82
Shire of Hepburn	9 982	203	3	75	75
Shire of La Trobe	48 909	232	18	685	140
Shire of Macedon Ranges	22 687	313	3	75	33
Shire of Mitchell	17 061	291	4	142	83
Shire of Moira	18 289	247	1	35	19
Shire of Mount Alexander	12 134	225	1	30	25
Shire of Murrindindi	9 120	257	1	20	22
Shire of Northern Grampians	9 638	242	3	88	91
Shire of South Gippsland	17 725	256	5	148	83
Shire of Southern Grampians	12 517	243	3	94	75
Shire of Strathbogie	6 856	210	1	30	44
Shire of Towong	4 634	241	1	20	43
Shire of Wellington	28 513	249	10	333	117
Surf Coast Shire	12 532	277	4	112	89

Data source: ABS (1996a) and VCGA (1998a).

Table I.9 Summary of Queensland regional data

<i>Region</i>	<i>Adult population</i>	<i>Median weekly income per person</i>	<i>Venues</i>	<i>Gaming machines</i>	<i>Gaming machines per 10 000 adults</i>	<i>Average annual expenditure on gaming machines</i>
	No.	\$	No.	No.	No.	\$
Brisbane						
Central	57 081	338	60	1 161	203	496
East Inner	59 792	346	19	606	101	313
East Outer	41 048	308	17	565	138	234
North Inner	87 502	358	28	682	78	133
North Outer	202 143	331	58	1 603	79	169
South Inner	45 783	319	14	300	66	148
South Outer	98 880	304	28	889	90	223
West Inner	49 899	319	15	322	65	141
West Outer	71 844	345	17	366	51	84
Rest of Queensland						
Caboolture	71 936	257	32	767	107	251
Cairns	74 843	361	39	1 036	138	255
Darling Downs district	79 571	253	65	719	90	124
Far North district	79 225	262	45	605	76	131
Fitzroy district	83 587	303	57	902	108	188
Gold Coast	256 390	289	94	2 748	107	259
Ipswich	92 223	299	42	856	93	218
Logan	153 543	301	34	1 243	81	267
Mackay	48 307	304	34	767	159	325
Mackay district	36 515	357	34	431	118	205
Moreton district	43 381	257	36	339	78	122
Mount Isa	15 613	421	10	295	189	564
Northern district	47 283	257	38	406	86	147
Redcliffe	38 164	239	15	590	153	493
Redland Bay	73 870	309	25	772	105	275
Rockhampton	42 095	255	28	602	143	287
South-West, Central-West and North-West districts	34 353	289	44	388	113	160
Sunshine Coast	155 021	248	90	2 092	135	309
Toowoomba	65 800	262	33	757	115	225
Townsville	92 076	322	40	717	78	153
Wide Bay	160 314	216	105	1 923	120	234

Data source: ABS (1996a) and QOGR (1998b).

J Measuring costs

J.1 Introduction

This appendix outlines the way the Commission has estimated the dollar value equivalents of a range of adverse consequences that result from gambling for some people: adverse consequences for certain gamblers; for their families; and for the wider community. This involves collecting information on the prevalence of a range of adverse consequences (chapter 7) and then placing a dollar value against them. Some of these (such as job loss) are relatively easy to quantify, while others, such as the reduction in the quality of life of problem gamblers and their families, are inherently difficult. Nevertheless, as these intangible costs are a major element of the adverse consequences of gambling for some people, it is essential to gain some idea of their possible size, if only so that the costs can be compared with the benefits which are more readily quantified (see chapter 5).

The prevalence of adverse consequences resulting from gambling

In this inquiry, the Commission conducted two surveys which included questions about a range of possible adverse consequences from gambling:

- a national survey of the general population, (*PC National Gambling Survey*) including questions on adverse consequences asked of regular gamblers, together with the SOGS set of questions (appendix F); and
- a survey of problem gamblers currently undergoing counselling (*PC Survey of Clients of Counselling Agencies*). This survey asked a range of questions about the consequences of their gambling as well as the SOGS questions (appendix G).

Wherever possible, the Commission has used data from the *PC National Gambling Survey* as it more accurately reflects the prevalence of adverse consequences in the general population. By using information that relates to the general population of regular gamblers, the need to identify problem gamblers is avoided.

The information from the national survey has been supplemented in a few instances by data from the problem gambler group (*PC Survey of Clients of Counselling Agencies*), but caution should be exercised in drawing inferences from this group as

it is likely to represent the more severe problem gamblers in the wider population of problem gamblers (box J.1).

Box J.1 Estimating the cost from information from problem gamblers in treatment

A number of studies have estimated the costs of problem gambling by looking at the prevalence of adverse consequences in the group of problem gamblers who are seeking treatment. These costs are then attributed to the wider group of problem gamblers.

This presents two problems. The *first* is that problem gamblers who seek treatment are a very small percentage of the number of people typically identified as problem gamblers, using measures, such as the SOGS. In addition, it is likely that the prevalence of adverse consequences for the group in treatment is much higher than for other problem gamblers, because problem gamblers typically seek treatment as the result of some traumatic event, or when the adverse consequences become unbearable.

Attributing the prevalence for this group to the much wider group of problem gamblers would thus be likely to overstate the costs for the wider group.

A *second*, but countervailing, problem derives from measuring the costs of problem gambling only for those identified as problem gamblers, using screening devices such as SOGS. This assumes that the rest of the population does not suffer from any adverse consequences from their own gambling.

In many cases this is unavoidable, as the information on the prevalence of adverse consequences is available only for the problem gambler group, and it would be dangerous to infer any level of cost from that group to the wider population. Nevertheless, there is a risk of severely understating the cost of gambling if only because, as the rest of the population is so large, even a very low incidence of gambling-related impacts may generate significant total costs.

The problem is compounded by some researchers choosing a very high SOGS score to establish the population of problem gamblers. This is often done to overcome the criticism that the SOGS generates an excessive number of false positives, that is, identifying people as problem gamblers when, in fact, they are not. However, when it comes to measuring costs, false positives are not of great concern as the measure of the prevalence of adverse consequences will automatically take this into account. That is, those in the group who are not really problem gamblers will not report adverse consequences, and as a result the prevalence will be (correctly) lower for the group. But a measure of problem gamblers that is too severe can mean that significant costs generated by others are not included.

Box J.1 continued

Where minimising false positives does matter in the Commission's analysis is when we consider whether problem gamblers are getting value for money from their expenditure on gambling. If we are to include part of that expenditure as a cost rather than being offset by satisfaction achieved, the accurate identification of the population of problem gamblers is more important. The Commission's analysis of the SOGS score and its relationship with adverse gambling consequences is presented in chapter 6.

Ideally, we would like information on the prevalence of adverse consequences from gambling from the total population. The prevalence of the adverse consequences in the general population is the important issue when measuring the extent of costs, not whether these costs are generated by those easily 'tagged' as problem gamblers using a measure such as SOGS. But this is rarely available. The costs of conducting a large scale survey where all respondents were asked the full range of questions would be prohibitive. The Commission's national survey asked questions on adverse consequences only from the group of 'regular' gamblers. These comprise 39 per cent of the adult population. The Commission has assumed that there are no adverse consequences for the rest of the population. While this, in principle, means an understatement of the level of costs, it is unlikely to be significant.

Whether these costs are concentrated in a particular identifiable group is nonetheless important (though not for measuring the extent of costs) as it can be used by government when targeting policy action. The distribution of reported adverse consequences by SOGS scores is discussed in chapter 6

In the few instances where the survey of problem gamblers in counselling has been used, the Commission has attempted to compensate for the expected tendency to overstate the prevalence rate by applying this to the smaller number of problem gamblers who most closely match the group in treatment — those scoring 10 or more on the SOGS (46 800 people), rather than the wider group of problem gamblers, scoring 5 or more (293 000 people).

The survey information on prevalence

The *National Gambling Survey* asks all regular gamblers questions on a range of adverse consequences of gambling. All questions were asked on the basis of 'in the last 12 months', and many also asked if the gambler had 'ever' experienced the adverse consequence as a result of their gambling. The *Survey of Clients of Counselling Agencies* comprised a similar range of questions, asking the gambler to relate the questions 'only to the time when you were experiencing problems with your gambling'. The results from the survey indicated that the average period of problem gambling was 8.9 years. The SOGS questions were asked on the basis of 'in the last 12 months'.

Table J.1 presents the information on the prevalence of a range of adverse consequences derived from the Commission's surveys.

Table J.1 Information on prevalence from the Commissions surveys

	National Gambling Survey — regular gamblers			Survey of clients of counselling agencies	
	ever	over last 12 months	over last 12 months	over the period of gambling problem	over last 12 months
	% ^a	% ^a	number ^b	% ^c	% ^c
Financial impacts					
Borrowed from loan sharks	na	0.1	17 000	na	8.4
Went bankrupt	0.03	0.02	2 900	8.4	na
Sold property to gamble	na	0.3	35 100	na	36.7
Pawned or sold possessions	0.4	0.2	31 200	na	na
Lost house	na	na	na	7.9	na
Lost superannuation	na	na	na	13.4	na
Productivity and employment					
Lost time from work or study	na	0.7	98 100	na	50.3
Reduced productivity	1.2	0.7	94 300	na	na
(sometimes to always)	na	0.4	49 200	na	na
(often to always)	na	0.1	7 000	na	na
Average level of productivity loss	na	na	na	7.88	na
Changed jobs	0.2	0.04	5 600	18.3	na
Been sacked	0.1	0	0	18.6	na
Crime and legal					
Any crime	0.5	0.2	20 900	44.1	na
Bounced cheques deliberately	na	0.1	13 600	na	21.2
Borrowed without permission	na	na	na	42.3	na
Obtained money illegally	0.3	0.02	3 400	na	na
Trouble with the police	0.2	0.04	6 300	18.3	na
Appeared in court	0.1	0.00	700	15.8	na
Jail sentence	na	na	na	6.4	na
Personal and family					
Suffered from depression	2.1	1.5	205 900	95.6	na
sometimes to always	na	1.0	142 400	89.2	na
often to always	na	0.50	70 500	60.1	na
Major adverse effect on partner	na	na	na	na	46.6
Major adverse effect on children	na	na	na	na	20.7
Argued with family over gambling	na	1.9	266 900	na	83.2
Breakup of relationship	0.4	0.3	39 200	na	na
Divorce or separation	0.3	na	na	26.0	na
Seriously considered suicide	0.3	0.1	12 900	57.8	na
Attempted suicide	na	na	na	13.6	na
Prevalence of violence	na	na	na	13.1	na

a per cent of regular gamblers reporting the consequence. **b** estimated number affected in the adult population in Australia. **c** per cent of problem gamblers in counselling reporting the consequence. **na.** Not available.

Source: PC National Gambling Survey 1999, and PC Survey of Clients of Counselling Agencies 1999.

Costs have not been attributed to all of the adverse consequences listed in table J.1 above. Some are too difficult to value or could be included in other categories, but they are listed above to indicate the extent of impacts of costs borne by people as a result of problem gambling.

In addition to information on the extent of adverse consequences, the questionnaires provided additional information that has assisted the Commission in placing values on some of the costs of gambling (table J.2). This includes, for example, the number of people in the household, which establishes a lower limit on the number of other people likely to be adversely affected by some of the problems relating to gambling.

Table J.2 Other information gathered from Commission surveys

	<i>National Gambling Survey</i>	<i>Survey of Clients of Counselling Agencies</i>
current gambling debt	na	\$10 044
length of problem gambling	na	8.9 years
average number of people in household (problem gamblers)	3.3	2.6
number of children under 15 (problem gamblers)	0.62	0.58
current employment status (per cent employed)	69	75

Source: PC *National Gambling Survey* 1999, and PC *Survey of Clients of Counselling Agencies* 1999.

The survey questions were asked only of regular gamblers

The national survey asked questions on gambling related problems of the general population of *regular* gamblers. Regular gamblers are those who engage in some form of gambling, on average, once a week (other than those who are solely 'low level' regular lottery or lotto players). These questions were not asked of non-regular gamblers, as it is unlikely that group would suffer significant adverse consequences as a result of their own gambling activities. Nevertheless, the costs are understated to the extent that any of the non-regular gamblers do suffer some adverse consequences.

In most cases the Commission has used information on the prevalence of adverse consequences among regular gamblers from the *National Gambling Survey*. In a few areas (such as the level of debt, incidences of violence, and prevalence of jail terms) information was only available from the *Survey of Clients of Counselling Agencies*. As noted, because the prevalence of problems is likely to be much greater for those seeking counselling, the prevalence rate from the *Survey of Clients of Counselling Agencies* has been applied only to the population scoring 10 or more on SOGS (47 000 people). To the extent that those scoring 5 to 9 on the SOGS are likely to

suffer from some of the adverse consequences identified in the 10+ group, the Commission's estimate of the costs will be understated.

The information on adverse consequences from the *Survey of Clients of Counselling Agencies* is sometimes available only for the period of the duration of gambling problems rather than in the last year. Where they have been used, these 'duration of gambling problem' events have been estimated and converted to an annual basis using information on the average length of gambling problems (8.9 years) derived from the *Survey of Clients of Counselling Agencies*.

Measuring the counterfactual

In estimating the cost of problem gambling, the question of what the situation would have been without gambling, especially problem gambling, is important. As mentioned in chapter 10, the extent to which gambling is the primary cause of the problems we observe has been questioned. Problems with gambling may be only one of a number of inter-related problems that some people have. At the same time, such adverse consequences as divorce or separation, are going to happen to many people even without gambling.

The Commission's questionnaires asked respondents a range of questions relating to adverse consequences attributable to their gambling activities. This relies on the respondent accurately assessing that gambling is the principal contributing cause. Where an adverse consequence is recorded, the Commission has accepted the respondent's judgment that this is gambling related.

The NORC study (Gerstein et al 1999) recently released in the United States used a different approach. Briefly, they asked respondents questions on a whether they had suffered a range of adverse consequences for whatever reason. By including all adverse consequences, whether attributed to gambling or not, the US study was able to compare the prevalence of adverse outcomes for those identified as problem and pathological gamblers (using a variant of the DSMIV) with the prevalence among those who were not problem gamblers. The estimates were of the excess of costs experienced by problem and pathological gamblers.

The Commission has looked at the results of the NORC study and those from the Commission's surveys. Despite the differences in methodology and variations in the way questions were asked, where a comparison could be made, the prevalence rates generated by the NORC study relating to pathological gamblers are similar to those from the Commission's client survey. Table J.3 presents comparisons where the questions asked and the groups involved most closely matched.

Table J.3 Prevalence rates, selected consequences, NORC and PC Survey of Clients of Counselling Agencies

	<i>NORC pathological gamblers</i>	<i>PC Survey of Clients of Counselling Agencies</i>
	%	%
Job loss	8.0 (last 12 months)	18.1 (ever)
Bankruptcy (ever)	8.4	8.3
Divorced (ever)	20.1	23.4
Arrested (ever)	13.0	17.0
Incarceration (ever)	15.1	6.9

Source: Gerstein 1999 and PC Survey of Clients of Counselling Agencies 1999.

Following the draft report, the Commission held a meeting with a number of prominent academics and researchers in the field of problem gambling in Australia (Clive Allcock, Alex Blaszczynski, Jan McMillen, and Michael Walker). The participants were specifically asked their views on the extent to which problem gamblers would have problems in the absence of gambling. The consensus was that for a number of adverse consequences, particularly depression, divorce and separation, a reasonable rule of thumb is that some 15 to 20 per cent would have problems even in the absence of their gambling.

Where the adverse consequence was more directly financial, such as embezzlement, or bankruptcy, the view was that the gambling activity was generally the central and overwhelming problem, as the most immediate and direct adverse consequences of problem gambling are financial difficulties. This is consistent with overseas findings that gamblers who engaged in crime typically had no prior history of criminal activity.

Drawing on these judgements, the Commission has made an adjustment for ‘causality’ in its estimates of the personal and family impacts of problem gambling by discounting by 20 per cent the number of people estimated to be affected.

J.2 Measuring components of cost

The Commission has estimated the costs for a range of adverse consequences. These are:

- financial costs (debts and bankruptcy);
- productivity and employment (productivity loss and job change costs);
- crime and legal costs;
- personal and family costs; and

-
- costs of gambling counselling services.

The following sections outline the methodology for estimating the cost of each type of impact identified. In areas where either the prevalence is uncertain, or where the cost can vary significantly, and where there is sufficient information, the Commission has estimated a range of costs — a lower and a higher estimate. Even when estimating the higher costs in the range presented, the Commission has tended to be conservative.

Financial costs

Problem gamblers spend a considerable amount of money on their gambling, estimated to average \$12 200 each per year across all problem gamblers. Severe problem gamblers spend significantly more, averaging an estimated \$20 700 each per year.

Spending at these levels, problem gamblers can quickly get into financial difficulties. The information from the Commission's *National Gambling Survey* indicated that:

- 82 per cent of problem gamblers had borrowed money to pay for their gambling in the last year;
- 19 per cent (54 800 people) had borrowed without paying back;
- 6 per cent had borrowed from loan sharks; and
- 0.2 per cent (2900 people) had gone bankrupt in the last 12 months as the result of their gambling.

Of problem gamblers seeking help, the *Survey of Clients of Counselling Agencies* indicated that 53 per cent had borrowed money without paying back, 13 per cent had lost their superannuation and 8 per cent had lost their house as a result of their gambling.

This section is concerned with the costs imposed on others by the debts of problem gamblers, and the costs associated with bankruptcy by problem gamblers. 'Costs' associated with the high level of spending by problem gamblers themselves, and the need to borrow money to finance this spending, are not included in the calculations in this section. In chapter 5, when estimating the benefit that gamblers gain from their spending, the Commission has discounted the gain that problem gamblers receive to take into account their 'excessive' spending and the assumption that they do not obtain full value for money for that excess spending.

Debts

What is the level of gambling-related debt of problem gamblers?

Problem gamblers typically accumulate considerable debts. They include debts to family and friends, debt with financial institutions, and sometimes significant debts with the ‘informal’ lending sector, including loan sharks.

Information from other studies indicate that the level of gambling related debt can be significant.

- Dickerson et al (1998, p. 80) reported that ‘... debts at the time of help-seeking, range from \$150 000 - \$240 000 (excluding those with debts over \$1 million). Debts were owed to family (36%) major finance companies (37%) and credit cares (28%).’
- Lesieur (1992) was reported in Goodman (1994) as finding that the mean gambling-related debt of people in compulsive therapy in the United States ranged from about US\$53 000 to US\$92 000.
- Goodman (1995) also reported that a typical middle-income compulsive gambler who enters treatment usually owes about one to two years salary, while some higher-income people often owe several million.

Information on debt was not available from the *National Gambling Survey*. The Commission’s *Survey of Clients of Counselling Agencies*, however, found an average debt level of \$10 044. This appears low considering both the level of spending by problem gamblers, the high rate of borrowing reported in the surveys, and the information from other studies. Feedback from those conducting this survey indicated that many respondents may have misunderstood this question. One comment was that where, for example, the respondent had increased the mortgage to finance gambling activities this was not considered by the respondent to be a gambling-related debt.

Does debt represent a cost?

In itself, debt does not represent a cost to society as, when money is borrowed, it is presumed to be used to generate an equivalent benefit (in terms of income if invested or satisfaction if used for consumption) at least as large as the cost of the debt, including any interest on repayment. Even bad debts do not represent a cost, as the money would have been used elsewhere in the economy — either for investment or consumption — to generate an equivalent benefit, irrespective of the source of the funds.

To the extent that borrowed money is not used to generate an equivalent benefit, this is already accounted for in chapter 5, where estimates have been made of the extent to which problem gamblers may not be getting ‘value for money’ on their expenditure on gambling.

The failure to repay debts does, however, involve a transfer of money from various members of the community, and even when debt is repaid, the burden is often borne by other members of the family (chapter 7). Lesieur (1998) commented:

The pathological gambler’s financial burden is chiefly borne by the family. Added debt may mean that fewer family expenditures are possible. The mortgage, rent, gas, electricity, telephone, and other bills may be late or overdue. In extreme cases, utilities are shut off, automobiles or furniture is repossessed, household items are sold, and there is the possibility of being evicted from an apartment experiencing a foreclosure on the mortgage.

To get some idea of the possible magnitude of this transfer, the Commission assumed that half of the debts of problem gamblers represent a transfer from other members of the family. As this does not include debt that may have been paid off prior to seeking treatment, the true cost could be higher.

How has the value of the debt transfer been calculated?

To estimate the extent of the transfer of gambling related debts the Commission has used the following information:

- the value of debt of \$10 045 per problem gambler from the Commission’s survey of problem gamblers in counselling;
- as the information on debt levels relates to gamblers in treatment, and these are generally those with the more extreme manifestations of problem gambling, the Commission has applied the average debt rates only to the number of people who are likely to be particularly severe problem gamblers — those scoring 10 or more in the SOGS — or 46 800 adults nationally; and
- it is assumed that half of the value of debt is borne by other members of the family.

As information was not available on the level of debt accumulation and repayment on an annual basis, this is an estimate of the extent of the transfer over the period of problem gambling — a ‘lifetime’ estimate. On the basis of the information from the *Survey of Clients of Counselling Agencies* that gambling problems have lasted for an average of 8.9 years, this is estimated to be equivalent to \$26 million annually.

Bankruptcy

How many gamblers have been made bankrupt by gambling?

The *National Gambling Survey* indicated that 2900 people nationwide declare bankruptcy each year as a result of their gambling activities. However, as noted in chapter 7, the proportion affected is so small that the estimate is unreliable statistically.

Official statistics on the causes of bankruptcy provide a lower number — some 317 bankruptcies a year attributed to ‘gambling and speculation’ in 1997-98 (appendix R). These figures need to be viewed with some caution as gambling and speculation which results in bankruptcy is an offence under bankruptcy law. Brading (1999) commented:

Paragraph 271(a) provides that gambling or speculation up to 2 years before the presentation of the petition is an offence if it “materially contributed to, or increased the extent of, his insolvency.” Section 271 of the *Bankruptcy Act* has a surprising effect. It takes behaviour which is legal, namely “gambling” or “speculation” and retrospectively makes that behaviour into a crime. Gambling or speculation by a bankrupt only becomes a crime following bankruptcy if it can be proven that it was “*rash and hazardous having regard to his financial position at the time and any other material circumstances.*”

While prosecutions are few in comparison with the numbers reporting gambling and speculation as the cause of their bankruptcy (see Brading 1999), it is likely that the possibility of prosecution results in significant under-reporting of gambling as a cause of bankruptcy.

What is the cost of bankruptcy proceedings?

Bankruptcy can basically occur in two ways: as the result of a creditors’ petition, or as the result of a petition by the debtor. The vast majority of bankruptcies (93 per cent in 1997-98) are the result of a debtor’s petition, lodged with the ITSA (Insolvency and Trustees Service Australia). A creditor’s petition involves the costs of court proceedings.

The bankrupt’s estate will be managed by a trustee, which can be the ITSA. Some 95 per cent of bankruptcies in 1997-98 are managed by the Official Receiver, (Inspector General in Bankruptcy 1998). The ITSA’s fees are:

... the whole of your bankruptcy estate up to \$4,000. If your estate exceeds \$4,000 the fees are \$4000 plus a percentage on a sliding scale of moneys received in excess of \$4,000.

This fee is only taken in estates where money is actually realised. All others are ‘free’ although there is a cost involved in terms of staff and administration. As most gambling related bankruptcies are ‘consumer bankruptcies’ it is likely that many do not attract a fee at all.

In their estimate of the costs of gambling-related bankruptcies in NSW, Dickerson et al (1998) used a cost of \$6,600 per court case.

How has the cost of gambling-related bankruptcy been calculated?

The key data used to estimate the cost of gambling related bankruptcy are:

- the number of ‘gambling and speculation’ bankruptcies indicated by the official statistics (317); and
- a cost per bankruptcy of \$4000. While many bankruptcies will not involve this cost being borne by the person involved because insufficient money can be recovered, there is nonetheless a cost involved in the process and this should be considered in the estimates.

The total cost of gambling related bankruptcies is estimated in this way to be \$1.3 million each year.

Bankruptcy involves a range of other costs, and having been declared a bankrupt may well reduce earning capacity, or borrowing capacity into the future. The Commission has not attempted to estimate such future costs associated with having been declared bankrupt as a result of gambling.

Bad debts at bankruptcy

The Commission’s surveys did not collect information on the level of bad debts at the time of bankruptcy. Nonetheless, it would be reasonable to expect the level of debt at bankruptcy to be at least as great as the average level of gambling-related debt at the time that problem gamblers seek treatment, and probably greater, as it is severe levels of debt that typically lead to bankruptcy.

- Ladouceur (1994) reported that problem gamblers in Gamblers Anonymous in Canada had debts at bankruptcy ranging from \$75 000 to \$150 000

As with other debt, bad debts represent a transfer from others to the gambler, rather than a net cost to society. The fact that the gambler may not subsequently get ‘value for money’ when consuming gambling products is accounted for in the analysis in appendix C and chapter 5, where the benefit that consumers gain from access to gambling products is reviewed and quantified.

While most of the money involved with bad debts is a transfer within society rather than a net cost, there are nonetheless some real costs. Bad debts involve effort and resources to recover debts, and this cost would typically be included in the general cost of loans to other borrowers. The Commission has no basis for estimating the extent of this cost.

Productivity loss

Problem gambling has a significant affect on all aspects of the problem gambler's life. This spills over into the work environment — time may be increasingly taken from work to gamble, and the depression that accompanies problem gambling can erode work performance. When Dickerson et al estimated the cost of problem gambling in NSW, the loss in work productivity was the largest single component of cost.

The Commission's *National Gambling Survey* indicated that some 94 300 people would have been less productive at work as a result of their gambling in the last 12 months. Some of this loss may be trivial. The survey indicated that lost productivity happened 'sometime to always' for 49 200 'often to always' for 7000 people.

In their responses to the *Survey of Clients of Counselling Agencies*, the gamblers indicated an average productivity loss of 7.9 per cent. This estimate is higher than those used elsewhere. For example, Dickerson et al (1998) assumed a productivity loss of 1 hour a week, a loss equivalent to 2.5 per cent of work time, while Ladouceur (1994) assumed a loss of 5 hours a month, a similar level of loss to that used by Dickerson et al. But these earlier estimates of the loss in productivity seem low. One hour a week of work time does not align with the comments that problem gamblers make about the extent of their obsession with gambling. In making its estimates of the loss in productivity, the Commission has used the average level reported by problem gamblers in its survey.

How has the cost of lost productivity been calculated?

The key data used to estimate the cost of lost productivity due to problem gambling are:

- for a lower estimate, the number of people from the national survey reporting an adverse effect on job performance 'often to always' in the last 12 months — 7000 adults nationwide.

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- for a higher estimate, the number of people from the national survey reporting an adverse effect on job performance ‘sometimes to always’ in the last 12 months — 49 200 adults nationwide.
 - for the extent of productivity loss, the 7.9 per cent reported in the survey of problem gamblers in counselling; and
 - for the value of productivity the Commission has used average weekly earnings — equivalent to \$38 600 per person per year.

The total cost of lost productivity as a result of problem gambling is estimated to be \$21 million to \$150 million each year.

The question in the *National Gambling Survey* related to an adverse effect on *job* performance. While this is likely to pick up those who are employed and self-employed, those who are at home are unlikely to have responded to this question. Yet a reduction in productivity for those at home, bringing up families etc, is just as real a loss as the decline in productivity of those employed. Some 30 per cent of regular gamblers were not employed, and if they were included with the same level of productivity loss, this would increase the value of lost productivity by \$7 million to \$50 million a year.

While some of the loss in productivity may be carried by the problem gambler in the form of lower remuneration (for example if they are self employed), some will be carried by the employer in the form of lower profits, by other employees in the form of lower wages overall and by the taxpayer in the form of lower tax receipts. Exactly who bears the cost does not, however, affect the estimate of the total cost involved.

Job change (unemployment) as a result of gambling

How many gamblers have had to change jobs as a result of their gambling?

The Commission’s national survey indicated that over 28 000 people have changed their job as a result of their gambling, and almost 5600 in the last 12 months. While the survey indicated that some 10 200 have been dismissed from their job at some time as a result of their gambling, no respondents reported this as having happened in the last 12 months, and thus no estimate has been made of the number for the population as a whole.

What is the cost of job change?

There are essentially three costs involved in a change in job. The first is the loss in income over the period of unemployment before a new job is found. The second is the financial cost of the job search. The third is the cost to the employer of finding and training a replacement.

The loss of income, however, is not borne fully by the unemployed. Of the gross income, that part which is paid in tax is lost to the government, and to the extent that the unemployed receives unemployment benefits, some part of the loss in after-tax income is also transferred to the government.

Most job change costs will be the same whether the job change is voluntary or involuntary. However, other costs may be different. Job search costs and the prospects of new employment may be better if the job change is voluntary, as it would be reasonable to presume that the employee has a chance to prepare for the change. Where job change is involuntary, job search costs for the employee may be higher and the prospects of re-employment lower as good references are unlikely to be provided. Alternatively, if timing is at the discretion of the employer, the employer's job change costs may be lower. The extent to which these vary, however, is difficult to determine, and in the absence of any data on this matter, the Commission has not attempted to make any estimate of the differences in the costs of job change depending on whether the change is voluntary or not, with the exception of differences in the rate of assistance provided by government.

The level of government assistance varies depending on whether the job change was voluntary or not. Where the job change was as a result of a resignation, the Newstart Allowance is discounted by 18 per cent for the first 26 weeks.

Income loss when unemployed

For the Australian population as a whole, for any individual changing a job, the average duration of unemployment is some 6 weeks. However, this rate varies significantly. Some 50 per cent will find a job in a relatively short time (less than 2 weeks) and typically this does not result in the receipt of unemployment benefits. Some take longer to find a job and may receive unemployment benefits for a much longer period. The average duration of unemployment for any individual whose unemployment is greater than 2 weeks is some 11 weeks. In this study, the Commission has assumed that half of those who change their job have an average duration of unemployment of 11 weeks and receive unemployment benefits over 9 of those 11 weeks.

The Commission has assumed that the pattern of job change for those changing jobs as a result of gambling is the same as that for the general population — an average period between jobs of 6 weeks. On the basis of average weekly earnings of \$743, this is a loss in income of some \$4300 per job change which, for 5600 people results in an estimated annual total cost of \$24 million.

Cost of job search for the gambler

The Commission has not come across any up-to-date information on the cost of job search for the employee. To calculate the cost, the Commission has used the estimate of \$2357 used by Dickerson et al (1998). This was reported as “approximately half of the cost reported by major job search firms.”

With an estimated 5377 people changing jobs as a result of their gambling in a year, job search by the employee represents a total cost of \$13 million.

Cost of staff replacement for the employer

Information on the cost of staff replacement for the employer has been equally hard to find, particularly as relates to Australia. Layard et al (1991) (p. 343) said:

... in the USA, the sum of hiring and firing costs for white collar workers totals between two weeks’ and two months’ pay, whereas for blue-collar workers they are around one-fifth as great. In European countries, the legislative framework is rather stricter so the equivalent costs would be considerably higher.

Holzer (1989) put the time cost associated with hiring and training new staff as follows:

- Formal hours of training (8.991);
- Informal hours of training by management (45.118);
- Informal hours of training by co-workers (38.768); and
- hours spent hiring (12.225).

The NORC study (Gerstein et al 1999) study commented:

Employers incur search and training costs assumed equal to 10 per cent of the annual salary for each employee replaced.

In this analysis, the Commission has similarly assumed that the employer search and replacement cost equals 10 per cent of annual salary (estimated on the basis of average weekly earnings), a cost per staff replacement of \$3862. With 5600 people being replaced in a year, this is a total cost to the employer of \$22 million.

Unemployment benefits are a transfer to the unemployed

The payment of unemployment benefits to those who change jobs as a result of their gambling represents a transfer of some of the cost of being unemployed from the unemployed to the taxpayer. It does not represent an additional cost above what the Commission has already estimated the loss on income as a result of unemployment.

The Commission has assumed that the pattern of job change for those changing jobs as a result of their gambling is the same as that of the general population. The average length of unemployment is estimated to be some 6 weeks, with half having a period of unemployment of 2 weeks or less and are thus not eligible for unemployment benefits. The average period of unemployment of the remainder is estimated to be 11 weeks, 9 weeks of which would be eligible for unemployment benefits. The rate of unemployment benefit varies depending on whether the job change was voluntary or involuntary. For those who resigned, Newstart payments are 18 per cent lower for the first 26 weeks. For those who were unemployed involuntarily, the full Newstart allowance is payable.

The Commission has estimated the amount of payment on the basis of eligibility for the Newstart allowance, partner allowance and rent assistance (a fortnightly payment of \$402) for those who are unemployed for greater than 2 weeks (half of the number who change jobs), and on the basis that they receive payments for 9 weeks.

The Commission estimates that the annual cost of unemployment benefits for gamblers who change their jobs as a result of their gambling is \$4.1 million. This compares with an estimated loss in income over the same period of \$24 million.

Summary of key data used to estimate the cost of job change (unemployment) as result of gambling

The key data used to estimate the cost of unemployment due to gambling activities:

- an estimated 5600 people changed jobs as a result of their gambling in the last 12 months;
- no people identified themselves as having been dismissed from their job as a result of their gambling in the last 12 months. This is certainly an understatement, but in the absence of any information on this matter, the Commission has not included any estimate in this area;
- an expected average length of unemployment of 6 weeks for each person changing jobs;

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- to estimate the income lost over the period of unemployment —average weekly earnings of \$743;
 - job search costs for the employee of \$2357;
 - staff replacement costs of \$3862 for the employer (10 per cent of annual average earnings);
 - average benefits of \$1482 per person from government for half the people who change jobs, (being 9 weeks of payment for half the people who change jobs, at a Newstart and rent assistance payment of \$402 per fortnight)

In this area, the Commission has not estimated a lower and higher cost estimate. Unlike other areas where the available information provided a basis for estimating a range of costs, this was not the case for job change. In summary, the Commission has estimated that job change as a result of gambling has, in each year:

- cost gamblers \$24 million in lost income;
- involved \$13 million in job search costs;
- cost employers \$22 million in staff replacement costs; and
- transferred \$4 million from taxpayers to those changing jobs via job start and related payments.

Crime and legal costs

The *National Gambling Survey* asked a number of questions on the extent of illegal activities undertaken by gamblers as a result of their gambling activities. Based on their responses, it is estimated that Australia wide, 13 600 had bounced cheques deliberately, while 9700 committed other crime relating to their gambling activities. In total, an estimated 20 900 people are estimated to have committed some form of gambling related crime in the last year.

As with bad debts, the value of money or goods stolen is a transfer within society, rather than a net cost. The real cost of crime is the effort that society must take to protect property together with the costs of the criminal justice system.

The Commission has made an estimate of the value of the money and goods stolen as a result of gambling-related crime — a measure of the transfers — as well as estimates of some of the net costs to society in the form of police incidents, court appearances and jail terms as a result of gambling related crime.

The Commission has not been able to estimate the private costs of gambling-related crime, such as the cost of protecting property, but such costs can be substantial. Walker (1997) commented:

Estimates provided by the Australian Security Industry Association Ltd (ASIAL) (personal communication) suggest that the industry was worth \$1250 million in 1991-92. This covers the principal areas of security industry activity; man-power (guards, surveillance, cash carrying etc), alarms (monitoring, responding etc) and electronics (access control, closed-circuit TV etc).

Information on the value of money obtained illegally was not obtained in the survey. More general information indicates that the average value of property stolen can be high. Walker (1996) reported the following estimates of the average property loss per incident:

- breaking and entering (commercial premises), Victoria: \$1786;
- breaking and entering (non-commercial premises), Victoria: \$2307;
- breaking and entering (commercial premises), National: \$1413;
- fraud and misappropriation (deception), Victoria: \$3225; and
- stealing from the person: \$500.

How has the transfer as a result of crime been calculated?

The key data used to estimate the extent of the transfer as a result of gambling-related crime by gamblers are:

- 9700 people committing a gambling related crime (other than fraudulent cheques) in the last 12 months;
- for a lower estimate, a value of money and goods stolen of \$500; and
- for a higher estimate, a value of money and goods stolen of \$3225.

This represents a transfer of some \$5 million to \$31 million a year. The Commission has not attempted to estimate what the cost of managing and responding to this level of crime, but some component of that cost will be included in the following estimates of the cost of police incidents, court appearances and jail terms resulting from gambling.

The cost of police incidents

On the basis of the *National Gambling Survey*, it is estimated that 6300 people were involved in an incident with the police as a result of their gambling activities in the last 12 months. Dickerson et al (1998) used a cost per police incident of \$510 and

the Commission has used this estimate in its analysis. This gives a cost of \$3.2 million a year for Australia as a whole.

Court cases

The national survey results indicate that over 13 100 people have been involved in a court case as a result of their gambling at some time in their lives, and that for 700 people this occurred in the last 12 months. In comparison with earlier work in Australia, this appears low for the nation as a whole. Dickerson et al (1998) estimated 815 court cases a year for New South Wales alone and, in addition, this number was drawn from the population of problem gamblers only.

The costs of court proceedings can vary widely, depending on the complexity of the case and the extent to which it is contested. Szabo (1997) said:

Contested cases involve two stages. The first is up to what is called the “pre trial hearing” at which directions are given. The second is the time after that hearing and up to the start of the final hearing. Costs for the first stage commonly range from \$3,000.00 to \$8,000.00 depending at which stage you settle. The second stage involves similar costs. Costs average around \$4,000.00 for each day the matter takes during the final hearing, including a barrister’s fee. Typically residence cases run for three to four days.

On this basis, full court proceedings would cost between \$23 000 and \$32 000.

Not all the cost is carried by the plaintiff in the case. In 1997-98 expenditure on courts amounted to \$452 million (all Australian courts except the High Court) (Steering Committee 1999). Court fees recovered from the plaintiffs represent 42 per cent of expenditure in 1997-98. With over 1.7 million cases initiated, the cost averages \$442 per case of which \$237 is carried by the taxpayer.

In their NSW study, Dickerson et al (1998) used an average court case cost of \$6600.

In this study, the Commission has used the following information:

- an annual number of gambling related court cases of 700; and
- a cost of \$8000 for each case.

On this basis, the court cases involving problem gamblers cost \$5.6 million per year.

The cost of jail sentences

Information on jail sentences as a result of problem gambling was available only from the *Survey of Clients of Counselling Agencies*. This survey indicated that 6.4 per cent of those surveyed had, at some time, faced a jail sentence as a result of their problem gambling. However, problem gamblers in counselling are not typical of the problem gambler generally. The prevalence of particular problems is likely to be greater for this group. Consequently, to provide a lower estimate of the cost, the prevalence rate from the survey of problem gamblers in counselling has been applied to the much smaller number of people scoring 10 or more on the SOGS, (46 800 people) rather than the estimated total population of problem gamblers (293 000 people). This results in an estimated 3000 people who had been incarcerated as a result of their gambling during the period of their gambling problems. Using an estimated duration for gambling of 8.9 years, and assuming that incarceration occurs only once in the problem gambling cycle, the Commission has estimated an annual rate of incarceration as the result of gambling at 336 nationally. This compares with an estimate in Dickerson et al (1998) of 136 for New South Wales.

Information from the literature on problem gambling indicates that gamblers are typically involved in non-violent crime, and as a consequence the length of jail sentence is expected to be low.

Ladouceur (1994) said:

As in other studies, the majority of offences committed by pathological gamblers in Quebec are non-violent.

Goodman (1995, p.52) said:

People who engage in crime to support their compulsive gambling behaviour generally have no prior record of criminal behaviour.

From data collected by the ABS (1997) on the expected time to serve of sentenced prisoners, the Commission has estimated that the average expected prison sentence for a non violent crime (fraud and misappropriation and other theft) is some 3.4 months. This is considerably less than the 1.5 years used by Dickerson et al in their 1998 estimates for NSW but, the Commission considers that the lower rate is more appropriate given nature of the crime typically involved.

The cost of prisons is \$52 983 per prisoner per year for Australia as a whole, based on average Australian data for 1997-98 on recurrent expenditure and user cost of capital per prisoner (Steering Committee 1999).

On the basis of the following data:

-
- 336 people receiving a jail sentence as a result of their problem gambling per year;
 - an average sentence of 3.4 months; and
 - an average annual cost per prisoner of \$52 983;

the cost of prison terms relating to problem gambling is estimated to be \$5.1 million each year.

Personal and family costs

Personal and family costs are amongst the hardest and most contentious to value against. Nonetheless, this is not a valid reason to avoid attempting to do so. Estimates, even those involving considerable judgment, can provide us with some idea of the extent of the cost involved. Leaving them out means that much of the, arguably more important, costs are ignored and an incorrect impression is given that the costs are minimal because they are not estimated. Not including such estimates, which in effect values the cost at zero is likely to involve greater error, even if there is a degree of uncertainty surrounding the estimate.

Measurement of these intangibles has concentrated on attempt to quantify the value of life. Typically they have been undertaken to estimate the costs and benefits of certain actions that will save or extend life. The two basic approaches to the valuation of life are the ‘human capital’ and the willingness to pay’ techniques, Single et al (1996) said:

The human capital approach estimates the discounted current value of the future stream of potential earnings of the victim. This approach undervalues life since it takes no account of the value of life to the victims over and above their earnings loss. ... The willingness to pay approach studies what people would be willing to pay for relatively small changes in the risk of death and from these figures produces estimates of the value of life. While this technique appears to have a much sounder theoretical basis, there still remain considerable difficulties in the accuracy and consistency of estimates using this approach.

These estimates can give values for the human life in the millions of dollars, but the Commission is reluctant to use such estimates in this contentious area. Consequently, more conservative values for a range of emotional costs associated with problem gambling have been used in these estimates.

The personal and family costs associated with problem gambling are most commonly manifested in psychological ways — such as depression — rather than as a more easily identifiable physical harm. There is, nonetheless, some evidence of impact on the physical aspects of quality of life. Problem gamblers and their family

have a higher rate of suicides, for example. The NORC study (appendix K) in the US found that pathological gamblers reported poor or fair health at a much higher rate than would be expected for their population group without problem gambling.

Similar information has not been available from the Commission's surveys, and as a consequence, the impact on the physical health of problem gamblers has not been estimated.

How many gamblers report personal and family costs?

The Commission's surveys have provided a range of information indicating the number of people reporting adverse personal and family impacts from their gambling activities (chapter 7). Some of the key impacts for which the Commission has made cost estimates are presented in table J.4 below.

Table J.4 Estimated number of adults suffering adverse personal and family impacts from their gambling activities

<i>Problem</i>	<i>In the last 12 months</i>	<i>Ever</i>
Break up of a relationship	39 200	59 500
Divorce and separation	3 200	na
Violence	na	13.1% of agency clients
Depression	205 900	289 900
sometimes to always	142 400	na
often to always	70 500	na
Thoughts of suicide	12 900	35 500
Attempted suicide	na	13.6% of agency clients
Moderate adverse effect on partner ^a	na	20.1% of agency clients
Major adverse effect on partner ^a	na	54.4% of agency clients
Moderate adverse effect on children ^a	na	18.8% of agency clients
Major adverse effect on children ^a	na	27.6% of agency clients
Moderate adverse effect on parents ^a	na	23.7% of agency clients
Major adverse effect on parents ^a	na	24.1% of agency clients

^a Excluding those who answered 'not applicable'.

Source: Chapter 7.

While there are some direct financial costs that can be measured, such as the cost of separation or divorce, most of the cost can be seen as falling into the category 'pain and suffering'. This is much harder to put a dollar figure against.

How can we measure 'pain and suffering'?

There are a range of compensation arrangements in the various States and Territories for the victims of crime. Victims compensation legislation in a number of

states offer up to \$50 000 each for serious harm (Queensland offers up to \$75 000). Acute pain and suffering can also be compensated up to \$50 000. For example, the New South Wales *Victims Compensation Amendment Act 1998*, offers compensation to the level of:

- chronic psychological or psychiatric disorder that is moderately disabling, \$5000 to \$15 000; and
- chronic psychological or psychiatric disorder that is severely disabling, \$30 000 to \$50 000.

In a discussion paper on compensation, the ACT Government (Humphries 1997) reported that the median award value for psychological injuries in New South Wales and the ACT in 1995-96 was \$15 260. The discussion paper commented:

As would be expected, applicants whose psychological injury was caused by sexual assault receive relatively large awards (median of nearly \$30 000). Those whose psychological injury stems from assault generally receive lesser amounts (median \$14 150). (p.8)

In the US, the Department of Justice (1996) reviewed jury award for those suffering as a result of crime. The study reported the following amounts (in 1993 \$US):

- Child abuse: 52 371;
- Rape and sexual assault 81 400;
- Other assault or attempt with injury 19 300;
- Other assault or attempt without injury 1700;
- Robbery or attempt with injury 13 800;
- Robbery or attempt without injury 1300; and
- Burglary and attempt 300.

The study said:

For nonfatal injuries, the research team estimated value of pain, suffering, fear, and lost quality of life by analysing jury awards to crime victims and burn victims. ... This study ignored jury award for punitive damages and instead focused solely on that portion of the jury verdict designed to “compensate” the victim for pain, suffering, and lost quality of life. ... In this manner, the researchers were able to estimate what the average jury award for pain and suffering would be for the typical crime in the project’s data set. (p.15)

As with the information for Australia, rape and sexual assault and child abuse in the US results in the highest levels of payment.

Similarly, in a study of 843 awards for pain and suffering in the United States, Rodgers (1998) found the following range of values (table J.5).

Table J.5 Awards for economic loss and pain and suffering, by injury category (1998 US dollars)

<i>Range for economic losses^a</i>	<i>Mean economic loss</i>	<i>Mean pain and suffering</i>	<i>% of awards for pain and suffering</i>	<i>Number of cases</i>
	\$	\$	%	No.
Category 1	7 048	35 678	83.5	139
Category 2	17 709	49 889	73.8	362
Category 3	20 747	76 939	78.8	315
Category 4	39 437	315 410	88.9	27
Average	17 782	66 157	78.8	843

a Categories 1 to 4 relate to the severity of the injuries for which the awards were made, with category 1 being the least severe, and category 4 being the most severe.

Source: Rodgers (1998)

As can be seen from the table from Rodger's analysis, the value of awards for pain and suffering is consistently and substantially higher than the value of economic loss involved.

Pain and suffering awards or payments relate to the emotional impact of an injury suffered by the person involved. In this analysis, the Commission is attempting to place a dollar value against emotional distress caused by problem gambling where there is typically no direct 'injury' involved. Consequently, in estimating the cost for the emotional harm of divorce and separation, depression, violence, and suicide, the Commission has not used data on award payments. The estimates are based predominantly on the lower range of payments for victims compensation in use in New South Wales and Queensland, and previously in use in Victoria¹. These are outlined in table J.6.

A degree of judgment is inevitable in choosing any number for the range of costs associated with a particular condition. The Commission has been conservative, using the higher of the two compensation schedules only in the few cases where the condition leads to thoughts of suicide and attempted suicide. The Commission considers that it is reasonable to presume that serious thoughts of suicide and attempted suicide represent more severe forms of depression and thus warrant imputing the higher cost. In making these estimates, it must be acknowledged that more people are involved than the problem gambler themselves. Family and friends are invariably caught up in the emotional damage that problem gambling generates.

¹ Victoria has replaced its compensation schedule with 10 free counselling sessions at a cost of some \$1040 per person.

As indicated in table J.6, where practical, the Commission has included estimates for the impact of some of these adverse consequences on family members.

Table J.6 Range of values assigned to the emotional costs associated with problem gambling (dollars per person)

<i>Adverse consequence identified</i>	<i>Lower cost</i>	<i>Higher cost</i>
	\$	\$
Emotional costs for the immediate family		
of moderate problem gamblers	ne	ne
of severe problem gamblers	5 000	15 000
Emotional costs for the parents		
of moderate problem gamblers	ne	ne
of severe problem gamblers	0	5 000
Relationship breakdown	5 000	15 000
Divorce or separation	15 000	30 000
Violence	5 000	15 000
Depression		
rarely to sometimes	ne	ne
often to always	5 000	15 000
Seriously thought of suicide	15 000	30 000
Attempted suicide		
for the gambler	30 000	50 000
for the immediate family	15 000	30 000
for the parents	0	5 000
Successful suicides	ne	ne

ne: not estimated.

Annual or lifetime costs

In these estimates, the Commission has sought to estimate the cost of problem gambling in the single year 1997-98. The Commission has not attempted to estimate the net present value of adverse consequences that continue for a number of years as the result of an event that occurred in 1997-98.

This can be seen as assuming that the costs do not extend beyond 1997-98, or that, were the survey to be undertaken in the following year, those continuing to suffer from adverse consequences would be again identified and included in the relevant year. For some conditions such as depression and the general emotional distress for family members, this is a reasonable assumption as problem gambling episodes last for an average of almost 9 years. Thus, for these conditions, which comprise the bulk of the intangible costs, those suffering such costs would be included in data on prevalence in subsequent years.

For ‘one-off’ events such as divorce or suicide where the consequences may be felt many years into the future, but where the event does not occur each year, the Commission is understating the costs by excluding the net present value of future distress or other costs.

An adjustment for ‘causality’

As mentioned in section J.1, on the basis of the collective judgements of a number of prominent academics and researchers in the field of problem gambling in Australia, the Commission has made an adjustment for ‘causality’ in its estimates of the personal and family impacts of problem gambling by discounting by 20 per cent the number of people estimated to be affected by costs relating to adverse consequences in this broad category.

An adjustment for ‘double counting’

In a number of instances, some adverse consequences are likely to occur to people who report other conditions. For example, those reporting that they are depressed as a result of their gambling may also report serious thoughts of suicide or attempted suicide. To avoid any double counting, the Commission has excluded more severe manifestations of a problem from estimates for the less severe condition. Estimates for a more severe manifestation of distress thus include all the associated problems leading to the reported condition. Thus:

- the numbers estimated for divorce and separation have been excluded from the number estimated for breakup of a relationship;
- the numbers estimated for thoughts of suicide have been excluded from the number estimated for depression; and
- attempted suicide numbers have been excluded from the numbers estimated for thoughts of suicide.

The same exclusions has been followed where the impact on family members has been estimated.

The following sections outline the method the Commission has used in each category, followed by a summary of the results for personal and family costs.

Emotional distress of family members

Much of the burden of problem gambling falls on family members, and notwithstanding the views of some industry participants that such costs should be

seen as part of the informal contract system operating within the family, the Commission considers that they are of relevance when estimating the costs of the gambling industries to Australia. The *Survey of Clients of Counselling Agencies* provided some indication of the extent of the impact on other family members of more serious problem gambling (table J.7).

Table J.7 Reported impact on others
(adjusted to exclude those reporting the question as not applicable)

	<i>Partner</i>	<i>Children</i>	<i>Parents</i>	<i>Friends</i>	<i>Colleagues</i>
	%	%	%	%	%
No effect at all	12.6	24.2	27.5	36.6	57.1
Minor adverse effect	9.9	28.0	22.3	26.8	16.7
Moderate adverse effect	20.1	18.8	23.7	18.7	10.1
Major adverse effect	54.4	27.6	24.1	16.5	11.9
Do not know	3.0	1.5	2.3	1.4	4.2
Total	100.0	100.0	100.0	100.0	100.0

Source: PC Survey of Clients of Counselling Agencies.

The Commission has measured the cost to family members as follows:

- distinguishing moderate from severe problem gamblers (163 400 and 129 300 respectively);
- excluding the number identified as reporting a breakup of a relationship (39 200), as the impact on partners is encompassed in that category;
- excluding the number reporting attempted suicide (2935) as the impact on families of this adverse consequence is estimated in that category;
- adjusting the resulting numbers by the ‘causality’ adjustment factor (80 per cent);
- multiplying the number of problem gamblers by the average family size (excluding the problem gambler) (2.3);
- multiplying the number of problem gamblers by the average number of parents identified in the survey (1.8);
- adjusting the number of immediate family members (74.5 per cent reported partners as suffering a moderate or major adverse affect); and
- adjusting the number of parents to exclude those where ‘no effect at all’ and ‘minor adverse effect’ were reported (47.8 per cent reported parents as suffering a moderate or major adverse effect)

This yields an estimated number of people in the immediate family adversely affected of 190 900 for the category of moderate problem gamblers and 151 100 for

severe problem gamblers. For parents, the numbers are 168 200 for moderate problem gamblers and 133 200 for severe problem gamblers.

In valuing the emotional distress caused to immediate family members, the Commission has used the range of numbers from the lower of the two compensation schedules — \$5000 to \$15 000. For parents, the range used is zero to \$5000. To be even more conservative, the Commission has applied dollar values only to the immediate families and parents of *severe* problem gamblers.

This generates a cost range of \$756 million to \$2.3 billion for the immediate family and zero to \$666 million for parents (table J.8).

Table J.8 Estimates of emotional distress of family members

	<i>Number of people affected</i>	<i>Per person cost assumption</i>		<i>Total cost</i>	
		<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
	Number	\$	\$	\$ million	\$ million
<i>Immediate family</i>					
Moderate	190 900	ne	ne	ne	ne
Severe	151 100	5,000	15 000	756	2 267
<i>Parents</i>					
Moderate	168 200	ne	ne	ne	ne
Severe	133 200	0	5 000	0	666

ne: not estimated.

Source: PC estimates

Financial costs of divorce or separation

The national survey indicated that, Australia-wide, some 59 500 gamblers suffered a break up of a relationship as a result of their gambling, and that for an estimated 39 200, this occurred in the last 12 months. Of the 59 500 who suffered a relationship breakup, 42 600 are estimated to have led to divorce or separation. The survey did not ask participants whether this divorce or separation had occurred in the last 12 months. Appendix T discusses the numbers relating to divorce and separation in Australia, and identifies the likely number attributable to problem gambling to range between 1600 and 4000 divorces a year (and around double this number for divorces and separations combined). The Commission has taken the lower of these numbers as the basis for estimating the cost of divorce and separation. Thus, the number of divorces and separations, following the causality adjustment, amounts to 2560 in 1997-98.

For the vast majority of divorce proceedings the direct financial cost is low. Szabo (1997) said:

Almost all divorce cases are uncontested and involve a simple procedure of filing and serving documents on the other party. There is a government filing fee of \$500.00. Standard legal fees charged are \$385.00 if there are no children under 18 years and \$514.00 if there are children. In addition are any necessary disbursements such as a process server's fee (about \$90.00) and the filing fee.

On this basis, the Commission has used a cost of divorce or separation of \$1100. With 2560 incidents in the last 12 months, this results in an estimated total annual financial cost of \$2.8 million nationally for divorce and separation as a result of gambling.

In offering this estimate, it is recognised that it is very conservative and that the financial cost of divorce and separation can extend well beyond the cost of the legal procedures involved. Professor Quiggin (sub. D269) commented:

In the case of divorce, the only financial costs measured here are the legal costs of obtaining a divorce. It is clear, however, that substantially greater financial costs arise from financial settlements associated with divorce, e.g. costs of enforcing child support orders, transactions costs of house sales and ownership transfers and so on. The set up and operation costs of separate households are substantial. More significantly, there is ample evidence suggesting long-term adverse impacts on children's educational outcomes arising from divorce, and this translates into lower earnings. Human capital models therefore imply a financial loss which in present value terms would surely exceed the \$30 000 upper bound used here [in the draft report for the emotional costs of divorce and separation], without even allowing for emotional costs.

Emotional costs of relationship breakdowns and divorce and separation

The emotional cost of relationship breakdowns and particularly divorce and separation is, in many ways much more significant than the financial costs involved. And because other family members are involved, the number of people affected is greater.

Relationship breakdown

The National Gambling Survey indicated that some 32 900 relationship breakdowns could be attributed to gambling in the last 12 months. In making the broad estimate of the impact on the immediate family earlier in this appendix, the Commission excluded the number of people estimated to have suffered a relationship breakdown. The cost of this breakdown is included in this section, with the exception of those that led to divorce and separation, which are dealt with in the next section.

The following data have been used to estimate the emotional cost of relationship breakdowns:

-
- the number of relationship breakdowns attributed to gambling in the last 12 months (39 200);
 - less the number that led to divorce or separation (3200);
 - adjusted using the causality adjustment (80 per cent); and
 - then doubled to take account of the other party involved.

This results in an estimate of 57 600 people adversely affected by a relationship breakdown (excluding those involved in divorce and separation).

For a range of dollar values of the emotional distress caused by relationship breakdowns (other than divorce and separation), the Commission has used the range of numbers from the lower of the two compensation schedules — \$5000 to \$15 000.

This generates a lower estimate of the total costs of relationship breakdown of \$288 million and a higher estimate of \$864 million.

Emotional cost of divorce and separation

The following data have been used to estimate the emotional cost of divorce and separation:

- 3200 for the estimated number of divorce or separations resulting from gambling in the last 12 month (see above);
- adjusted using the causality adjustment (80 per cent);
- the average number of people in a household, based on survey results, of 3.3 people (including the gambler);
- for a lower estimate, a value of \$15 000 for each person affected; and
- for a higher estimate, a value of \$30 000 for each person affected as outlined above.

This results in an estimate of the annual cost of the emotional harm from divorce and separation resulting from gambling of \$126 million to \$253 million nationally.

Violence

Information on violence precipitated by problem gambling was only available from the survey of problem gamblers in counselling. This indicated that 13.1 per cent reported violence at some stage during their period of problem gambling. If this prevalence is applied to the number of people with a SOGS score of 10 or more, this indicates that nationally, some 6130 gamblers were involved in violence as a result

of their gambling during the period of their gambling problem. Using the average period of problem gambling of 8.9 years, there were estimated of 689 incidents of gambling-related violence in a year, and 551 incidents after the 80 per cent causality adjustment.

To estimate a lower value for the harm caused, the Commission has used \$5000 per incident and for a higher estimate, the Commission has used \$15 000. This results in a total cost of \$2.8 million to \$8.3 million nationally.

Depression

Many regular gamblers, and 96 per cent of problem gamblers in counselling reported suffering gambling-related depression at least some of the time. The *National Gambling Survey* indicates that some 49 400 people ‘often’ suffer from depression, and 21 200 are ‘always’ depressed in the last 12 months as a result of their gambling.

For those suffering depression ‘often’, the Commission has:

- taken the number of people estimated to suffer from depression ‘often’ (49 400);
- adjusted the number of gamblers using the causality adjustment (80 per cent); and
- for a lower estimate used a value of \$5000 each and for a higher estimate a value of \$15 000 each.

For those suffering depression ‘always’, the Commission has:

- taken the number of people estimated to suffer from depression ‘always’ (21 200);
- removed, from the number reporting that they were ‘always’ depressed, the number reporting serious thoughts of suicide (which are accounted for separately) (12 900).
- adjusted the number of gamblers using the causality adjustment (80 per cent); and
- for a lower estimate used a value of \$5000 each and for a higher estimate a value of \$15 000 each.

The range of values placed on depression based on the lower of the compensation schedules is — \$5000 dollars each as a lower estimate, and \$15 000 each for an upper estimate (table J.9).

Table J.9 Estimates for depression, 1997-98

	<i>Number of people (survey data)</i>	<i>Adjusted number of people^a</i>	<i>Per person cost assumption</i>		<i>Total cost</i>	
			<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
		Number	\$	\$	\$ million	\$ million
Rarely	63 500	50 800	ne	ne	ne	ne
Sometimes	71 900	57 520	ne	ne	ne	ne
Often	49 400	39 520	5 000	15 000	198	593
Always ^b	8 300	6 640	5 000	15 000	33	100
Total					231	692

^a Includes causality adjustment. ^b Excludes those reporting suicide ideation.

Source: PC estimates

This results in an estimated range for the costs of gambling-related depression of \$231 million to \$692 million in a year.

Depression can also involve a range of medical costs, either directly or indirectly, by affecting the health of the sufferer. The Commission has not attempted to estimate any of these additional costs.

Suicides

Thoughts of suicide and attempted suicides are considerably higher among the population of problem gamblers than for the population as a whole. This has been observed in other studies. In Canada, the National Council of Welfare (1996) said:

Suicide attempts among pathological gamblers occur much more frequently than among the general population. A Quebec study of college students found that 26.8 per cent of pathological gamblers had attempted suicide, compared to 7.2 per cent of college students with no gambling problems. Among a sample of Gamblers Anonymous members in the United States, it was found that 48 per cent had considered suicide and 13 per cent had attempted it. In fact, compared to other addictive disorders, the rate of attempted suicide is highest among pathological gamblers.

Lesieur (1992) was reported in Goodman (1994) as finding that pathological gamblers have a suicide rate five to ten times higher than the rest of the population. Lesieur (1998) has also found that spouses of problem gamblers have suicide attempt rates that are three times higher than those reported by the general population.

Suicide ideation

The Commission's *National Gambling Survey* indicated that some 12 900 gamblers seriously contemplated suicide last year as a result of their gambling problems.

In estimating the costs, as before, the Commission adjusted the number for causality and excluded people estimated to have attempted suicide as a result of gambling in the last 12 months. This results in an estimate of almost 8000 gamblers.

Drawing on the information on compensation payments available in Australia for psychological or psychiatric disorders, the Commission has placed a range of values on suicide contemplation and attempted suicide of \$15 000 (the upper lever of the lower range of compensation) for a lower estimate and \$30 000 (the lower bound of the higher range of compensation payments) for an upper estimate. It again considers these to be conservative.

This results in an estimated annual cost for those seriously contemplating suicide of \$120 million to \$239 million.

Attempted suicide

Information on attempted suicides was not available from the *National Gambling Survey*, but the survey of problem gamblers in counselling indicated that 13.8 per cent had attempted suicide at some time in the course of their gambling problem. In Chapter 7, the Commission looks at the statistics concerning attempted suicides in Australia, and estimates that some 2935 suicides were attempted in 1997-98 as a result of gambling problems. Once adjusted for 'causality', this leaves 2348 suicide attempts. To place a cost on these attempts, including the associated depression leading up to the attempt, the Commission has used the range of compensations from the higher of the compensation schedules — \$30 000 to \$50 000.

This results in an estimated annual Australia-wide of \$70 million to \$117 million.

Impact on families of attempted suicide

Attempted suicides have considerable impacts on family members. The Commission has estimated a cost for other family members and for parents of gambling related suicide attempts. The following information was used:

- 2348 suicide attempts (including the causality adjustment);
- 2.3 immediate family members affected (other than the gambler);
- 1.8 parents;

- a range of costs for the immediate family members of \$15 000 to \$30 000; and
- a range of costs for the parents of zero to \$5000 each.

This results in an estimate of costs for the immediate family of \$81 million to \$161 million, and an estimate of costs for the parents of zero to \$21 million.

In chapter 7 the Commission estimated that there could be 35 to 60 effective suicides annually as a result of problem gambling. The Commission has not attempted to measure the cost to the families of these suicides, though it would be substantial.

Summary of intangible estimates

Table J.10 summarises the estimates of the intangible costs of problem gambling.

Table J.10 Estimating the intangible costs associated with gambling, (1997-98)

	<i>People^a</i>	<i>Per person cost assumption</i>		<i>Total cost</i>	
		<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
	No.	\$	\$	\$ million	\$ million
<i>Emotional distress of immediate family members^a</i>					
Moderate PGs	190 901	ne	ne	ne	ne
Severe PGs	151 129	5 000	15 000	756	2 267
<i>Emotional distress of parents^b</i>					
Moderate PGs	168 200	ne	ne	ne	ne
Severe PGs	133 200	0	5,000	0	666
<i>Breakup of a relationship^c</i>					
Gambler	28 800	5 000	15 000	144	432
Other party	28 800	5 000	15 000	144	432
<i>Divorce and separation</i>					
Gambler and family	12 107	15 000	30 000	182	363
<i>Violence</i>	551	5 000	15 000	2.8	8.3

PG problem gambler. **ne** not estimated. **a** Excludes breakdown of a relationship, divorce and separation and attempted suicide numbers who are estimated separately. **b** Excludes attempted suicide group who are estimated separately, and parents for whom the gambler reported 'no effect at all'. **c** Excludes divorce and separation numbers. **d** Excludes subsequent suicide groups. **e** Excludes attempted suicide group. All numbers include the causality adjustment.

Source: PC estimates.

Table J.10 continued

	People ^a	Per person cost assumption		Total cost	
		Low	High	Low	High
	No.	\$	\$	\$ million	\$ million
<i>Depression^d</i>					
Rarely to sometimes	108 320	ne	ne	ne	ne
Often to always	46 160	5 000	15 000	231	692
<i>Seriously thought of suicide^e</i>					
Gambler	7 972	15 000	30 000	120	239
<i>Attempted suicide</i>					
Gambler	2 348	30 000	50 000	70	117
Immediate family	5 377	15 000	30 000	81	161
Parents	4 212	0	5 000	0	21
<i>Effective suicides</i>	35 – 60	ne	ne	ne	ne

PG problem gambler. **ne** not estimated. **a** Excludes breakdown of a relationship, divorce and separation and attempted suicide numbers who are estimated separately. **b** Excludes attempted suicide group who are estimated separately, and parents for whom the gambler reported 'no effect at all'. **c** Excludes divorce and separation numbers. **d** Excludes subsequent suicide groups. **e** Excludes attempted suicide group. All numbers include the causality adjustment.

Source: PC estimates.

Treatment and other costs

In addition to the costs borne by the problem gambler and his or her family, governments fund a range of services to assist problem gamblers. Chapter 16 reviews the provision of such services. The Commission estimated that in 1997-98, governments provided \$20 million for gambling counselling services throughout Australia.

Other costs that have not been estimated include the costs of treatment provided by a range of voluntary agencies, and non-government contributions to the cost of treatment. In addition, governments are increasingly funding research into gambling and problem gambling, together with information for the general community on the risks of problem gambling. These costs have also not been included in the Commission's estimates.

Adding up the 'measurable' costs

In total, the above estimates of costs that problem gambling imposes annually amount to \$1.8 billion to \$5.6 billion (excluding the unmeasurable costs) (table J.11).

Transfers within society as a result of problem gambling are much smaller, at an estimated \$35 to \$62 million annually (table J.12).

Table J.11 Costs of problem gambling

	low	high
	\$m	\$m
<i>Financial</i>		
Bankruptcy	1.3	1.3
<i>Productivity and employment</i>		
Productivity loss at work	21	150
Productivity loss outside work	7.2	50
<i>Job change</i>		
earnings loss	24	24
employee job search	13	13
employer staff replacement cost	22	22
<i>Crime and legal</i>		
Cost of police incidents	3.2	3.2
Court cases	5.6	5.6
Jail costs	5.1	5.1
<i>Personal and family</i>		
Emotional distress of immediate family		
Moderate problem gamblers	ne	ne
Severe problem gamblers	756	2 267
Emotional distress of parents		
Moderate problem gamblers	ne	ne
Severe problem gamblers	0	666
Breakup of a relationship ^a	288	864
Financial cost of divorce	2.8	2.8
Emotional cost of divorce	126	253
Cost of violence	2.8	8.3
Depression ^b	231	692
Thought of suicide ^c	120	239
Attempted suicide	70	117
Impact on immediate family	81	161
Impact on parents	0	21
<i>Treatment costs</i>		
Gambling counselling services	20	20
TOTAL OF ABOVE	1800	5586

a Excluding those that lead to divorce or separation. **b** Excluding those reporting thoughts of suicide. **c** Excluding estimated attempted suicides.

Source: PC estimates.

Table J.12 Value of annual transfers as a result of problem gambling
(\$ million, 1997-98)

	low	high
Debts	26	26
Unemployment payments	4.1	4.1
Value of money obtained illegally	4.9	31
TOTAL	35	62

Source: PC estimates.

Social costs by mode of gambling

The social costs presented in table J.11 have been allocated to the different modes of gambling on the basis of significance of that mode in problem gamblers' expenditure (see chapter 5). Because gaming machines account for some 76 per cent of the total amount of money spent by problem gamblers in 1997-98, 76 per cent of the social costs have been allocated to that mode (table J.13).

Table J.13 Social costs of gambling by mode of gambling (1997-98)

	<i>Share of expenditure in that mode accounted for by problem gamblers</i>	<i>Expenditure by problem gamblers</i>	<i>Social costs of gambling</i>
	%	\$ million	\$ million
Wagering	33.1	529	267 — 830
Lotteries	5.7	68	34 — 106
Scratchies	19.1	47	24 — 74
Gaming machines	42.3	2 710	1 369 — 4 250
Casino gaming	10.7	96	48 — 150
Other	25.0	112	57 — 176
All gambling	33.0	3 562	1 800 — 5 586

Source: Commission estimates.

K Recent US estimates of the costs of problem gambling

In June 1997, the United States Federal Government commenced an inquiry into gambling. The inquiry reported at the end of June 1999 (NGISC 1999). As part of that inquiry, the National Opinion Research Centre (NORC) conducted a national survey of gambling behaviour in the US population, including a set of questions focused on problem gambling (Gerstein et al 1999).

The survey asked questions about a range of adverse consequences. An important feature of that survey is that the questions were asked on the basis of whether these consequences had occurred at all (that is, as a result of any cause) rather than whether they had occurred as a result of gambling.

Respondents to the survey were classified as pathological, problem gamblers or low risk gamblers using a modified version of the DSM-IV rather than the SOGS. The prevalence of adverse consequences for each of these categories was calculated on the basis of survey responses.

A range of socio-demographic data was also collected, and this information was used to estimate the expected prevalence of adverse consequences for pathological and problem gamblers in the absence of their gambling problems.

The difference between the observed prevalence of adverse consequences for pathological and problem gamblers and the expected rates for those groups became the basis for estimates of the costs attributable to gambling. The report (Gerstein et al 1999, pp. 53–4) said:

Specifically, the estimates of this study compare the rate of costly consequences for these gamblers relative to “predicted” or expected rates for individuals with similar characteristics, but who are low-risk gamblers (they have gambled, but never experienced any symptoms of problem gambling).

Specifically, the analysis adjusts for a standard set of characteristics that are believed to be predictive of the behaviours and outcomes of interest in this report ... They include age, gender, ethnic identity, educational attainment, use/problems with alcohol and drugs, respectively, and region of the country in addition to variables representing the gambling type of the individual. The purpose of these calculations is to adjust for basic and systematic differences between different types of gamblers that might be related to the outcomes of interest, rather than simply take the difference in outcomes for

pathological and problem gamblers and compare them to those with no history of problems.

This yields a smaller or more conservative estimate than simple comparison of problem and pathological gamblers to the unadjusted rates for low-risk and non gamblers.

The following table presents the differences between the rate of adverse consequences for problem and pathological gamblers, the rate for low-risk gamblers, and the rate predicted for problem and pathological gamblers without gambling.

Table K.1 Summary of estimated rate of consequences for problem, pathological, and low-risk gamblers

	<i>Rate of consequence per problem</i>	<i>Predicted rate for problem without gambling</i>	<i>Rate of problem for low-risk gamblers</i>
Pathological gamblers	%	%	%
Job loss	13.8	5.8	4.0
Unemployment insurance	15.0	5.9	4.0
Welfare benefits	4.6	2.4	1.3
Bankruptcy	19.2	10.8	5.5
Divorced ever	53.6	33.5	29.8
Health poor or fair	31.1	15.7	13.9
Mental health utilisation	13.3	6.7	6.5
Arrested ever	32.3	19.3	11.1
Incarceration ever	21.4	6.3	4.0
Problem gamblers			
Job loss	10.8	5.5	4.0
Unemployment insurance	10.9	5.3	4.0
Welfare benefits	7.3	2.3	1.3
Bankruptcy	10.3	6.3	5.5
Divorced ever	39.5	32.1	29.8
Health poor or fair	16.4	ns	13.9
Mental health utilisation	12.8	5.6	6.5
Arrested ever	36.3	15.3	11.1
Incarceration ever	10.5	6.2	4.0

Source: Gerstein et al (1999), p. 55.

The study only included estimates of tangible financial costs, and identified costs and transfers in the following areas:

- job loss and lost wages from unemployment;
- bankruptcy;
- divorce;
- arrest and incarceration;

-
- poor health and mental health problems; and
 - the cost of gambling treatment.

Briefly, the study found that:

- Pathological gamblers had relatively high employment (76.3 per cent) at the time of the survey. But they were significantly more likely to have lost/been fired from a job (13.8 per cent versus 4 per cent for low-risk gamblers). The mean household income for pathological gamblers was about 15 per cent lower than for low-risk gamblers, but this difference was not statistically significant.
- Problem gamblers were significantly more likely to have been unemployed or at least not working at the time of their interview (58.9 per cent, versus 73.3 per cent for low-risk gamblers). Their rate of having lost or been fired from a job was also higher (10.8 per cent compared to 2.6 per cent for non gamblers). Wage rates did not appear to be impaired in this group.
- Pathological gamblers have clearly elevated rates of indebtedness, both in an absolute sense and relative to their income. Pathological gamblers owe \$1.20 for every dollar of annual income, while low-risk and non gamblers only owe \$0.80 and \$0.60 respectively. Pathological gamblers have significantly elevated rates of having ever declared bankruptcy: 19.2 per cent, versus 5.5 per cent and 4.2 per cent for low-risk and non gamblers.
- For problem gamblers, their average level of indebtedness is actually the lowest of any type of gambler; however, they still have an elevated rate of bankruptcy (10.3 per cent).
- Those with gambling symptoms have much higher rates of lifetime arrests and imprisonment. About one-third of problem and pathological gamblers reported having been arrested, compared to 10 per cent for low-risk gamblers and only 4 per cent for non gamblers. About 23 per cent of pathological gamblers and 13 per cent of problem gamblers have been imprisoned. Again, these rates are much higher than rates for low-risk gamblers and non gamblers (4 and 0.3 per cent, respectively).
- 33.8 per cent of pathological gamblers reported that they were in poor or only fair health, while only 14 per cent of low-risk gamblers reported poor or fair health.
- About 13 per cent of problem and pathological gamblers reported past-year use of mental health services while utilisation was just under 7 per cent for low-risk and non gamblers.

The quantification of the costs are summarised in table K.2.

Table K.2 Summary of cost estimates, United States, 1999

Type of cost	Annual or lifetime	Who pays the cost	Problem gamblers		Pathological gamblers	
			Lifetime \$	past year \$	Lifetime \$	past year \$
Costs						
Job loss	annual	employer	ne	200	ne	320
Arrests	lifetime	government	960	ne	1 250	ne
Corrections	lifetime	government	670	ne	1 700	ne
Divorce	lifetime	gambler/spouse	1 950	ne	4 300	ne
Health	annual	insurance	ne	ne	ne	700
Mental health	annual	insurance	ne	360	ne	330
Gambling treatment	annual	government	ne	ne	ne	30
Transfers						
Unemployment benefits	annual	government	ne	65	ne	85
Welfare benefits	annual	government	ne	90	ne	60
Bankruptcy	lifetime	creditors	1 600	ne	3 300	ne
Total costs			5 130	715	10 550	1 195
Costs minus transfers			3 580	560	7 250	1 050

ne: not estimated.

Source: Gerstein et al. (1999) p. 49.

The report (p. 49) said:

We believe that the annual costs should be increased to incorporate some contribution from the lifetime costs. However, the basis for making such an allocation is weak at the present time. This study found that past-year prevalence rates are about one-half of that for lifetime prevalence, indicating that pathological and problem gambling is a chronic problem for many, with the disorder going into remission and later recurring.

The report (p. 51) concluded:

While the conclusions of this analysis are relatively robust, they must be tempered by several factors. The small sample size was a limiting factor in the analysis. There were too few problem and pathological gamblers in the survey, even after the random digit dialling and the patron surveys were combined and weighted to generate cost estimates for consequences that were directly attributed by interviewees to “gambling problems.” All of the costs that have been estimated are associated with excess rates of consequences that can be caused by factors in addition to problem and pathological gambling. Analyses have been done to adjust for selected other factors such as alcohol and drug use, age and educational attainment. Adjustment for these factors does result in smaller estimates of costs than would otherwise result simply by comparing problem and pathological gamblers to non gamblers and those with no problems.

Finally, the costs that we measured are tangible and relatively amenable to economic analysis. However, many of the human burdens of pathological and problem gambling are not so readily quantifiable into dollars, for conceptual and practical reasons. For example, we calculated the cost of divorce in terms of the legal fees generated to

complete divorce actions through the court system. The cost in legal fees hardly begins to capture all of the social and psychological meaning of divorce for the partners and families directly involved, and for society as a whole. The economic costs that we calculated are a lower bound. Without a substantially greater research base on the characteristics and consequences of pathological and problem gambling, it is impossible to say with precision where the upper bound or midpoint of economic impact would lie.

L Survey of Counselling Services

This appendix presents the results from the Commission's *Survey of Counselling Services* for people experiencing problems with their gambling. The purpose of the survey, methodology adopted and the response rate obtained are also outlined. A copy of the questionnaire is attached.

L.1 Purpose

As part of the terms of reference for the inquiry into Australia's gambling industries, the Commission was asked to gather information on the cost and nature of welfare support services of government and non-government organisations necessary to address the social impacts of the gambling industries.

Most States collect some information on support services for problem gamblers, either through independent surveys or through the collection and monitoring of data by State Government departments responsible for the administration of Break Even services for problem gamblers.

In a report to the Casino Community Benefit Fund, Walker (1998a) conducted a survey of support services for problem gamblers in New South Wales. Deakin Human Services Australia and the Melbourne Institute of Applied Economic and Social Research (1997) conducted a survey of help services for problem gamblers as part of a study into the social and economic effects of electronic gaming machines on non-metropolitan communities in Victoria. Comprehensive analyses of clients of the Break Even problem gambling services funded by the Victorian Government have been undertaken (Jackson et al. 1997, 1999b), and a review of the Tasmanian Government funded Break Even problem gambling services has also been conducted (Eckhardt 1998).

For this inquiry, however, much of the existing information was either not broad enough or not contemporaneous with the needs of the inquiry. The Commission therefore decided to conduct a survey of counselling services. Additional information on the cost and nature of support services for problem gamblers was also gathered in the Commission's *Survey of Clients of Counselling Agencies* (appendix G).

In conducting the *Survey of Counselling Services* information was sought on:

- the nature of the agencies;
- the number and characteristics of problem gambling clients;
- the number of clients affected by someone else's gambling;
- the number of 'hidden' problem gamblers;
- the number and characteristics of staff helping problem gambling clients;
- counselling methods and outcomes;
- expenditure and funding; and
- volunteer and in-kind contributions to gambling services.

L.2 Methodology

The objective was to gather information not previously compiled on a national basis, on the broad nature of counselling services, by means of a survey that was relatively short and simple.

Sample frame

The intention was to survey the principal organisations providing help services for problem gamblers. In most States the main organisations providing support services are government funded. There is also a small number of privately funded organisations which provide services for problem gamblers. However, they form only a small proportion of the total services available in most States.

For compiling the sample frame, the Addiction Research Institute (ARI) was the primary source of information on the main publicly funded support services for problem gamblers. The list provided by the ARI was supplemented by other sources, including government departments, inquiry submissions and other publicly available information.

Questionnaire development

The initial development of the *Survey of Counselling Services* was based largely on information the Commission was seeking to gather as well as some questions posed in similar surveys.

Several academics working in the area of problem gambling were consulted and asked to provide comments on the draft questionnaire. A number of counselling agencies providing help services for problem gamblers were also contacted and asked to provide comments.

In addition, the Commission sought and gained approval to conduct the survey from the Commonwealth Government Statistical Clearance House at the ABS.

Pilot testing of the questionnaire

Eight problem gambling counselling agencies were contacted to seek their participation in a pilot of the survey. All agreed to participate, and seven agencies returned the questionnaire.

After the pilot was completed, several agencies were contacted to discuss their responses to the survey. This exercise provided valuable insights into how agencies interpreted questions, thereby helping to clarify the wording.

Survey method

The initial form of contact with most agencies included in the sample frame was by way of a letter, which briefly outlined the gambling inquiry and reasons why the Commission intended to conduct the survey. It also gave a brief description of the survey and the outcomes the Commission hoped to achieve. Agencies were then informed that they would be contacted shortly to see if they could be of assistance.

Around a week later all agencies were contacted by phone, and asked if they were able to participate in the survey. The great majority expressed their willingness to participate and these were mailed a copy of the survey. Those agencies which were not willing to participate were asked a short set of questions with a view to determining whether there was any non-respondent bias.

Agencies which agreed to participate were asked to complete and return the questionnaire one week from when it was received. Agencies which had not returned the questionnaire in that time were contacted to check progress. A number of agencies reacted to this follow-up call by returning the questionnaire, but in the end the return of all completed questionnaires was spread out over a number of weeks.

L.3 Response rate

A total of 126 agencies were included in the Commission's sample of organisations contacted. Of these, 106 agreed to participate (table L.1). Completed returns were eventually received from 82 agencies (table L.2).

Table L.1 Number of agencies included in the sample frame and those agreeing to participate in the survey

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total</i>
Number included in the sample frame									
metropolitan	23	21	4	2	11	2	1	3	67
non-metropolitan	19	13	7	8	8	2	0	2	59
Total	42	34	11	10	19	4	1	5	126
Number agreeing to participate in the survey									
metropolitan	16	20	4	2	10	2	1	3	58
non-metropolitan	16	9	6	5	8	2	na	2	48
Total	32	29	10	7	18	4	1	5	106

na Not applicable.

Source: PC Survey of Counselling Services.

Table L.2 Response rate

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Total survey returns (number)							
metropolitan	11	16	3	2	8	6	46
non-metropolitan	11	7	5	4	8	1	36
Total	22	23	8	6	16	7	82
Response rate for total survey returns (per cent)							
metropolitan	69	80	75	100	80	100	79
non-metropolitan	69	78	83	80	100	25	75
Total	69	79	80	86	89	70	77

^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

L.4 Survey results

Nature of agencies

Agencies which specialise in helping problem gamblers — defined as those where the main purpose is helping people experiencing problems with gambling — are shown in table L.3. Agencies in Victoria, Queensland and South Australia are more likely to specialise. Only in Victoria did no agency report having operated for more than five years (table L.4).

Table L.3 Agencies specialising in helping problem gamblers

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Number of agencies							
metropolitan	6	16	2	1	6	3	34
non-metropolitan	5	3	4	1	5	1	19
Total	11	19	6	2	11	4	53
Proportion of agencies^b							
metropolitan	55	100	67	50	85	50	76
non-metropolitan	45	43	80	25	63	100	53
Total	50	83	75	33	73	57	65

^a Tasmania, ACT and Northern Territory. ^b Agencies specialising in helping problem gamblers as a proportion of all agencies responding (table L.2).

Source: PC Survey of Counselling Services.

Table L.4 Years of operation
per cent

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
1 year	27	4	0	0	13	0	11
2 years	14	30	13	50	13	57	24
3-5 years	23	65	25	17	63	29	43
6-10 years	9	0	38	17	0	14	9
More than 10 years	27	0	25	17	13	0	13
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Services provided

As expected, the main service provided was counselling for gambling dependence (table L.5). Nearly a quarter of the agencies surveyed provided services other than those listed. These included community education, support groups for gamblers and/or those affected by someone else's gambling, psychological assessments, and health services. At times, agencies refer gambling clients to other organisations (table L.6), nearly a third being to Gamblers Anonymous. 'Other services' clients are referred to financial counsellors, drug and alcohol groups, self help groups and employment services.

Table L.5 Types of services provided for gambling clients
per cent of agencies

<i>Service</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Average</i>
Counselling for gambling dependence	95	100	100	67	93	86	94
Counselling for other co-morbidities	59	57	13	50	13	57	44
Legal advice	23	17	0	0	7	14	14
Financial counselling	50	65	75	17	87	43	60
Family counselling	82	91	63	67	73	71	79
Relationship counselling	77	87	100	67	87	71	83
Referral to other agencies/professionals	86	100	88	67	87	71	88
Emergency help (eg necessities, bill payment)	18	35	0	17	47	0	25
Other services	9	30	50	33	20	14	23

^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.6 Referrals of gambling clients by counselling agencies

<i>Type of referral</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Psychiatrists/psychologists	71	130	20	1	42	2	266
Other medical	168	162	37	2	88	22	479
Gamblers Anonymous	900	97	74	16	71	0	1158
Another gambling counselling service	52	61	5	6	54	29	207
Legal aid	47	140	21	1	52	13	274
Service offering financial/material aid	176	358	12	19	133	35	733
Other referral	195	282	2	0	3	0	482
Total	1609	1230	171	45	443	101	3599

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Number of clients

The survey included several questions about the number of clients counselled. Table L.7 gives responses to questions about:

- the number of problem gamblers counselled in the last seven days;
- caseload 12 months before the survey;
- the number of new clients seeking help in the 12 months preceding the survey;
- caseload at the time of the survey; and
- total number of problem gamblers counselled in the last 12 months.

Caseloads increased over the year in all states, except Western Australia and the Northern Territory, the overall increase over the year being around 33 per cent. Of the total of 9606 individual gambling clients counselled in the 12 months preceding the survey, around 70 per cent were new clients,

Table L.7 Problem gambling clients counselled

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Number counselled in last seven days							
metropolitan	195	269	65	15	112	43	699
non-metropolitan	95	119	61	0	60	15	350
Total	290	388	126	15	172	58	1049
Caseload 12 months ago (number)							
metropolitan	367	354	90	41	185	62	1099
non-metropolitan	108	86	104	7	113	25	443
Total	475	440	194	48	298	87	1542
Number of new clients in the last 12 months							
metropolitan	1399	1321	270	174	1184	429	4777
non-metropolitan	827	542	291	6	276	80	2022
Total	2226	1863	561	180	1460	509	6799
Current caseload (number)							
metropolitan	425	457	145	31	207	68	1333
non-metropolitan	328	116	126	4	117	35	726
Total	753	573	271	35	324	103	2059
Number of clients counselled in last 12 months							
metropolitan	2487	1756	626	174	1620	496	7159
non-metropolitan	961	685	343	6	332	120	2447
Total	3448	2441	969	180	1952	616	9606

^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Counselling services also provide help to those who are affected by someone else's gambling (table L.8). The total number counselled in the 12 months preceding the survey represented about 21 per cent of the total number of clients with gambling related problems counselled in the last 12 months.

Table L.8 Clients affected by someone else's gambling

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Number currently being helped							
metropolitan	59	63	47	5	39	16	229
non-metropolitan	52	36	25	3	29	15	160
Total	111	99	72	8	68	31	389
Number helped in the last 12 months							
metropolitan	203	235	197	30	506	116	1287
non-metropolitan	281	206	109	2	75	40	713
Total	484	441	306	32	581	156	2000

^a Tasmania, ACT and Northern Territory. ^{na} Not applicable.

Source: PC Survey of Counselling Services.

Waiting list

People seeking help for problems caused by gambling may not always be able to see a counsellor immediately they have decided to seek help (table L.9). Overall, more than one third of agencies indicated they had a waiting list, but in metropolitan New South Wales nearly two-thirds of agencies had a waiting list.

Table L.9 Waiting lists

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Average</i>
Agencies who indicated they had a waiting list (per cent)							
metropolitan	64	44	33	50	38	17	43
non-metropolitan	36	0	40	0	50	0	28
Total	50	30	38	17	44	14	37

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Characteristics of gambling clients

Overall, gambling clients are more likely to be male than female (table L.10), and the majority are of anglo-celtic origin (table L.11). Electronic gaming machines were the primary source of gambling problems (table L.12) and more than half of problem gambling clients initiated their own counselling or were referred by family or friends (table L.13). Others referring problem gamblers to counselling agencies included general practitioners, corrective services, probation officers and the courts.

Table L.10 Gender of gambling clients^a
per cent

	NSW	Vic	Qld	WA	SA	Other ^b	Average
Metropolitan							
male	65	50	48	70	42	59	54
female	35	50	52	30	58	41	46
Non-Metropolitan							
male	53	39	55	58	41	52	48
female	47	61	45	42	59	48	52
Total							
male	62	47	50	70	42	58	52
female	38	53	50	30	58	42	48

^a Weighted by the number of clients counselled over the 12 months preceding the survey. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.11 Ethnicity of gambling clients^a
per cent

	NSW	Vic	Qld	WA	SA	Other ^b	Average
Anglo-celtic	77	79	82	69	81	79	77
Asian	7	4	6	10	11	8	7
Non-asian non-english speaking	12	15	9	19	4	3	11
Aboriginal/Torres Strait Islander	2	1	2	2	3	5	2
Other	3	1	1	0	1	2	2
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Weighted by the number of clients counselled over the 12 months preceding the survey. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.12 **Source of gambling problem^a**

per cent

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^b</i>	<i>Average</i>
Electronic gaming machines	72	81	48	20	74	68	71
Racing	11	8	18	30	13	12	12
Casino table games	7	3	15	30	7	9	7
Lottery games	1	0	4	9	3	1	2
Other gambling	1	1	1	2	1	2	1
Mixture of gambling forms	9	7	13	10	2	9	7
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Weighted by the number of clients counselled over the 12 months preceding the survey. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.13 **Source of referral for gambling clients^a**

per cent

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^b</i>	<i>Average</i>
Self initiated	31	27	50	79	20	19	30
Family or friends	26	8	27	5	31	12	22
G-Line	15	54	3	5	7	14	21
Another agency or referral service	15	6	14	7	33	47	18
Other	14	5	6	5	9	7	9
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Weighted by the number of clients counselled over the 12 months preceding the survey. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Undisclosed problem gamblers

Some problem gamblers seeking help from counselling services may not disclose gambling as the source of their problems. The survey therefore asked agencies whether they provided help for people with problems other than those associated with gambling, and if so, how many clients presented with problems they suspected to be due to gambling. Forty-five agencies, including some which specialise in helping gamblers, said they provide services for people with problems other than those related to gambling (table L.14).

Thirty-five agencies said they didn't know how many hidden problem gamblers they helped. The ten agencies which provided an estimate said they might have helped a total of 156 undisclosed gamblers. The total number of people suspected of seeking

counselling because of someone else's gambling was 249. Asked what might lead them to believe a client's problems were due to gambling, agencies said that it might be a client's unwillingness to explain how financial difficulties had come about, or an apparent lack of honesty in explaining financial difficulties. Other indicators were hints, gossip, or choice of entertainment location.

Table L.14 Agencies providing services for people with problems other than those associated with gambling

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Number of agencies							
metropolitan	5	6	1	2	6	5	25
non-metropolitan	8	5	0	4	2	1	20
Total	13	11	1	6	8	6	45
Proportion of agencies							
metropolitan	45	38	33	100	75	83	54
non-metropolitan	72	71	0	100	25	100	56
Total	59	48	13	100	50	86	55

^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Staff helping those affected by gambling

The Commission was interested in gathering information on the number and characteristics of staff helping problem gamblers. The number of full time and part time paid staff available to counsel problem gamblers are shown in table L.15. As not all staff spend all their time counselling problem gamblers, the proportion of time staff spend with problem gamblers is shown in table L.16, while the full time equivalent of paid staff providing help to problem gamblers is shown in table L.17.

Table L.15 **Paid staff^a**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^b</i>	<i>Total</i>
Number of full time staff							
metropolitan	22	7	2	0	7	4	42
non-metropolitan	13	5	4	13	2	1	38
Total	35	12	6	13	9	5	80
Number of full time staff per agency							
metropolitan	2.0	0.4	0.7	0.0	0.9	0.7	0.9
non-metropolitan	1.2	0.7	0.8	6.5	0.3	1.0	1.1
Total	1.6	0.5	0.8	3.3	0.6	0.7	1.0
Number of part time staff							
metropolitan	18	30	8	3	17	16	92
non-metropolitan	15	15	7	5	10	4	56
Total	33	45	15	8	27	20	148
Number of part time staff per agency							
metropolitan	1.6	1.9	2.7	1.5	2.1	2.7	2.0
non-metropolitan	1.4	2.1	1.4	2.5	1.3	4.0	1.7
Total	1.5	2.0	1.9	2.0	1.7	2.9	1.9

^a Includes staff who also counsel clients for other than gambling related problems. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.16 **Proportion of time staff spend with gambling clients^a**
per cent

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^b</i>	<i>Average</i>
More than 75% of their time	40	83	83	0	40	17	43
Between 50% and 75% of their time	7	17	0	17	20	0	9
Between 25% and 50% of their time	13	0	17	0	40	33	16
Less than 25% of their time	40	0	0	83	0	50	32
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Unweighted data. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.17 Full time equivalent paid staff

	NSW	Vic	Qld	WA	SA	Other ^a	Total
Number of full time equivalent staff							
metropolitan	27.8	22.9	5.8	0.8	11.7	5.7	74.6
non-metropolitan	14.4	13.0	6.4	3.0	5.6	1.8	44.1
Total	42.2	35.9	12.2	3.8	17.3	7.5	118.7
Number of full time equivalent staff per agency							
metropolitan	2.8	1.4	1.9	0.4	1.5	0.9	1.7
non-metropolitan	1.3	1.9	1.3	3.0	0.7	1.8	1.3
Total	2.0	1.6	1.5	1.3	1.1	1.1	1.5
Caseload per full time equivalent staff^b							
metropolitan	17	22	45	41	29	16	23
non-metropolitan	26	14	20	na	21	19	20
Total	20	19	32	41	26	17	22

^a Tasmania, ACT and Northern Territory. ^b Weighted by current caseload. ^{na} Not applicable.

Source: PC Survey of Counselling Services.

More than 70 per cent of agencies required counsellors to have some form of accreditation and nearly 90 per cent required educational qualifications (table L.18). The most common forms of accreditation were training courses either in-house or courses offered by other agencies and membership or registration with professional bodies in financial counselling or psychology. The qualifications required were usually relevant tertiary qualifications in psychology or social work. Some agencies only required counsellors to attend a relevant training course or have on the job experience in addictions counselling.

Table L.18 Counsellor accreditation and educational qualifications
per cent

	NSW	Vic	Qld	WA	SA	Other ^a	Average
Agencies requiring accreditation (per cent)							
metropolitan	45	81	100	100	88	67	74
non-metropolitan	73	29	80	75	75	100	67
Total	59	65	88	83	81	71	71
Agencies requiring educational qualifications (per cent)							
metropolitan	73	100	100	100	75	83	87
non-metropolitan	91	100	100	75	88	100	92
Total	82	100	100	83	81	86	89

^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Counselling methods and outcomes

There are a number of ways in which agencies assess clients (table L.19). A number of agencies said they found both the South Oaks Gambling Screen (SOGS) and DSM-IV very useful as gamblers can relate to the questions and it gives them a measure of the severity of their gambling problems. 'Other formal diagnostics' used include the Marks Parkin general health questionnaire, the Beck depression index and a number of personality questionnaires. Some agencies use their own in-take forms.

Table L.19 Client assessment
per cent

<i>Assessment tools</i>	<i>Never</i>	<i>Rarely</i>	<i>Some- times</i>	<i>Often</i>	<i>Always</i>	<i>Don't Know</i>	<i>Total</i>
South Oaks Gambling Screen	35	8	18	18	17	4	100
DSM IV	21	14	16	12	35	3	100
G-Map assessment guide	68	10	14	4	0	4	100
Addiction Severity Index	79	13	3	1	0	4	100
GA 20 questions	55	20	17	4	3	3	100
Taylor-Johnson temperament analysis	91	3	3	0	0	4	100
Relationship questionnaire	61	5	17	8	6	3	100
Other formal diagnostics	45	3	18	20	13	1	100

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Agencies use a variety of approaches to help people with gambling problems (table L.20). Nearly half use methods or approaches other than those listed, including transactional analysis and narrative therapy. One agency said it uses hypnosis. The great majority of problem gamblers attend more than one counselling session, with more than half attending five or more (table L.21). Sixty three per cent of agencies said that the average length of a counselling session is an hour. Nearly one-fifth said the average length is between half an hour and one hour. Only 2 per cent of agencies said that counselling sessions can last 2 hours or more.

Table L.20 Approaches used to help clients

<i>Methods/techniques</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^a</i>	<i>Total</i>
Number of agencies							
Assessment/Referral	18	21	5	5	16	6	71
Supportive counselling	20	23	8	4	15	6	76
Cognitive approaches	19	23	8	4	13	6	73
Systemic therapies	13	16	6	2	11	5	53
Psychodynamic therapies	6	12	4	0	6	2	30
Other methods or approaches	7	13	2	3	12	2	39
Proportion of agencies							
Assessment/Referral	82	91	63	83	100	86	87
Supportive counselling	91	100	100	67	94	86	93
Cognitive approaches	86	100	100	67	81	86	89
Systemic therapies	59	70	75	33	69	71	65
Psychodynamic therapies	27	52	50	0	38	29	37
Other methods or approaches	32	57	25	50	75	29	48

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.21 Number of counselling sessions^a
per cent

<i>Number of sessions</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Other^b</i>	<i>Average</i>
Only 1 session	14	19	16	21	9	25	15
2 sessions	9	8	16	19	8	10	10
3-4 sessions	12	28	29	51	13	12	19
5-6 sessions	42	11	19	4	18	9	25
7-10 sessions	10	13	12	3	27	19	14
11-15 sessions	7	9	4	2	18	13	9
16 or more sessions	6	12	2	1	6	12	7
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Weighted by the number of clients counselled over the 12 months preceding the survey ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

The majority of agencies said they assess the outcome of counselling (table L.22). More than half said they assess the outcome of counselling immediately after the completion of treatment and/or after some months (table L.23). Slightly less than a third of agencies do multiple follow-ups. Assessment often takes the form of a detailed interview or a questionnaire.

Table L.22 Agencies assessing outcomes

	NSW	Vic	Qld	WA	SA	Other ^a	Total
Number of agencies who assess outcomes							
metropolitan	8	6	3	2	7	3	29
non-metropolitan	9	5	5	4	5	1	29
Total	17	11	8	6	12	4	58
Proportion of agencies who assess outcomes							
metropolitan	73	38	100	100	88	50	63
non-metropolitan	82	71	100	100	63	100	81
Total	77	48	100	100	75	57	71

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Table L.23 When is the outcome assessed?

	NSW	Vic	Qld	WA	SA	Other ^a	Total
Immediate assessment (number)							
metropolitan	7	11	0	1	5	4	28
non-metropolitan	7	5	3	2	8	1	26
Total	14	16	3	3	13	5	54
Immediate assessment (per cent)							
metropolitan	64	69	0	50	63	67	61
non-metropolitan	64	71	60	50	100	100	72
Total	64	70	38	50	81	71	66
Assessment after a period of time (number)							
metropolitan	5	12	3	1	5	1	27
non-metropolitan	7	1	4	2	1	1	16
Total	12	13	7	3	6	2	43
Assessment after a period of time (per cent)							
metropolitan	45	75	100	50	63	17	59
non-metropolitan	64	14	80	50	13	100	44
Total	55	57	88	50	38	29	52

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

A satisfactory outcome — defined as one where gambling is no longer a source of significant problems — is thought to be achieved by more than half of all clients counselled (table L.24). Around 40 per cent of agencies reported that they did not know how many clients end counselling with unresolved problems. The responses given by those agencies who did provide an estimate are shown in table L.24.

Table L.24 **Gambling clients ending counselling^a**
per cent

	NSW	Vic	Qld	WA	SA	Other ^b	Average
Proportion of clients ending counselling with satisfactory outcome							
metropolitan	67	50	40	40	36	48	55
non-metropolitan	54	63	42	100	72	50	59
Total	63	54	41	42	52	49	57
Proportion of clients ending counselling with unresolved problems							
metropolitan	18	17	29	35	17	27	19
non-metropolitan	16	36	38	na	13	25	24
Total	17	20	33	35	16	26	21

^a Weighted by the number of clients counselled over the 12 months preceding the survey. ^b Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Expenditure on services for people with gambling problems

Agencies were asked about their expenditure on services for problem gamblers and the sources of funding for their operations (tables L.25 and L.26 respectively). The great majority of agencies provided this information for the 1997-98 financial year. While total expenditure should logically be equal to total funding, this is not so for the information presented as some agencies provided data for expenditure and not for funding and others did vice versa.

Table L.25 **The cost of providing gambling services, 1997-98**
\$'000

	NSW	Vic	Qld	WA	SA	Other ^a	Total ^b
Cost of providing gambling services							
Wage costs of direct service staff	334	1182	517	60	454	273	2820
Other wage costs	52	227	91	30	96	31	527
Material aid/Financial help	7	1	0	0	29	3	40
Overheads for gambling services	102	323	209	20	93	104	850
Other services	94	110	87	1	37	13	343
Total^b	936	2254	904	111	709	424	5337

^a Tasmania, ACT and Northern Territory. ^b Totals may not add due to rounding, and because a number of agencies provide data on total expenditure but not for individual categories. ^{na} Not available.

Source: PC Survey of Counselling Services.

Table L.26 **Source of funding, 1997-98**

	NSW	Vic	Qld	WA	SA	Other ^a	Total
Source of funding (\$'000)							
State Government	718	1717	909	110	680	422	4556
The gambling industry	41	0	0	0	0	3	44
Clients	8	0	0	0	0	0	8
Agency's own funds	173	3	3	1	9	2	191
Other	17	4	0	0	0	0	21
Total	957	1724	912	111	689	427	4820
Proportion of funding from each source (%)							
State Government	75	99	99	99	99	99	96
The gambling industry	4	0	0	0	0	<1	1
Clients	<1	0	0	0	0	0	<1
Agency's own funds	18	<1	<1	<1	1	<1	4
Other	2	<1	<1	0	0	0	<1
Total	100	100	100	100	100	100	100

Totals may not add due to rounding. ^a Tasmania, ACT and Northern Territory.

Source: PC Survey of Counselling Services.

Volunteer and in-kind contributions to gambling service

Twelve agencies only, or 15 per cent of those surveyed, reported they had unpaid volunteers providing direct help to gambling clients. The total number of unpaid direct service volunteers was 38, but only two agencies said that their volunteers made up to one full time equivalent (FTE).

Ten agencies or 12 per cent said they had unpaid volunteer back-up staff. Total volunteer back-up staff was 40 but only 3 agencies reported that their back-up staff made up to one FTE.

Nine agencies said they met some of the costs of providing services for problem gamblers from in-kind contributions by other people or organisations. Seven of these were in metropolitan areas, six in New South Wales. Only four agencies provided an estimate of the value of in-kind contributions, the total being \$59 000 with one agency in New South Wales reporting to have received \$30 000.

General comments

The survey asked agencies if they had any comments on any constraints which may be affecting the effectiveness of existing services for gamblers. The great majority of agencies which commented were concerned about what they saw as inadequate funding, inadequate training programs, and ineffective models of treatment.

More specifically, agencies said funding was insufficient for counsellors to be paid adequate salaries; one agency said its counsellors had to provide and pay for the mobile telephones which enabled clients to contact them as required. Another agency said it had to turn away at least 20 people per month for lack of funding. The uncertainty about the continuation of funding also caused problems, in particular for planning. Some agencies said they were forced to charge clients a fee which often they could not afford.

With regard to training, agencies said there were long waiting lists for the few training courses offered, and those which are offered are usually held in capital cities involving lengthy travel and high costs.

Some agencies commented on the need for more research and statistical information. In particular they said better treatment models need to be developed. Some also said there was no funding for adequate record keeping.

L.5 Agencies participating in the survey

New South Wales

Alcohol and Other Drug Services (Moree Hospital)
Centacare (Blacktown)
Central Coast Problem Gambling Service (Woy woy)
Family Support Services (Cessnock)
Creditworthy (Wollongong City Mission)
Cumberland Hospital
Ethnic Chinese Mission Inc (Revesby)
Freeman House (Society of St Vincent de Paul, Armidale)
Gambling Counselling & Support Service (West Ryde)
GAME (Society of St Vincent de Paul, East Sydney)
Integral Psychology Services (Lismore)
Lifeline (Coffs Harbour)
Lifeline Northern Rivers (Lismore)
Liverpool Hospital
Maryfield Day Recovery Centre (Campbelltown)
Newcastle City Mission
Northern Rivers Gambling Service (Bangalow)
NSW Indo-China Chinese Association (Canley Vale)
Relationships Australia, Wollongong
South Pacific Private Hospital (Harbord)
Sydney City Mission
Wesley Gambling Counselling Services (Chippendale)

Victoria

Western Region Alcohol & Drug Centre (Warrnambool)
Anglicare Victoria – Gippsland (Morwell)
Banyule Community Health Service (West Heidelberg)
Bethany Family Support (North Geelong)
Berwickwide Community Health Service
Colac Community Health Service
Cranbourne Community Health Centre
Dandenong Community Health Centre
Dandenong Migrant Resource Centre
East Bentleigh Community Health Centre
Frankston Community Health Centre
Good Shepherd Youth & Family Services (Hastings)
Mallee Family Care (Mildura)
Pakenham Community Health Service
Peninsula Youth & Family Services (Rosebud)
Relationships Australia Victoria Inc (Ballarat Centre)
Salvation Army (Melbourne CBD)
South Port Support Services (South Melbourne)
South Western Community Centre (Warrnambool)
Springvale Community Aid & Advice Bureau
Springvale Community Health Centre
St Kilda Migrant Resource Centre
Victorian Relief Committee (West Melbourne)

Queensland

Centacare Catholic Family Services (Townsville)
Lifeline (Bungalow)
Relationships Australia (Gold Coast)
Relationships Australia (Mackay)
Relationships Australia (Logan)
Relationships Australia (Rockhampton)
Relationships Australia (Spring Hill)
Relationships Australia (Strathpine, Sunshine Coast)

South Australia

Adelaide Central Mission
Anglicare ('Old Rectory', Salisbury)
Break Even Gambling Service (Mt Gambier)
Cambodian Australian Association (Angle Park)

Centacare (Whyalla)
Centre for Anxiety & Related Disorders (Bedford Park)
Overseas Chinese Association (Findon)
Port Augusta Family Centre
Port Pirie Central Mission
Relationships Australia (Metropolitan)
Relationships Australia (Rural)
Roxby Downs Medical Centre
Salvation Army (Woodville)
Wesley United Mission (Bowden)
West Coast Youth Services (Pt Lincoln)
Woomera Hospital

Western Australia

Break Even Centacare (Perth)
Centacare (Broome)
Centacare Family Services (Geraldton)
Goldfields Centacare (Kalgoorlie)
Kinway (Kununurra)
Mainchance (Subiaco East)

Tasmania

Anglicare (Hobart)
Relationships Australia (Hobart)
Relationships Australia (Launceston)

Northern Territory

Amity Community Services (Darwin)
Anglicare, Topend (Winnellie)
Centacare (Darwin)

ACT

Lifeline, Gambling and Financial Counselling Service (Canberra)

L.6 The questionnaire

Gambling Inquiry

SURVEY OF COUNSELLING SERVICES 1997-98

← Please complete this
form for the agency
or person named on
this label

Purpose of collection

Your assistance is being sought by the Commonwealth Government and the Productivity Commission in a survey into Australia's gambling industries. The *Survey of Counselling Services* will frame findings about the social impacts of problem gambling and the services which try to deal with them. The terms of reference ask the Commission to examine and report on, among other things, the social impacts of gambling, the incidence of gambling abuse and the cost and nature of welfare support services of government and non-government organisations.

Confidentiality

Your responses will be confidential. Data will be published at an aggregate level only, with no disclosure of data from individual surveys. All participating agencies will receive a copy of the published report.

Due Date

Please complete the survey by

Help Available

If you have problems in completing the form, or feel you may have difficulties meeting the due date, please contact Robert Wells (02 6240 3266) or contact us by Fax (02 6240 3311) or Email (rwells@pc.gov.au).

Completed Survey Form

Please either fax back your answers or send the completed survey forms in the enclosed pre-paid envelope to Robert Wells, Productivity Commission, PO Box 80, Belconnen ACT 2616.

Person at the counselling agency we should contact if any queries arise regarding this form.

Name		Date	/ /
Telephone number	()		
Facsimile number	()		

©Commonwealth Government Commonwealth Government Statistical Clearinghouse Approval Number 00405-01

Please read this first

Expenditure information is requested for 1997-98, while other questions specify the relevant data period. If your agency collects information over a different reporting period (eg on a calendar year basis, or for a period shorter than 12 months because the agency is new), please indicate the period used in the relevant questions.

The survey should take about 30 minutes to an hour to complete. It should be filled in by the person with the best overall knowledge of the operation of gambling services in your agency.

If you are a private consultant who undertakes counselling work for a number of other organisations (eg as a consulting specialist for a public hospital or other agencies) please group *all* the counselling work you do in the one set of answers.

Where there are multiple choice boxes, please tick ☒ the appropriate box clearly.

Where numbers are requested, estimates are acceptable.

Please report all monetary amounts in dollars.

Part A — Nature of the agency

A1 Does your agency/branch specialise in the provision of services for people experiencing problems with gambling?

A specialist agency/branch is one where the main purpose is helping people experiencing problems with gambling. The agency, or its relevant branch, is the one listed on the front page

tick one box

No ☐

Yes ☐

A2 What year did your agency/branch commence providing services for people experiencing problems with gambling?

19

A3 What services does your agency provide for people experiencing problems with their gambling?

Tick appropriate boxes

Counselling for gambling dependence ☐

Counselling for other co-morbidities (alcohol/drugs) ☐

Legal advice ☐

Financial counselling ☐

Family counselling ☐

Relationships counselling ☐

Referral to other agencies/professionals ☐

Emergency help such as provision of necessities and payment of client's bills ☐

Other (please specify below) ☐

.....
.....
.....

A4 Over the last 12 months, how many referrals of gambling clients have you made to each of the following?

Include referral of gambling clients for problems such as poverty, depression, substance abuse, gambling therapies not offered here etc.

Exclude family members of gamblers needing support.

Number of referrals

Psychiatrists/psychologists?

Other medical

Gamblers Anonymous

Another gambling counselling service

Legal Aid

Service offering financial/material aid

Other (please specify below)?

Total number of referrals

.....
.....

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**Part B — Number of clients with
DISCLOSED gambling problems**

For parts B, C and F we make the distinction between gamblers who have *disclosed* their problems and those whose problems are *undisclosed* or hidden.

We would like to know how many people who DISCLOSED gambling problems sought counselling or other help from your agency for these problems. Include only gamblers receiving counselling or other help for their gambling problems. *Exclude* family members needing support.

- B1** How many people with gambling problems were helped by your agency in the last 7 days?

place an entry in one box

Estimated number OR Don't know

- B2** What is your current agency caseload of clients with gambling problems?

Your caseload is the number of people with gambling problems who are currently receiving counselling by your agency/branch.

place an entry in one box

Estimated number OR Don't know

- B3** What was your agency caseload of clients with gambling problems 12 months ago? (or indicate an alternative point in time if you do not have data on this basis)?

place an entry in one box

Estimated number OR Don't know

Point in time if not
12 months ago

- B4** How many individual clients has your agency counselled in the last 12 months? (or indicate an alternative period if you do not have data on this basis)

Note this will generally be larger than your current caseload because of completions and drop-outs during the year

place an entry in one box

Estimated number OR Don't know

Period if not in the
last 12 months

- B5** How many *new* clients have sought help for gambling problems in the last 12 months (or indicate an alternative period if you do not have information on this basis)?

A new client is one which your agency has *never* helped before.

place an entry in one box

Estimated number OR Don't know

Period if not in the
last 12 months

- B6** How many clients left your agency with unresolved problems with their gambling in the last 12 months (or indicate an alternative period if you do not have information on this basis)?

place an entry in one box

Estimated number OR Don't know

Period if not in the
last 12 months

- B7** Is there a waiting list for clients with gambling problems seeking counselling by your agency?

tick one box

No ☐

Yes ☐ → The usual waiting time is: days

Part C – Characteristics of disclosed gambling clients

Base your estimates on clients helped in the last 12 months. *Exclude* people affected by someone else's gambling.

C1 What percentage of people receiving help from your agency/branch for their gambling problems are:

	%
Anglo-Celtic	
Asian	
Non-Asian non-English speaking background	
Aboriginal /Torres Strait Islander	
Other	
Total	100%

C2 What percentage of people receiving help from you for their gambling problems are:

	%
Female	
Male	
Total	100%

C3 We are interested in the forms of gambling that cause most problems for people. Estimate the percentage of people with gambling problems helped by you who developed their problems mainly from:

	%
Electronic gaming machines?	
Racing?	
Casino table games?	
Lottery games?	
Some other gambling?	
A mixture of gambling forms?	
Total	100%

C4 We would like to know the *source of referral* for people receiving services from your agency for their gambling problems. Estimate the percentage who were referred by:

	%
Themselves (self-initiated)?	
Family or friends?	
G-line?	
Another agency or referral service?	
Other (please specify below)?	
Total	100%

Part D — Number of clients affected by someone else's gambling

D1 How many such people

	number
is your agency currently helping?	
has your agency helped in the last 12 months?	

Part E — Scope of agency's services

E1 Does your service provide help for people with problems other than those associated with gambling?

For example, provision of food , clothing or shelter to the disadvantaged, and drug and alcohol counselling. Answer only for the branch or agency listed on the front page.

tick one box
 No ☐ → Go to Part G
 Yes ☐

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Part F — 'HIDDEN' problem gamblers

- F1** Estimate how many clients over the last 12 months have presented to your agency with problems you **SUSPECTED** to be due to gambling, but who did not disclose they had any gambling problems?

Such a judgment might be based on personal knowledge of a client, information from others and the nature of their problems. This may indirectly suggest that a client has problems with gambling, even though they do not acknowledge this.

Include gamblers and those affected by gamblers.

place an entry in one box on each line

Suspected number of people presenting who are **problem gamblers** **OR** Don't know

Suspected number of people presenting who are **affected** by problem gamblers **OR** Don't know

Period if not in the last 12 months

- F2** If you reported any hidden problem gamblers above, how were you generally able to tell?

.....

.....

Part G — Staff helping gamblers

- G1** How many **direct service** staff does your agency employ who help clients with gambling problems?

Please **include**:

- staff providing personal, financial, relationship, family, legal and other aid to people with gambling problems. Also include aid provided to people affected by someone else's gambling.

- full and part time staff

Please **exclude**:

- unpaid staff

Number of staff

Full time *Part time*

Staff providing help to gamblers

- G2** What is the number of **full time equivalent** paid staff in this agency who provide help to people experiencing gambling problems?

A full time equivalent (FTE) is the number of people who work the equivalent of around 35 hours a week. For example, say that Antonia works for 15 hours a week on problem gambling issues, Ellen for 5 hours and Paul for 3 hours, then the number of FTE staff providing direct assistance to gamblers is equal to 23/35 or about 0.7. Similarly, if you had 10 staff, each working about 7 hours on gambling issues, the number of FTEs would be 2.

It is important to include both direct counselling time spent with gamblers and people affected by someone else's gambling, plus time spent on paperwork or other duties associated with helping gamblers with problems.

Only **paid** staff should be included in this question.

Time spent helping people with problems that are **unrelated** to gambling should be excluded.

FTEs

Direct service staff

- G3** Do your agency's gambling staff work with other clients with problems **unrelated** to gambling?

tick one box

No ☐ → Go to Part H

Yes ☐

- G4** Typically, staff in this agency who help people with gambling problems work with gambling clients for:

Tick one box

more than 75% of their time ☐

between 50% and 75% of their time ☐

between 25% and 50% of their time ☐

less than 25% of their time ☐

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Part H — Counselling methods and outcomes

A major way in which agencies provide help to gamblers is through counselling for gambling dependence. This part looks at just this aspect of your agency's services to gamblers.

H1 Does your agency require counsellors to have accreditation?

tick one box

No

☐

Yes

☐

→ Please specify below

Does your agency require counsellors to have educational qualifications?

tick one box

No

☐

Yes

☐

→ Please specify below

H2 Do you use any of the following in assessing clients?

Tick one box in each row

	Never	Rarely	Sometimes	Often	Always	Don't know
South Oaks Gambling ... Screen	☐	☐	☐	☐	☐	☐
DSM IV	☐	☐	☐	☐	☐	☐
G-Map Assessment Guide	☐	☐	☐	☐	☐	☐
Addiction Severity Index	☐	☐	☐	☐	☐	☐
GA 20 questions	☐	☐	☐	☐	☐	☐
Taylor Johnson Temperament Analysis	☐	☐	☐	☐	☐	☐
Relationship Questionnaire	☐	☐	☐	☐	☐	☐
Other formal diagnostics ... (please specify below)	☐	☐	☐	☐	☐	☐

H3 Which of these diagnostics have been most useful and why?

H4 What are some of the methods, approaches or techniques used by your agency to help people with gambling problems?

Tick appropriate boxes

Assessment / referral

☐

Supportive counselling; allowing clients to ventilate feelings and other general supportive environment.

☐

Cognitive approaches/CBT/RET, analysis of beliefs through pattern restructuring, behavioural advice

☐

Systemic therapies: structural, strategic family therapy, psychodrama

☐

Psychodynamic therapies; use of transference relationship

☐

Other (please specify below)

☐

H5 We are interested in the number of counselling sessions received by different gamblers. Some come for only one or two sessions, others more than 20. Of gamblers who finished using your agency's services in the last 12 months, what percentage received counselling for:

Include only gamblers receiving counselling and not people affected by someone else's gambling.

Share of gambling clients

Only 1 session	☐
2 sessions	☐
3 – 4 sessions	☐
5 – 6 sessions	☐
7 – 10 sessions	☐
11 – 15 sessions	☐
16 or more sessions	☐
All gamblers	100%

H6 What is the average time length of a counselling session?

Average length of session (minutes)

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H7 Does your agency assess the outcomes of your gambling counselling for each client?

tick one box

No ☐ Go to question H8

Yes ☐ See below

If Yes, please describe how

.....

H8 How soon after the completion of counselling do you usually make an assessment of the outcome of counselling for a client?

Tick more than one box if you assess more than once

(a) Immediately ☐

(b) months after the completion of counselling (please specify months) ☐

H9 What percentage of your agency's clients with gambling problems achieve a satisfactory outcome from the counselling provided?

Note: A satisfactory outcome is one where gambling is no longer the source of any significant problems for the client.

Share %

Part I — Expenditure on services for people with gambling problems

I1 How many individual gambling clients did you help during the 1997-98 financial year?

Number

I2 How much did you spend in providing services to people with gambling problems in the 1997-98 financial year (if another time period please specify)?

Include the costs of providing services to clients with confirmed and suspected gambling problems and to people affected by someone else's gambling.

Exclude the costs of providing services to clients with problems unrelated to gambling. Also exclude the value of unpaid counselling by volunteers or in-kind contributions to running costs by other organisations/people (such as free office space). Part J deals with that issue.

*Value of spending
(round to the nearest \$ '000)*

Wage costs of direct service staff	\$,000
Other wage costs (eg office staff)	\$,000
Material aid/ financial help	\$,000
Overheads for gambling services (eg rent)	\$,000
Other (please specify below)	\$,000
Total costs of gambling services	\$,000
Accounting period if not 1997-98	

I3 What were the sources of funds for the spending indicated in I2?

*Value of spending
(round to the nearest \$ '000)*

Federal Government	\$,000
State Government	\$,000
Local Government	\$,000
The gambling industry	\$,000
Clients	\$,000
Agency's own funds (eg trading revenue, bequests)	\$,000
Other (please specify)	\$,000
Total (should be equal to I2 total)	\$,000

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Part J — Volunteer and in-kind contributions to gambling services

Sometimes, what is actually *used* to provide services for people with gambling problems is greater than *recorded* expenditure on such services. This is because some counsellors and other workers may be unpaid volunteers. As well, some overheads of running the service may be met by in-kind contributions by other people or organisations (such as donated space in a building).

J1 What is the number, if any, of unpaid volunteers in this agency who provide direct help to people with gambling problems or help with back-up services (such as office work)?

See note on question G2 for the definition of FTEs.

	Number	FTEs
Unpaid direct service staff		
Other unpaid 'back-up' staff		

J2 Are some of the costs of providing services for people with gambling problems met from in-kind contributions by other people or organisations?

tick one box

No ☐ Go to Part K

Yes ☐ → Value in 1997-98 \$,000
(round to the nearest \$'000)

Please describe any major in-kind contributions briefly:.....
.....
.....
.....

Part K — General comments

K1 Do you have any comments about constraints which may be affecting the effectiveness of existing services for gamblers?

You might comment on the adequacy of existing funding arrangements, coordination of services, the effectiveness of referral services, accreditation and training of counsellors, clinical knowledge about the efficacy of counselling or any other matter you think important. Please also include any policy changes you would like to see.

Please provide an estimate of the time taken to complete this form. Please include the time actually spent reading the instructions, working on the questions and obtaining the information by all persons collecting and providing the information.

hours minutes

Thank you for your help.

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M Gambling taxes

The taxation of gambling in Australia is complex. Tax arrangements vary greatly across states for the different gambling products. For some gambling activities, such as lotteries and racing, taxes are generally levied on gross *turnover*. For other products, such as poker machines and casinos, taxes are levied on *player loss* and, in some cases, *net profit*. In addition, gambling products are typically provided under some form of licensing arrangement for which licence fees are collected. The major forms of gambling taxes are summarised in table M.1. More details on the individual taxes in each jurisdiction on each of the major forms of gambling are presented in tables M.2 to M.5.

The same type of gambling may face various tax regimes within the same jurisdiction, with different tax rates or different tax bases for different operators. The most prominent of these is the contrasting taxation arrangements for gaming machines in clubs and hotels.

Some taxes are flat rate, but others have progressive scale structures which vary with the size of the operator. Moreover, the reference period for the payment of gambling taxes varies even on similar gambling products, with implications for compliance costs. For example, some gambling taxes are levied as up-front fees, but others are collected periodically — that is weekly, monthly, quarterly or annually.

Taxes on turnover persist in the older forms of gambling such as racing and lotteries. Newer forms of gambling are typically taxed on expenditure; that is, as a percentage of player loss. History plays an important part in the existence of turnover taxes, with government typically being the original owners of TABs and lottery providers. Governments set the amount that would be returned to players, retaining the remainder (in effect a turnover tax) out of which they pay for the cost of running the gambling operations.

Table M.1 Major forms of gambling taxation by gambling type

<i>Forms of taxation</i>	<i>Gambling activity</i>
Turnover tax	Bookmakers (racing) Bookmakers (sports betting) Totalisator wagering on racing Lottery subscriptions Draw card machines Keno
Tax on player loss	Totalisator wagering on racing Sports betting Poker machines in hotels, clubs, casinos Casinos TAB sports betting Keno
Net profits tax	Poker machines Off-course totalisator investment
Licence Fees	Casinos Poker machines Lotteries Racing Bookmakers Sports betting Minor gambling (bingo, raffles etc)

Where changes to existing taxes have been made, they have typically involved changing the base from turnover to expenditure.

- Taxes on turnover effectively act as a floor on the price of the gambling service — that is, by taking a share of the amount wagered, the government limits the amount that can be returned to those playing.
- Taxes on expenditure give gambling providers greater flexibility in setting the rate of return to the player.

The progressive tax structure in some jurisdictions is principally apparent in the taxation of clubs, where smaller clubs (those with less gaming machine revenue) are taxed at concessional rates.

Licence fees (other than those related to cost recovery for regulatory regimes) typically co-exist with exclusive marketing or other barriers to competition. Were such restrictions justified, a licence fee would have some merit. It enables the longer-term general tax structure to be set in place, while enabling the taxpayer to gain most, if not all of the (temporary) excess return available from restricted

competition. Competitive bidding for such licences also can provide governments with information on the expected impact of the restrictions that are put in place.

The following is a brief description of the key features of the taxes levied on different forms of gambling. This is followed by tables outlining the method and rate of taxation for each form of gambling in each jurisdiction.

Racing taxation

Totalisator racing

Taxes on totalisator racing are usually levied on the value of bets placed at TABs and are typically around 5 to 10 per cent of gross wagers. This is the net percentage that is retained by the government. If the proportion of revenue that is earmarked for the racing industry is included, gross deductions average 14 to 20 per cent of the amount wagered. The residual (net of these gross deductions) is distributed as winnings.

Gross deductions and government tax rates vary not only between on-course and off-course totalisator betting but often depend on the type of bet (such as, win/place, quinella, triffecta, superfecta etc) and whether a bet is in a combined totalisator pool scheme such as super TAB. Gross deductions and government tax rates are usually higher for quinella, triffecta, superfecta and other exotic bets.

Bookmaker's turnover tax

The tax on bookmakers' turnover on racing varies between states —ranging from one per cent in New South Wales and Queensland to two per cent in Victoria for most types of bets. However, in some jurisdictions tax rates vary depending on whether the bet is placed on a metropolitan or country race, local or interstate race and within or outside Australia. For example, in Victoria and South Australia the bookmaker's turnover tax is higher for bets placed on metropolitan than country races. Similarly, in South Australia and Tasmania the tax is higher for bets on interstate events than local events and, in the Northern Territory the tax rate is higher for bets within Australia than other bets. In New South Wales, Western Australia and the ACT the tax does not discriminate between courses.

There is also interstate variation in the allocation of revenue derived from bookmaker's turnover tax. For example, in Queensland revenue forms part of the consolidation fund while in states such as Victoria and South Australia some of the revenue is earmarked for specific purposes such as hospitals, charities, recreation

and sport development fund. In some cases, a proportion of the tax revenue is returned to racing clubs or sporting bodies holding the event.

Taxes on sports betting

The taxation of sports betting is similar to that of horse racing in that taxes apply to the amount wagered with the TAB. Gross deductions ranging from 17 per cent in Tasmania to 25 per cent in Queensland apply. The difference (net of these deductions) is paid out as winnings. The net percentage received by governments ranges from 4.5 in Tasmania to 10 per cent in Queensland. The remainder (gross deductions less government taxes) is usually divided between the TAB, the controlling sporting body and the Sport and Recreation Funds.

Bookmakers' tax for sports betting (that is, other than horse and greyhound racing) ranges from 1 per cent in Queensland to 2 per cent in Victoria and Western Australia. In Victoria, the tax rate is lower for country than metropolitan meetings. In Tasmania and the Northern Territory the tax rate is lower for bets from Australia and New Zealand than other bets.

Box M.1 Payments to the racing industry

All states and territories have arrangements for a proportion of the money spent on wagering to be paid to the racing industry. The arrangements in NSW and Victoria are outlined below.

New South Wales

In NSW, the TAB has, as a condition of its licence to run totalisator betting in NSW, entered into a Racing Distribution Agreement (RDA) with New South Wales Racing (NSWR) and the Racing Controlling Bodies. TAB is required to pay NSWR:

- a product fee (21.64 per cent of net wagering revenue. Net wagering revenue is essentially the total amount wagered less payouts of winnings)
- a Wagering Incentive Fee (25 per cent of wagering earnings. wagering earnings are essentially TAB's gross revenue from wagering less costs and state taxes but before commonwealth taxes); and
- a Gaming Incentive Fee (25 per cent of gaming earnings. gaming earnings are essentially TAB's revenues from gaming less costs and state taxes but before commonwealth taxes)

NSWR is also entitled to receive a contribution in respect of on-course totalizators. This contribution is 4.9 per cent of the total amount of wagers.

continued

Box M.1 continued**Victoria**

Tabcorp manages its wagering business on behalf of an unincorporated joint venture between Tabcorp Holdings Limited and VicRacing Pty Ltd (a company formed by the controlling bodies from thoroughbred, harness and greyhound racing in Victoria). The joint venture business has licences to conduct sports betting and Keno, and operates half of the electronic gaming machines (gaming machines) in Victoria (outside of the Casino).

VicRacing receives a 25 per cent share of the joint venture's total profit from gaming and wagering, described in the Tabcorp annual report as 25 per cent of all revenue and expenses, and Racing Products Victoria receives a product fee of 18.8 percent of net wagering revenue (basically the total amount wagered less winnings paid out), a \$2.5 million marketing fee, indexed to increases in net wagering revenue, and a \$50 million annual racing program fee for supplying the racing product. These funds are then distributed to the owners of these bodies, which are the controlling bodies of the three codes, the VCR, the HRB, and the GRCB.

Tabcorp's 1998 annual report said that \$188.2 million was provided to the Victorian racing industry. This is in addition to the \$444 million going to the State government in taxes. Unfortunately, the annual report does not divide this \$444 million into its racing and gaming components.

Source: TAB (1998), CIE (1998), Tabcorp (1998)

Tax on lottery subscriptions

With the exception of Tasmania, the Northern Territory and the ACT, each state runs its own lottery games. In Victoria lotteries are conducted by a private organisation — Tattersall's, and taxed by the government. In other states, lotteries are either run by public organisations or jointly with private companies. Where the lottery is publicly operated the profit obtained is in effect an implicit tax.

Because Tasmania, the Northern Territory and the ACT do not have their own lotteries, by agreement with the lottery providers, they receive a share of tax paid for lottery sales made in their jurisdictions.

In most states such as Victoria, Western Australia and South Australia, revenue from lotteries is earmarked for various activities such as hospitals, charities, sports and the arts. (In Western Australia some of the revenue goes to the Australian Commercial Film Industry.) In Queensland and New South Wales revenue is allocated to the Consolidated Fund.

Tax on keno

In New South Wales, the tax is based on a two-tier structure — 18 per cent on player loss less than \$86.5 million, thereafter taxed at 24 per cent. In South Australia, the tax averages 14 per cent of sales. In Queensland, keno held in casinos is taxed at the individual casino's rate and ranges from 11 to 21 per cent of gross gaming revenue (inclusive of community benefits levy). In Victoria, the tax of 33.33 per cent is based on player loss.

Taxes on poker machines

Taxes on poker machines in clubs and hotels are generally based on player loss (defined as poker machine revenue less amounts paid out in prize money). While jurisdictions will use different terms (gross profits, net cash balance, metered win, net gambling revenue, gross gaming machine revenue) they are essentially referring to the same thing. In all jurisdiction bar Victoria and the Northern Territory, taxes are based on a progressive scale structure, providing concessional tax treatment for smaller venues.

In most states, hotels pay higher taxes on poker machine revenue than clubs. For example, taxes of around 22 per cent of gross profit apply to clubs. Higher rates of around 30-50 per cent apply to hotel gaming machine profits. This is said to be justified by clubs' financial support for local charities or community projects and subsidised facilities for members. Community support levies are collected on all gaming machine operations in Tasmania, Queensland and Victoria, but apply only to clubs in Queensland and Tasmania.

Taxes on casinos

In addition to licence fees (see below) taxes are levied on the gross gaming revenue (player loss) of casinos derived from all gaming. Different rates of tax are typically levied on gaming machines at Casino venues.

The general casino tax for regular players ranges from 8 per cent of player loss in the Northern Territory to 20 per cent in New South Wales, Queensland, the ACT and 21.25 per cent in Victoria. However, different rates apply for commission-based or junket players except in Western Australia, Tasmania and the Northern Territory. These rates range from 8 per cent for Cairns and Townsville casinos in Queensland to 10 per cent in the ACT and Queensland Gold Coast casino. (In Western Australia

and Tasmania the same tax rate of 15 per cent of player loss applies to both regular and junket players.)

Net profit taxes

Taxes on net profit are not commonly applied to gambling activities. However, there are some instances where these taxes apply.

In Victoria Tattersall's pays an annual 30 per cent tax on net profit from poker machines located under licence in clubs and hotels, when its net profit exceeds \$117 million. This arises as part of a minimum licence fee of \$ 35 million (see below). In South Australia and the Northern Territory the TABs pay 45 and 50 per cent, respectively, of net profit on off-course totalisator racing expenditure.

Licence fees

Gambling is characterised by licensing arrangements that grant rights to operators with respect to specific gambling products and venues. For example, casinos, TAB, bookmakers, poker machine operators, lottery operators and minor gaming operators (eg bingo, calcuttas and raffles) pay licence fees to operate.

Casinos

All jurisdictions bar the Northern Territory impose casino licence fees. These fees are either paid as a once only lump-sum (such as \$376 million for New South Wales casino licence) or periodically as is the case in other jurisdictions. For example:

- in Victoria, a licence fee of \$200 million plus \$23.3 million committed to infrastructure outlays was paid by Crown at licensing. A further \$57.6 million was paid over two years up to 1996. A further licence fee of \$100.8 million will be paid over three years for the right to run extra tables;
- in Western Australia and the ACT casino licence fees of \$1.74 million and \$564 000 (1998-99) respectively, are paid annually; and
- in Queensland, licence fees of \$137 500 per casino are paid quarterly while in South Australia (\$5000) and Tasmania (\$60 800 per casino) licence fees are paid monthly.

Poker machines

In most states, licence fees for the granting or renewal of a poker machine licence are payable. For example, in Victoria Tattersall's pays a licence fee of \$35 million if that amount is less than or equal to 30 per cent of its net profits. The licence fee is 30 per cent of net profits when the amount exceeds \$35 million. Thus the licence fee is the combination of a fixed fee of \$35 million plus a tax on net profit when 30 per cent of net profit exceeds \$35 million. On privatisation, Tabcorp paid a value for the gaming licence estimated at \$420 million.

Table M2: Racing taxation by state

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
ON-COURSE TOTALISATOR								
Gross deduction from amount wagered	Maximum of 16% over the year	Maximum of 16% over the year	Win/place, quinella, forecast, 60/40, stakes return – 15% Doubles, trifecta, trebles, trio – 18%	Win/place: Supertab – 14.25%; non Supertab – 15.6% Favourite numbers – 25% Others – 20%.	Win/place – 14.25% Quinella – 14.5% Doubles – 16.5% Others – 20%	Win/place combined with Vic TAB – 15% Quinella – 15% Doubles, trifecta – 17% Quadrella – 19%	All pools combined with NSW TAB Win/Place - 14.25% Quinella – 15%; Quinella – 15%; Trifecta – 19%; Doubles – 15%	Win/Place linked to Super TAB – 14.25% Trifecta - 19.00% Other - 15.00% Approximately 60% to 70% of Win/Place pools are Super TAB pools (ACT, NT, Vic, Tas, WA, SA).
Net % received by government	28.2% of player loss (minimum of 84% returned to players over the course of one year)	28.2% of player loss (minimum of 84% returned to players)	Win/place, quinella, forecast, 60/40, stakes return-3%; Other pools-6%	Abolished 28/6/96	Sliding scale, depending on the amount of bets placed. Range from 1% - 5.25%	Win/place: \$10001-\$50000 – 2.1%; >\$50000 – 4.2% Quadrella – 6.5% Others – 4.5%	50% of TAB profits	All pools - 4.24% In addition clubs receive 3.5% and RDF 0.5%.
OFF-COURSE TOTALISATOR TAX								
Gross deduction from amount wagered	As for on-course totalisators	As for on-course totalisators	Win/place, quinella – 15% Double, trifectas – 18% First four, trebles – 20% Others – 25%	As for on-course totalisators	As for on-course totalisators	As for on-course totalisators, except for win/place – 14.25%.	As for on-course totalisators	As for on-course totalisators
Net % received by government	As for on-course totalisators	As for on-course totalisators	Win/place, quinella – 6% Others – 7%	All pools – 5%	45% of TAB profits on racing investments.	Win/place – 4.2%, others as for on-course totalisators.	As for on-course pools	As for on-course pools
BOOKMAKER'S TURNOVER TAX – Net % received by government:								
Racing	All courses – 1%	Metro – 2% of turnover. Country – 1.5% of turnover	All courses – 1%	Racing – nil Sports – 0.25%	Metro: SA* – 1.57%, interstate – 2.17% Country: SA* – 1.4%, interstate – 1.97%. *1.4 per cent of turnover is subsequently returned to clubs	On-course: state events – 0.15%, interstate events – 0.3%.	All courses 1.55% for bets within Aus. Bets from overseas – 0.5%	All courses – 1.00%

Table M3: Gaming machine taxation by state

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
(Referred to in some states as "Poker Machine" tax.)		Tattersall's is required to pay annually for the duration of its licence (ending April 2012) 30% of its net profit or \$35m, whichever is higher. State limit of 27 500 machines. 50% to be allocated to clubs and 50% to hotels. 50% provided by Tattersall's and 50% provided by TABCORP		No gaming machines in clubs or hotels. Taxes on gaming machines in the Casino are included in casino taxation		Federal Hotels Ltd has exclusive rights to operate gaming machines. Tax is based on total annual gross profit from all gaming machines. From 1.1.97: 25% profits up to \$30m; plus 30% on profits between \$30m - <\$35m plus 35 per cent of profits in excess of \$35m: Federal Hotels must pay a minimum of \$21.4 million on gross profits on gaming machines in the casinos. A minimum of 1250 machines must be placed outside the casinos.	Government ownership of gaming machines. A limit of 350 machines to be introduced in the first year (1996-97) and an additional 330 machines in the second year (1997-98).	

Table M3: (continued)

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
Clubs:	From 1.2.98: Levied on annual profits derived from gaming machines: 0% on profits between 0-\$100,000 plus: 1% on profits between \$100,001-\$200,000 plus: 20% on profits between \$200,001-\$1m plus: 26.25% on profits greater than \$1m (paid quarterly) No limit on the number of machines	33.33% of gross profit (net cash balance). Maximum of 105 machines per venue	Based on monthly metered win: 10% of profits between \$0-\$10,000: plus 27% of profits between \$10,001-\$75,000 plus 30% of profits between \$75,001-\$150,000 plus 33% of profits between \$150,001-\$300,000 plus 35% of profits between \$300,001-\$1.4m plus 45% of profits in excess of \$1.4m Of the money collected, 8.5% goes to a Community Benefit Fund. Maximum of 270 machines per venue to be increased to a maximum of 300 by 2001.	No gaming machines	Tax based on annual net gambling revenue in a financial year: \$0-\$399,000: 30%; \$399,001-\$945,000: \$119,700 + 35% of excess; >\$945,000: \$310,800 + 40% of excess. In addition, a 0.5% surcharge is imposed on each of the above percentage tax rates. Maximum of 40 machines per venue.	In addition to the tax paid by Federal Hotels Ltd, a community support levy of 2% of gross profit is levied. Maximum of 25 machines per venue. From 1 July 2000: 30 from 1 July 2001: 35 from 1 July 2002: 40	47% of gross profit of poker machines.¹ Draw Card Machine Community Benefit Levy of 3% of turnover. No limit on the number of machines per venue.	1% of first \$8,000 gross monthly club gaming machine revenue. 22.5% of revenue from \$8,000 to \$25,000 and 23.5% thereafter. No limit on the number of machines per venue.

Table M3: (continued)

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
Hotels:	Levied on annual profits derived from gaming machines. 15% on profits between \$1-\$25,000 plus 25% on profits between \$25,001-\$400,000 plus 35% on profits between \$400,001-\$1m plus 40% on profits in excess of \$1m (paid quarterly) Maximum of 15 poker machines per venue. This can be increased to 30 if a permit is obtained (purchased). In October 1998 2,300 permits were issued (auctioned) at a price of \$50,000 per permit.	41.67% of gross profit (net cash balance), of which 8.33% is allocated to a CSF. Maximum 105 machines per venue.	50% of metered win. From 1 July 1998, 45% of metered win 8.5% of the money collected goes to Community Benefit Fund. Maximum machines per venue: 30 from 1 July 1999: 35 from 1 July 2000: 40 from 1 July 2001: 45	No gaming machines	Tax based on annual net gambling revenue in a financial year: \$0-\$399,000: 35% \$399,001-\$945,000: \$139,650 + 43.5% of excess >\$945,000: \$377,160 + 50% of excess In addition, a 0.5% surcharge is imposed on each of the above tax rates. Maximum of 40 machines per venue	In addition to the tax paid by Federal Hotels Ltd, a community support levy of 4% of gross profit is levied. Maximum of 15 machines per venue. From 1 July 2000: 20 from 1 July 2001: 25 from 1 July 2002: 30	47% of gross profit and a Community Benefit Levy of 25% of gross profit. Draw Card Machine – 6% of turnover (of which 3% is paid to charities and sporting clubs). Limit of 6 machines per venue.	35% of monthly gaming machine revenue (gross profit). Number and type of machines per venue depends on the number of residential rooms in the hotel.
Reference Period:	Quarterly payments relating to the previous 3 months' transactions.	Weekly payments relating to the transaction of 2 weeks prior.	Monthly payments relating to previous months turnover.		Monthly payments relating to previous month's activity.	Payments relate to previous month's gross profit.	Quarterly payments relating to the previous 3 month's transactions.	Monthly payments related to transactions in the previous month.

Table M4: Casino taxation by state

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
Licence fee:	A once only non-refundable lump sum payment of \$376m.	Upront payment of \$200m, plus an additional tax of \$57.6m in '95 and 96. Crown agreed to pay a further \$100.8 million beginning Jan 1996 over 3 years, as an additional licence fee payment in return for the Government agreeing to increase the number of tables, lower rates of tax on Commission players and approval for expansions to the development proposals.	\$137,500 per quarter for each of the four casinos.	\$1.74 million p.a (indexed to CPI).	\$5,000 per month	\$60,800 per month, indexed to annual CPI changes.	Not imposed	Indexed annual licence fee. 1998-99, \$563,860

Table M4: (continued)

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
Tax Rate:	Regular Players: 20% of gross revenue from table gaming and 22.5% of gross revenue from slots plus super tax on table revenue above \$225.6m pa at 1% per each \$5.64m to a maximum of 45%. Commission Players: 10% of gross commission revenue, or \$6m per annum, whichever is higher.	Regular Players: 21.25% of gross gaming revenue plus super tax of 1% for each \$20m of gross gaming revenue above \$500m (CPI adjusted from 1994) up to a maximum of 20% on gross gaming revenue over \$880m. The maximum total tax on marginal revenue is 41.25%. Commission Players: 9% plus a super tax (extra 1% for every \$20m) on gross gaming revenue above \$160m (CPI adjusted from 1994). The max tax on gross gaming revenue over \$380m is 21.25%.	Regular Players: 20% of gross revenue for Gold Coast and Brisbane casinos and 10% of gross revenue for Townsville and Cairns casinos. Commission Players: 10% of gross gaming revenue for Gold Coast and Brisbane casinos and 8% for Cairns and Townsville casinos.	15% of gross revenue.	Table games at 10% of net gambling revenue, and gaming machines taxed at a single rate of 43.5% of net gambling revenue (equivalent to hotel EGM rate).	Federal Hotels Ltd has exclusive rights to conduct casino operations and operate gaming machines in Tasmania. The tax is based on Federal Hotels' total gross profit earned in a financial year. Poker machines: <\$30m – 25%; \$30m-\$35m – 30% of excess; >\$35m – 35% of excess. Until 1999/2000 government revenue from gaming machines in the casinos is guaranteed at a minimum of \$21.4m. Keno and table gaming – 15% of gross revenue. Admirals Casino operates gaming on Bass Strait ferries. Tax are levied on gross profits: 17% for keno 27% for gaming machines.	General casino tax of 8% of gross profit derived from all gaming other than gaming machines. EGM tax from July 97 to Jun 99 at the rate of 17.5% on gross profit.	Regular Players: 20% of gross revenue Commission Players: 10% of gross revenue
Other state Charges:	Community benefit levy of 2% of gross non-commission gaming revenue.	1% of gross revenue (Community Benefit Levy).	1% of gross revenue to Community Benefit Fund.	1% of gross revenue (or \$1m, whichever is the greater) for upkeep of Burswood Park.				

Table M5: Lottery and other gambling taxation by state

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
LOTTERY TAXES								
(Unless otherwise indicated, the balance of subscriptions, after prizes is transferred to Consolidated revenue)	15% of subscriptions plus a fixed fee based on 14.7% of subscriptions in 1996-97 with the amount thereafter indexed to CPI.	35.55% on turnover (revenue paid from Consolidated Fund to Hospitals and Charities Fund and Mental Hospitals Fund.) Ticket Levy: 10c per card transaction (excl. instant lotto, Tatts 2, Super 66 and Soccer Pools).	62% of gross revenue for declared lotteries. 55% of gross revenue for Instant Scratch-Its. 45% of gross revenue for Golden Casket lotteries.	State Lottery, Lotto, Oz Lotto, Powerball and Instant: 40% of net income to Hospitals, 5% to the arts, 5% to sport and 12.5% to charities. Up to 5% in total to Festival of Perth and Aus commercial film industry	Lotto, Powerball and Super 66: Net operating surplus (@ 33% of gross sales) is paid to Hospitals Fund. Instant Scratchies: Net operating surplus (@ 19% of gross sales) is paid to Hospitals Fund.	No state lotteries. Tas. Receives a share of duty paid to the Vic. Gvt for Tas subscriptions to Tattersall's lotteries: Lotto - 100% of duty received from Tas subscriptions; TattsKeno - 90%; other - 75%.	No state lotteries. Tas. Receives a share of duty paid to the Vic. Gvt for Tas subscriptions to Tattersall's lotteries: Lotto – 35% of sale; instant – 75% of 35% of sales (as well as Super 66). Territorian Lottery 10 per cent of sales	No state lotteries, participate in NSW and Vic lotteries: VIC: TattsLotto /Tatts extra/Oz Lotto/ Powerball – 32.5% of subscriptions; Super 66/Tatts 2/Instant: 24.375%; Vic Keno: 29.95% NSW: Lotto/Oz Lotto/Lotto Strike/ Powerball – 31.7% of subscriptions; draw lotteries – 26.3%; instant lotteries – 28.3%
Soccer Pools:	15% of subscriptions plus a fixed fee based on 14.7% of subs in 1996-97 and based, indexed to CPI thereafter	34% of turnover.	59% of gross revenue	as above	42.5% of net sales transferred to Dept of Recreation and Sport	34% of sales from Tas subscriptions.	34% of subscriptions to Tattersall's payable by the Vic gvt.	34% from both Victorian and NSW collections.

Table M5: (continued)

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
OTHER GAMBLING TAXES								
Sports betting	FootyTAB, Soccer TAB, SportsTAB, Sweepstakes: 28.2% of player loss (All of this to Sport and Recreation Fund). Sydney SportsTAB – 20% of gross win Head-to-head – 2% Off-course bookmakers – 1%	Totalisator sports betting – 28% of player loss. Fixed odds sports betting – 20% of player loss.	Bookmakers: 1%, with athletic betting exempt. FootyTAB: Amounts wagered combined with NSW pools. Gross commission of 25% deducted on QLD pools and paid as follows: 10% to QLD Govt; 14% to QLD TAB and 1% to NSW Sport and Recreation Fund. Qld Tab pays NSW 2% on amalgamated pools with NSW.	Tax to govt – 5%. 75% of sport betting receipts are dividends and the Minister makes the remainder (ie. net of the sports betting tax and after admin. expenses) available for allocation for Sport and Recreation. Bookmakers – 0.25%, for Sports and Recreation, Prof. foot racing – 2%	AFL & other sporting events – 20%. TAB admin. costs paid first, then 0.5% to Capital Fund and 0.5% to RIDA and the balance divided between the Rec and Sport Fund (RSF) and the SA. Football League, or to the body conducting the event and the RSF. Bookmakers: 1.75%	Footypunt – 17%, of which: - 10% to TAB - 4.5% to Govt. - 2.5% to Controlling Authority. Bookmakers: Telephone on-course – 0%, off-course Aus & NZ – 0.3%	0.5% bets from Australia and NZ. 0.25% bets from overseas	1.25% of which 0.25% distributed to clubs.
Keno:	Club Keno: Taxed at 18% on player loss of <\$86.5 m; 24% on player loss >\$86.5m.	Club Keno: 33.33% of player loss subject to a minimum player return of 75%	Jupiters Keno – 20% of gross revenue + 50% tax on profit. Brisbane and Gold Coast receive 25% commission on Jupiters Keno & pay 21% tax, incl. 1% CBL. Townsville & Cairns pay 11% incl. 1% CBL	Keno is restricted to Burswood Casino. Tax on Keno is included in the casino tax.	(operated by Lotteries Commission). Of total gross sales, 9% commission to agent, 72.8% return in prize money, 4.2% for operating costs, remainder (@ 14%) transferred to the Hospital Fund.	Tax Keno 15% of gross revenue	NT Keno 8% of gross profit (received through casino taxes)	Keno: refer to VIC Keno.

Source: NSW Treasury 1999.

N Gaming machines: some international comparisons

The world gaming machine market is highly complex and segmented. There are a host of different machines in terms of technology, winnings, payout rates and the range of bets and losses. In addition, the regulatory environment in which these machines operate often conditions their accessibility and operating characteristics. This situation parallels other commodities, such as alcohol, where variations in the product (taste, alcohol content) together with different market preferences, cultural norms and regulatory environments create similarly complex world markets.

This appendix presents evidence on this complex world gaming machine market, examines relevant market segments, and seeks to estimate the number of gaming machines. Common gaming machine terms are explained in box N.1.

Box N.1 Gaming machine glossary

AWPs — amusement with prizes machines. Three reel slot machines with ‘skill stops’ at the front of the machines to stop the reels. Most have an initial game that includes an opportunity to proceed to a more complex game.

Club or jackpot machines — similar to AWP’s but with 4 reels and higher stakes and prizes.

Draw card machines — gaming machines on which card games are played, usually blackjack or poker. After the game is started the player must decide whether to keep or discard cards.

Pachinko — Japanese pinball machine. Players turn a handle which shoots small steel balls into a machine. The balls bounce off steel nails and into catchers, or trigger reel spins, which give winners a stream of balls which can be exchanged for non-cash prizes. These prizes can then be swapped for cash at a nearby independent outlet.

Pachislo (or pachisuro) — Japanese slot machine with reels and skill stops.

Pokies — an Australian term for multi-line and/or multi-credit video gaming machines.

Slot machines — gaming machines with three or more reels. Games involve starting the reels spinning and prizes are paid according to the final combinations of pictures on the reels. Reel spins stop automatically after the game is started. Note: some jurisdictions define ‘slot machines’ as all gaming machines (including machines with reels, video poker, blackjack and keno machines).

VLTs — video lottery terminals. VLTs are similar to slot machines in appearance, but give winners a cash value ticket which can be redeemed for cash, have a faster speed of play, and are more accessible.

N.1 Characteristics of machines of relevance to problem gambling

Gaming machines can differ in many ways, including:

- technology (the types of games played on machines and the speed of play);
- the nature of winnings (cash or prizes, maximum limits on prizes, the distribution of wins, the availability of jackpots and progressives);
- payout rates;
- the range of bets and losses (cash or tokens used in play, numbers of lines and credits, maximum play cost);
- accessibility (the number of machines and where they are located, venue and global machine caps); and
- the availability of harm minimisation schemes.

Unfortunately, international empirical evidence on the influence of these factors on problem gambling is not currently available. Such evidence would require measurement of the prevalence of problem gambling for each country using consistent methodology, identification of the causal factors of problem gambling, and statistical analysis using comparable data from each country.

In the absence of systematic international empirical evidence, some reasonable assumptions can be made about the impact of these factors on problem gambling. Take the following example. If two types of gaming machine environments exist:

- one where machines are widely accessible, have bill acceptors, with games that only require the player to push buttons with no skill element, with high numbers of lines and credits so that players can lose large amounts of money on low denomination machines in a short space of time, where wins are credited on the machine and progressive jackpots are available; and
- one where machines are less accessible, with games that require players to choose strategies, with low numbers of lines and credits and a slower speed of play, and wins are automatically cashed out;

then it is reasonable to assume that the former environment will lead to a higher prevalence of problem gambling (see chapters 6–8 and 16).

In reality, the likely prevalence of problem gambling cannot usually be determined so easily — most countries have a mix of both high and low risk factors.

Policy makers in Australia already draw distinctions between different types of machines. For example, ACT hotels cannot operate multi-coin slot machines. In Western Australia, only Burswood casino can operate gaming machines and these must emulate casino games (that is, no ‘pokies’ are allowed).

Available information on the gaming machine environments in Australia, Japan, the United States, Canada, New Zealand and the United Kingdom is briefly summarised in table N.1. The variety of gaming machine environments within the United States is shown in table N.2.

Some comments on international information and sources are provided in box N.2.

Box N.2 Some comments on international information and sources

Detailed information about the complex design of all international gaming machines and regulatory environments is difficult to obtain.

As a result, in this appendix, more in depth information is provided only for selected countries: Japan, the United States, the United Kingdom, Australia, Canada and New Zealand. These countries amount to a large proportion of the world's total gaming machines and information was more readily available on them.

The following sources were used in compiling information:

- submissions to the inquiry (in particular, helpful submissions from Professor Marfels (sub. D222), the Australian Casino Association (sub. D234), the Australian Gaming Machine Manufacturer's Association (sub. D257) and Aristocrat (sub. D266);
- international regulators and government organisations;
- international industry associations and gambling providers;
- internet sites (of gambling providers and players); and
- other sources (including industry journals).

The information elicited from these sources was of variable quality. In particular it was difficult to separate typical characteristics from those representing the market extremes. However, the Commission believes the information presented here is a fair representation of the general gaming machine environment for these countries. Where otherwise, this is noted.

In the future, it would be useful to have a more systematic analysis of machine design and regulatory environment by jurisdiction, involving co-operative work by regulatory agencies.

Table N.1 Australia, Japan, United States, Canada, New Zealand, United Kingdom, 1997-98^{1, 2}

	<i>Australia</i>	<i>Japan</i>
Adult population	13 831 000 ^a	98 957 428 ^j
No. of machines ³	184 526 ^b	3 686 066 pachinko machines and 1 004 642 pachislo machines ^k
Total expenditure (A\$)	\$5.9 billion ^c	\$36.5 billion ^l
Gaming machines per 10 000 adults	133	474
Average weekly earnings (A\$)	\$740 ^d	\$1100 ^m
Expenditure per adult (A\$)	\$420	\$370
Expenditure per machine (A\$)	\$32 000	\$7 880
Number of venues with gaming machines	5866 venues (including clubs, hotels and casinos). ^e	17 418 parlours ⁿ
Range of possible bets per game (local currency and A\$)	Denominations 1c to \$2. Maximum bet in many pubs and clubs is \$10. Up to 10 credits and 9 lines. ^f	Pachinko (Japanese pinball) – minimum of around Y500 (A\$6) for around 100–125 balls (5–6 cents per ball). Prepaid card costs from Y1000–10 000 (A\$12–120). Pachislo – players insert up to three tokens per game (usually 50 tokens for Y1000 (A\$12) or around Y20 (A23c) per token). ^o
Duration of game	All games played by button pushes. Average of 5 seconds per game. ^g	Pachinko – speed of play is 100 balls per minute. Pachislo – players start reels spinning and use three 'skill stop' buttons to stop the reels in a winning combination. ^p
Maximum average loss per hour (A\$)	\$720	\$52 (pachinko)
Other	Can use money to wager. Bill acceptors. ^h	Some parlours display payout data for individual machines. Pachislo is seen as a 'lower stakes game'. ^q
Range of prizes (local currency and A\$)	Cash prizes and progressive jackpots available ⁱ	Pachinko – Balls won from machine are swapped for non-cash prizes such as biscuits. Prizes can be swapped for cash at a nearby independent outlet. Players (indirectly) receive around 3–4 cents per ball. Pachislo machine credits winners. ^r

¹Local currencies converted to 1997-98 Australian dollars (using exchange rates from dX database, RBA 1999). ² Some information is more recent than 1997-98 (this is indicated where possible). ³ Machines are apportioned where this information was available, unfortunately, information was insufficient to apportion into drawcard and reel machines.

Australia — ^a TGC 1999; ^{b, e} ch. 12 (1999 estimate); ^c TGC 1999; ^d appendix J; ^f table 12.3; ^g table 15.1; ^{h, i} ch. 12, ch. 15.

Japan — ^j Population 20 and over (data grouping constraints) US Bureau of the Census 1999b; ^k Heiwa 1998, p. 5; ^l Leisure Development Centre (MITI) 1998 quoted by Costin, R. DFAT, Japan, pers. comm., 20 September 1999; Heiwa 1995, profile; Heiwa 1997, p. 2 ^m Japan Institute of Labour 1999; ⁿ Heiwa 1998, p. 5; ^o Akatsuka, N. DFAT, Japan, pers. comm., 5 October 1999, Fresco-Shinjuku 1999, Hatano 1996, p. 3, Masaru, T. 1999; ^p Schauwecker 1999, Heiwa 1995; ^q Hatano 1996, Heiwa 1998; ^r Fresco-Shinjuku 1999, Akatsuka, N. DFAT, Japan, pers. comm., 5 September 1999, Hatano 1996.

<i>US</i>	<i>Canada</i>	<i>New Zealand</i>	<i>UK</i>
200 426 465 ^a	22 567 492 ^j	2 540 352 ^s	43 934 626 ^{bb}
582 605 ^b	38 000 VLTs and 20 000 slots ^k	14 311 machines outside casinos, 1440 in casinos. ^t	220 000 AWP's, 33 000 jackpot/club machines, 13 200 pinball/pusher/crane grab ^{cc}
\$29.43 billion ^c	\$1.87 billion (VLT only) ^l	\$411 million ^u	\$3.87 billion ^{dd}
29	26	62	59
\$650 ^d	\$540 ^m	\$550 ^v	\$930 ^{ee}
\$150	\$80 (VLT only)	\$160	\$90
\$50 500	\$32 200 (VLT only)	\$26 100	\$14 500
States differ in terms of venues. 203 Indian casinos ^e	Global caps apply in some provinces. VLTs in (or moving to) licensed areas. Slots (and some VLTs) in casinos. ⁿ	Gaming machines in licensed areas and casinos. ^w	Some (low stake) AWP's in cafes and shops. Other machines in licensed venues ^{ff}
Denominations US5c to US\$500 (A7c to A\$735), but most are US25c (A37c). Multiple coins and lines available, but more limited than Australia. ^f	Slot denominations C5c to C\$100 (A5c to A\$103). Maximum bet on VLT is C\$2.50. Multiple line bets available. ^o	Maximum NZ\$2.50 (A\$2.17) bet for machines outside casinos. Casino machines no limit. ^x	Maximum bet 30p (A73c) for AWP's and 50p (A\$1.20) for club or jackpot machines. Machines accept coins from 2p to £1 (A5c to \$2.42). Money inserted cannot be withdrawn, must be played. ^{gg}
Due to lever pull and automatic pay out of winnings, games likely to be slightly longer than Australian games. ^g	Average speed 5 sec. VLTs have faster games, slots have slower. Eg: experienced VLT players can complete games in 2 secs. ^p	Similar to Australian machines. ^y	Initial game can be over quickly, but if the player wins the chance to progress the total game time can be up to a minute or more. ^{hh}
\$705	\$186 (VLT)	\$156 (outside casino)	\$130 (jackpot machine)
States differ. ^h	Bill acceptors ^q	Bill acceptors ^z	No bill acceptors (but industry is seeking this). ⁱⁱ
Progressive jackpots available. Some machines automatically pay out winnings. ⁱ	VLTs and slots credit wins. Progressive jackpots available. For VLTs, payout button gives winners a receipt which is redeemable for cash. ^r	Cash prizes (non casino machines limit of NZ\$2.50 (A\$2.17), casino machines no limit). Wins are credited. Progressive jackpots. ^{aa}	Automatic pay out of wins. No progressive jackpots. AWP's pay up to £15 (A\$36). Club machines pay up to £1000 (A\$ 2417) (casinos), £500 (A\$1209) (bingo clubs), or £250 (A\$604) (other clubs). Crane grab pays soft toy. ^{jj}

^a Population 18 and over US Census Bureau 1999a; ^b sub D257; ^c Commission rough estimate only (underestimate, as this is the result of an addition of 1997 casino slot win from Klatzkin et al (1998) and 1996 VLT expenditure from Dept of Business (Hawaii) (1997, p. 71)); ^d Bureau of Labor Statistics (US) 1999; ^e GAO (US) 1998, p. 4; ^f table N.2; Casino International 1999b. ^j Population 20 and over (data grouping constraints) US Census Bureau 1999b; ^{k, l, n, o, p, q, r} sub. D222, Azmier J., Canada West Foundation, pers. comm. 9 and 10 Nov 1999; Azmier and Smith 1998, McNabb, W., Alberta Gaming and Liquor Commission, Canada, pers. comm., 2 and 4 Nov 1999, Bear Claw Casino 1999, Casino Regina 1999, Casino Windsor 1999, Casino Rama, Casino Niagara 1999, Palace Casino 1999, ^m Statistics Canada 1999. ^s Population 20 and over (data grouping constraints) US Census Bureau 1999b; ^t 1999 rough estimate ^u rough indicative expenditure estimate only (casino machine expenditure is estimated thus: Sky City machine win per day x 363 days x 1440 machines) ^{w, x, y, z, aa}, Osmond, M., Department of Internal Affairs (NZ), pers. comm., 5 and 8 Nov 1999; ^v Statistics New Zealand 1999. ^{bb} Population 20 and over (data grouping constraints) US Census Bureau 1999b; ^{cc} (rough estimate only) ^{dd, ff, gg, hh, ii, jj} White, J. BACTA, pers. comm. 15 and 22 Nov 1999; sub. D222; Kavanaugh, T. Gaming Board for Great Britain, pers. comm., 9 Nov 1999; Lockyer, A. UK Home Office, pers. comm. 29 Oct 1999, Casino International 1999a, Clegg 1999; ^{ee} UK National Statistics Online 1999.

Table N.2 Australia, Indiana, Connecticut, Missouri, Nevada, Colorado, 1997-98.

	<i>Australia^a</i>	<i>Indiana</i>	<i>Connecticut</i>
Adult population	13 831 000	4 381 829 b	2 483 354 h
No. of machines ¹	184 526	15 169 c	8 512 i
Expenditure (\$ local currency)	A\$5.9 billion	US\$1.03 billion d	US\$1.04 billion j
Expenditure per machine (\$ local currency)	A\$32 000	US\$67 800	US\$122 700
No. of venues with gaming machines	5866 venues.	9 riverboats (no Native American casinos). e	2 Native American casinos k
Range of possible bets per game (\$ local currency)	Denominations A1c to A\$2. Maximum bet in many pubs and clubs is A\$10. Up to ten credits and nine lines.	Denominations US5c to US\$100. Almost all (94%) of machines are US\$1 denomination or below, half (48%) are US25c machines. f	Denominations US25c to US\$500. Multi-game video machines in US25c and US\$1 denominations. l
Other (\$ local currency)	Can use money to wager. Bill acceptors.	Must use tokens/credits to wager. Average loss of US\$30 per person per riverboat excursion on slot machines. g	Can use money to wager, most machines have bill acceptors. m

¹ Information was insufficient to apportion into drawcard and reel machines. **a** For references, see table N.1. Indiana — **b** US Bureau of the Census 1999a; **c** IGC 1998, ch. 6; **d** IGC 1998, ch. 6; **e** IGC 1998, GAO (US) 1998, p. 6; **f** IGC 1998, ch. 6; **g** Office of Code Revision IC 4-33-9-11, IGC 1998, ch. 6.

Connecticut — **h** US Bureau of the Census 1999a; **i** Division of Special Revenue 1998, p. 8; **j** Division of Special Revenue 1998 p. 5; **k** Division of Special Revenue 1998; GAO (US) 1998, p. 6; **l** Foxwoods Casino 1999, Mohegan Sun Casino 1999; **m** Mohegan Sun Casino 1999.

<i>Missouri</i>	<i>Nevada^g</i>	<i>Colorado</i>
4 031 943 a	1 279 791 h	2 930 391 n
14 990 b	198 232 i	114 736 o
US\$607 million c	US\$ 5.06 billion j	US\$311 million p
US\$40 600	US\$25 500	US\$2 700

11 riverboats (no Native American casinos) d	2453 licences issued. Venues include casinos, small bars, restaurants and grocery stores. Plus 4 Native American casinos. k	Three towns with 49 casinos. Two Native American casinos. q
Denominations US5c to US\$100. Almost all (98%) are US\$1 or below, two thirds (66%) are US25c machines. e	Denominations US5c to US\$500. Almost all (95%) are US\$1 or below, half (55%) are US25c denomination. Some have multiple coins and lines. l	Denominations US5c to US\$5 (\$US1c slots introduced in Jan 1999). US\$5 maximum bet r
Wins are automatically paid out unless credit mode is activated. Must use tokens/credits to wager. Average loss of \$15 per person per excursion on slot machines. f		

Missouri — **a** US Bureau of the Census 1999a ; **b** MGC 1999c; **c** MGC 1999a; **d** MGC 1999a, GAO (US) 1998, p. 6; **e** MGC 1999b; **f** President Casino 1999, MGC 1999a.

Nevada — **g** Nevada statistics do not include confidential Native American gaming revenue (GAO (US) 1998, p. 46); **h** US Bureau of the Census 1999a; **i** NGCB 1999a, p. 2; **j** NGCB 1999a, p. 3; **k** NGCB 1999a, p. 2, GAO (US) 1998, p. 6; **l** NGCB 1999a, p. 2; MGM Grand 1999, Westward Ho Casino 1999, Casino International 1999b, p. 12.

Colorado — **n** US Bureau of the Census 1999a; **o**, **p** Colorado Division of Gaming 1999b; **q** Colorado Division of Gaming 1999a, pp. 2, 13; **r** Colorado Division of Gaming 1999a, p. 2, 1999b.

The following discussion of gaming machine characteristics is centred around their expected effects on the prevalence of problem gambling. It is important to note that where these characteristics increase the entertainment value of gaming machines, they are also expected to increase the benefits of gambling for the vast majority of gamblers.

Technology

Where technology increases the efficiency by which machines collect money from gamblers — say, by increasing the number of lines and credits and the speed of games and by accepting notes — this can allow some players to spend more than they may have initially intended. For the majority of recreational gamblers this is not a problem. But in a minority of cases, this can lead to problematic behaviour such as loss chasing, which can develop into problem gambling (this is also discussed in chapter 16).

As a result, if such technology has any effect on the prevalence of problem gambling, it is expected to increase its prevalence (industry views on this are presented in the discussion on bets and losses).

Australia

Australian gaming machines are all operated by button push, regardless of the game being played (figure N.1 depicts one type of Australian machine). Gambling on these machines can be continuous — machines accept and pay out cash (so no breaks are required to cash out tokens) and machines credit wins, which can then be cashed out at a button push. Most slot machines have a choice of up to ten credits and nine lines per game, and most video poker machines go up to ten credits. Most modern Australian gaming machines have bill acceptors. The average speed of play in Australian machines is around 5 seconds per game (table 16.1).

United States

Most US slot machines have the option of lever pull and play buttons (figure N.2). All US video poker machines are operated by electronic button push. In terms of lines and credits, US machines appear to generally have less options than Australian machines (Casino International 1999b, p. 12; various casino websites). Some US states allow gambling with tokens only, which puts breaks into play where gamblers can assess their gambling and whether they wish to continue. Additionally, some US machines automatically pay out wins, which also slows down the speed of play (although a credit option is also available).

Figure N.1 **Australian gaming machine**



Data source: Aristocrat 1999 (<http://www.aristocrat.com.au/fmach.htm>, accessed November 1999)

As a result, it appears likely that US machines have a marginally longer average speed of play per game than Australian machines (maybe in the order of around 1 second). Some anecdotal evidence for this exists: an estimate from a players website puts the average speed of play at 7.5 seconds for a video poker game (Kelly 1998).

Figure N.2 **US slot machine**



Source: International Game Technology 1999 (<http://www.igtgame.com/products/>, accessed November 1999)

Canada

Broadly speaking, Canada has two main types of gaming machine — slots and video lottery terminals (VLTs), both of which are similar to US slot machines in appearance. The main differences between the two are:

- VLTs give winners a cash value ticket which can be redeemed for cash, whilst slot machines give cash prizes to winners;
- VLTs have a faster speed of play than slots — once a player becomes adept at operating a VLT machine, a game cycle can be completed in 2 seconds;
- VLTs are more accessible than slots — VLTs are able to be placed in bars and other licensed venues as well as casinos (New Brunswick currently allows VLTs in non age restricted venues although this will be removed by 2000), whilst slots are limited to casinos; and
- VLTs have either ‘touch screen’ technology or buttons, whilst slots generally have a handle and buttons (National Council of Welfare 1996, p. 6; Azmier and Smith 1998, p. 7; McNabb, W., Alberta Gaming and Liquor Commission, Canada, pers. comm., 2 and 4 November 1999; Azmier, J., Canada West Foundation, pers. comm., 9 November 1999).

As a result, the average speed of play for Canadian machines appears to be roughly the same as Australian machines at 5 seconds, although there is a wider range of speeds: VLTs are faster than the average and slots are slower (Azmier and Smith 1998, p. 7; Azmier, J., Canada West Foundation, pers. comm., 9 November 1999; McNabb, W., Alberta Gaming and Liquor Commission, Canada, pers. comm., 2 and 4 November 1999).

Both types of Canadian machines have multiline and multicredit play, and many machines have bill acceptors (see previous sources).

Japan

A Japanese pachinko machine is illustrated in figure N.3. Players turn a handle that shoots individual small steel balls into the machine (Heiwa 1995). Two major types of play are possible:

- When a ball lands in one of the catchers situated on the face of the machine, the player is rewarded with more balls.
- When a ball enters a starter slot in the centre of the screen, the centre slot windows begin to spin similarly to a slot machine. If the windows come up

matching (either numbers or pictures) the player wins more balls — typically around 2300, but a large jackpot can pay out up to 10 000 (Fresco-Shinjuku 1999).

The nature of the pachinko game does not appear to enable multiple credits or lines to be played. The average speed of play is 100 balls per minute (Heiwa 1995; Schauwecker 1999).

Figure N.3 **Japanese pachinko machine**



Data source: Heiwa 1996, p. 4.

Although Japanese pachislo (or pachisuro) machines are electronic and are similar in appearance to US slot machines (figure N.4), a major difference between the two is that pachislo is a low stakes game:

Unlike pachinko, however, which has been criticised for its high-stakes gambling element, pachislo has never become a focus of social concern, since it is a low-stakes game by nature (Heiwa 1998, p. 5).

A pachislo player inserts three tokens (usually Y20 per token) into the machine to start the reels spinning, and tries to stop the reels in the correct formation for a jackpot by using three buttons, or skill stops, located on the front panel of the machine. As a result, it is likely that this results in a slower game than in Australian slot machines.

Figure N.4 **Japanese pachislo machine**



Data source: e-slot.com 1999 (<http://www.e-slot.com/store/sunset.html>)

United Kingdom

Several types of gaming machines operate in the United Kingdom, including amusement with prizes (AWP) machines, all-cash AWP, and jackpot or ‘club’ machines (figures N.5 and N.6). Pinball, pusher and crane grab machines also qualify as gaming machines under UK legislation (Gaming Board for Great Britain 1999, ch. 5).

Most machines have skillstops at the front of the machine to stop the reels, like Japanese pachislo machines (White, J., BACTA, pers. comm., 17 November 1999). AWP machines have three reels and club or jackpot machines have four, and there is generally only one line per game (White, J., BACTA, pers. comm., 15 November 1999). Most machines play an initial game which includes an opportunity to advance to a more complex game. Although the initial game may be over quickly, if the player wins the chance to progress, the total game time can be up a minute or more (Kavanaugh T., Gaming Board for Great Britain, London, pers. comm., 9 November 1999; White, J., BACTA, pers. comm., 15 November 1999).

Currently, UK machines are required to pay out wins automatically and do not accept denominations above £1 coins (A\$2.42) — although proposals to relax these regulations are under preliminary assessment by the UK Home Office (Clegg 1999, p. 40).

As a result, it appears likely that, similar to Japanese pachislo machines, UK gaming machine technology results in longer games than Australian gaming machines.

Figure N.5 UK AWP screen



Data source: Barcrest 1999 (<http://www.barcrest.co.uk/m-htm/setup.htm>)

Figure N.6 UK jackpot machine screen



Data source: JPM International Ltd (<http://www.jpm.co.uk/>).

Winnings

Progressive jackpots are prize pools which accumulate with play and usually must be paid out during a specified period. Machines linked to these types of prizes offer higher rewards than the norm, and hence encourage gamblers to either choose these machines in preference to other machines and/or to spend more time playing them (chapter 16). If they have any effect on the prevalence of problem gambling, they would be expected to increase its prevalence.

Jackpots and progressive prizes are available in Australia, New Zealand, and the United States. No progressive jackpots are allowed in the UK (Clegg 1999, p. 40)

Where machines automatically credit wins, gambling can be fast and continuous. In addition, gamblers are more likely to play through the credits on the machines, and thus increase their losses. As a result of these influences, automatic crediting of wins is likely to increase the prevalence of problem gambling.

Where gamblers must go through a convoluted process in order to receive winnings, this may also increase the likelihood of playing through their winnings. However, for gamblers who do go through the process of cashing in their winnings, their speed of play is slower and the decision to gamble further can be made away from the machine.

Most countries pay cash prizes (or pay tokens that are fairly easily convertible to cash). UK prizes are limited by the type of machine and its location: £5 (A\$12) cash or £8 (A\$19) tokens for traditional AWP, £15 (A\$36) for all-cash AWP, £1000 (A\$2417) for jackpot machines in casinos, £500 (A\$1209) for jackpot machine in bingo clubs, and £250 (A\$604) for jackpot machines in all other clubs. Crane grabs give winners soft toys (Lockyer, A., UK Home Office, pers. comm, 29 October 1999).

Many US machines appear to automatically pay out wins, although a credit option is available. UK machines are required to automatically pay out wins (Clegg 1999, p. 40). Canadian VLTs and Australian gaming machines automatically credit wins. In Australia these credits can be directly converted to cash but in Canadian VLTs a receipt is issued that is redeemable by a cashier (Azmier and Smith 1998).

Japanese pachinko machines give winners a stream of small steel balls, which are then taken to a counter and used as currency to buy prizes. The retail value of each prize is limited — in 1996 the limit was Y10 000 (around A\$116) per prize (Hatano 1996). Prizes can then be taken to a separate outlet which exchanges the prizes for money. Interestingly, while pachinko players pay the equivalent of 5 Australian cents per ball to bet on the machine, winners (indirectly) receive only 3

to 4 cents per ball (Fresco-Shinjuku 1999; Akatsuka, N., Department of Foreign Affairs and Trade, Japan, pers. comm., 5 October 1999).

Payout rates

The payout rate is the average amount won by players as a share of the cumulative amount staked. This rate is critical in determining player losses.

The Australian Gaming Machine Manufacturers Association noted that payout rates are lower outside Australia and that regulation plays an important role:

... the 'return to player' in both unregulated jurisdictions and certain regulated jurisdictions overseas is considerably lower than it is in Australia; the critical point is that in Australia, the return to player is fixed by regulation and is monitored and enforced by regulatory authorities (sub. D257, annexure 3).

While most gaming machines across the world have a payout rate of over 80 per cent, Australian machines do compare favourably, having one of the highest payout rates in the group of identified countries.

US payout rates range more widely than Australian rates, although they appear to converge on average. For example, in Colorado, slot machines must pay out between 80 and 100 per cent (Colorado Division of Gaming 1999, p. 15). However, most pay out around 90 per cent, similar to Australian machines.

Canadian VLTs pay out at a 92 per cent rate, the highest among the identified countries (Azmier and Smith 1998; McNabb, W., Alberta Gaming and Liquor Commission, pers. comm., 2 November 1999).

Payout rates in Japan appear to be slightly lower, at around 80 to 90 per cent (Heiwa 1995, profile).

There are no statutory controls on the payout rates for UK machines, although the Gaming Board for Great Britain has agreed voluntary minima of (in effect) 70 per cent for most machines, and 80 per cent for casino machines with £1000 prizes (Kavanagh, T., Gaming Board for Great Britain, London, pers. comm, 9 November 1999). Industry sources put the range of payout rates from 76–96 per cent depending on location and game design (White, J., BACTA, pers. comm., 15 November 1999; JPM International Ltd. 1999).

Bets and losses

Bets and losses on gaming machines depend on many factors, including maximum bet regulation, technology (including the speed of play and the availability of lines and credits), the nature of winnings, and payout rates.

For example, where the initial cost of play on a gaming machine is low, with only a low amount of credits and lines available, and the speed of play is relatively slow, it would be expected that gamblers using these machines could either not spend more than they initially anticipated, or it would take a long time to lose a large amount of money.

However, where the machine denomination is low, but a high amount of credits and lines are available to gamblers, and the speed of play is high, this could result in gamblers inadvertently losing a large amount of money within a short space of time on a seemingly low value machine.

Thus, if the latter type of environment has any effect on the prevalence of problem gambling, it could be expected to increase its prevalence.

The Australian Gaming Machine Manufacturers Association does not share this view:

AGMMA disagrees with [the] view ... that the ability of a player to spend money more quickly (by selecting a multi-line combination) makes the machine inherently 'riskier' than a machine which a player must play for a longer period to spend the same amount of money ...

[AGMMA believes that]

- the 'return to player' is far more important than the number of combinations that may be chosen in terms of 'risk' assessment ...
- it is entirely up to the player to choose a multi-line combination or to play a machine for a longer period;
- it is not sensible to compare multi-line casino style machines to, say, pachislo machines in Japan because the machines are unique to their respective jurisdictions.

As rigorous empirical evidence on the relative influence of lines and credits and payout rates on problem gambling is not currently available, especially across countries, it is not possible to state with certainty which is the most important. Nevertheless, all relevant factors should be considered when looking at risk to problem gamblers — and the ability of a gambler to lose money more quickly is certainly relevant to risk (technology, the nature of winnings, and the payout rate are relevant in working out how quickly this can happen).

Most Australian gaming machines in pubs and clubs can take bets up to a maximum of \$10 (\$5 in some states and territories) (table 12.3). Machine denominations vary from 2c to \$2 in pubs and clubs, with up to nine lines and ten credits available to gamblers. For a \$10 bet, a speed of play of 5 seconds per game, and a payout rate of 90 per cent, the maximum average loss rate is around \$720 per hour.

Bet limits vary across US states. Machine denominations range from US5c to US\$100, with even the odd US\$500 machine. However, in states where information is available, almost all machines are US\$1 denomination or below, and the single most popular is the US25c machine (NGCB 1999a; IGC 1998, ch. 6; MGC 1999b). Multiple credits and/or lines can usually be played, but are generally more limited than in Australia. However, in the future, US machines may more closely resemble Australian machines:

In Nevada, the multi-coin games are generating higher incomes on the states 1 500 nickel (\$5c) machines. However, executives also say they are considering using them in their dollar and five dollar games (Casino International 1999b).

For a US\$8 bet,¹ with an average speed of 6 seconds per game, and an average payout rate of 90 per cent, the maximum average loss rate is US\$480 (\$A705) per hour.

Some US states have limited bet sizes. In Colorado, a maximum of US\$5 can be placed on any single bet.

Canadian slots have a range of machine denominations similar to US machines. The maximum bet on a VLT is C\$2.50 (Azmier, J., Canada West Foundation, pers. comm., 9 November 1999). For a C\$2.50 bet, an average speed of 4 seconds per VLT game, and an average payout of 92 per cent, the maximum average loss rate is C\$180 (A\$186) per hour.

AWP and all-cash AWP's in the UK have a maximum bet of 30p, and jackpot machines have a bet limit of 50p (Lockyer, A., UK Home Office, pers. comm, 29 October 1999). More complex games and the use of skill stops means that the average speed of play is likely to be slower than Australian games. For a 50p bet, and using the average speed of play for an Australian game of 5 seconds (which is likely to be faster than the more complex UK games) and a payout rate of around 80 per cent, a maximum average loss rate would be around £72 (A\$131) per hour.

¹ As the overwhelming majority of machine denominations in the identified US states are US\$1 or below (with the 25c machine being most popular) and there are usually less options in terms of lines and credits in the US than in Australia, US\$8 was taken to be a rough approximation of a realistic maximum bet. However, higher denominations are possible, but relatively rare.

In Japan, the minimum amount required to play pachinko is ¥500 (A\$6), which buys around 100 balls. At an average speed of play of around 100 balls per minute, not including the time required to exchange balls for prizes and consequently for money, and a payout rate of 85 per cent, the maximum average loss rate is ¥4500 (A\$52) per hour.

On pachinko machines, the Australian Casino Association (sub. D234, p. 5) noted:

Modern pinball style Pachinko machines in Japan are a far cry from the traditional pinball machines of the past – pinballs used in the machines can activate an EGM style screen similar to traditional EGMs and prizes are won depending on what combinations appear on the screen. High value prizes can be won.

Although pachinko machines have developed technologically over the years, the style of play on these machines does keep the maximum average loss rate much lower than Australian gaming machines.

The maximum average loss rate for Japanese pachislo machines is expected to be below that for pachinko.

Accessibility

If gaming machines are more accessible, all other things being equal, this is expected to increase the prevalence of problem gambling (chapter 15).

All the identified countries limit (or intend to limit) access to gaming machines to adult venues, apart from the UK for AWP. These UK machines (limited to 30p bet maximums and maximum £5 wins) are allowed in cafes, fish and chip shops, as well as pubs (Lockyer, A., UK Home Office, pers. comm, 29 October 1999). Other UK machines are less accessible: up to 2 all-cash AWP are allowed per venue (pubs and clubs, betting offices and adult arcades), and a maximum of 3 jackpot machines are allowed in clubs, 4 in bingo halls, and 10 in casinos.

In Australia, gaming machines are limited to licensed venues and casinos, and caps apply in many states and territories (section 12.2). Around 184 526 machines are currently in operation and they are spread across 5866 venues — including clubs and pubs in all states and territories (apart from Western Australia) and all casinos (apart from the ACT).

Similarly, in New Zealand gaming machines are limited to licensed venues and casinos. Non-casino sites have a 18 machine limit (Osmond, M., Department of Internal Affairs (NZ), pers. comm., 5 November 1999)

In Japan, 4 690 708 pachinko and pachislo machines are located in 16 764 parlours, giving an average of 280 machines per parlour (Heiwa 1998, p. 5).

In Canada, accessibility to VLTs is being restricted to adult areas and slots are limited to casinos. In New Brunswick in 1996, VLTs were operating in non-licensed sites such as pool halls, restaurants and bowling alleys (Department of Finance (New Brunswick) 1997, app. b). By the year 2000, New Brunswick will only allow VLTs in licensed premises (Azmier and Smith 1998).

In the identified US states, the notable exception being Nevada, most gaming machines are located in specific destinations such as casinos (box N.3).

Box N.3 Accessibility in some US states

In Indiana and Missouri, gambling is only allowed on licensed riverboat casinos.

In Indiana, gambling can only take place whilst the riverboats are cruising on the river, and during a half hour docking period where passengers can get on or off the boat (Office of Code Revisions 1999, ch. 9). In practice, the riverboats dock for a half hour period every two hours, and most people tend to stay on board for two excursions before disembarking (IGC 1998, chs. 6, 7).

In the US state of Connecticut, slot machines are only available in the two Native American casinos operating in that state (Division of Special Revenue 1998). A large number of machines operate in each casino — 5 495 in Foxwoods Casino and 3017 in the Mohegan Sun Casino (Division of Special Revenue 1998, p. 8).

In South Carolina until recently, video poker was available in convenience stores, bars and restaurants. However, a recent Supreme Court decision outlawing video poker means that accessibility is to be wound back (Plotz 1999).

In Colorado, gambling may only take place in three mountain towns (Black Hawk, Central City and Cripple Creek) and single bets may only go up to US\$5 (Colorado Division of Gaming 1999a, p. 2). In June 1998, 49 casinos were in operation in Colorado (Colorado Division of Gaming 1999a, p. 9). To change the location of gaming in Colorado, to increase the betting limits or to change the types of games allowed would require a change in the Constitutional amendment through a statewide vote of the people. Six initiatives to expand gaming to other locales have appeared on the ballots since 1992 and each of those has been defeated (Colorado Division of Gaming 1999a, p. 2). Two Indian tribes conduct casinos under compacts with the State of Colorado. They are not subject to taxation and are not required to report their revenues to the State. The tribes agreed to conduct limited stakes gaming with US\$5 limits (Colorado Division of Gaming 1999a, p.13).

In contrast to the other identified US states, Nevada's 198 232 gaming machines are located in casinos as well as small bars, grocery stores and restaurants (NGCB 1999a, 1999b; Dunstan 1997, ch. 6). Around 90 per cent of the slot machines in Nevada in September 1998 were operated under 428 casino-type licences, which allow any number of table games and slot machines (NGCB 1999a). The remaining ten per cent were under 2 025 licences which allow only 15 machines or less. On average, there were 421 machines per casino-type licence, and 9 machines per smaller, restricted licence.

N.2 Market segments

As with many other products, the international gaming machine market is complex. Many different types of machines exist within the broad definition of machines used for gaming purposes where the potential return on a single game is greater than the amount risked on that game (sub. D257, annexure 1).

Also, the gaming machine ‘market’ is blurred at the edges. Around 1.5 million Australian households have internet access at home and these computers are potential gaming machines (ch. 18). Studies indicate that few gamblers use the internet at present, although this is expected to increase markedly in the future. Other examples of blurring are the inclusion of crane grabs (which dispense soft toys to winners), and illegal machines. As data was insufficient to make international comparisons on internet and illegal gaming machines, these were excluded from the following discussion of market segments.

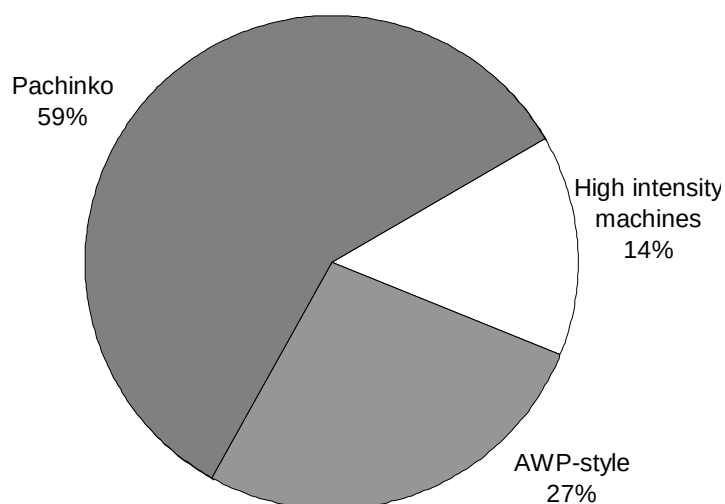
As a result of the broad definition of gaming machines and the blurring at the edges of the market, it is important to ensure that the purpose of market examination is made clear. Otherwise, combining ‘apples and oranges’ can be misleading or even meaningless.

In this appendix, the purpose of examining the international gaming machine market is to inform policy responses to problem gambling.

For machines that lie more squarely within the definition of gaming machines, a subjective analysis of risk factors gives some indicative market segments based on risk for problem gamblers (figure N.7):

- *high intensity machines* — where maximum spending per game and the speed of play are comparatively high (these include Australian machines, US slots and other machines, Canadian slots and VLTs, as well as machines in France, New Zealand and South Africa);
- *AWP-style machines* — where maximum spending per game is low and the speed of play is slower (these include UK AWP and jackpot/club machines, German and Spanish AWP and Japanese pachislo machines); and
- *pachinko and UK crane grab machines* — where the stakes and speed of play are the lowest of all and where the prizes awarded are toys (for crane grabs) and biscuits, cigarettes and magazines for pachinko (although these prizes can be subsequently exchanged for cash).

Figure N.7 World gaming machine market segments^{a,b}



^a Indicative only, excludes roughly 12 per cent of the world's gaming machines on which information was insufficient to apportion into market segments. The addition of these machines may change the relative shares of market segments, or add new market segments. ^b Not including internet or illegal machines.

Data source: table N.3.

The country shares of some of these indicative market segments are shown in table N.3 (some alternative market segments and figures are outlined in box N.4). The share of the world's gaming machines located in Australia is estimated at 20 per cent for high intensity machines. But if other AWP-style machines and Japanese pachinko machines are included, Australia's share of machines falls to 2.6 per cent.

Table N.3 Country shares of selected market segments

	<i>Number of gaming machines</i> ^a	<i>High intensity machines (per cent)</i>	<i>AWP-style machines (per cent)</i>	<i>Pachinko (per cent)</i>	<i>Total (per cent)</i>
Australia	184 526	20.4	0.0	0.0	2.6
United States	582 605	64.4	0.0	0.0	8.2
Canada	58 000	6.4	0.0	0.0	0.8
France	53 250	5.9	0.0	0.0	0.7
New Zealand	15 751	1.7	0.0	0.0	0.2
South Africa	11 222	1.2	0.0	0.0	0.2
United Kingdom	266 200	0.0	14.8 ^d	0.4 ^f	3.7
Germany	227 000 ^b	0.0	13.3	0.0	3.2
Spain	220 000 ^b	0.0	12.9	0.0	3.1
Japan	4 690 708 ^c	0.0	58.9 ^e	99.6 ^g	65.8 ^c
Other	822 900	na	na	na	11.5
Total (machines)	7 132 162	100.0	100.0	100.0	100.0

^a Not including illegal or internet machines. ^b AWP-style only. ^c Pachinko and pachinko machines. ^d 253 000 AWP-style (220 000 AWP-style and 33 000 jackpot machines). ^e 1 004 642 pachinko machines. ^f 13 200 UK crane grab, pinball and pusher machines. ^g 3 686 066 pachinko machines. na information was insufficient to apportion into segments. Source: table N.1; sub. D222, p. 6; sub. D257; Rouyer, Ch., Casinos de France, pers. comm., 9 Nov 1999; Bell, A. National Gambling Board of South Africa, pers. comm., 11 Nov 1999; White, J., BACTA, pers. comm., 23 Nov 1999.

Box N.4 Comments on market segments and country shares

Other sources segment the market differently to the Commission. For example, after the Commission's draft report was released, Aristocrat defined the world gaming machine market figures in its 1998 Annual Report as machines of a certain type:

[The figure in] Aristocrat's 1998 annual report ... refers only to *the types of gaming machines Aristocrat produces* in regulated gaming jurisdictions. It is not an estimate of the total number of machines worldwide (sub. D266, p. 2) (emphasis added by Commission).

Australia had 21 per cent of this market segment, as defined by Aristocrat.

This appendix takes a broader approach, identifying the main characteristics of machines in certain countries, and grouping machines into three market segments relevant to risk for problem gambling:

- high intensity machines (including Australian gaming machines, US slots and other machines, Canadian slots and VLTs, as well as machines in France, New Zealand and South Africa);
- AWP-style machines (including UK AWP and jackpot machines, German and Spanish AWP, and Japanese pachislo machines); and
- Japanese pachinko and UK crane grab machines (and the UK pinball and pusher machines).

A feel for the variety of figures available on market segments is given below (figures in *italics* are regional subtotals which add to totals). The Commission drew extensively from these and other sources — in particular, where no further information on a country's gaming machine numbers was available from regulators or industry sources, and information was sufficient to apportion into market segments, this appendix generally used the highest estimate from either Professor Marfels (sub. D222) or AGMMA (sub. D257).

	<i>Aristocrat (Aust-style)</i>	<i>Prof. Marfels (all machines)</i>	<i>AGMMA (all machines)</i>	<i>Commission (all exc. illegal and internet)</i>	<i>Commission (high intensity)</i>
<i>Aust and NZ</i>	183 449	193 000	-	-	-
Australia	170 123	180 000	172 764	184 526	184 526
New Zealand	13 326	13 000	-	15 751	15 751
<i>North America</i>	446 088	554 000	-	-	-
United States	-	496 000	582 605	582 605	582 605
Canada	-	58 000	53 877	58 000	58 000
<i>Europe</i>	58 895	950 000 ^a	-	-	-
France	-	-	53 250	53 250	53 250
UK	-	260 000 ^c	250 000	266 200	-
Germany	-	227 000 ^c	220 593	227 000	-
Spain	-	220 000 ^c	228 877	220 000	-
Italy	-	-	351 400	-	-
<i>Asia</i>	12 314	4 746 000	-	-	-
Japan	-	4 734 000 ^b	4 690 708	4 690 708	-
<i>Africa</i>	12 025	12 000 ^a	-	-	-
South Africa	-	-	64 974	11 222	11 222
<i>South America</i>	85 536	86 000 ^a	-	-	-
Other	-	-	463 114	822 900	-
Total	798 307	6 541 000 ^a	7 132 162	7 132 162	905 354

^a estimate. ^b Pachinko and pachislo machines. ^c AWP only.

Source: subs D222, D234, D257, D266, tables N.1 and N.3.

The gaming environment in countries with high intensity machines also tends to have other characteristics that may be associated with elevated risks for problem gambling — such as higher numbers of credits and lines, progressive jackpots, credited wins and high accessibility. On Australian machines, an article in *Casino International* noted:

The Australian market is based on ‘pokie’ machines, the famed multi-line multipliers that have come to be known all over the world as Australian machines. They are as sophisticated as slot machines get. They have to be: almost all of them are to be found in clubs where repeat play is measured in visits per week rather than visits per year as in resort destinations. And while such machines may be holding a steady 20 per cent of the market in other parts of the world, in Australia they count for just shy of the full 100 per cent (Sorrill 1999, p. 20).

This suggests that Australia has a relatively high concentration of higher risk machines, which — given the large proportion of gambling expenditure directed to gaming machines — may partly explain the apparently higher prevalence of problem gambling in Australia.

Of course, the relevant issue for policy makers is not Australia’s portion of any given market segment of the world gaming machine market, as Clubs Victoria noted:

... it’s quite irrelevant how many of the world’s EGMs are in Australia. What is relevant is how many of the world’s problem gamblers are in Australia, and we could end up with half the worlds EGMs to no detriment if the product was delivered responsibly and so as to minimise harm ...

... the issue is how can the product be delivered in the most beneficial way to the vast majority of those who enjoy it, while minimising the costs to those who don’t (trans., p. 1304).

The relevant issue for Australian policy makers is whether there are regulatory or other measures which can preserve the entertainment value of the machines for recreational gamblers, while lowering the risks for problem gamblers (this is discussed in detail in chapter 16).

O Displacement of illegal gambling?

As discussed in chapter 2, there has been significant growth in legal gambling over recent decades. Some proportion of this growth is likely to have ‘crowded out’ illegal gambling. This is relevant to the assessment of the costs and benefits of liberalisation in a number of ways:

- One of the benefits of liberalisation is that it may have displaced illegal gambling, and thereby reduced some of its adverse social costs (associated with corruption, organised crime, intimidation and violence);
- Some of the people with gambling problems associated with legally available gambling may have developed these problems with illegal gambling anyway.

However, the notion that legal and illegal forms are substitutes is not always accepted. For example, Hybels (1998) has suggested that legal and illegal modes of gambling may be complements. That is, when gambling is legalised, people may develop a greater taste for it and engage in more illegal gambling too. Hybel presents data to show that the proportion of people engaged in illegal gambling is higher in certain US states that allow three or more forms of legal gambling, compared with states that do not allow legal gambling. While the Commission has concerns about aspects of Hybel’s analysis, the theoretical point is that there may be a degree of complementarity between illegal and legal modes of gambling.

There have been two major forms of illegal gambling in Australia — off-course SP bookmaking and illegal casino gaming (table O.1). Of the two, SP bookmaking has been the larger and more widespread across the country. This appendix briefly examines evidence on how illegal gambling may have changed with the introduction of legal gambling, and the qualitative benefits and costs associated with these changes. It is hard to obtain accurate figures on some aspects of legal gambling, let alone illegal gambling, and so the estimates are necessarily uncertain.

Illegal bookmaking

Participants at the Commission’s Roundtable on crime and gambling considered that illegal bookmaking had not vanished with the TABs:

In NSW ... it is believed that there are some SP bookmakers operating but they cannot be specifically named.

In South Australia, the TAB cut out a lot of SP bookmakers but it is naive to say that they no longer exist. We are aware of a couple ... They exist because of better odds, no tax records, and there's money in it. Now it is more organised. The TAB has taken away the bottom end of the market.

Table O.1 The estimated value of illegal gambling turnover and player losses

<i>Year</i>	<i>Gambling type</i>	<i>Turnover</i>	<i>Estimated player losses^a</i>	<i>Jurisdiction</i>	<i>Source</i>
		\$ million (1997-98 prices)	\$ million (1997-98 prices)		
1950-51	SP bookmakers	2 686	269	VIC	NSW racing officials (McCoy 1980, p. 178)
1950-51	SP bookmakers	5 373	537	NSW	NSW racing officials (McCoy 1980, p. 178)
1961-62	SP bookmakers	4 894	489	NSW	Kinsella Royal Commission 1962 (McCoy 1980, p. 180)
1982-83	SP bookmakers	3 545	355	NSW	Connor Casino Inquiry (Hickie 1985, p. 364)
1982-83	SP bookmakers	1 970	197	VIC	Connor Casino Inquiry (Hickie 1985, p. 364)
1982-83	SP bookmakers	7 879	788	Australia	Connor Casino Inquiry (Hickie 1985, p. 364)
1979-80	SP bookmakers	52	5	QLD	Queensland (1989)
1988-89	SP bookmakers	255	26	QLD	Queensland (1989)
1994-95	SP bookmakers	1 060	106	NSW	McMillen and Kerr (1996, p. 3)
1994-95	SP bookmakers	318	32	VIC	McMillen and Kerr (1996, p. 3)
1973-74	Casinos	3 131	125	NSW	Hickie (1985, p. 178)
1976-77	Casinos	2 233	89	NSW	McCoy (1980, p. 200)

^a McCoy (1980, p. 253) estimated that illegal bookmakers made an average 10 per cent profit on turnover so this factor is applied to estimate player losses. The casino games have relatively high player rates of return (eg around 97.5 per cent for roulette). An estimated player loss rate of 4 per cent has been applied — this is somewhat more than used by Hickie (1985, p. 178). All data is in 1997-98 prices (based on the implicit price deflator for private final consumption expenditure from the National Accounts – ABS Cat. no. 5204.0).

It may seem plausible that the overall decline in illegal bookmaking was due to the introduction of legal TABs in the 1960s, and the fact that, over time, these became highly accessible throughout the community.

However, this is not altogether certain. There was limited change in the estimated value of illegal bookmaking from 1961-62 to 1982-83, well after legal TABs had flourished.¹ McCoy (1980) considers that these illegal and legal forms could

¹ Another difficulty in trying to assess the impact of legal on illegal gambling is estimating what the counterfactual would have been. For example, some might have supposed that illegal

survive together because they catered to different markets and because illegal bookmakers became far more organised with the onset of legal competition. Moreover, TABs did not cater for people who wished to place fixed odds or starting price bets.

There is also some question about the magnitude and nature of the social gains realised through legalisation. It appears that prior to the introduction of the legal TAB, illegal bookmakers were not considered as criminals, but as part of a suburban service (Charlton 1987). The 1984 *Royal Commission on the Activities of the Federated Ship Painters and Dockers Union* (Commonwealth Government and the Victorian Government 1989) found that, by the 1980s, the SP bookmaker was quite different to the small operator of the pre-TAB era. With the introduction of the TAB and increased law enforcement, SP bookmaking had become a highly organised operation throughout Australia. In major cities, territories were marked and distributed among organisations. Most transactions were conducted via the telephone, and violence was sometimes employed to ensure the operation of the system.

Illegal casinos

According to Hickie's (1985, p. 59) account of the New South Wales experience, most of Sydney's illegal casinos began as baccarat schools or clubs, with the transition to illegal casinos beginning after the end of a gang war in 1967-68, and aided by corruption in NSW politics and in the NSW police.

The casinos were often equipped with roulette wheels, dice tables, bar equipment and hostesses in scanty uniforms. They operated openly and, in some instances, a sign on the street marked the locations of the casinos. Celebrities, leading athletes and politicians, as well as a substantial walk-in clientele frequented these casinos. The expenditure (player losses) associated with these illegal casinos appeared to be relatively significant (at around \$100 million in 1997-98 prices — table O.1).

Sydney's illegal casinos went through a boom in the 1970s (Hickie 1985), but started to decline during the late 1970s as a result of increased law enforcement. Illegal casinos were no longer able to protect their immovable assets, and several shut down while others returned to the style of baccarat schools.

gambling, with all of its costs, may have grown very substantially over time if the TAB had not been introduced. Not to take this into account would then underestimate the benefits of liberalisation. However, there is some evidence that the illegal market was relatively stable prior to introduction of the TAB. Thus illegal bookmaking turnover barely changed from 1950-51 to 1961-62 (table O.1).

It is understood that illegal casinos have almost entirely disappeared from Australia. Some ‘schools’ could possibly still exist, but their turnover would be relatively small. Part of the reduction is probably due to the existence of legal alternatives in all jurisdictions, which have driven customers from the illegal to the legal venues. It also appears that tougher policing has been a prime factor in the curtailment of illegal activity.

The implications of displacement of illegal gambling

Trying to quantify the benefits of the displacement of illegal gambling through liberalisation is very difficult:

- the benefits of displacement is *not* the value of player losses, but of the social costs of corruption and crime associated with the illegal gambling;
- factors other than liberalisation seem also to have played a role in the decline of illegal gambling;
- an apparent response to the availability of legal gambling has been the greater penetration of organised crime into the remnant of illegal gambling; and
- the form where the greatest displacement has occurred is probably racing, which is a relatively minor component of overall legal gambling.

However, overall the liberalisation of gambling is likely to have generated benefits by displacing some illegal activity. It is also likely that some of the people who currently experience problems on legal forms would have experienced problems on illegal forms previously — principally on racing.

But the magnitude of these benefits are more a footnote to the true source of gains from the liberalisation of gambling — the substantial consumer benefits from the increased legal availability and diversity of gambling products (which is discussed in chapter 5).

P Spending by problem gamblers

The amount of spending accounted for by problem gamblers is relevant on several grounds. It provides:

- an insight into the financial consequences of gambling problems for problem gamblers and their immediate family;
- key data for examining the level of consumer surplus for problem gamblers from their consumption of gambling (chapter 5); and
- evidence on whether gambling providers are likely to have strong incentives to ameliorate problem gambling.

This appendix sets out the methodology for estimating the problem gambling expenditure shares and provides detailed data.

Section P.1 sets out some of the differing definitions of expenditure that are often used in gambling, while section P.2 describes aggregate spending on gambling in Australia and its distribution among consumers.

Section P.3 then calculates the share of expenditure derived from problem gamblers for individual gambling modes. It also tests whether these share estimates are significantly affected by problem gamblers who may spend something in a given mode, but whose real gambling problem lies elsewhere.

Section P.4 then calculates the average expenditure of problem gamblers and their overall share of the commercial gambling market. However, since the Commission's *National Gambling Survey* both over and underestimates some parts of the gambling market (like all other surveys of this kind), it is important to adjust the data for these biases. The adjusted data provide the best picture of expenditure by problem gamblers and a reader wishing to see the bottom line should look at tables P.6 and P.7.

Problem gamblers are a heterogenous group. Some have moderate problems only, while others have severe difficulties the resolution of which may require direct intervention. Section P.5 sets out the expenditure shares of these two sub-groups of problem gamblers and the methodology used to estimate them.

P.1 Definitions of spending

A variety of definitions are used to describe the amount of consumer spending on gambling. Each is useful, but they should not be confused with each other:

- *Outlays* are the amount of money that a gambler brings to a gambling venue (or takes from an ATM or borrows from someone) and uses to gamble during a gambling session. For example, if someone bets \$50 on a race then this represents an outlay of \$50. Similarly, the purchase of a \$2 lottery ticket represents an outlay of \$2. Outlays must always be positive.¹
- *Turnover* is the sum of all stakes, including those derived from winnings during a gambling session. Turnover will typically be many times bigger than player losses, and is an inappropriate measure of the amount of money that consumers spend on gambling. Turnover is probably best seen as a quantity measure of gambling, in that the price of gambling (the average player loss rate) times turnover is equal to total expenditure measured as player losses.
- *Player losses* (also sometimes referred to as spend, net outlays or gross revenue to the gambling provider) is equal to the initial outlay, less any final winnings. It is also equal to turnover less cumulative wins. For example, if someone made bets equal to \$300 at the races and won back \$200, then the player losses are equal to \$100. Player losses will obviously be negative for gamblers who win more than they lose in a gambling session. Overall, player losses is the most appropriate measure of expenditure — and conceptually matches measures of expenditure for other goods.

Table P.1 illustrates the three concepts for a person playing on a gaming machine.

¹ In some contexts, this facet of outlays makes it a more useful spending measure than actual losses. For example, say that there are 10 males and 10 females playing an identical game of pure chance and spending the same amount each. The spending shares based on outlays are equal. However, say that, by chance, enough males win so that player losses among this group are zero, while all of the females lose. The spending shares based on player losses would suggest that females accounted for 100 per cent of player losses. While that may be true in this hypothetical case, it is not the expected outcome and would be unlikely to occur again in repeated cases. The outlay share provides, in this instance, a more realistic view of player losses. In games of repeated play and high frequency low prize wins, such as gaming machines and scratchies, shares of player losses are the best measure. But for lotteries, in particular, outlay shares can sometimes be more appropriate.

Table P 1 Outlays, player losses and turnover^a

An example based on a gaming machine

<i>Sequence of button presses</i>	<i>Amount of gambling funds</i>	<i>Staked</i>	<i>Turnover (cumulative stake)</i>	<i>Win</i>	<i>Cumulative win</i>	<i>Player losses (cumulative net position)</i>
	\$	\$	\$	\$	\$	\$
0	60	..	..	..	..	..
1	50	10	10	0	0	10
2	90	10	20	50	50	-30
3	80	10	30	0	50	-20
4	70	10	40	0	50	-10
5	80	10	50	20	70	-20
6	70	10	60	0	70	-10
7	80	10	70	20	90	-20
8	70	10	80	0	90	-10
9	60	10	90	0	90	0
10	50	10	100	0	90	10

^a The outlay in this case is equal to \$60, which is the amount that the gambler takes from her purse to gamble, and is equal to initial value of money that the gambler puts into the gaming machine. The turnover is equal to the cumulative amount staked (including recycled winnings), which in this case is equal to \$100. The player losses are equal to the amount brought to gamble at the start (\$60) less the amount left at the end (\$50), which equals \$10. Alternatively, the player losses can be seen as turnover less cumulative wins.

Source: Commission calculations.

P.2 Some stylised facts about gambling expenditure

Australians lost around \$10.8 billion on commercial gambling in 1997-98, with foreign visitors losing around another \$540 million (table P.2). With a population of around 14.1 million adults, that represents average expenditure per adult of around \$760.

However, around 20 per cent of Australians did not participate in commercial gambling last year (although some of these participated in non-commercial gambling such as sweeps, raffles and private games). This implies that average losses per *gambler* are around \$940 per year.

Even so, many gamblers spend very little on gambling, sometimes buying a lottery or scratch ticket, occasionally placing a bet on the races, going to a casino or trying their luck on the 'pokies'. The Commission's *National Gambling Survey* suggests that the median commercial gambling spend is around one third of the average, which indicates that there is a 'tail' of big spenders who have a significant influence on the recorded average (table P.3 and figure P.1). This is even more pronounced

for some gambling categories, such as gaming machines, wagering and casino table games.

Table P 2 The Australian gambling market, 1987-98

<i>Gambling mode</i>	<i>ABS 1997-98</i>	<i>Tasmanian Gaming Commission 1997-98</i>	<i>PC National Gambling Survey March 1998 - March 1999</i>	<i>Hybrid measure</i>
	\$ million	\$ million	\$ million	\$ million
Gaming machines	6400.8	5867.0 ^a	3719.8	6400.8
Total wagering (excluding sportsbetting)	1600.2	1663.9 ^g	901.4	1600.2
Total sportsbetting	23.4	24.5	50.6	23.4
Lotteries, lotto style and pools	1179.1	988.1	1679.7	1179.1
Scratchies	246.4	224.8	130.6	246.4
Keno				
Club keno	175.7	170.9 ^h	..	175.7
Casino keno	33.4	..	..	33.4
Total keno	209.1	..	315.1	209.1
Casino table games				
Table games including foreigners	1431.6	2232.0 ^b	..	1431.6
Foreign losses	536.5	..	..	536.5
By residents	895.1		747.2	895.1
Internet casino games	..	..	27.4	27.4 ^d
Other commercial (bingo etc)	..	194.9 ^c	189.3	189.3 ^e
Private games	..	..	178.2	178.2
Commercial gambling involving Australian residents	10554.1	..	7761.1	10770.8^f
Total gambling by Australian residents	..	..	7939.3	10949.0
Commercial gambling total	11090.6	11366.1 ⁱ	..	11090.6

^a This excludes gaming machines in casinos. ^b This includes gaming machines in casinos and casino keno. ^c This includes minor gaming forms such as bingo and some raffles. ^d This is included in the hybrid measure because the official statistics will have failed to pick up data on such internet gambling. ^e This is the preferred measure of 'other' for the hybrid measure because the Commission's *National Gambling Survey* did not include raffles. ^f This is the definitionally appropriate measure of gambling when calculating the magnitude of gambling expenditure by Australian residents. It excludes foreign gambling in casinos and private games and raffles. It is not perfect. It fails to subtract tourist spending on gambling outside of casinos (but this is believed to be small), and in the case of internet gaming and 'other' the hybrid measure combines data from April 1998 to April 1999 with other data for 1997-98. ^g This updates the published Tasmanian Gaming Commission data to take account of a slight underestimation of the expenditure through the Tasmanian TAB. ^h This updates the published Tasmanian Gaming Commission data to include club keno from Queensland. ⁱ This updates the total expenditure data published by the Tasmanian Gaming Commission (see notes g and h).

Sources: Australian Bureau of Statistics 1999, *1997-98, Gambling Industries, Australia*, Cat. no. 8684.0, June; Tasmanian Gaming Commission Database 1997-98 (including unpublished updates) and PC *National Gambling Survey*.

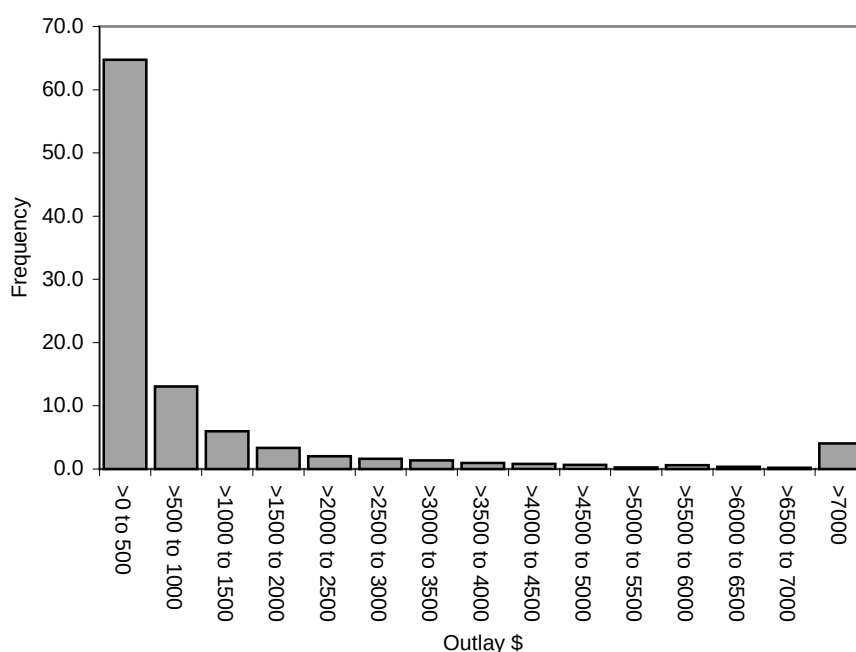
Table P 3 Concentration of outlays on commercial gambling, Australia^a

<i>Gambling type</i>	<i>Top 10% of spenders share of aggregate outlay</i>	<i>Top 5% of spenders share of aggregate outlay</i>	<i>Ratio of median to mean</i>	<i>Mean outlay of the top 10% of spenders</i>
	%	%	ratio	\$
Gaming machines	76.7	62.8	0.24	7 750
Wagering	82.1	64.6	0.16	10 011
Scratchies	56.3	41.7	0.33	409
Lotteries	39.0	33.1	0.63	1 498
Casino table games	78.7	64.8	0.13	12 532
All commercial gambling	72.9	59.4	0.33	10 377

^a Based on outlays of gamblers, not player losses.

Source: PC National Gambling Survey.

Figure P 1 Distribution of commercial gambling outlays



^a These data are outlays on commercial gambling (not player losses) from the PC *National Gambling Survey*, and exclude private games for money and raffles. These data have **not** been adjusted to take account of under enumeration of gambling expenditure.

Data source: PC National Gambling Survey.

One view is that gambling is like other consumer goods in showing such a pattern of concentrated consumer spending. Some data on US lotteries was provided to the Commission to support this and to infer that such a pattern would be similar for other gambling products. According to this view, the concept of problem gambling

— based on excessive expenditure — is questionable, when concentrated spending seems to be a recurrent pattern across many consumer goods.

However, lotteries (and to a lesser extent scratchies) show a quite different pattern to other gambling products. They exhibit some concentration of spending — as in all consumer goods — but nothing as extreme as that applying to other gambling forms. The top 10 per cent of spenders in Australian lotteries account for just under 40 per cent of total expenditure. In contrast, such a group accounts for around 80 per cent of total outlays for wagering, gaming machines and casino table games. Furthermore, the average annual outlay of heavy lottery players (the top 10 per cent) is about \$1 500, which is not prohibitive as a share of most average incomes, whereas the average spends for the top 10 per cent of spenders in modes such as gaming machines (\$7 750) and wagering (\$10 011) looms much larger.² Accordingly, while expenditure concentration is characteristic of many consumer products, it appears to be more extreme and to involve large absolute amounts in some gambling forms.

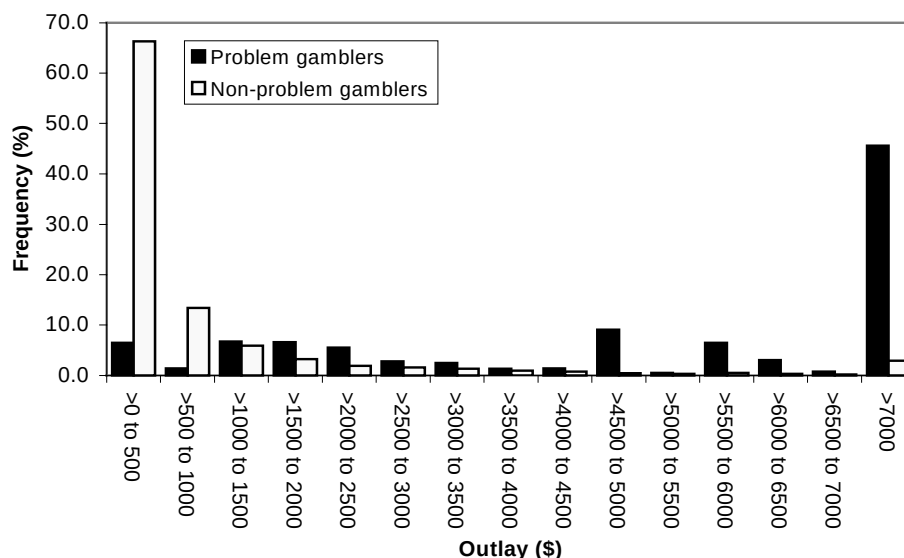
Problem gamblers, as diagnosed using the SOGS, are strongly represented among heavy gamblers (figure P.2), and people with higher SOGS scores tend to spend more on average than those with lower scores (figure P.3). Problem gamblers account for about 0.4 per cent of gamblers who outlay less than \$500 a year on gambling, but for around 40 per cent of those who outlay more than \$4 500 annually. Of course, this does not mean that heavy spending equates with excessive spending or with problem gambling — indeed it is still true that a majority of heavy gamblers are not problem gamblers (using the SOGS criterion of 5+).

P.3 Problem gambling expenditure by gambling mode

Using the methodology described in box P.1, the Commission calculated the expenditure levels and shares of problem gamblers in Australia by gambling mode (table P.4). Problem gamblers figure prominently in the overall expenditure of gaming machines, wagering and ‘other’ commercial gambling, but are much less significant for lotteries and casino table games.

² Although note that this is outlay, not player losses. Absolute values of player losses will tend to be smaller. On the other hand, these estimates have not been corrected for the sampling bias — all estimates would rise, bar lotteries, after such adjustment.

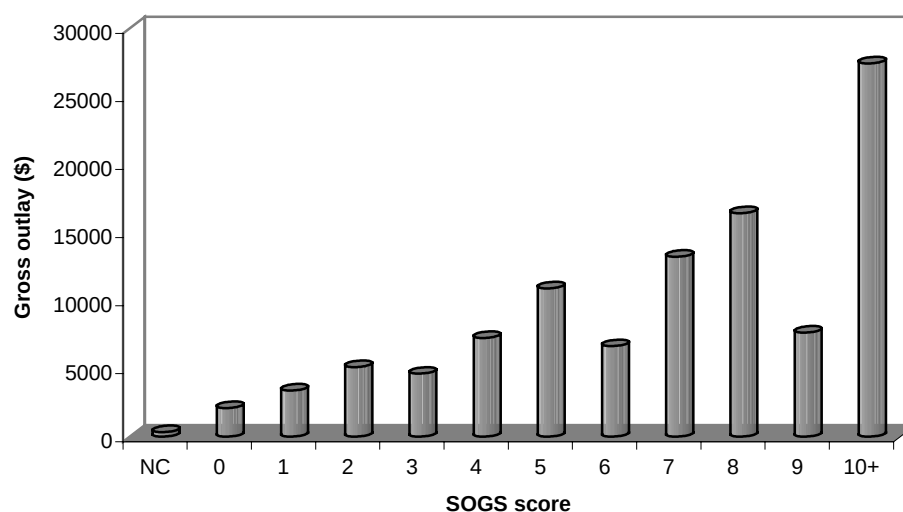
Figure P 2 Distribution of outlay by problem and recreational gamblers



^aSee note for above figure.

Data source: PC National Gambling Survey.

Figure P 3 Average annual outlays by SOGS score



^aThese data are not adjusted so that they are consistent with aggregate gambling expenditure data. That would tend to increase the average spending amount, but by a variable amount for each SOGS grouping depending on the areas where the people concerned were gambling (see section P.3). NC denotes the group of non-regular gamblers who were not asked the SOGS.

Data source: PC National Gambling Survey.

Box P 1 Calculating the problem gambling expenditure share

The Commission sought to examine the share of expenditure accounted for by problem gamblers (α) in Australia by calculating:

$$\alpha = \sum_{i=1}^N w_i E_i P_i / \sum_{i=1}^N w_i E_i \quad \{1\}$$

where w_i is the weight associated with the i th observation, E_i is the expenditure measure (typically losses) for the i th person on gambling and P_i is an indicator variable which is equal to 1 for problem gamblers and 0 otherwise.

Equation {1} above can be re-written in a way that provides further insight into patterns of expenditure by problem gamblers. As noted by Volberg, Moore, Lamar, Christiansen, Cummings and Banks (1998, p. 354), another way of defining α is as:

$$\alpha = \frac{PREV \times PLF}{PREV \times PLF + (1 - PREV)} \quad \{2\}$$

where PREV is the prevalence rate of problem gambling and PLF is the Proportional Loss Factor (equal to the ratio of losses made by problem gamblers to those made by non-problem gamblers). This expression reveals that a high value for α is obtained if PREV or/and PLF is high. For example, if the prevalence rate of problem gamblers among a group of people who gamble is 2 per cent, and problem gamblers spend 10 times more per year on average than non-problem gamblers, then this implies an expenditure share by problem gamblers of just under 17 per cent. Since the most clearly distinguishable feature of problem gambling is high expenditures on gambling, equation {2} is suggestive immediately that problem gambling shares of expenditure are likely to be appreciable.

Adjusting for the source of problem gambling

Data from people seeking help from counselling services (chapter 17) reveals that some forms of gambling, particularly gaming machines and wagering, appear to pose higher levels of risk for problem playing. Once it is recognised that a problem gambler's problems may stem from just one form of gambling, it raises the question of whether all other forms they may play should be tarred with the same brush. After all, consider someone who feels they have impaired control over their gaming machine play and spends \$100 a week. They also play bingo once a week with friends, spending only \$5 each time — rather less than the average. In one sense it seems legitimate to include the expenditure on bingo as part of this problem gambler's expenditure on gambling. However, if it is in no way a source of their problem it is not clear why this expenditure should be treated differently to any other form of expenditure, such as money spent on a movie or a meal.

Table P 4 Expenditure shares of problem gamblers by mode^a

Australia 1999

	<i>Outlay</i>			<i>Player loss</i>		
	PLF mean	PLF median	Expenditure share (mean- based)	PLF mean	PLF median	Expenditure share (mean- based)
	Ratio	Ratio	%	Ratio	Ratio	%
Gaming machines	10.6	21.8	34.5	14.5	39.0	42.3
Wagering	6.8	9.1	23.6	10.8	10.0	33.1
Scratchies	3.1	2.3	8.5	8.0	2.2	19.1
Lotteries	1.7	1.3	4.5	2.1	1.4	5.7
Casino table games	1.6	4.0	9.9	1.7	8.0	10.7
Other (non-affle) ^b	4.2	2.3	21.1	5.3	2.5	25.0

^a PLF is the proportional loss factor — the ratio of expenditure by problem gamblers in any mode to that of non-problem gamblers.

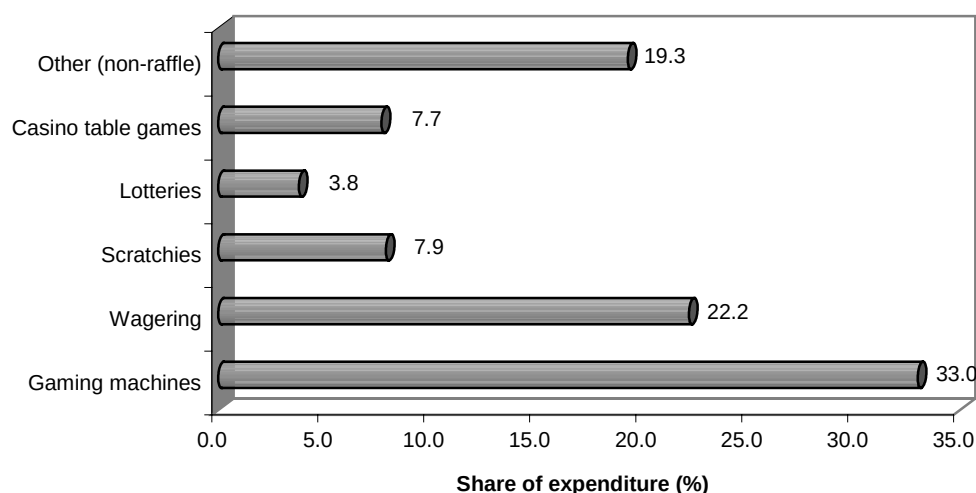
^b This includes keno, bingo, sports betting, internet games, and other, but excludes private games for money and raffles. Of these gambling types, keno contributed most to the relatively high expenditure share of problem gamblers in this gambling mode.

A number of possible adjustments to the data are possible, albeit all being somewhat arbitrary:

- the favourite form of gambling for the problem gambler is sometimes regarded as the source of the problem. Expenditure shares could then be calculated for the favourite form only. The conceptual difficulty with this is that a favourite game may not always be the source of the problem. More critically, a player may experience problems with a number of gambling modes;
- the gambling form on which most is spent. While this is likely to be a source of a gambling problem, it also fails to deal with people who experience problems with multiple forms of gambling; and
- another possible adjustment could be based on the ratio of problem player to non-problem player losses (the PLF). If the PLF is relatively high (say two standard errors higher than the mean PLF) then that gambling form could be seen as problematic.³ The results (figure P.4) suggest that much the same pattern emerges as apparent in table P.4. This suggests that taking smaller spending problem gamblers in any given mode out of the calculations makes very little difference to the overall contribution by problem gamblers to expenditure.

³ A possible difficulty with this is that a problem gambler might spend small amounts on any individual gambling mode, but participate in so many that the collective expenditure constitutes a problem. Or it could be that a gambling mode is a problem for a person, even though the PLF is close to unity, because the expenditure is high relative to personal income.

Figure P 4 Problem gambling share of outlays by gambling mode — adjusted for low spending problem gamblers
Australia 1999



^a For each problem gambler and for every gambling form, the expenditure was tested to see if it was two standard errors above the mean spending for that mode. If it was, then it was counted as spending by a problem gambler. If it was not, it was regarded as non-problem gambling spending. Figures are lower than the unadjusted data because problem gamblers who spent under two standard deviations from the mean will have their expenditure excluded.

Data source: PC National Gambling Survey.

P.4 Estimating the overall share of expenditure accounted for by problem gamblers

The Commission's survey (using unadjusted data) suggested that problem gamblers lose around 15 times as much, on average, as non-problem gamblers (table P.5).⁴ If the median (the middle number) is used as the measure of central tendency, instead of the mean, then the ratio of spending is even greater, at around 20 times.

A revealing feature of the data is that the ratio of player losses to outlay is higher for problem gamblers than for non-problem gamblers. This is consistent with problem gamblers recycling their winnings more often than non-problem gamblers.

The overall implication of these data is that problem gamblers account for about 29 per cent of total gambling losses. However, if the PC *National Gambling Survey*

⁴ The existence of false positives (people who are wrongly categorised as problem gamblers) and false negatives (people who are wrongly categorised as non-problem gamblers) is likely to lead to an underestimate of the relative spending of these two groups.

is adjusted for biases in its estimates of overall gambling in each of the major gambling modes a different picture emerges, as we examine below.

Table P 5 Annual expenditure by problem gamblers – unadjusted figures^a

	<i>Outlays</i>	<i>Player losses</i>
Average per year		
Problem gamblers (\$)	11 620	7 631
Non-problem gamblers (\$)	1 155	505
All gamblers (\$)	1 424	689
Median per year		
Problem gamblers (\$)	7 280	3 941
Non-problem gamblers (\$)	414	199
All gamblers (\$)	469	218
Proportional loss factors^b		
PLF mean	10.1	15.1
PLF median	17.6	19.8
Share of expenditure (%)	21	28.6

^a The data are from the PC *National Gambling Survey* and are unadjusted for the under-enumeration of total gambling. ^b The ratio of expenditure by problem gamblers to those of non-problem gamblers.

Source: PC *National Gambling Survey*.

Some qualifications and adjustments

The results above are based on a survey of the general population. The aggregate expenditures predicted by such surveys are often biased measures of the actual expenditures recorded by governments (based on tax data). The *ABS Household Expenditure Survey* underestimates spending by about 70 per cent.⁵ Delfabbro (1998, p. 183) finds that the South Australian survey data on poker machine expenditure is roughly half of that recorded by the gambling industry and the government. Other Australian gambling surveys also tend to underestimate losses.⁶ The Productivity Commission's *National Gambling Survey* also underestimates spending, by about 25 per cent (table P.2).

Furthermore, the degree of bias in the Commission's survey varies by the type of gambling mode. For example, the Commission's survey suggested that total lottery spending in Australia was about 40 per cent higher than the official data

⁵ The Maribyrnong City Council (sub. D181, pp. 16-25) provides a very extensive and useful analysis of the drawbacks of the HES.

⁶ The problem is not isolated to Australia. The recent US national survey found that Americans won a net US \$2 billion from casino tables and poker machines, when they in fact lost around US \$20 billion net (Gerstein et al. 1999 pp. 31–32). A similar story was apparent for wagering;⁶ Americans also spent around US \$3.3 billion on lotteries, about one fifth of the actual aggregate spending (which is about US \$15 billion).

(table P.2)⁷, while under-enumerating spending on gaming machines and wagering. The fact that the bias in expenditure estimates varies by gambling mode has an important implication for trying to estimate the overall share of expenditure accounted for by problem gamblers. In some gambling modes, problem gamblers account for a significant share of expenditure, while in others, much less so. If the Commission's survey has under-enumerated spending in those gambling modes where problem gamblers make a small (large) contribution to spending in that mode, then the aggregate share of spending by problem gamblers will be overestimated (underestimated).

To derive an adjusted aggregate share of gambling expenditure (table P.6) the Commission combined:

- the problem gambling shares of player losses from the PC *National Gambling Survey* for each of the relevant gambling modes (from table P.4);
- with the shares of each mode in aggregate Australian resident commercial gambling derived from table P.2.

Table P 6 Problem gambling player losses per year
Adjusted for expenditure biases, 1997-98

<i>Gambling form</i>	<i>Value \$ million</i>	<i>Share of gambling mode in total^a</i>	<i>Problem gambling share of player losses^b</i>	<i>Unadjusted problem gambling expenditure</i>	<i>Adjusted problem gambling expenditure</i>
	\$ million	%	%	\$ million	\$ million
Gaming machines	6 400.8	59.4	42.3	1 575.0	2 707.5
Wagering	1 600.2	14.9	33.1	298.1	529.7
Scratchies	246.4	2.3	19.1	25.0	47.1
Lotteries	1 179.1	10.9	5.7	96.5	67.2
Casino table games	895.1	8.3	10.7	79.9	95.8
Other commercial	449.2	4.2	25.0	145.4	112.3
Total	10 770.8	100.0	33.0	2 219.9	3 559.6

^a The adjusted problem gambling spending share (s) is derived as:

$$s = \sum_{i=1}^6 \left(\frac{E_i}{\sum_{i=1}^6 E_i} \times \frac{PG_i}{E_i^*} \right) \text{ where } E_i \text{ is the spending from the aggregate data (the 'hybrid' data in table P.2),}$$

PG_i is the problem gambling spending in mode i from the PC *National Gambling Survey* and E_i^* is the total spending in mode i from the PC *National Gambling Survey*.

Source: Table P.2 and PC *National Gambling Survey*.

⁷ This is not a surprising result. Australian lotteries provide a significant share of the prize to just one winning combination. It would be rare for a survey to find such a winner and, accordingly, reported player losses will tend to be higher than actual losses.

ACIL (sub. D233. p. 48) claimed that the Commission had (inappropriately) used different scale-up factors for problem gamblers than non-problem gamblers when taking account of the biases in spending categories from the survey.⁸ This represents a misunderstanding of the method used. Problem gamblers were treated no differently to other gamblers in making the adjustment. In each gambling mode the Commission assumed that total spending for any gambler is biased by some *constant* factor. In some expenditure categories, for example, lotteries and other commercial gambling, the Commission's aggregate estimates of spending were higher than official statistics. After adjustment for expenditure biases, the estimate of absolute spending accounted for by problem gamblers *fell* in these cases. However, because the Commission's data under-enumerated spending in gaming machines and wagering significantly, the absolute amount of expenditure accounted for by problem gamblers increased overall. On the basis of these adjustments, **the Commission estimates that problem gamblers account for one third of total gambling losses by Australians.**

The implication of the adjusted data is that a problem gambler spends around \$12 200 per year compared to about \$650 for a non-problem gambler — or around 16 times as much (table P.7).

Table P 7 Annual average player losses by mode

Adjusted for expenditure biases

<i>Gambling mode</i>	<i>Mean losses by problem gamblers</i>	<i>Mean losses by non- problem gamblers</i>	<i>Overall losses</i>
	\$	\$	\$
Gaming machines	10 674	711	1 174
Wagering	3 727	325	466
Scratchies	256	31	38
Lotteries	295	135	139
Casino table games	1 099	584	615
Other commercial	628	107	135
Total	12 237	645	938

^a These estimates are obtained by dividing the estimated problem gambling player losses in table P.6 by the estimated number of problem gamblers given by the Commission's prevalence estimates.

Source: PC National Gambling Survey and table P.6.

⁸ The expert testimony attached to the ACIL submission made a number of other comments regarding methodologies for estimating spending, and especially warned against using the median as a basis for estimating overall expenditure. The Commission agrees that medians would be an inappropriate basis for calculating the total expenditure, and did not base any estimates of overall gambling expenditure on medians (in either the final or draft report).

It should be emphasised that the estimated expenditure share of problem gamblers could be somewhat higher or lower than one third, and that the number should be seen as indicative rather than an exact measure:

- In each gambling mode, the survey estimates of expenditure diverge somewhat from the official statistics (though not as badly as most other surveys of this kind). We have assumed that the degree of over or understatement is the same for problem and non-problem gamblers.
 - However, if problem gamblers understate their spending by more than others, then the figures in the tables above would show an even greater concentration of player losses among problem gamblers — with corresponding greater financial impacts on the affected individuals and their families. This could be the case if, for example, problem gamblers, do not want to acknowledge their losses, out of embarrassment or other motivations. This is consistent with some of the underlying behaviour that characterises problem gambling (such as concealing evidence of gambling).
 - On the other hand, if recreational gamblers understate their spending by a proportionately greater amount, then the above estimate of the problem gambling spending share would be biased upwards. For example, as ACIL noted (sub. D233, p. 48), recreational gamblers may tend to forget small losses, which are relatively minor compared to everyday expenses and more likely to be remote in time, whereas problem gamblers may be more aware of the large amounts that they spend regularly. However, according to the Commission's *National Gambling Survey*, regular non-problem-gambler heavier spenders account for a significant share of total spending. If it is argued that high spending and regularity are likely to lead to more accurate recollection of gambling losses, then this group should not have substantially biased spending. That means that the missing money would have to be largely accounted for by notionally light spenders, but the adjustment of their mean losses needed to account for the major part of the understatement would be implausibly large. It seems likely that all groups have some difficulty in trying to assess or divulge their spending accurately, and without concrete evidence there is no basis assuming the level of understatement is higher or lower for problem gamblers compared to other groups of gamblers.
- The data are derived from a survey, and inevitably, sampling and non-sampling errors may affect the reliability and accuracy of the data.

The fact that player perceptions of expenditure vary so significantly from the real amounts lost should be subject to further research to see if improvements in survey or other data collection methods provide more accurate answers.

P.5 Estimating the expenditure share of moderate versus severe problem gamblers

The Commission has emphasised that, just as gambling products are heterogeneous, so are problem gamblers. From a public health angle there is interest in people who do not need treatment, but who nevertheless exhibit some of the behaviours and problems of those who do (as in obesity, diabetes and a range of orthodox public health concerns). This group is termed moderate problem gamblers (or what Shaffer et al. term type level 2 problem gamblers). It is useful to know the spending share of this group relative to the severe, ‘need treatment’, group for the analysis of the consumer surplus in chapter 5.

Unfortunately, there are a number of difficulties in trying to estimate the relative spending shares of these two groups of problem gamblers. The Commission has used Dickerson’s definition of severe problem gambling, which involves a weighted sum of gamblers across the different SOGS scores. For example, Dickerson assumes that one in five people with a score of 5 on the SOGS is a severe problem gambler. This raises the difficulty of determining which of the SOGS 5 gamblers will be counted as severe and which as moderate for the purpose of allocating expenditure to each of these problem gambling categories:

One method would be to assume that mean expenditure in each SOGS category is equal between the two groups, but that is contrary to evidence that those who need treatment tend to spend more than those who do not.

Another method would be to presume that the severe problem gamblers always spend more than any moderate problem gambler in any SOGS score category. That, however, ignores the fact that many heavy gamblers do not face big problems.

The Commission adopted another approach. In any given SOGS score category and for each gambling mode, the population of gamblers are sorted by their HARM scores, starting with those who scored the highest. The Dickerson quota (for example, 20 per cent in the case of SOGS 5) is allocated to the those with the highest HARM scores, until the quota is depleted. All gamblers classified as severe problem gamblers using this method had at least a score of one on the HARM criterion. Inevitably, it is rare that the data provides the expenditure share for exactly the Dickerson quota — that is achieved through interpolation. While being complex to implement, the advantage of this method is that at least it uses a criterion of harm to try to identify the severe cases within each SOGS category.

This method produces expenditure shares for severe and moderate problem gamblers in each gambling mode. As before these are then weighted by the official

data to derive an overall estimate of the shares of commercial gambling accounted for by the two groups of problem gamblers (table P.8).

Table P 8 Shares of player losses by severe and moderate problem gamblers

<i>Gambling type</i>	<i>Severe share</i>	<i>Moderate share</i>	<i>Problem gambling share</i>
	%	%	%
Gaming machines	33.7	8.7	42.3
Wagering	23.5	9.5	33.1
Scratchies	7.8	11.3	19.1
Lotteries	2.1	3.7	5.7
Casino table games	2.5	8.2	10.7
Other commercial	16.5	8.5	25.0
Total	24.8	8.3	33.0

Source: PC National Gambling Survey and table P.6.

Interestingly, the data suggests that severe gamblers account for the bulk of expenditure by problem gamblers in gaming machines and wagering. They account for rather less in the remaining gambling forms, where the evidence from both the prevalence and treatment data suggest gambling problems are much less extreme.

P.6 Standard errors

The Commission's survey uses a complex design, with a two phase selection process for asking expenditure and SOGS questions. This means that conventional standard errors will tend to suggest a higher level of precision than is actually the case. In order to provide an estimate of the standard errors corrected for the complex design, the Commission used a re-sampling approach (the 'bootstrap'). This involves using a computer to draw many repeated samples from a 'master' data set, replicating all the features of the complex survey design in each replication. Then the outcomes from the replications provide an idea of the extent to which the design and sampling variability affect the precision of the estimates.

The Commission undertook a simulation, with 5 000 replications, to examine the expenditure shares of each of the major gambling modes as above. For each replication, a weighted average of the expenditure shares across the modes was calculated, using the weights from table P.6. These weighted averages were then sorted in ascending order. The 125th observation in the list of values then represents the estimate of the lower 2.5% tail of the 95 per cent confidence interval. Other values from the list represent other significance cutoff points. The confidence intervals for each of the gambling modes and for the weighted average of gambling

expenditures shares are shown in table P.9. These data suggest that our inference that problem gamblers account for an economically significant share of overall gambling expenditure is not affected by the sampling and design effects in our survey.⁹

Results for individual gambling modes are less reliable, particularly where the survey has relatively small samples for those playing that mode (such as table games), or where there is considerable variability in player amounts (such as race betting). For example, the 95 per cent confidence interval for the share of expenditure accounted for by problem gamblers in race betting is from 10 per cent to 64 per cent, while it is 2.1 per cent to 23.3 per cent for table games. On the other hand, the confidence interval for gaming machines is relatively narrow.

Table P 9 Confidence intervals on shares of player losses by problem gamblers by mode

Bootstrap estimates^a

<i>Threshold</i>	<i>Gaming machines</i>	<i>Wagering</i>	<i>Scratchies</i>	<i>Lottery</i>	<i>Table games</i>	<i>Other</i>	<i>Total</i>
	%	%	%	%	%	%	%
2.5% lower tail	32.6	9.8	4.9	1.0	2.1	12.1	25.2
5% lower tail	34.1	13.4	6.6	1.8	3.2	13.8	26.7
10% lower tail	36.0	17.0	8.7	2.6	4.5	15.9	28.0
10% upper tail	48.5	49.8	30.8	8.9	17.8	34.5	38.1
5% upper tail	50.3	56.3	35.1	10.1	20.5	37.1	39.5
2.5% upper tail	51.8	63.6	39.6	11.5	23.3	39.6	40.8
Mean	42.3	33.1	19.1	5.7	10.7	25.0	33.0

^a Based on 5 000 replications. The estimate for the confidence intervals for total gambling expenditure is based on calculating the weighted average of the expenditure shares and then sorting these from low to high, and selecting the values corresponding to the appropriate confidence thresholds. The confidence intervals for each of the other modes are calculated with a separate sort for each mode.

Source: Commission estimates and PC *National Gambling Survey*.

⁹ Although these calculations cannot take account of any other effects, such as non-response error and other non-sampling errors.

Q Who are the problem gamblers?

Q.1 Introduction

This appendix looks at the characteristics of ‘at risk’ and problem gamblers, drawing on findings from other Australian and overseas studies. Data from the Commission’s surveys are presented in chapter 6.

Examining these characteristics is useful for several reasons:

- First, they provide indications of vulnerable groups, which may usefully be the target for help services or promotional campaigns geared at raising awareness.
- Second, they provide information about the patterns of gambling problems, which may be useful in identifying causes of problem gambling prevalence. For example, until the advent of EGMs, females have tended to gamble less than males, and therefore been less exposed to possible problems. The fact that their representation in the problem gambling statistics has risen is suggestive of a causal link to the availability of a gambling mode attractive to women.
- Third, the socioeconomic profile of problem gamblers, combined with other information, may be a guide to more efficient screens of problem gambling.

It is important to distinguish two major sources of data. Because problem gambling is relatively rare amongst the general population, it is hard to obtain large samples of affected people from population surveys. For example, the 1997 gambling prevalence survey in Victoria (Market Solutions and Dickerson 1997) identified only 15 people with a SOGS score of 5 or more, while the two NSW gambling surveys (Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern 1996a, 1998) yielded 36 and 38 people respectively people with a SOGS score of 5 or more. Because of the much larger size of the Commission’s *National Gambling Survey*, a reasonable number of problem gamblers were identified (140 people with a SOGS score of 5 or more) allowing more reliable statistical analysis.

An alternative source of information are surveys of, or records from, clients of gambling help services, such as Break Even or Gamblers Anonymous. It is possible to get very much larger numbers of problem gamblers in this group than in general population surveys. However, it should not be assumed that information on clients

of counselling agencies is necessarily representative of people who either have problems but do not seek help, or seek help but do not disclose personal information. As noted by Jackson, et al. (1997, p. 8), educated middle class people are more likely to contact help services than working class ones. Also, some cultural groups are more tolerant of gambling than others, and will accept problem gambling as a problem, rather than a moral failing.

Q.2 Socio-economic patterns among problem gamblers

Income

Many assessments of the demographic profile of problem gamblers have indicated that they come disproportionately from the disadvantaged (Select Committee on Gambling, ACT, 1999, p. 15). Blaszczyński (1998, pp. 33-34) indicates that it is not surprising that people on lower incomes and unemployed persons have a higher risk of gambling problems:

As a result, problems emerge at a much earlier stage in proceedings and tend to persist over a longer period... For example, consider two individuals, one with fifty pounds disposable income a fortnight and the other with two hundred pounds. Assume both spend 20 pounds gambling. For one, this represents 40 per cent of his income; for the other, 10 per cent. Should both establish a debt of five hundred pounds and begin to pay it back at the same rate of 40 pounds a week, the person on lower income will struggle to meet repayments, thus immediately facing the temptation to gamble more in order to try to ease the financial pressure. In addition, the person on the lower income is likely to find it much more difficult to borrow funds. In these circumstances, there is a greater risk of the person turning to illegal means to obtain money to supplement living expenses.

However, the evidence for a marked difference in the income levels of problem gamblers compared with other adults is equivocal. Jackson et al. (1999b), for example, find that the income profile of a large group of problem gamblers in counselling — the most severe group — resembles that of the general population (chapter 6). The Commission's surveys (chapter 6) also reveal relatively modest differences in the average income levels of problem gamblers compared with other adults. Nevertheless, it should be noted that:

- Problem gamblers tend not to be old, and old people tend to have lower incomes. Once the age structure of problem gamblers is taken into account, it is possible that they may have lower income than similarly aged peers.
- It is still the case that many problem gamblers have low income (table Q.1).

Table Q.1 Incomes of problem gamblers

<i>Study</i>	<i>Percentage on low income^a</i>	<i>Nature of group</i>	<i>Location and time period</i>
Jackson et al. (1997)	48.2% had incomes below \$20 000 per year; 27.5% had incomes below \$10 000. ^b 37.5% were on fixed incomes. ^c	Clients of Break Even services	Victoria, 1996-97
Jackson et al. (1999b)	57% reported incomes of less than \$20,800 per year; and 33% were in receipt of pensions or benefits. But the income distribution of clients is similar to that of all Victorians.	Clients of Break Even services	Victoria, 1997-98
Elliot Stanford and Associates (1998)	57.8% earned less than \$20 000 per annum; 28.3% earned less than \$10 000.	Clients of problem gambling counselling services	South Australia, November 1996 to March/May 1998
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)	33.3% of those scoring 5+ on the SOGS earned less than \$20 000 and 14.8% had incomes below \$10 000.	General population survey	NSW 1995
Eckhardt (1998)	49% earned less than \$20 000 and 18% less than \$10 000.	Clients of gambling counselling services	Tasmania July 1997 – Sept 1998
Relationships Australia Queensland (sub. 62)	37% of gambling clients had income below \$10 000 and 57% were below \$20 000.	Clients of gambling counselling services	Break Even Gold Coast May 1993 - Oct 1998
Lorenz and Politzer (1990)	27% reported incomes of less than US\$10 000 and another 21.8% between US\$10 000 and \$20 000.	Patients of 3 Maryland problem gambling treatment centres	Maryland, US, 1983–1989
National Council of Welfare (1996)	28% of household income under \$25 000 cf 20% for non-problem groups	General population	Alberta Canada
Gerstein et al. (1999)	Found that people earning less than US \$24 000 had a 40% higher risk of being a 'pathological' gambler	General population	US 1998

^a Note, however, that *household* income might be higher than this. ^b Jackson, et al. 1999a (pp. 15–16) found that problem gamblers are apparently under-represented among the lowest income group when compared with Victorians as a whole. However, the researchers emphasised that many problem gamblers did not disclose their income, and that the concepts of income used were vague and so could severely bias the results. ^c Fixed incomes include pensions and benefits (eg unemployment benefits).

Source: See column 1 for the sources of data.

Employment status

Delfabbro (1998, p. 180) conjectures that the unemployed are more likely to gamble problematically because it allows them an escape from their worries and raises the possibility of a win to supplement their benefit income.

Table Q.2 Employment status of problem gamblers

<i>Study</i>	<i>Link to employment status</i>	<i>Nature of group</i>	<i>Location and time period</i>
Jackson et al. (1997)	14.8% were unemployed (cf Victoria rate of 9.1%), 52.5% were employed	Clients of Break Even services	Victoria, 1996-97
Jackson, et al. (1999b)	16.9% were unemployed (cf Victoria rate of 8.5%), 59.7% were employed	Clients of Break Even services	Victoria, 1997-98
Abbott and Volberg (1991)	Unemployed were over-represented among those betting on instant lotteries (18% play weekly), horses/dogs and gaming machines. One in 5 people unemployed had had a gambling problem at some time.	General population	New Zealand 1991
Elliot Stanford and Associates (1998)	15.4 per cent were unemployed and 48.5% were employed.	Clients of problem gambling counselling services	South Australia, November 1996 to March/May 1998
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)	None unemployed; 64.5 per cent employed	General population survey	NSW 1995
Eckhardt (1998)	10.6% unemployed and 64.7% employed	Clients of problem gambling counselling services	Tasmania 1997–98
Relationships Australia Queensland (sub. 62)	10.8% unemployed	Clients of problem gambling counselling services	Break Even Gold Coast May 1993–October 1998
Lorenz and Politzer (1990)	13% unemployed and 80 per cent employed.	Patients of 3 Maryland problem gambling treatment centres	Maryland, US, 1983–1989

Source: See column 1 for the sources of data.

Age

Delfabbro (1998, pp. 176–180) finds that young people, are more likely to be problem gamblers. Dickerson et al. (1994, 1995, 1996) has also shown gambling problems are most common in young people. US studies (eg Volberg 1997) shows this pattern is not unique to Australia.

Table Q.3 Age of problem gamblers

<i>Study</i>	<i>Average age</i>	<i>Other aspects of age</i>	<i>Nature of group</i>	<i>Location and time period</i>
Jackson et al. (1997)	38 years	Females much more represented among older clients; there are far fewer problem gamblers aged 60 or more than would be predicted by Victoria's population structure	Clients of Break Even services	Victoria, 1996-97
Jackson et al. (1999b)		Compared with the age distribution of the general population, problem gamblers are over-represented in the 30-39 and 40-49 years age groups	Clients of Break Even services	Victoria, 1997-98
Abbott and Volberg (1991)		Two thirds of current 'pathological' gamblers were aged 18-29 years.	General population	New Zealand, 1991
Problem Gambling Committee (1997)	36 years	32 per cent of problem gamblers were aged from 15 to 29 years. Only about 7 per cent of problem gamblers were aged over 55 years.	Clients of problem gambling counselling services	New Zealand, 1997
Problem Gambling Committee (1998)	37 years	Majority are aged between 20 and 49 years	Clients of problem gambling counselling services	New Zealand, 1998
Elliot Stanford and Associates (1998)	40 years		Clients of problem gambling counselling services	South Australia, November 1996 to May 1998
Dickerson, Baron, Hong and Cottrell (1996)		Majority of problem gamblers were men aged 19 to 29 years	General population, but criterion for problem gambler is a gambler scoring SOGS 10+	Sydney, Melbourne, Adelaide and Brisbane, Australia 1991

continued

Table Q.3 continued

<i>Study</i>	<i>Average age</i>	<i>Other aspects of age</i>	<i>Nature of group</i>	<i>Location and time period</i>
Walker (1998a)	38 years	Males seeking help are on average 6 years younger than females	Clients of problem gambling counselling services	NSW August-Sept 1998
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)		35.6% of SOGS5+ (57.2% of 10+) were between 18 and 29 years	General population	NSW 1995
Eckhardt (1998)		31.2% were under 29 years; 5.5% were over 60 years	Clients of problem gambling counselling services	Tasmania 1997–98
Lorenz, Politzer and Yaffee (1990)	42 years	15% were in their 20s and 32% in their 30s. 7% were over 60 years old.	Members of Gamblers Anonymous	Maryland US 1989
Gerstein et al. (1999)		Found that people aged 50–64 had a 1.83% times greater risk of being a 'pathological' gambler, but those aged over 65 had a 1/3 risk	General population	US 1998
Stinchfield and Winters (1996)	39 years		In treatment programs	Minnesota US 1992-1996
LADIS (1998)	30.1-30.9 years	56.3% were aged 15 to 29 years, 25 per cent were aged 30-39 years and 18.7 per cent aged over 39. The age profile is much younger than alcohol or drug dependency.	People seeking help for gambling problems	Netherlands 1997-98
National Council of Welfare (1996)	40% under 30	cf 24% for non-problem respondents	General Population	Alberta Canada

Source: See column 1 for sources.

Cultural and ethnic background

Table Q.4 Culture and ethnicity of problem gamblers

<i>Study</i>	<i>Born overseas?</i>	<i>Other aspects of ethnicity</i>	<i>Nature of group</i>	<i>Location and time period</i>
Jackson et al.(1997)	23.1% born overseas	This is consistent with the demographics of Victoria as a whole	Clients of problem gambling counselling services	Victoria, 1996-97
Jackson et al. (1999b)	24.4 % born overseas		Clients of Break Even services	Victoria, 1997-98
Abbott and Volberg (1991)	Pacific islanders and Maoris had, respectively, a prevalence 6 and 3 times higher than the NZ European rate.		Population	New Zealand
Problem Gambling Committee (1998)		Marked overrepresentation of NZ Maori clients and minor overrepresentation of Pacific Nations clients	Clients of problem gambling counselling services	New Zealand, 1998
Elliot Stanford and Associates (1998)	15.5% of problem gamblers were from NESB. 25.1% had a father and 23.8% had a mother from a NESB.	4.8 % of problem gamblers were Aboriginal and Torres Strait Islanders, though comprising 1.4% of the general population.	Clients of problem gambling counselling services	South Australia , November 1996 to May 1998
Walker (1998a)	14.9% NESB non-Asian; 3.2% Asian		Clients of problem gambling counselling services	NSW August-Sept 1998
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)	35.5% of SOGS5+ and 57.1% of SOGS10+	No ATSI	General population survey	NSW 1995
Relationships Australia Queensland (sub. 62)	28% born overseas, Asians were 2.5% of clients		Clients of gambling counselling services	Break Even Gold Coast May 1993 - Oct 1998
LADIS (1998)	23% non-Dutch born (much higher than for alcohol dependency)		Clients of counselling services	Netherlands

Note: NESB denotes non-English speaking background

Source: See column 1 for sources.

Relationship status

The greater involvement of single people is echoed in other studies (Abbott and Volberg 1991; Dickerson et al. 1994, 1995, 1996a; Lesieur 1984, Sommers 1988; Volberg and Steadman 1992).

As Delfabbro (1998, p. 179) notes some care has to be taken in understanding why this connection holds. It may be that single people have more leisure time, greater income and less chance of being criticised for excessive gambling. They may be more likely to be bored and lonely, seeking gambling as a solace. Or, reversing the causality, it may be that people who are problem gamblers find it difficult to establish or maintain relationships *because* of their gambling habits.

The smaller share of married problem gamblers may also be linked to the average younger age of problem gamblers — many may not have yet formed relationships. However, Delfabbro's analysis controls for other variables, so it is clear that age is still a relevant risk factor in problem gambling.

Table Q.5 **Marital status of problem gamblers**

<i>Study</i>	<i>Percentage who are married</i>	<i>Other aspects of relationships</i>	<i>Nature of group</i>	<i>Location and time period</i>
Jackson et al. (1997)	36%	This is much lower than that of Victorians as a whole. Far more male problem gamblers had never married — consistent with the age profile of male problem gamblers.	Clients of Break Even services	Victoria, 1996-97
Jackson et al. (1999b)	41% married and 10% de facto	Male problem gamblers almost twice as likely as their female counterparts <i>not</i> to have married	Clients of Break Even services	Victoria, 1997-98
Elliot Stanford and Associates (1998)	38.1%		Clients of problem gambling counselling services	South Australia, Nov.1996 to March/May 1998
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)	48.4% of SOGS5+ are partnered		General population survey	NSW 1995

continued

Table Q.5 continued

<i>Study</i>	<i>Percentage who are married</i>	<i>Other aspects of relationships</i>	<i>Nature of group</i>	<i>Location and time period</i>
Eckhardt (1998)	37.5% are married; and 19.2% defacto		Clients of problem gambling counselling services	Tasmania 1997–98
Relationships Australia (SA) (sub. 118)	44% in a relationship	Lower than population	Clients of problem gambling counselling services	SA
Gerstein et al. (1999)		Married people had a slightly lower risk of being a 'pathological' gambler; Divorced/separated had a 150% higher risk	General population	US 1998
Lorenz, Politzer and Yaffee (1990)	60%	This is much higher than the general population.	Members of Maryland Gamblers Anonymous	Maryland, US, 1989
Volberg (1997)	42.2% married	57.7% of non-problem respondents were married	General population	Oregon, US 1997
National Council of Welfare (1996)	52%	cf 63% of non-problem respondents		Alberta Canada

Source: See column 1 for sources.

Gender

Divergent results are obtained on the gender of problem gamblers. In the 1996 survey for South Australia, Delfabbro (1998, p. 179) found that problem gambling prevalence is no greater in males than females in the South Australian population. Ohtsuka, Bruton DeLuca and Borg (1997) found no significant difference in the proportion of problem gambling amongst male and female gaming machine players in Victorian venues. Jackson et al. (1997, p. 3) found that in Victoria in 1996-97 there were slightly more men (54 per cent of clients) than women who sought help from counselling agencies. However, the situation was reversed in the following year — in 1997-98, 54 per cent of new clients attending Victorian Break Even problem gambling counselling services were women.

Dickerson, Baxter et al. (1995, pp. 92–96) analysed the clients of Queensland Break Even services. They found most clients were men, but the evaluation period was early in the process of gaming machine liberalisation, which has brought many more women into gambling problems.

Table Q.6 Gender of problem gamblers

<i>Study</i>	<i>Percentage of problem gamblers who are male</i>	<i>Other aspects</i>	<i>Nature of group</i>	<i>Location and time period</i>
Jackson et al. (1997)	54%		Clients of Break Even services	Victoria, 1996-97
Jackson et al. (1999b)	46%	Women are slightly overrepresented relative to general population	Clients of Break Even services	Victoria, 1997-98
Walker (1998a)	65%		Clients of problem gambling counselling services	NSW, August-September 1998
Abbott and Volberg (1991)	80%	One in ten men had had a gambling problem at some time.	General population	New Zealand 1991
Committee on Problem Gambling Management New Zealand (1997)	74%	But only 14% of significant others asking for help are male	Clients of problem gambling counselling services	New Zealand 1997
Problem Gambling Committee (1998)	67%	Most problem gamblers who attend are male, but most family members who attend are female.	Clients of problem gambling counselling services	New Zealand, 1998
Dickerson, Baron, Hong and Cottrell (1996)	86%		General population (but criterion for problem gambler is a gambler scoring SOGS 10+)	Sydney, Melbourne, Adelaide and Brisbane, Australia 1991
Ohtsuka, Bruton DeLuca and Borg (1997)	48% for EGMs		Based on a small-scale survey of patrons of clubs and hotels	Melbourne 1997
Elliot Stanford and Associates (1998)	50.6%	39.6 per cent of non-gamblers approaching help services were male	Clients of problem gambling counselling services	South Australia November 1996 to May 1998
Stinchfield and Winters (1996)	61% male		In treatment programs	Minnesota US 1992-1996

continued

Table Q.6 continued

<i>Study</i>	<i>Percentage of problem gamblers who are male</i>	<i>Other aspects</i>	<i>Nature of group</i>	<i>Location and time period</i>
Lorenz, Politzer and Yaffee (1990)	85% of problem gamblers were male	..	Patients of 3 Maryland problem gambling treatment centres	Maryland, US, 1983–1989
Lorenz, Politzer and Yaffee (1990)	81% of problem gamblers were male	..	Members of Maryland Gamblers Anonymous	Maryland, US, 1989
Shaffer, Hall and Bilt (1997, p. 40)	68.3% (64%) ^a of adult problem gamblers; 75.2% (77.1%) of adolescent problem gamblers,		Based on meta analysis of general populations	North America from 1977 to 1997
Volberg (1997)	55.9% male		General Population	Oregon US 1997
Dickerson, Allcock, Blaszczyński, Nicholls, Williams and Maddern (1996a)	77.4% of SOGS5+ were male		General population survey	NSW 1995
Eckhardt (1998)	78% male		Clients of problem gambling counselling services	Tasmania 1997–98
Relationships Australia Queensland (sub. 62)	64.5% male	Female share rising over time - from 29.7% in 1993–94 to 40% in 1997–98	Clients of problem gambling counselling services	Break Even Gold Coast May 1993–Oct 1998
Gerstein et al. (1999)	Males have 2.1 times higher risk of being a pathological gambler than females	Found that people aged 50–64 had a 83% higher risk of being a 'pathological' gambler	General population	US 1998
National Council of Welfare (1996)	62% cf 45% of non-problem respondents		General population	Alberta Canada
LADIS	90.7 per cent males		Clients of treatment services	Netherlands 1998

^a Numbers not in parentheses are based on lifetime prevalence rates. Numbers in parentheses are based on the past year. The studies relate to people with level 3 gambling problems (deemed 'clinical' in nature).

Source: See column 1 for sources.

The pattern of an increased feminisation of problem gambling (Select Committee on Gambling, ACT, 1999, p. 16), reflects the spread of EGMs.

Two out of every three problem gamblers are male, who typically start gambling in adolescence and who show gambling problems by age 30. Typically, he is unmarried and less educated, and gambles on horse racing, poker machines and at casinos. On the other hand, female problem gamblers commence in the mid 20s to 30s, with problems occurring after age 30. She prefers poker machine venues. (Mental Health Association of Australia, Sub. 51, p. 9)

Similarly, Tyler (1996, p. 6) showed that while female casino goers in Adelaide were under-represented at the tables, they were very much the majority among the machine players.

These trends are also observed overseas. For example, women's participation in gambling increased in Canada with the expansion of legalised gambling in the 1970s. A study of problem gambling in Alberta (reported in National Council of Welfare 1996) found that women were as likely as men to be current problem gamblers.

Occupational status

Problem gamblers come from all walks of life and occupational backgrounds.

Table Q.7 Occupational background of problem gamblers^a

<i>Occupational category</i>	<i>Tasmania 1997-1998</i>	<i>Queensland Gold Coast May 1993 to October 1998</i>	<i>South Australia, November 1996 to May 1998</i>
	%	%	%
Managerial/Administrative	18.2	10.6	9.0
Professional/Para-professional	10.9	19.0	21.8
Tradesperson	10.9	14.8	12.3
Clerical	32.7	8.7	11.2
Sales/Personal Service	10.9	23.8	18.0
Plant and machine operator	1.8	5.6	14.3
Labourer	14.5	11.9	13.4
Other	0.0	5.6	0.0
Total	100.0	100.0	100.0

^a Based on survey responses from clients of help services. The data relate only to those people for whom a clear orthodox occupational status is defined. For example, it excludes from the total, people who are self-employed, students, retired, on home duties or pensioners.

Source: Eckhardt (1998) for Tasmania, Relationships Australia, Queensland (sub. 62) for Queensland and Elliot Stanford and Associates (1998) for South Australia.

Q.3 What are the general patterns that emerge?

Comparisons of problem gambling prevalence and profiles in different countries show varying patterns. The data reveal some general characteristics of problem gamblers which are consistent with the results of the Commission's surveys:

- single and young people are over-represented;
- problem gambling varies with ethnicity;
- while males typically still account for a greater share of problem gamblers, feminisation of problem gambling is a world-wide phenomenon; and
- the people who are found to be problem gamblers in general population studies are somewhat different from those in treatment groups, with implications for service delivery.

R Bankruptcy and gambling

This appendix begins by examining the number of bankruptcies in Australia by cause, age, state and territory and over time. It then looks at the prosecution of bankrupts for gambling related offences under section 271 of the *Bankruptcy Act 1966*. Finally, participants criticisms of section 271 are examined to assess whether the section should be revoked.

Background

Over 24 000 new business and non-business bankruptcies were declared in 1997-98. Less than 2 per cent, or 317 bankrupts stated that the main cause for bankruptcy was gambling or speculation (box R.1).

- The main self-attributed causes of business bankruptcies were economic conditions, excessive interest and lack of business ability.
- Unemployment, domestic discord and excessive use of credit were the major causes stated for non-business bankruptcies (table R.1).

Table R.1 Number of new bankruptcies by self attributed cause 1997-98

<i>Cause</i>	<i>Number</i>	<i>Per cent</i>
Business bankruptcies		
Lack of capital	518	11
Lack of business ability	569	12
Failure to keep proper books	111	2
Economic conditions	720	15
Seasonal conditions	92	2
Excessive interest	520	11
Inability to collect debts	128	3
Excessive drawings	198	4
Gambling or speculation	94	2
Other causes	1 896	39
Total	4 846	100
Non-business bankruptcies		
Unemployment	7 082	36
Domestic discord	2 611	13
Excessive use of credit	2 274	12
Ill health	1 326	7
Adverse litigation	720	4
Liabilities on guarantees	239	1
Gambling or speculation	223	1
Other causes	5 052	26
Total	19 527	100

Data source: Inspector-General in Bankruptcy (1998).

Box R.1 Data qualifications

The bankruptcy data used in this appendix is that reported in the Annual Reports of the Bankruptcy Act of 1966 by the Inspector-General in Bankruptcy. There are two major deficiencies in the data series on bankruptcies caused by gambling.

A number of inquiry participants said that anecdotal evidence suggests that the number of bankruptcies caused by gambling is significantly higher than that reported in the official data. For example, in 1997-98, 57 non-business and 5 business bankruptcies were classified as caused by gambling or speculation in South Australia. The Adelaide Central Mission (sub. 108, p. 3) suggests that the actual number is significantly higher:

During the last twelve months as one financial counsellor in a smaller State I have been involved in 20 petitions for personal bankruptcy totalling \$1.25M which can be directly attributed to the petitioners problem gambling addiction...

I believe that bankruptcy statistics are extremely conservative concerning problem gambling and difficult to identify while the present legislation is in place.

Problem gambling as a reason for personal bankruptcy is often not indicated and reasons given refer to health issues, loss of job, other criminal acts, breakdown in relationship and poor money management.

Reasons suggested by participants, as to why people fail to list gambling as a cause of bankruptcy include fear of prosecution under section 271 of the Bankruptcy act (discussed later) and the stigma attached to being labelled a bankrupt from gambling.

Results from the Commission's *National Gambling Survey* also suggested that there were 2900 people nationwide who were declared bankrupt each year as a result of their gambling activities — significantly more than the 317 reported in the 1997-98 annual report of the Inspector-General in Bankruptcy. However, the standard error on this item of the Commission's *National Gambling Survey* is sufficiently large that it provides an imprecise indicator of bankruptcy levels.

A second problem with the data for gambling research is that it does not distinguish between bankruptcies caused by gambling and those caused by speculation (for example speculation on stock markets).

Despite qualifications the data is the best time series collected on bankruptcies caused by gambling in Australia.

In 1997-98 the majority of new business bankruptcies, both gambling and non-gambling related, were declared by people aged between 35 and 44. For new non-business bankruptcies people aged between 25 and 34 accounted for the majority of gambling and other bankruptcies (table R.2).

At the national level, New South Wales and the ACT recorded the largest number of gambling and non-gambling bankruptcies in 1997-98 (table R.3). However in per capita terms South Australia recorded the largest number of bankruptcies caused by gambling in 1997-98 (table R.4).

Table R.2 Age profile of bankrupts, (official trustee matters^a) 1997-98

Age	Business bankruptcies		Non-business bankruptcies		Total bankruptcies	
	Gambling number (%)	Other causes number (%)	Gambling number (%)	Other causes number (%)	Gambling number (%)	Other causes number (%)
<25	6 (7)	246 (4)	33 (15)	2 511 (13)	39 (12)	2 757 (11)
25 to 34	26 (29)	1 521 (26)	86 (38)	7 132 (37)	112 (35)	8 653 (35)
35 to 44	29 (32)	1 907 (33)	58 (26)	5 032 (26)	87 (28)	6 939 (28)
45 to 54	23 (25)	1 525 (26)	32 (14)	2 732 (14)	55 (17)	4 257 (17)
>54	7 (8)	597 (10)	16 (7)	1 679 (9)	23 (7)	2 276 (9)
Total	91 (100)	5 796 (100)	225 (100)	19 086 (100)	316 (100)	24 882 (100)

^a Bankruptcy data by age is only available for official trustee matters, bankruptcies administered by registered trustees are not included in the table — in 1997-98 5 per cent of new bankruptcies were administered by registered trustees.

Source: Inspector-General in Bankruptcy (1998).

Table R.3 New bankruptcies by state, 1997-98

Jurisdiction	Business bankruptcies		Non-business bankruptcies		Total bankruptcies	
	Gambling number (%)	Other causes number (%)	Gambling number (%)	Other causes number (%)	Gambling number (%)	Other causes number (%)
New South Wales & ACT	64 (68)	1 495 (31)	75 (34)	5 632 (29)	139 (44)	7 127 (30)
Victoria	22 (23)	898 (19)	24 (11)	4 039 (21)	46 (15)	4 937 (21)
Queensland	1 (1)	1 351 (28)	35 (16)	4 918 (25)	36 (11)	6 269 (26)
South Australia	5 (5)	353 (7)	57 (26)	1 983 (10)	62 (20)	2 336 (10)
Northern Territory	0 (0)	45 (1)	0 (0)	82 (1)	0 (0)	127 (1)
Western Australia	1 (1)	472 (10)	29 (13)	1 747 (9)	30 (9)	2 219 (9)
Tasmania	1 (1)	138 (3)	3 (1)	903 (5)	4 (1)	1 041 (4)
Total	94 (100)	4 752 (100)	223 (100)	19 304 (100)	317 (100)	24 056 (100)

Source: Inspector-General in Bankruptcy (1998).

Table R.4 New bankruptcies per million adults, by state, 1997-98

Jurisdiction	Business bankruptcies		Non-business bankruptcies		Total bankruptcies	
	Gambling	Other causes	Gambling	Other causes	Gambling	Other causes
New South Wales & ACT	13	303	15	1 143	28	1 446
Victoria	6	259	7	1 164	13	1 423
Queensland	0	538	14	1 959	14	2 498
South Australia	4	314	51	1 766	55	2 080
Northern Territory	0	349	0	636	0	984
Western Australia	1	356	22	1 318	23	1 675
Tasmania	3	397	9	2 595	12	2 991
Total	7	344	16	1 396	23	1 739

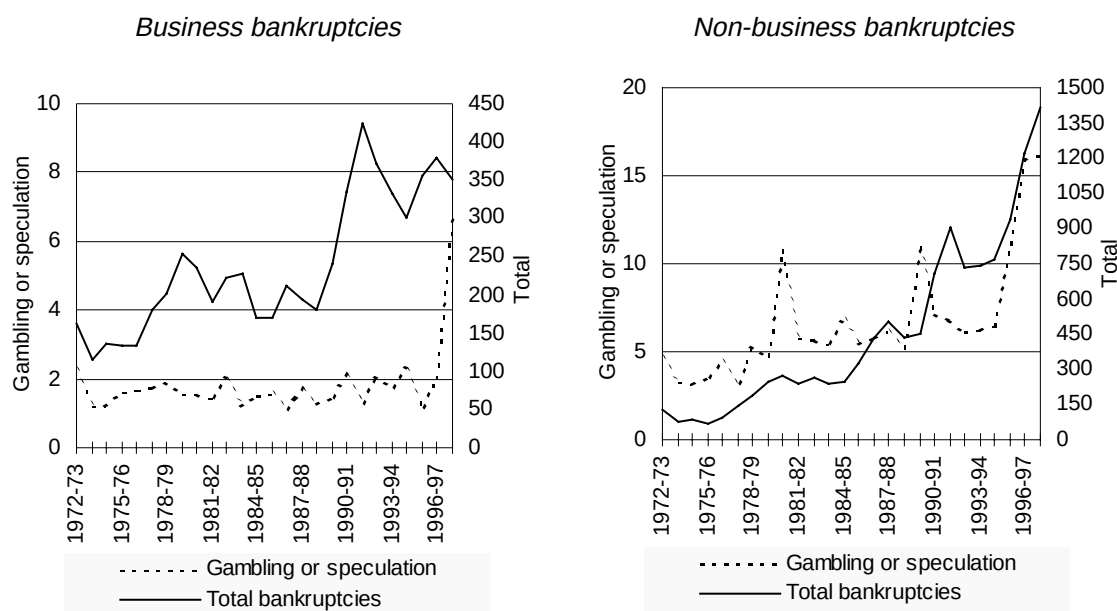
Source: Inspector-General in Bankruptcy (1998).

Growth in bankruptcies

Total bankruptcies and bankruptcies caused by gambling have increased significantly over time.

- In 1972-73 about 2500 new bankruptcies were declared, or about 300 for every million adults. In 1997-98 the number of new bankruptcies increased to 24 000, nearly 1800 per million adults.
- Over the same period, new gambling related bankruptcies increased from 61, or 7 per million adults to 317, or 23 per one million adults (figure R.1 and table R.5).
- Non-business bankruptcies share of total bankruptcies has increased gradually over time. In 1972-73 non-business bankruptcies accounted for 44 per cent of total bankruptcies compared with 80 per cent in 1997-98. For bankruptcies caused by gambling there is no clear trend. In 1972-73 non-business bankruptcies accounted for 67 per cent of total gambling related bankruptcies. In 1996-97 this share had risen to 90 per cent but in 1997-98 the share was much lower at 70 per cent.

Figure R.1 **New bankruptcies per million adult population, 1972-73 to 1997-98, Australia**



Source: Inspector-General in Bankruptcy (various years).

Table R.5 New bankruptcies per million adult population, 1972-73 to 1997-98, Australia

Year	Business bankruptcies		Non-business bankruptcies		Total bankruptcies	
	Gambling	All causes	Gambling	All causes	Gambling	All causes
1972-73	2.3	162.9	4.7	127.2	6.9	290.1
1973-74	1.2	115.0	3.3	75.2	4.6	190.1
1974-75	1.2	136.7	3.2	88.3	4.4	225.0
1975-76	1.6	133.4	3.5	70.5	5.2	203.9
1976-77	1.7	134.1	4.4	97.8	6.1	231.9
1977-78	1.8	181.7	3.2	143.3	5.0	325.0
1978-79	1.9	202.1	5.3	190.4	7.2	392.6
1979-80	1.6	252.7	4.8	244.6	6.4	497.4
1980-81	1.6	235.8	10.7	269.0	12.2	504.8
1981-82	1.4	192.0	5.7	240.1	7.2	432.0
1982-83	2.0	223.3	5.7	268.1	7.7	491.3
1983-84	1.2	227.6	5.4	237.8	6.6	465.4
1984-85	1.5	169.8	6.8	249.4	8.3	419.2
1985-86	1.6	170.5	5.5	321.8	7.1	492.3
1986-87	1.1	213.0	5.8	434.7	7.0	647.7
1987-88	1.7	192.7	6.1	500.3	7.8	693.0
1988-89	1.3	181.8	5.3	437.5	6.5	619.3
1989-90	1.5	240.6	10.9	452.6	12.3	693.2
1990-91	2.1	336.2	7.2	710.9	9.3	1 047.1
1991-92	1.3	423.8	6.8	904.2	8.0	1 328.0
1992-93	2.1	371.5	6.1	733.8	8.2	1 105.3
1993-94	1.8	331.6	6.2	741.5	8.0	1 073.1
1994-95	2.3	302.0	6.5	765.3	8.8	1 067.2
1995-96	1.2	355.5	11.1	937.6	12.3	1 293.1
1996-97	2.1	380.5	15.9	1220.6	18.0	1 601.1
1997-98	6.8	350.4	16.1	1411.8	22.9	1 762.2

Source: Inspector-General in Bankruptcy (various years).

Figure R.2 and table R.6 show trends in bankruptcy at the state/territory level.

- The number of new bankruptcies have increased in all states and territories over the period 1982-83 to 1997-98.
- In New South Wales/ACT, Victoria, Queensland and South Australia sharp increases in bankruptcies caused by gambling were observed from the early or mid 1990s, corresponding to increases in gambling expenditure (chapter 3).
- No trend is apparent in the Northern Territory, Tasmania and Western Australia — the number of bankruptcies caused by gambling in these states and territory has varied considerably from year to year.

Figure R.2 New bankruptcies per million adults, 1982-83 to 1997-98, by state

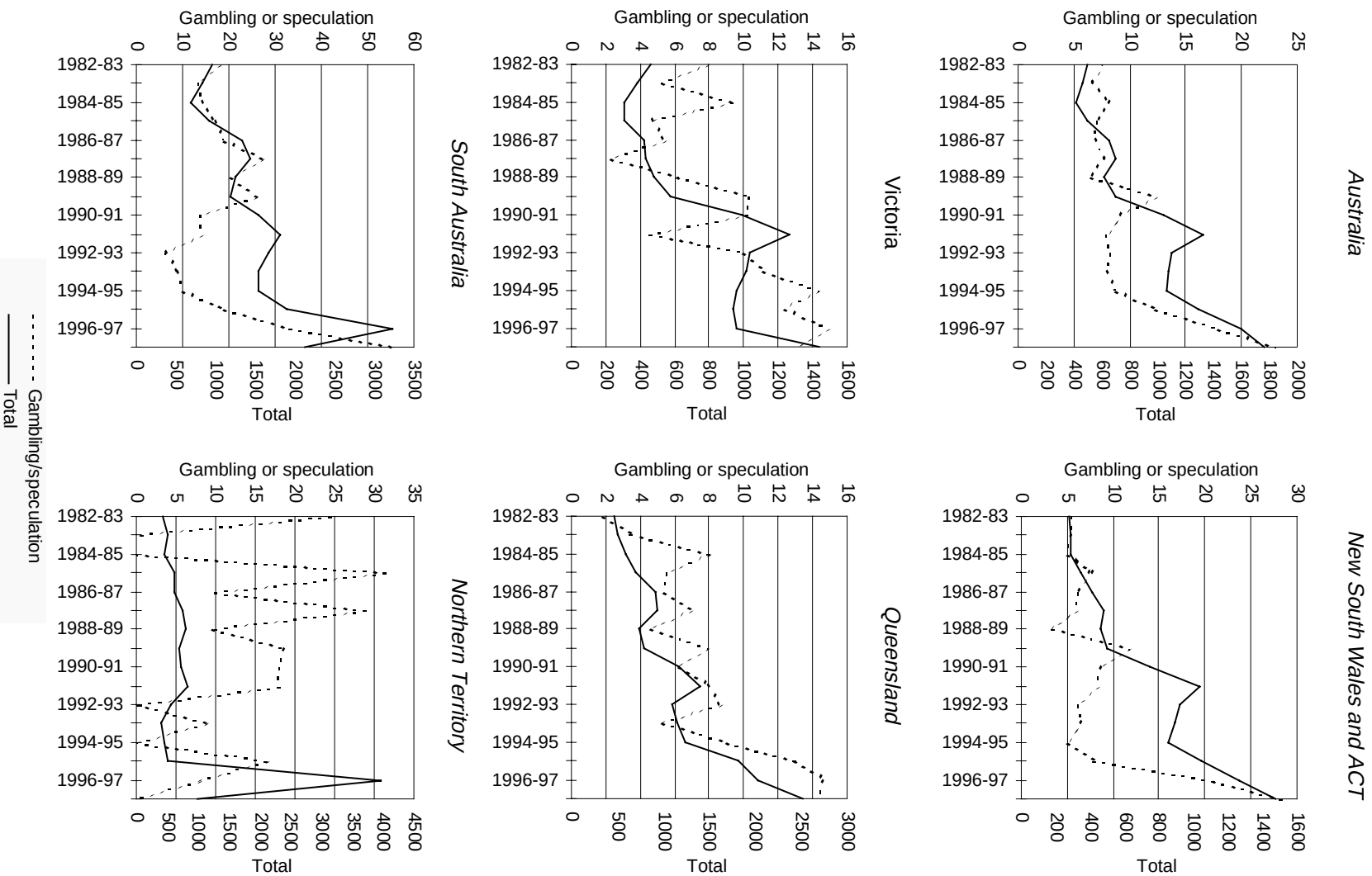
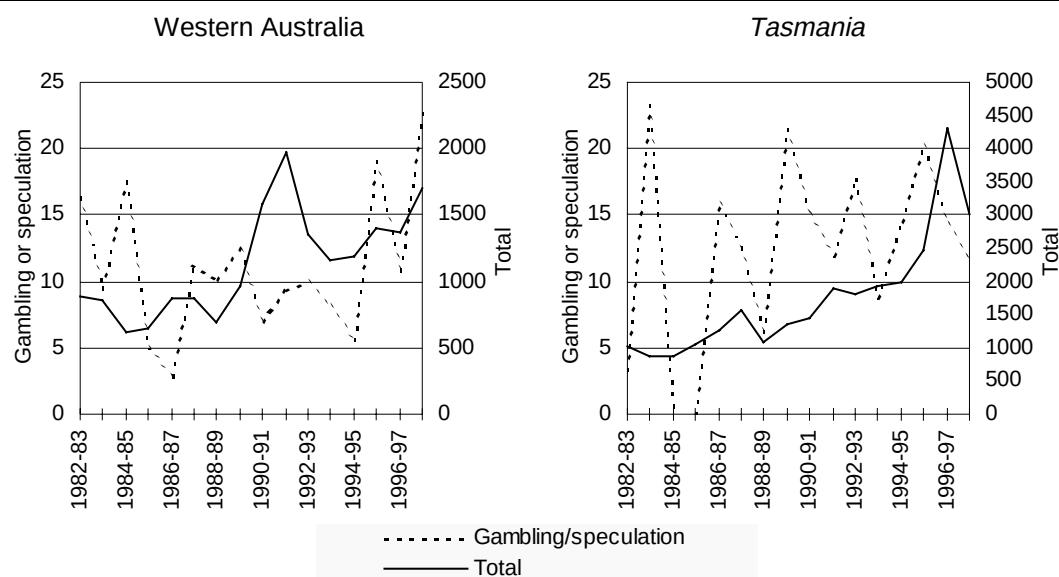


Figure R.2 continued



Source: Inspector-General in Bankruptcy (various years).

Table R.6 New bankruptcies per million adults, 1982-83 to 1997-98, by state

	1982-83	1985-86	1988-89	1991-92	1994-95	1997-98
Bankruptcies caused by gambling						
New South Wales & ACT	5.6	7.5	3.4	8.3	5.1	28.2
Victoria	7.8	4.7	6.1	4.6	14.3	13.3
Queensland	1.8	5.6	4.6	7.9	9.0	14.3
South Australia	17.8	17.0	20.2	13.8	9.9	55.2
Northern Territory	24.4	31.3	9.5	17.9	0.0	0.0
Western Australia	16.2	5.0	10.1	9.3	5.6	22.6
Tasmania	3.4	0.0	6.2	11.9	14.5	11.5
Total	7.7	7.1	6.5	8.0	8.8	22.9
Total bankruptcies						
New South Wales & ACT	279.4	346.5	461.6	1 035.0	855.1	1 474.1
Victoria	460.2	310.7	476.5	1 260.7	960.7	1 436.4
Queensland	460.0	694.1	728.2	1 397.0	1247.9	2 512.0
South Australia	960.2	924.9	1 257.7	1 804.6	1550.1	2 135.4
Northern Territory	426.8	625.0	809.5	821.4	466.1	984.5
Western Australia	892.0	643.9	699.3	1 971.2	1191.6	1 697.4
Tasmania	1 030.2	1 057.9	1 071.4	1 908.0	2002.9	3 002.9
Total	491.3	492.3	619.3	1 328.0	1067.2	1 762.2

Source: Inspector-General in Bankruptcy (various years).

Prosecutions for bankruptcies caused by gambling

Section 271 of the *Bankruptcy Act, 1966* states that ‘rash and hazardous’ gambling or speculation up to two years before the presentation of a bankruptcy petition is an offence if it materially contributed to or increased the extent of the insolvency. The offence is punishable by up to one year’s imprisonment.

Nearly 100 prosecutions have been made under section 271 since its inception (table R.7).

Table R.7 Number of prosecutions by state and penalty, 1968-69 to 1998-99

	<i>1968-69 to 1972-73</i>	<i>1973-74 to 1977-78</i>	<i>1978-79 to 1982-83</i>	<i>1983-84 to 1987-88</i>	<i>1988-89 to 1992-93</i>	<i>1993-94 to 1997-98</i>	Total
State							
New South Wales & ACT	2	12	2	7	1	1	25
Victoria	2	6	4	1	5	3	21
Queensland	2	4	3	2	-	-	11
South Australia & Northern Territory	2	6	14	5	1	-	28
Western Australia	2	1	-	2	3	1	9
Tasmania	-	1	-	-	2	1	4
Total	10	30	23	17	12	6	98
Major penalty							
Letter of caution	-	-	-	-	-	2	2
Good behaviour bond	5	24	17	17	8	3	74
Imprisonment	5	4	4	-	2	-	15
Fine	-	-	-	-	1	-	1
Not convicted/withdrawn	-	2	2	-	-	1	5
Not stated	-	-	-	-	1	-	1
Total	10	30	23	17	12	6	98

Source: Inspector-General in Bankruptcy (various years).

- Over the 30 year period there have been an average of 3 prosecutions a year.
- The number of prosecutions has decreased over time— between 1993-94 and 1997-98 six prosecutions were made under section 271 compared with 12 and 17 in the previous two periods.
- The majority, over 28 per cent of prosecutions were in South Australia and the Northern Territory. New South Wales and the ACT and Victoria also accounted for a large number of prosecutions.
- In over 75 per cent of prosecutions the major penalty was a good behaviour bond and in 15 per cent of cases the penalty was imprisonment.

-
- The penalty has become less severe over time. In the first half of the 30 year period 13 prosecutions or 21 per cent involved prison sentences compared with 2 prosecutions, or 6 per cent between 1983-84 and 1997-98.

Section 271 — is it needed?

It is difficult to know how many people are deterred from reckless spending by section 271. On the one hand, it has been claimed that very few people are aware of the provision — in which case it can scarcely have a deterrent effect.

Very few people are aware of this section. If it were vigorously enforced there would be public outcry, but the reality is that the bankruptcy authorities regard it as an embarrassment and are sparing in its application, only prosecuting those who blatantly gamble in anticipation of bankruptcy. The fact is that very few gamblers gamble in anticipation of bankruptcy. They gamble with the belief they will win (Wesley Community Legal Service, sub.46, p.8).

On the other hand, it has also been claimed that the number of bankruptcies caused by gambling are understated, reflecting the concern of the bankrupts to avoid prosecution (box R.1).

Of course these two apparently opposing views could be reconciled if some gamblers were aware of the provisions, while many were not. Either way it appears likely that most gamblers are not deterred by the provision or seek to circumvent it when bankruptcy is imminent. This suggests that the provision is likely to be relatively ineffective in reducing reckless behaviour.

While section 271 may produce few benefits, does it entail large costs? A weak deterrent to recklessness may be superior to none. This is especially relevant when the burden of any asset losses fall on a few individuals — such as a partner. It would be unfortunate if the consequence of a well meaning revocation of section 271 was to further weaken the controls problem gamblers have over their spending (noting that they do exert some control).

However, the view of some participants was that the provision is fundamentally unjust, in that it seeks to punish people with an addiction. Springvale Legal Service (sub. 17, p.10) for example, said that section 271:

... is unjust and anachronistic because it serves to punish and not treat or rehabilitate. It disguises possible statistical links between gambling and bankruptcy. Imprisonment is unlikely to offer any rehabilitation options and so serve little effective purpose other than to keep gamblers out of venues. This section clearly fails to recognise that some gamblers gamble because they have an uncontrollable addiction which will probably recur once they are released from prison.

Even so the Commission understands that imprisonment typically only occurs when gambling related bankruptcy involve another breach of the law — such as fraud — which would have resulted in a criminal penalty regardless of whether section 271 existed. Accordingly, the apparent severity of some sentences relating to section 271 is overstated.

Some participants commented that section 271 is outdated — introduced in 1966 when the proliferation of gaming machines was not foreseen. Others argued that it is inconsistent with the treatment of other problems, most notably drug addiction.

Why is gambling treated differently to other forms of addiction? Heroin addiction is a very expensive habit and is the cause of some bankruptcies but it does not warrant a special offence under the Bankruptcy Act (Brading, 1999, p.35).

The Wesley Community Legal Service (sub.D215, p.2) commented that bankruptcy had the potential to alleviate some of the drivers and adverse consequences of problem gambling by cutting off likely sources of access to debt finance. They argued that the potential for criminal prosecution served as an obstacle to problem gamblers seeking bankruptcy.

Overall, then a judgement about the value of section 271 needs to weigh up its:

- benefits — the potential gains from reducing moral hazard;
- against its costs — its adverse treatment of people who have a dependency and the fact that it may deter them from taking an action that may substantially reduce their access to finance.

The fact that section 271 is relatively obscure suggests that it will not have large benefits from reducing moral hazard. And in any case the authorities can usually apply other sanctions for clearly fraudulent behaviour associated with gambling. On the cost side, the section may have significant adverse impacts.

In light of these considerations, there may be value in the Commonwealth reviewing the section. It could also examine whether there were grounds for requiring mandatory attendance by a problem-gambling bankrupt to appropriate counselling.

S State and territory gambling data

This appendix presents a summary of state and territory gambling data, sourced from the Tasmanian Gaming Commission (1999). For each state and territory the following data is provided:

- real gambling turnover;
- real gambling expenditure;
- real gambling expenditure per capita; and
- real government revenue.

The data is provided by racing and gaming subdivision for the years 1972-73, 1982-83, 1992-93 and 1997-98.

Australia

Table S.1 Real gambling turnover, Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	5 735.592	5 842.084	8 805.054	9 116.479
On-course totalisators	1 014.107	1 227.979	1 177.571	900.260
On-course bookmakers	5 549.043	4 907.391	2 155.773	1 595.131
Off-course bookmakers	230.369	73.203	6.650	1.768
Sports betting	-	-	46.005	265.738
Total racing	12 529.111	12 050.656	12 191.052	11 879.376
<i>Gaming</i>				
Lotteries	683.752	288.384	193.155	161.853
Lotto	71.214	1 446.243	2 025.427	2 316.449
Instant lotteries	-	517.887	723.561	585.102
Pools	-	74.726	23.475	15.256
Casino	57.932	290.152	3 569.215	20 942.398
Minor gaming	20.614	296.876	648.791	373.358
Keno	-	-	262.476	701.348
Gaming machines	8 360.659	9 987.598	21 273.769	57 676.190
Sports betting	-	-	4.981	72.943
Total gaming	9 194.171	12 901.867	28 724.850	82 844.897
Total gambling	21 723.282	24 952.523	40 915.902	94 724.273

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.2 Real gambling expenditure, Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	865.439	908.602	1 395.286	1 437.444
On-course totalisators	152.702	189.747	186.022	142.989
On-course bookmakers	304.723	270.056	118.609	83.336
Off-course bookmakers	18.546	6.071	0.434	0.150
Sports betting	-	-	7.140	20.261
Total racing	1 341.409	1 374.476	1 707.491	1 684.180
<i>Gaming</i>				
Lotteries	254.739	107.499	69.527	56.943
Lotto	28.486	577.776	803.279	923.422
Instant lotteries	-	196.527	281.166	224.839
Pools	-	47.077	11.851	7.700
Casino	10.307	56.045	728.884	2 232.036
Minor gaming	10.307	143.761	343.009	194.907
Keno	-	-	60.908	170.898
Gaming machines	1 086.886	1 298.388	2 649.834	5 866.966
Sports betting	-	-	0.393	4.210
Total gaming	1 390.725	2 427.073	4 948.850	9 681.921
Total gambling	2 732.134	3 801.550	6 656.340	11 366.101

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.3 Real gambling expenditure, Australia, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	98.312	85.051	108.086	103.914
On-course totalisators	17.347	17.762	14.410	10.338
On-course bookmakers	34.616	25.279	9.188	6.024
Off-course bookmakers	2.107	0.568	0.034	0.011
Sports betting	-	-	0.553	1.465
Total racing	152.377	128.665	132.272	121.752
<i>Gaming</i>				
Lotteries	28.938	10.063	5.386	4.116
Lotto	3.236	54.084	62.226	66.755
Instant lotteries	-	18.396	21.781	16.254
Pools	-	4.407	0.918	0.557
Casino	1.171	5.246	56.463	161.356
Minor gaming	1.171	13.457	26.571	14.090
Keno	-	-	4.718	12.356
Gaming machines	123.468	121.538	205.270	424.128
Sports betting	-	-	0.030	0.304
Total gaming	157.979	227.198	383.367	699.917
Total gambling	310.357	355.863	515.639	821.669

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.4 Real government revenue from gambling, Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	333.701	380.897	570.226	491.781
On-course totalisators	81.898	107.120	124.063	62.054
Bookmakers	96.646	74.440	26.799	17.857
Sports betting	-	-	2.307	3.143
Total racing	512.245	562.457	723.396	574.835
<i>Gaming</i>				
Lottery products	np	np	955.133	1 003.813
Casino	np	np	128.907	459.734
Minor gaming	np	np	19.730	8.434
Gaming machines	np	np	607.148	1 791.496
Sports betting	np	np	-	0.644
Total gaming	479.468	1 036.502	1 710.765	3 264.121
Total gambling	991.714	1 598.959	2 434.161	3 838.956

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

New South Wales

Table S.5 Real gambling turnover, New South Wales, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	2 257.134	2 411.399	3 575.084	3 554.474
On-course totalisators	433.875	551.456	536.486	394.923
On-course bookmakers	2 221.778	2 085.605	964.696	610.658
Off-course bookmakers	-	-	-	-
Sports betting	-	-	21.562	50.625
Total racing	4 912.787	5 048.460	5 097.828	4 610.680
<i>Gaming</i>				
Lotteries	378.840	145.190	153.582	134.338
Lotto	-	451.637	448.213	626.544
Instant lotteries	-	265.687	193.489	171.288
Pools	-	26.029	6.568	7.145
Casino	-	-	-	2 635.039
Minor gaming	-	-	-	-
Keno	-	-	193.204	384.400
Gaming machines	8 360.659	9 734.818	15 683.346	30 540.143
Sports betting	-	-	-	-
Total gaming	8 739.499	10 623.361	16 678.401	34 498.897
Total gambling	13 652.286	15 671.821	21 776.229	39 109.577

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.6 Real gambling expenditure, New South Wales, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	302.456	354.475	541.647	533.852
On-course totalisators	58.139	81.064	81.281	59.896
On-course bookmakers	122.198	114.708	53.058	33.586
Off-course bookmakers	-	-	-	-
Sports betting	-	-	2.159	5.069
Total racing	482.793	550.247	678.145	632.403
<i>Gaming</i>				
Lotteries	136.383	52.482	54.336	46.554
Lotto	-	180.655	179.285	250.285
Instant lotteries	-	95.647	70.816	62.691
Pools	-	16.399	3.284	3.573
Casino	-	-	-	446.200
Minor gaming	-	-	-	-
Keno	-	-	48.301	96.100
Gaming machines	1 086.886	1 265.526	2 010.236	2 989.084
Sports betting	-	-	-	-
Total gaming	1 223.268	1 610.709	2 366.258	3 894.487
Total gambling	1 706.061	2 160.956	3 044.403	4 526.890

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.7 Real gambling expenditure, New South Wales, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	93.432	93.865	122.438	113.586
On-course totalisators	17.960	21.466	18.373	12.744
On-course bookmakers	37.748	30.375	11.994	7.146
Off-course bookmakers	-	-	-	-
Sports betting	-	-	0.488	1.079
Total racing	149.140	145.706	153.293	134.554
<i>Gaming</i>				
Lotteries	42.130	13.897	12.283	9.905
Lotto	-	47.837	40.527	53.252
Instant lotteries	-	25.327	16.008	13.339
Pools	-	4.342	0.742	0.760
Casino	-	-	-	94.936
Minor gaming	-	-	-	-
Keno	-	-	10.918	20.447
Gaming machines	335.751	335.112	454.410	635.975
Sports betting	-	-	-	-
Total gaming	377.881	426.517	534.888	828.614
Total gambling	527.020	572.222	688.181	963.168

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.8 Real government revenue, New South Wales, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	141.975	178.170	270.440	231.161
On-course totalisators	34.143	54.186	75.425	46.506
Bookmakers	32.329	26.976	9.676	6.207
Sports betting	-	-	1.948	1.583
Total racing	208.447	259.332	357.489	285.457
<i>Gaming</i>				
Lottery products	np	np	240.079	271.851
Casino	np	np		101.500
Minor gaming	np	np	0.808	1.570
Gaming machines	np	np	422.686	689.770
Sports betting	np	np	-	-
Total gaming	371.437	585.387	663.513	1 064.691
Total gambling	579.884	844.719	1 021.002	1 350.148

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

Victoria

Table S.9 Real gambling turnover, Victoria, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	1,901.353	1,630.154	2,475.790	2,371.919
On-course totalisators	333.436	376.098	315.890	224.496
On-course bookmakers	1,348.397	1,089.031	414.549	384.155
Off-course bookmakers	-	-	-	-
Sports betting	-	-	1.910	1.312
Total racing	3,583.185	3,095.283	3,208.138	2,981.882
<i>Gaming</i>				
Lotteries	97.771	14.003	14.305	13.034
Lotto	63.610	629.653	713.670	672.039
Instant lotteries	-	127.943	120.898	59.174
Pools	-	15.151	4.152	2.488
Casino	-	-	-	10,571.165
Minor gaming	-	143.017	266.704	-
Keno	-	-	-	28.505
Gaming machines	-	-	3,013.435	18,097.817
Sports betting	-	-	4.981	33.415
Total gaming	161.382	929.767	4,138.145	29,477.637
Total gambling	3,744.566	4,025.050	7,346.283	32,459.519

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.10 Real gambling expenditure, Victoria, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	323.230	260.825	387.408	379.507
On-course totalisators	56.684	60.176	49.430	35.919
On-course bookmakers	74.162	59.897	22.791	17.338
Off-course bookmakers	-	-	-	-
Sports betting	-	-	0.114	0.394
Total racing	454.076	380.897	459.743	433.158
<i>Gaming</i>				
Lotteries	39.109	5.601	5.722	5.214
Lotto	25.444	251.861	285.468	268.815
Instant lotteries	-	51.177	48.359	23.670
Pools	-	9.545	2.076	1.244
Casino	-	-	-	742.292
Minor gaming	-	71.508	149.842	-
Keno	-	-	-	6.870
Gaming machines	-	-	283.263	1,711.290
Sports betting	-	-	0.393	2.389
Total gaming	64.553	389.693	775.123	2,761.784
Total gambling	518.628	770.590	1,234.866	3,194.942

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.11 Real gambling expenditure, Victoria, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	133.338	92.612	116.833	109.400
On-course totalisators	23.383	21.367	14.907	10.354
On-course bookmakers	30.593	21.268	6.873	4.998
Off-course bookmakers	-	-	-	-
Sports betting	-	-	0.034	0.114
Total racing	187.314	135.246	138.647	124.865
<i>Gaming</i>				
Lotteries	16.133	1.989	1.726	1.503
Lotto	10.496	89.429	86.090	77.491
Instant lotteries	-	18.172	14.584	6.823
Pools	-	3.389	0.626	0.359
Casino	-	-	-	213.979
Minor gaming	-	25.391	45.189	-
Keno	-	-	-	1.980
Gaming machines	-	-	85.425	493.309
Sports betting	-	-	0.118	0.689
Total gaming	26.629	138.370	233.758	796.133
Total gambling	213.943	273.616	372.405	920.998

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.12 Real government revenue from gambling, Victoria, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	99.939	105.348	153.259	110.449
On-course totalisators	35.863	40.517	37.156	9.465
Bookmakers	30.527	23.461	8.852	7.568
Sports betting	-	-	-	-
Total racing	166.329	169.327	199.267	127.482
<i>Gaming</i>				
Lottery products	np	np	321.869	285.874
Casino	np	np	-	174.584
Minor gaming	np	np	10.781	1.058
Gaming machines	np	np	113.212	706.726
Sports betting	np	np	-	0.644
Total gaming	54.334	262.866	445.822	1168.886
Total gambling	220.663	432.193	645.090	1,296.368

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

Queensland

Table S.13 Real gambling turnover, Queensland, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	754.277	764.865	1,245.998	1,474.400
On-course totalisators	88.306	133.160	177.052	129.600
On-course bookmakers	1,069.089	966.201	425.214	234.000
Off-course bookmakers	-	-	-	-
Sports betting	-	-	-	2.600
Total racing	1,911.672	1,864.225	1,848.264	1,840.600
<i>Gaming</i>				
Lotteries	120.271	82.570	17.424	5.800
Lotto	-	145.824	324.192	402.557
Instant lotteries	-	-	250.586	236.684
Pools	-	22.936	6.729	3.002
Casino	-	-	1,042.801	4,257.300
Minor gaming	-	-	188.662	235.303
Keno	-	-	-	152.595
Gaming machines	-	-	1,832.343	4,058.130
Sports betting	-	-	-	-
Total gaming	120.271	251.330	3,662.736	9,351.371
Total gambling	2,031.942	2,115.556	5,511.000	11,191.971

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.14 Real gambling expenditure, Queensland, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	113.141	125.438	213.689	249.000
On-course totalisators	13.246	21.838	30.364	21.900
On-course bookmakers	58.800	53.141	23.387	12.900
Off-course bookmakers	-	-	-	-
Sports betting	-	-	-	0.600
Total racing	185.187	200.417	267.440	284.400
<i>Gaming</i>				
Lotteries	44.500	30.551	6.447	2.030
Lotto	-	58.329	129.677	161.023
Instant lotteries	-	-	100.234	94.673
Pools	-	14.450	3.364	1.501
Casino	-	-	215.860	468.300
Minor gaming	-	-	103.764	129.417
Keno	-	-	-	38.591
Gaming machines	-	-	265.690	601.403
Sports betting	-	-	-	-
Total gaming	44.500	103.330	825.036	1,496.938
Total gambling	229.687	303.747	1,092.476	1,781.338

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.15 Real gambling expenditure, Queensland, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	91.811	74.849	96.846	99.203
On-course totalisators	10.749	13.031	13.762	8.725
On-course bookmakers	47.714	31.709	10.599	5.139
Off-course bookmakers	-	-	-	-
Sports betting	-	-	-	0.239
Total racing	150.274	119.589	121.207	113.307
<i>Gaming</i>				
Lotteries	36.111	18.230	2.922	0.809
Lotto	-	34.805	58.771	64.153
Instant lotteries	-	-	45.427	37.718
Pools	-	8.622	1.525	0.598
Casino	-	-	97.830	186.574
Minor gaming	-	-	47.027	51.561
Keno	-	-	-	15.375
Gaming machines	-	-	120.414	239.603
Sports betting	-	-	-	-
Total gaming	36.111	61.657	373.916	596.390
Total gambling	186.385	181.247	495.123	709.696

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.16 Real government revenue from gambling, Queensland, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	44.262	40.181	67.167	73.100
On-course totalisators	3.281	4.476	5.860	4.200
Bookmakers	16.845	14.128	4.275	2.300
Sports betting	-	-	-	0.200
Total racing	64.388	58.785	77.302	79.800
<i>Gaming</i>				
Lottery products	np	np	144.663	199.924
Casino	np	np	43.824	80.383
Minor gaming	np	np	4.333	2.875
Gaming machines	np	np	52.564	185.650
Sports betting	np	np	-	-
Total gaming	28.424	71.421	245.361	468.832
Total gambling	92.812	130.206	322.663	548.632

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

South Australia

Table S.17 Real gambling turnover, South Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	283.507	312.612	558.422	590.304
On-course totalisators	56.737	64.200	62.246	51.063
On-course bookmakers	474.468	343.900	108.688	76.880
Off-course bookmakers	12.893	8.561	6.650	1.768
Sports betting	-	-	2.265	5.079
Total racing	827.605	729.273	738.271	725.094
<i>Gaming</i>				
Lotteries	38.873	10.469	-	-
Lotto	-	72.034	183.782	180.407
Instant lotteries	-	35.632	53.300	25.833
Pools	-	5.582	1.509	0.566
Casino	-	-	507.881	282.400
Minor gaming	20.614	123.263	108.536	57.300
Keno	-	-	69.272	71.818
Gaming machines	-	-	-	3291.676
Sports betting	-	-	-	-
Total gaming	59.487	246.980	924.281	3910.000
Total gambling	887.092	976.253	1662.553	4635.094

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.18 Real gambling expenditure, South Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	40.825	47.830	89.381	91.655
On-course totalisators	8.170	10.144	9.963	7.989
On-course bookmakers	25.621	18.914	6.152	3.737
Off-course bookmakers	1.147	0.933	0.434	0.150
Sports betting	-	-	0.421	0.773
Total racing	75.764	77.821	106.350	104.304
<i>Gaming</i>				
Lotteries	15.549	4.188	-	-
Lotto	-	28.093	66.621	67.516
Instant lotteries	-	14.253	19.641	8.343
Pools	-	3.516	0.714	0.267
Casino	-	-	111.425	76.080
Minor gaming	10.307	61.632	54.268	28.900
Keno	-	-	12.608	13.071
Gaming machines	-	-	-	394.629
Sports betting	-	-	-	-
Total gaming	25.856	111.681	265.276	588.806
Total gambling	101.620	189.502	371.626	693.110

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.19 Real gambling expenditure, South Australia, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	50.920	50.148	81.607	81.616
On-course totalisators	10.190	10.635	9.097	7.114
On-course bookmakers	31.957	19.831	5.617	3.328
Off-course bookmakers	1.431	0.978	0.396	0.134
Sports betting	-	-	0.384	0.688
Total racing	94.498	81.593	97.100	92.880
<i>Gaming</i>				
Lotteries	19.394	4.391	-	-
Lotto	-	29.455	60.826	60.121
Instant lotteries	-	14.943	17.933	7.429
Pools	-	3.687	0.652	0.238
Casino	-	-	101.733	67.747
Minor gaming	12.856	64.619	49.548	25.735
Keno	-	-	11.511	11.639
Gaming machines	-	-	-	351.406
Sports betting	-	-	-	-
Total gaming	32.250	117.094	242.202	524.315
Total gambling	126.748	198.687	339.302	617.195

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.20 Real government revenue from gambling, South Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	17.717	13.942	26.624	23.591
On-course totalisators	3.045	2.754	1.925	1.585
Bookmakers	6.320	4.204	1.246	0.451
Sports betting	-	-	-	-
Total racing	27.081	20.899	29.795	25.627
<i>Gaming</i>				
Lottery products	np	np	94.166	77.932
Casino	np	np	22.423	20.331
Minor gaming	np	np	1.606	0.721
Gaming machines	np	np	-	160.676
Sports betting	np	np	-	-
Total gaming	11.585	39.640	118.185	259.660
Total gambling	38.667	60.539	147.980	285.287

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

Western Australia

Table S.21 Real gambling turnover, Western Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	461.010	542.948	576.028	733.455
On-course totalisators	90.197	86.620	57.730	70.420
On-course bookmakers	264.525	247.458	144.055	182.708
Off-course bookmakers	-	-	-	-
Sports betting	-	-	1.939	8.875
Total racing	815.731	877.027	779.752	995.458
<i>Gaming</i>				
Lotteries	47.996	27.653	0.647	-
Lotto	-	67.089	250.642	327.847
Instant lotteries	-	63.212	77.279	74.145
Pools	-	-	2.720	1.585
Casino	-	-	1,382.784	1,708.705
Minor gaming	-	-	57.463	60.026
Keno	-	-	-	-
Gaming machines	-	-	-	-
Sports betting	-	-	-	-
Total gaming	47.996	157.954	1,771.536	2,172.308
Total gambling	863.727	1,034.981	2,551.288	3,167.766

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.22 Real gambling expenditure, Western Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	75.606	91.758	103.861	126.177
On-course totalisators	14.792	13.946	10.415	12.112
On-course bookmakers	14.549	13.610	7.928	9.135
Off-course bookmakers	-	-	-	-
Sports betting	-	-	0.270	0.838
Total racing	104.947	119.314	122.474	148.262
<i>Gaming</i>				
Lotteries	19.199	11.062	0.137	-
Lotto	-	26.835	100.257	135.638
Instant lotteries	-	25.285	30.912	29.512
Pools	-	-	1.514	0.835
Casino	-	-	290.460	358.828
Minor gaming	-	-	24.709	25.811
Keno	-	-	-	-
Gaming machines	-	-	-	-
Sports betting	-	-	-	-
Total gaming	19.199	63.182	447.989	550.624
Total gambling	124.145	182.496	570.462	698.886

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.23 Real gambling expenditure, Western Australia, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	108.558	99.131	86.465	95.228
On-course totalisators	21.240	15.066	8.671	9.141
On-course bookmakers	20.890	14.704	6.600	6.894
Off-course bookmakers	-	-	-	-
Sports betting	-	-	0.225	0.632
Total racing	150.688	128.902	101.960	111.896
<i>Gaming</i>				
Lotteries	27.566	11.951	0.114	-
Lotto	-	28.992	83.465	102.368
Instant lotteries	-	27.316	25.734	22.273
Pools	-	-	1.261	0.630
Casino	-	-	241.810	270.814
Minor gaming	-	-	20.571	19.480
Keno	-	-	-	-
Gaming machines	-	-	-	-
Sports betting	-	-	-	-
Total gaming	27.566	68.259	372.954	415.565
Total gambling	178.254	197.161	474.914	527.461

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.24 Real government revenue from gambling, Western Australia, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	29.025	34.389	34.562	36.670
On-course totalisators	5.124	4.652	2.858	-
Bookmakers	3.605	3.198	1.626	-
Sports betting	-	-	0.062	0.168
Total racing	37.754	42.239	39.107	36.838
<i>Gaming</i>				
Lottery products	np	np	109.351	125.715
Casino	np	np	43.573	53.824
Minor gaming	np	np	0.572	0.500
Gaming machines	np	np	-	-
Sports betting	np	np	-	-
Total gaming	9.777	29.804	153.481	180.039
Total gambling	47.531	72.044	192.589	216.877

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

Tasmania

Table S.25 Real gambling turnover, Tasmania, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	122.718	223.212	204.832
On-course totalisators	8.405	12.133	12.511	12.626
On-course bookmakers	123.109	82.758	37.061	14.891
Off-course bookmakers	217.476	-	-	-
Sports betting	-	-	-	-
Total racing	348.991	217.609	272.784	232.349
<i>Gaming</i>				
Lotteries	-	0.956	1.189	1.315
Lotto	7.604	50.856	57.763	47.100
Instant lotteries	-	16.289	15.667	9.023
Pools	-	4.016	0.540	0.237
Casino	57.932	176.312	259.688	949.784
Minor gaming	-	29.115	27.425	20.729
Keno	-	-	-	64.030
Gaming machines	-	-	-	206.549
Sports betting	-	-	-	3.442
Total gaming	65.536	277.543	362.272	1302.209
Total gambling	414.527	495.152	635.055	1534.558

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.26 Real gambling expenditure, Tasmania, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	19.267	33.166	29.273
On-course totalisators	1.261	1.905	2.011	1.758
On-course bookmakers	6.771	4.552	2.038	0.819
Off-course bookmakers	17.398	-	-	-
Sports betting	-	-	-	-
Total racing	25.430	25.723	37.215	31.850
<i>Gaming</i>				
Lotteries	-	0.382	0.475	0.345
Lotto	3.042	20.342	23.105	16.140
Instant lotteries	-	6.516	6.267	2.368
Pools	-	2.530	0.270	0.080
Casino	10.307	35.021	53.755	75.642
Minor gaming	-	9.881	10.425	10.779
Keno	-	-	-	16.266
Gaming machines	-	-	-	23.666
Sports betting	-	-	-	0.016
Total gaming	13.349	74.673	94.298	145.302
Total gambling	38.779	100.396	131.514	177.152

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.27 Real gambling expenditure, Tasmania, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	64.720	97.304	84.118
On-course totalisators	4.947	6.399	5.901	5.052
On-course bookmakers	26.569	15.290	5.980	2.353
Off-course bookmakers	68.268	-	-	-
Sports betting	-	-	-	-
Total racing	99.784	86.409	109.185	91.523
<i>Gaming</i>				
Lotteries	-	1.285	1.395	0.991
Lotto	11.935	68.333	67.788	46.379
Instant lotteries	-	21.887	18.386	6.805
Pools	-	8.499	0.793	0.230
Casino	40.444	117.642	157.712	217.362
Minor gaming	-	33.191	30.586	30.974
Keno	-	-	-	46.741
Gaming machines	-	-	-	68.006
Sports betting	-	-	-	0.046
Total gaming	52.379	250.837	276.659	417.534
Total gambling	152.163	337.246	385.845	509.057

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.28 Real government revenue from gambling, Tasmania, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	5.521	10.652	8.840
On-course totalisators	0.412	0.286	0.362	0.298
Bookmakers	7.021	0.729	0.285	0.036
Sports betting	-	-	-	-
Total racing	7.433	6.536	11.299	9.174
<i>Gaming</i>				
Lottery products	np	np	24.317	18.891
Casino	np	np	10.020	23.304
Minor gaming	np	np	1.162	0.847
Gaming machines	np	np	-	10.361
Sports betting	np	np	-	-
Total gaming	3.911	28.917	35.496	53.403
Total gambling	11.344	35.454	46.795	62.577

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes Keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

ACT

Table S.29 Real gambling turnover, ACT, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	78.311	57.388	91.904	113.000
On-course totalisators	3.151	4.223	8.559	4.900
On-course bookmakers	47.678	67.325	37.910	18.203
Off-course bookmakers	-	-	-	-
Sports betting	-	-	-	42.727
Total racing	129.141	128.936	138.373	178.830
<i>Gaming</i>				
Lotteries	-	2.021	3.399	2.937
Lotto	-	21.911	26.615	30.099
Instant lotteries	-	5.606	7.321	5.465
Pools	-	0.838	0.171	0.181
Casino	-	-	102.433	83.478
Minor gaming	-	-	-	-
Keno	-	-	-	-
Gaming machines	-	252.780	695.029	1249.467
Sports betting	-	-	-	36.086
Total gaming	-	283.155	834.967	1407.713
Total gambling	129.141	412.092	973.340	1586.543

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.30 Real gambling expenditure, ACT, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	10.180	9.010	15.083	16.223
On-course totalisators	0.410	0.663	1.405	1.469
On-course bookmakers	2.622	3.703	2.085	1.121
Off-course bookmakers	-	-	-	-
Sports betting	-	-	-	2.137
Total racing	13.212	13.376	18.573	20.950
<i>Gaming</i>				
Lotteries	-	0.727	1.224	1.028
Lotto	-	8.764	10.646	12.063
Instant lotteries	-	2.242	2.928	2.186
Pools	-	0.528	0.085	0.179
Casino	-	-	23.663	17.280
Minor gaming	-	-	-	-
Keno	-	-	-	-
Gaming machines	-	32.861	86.690	127.163
Sports betting	-	-	-	1.805
Total gaming	-	45.123	125.237	161.704
Total gambling	13.212	58.499	143.809	182.654

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.31 Real gambling expenditure, ACT, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	101.895	58.331	71.154	70.843
On-course totalisators	4.100	4.293	6.626	6.415
On-course bookmakers	26.246	23.972	9.836	4.895
Off-course bookmakers	-	-	-	-
Sports betting	-	-	-	9.332
Total racing	132.242	86.596	87.616	91.485
<i>Gaming</i>				
Lotteries	-	4.710	5.773	4.489
Lotto	-	56.741	50.222	52.677
Instant lotteries	-	14.518	13.815	9.546
Pools	-	3.416	0.403	0.782
Casino	-	-	111.629	75.459
Minor gaming	-	-	-	-
Keno	-	-	-	-
Gaming machines	-	212.746	408.961	555.297
Sports betting	-	-	-	7.882
Total gaming	-	292.130	590.803	706.131
Total gambling	132.242	378.726	678.419	797.616

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.32 Real government revenue from gambling, ACT, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	0.783	3.344	5.514	5.580
On-course totalisators	0.029	0.247	0.477	-
Bookmakers	-	-	0.474	0.203
Sports betting	-	-	-	0.600
Total racing	0.813	3.591	6.466	6.383
<i>Gaming</i>				
Lottery products	-	np	11.410	11.920
Casino	-	np	6.362	3.456
Minor gaming	-	np	0.468	0.863
Gaming machines	-	np	18.259	28.173
Sports betting	-	-	-	-
Total gaming	-	11.510	36.495	44.412
Total gambling	0.813	15.102	42.961	50.795

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

Northern Territory

Table S.33 Real gambling turnover, Northern Territory, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	-	58.616	74.095
On-course totalisators	-	0.089	7.098	12.232
On-course bookmakers	-	25.113	23.599	73.636
Off-course bookmakers	-	64.642	-	-
Sports betting	-	-	18.329	154.520
Total racing	-	89.844	107.643	314.483
<i>Gaming</i>				
Lotteries	-	5.521	2.609	4.429
Lotto	-	7.240	20.551	29.856
Instant lotteries	-	3.518	5.021	3.490
Pools	-	0.174	1.086	0.052
Casino	-	113.841	273.628	454.527
Minor gaming	-	1.482	-	-
Keno	-	-	-	-
Gaming machines	-	-	49.616	232.408
Sports betting	-	-	-	-
Total gaming	-	131.775	352.511	724.762
Total gambling	-	221.619	460.154	1039.245

^a Real values represent 1997-98 values; Casino turnover is measured as casino handle, the value of money exchanged for gaming chips; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.34 Real gambling expenditure, Northern Territory, \$ million^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	-	11.052	11.757
On-course totalisators	-	0.012	1.153	1.946
On-course bookmakers	-	1.531	1.170	4.700
Off-course bookmakers	-	5.138	-	-
Sports betting	-	-	4.176	10.450
Total racing	-	6.681	17.551	28.853
<i>Gaming</i>				
Lotteries	-	2.505	1.186	1.772
Lotto	-	2.896	8.220	11.942
Instant lotteries	-	1.407	2.008	1.396
Pools	-	0.110	0.543	0.021
Casino	-	21.024	33.721	47.414
Minor gaming	-	0.741	-	-
Keno	-	-	-	-
Gaming machines	-	-	3.954	19.731
Sports betting	-	-	-	-
Total gaming	-	28.682	49.633	82.276
Total gambling	-	35.363	67.184	111.129

^a Real values represent 1997-98 values; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos.

Source: Tasmanian Gaming Commission (1999).

Table S.35 Real gambling expenditure, Northern Territory, per capita^a

	1972-73	1982-83	1992-93	1997-98
<i>Racing</i>				
TAB	-	-	97.463	91.140
On-course totalisators	-	0.144	10.166	15.085
On-course bookmakers	-	18.572	10.315	36.434
Off-course bookmakers	-	62.330	-	-
Sports betting	-	-	36.826	81.008
Total racing	-	81.046	154.770	223.667
<i>Gaming</i>				
Lotteries	-	30.386	10.462	13.736
Lotto	-	35.131	72.490	92.574
Instant lotteries	-	17.072	17.709	10.822
Pools	-	1.329	4.790	0.163
Casino	-	255.045	297.360	367.550
Minor gaming	-	8.986	-	-
Keno	-	-	-	-
Gaming machines	-	-	34.869	152.953
Sports betting	-	-	-	-
Total gaming	-	347.948	437.680	637.798
Total gambling	-	428.994	592.450	861.465

^a Real values represent 1997-98 values; Per capita represents persons over 18; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes casinos.

Source: Tasmanian Gaming Commission (1999).

**Table S.36 Real government revenue from gambling, Northern Territory,
\$ million^a**

	<i>1972-73</i>	<i>1982-83</i>	<i>1992-93</i>	<i>1997-98</i>
<i>Racing</i>				
TAB	-	-	2.009	2.390
On-course totalisators	-	0.002	-	-
Bookmakers	-	1.744	0.365	1.092
Sports betting	-		0.297	0.592
Total racing	-	1.746	2.671	4.074
<i>Gaming</i>				
Lottery products	-	np	9.279	11.706
Casino	-	np	2.706	2.352
Minor gaming	-	np	-	-
Gaming machines	-	np	0.427	10.140
Sports betting	-	np	-	-
Total gaming	-	6.955	12.411	24.198
Total gambling	-	8.702	15.082	28.272

^a Real values represent 1997-98 values; Lottery products include lotteries, lotto, instant lotteries and pools; Casino gaming includes wagers on table games, gaming machines, and keno systems; Gaming machine data excludes gaming machine data from casinos and includes keno in hotels and clubs.

Source: Tasmanian Gaming Commission (1999).

T Divorce and separations

There are four common ways to assess the extent to which gambling problems may be associated with divorce and separations:

- undertake a survey of gamblers, determine which of them have gambling problems and ask self-assessment questions relating to the extent to which gambling may contribute to relationship problems, including divorce and separation. This was the method used by the Commission in its *National Gambling Survey* and *Survey of Clients of Counselling Agencies*;
- undertake a survey of people who are divorced or separated, and ask them general questions about why they divorced or separated and assess the prominence of gambling among these reasons;
- undertake quantitative assessments of the probability of divorce among a sample of individuals, given a problem gambling diagnosis, holding all other variables constant; and
- undertake quantitative assessment of the extent to which regional or time series divorce rates are associated with gambling expenditure, accounting for confounding variables.

This appendix sets out the key evidence on the likely impact of gambling problems on divorces, using evidence from all of the above methods.

T.1 The Commission's data

The Commission's *National Gambling Survey* suggested that there were:

- 59 500 relationship break ups *ever* as a result of gambling (of which 39 200 were in the last 12 months); and
- 42 600 separations or divorces *ever*.

However, these numbers do not provide the numbers of current year separations and divorces, which are useful for estimating the cost impacts in chapter 9. A number of possible methods can be used to derive current year estimates.

Dickerson et al (1998, p. 79) for example, uses a range of annualisation ratios to convert lifetime events into annual rates. For divorce he applies a ratio of 20, which would suggest around 2 130 annual divorces.¹ Given the average younger age profile of problem gamblers, 20 appears a relatively high adjustment factor. The average age of people saying that they have ever been divorced or separated due to gambling is 32.6 years in the *National Gambling Survey*. This suggests that a more reasonable annualisation rate might be significantly less than 20 years (but rather more than was applied in the Commission's draft report²).

However, some definitional and methodological issues suggest care in using the raw survey numbers. In particular, there is some ambiguity about the word separation. While the word 'separation' can mean the formal separation of a couple as a legal pre-requisite to divorce, it also has a popular meaning that people physically split up from a relationship even if they were not married. It is apparent from both the Commission's *National Gambling Survey* and the *Survey of the Clients of Gambling Counselling Services* that some people saw a separation as the physical split-up of people in a non-married relationship. The evidence for this is two fold. Of the people who said that they were ever divorced or separated as a result of gambling, only 14 800 recorded their current marital status as divorced or separated (and 1 700 said they were married, which could include re-marriages). Secondly, there were a number of comments by clients of counselling services indicating that they had split up from a de facto relationship, and had described this as a separation.

This suggests that the data does not relate purely to separations and divorces as they are recorded by the ABS, but to a wider set of occasions when partners separate from relationships. While this might be thought to bias the data upwards as a source of information on officially defined divorce and separation, there are offsetting factors that suggest that the data underestimates the *lifetime* prevalence of gambling-related divorce:

¹ It is presumed that the 'ever' figure is dominated by divorces (since most separations proceed to divorce), so that it is legitimate to make no adjustment for separations in calculating the annualised divorce figure.

² In chapter 9 of its draft report, for its costing of impacts, the Commission converted the 'ever' divorced number into divorced 'in the last year' by taking the ratio of relationship break ups last year to break ups ever (a ratio of 0.66). This provides a large number, which would account for about 25 per cent of current year legally defined 'separations and divorces'. The Commission received advice from a number of experts and participants, including the Chairman of the Policy Committee on Family and Community Services, Kevin Andrews (who chaired the report *To Have and To Hold*), and the AHA (sub. D231), that these seemed significantly out of step with other research on the causes of divorce. Accordingly, the Commission has re-examined the data on divorce and separations, and in particular, looked more closely at estimates of annual gambling-related divorces.

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- The ratio of ‘last 12 months’ prevalence of relationship breakdowns to ‘ever’ is implausibly high. It seems reasonable to suppose that a greater share of relationship breakdowns due to gambling would have occurred in the past (although people who had serial relationship breakdowns might say yes to a past breakdown and yes to a current one with this referring to two or more actual relationship breakdowns).
 - This survey question was not asked of all respondents, but only of regular gamblers. It seems possible that many of the people whose past relationships have broken down due to gambling, would, over time, have changed their pattern of gambling to irregular — and thus have been excluded from the survey and its estimate of past relationship breakdowns.

For these reasons, while the data probably captures the relative degree of relationship instability between *current* problem and non-problem gamblers reasonably well, it is probably not a sound basis on which to estimate the number of divorces and separations that have *ever* taken place— in the technical legal sense of these terms — due to gambling.

However, by looking more closely at the current marital status of respondents, the *National Gambling Survey* may provide some insights into the numbers of people seeking divorce or separations in the last 12 months due to gambling. The Commission survey data base reveals that there were an estimated 4 500 people who had a relationship breakdown in the last 12 months, where the relationship breakdown had led to divorce or separation and where they were currently divorced or separated.³ Since it takes one year to obtain a divorce after separation, this would imply annual gambling-related divorces of 2 250. However, the standard error of this estimate is large and it provides a questionable basis for costing current year impacts in chapter 9.

T.2 Surveys of divorcees

There are, however, a number of other possible sources of data on the causes for divorce. Wolcott and Hughes (1999) from the Australian Institute of Family Studies provides one source on the general causes of divorce, and used a survey involving 650 respondents. Their study points to *no* divorces as a result of gambling at all, though it appears that gambling was cited as a contributing factor by one person (AHA, sub. D231, p. 27).

³ Some people may presumably get a divorce and re-marry or record their status as ‘single’ rather than as ‘divorced or separated’, but this seems unlikely if the divorce or separation has been within the last 12 months.

However, the survey used a set of pre-coded categories (Wolcott and Hughes 1999 p. 7) — such as communication problems, incompatibility, affair, alcohol/drug abuse, physical violence, financial problems, physical/mental health, work issues and work and family time, and emotional/verbal abuse — from which a respondent was to tick one as the main cause of marital breakdown. Gambling was not included as a separate category. But many of these possible reasons for marriage breakdown are symptoms of other underlying causes — for example, financial problems, physical violence, physical/mental health, and emotional/verbal abuse are all adverse impacts that can be associated with problem gambling. Because of this, such a survey strategy does not enable the data to shed much light on the issue at hand. Nevertheless, it appears highly likely that gambling-related divorce would figure relatively slightly in aggregate divorces.

Moreover, the survey is composed of two samples that, by their nature, will tend to under-represent cases of gambling related divorce. The samples were divorcing couples with a child under 18 years at the time of separation (a sample of 513 respondents) and people who had been married for 15 years or longer and with a wife whose age at separation was between 45 and 65 years (Behrens and Smyth 1999, p. 4). As gambling problems tend to emerge more frequently in young people, it seems likely that they would be more highly represented in a sample of divorcing younger couples without children — precisely the group omitted from the study.

Even with its limitations for the matter at hand, the AIFS study provides some circumstantial evidence that the prevalence of gambling-related divorce is likely to be relatively modest. The survey reveals that alcohol and drug problems accounts for 7.4 per cent of divorce cases, though it is also noted that some of these problems may be subsumed under the heading ‘physical/mental health’ (which accounts for a further 4.7 per cent of cases). Given that there is substantial evidence that the prevalence of alcohol and drug abuse is significantly higher than gambling problems, it would appear reasonable to suppose that gambling would have to contribute to some fraction of 7.4 per cent of divorces to reflect its relative prevalence.

Another key relevant study is a telephone survey conducted in September 1998 by Relationships Australia among 1 402 Australians. Across the whole sample, around 4.1 per cent nominated gambling as a source of a relationship problem with a partner — which is consistent with a prevalence rate of gambling problems of around 2 per cent (close to the estimate provided by the Commission). Among divorcees, however, gambling figured more prominently, and was mentioned by 7 per cent of people as a contributing factor to problems. Since, however, people typically nominated more than one factor, it is necessary to reduce the share of divorces and separations due to gambling to a smaller number that accounts for this

double counting. In this case, a reasonable adjustment may be the share of total mentions of all possible causes — which reduces the importance of gambling to 3.1 per cent. ABS data⁴ suggests that there were 51 370 divorces in 1998. This implies that there were around 1 600 gambling-related divorces in Australia in 1998 and another 1 600 separations (next year's divorces) that might be ascribed to gambling, or 3 200 divorces and separations altogether.⁵

Of course these numbers will ignore the breakdown of relationships outside of marriage. There are likely to be a significant number of these, particularly since the highest risk group for problem gambling are the young.

Table T.1 Reasons for relationship problems
September 1998

	<i>Divorced or separated</i>			<i>Other marital status</i>			<i>Total</i>		
	NM	SNM	SS	NM	SNM	SS	NM	SNM	SS
	No.	%	%	No.	%	%	No.	%	%
Loss of a job	20	6.9	15.5	170	7.3	13.4	190	7.3	13.6
Work or study demands	28	9.6	21.7	323	13.9	25.4	351	13.4	25.0
Having or bringing up children	34	11.7	26.4	301	13.0	23.6	335	12.8	23.9
An accident or traumatic events	32	11.0	24.8	266	11.5	20.9	298	11.4	21.3
Financial difficulties	54	18.6	41.9	345	14.9	27.1	399	15.3	28.5
Serious illness or disabilities	24	8.2	18.6	252	10.8	19.8	276	10.6	19.7
Gambling	9	3.1	7.0	48	2.1	3.8	57	2.2	4.1
An affair	20	6.9	15.5	80	3.4	6.3	100	3.8	7.1
Alcohol or drug abuse	24	8.2	18.6	142	6.1	11.2	166	6.4	11.8
Violence	13	4.5	10.1	49	2.1	3.8	62	2.4	4.4
No major difficult times	19	6.5	14.7	297	12.8	23.3	316	12.1	22.5
Some other cause	12	4.1	9.3	45	1.9	3.5	57	2.2	4.1
Don't know/can't recall	2	0.7	1.6	5	0.2	0.4	7	0.3	0.5
Total	291	100.0	225.6	2323	100.0	182.5	2614	100.0	186.4

a₀ NM is the number of times the factor was mentioned by a respondent. Respondents could mention more than one factor as a contributor to relationship problems. SNM is the share of total mentions for each category, and will sum to 100. SS is the share of the total sample (which was 129 for people who were divorced or separated and 1 402 altogether). SS will sum to more than 100.

Source: Data provided by Relationships Australia and Bateman and Conroy (1999).

⁴ ABS, 1999e, *Marriages and Divorces, Australia*, Cat. No. 3310.0.

⁵ Another possible *indicative* method of estimating the share of divorces is to examine the ratio of problems caused by gambling to alcohol and drugs in the Relationships Australia survey and apply that to the AIFS study. This yields an estimate of gambling related divorce share as $3.1/8.2 \times 7.4 = 2.8\%$.

T.3 The logistic approach

The NORC study (Gerstein et al 1999) for the US National Gambling Impact Study Commission undertook logistic analysis of its sample respondents to examine the extent to which the odds for divorce increased with a diagnosis of problem gambling. They found that once confounding variables had been taken into account, 'pathological' gamblers had 2.3 times the odds of getting divorced. If these heightened odds were also roughly relevant to Australian problem gamblers then this would imply that the annual divorce rate per 1000 problem gamblers would be around 29 people per 1000 marriages (ie 2.3 times 12 per thousand⁶). Among the 293 000 current problem gamblers there are about 140 000 who are married (in the overwhelming number of cases to a non-problem gambler), and thus about 140 000 couples in which one party is a problem gambler.⁷ Using the US odds would imply annual gambling-related divorces of around 4 000 in Australia.

The Commission also undertook its own logistic analysis of respondents to the *National Gambling Survey* to see what factors might determine whether a person recorded their marriage status as divorced or separated. Problem gambling, age and unemployment were all statistically significant factors in explaining divorce (based on 3 463 observations). Overall, the analysis suggested that a problem gambler had 1.7 times the odds of being divorced compared to others, controlling for other risk factors. Using the above methods, this would imply annual gambling-related divorces in Australia of around 2 900.

Table T.2 **Summary of divorce prevalence comparisons between
'pathological', problem and low-risk gamblers**
US NORC study

	<i>Rate of divorce ever per gambler</i>	<i>Odds ratio relative to low risk</i>	<i>Predicted rate for divorce without gambling</i>	<i>Rate of divorce for low-risk gamblers</i>
	%	ratio	%	%
Problem gamblers	39.5	1.38	32.1	29.8
Pathological gamblers	53.5	2.29	33.5	29.8

^a The term 'pathological' gambler is closest to the terminology 'problem gambler' used by the Commission. People termed as 'problem' gamblers in most US studies are not categorised as having gambling problems using the thresholds applied in Australia.

Source: Gerstein et al (1999 p. 55).

⁶ 12.4 per thousand is the annual divorce rate given by ABS data for 1998 (Cat. No. 3310.0).

⁷ Around 47 per cent of problem gamblers report being married. The *National Gambling Survey* also asked people if they knew someone who was a problem gambler. Using this as the basis there were around 125 000 couples in which one was problem gambler.

T.4 Regional studies

Nichols et al (1999) examined divorce rates in a group of eight casino communities in the US compared to five matching control non-casino communities. They found no evidence that divorce rates were higher in casino communities than non-casino communities.

However, models of aggregate divorce rates tend to explain relatively little of the variation of divorce (across regions or time⁸) because so many idiosyncratic hard-to-observe factors are at work. As noted by McAllister (1999, p. 2):

Aggregate statistics and quantitative surveys are poor instruments for measuring the process of marital breakdown and the changes accompanying different stages of it

To illustrate this, suppose that the recent rapid growth in gambling in Australia had roughly doubled the number of problem gamblers who are in marriages in the last decade. Assuming a fixed risk of divorce of 1.7 times that of other marriages (as in the previous sub-section), this implies that there would have been about an additional 1 500 divorces in 1998 compared to a counterfactual of a static gambling environment. But 1 500 divorces is only 2.9 per cent of divorces in 1998, and in this case would represent a gradual increase in divorces due to gambling of 0.29 per cent per annum over the decade. Picking that up in an econometric method is probably beyond the capacity of the data — an issue that it discussed more generally in chapter 7.

T.5 Summary

Anecdote and data on problem gamblers (whether from general populations or help groups) leave little doubt that problem gambling is instrumental in the breakdown of some marriages and relationships. But measuring the aggregate number of gambling-related Australian divorces with precision and separating gambling problems from other factors that may be present is difficult. Using methods that have some capacity to uncover the contribution of problem gambling suggests that problem gambling is connected with something between 1 600 and 4 000 divorces a year (and therefore around double this number of annual divorces and separations).

In its analysis of the costs of problem gambling, the Commission has taken the least of these numbers — or around 1 600 gambling-related divorces per year.

⁸ If the influence of lagged dependent variables are taken into account.

Table T.3 Various estimates of gambling-related divorces per annum

<i>Method</i>	<i>Estimated annual gambling-related divorces</i>
	Number
Annualising the 'ever' divorces	2 130
Last year relationship breakdowns that resulted in divorce or separations.	2 250
The Relationships Australia data	1 600
Using the NORC logistic odds	4 000
Using the Commission logistic odds	2 900

Source: Commission estimates.

U How gaming machines work

This appendix sets out how gaming machines work. This is important because the technology and how it works is at the heart of some gamblers' cognitive errors about their gambling. Moreover, the technology can play a role in harm minimisation, but appropriate measures require an understanding about how the machines function. As Global Gaming Services noted:

Most forms of venue gambling are technology based. I observe with interest that no-one involved in the problem gambling industry reference groups (eg NSW) would appear to have any appreciation of the design theory and technology behind the gambling devices. Probably most know that the devices make money, but do they know why? (sub. D189, pp. 1-2).

The appendix also describes some of the consequences of differing playing styles, and how the playing styles adopted by problem gamblers are likely to affect the outcomes.

It also considers the persistent myth that the history of outcomes affects future game results — the so-called 'gambler's fallacy'.

Finally, as some industry representatives have questioned whether the Commission's calculations in respect of *Black Rhino* (in chapter 16) are correct, it sets out the calculations for assessing the likelihood of the highest jackpot on this game.

U.1 How do poker machines work?

Modern poker machines are electronic 'chance' machines. Their central component is a program embedded in a chip. This program uses random numbers to generate random outcomes, which in turn determines the outcomes visible to the player. Most Australian machines have five 'reels' and three visible rows. These are displayed on a video unit. Each 'slot' on each reel depicts some icon, such as a tree, a card, or some other readily identifiable symbol. Certain combinations of symbols generate payoffs for the player.

Machines in widespread use in Australia employ virtual reels, rather than electro-mechanical reels as used in older machines, and still often used in some countries,

such as France and the US (Casino International 1999, p. 35). The use of virtual reels has a range of attractions. Mechanical reels have major limitations. In particular, on a spinning reel there are only so many symbols that can be fitted (and still be readily visible to the player). In the US, the Telnaus system used reel mapping to overcome some of these physical limitations.¹ But video reels, as used in Australian machines, presents a more transparent and simple way of overcoming the limitations of physical reels. Any number of symbols can be fitted to a video reel, allowing a great deal of flexibility.²

Most Australian gaming machines allow for multiple lines. A ‘line’ in such a display is a series of five outcomes from each of the five reels. The first line is the second row, the second is the top row, while the third is the bottom row. Other lines can be formed by moving from row to row across the reels (table U.1). For example, line 4 is like a shallow ‘V’. Multiple lines allow the player to play a set of games simultaneously. *Black Rhino*, for example, allows up to nine lines per button push. Other games, such as *Black Panther* allow only three lines while *Cash Crop* and *Cash Chameleon* allow 20 lines.

Table U.1 Lines in poker machines^a

<i>Reel1</i>	<i>Reel2</i>	<i>Reel3</i>	<i>Reel4</i>	<i>Reel5</i>
Line numbers	Line numbers	Line numbers	Line numbers	Line numbers
2,4,6	2,6,9	2,5,9	2,6,9	2,4,6
1,8,9	1,4,5	1,6,7	1,4,5	1,8,9
3,5,7	3,7,8	3,4,8	3,7,8	3,5,7

^a Based on the Aristocrat *Black Rhino* game.

Source: Venue observations by the Commission.

An example may be useful in explaining how the machines work. Suppose someone is playing just one line and one credit per line on a *Black Rhino* machine. People

¹ This mapping system worked as follows. A random number would be sought between 1 and a large number (say 128), which identifies a position on a virtual reel (in this case, one with 128 stops). Then each of the stops on the large virtual reel are mapped onto a smaller reel. It is this smaller reel that is used to display the symbols on the gaming machine and which is visible to the player. Because the large virtual reel has many more stops than the smaller visible reel, many different stops on the big virtual reel can be mapped to one stop on the small reel. Thus non or low paying symbols on the visible reel will be represented by many stops on the virtual reel, while high paying symbols may be represented by single stops. In this way, the probability of selection of any given stop on the reel visible to consumers will no longer be the same, but will depend on the number of associated stops on the virtual reel.

² Aristocrat Leisure Industries provided advice on the workings of modern Australian machines.

usually play more than one line, but it is easier to explain how the machines work by looking at the most simple style of play.³

When the player pushes the machine button, the random number generator in the machine randomly determines the stopping point of each of the five reels. The reels are like lists of symbols. The symbols on any given reel are always in the same relative position in every game. Thus on reel one of *Black Rhino*, a king always follows the rhino symbol, then a queen, a ten and so on. Once the stopping point on line one for any given reel is determined, then that determines what symbols appear on that reel for the other lines. The stopping point for each reel is determined *entirely* randomly and no single position on any reel has a higher probability of selection than any other position. The outcome on each reel is also *entirely* independent. A physical analogy to the gaming machine is a set of five wheels on which symbols are etched. Each of the wheels is separately rotated and allowed to come to rest.

The payoffs associated with each winning combination are displayed on the machine. For example, five rhinos pays 5 000 times the credits bet (plus a scatter). However, much more frequently, the winning combinations return lower amounts, such as 3 scatter trees or two nines (which pay 2 times the credits staked) or three tens (5 times the credits staked). But mostly no winning combination occurs.

For example, one possible outcome from the *Black Rhino* game is shown in table U.2. This scenario would pay out 3 kings on line 1 (since rhinos also substitute for other symbols) which, on a 10 cent machine would be a payout of 10 x 10 cents or \$1. Because scatters⁴ are paid regardless of the number of lines being played, and rhinos are substitute symbols for the scatter symbol (a tree), a scatter payout would also be paid. This provides an additional payout of 50 x total credits staked = \$5. So in this case, the total payout would be \$6. This is just one of many possible outcomes on the machine.

³ The player selects the lines and credit options at the start of play and can then repeat that style of play with a single button push (or a touch of the screen on some of the newer machines). They can, of course, change their lines/credits options at any time during play.

⁴ Scatter wins occur when the 'scatter' symbol appears enough times anywhere in the 15 available spots on the video screen, regardless of the number of lines actually being played.

Table U.2 **An example of an outcome on *Black Rhino***

	<i>Reel 1</i>	<i>Reel 2</i>	<i>Reel 3</i>	<i>Reel 4</i>	<i>Reel 5</i>
	Symbols	Symbols	Symbols	Symbols	Symbols
Line 2	Rhino	Queen	Ten	Rhino	Ten
Line 1	King	Rhino	Rhino	Queen	King
Line 3	Queen	Ten	Nine	King	Rhino

If the gambler had been playing five lines and ten credits per line (with line 4 being the pathway shown by the bold line and line 5 being the pathway shown by the other line) then the win would have been \$265, comprising:

- \$10 on line 1 (10 x 10 credits per line x credit value);
- \$250 in the scatter win; and
- \$5 on line 4 (based on 2 rhinos⁵).

U.2 Game returns and the ‘price’ of gambling

As noted in chapter 16, gaming machines have statutory minimum player return rates. These minimum player return rates are usually exceeded by gambling venues. Returns of around 90 per cent are common. Player returns on gaming machines have tended to increase over time in Australia.

The player return rate is defined as the average amount won by players as a share of the cumulative amount staked. The ‘price’ of gaming machines is therefore one minus this rate. For example, if a machine offers an average player return of 90 per cent this means that the average loss is 10 per cent of the accumulated amount staked (which is the turnover of the machine).

The amount of expected losses vary with the playing style of the gambler. It should not be assumed that low denomination machines, such as the now common one and two cent machines (chapter 16), necessarily involve low player losses. They instead allow a large amount of player choice about the intensity of playing. For example, the expected player losses per hour of continuous play on a two cent *Cash Chameleon* machine (with an 85.15 per cent return) is between a very modest \$2.14 for one line, one credit per line to \$1 069 per hour at maximum intensity — a difference in spending rates of 500 times (table U.3).

⁵ While the rhinos substitute for nines, three nines provides the same prize as two rhinos, and other than when a scatter rhino occurs with a payline rhino win, the highest win only is paid.

Table U.3 Expected hourly losses on *Cash Chameleon*^a
Results for different playing styles

<i>Credits\ lines</i>	<i>1 credit per line</i>	<i>5 credits per line</i>	<i>10 credits per line</i>	<i>20 credits per line</i>	<i>25 credits per line</i>
Player return=92.13%	\$	\$	\$	\$	\$
1 line	1.13	5.67	11.33	22.67	28.33
5 lines	5.67	28.33	56.66	113.33	141.66
10 lines	11.33	56.66	113.33	226.66	283.32
15 lines	17.00	85.00	169.99	339.98	424.98
20 lines	22.67	113.33	226.66	453.31	566.64
Player return = 87.78%					
1 line	1.76	8.80	17.60	35.19	43.99
5 lines	8.80	43.99	87.98	175.97	219.96
10 lines	17.60	87.98	175.97	351.94	439.92
15 lines	26.40	131.98	263.95	527.90	659.88
20 lines	35.19	175.97	351.94	703.87	879.84
Player return = 85.15%					
1 line	2.14	10.69	21.38	42.77	53.46
5 lines	10.69	53.46	106.92	213.84	267.30
10 lines	21.38	106.92	213.84	427.68	534.60
15 lines	32.08	160.38	320.76	641.52	801.90
20 lines	42.77	213.84	427.68	855.36	1069.20

^a The formula for the expected (or average) dollar value of losses from playing one hour continuously is:

$$\text{Expected loss} = D \times C \times L \times (1 - r) \times \frac{3600}{BPT} \text{ where}$$

C is the number of credits staked per line, L is the number of lines played per button push, r is the player return (for example, 0.9213), D is the denomination of the machine (such as 1 or 2 cents, and in the above examples a 2 cent machine), BPT is the time elapsed between button pushes (here set at 5 seconds). *Cash Chameleon* comes with four return options for the venue/jurisdiction (87.78%, 85.15%, 90.42% and 92.13%). The table above shows the player loss outcomes associated with three of these return rates.

Source: Commission calculations.

The expected losses also vary by the machine denomination and the player return rate. Clearly, the one cent *Cash Chameleon* with the same return rate as above, has half the expected player loss per hour for the same playing style. Far less obvious is the influence of the player return on the expected player losses. The *Cash Chameleon* machine has a number of variants, offering returns as low as 85.15 per cent and as high as 92.13 per cent. As noted in chapter 16, both the maximum and minimum return rates on these variants appear to be high returns, and many people would think the difference slight. However, different player return rates — which are produced by usually making a few simple changes to the symbols on one or two reels — can have a large impact on expected player losses. Thus playing at top

intensity on the 85.15 per cent *Cash Chameleon* will set back the gambler an expected \$1 069 per hour but nearly halves this to \$567 per hour on the 92.13 per cent version.

Gaming machines are entertaining precisely because of interesting game features and the unpredictability of the outcomes. The complex payoff distributions in gaming machines mean that the returns that gamblers make from games vary significantly in the short run. The corollary to this is that the return rates realised by players will vary considerably from playing session to session. As noted by the AGMMA (sub. D257) and in chapter 16, this implies that players will not be able to readily determine the ‘price’ of single machine, except after many trials.

Figure U.1, which shows the player returns from 100 000 simulations of a gaming machine, confirms gaming manufacturers’ statements about the extreme volatility of actual outcomes on poker machines.⁶

For example, while the expected net losses from playing on a 10 cent *Black Rhino* at maximum intensity (nine lines and ten credits per line) are around \$780, there is around a 30 per cent chance that the losses will be \$1 300 or more per hour. Similarly, there is around a 2.3 per cent chance that the gambler will make a net \$1 300 win in an hour long session at this maximum intensity. The odds of breaking even or better are around 17 per cent.

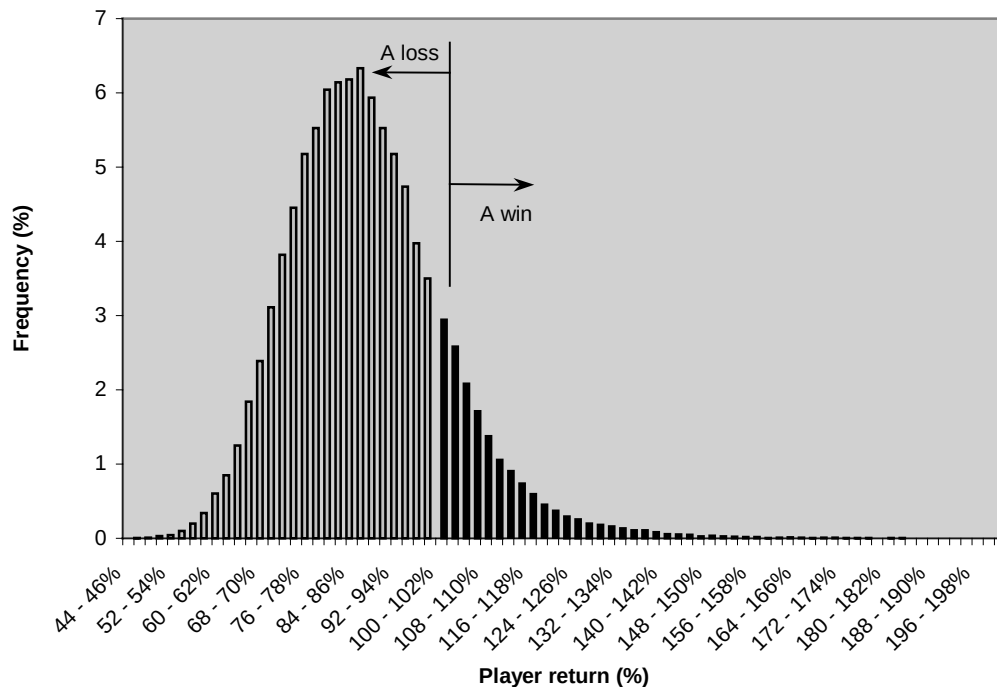
U.3 Game volatility

Even while all styles of play involve highly unpredictable returns over a reasonable session time, the player can decide whether they wish to increase this unpredictability further by choosing certain playing styles. For example, a *Black Rhino* player could:

- choose a 10 cent machine and play one line with 10 credits per line (staking \$1 per button push) — playing style 1; or
- also stake \$1 a button push by choosing a 2 cent machine and playing 5 lines and 10 credits per line — playing style 2.

⁶ These data and other simulations of a gaming machine in this appendix are based on software developed by the Commission. The program, which runs on MS Windows 95+ platforms, is available on request from the Commission.

Figure U.1 **Player returns from a gaming machine^a**
Black Rhino return distribution from one hour of play



^a This is based on a particular poker machine game, *Black Rhino*, whose details were provided by Aristocrat. The player price results are based on 100 000 simulations of a gambler making 720 button pushes (playing nine lines). 720 button pushes amounts to around 1 hour of continuous play. The consumer return rate of the version of *Black Rhino* simulated is 87.84 per cent (with the simulation average being 87.82 per cent, within 0.02 per cent of the actual price).

Data source: Commission estimates.

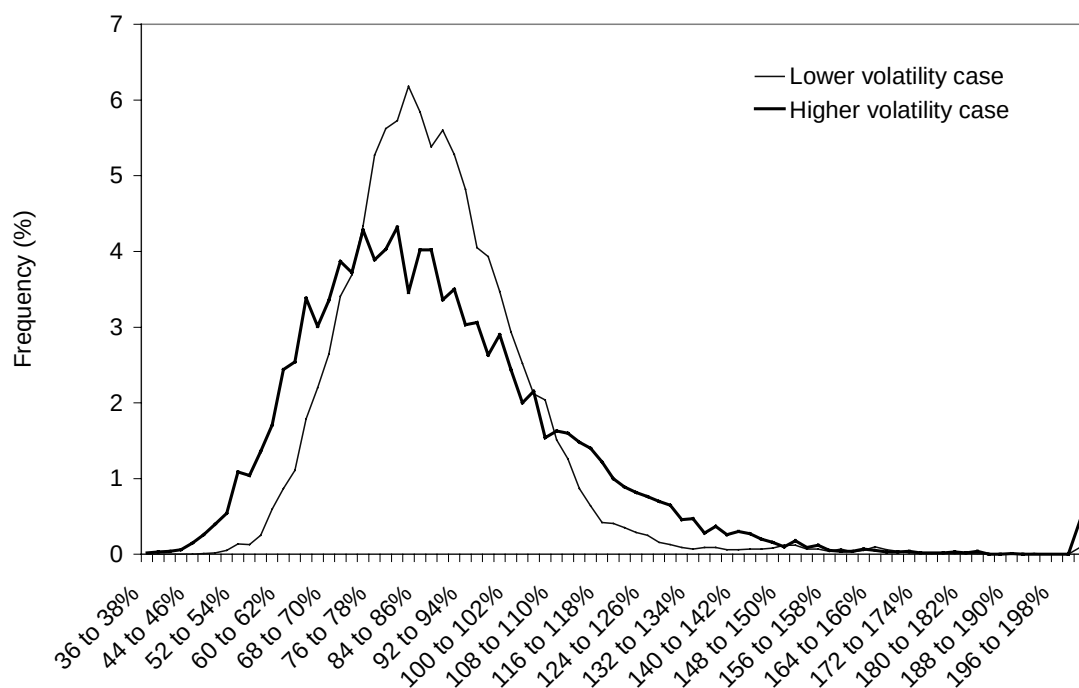
The rate of return is equal for each playing strategy, but the variance — the spread of results — is much greater for the first strategy than the second. The person who plays gaming machines the first way has a higher probability of a bigger win (because payouts for a line win are a multiple of the credits bet on that line), but also a higher probability of losing more. The distribution of returns from playing for one hour for each playing style is illustrated in figure U.2, based on the results of 10 000 gaming machine simulations in each case. For example, for around 21 per cent of occasions the hourly returns are below 70 per cent using player style 1 compared to less than 10 per cent of occasions for player style 2. On the other hand, for around 15 per cent of occasions the hourly returns are *above* 110 per cent using player style 1 compared to 6 per cent of occasions for player style 2.

The example also illustrates the point that the likelihood of having a net win can vary significantly over the shorter run, depending on play style, even though the expected return is the same. However, as noted in chapter 16, the Commission still

considers that the machine price — one minus the player return — is a useful summary measure of the expected cost of playing the game. It is an especially good guide over the longer run, as demonstrated next.

The volatility in returns is a function of the number of games played. Over a year the numbers of games played, even by a regular recreational gambler, tends to run into the hundreds of thousands.

Figure U.2 Differences in the distribution of returns from differing playing styles^a



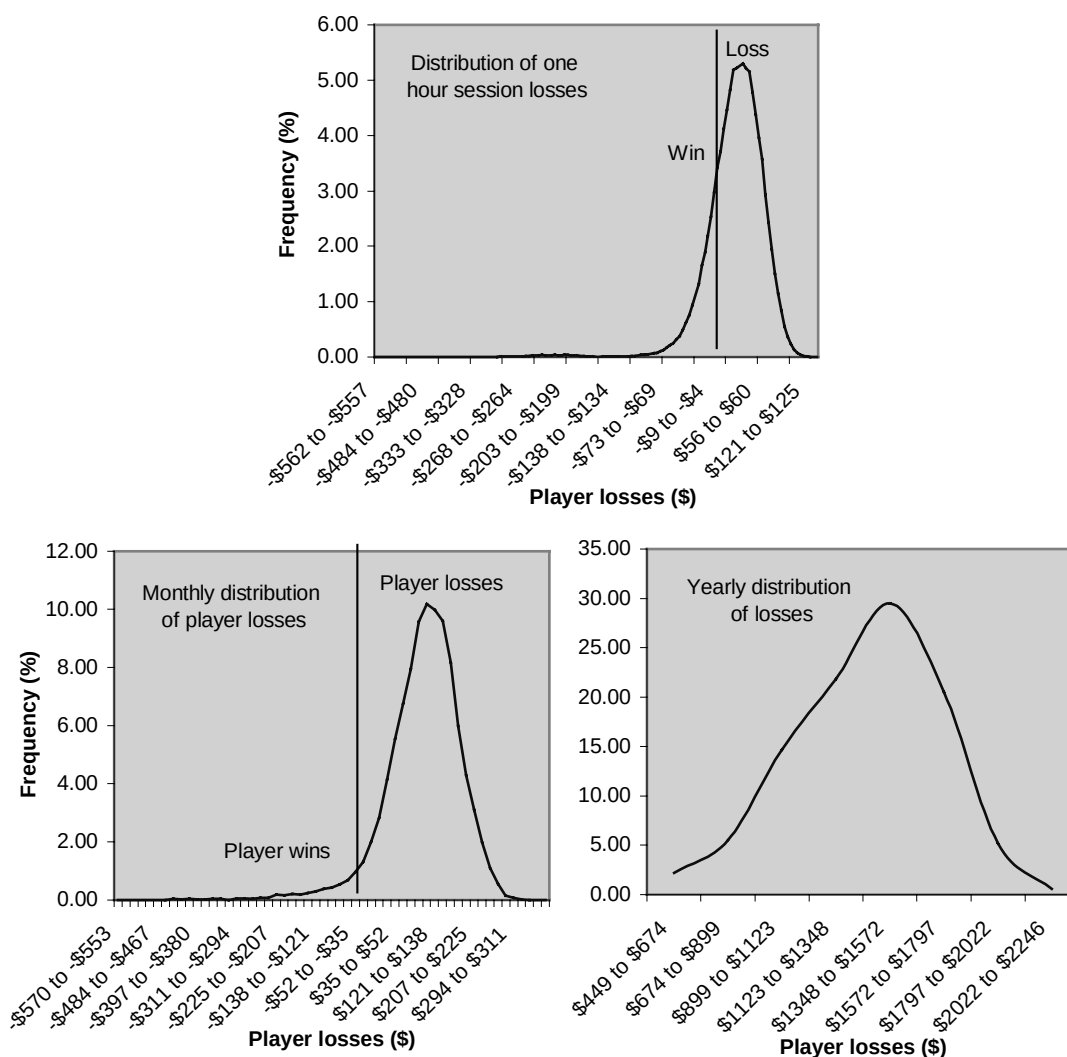
^a The higher volatility case is associated with player style 1 (10 credits per line, 1 line only on a 10 cent machine), while the lower volatility case is associated with player style 2 (10 credits per line, 5 lines on a 2 cent machine). The results are based on 10 000 simulations in each case. The coefficient of variation was 0.326 for player style 1 and 0.183 for player style 2 — indicating the substantial difference in the volatility of returns.

Data source: Commission calculations using a poker machine simulation program.

For example, if a player bet on 3 lines a button push (each line best seen as a separate game) then they would be playing around 2 160 games an hour. If they played once a week for the year, they will have played 112 320 games. Over a thirty year period, they would have played around 3.4 million games. The volatility is much reduced over a large number of games and will tend to be concentrated around the expected player return. This has some interesting implications.

A once a week hourly session of gambling will produce significant differences in returns from week to week. It would not be unusual to win \$100 in one week and lose \$100 in the next. In the game simulated by the Commission, around one in five are net winners in any given hourly session (figure U.3).

Figure U.3 **Distribution of player losses associated with different periods of play^a**



^a Based on varying simulations of a gaming machine as noted in the accompanying table. A minus value indicates a win (ie a negative cost).

Data source: Commission simulations.

Over a month, however, returns are much less volatile, with significantly reduced probabilities of being a winner overall. Now only 7 per cent are net winners in any given month. And over the year none won in 1000 simulations undertaken. The average recorded a loss of \$1365 and the least loss was \$484. Over a lifetime of

regular playing (30 years) the probability of winning overall on the type of machine simulated is so remote that it may as well be regarded as impossible.⁷ The average loss in our simulation of this was \$41 000 and the least lifetime cost was \$35 500 (table U.4). The degree of variation is very low relative to the mean for the 30 year period, but high for an hour long session. The measure of relative variance — the coefficient of variation — shrinks by around a factor of 40 as the time span increases.

Table U.4 The impact of regular play on the distribution of gaming machine losses^a

	<i>Hourly sessions</i>	<i>Monthly</i>	<i>Yearly</i>	<i>30 years</i>
Average cost (\$)	26.26	105.04	1 365.52	40 965.60
SD (\$)	39.88	81.1	302	1574
Coefficient of variation	1.52	0.77	0.22	0.04
Least cost (\$)	-559.60	-559.60	483.80	35 574.30
Share making a profit (%)	19.2	6.7	0	0
Simulations	1.56 million sessions	13 000 months	1 000 years	1 000 30 year periods

^a Based on a person playing a 2 cent machine with 3 lines and 5 credits per line (ie a stake per button push of 30 cents). The machine 'price' is 12.16 per cent (ie expected losses from a stake) and they play for a one hour session, once per week. A minus number indicates a win. Someone playing at higher levels of intensity could expect to make proportionately higher overall losses. Thus someone who plays at around 90 cents a button push, would expect to lose around \$123 000 over the 30 year period.

Source: Commission calculations.

Of course, for many people such 'losses' are merely the form of payment for a well-enjoyed entertainment. The cost of attending other forms of entertainment, such as movies, is not termed a loss. A survey of 262 gaming machine players at 5 Victorian venues (Tabcorp, sub. D286, p. 21) suggests that 52 per cent of people who *lost* in a session of play at gaming machines still considered the outcome had met or even exceeded expectations. However, for many it also appears that they expect to win from playing gaming machines. This is a goal that can be frequently achieved in separate gaming sessions, but is *inevitably* elusive for any prolonged period of regular play.

U.4 Game duration

It is relatively easy, as in the case of player losses, to calculate the expected duration of a game associated with any given style of play. Modern Australian machines give

⁷ The distribution of losses after 30 years can be approximated as a normal distribution. To make a win would require a shift 26 standard deviations away from the mean — a probability of effectively zero.

players a large amount of choice about how much time is purchased on the machine. Someone willing to spend \$50 on the 2 cent *Diamond Touch* gaming machine (a typical machine) can expect to sit there for an average of over 28 hours if they stake only one credit per line and hit only one line (table U.5). Most people would never play this long of course, but it demonstrates that the machines do not necessarily involve large losses even over enduring periods of play. On the other hand, someone who elects to bet at the maximum intensity can expect this 2 cent game to last under 4 minutes for a \$50 initial stake.

Table U.5 How much time is \$50 expected to buy on the *Diamond Touch* gaming machine?^a

Results for different playing styles

<i>Credits\ lines</i>	<i>1 credit per line</i>	<i>5 credits per line</i>	<i>10 credits per line</i>	<i>20 credits per line</i>	<i>25 credits per line</i>
Player return=87.79%	Hours of play	Hours of play	Hours of play	Hours of play	Hours of play
1 line	28.438	5.688	2.844	1.422	1.138
5 lines	5.688	1.138	0.569	0.284	0.228
10 lines	2.844	0.569	0.284	0.142	0.114
15 lines	1.896	0.379	0.190	0.095	0.076
20 lines	1.422	0.284	0.142	0.071	0.057

^a The formula for calculating the expected duration in hours is:

$$Duration = \frac{T}{(D \times C \times L)} \times \frac{1}{(1-r)} \times \frac{BPT}{3600}$$

where T is the initial amount of money the player outlays on the machine (in this case a \$50 note), C is the credits per line, D is the machine denomination (in this case 2 cents), L is the lines per button push, r is the player return rate and BPT is the time elapsed between button pushes (here set at 5 seconds). The expression above is derived by dividing the initial amount of money the player puts into the machine by the expected hourly loss (as in the previous table).

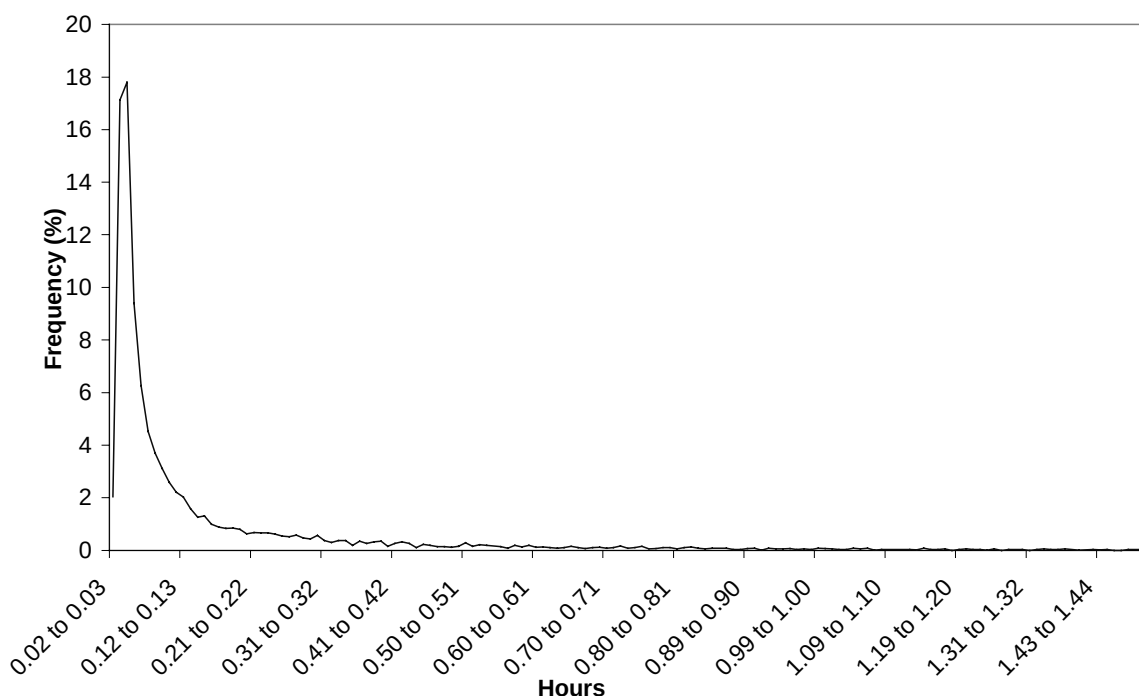
Source: Commission calculations.

The distribution of time purchased, is, however, highly skewed towards shorter duration sessions for a given amount of money (figure U.4). For example, in 10 000 simulations of someone who puts \$30 into a ten cent *Back Rhino* machine and plays 3 lines and 5 credits per line, the average duration is 13 minutes and 4 seconds. But on fifty percent of occasions the money runs out and the session is over in less than 4 minutes. On other occasions, the game could, in theory, last several hours.

The notable feature of the distribution is its skewness — this reflects the situation in which someone makes periodic wins and keeps playing. It is this characteristic that makes the Commission wary about using expected player duration as a proxy for the cost of playing the machine. After all, 50 per cent of the time a player will play

for an amount of time that is less than one third of the expected duration — and this may fuel excessive player suspicion and disputes.

Figure U.4 The distribution of duration^a
A Black Rhino example



^a This is based on someone who puts \$30 into a 10 cent machine and plays 3 lines and 5 credits. The simulation assumes that If they have a win of \$100 or more on a single button push they stop playing. Otherwise they play until their money has gone. The simulation suggests that the mean is 13 minutes and 4 seconds (with a standard deviation of 35 minutes). On fifty per cent of occasions, the game is finished within 48 button pushes (about 4 minutes).

Data source: Commission simulations of a poker machine.

U.5 The impact of recycling wins

Gaming machines tend to produce most of their prizes as small wins, and many players will recycle or re-‘invest’ these winnings. However, problem gamblers are much more likely to recycle big wins (table U.6). For example, problem gamblers are 4 times more likely to re-invest a prize of \$100 than non-problem infrequent gamblers.

Since every game (bar some temporary features) has a house advantage, the impact of re-investment has a significant impact on overall player losses, and also tends to prolong gambling sessions.

Table U.6 Percentage of people who reinvest \$20, \$50 and \$100 wins into gaming machine play

Nova Scotia VLT players

	<i>Problem players</i>	<i>Frequent non-problem players</i>	<i>Infrequent players</i>
\$20 win	74	34	26
\$50 win	58	29	17
\$100 win	48	21	13

Source: Focal Research (1999, pp. 3-57).

The Commission examined the impact on duration and player losses of two different styles of gambling behaviour. In both cases, the gambler bet on 3 lines with 5 credits per line using a five cent machine (ie a button push cost of 75 cents). Each started with a stake of \$30. In one case, the gambler stopped playing if they won a prize of over \$50 or an hour had elapsed. In the other, the gambler stopped playing if they won a prize of over \$250 (recycling all other smaller wins) or after three hours had elapsed. The average share of the initial outlay lost in the former case was about 70 per cent, while it was 86 per cent for the latter (table U.7).

Table U.7 The impact of differing playing styles on expected returns from a given outlay^a

	<i>Plays up to one hour and stops on a prize of \$50</i>	<i>Plays up to 3 hours and stops on a prize of \$250</i>
Initial outlay (\$)	30.00	30.00
Average number of button pushes (number)	224.7	287.9
Average session time (minutes)	18.7	23.98
Standard deviation of session time (minutes)	17.4	34.2
Average loss (gain) (\$)	20.74	25.79
Share of initial outlay lost (%)	69.1	86.0

^a The results are based on 10 000 simulations in each case. The gambler plays 3 lines and 5 credits per line on a 5 cent machine (*Black Rhino*). In one case, the gambler will stop playing if they get a prize of \$50 or if they exceed one hour, whichever comes first. In the other, the gambler will stop playing if they get a prize of \$250 or if they exceed three hours, whichever comes first. The latter is behaviour typical of someone who recycles their wins.

Source: Commission calculations.

The Commission observed in its *National Gambling Survey* that the ratio of overall player losses to outlays tended to be higher in problem gamblers than recreational players — and it is this behaviour that most readily explains this pattern.

U.6 The gambler's fallacy

Gamblers and others have many misconceptions about gaming machines (and indeed other gambling forms). The 'gambler's fallacy' (also called the 'Monte Carlo effect') refers to the spurious belief that pure games of chance have memories and that the probability of future events is affected by the history of the game (Wildman, 1998, pp. 40ff). Thus people think that a machine that has not paid off for a while has a much higher chance of paying off in the future, and that similarly, a machine that has suddenly paid off is 'exhausted' and is not likely to pay off quickly in the future. This has the unfortunate consequence for problem gamblers that they believe they can make up past losses on a machine by playing a bit longer, since the machine must be ready to pay up. Or, by not believing that each button push is an independent event they believe that they can exert some control over the outcome:

Players have spent years trying to beat slot machines for big money by devising schemes to influence the reel outcome. They alternate between pushing the button and pulling the handle to confuse the random number generator. They think the 'rhythm' of handle-pulling will lead to winnings. They heat up coins with a lighter. They freeze coins in a cooler. They think the RNG will pick a different result because they bet three instead of two coins. They pull the handle harder or slower. Save your strength. Put the lighter away. Leave the cooler at home. None of it matters. The RNG is going to pick a random reel result no matter how hard you heave the handle, and whether you play two coins, play three coins, push, pull or stand on your head (Legato, 1999).

In fact, the outcome on each new game is independent of past games. People then wonder how it is possible that a gaming machine can guarantee a given rate of return, as required by regulators, if they do not 'tighten' up after jackpots or 'loosen' up after a sequence of low or no payouts. The regulated return rate is naturally achieved, even with independence, by the sheer number of games that are played. The concept is similar to throwing a coin. A fair coin has a 50 per cent chance of a head. But there is a 3 per cent chance that a coin will show 5 heads in a row, and an even higher chance that it will be significantly biased towards heads or tails. But after a million tosses, the observed odds will converge to 50 per cent heads and tails. No memory in the coin throws is required to achieve this, just an abundance of trials.

U.7 The case of *Black Rhino*

A number of industry groups suggested that the Commission's calculations of the probability of winning the top jackpot on the *Black Rhino* gaming machine revealed a misunderstanding of random number generators or the laws of probability (box U.1). Aristocrat Leisure Industries, the maker of the machine, have confirmed that

the Commission's calculations are correct, but did point out that many people play *Black Rhino* and similar modern games in expectation of their frequent 'scatter' wins, rather than for the jackpot prize (a point also made subsequently by the Australian Casino Association in sub. D289).

Box U.1 Random number generators and *Black Rhino*

A number of industry representatives argued that the Commission's representation of *Black Rhino* showed a poor understanding of how gaming machines actually worked:

It **could** take 6.7 million button presses ... but it **could** be any quantum short of this (or longer than this), including one button press. The Commission appears not to understand the working of random number generators (Star City Casino, sub. D217, p. 18);

The description of the *Black Rhino* is misleading. It fails to adequately reflect the laws of probability and an understanding of random number generation. In talking about the alleged number of times a player would need to press the button to win, the PC contradicts its earlier claim that the odds of winning are the same for every push of the button (ACIL, sub. D233, p. 9).

Our impression is that you are labouring under a number of misunderstandings about ... how poker machines work (Australian Casino Association, sub. D289, p. 1).

... the PC suggests that consumers could be told that in order to get a 50 per cent chance of getting 5 rhinos it will take 6.7 millions button presses ... This conveniently overlooks the fact that random numbers are involved and the jackpot could be achieved with just one press of the button ... Later ... the PC has a description of the chances of winning on an EGM which seems to contradict its discussion ... it is acknowledged that any press of the button is independent of previous wins ... This is an acknowledgment of the random numbers. What does the PC really believe? (Australian Casino Association, sub. D234, p. 7).

Below, the Commission sets out the calculations that were used to illustrate the odds of winning the top jackpot and its likely cost.

Black Rhino is a game in which there are five (virtual) reels. On each reel there are 25 symbols. There is only one black rhino on each reel. The internal computer in the gaming machine generates a random number to determine the stopping point of each reel. Each reel is 'spun' independently. The probability of getting 5 rhinos on a single button push, playing one line at a time, on the *Black Rhino* gaming machine is, therefore, $(1/25)^5$, which is one in 9,765,625.

This does not mean that a person cannot win on any given button push. Indeed, that is precisely what we took account of when making our calculations. They *could* win on the next button push as Star City Casino noted (sub. D217, p. 18) and the likelihood of doing so is exactly one in 9 765 625 as above.

However, many people find one in 9 765 625 a daunting number. So how can one provide a picture of what one in 9 765 625 means? One — quite common way of explaining low probability outcomes in statistics — is to calculate how many *cumulative* trials (or button pushes in this case, given the example is based on a person playing one line per button push⁸) would be needed to increase the probability to 50 per cent of winning the jackpot (instead of the roughly one in ten million represented by a single trial).

This is a straightforward statistical problem. The probability of winning the jackpot is p . Therefore the probability of not winning is $(1-p)$. The odds, therefore, of **never** winning the jackpot in n trials is $(1-p)^n$. Therefore, the odds of winning the jackpot (at least once) in n trials is $1-(1-p)^n$. We can then ask how big is n in order that the expression $1-(1-p)^n = 0.5$. Some simple mathematical manipulation shows that:

$$n = \ln 0.5 / \ln (1-p)$$

Now substituting $p = (1/25)^5$, then the number of button pushes (n) required is 6 769 015.⁹ This has the implications that:

- assuming each button push takes 5 seconds, this suggests that, at 17 280 button pushes per day, it will take 392 days to have a 50 per cent probability of winning the top jackpot;
- data from the VCGA (1999) suggests that the average player spends less than 50 hours playing per year. At that rate of normal play, the gambler can expect to play for 188 years to have the 50 per cent probability;

⁸ As noted in section U1, this assumption is adopted for ease. The Australian Casino Association (sub. D289, p. 3) says that a different time spent would be obtained had the calculations been based on multiple lines. Of course, since playing multiple lines increases the number of games being played per minute, a fewer number of *button pushes* and therefore a reduced time would be required to achieve the fifty per cent chance. But that in no way affects the correctness of the calculations using the assumptions used by the Commission. The point of the calculation is to illustrate the remoteness of the probability of winning the top prize. Nothing put to the Commission suggests that our calculation under or over-estimates this remote probability.

⁹ The binomial formula suggests that this 50 per cent probability of winning at least one jackpot consists of the following: there is a 34.7 per cent chance of winning just one jackpot over the 6.7 million trials, a 12 per cent chance of exactly two jackpots, a 2.8 per cent chance of winning exactly three jackpots over the trials, and a 0.5 per cent chance of winning exactly four jackpots. The probability of winning other multiples of jackpots are so negligible that they are not worth noting.

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- assuming that the gambler is on a 10 cent machine running one line and 4 credits per line on average¹⁰ (which roughly equates with the industry average loss rate) then they will outlay 40 cents per button push. With a machine ‘price’ of 0.1216 (one of the settings on *Black Rhino*), the consumer will lose an expected 4.864 cents per button push. This implies *net* player losses of \$329 245 to have this 50 per cent probability. This expected cost fully *factors in* any wins made by achieving any jackpots (and all other wins — including scatters— which are, of course, quite frequent¹¹).

The above calculations rely on independent randomly generated numbers, and the possibility that on any button push a win is possible. Of course, this does not mean that the gambler will be *guaranteed* a jackpot win in 6 769 015 trials (as was implied in some popular stories, as noted by sub. D289, p. 3) — to the contrary, this many trials simply provides a fifty-fifty probability of making at least one jackpot win.

¹⁰ *Black Rhino* has a number of options for playing multiple credits, but 4 is not one of them. However, this appears to be the average amount wagered, as suggested by the VCGA. Our calculations rely on playing an average of 4 credits per line (which could be achieved by a player who plays 3 credits half the time and 5 credits half the time).

¹¹ The Australian Casino Association (Sub. D289, p. 3) says that the Commission’s dollar figure does not ‘cover returns from the higher-probability minor prizes that a player could be expected to win on the way’. This is simply not correct. The Commission has applied the full game return of 87.84 per cent when calculating player wins.

V Use of the SOGS in Australian gambling surveys

V.1 Australian gambling surveys

In the absence of better tests of the number of gamblers who are adversely affected by their gambling, Australian studies have used the South Oaks Gambling Screen (SOGS) as the problem gambling measurement instrument.

Up to the time of this inquiry, there were 11 Australian gambling surveys that have used the SOGS. The only ‘national’ study, carried out in 1991-92 (Dickerson et al. 1996), was national in a limited sense:

- it covered the capital cities of Sydney, Melbourne, Adelaide and Brisbane (representing 84 per cent of Australian adults who live in an urban setting); but
- there was no coverage of rural populations.

Since that time, a number of statewide surveys have been carried out, covering metropolitan and country populations. They include:

- two studies for Tasmania — Dickerson and Baron (1994) and Dickerson and Maddern (1997);
- two studies for New South Wales — Dickerson et al. (1996a) and Dickerson et al. (1998);
- two studies for Victoria — Market Solutions and Dickerson (1997) and Roy Morgan Research (1999);
- studies for Western Australia (Dickerson, Baron and O’Connor 1994); and South Australia (Delfabbro and Winefield 1996); and
- specific studies of particular gambling modes or venues:
 - a Queensland study looking at the relationship between gambling related problems and EGMs (Dickerson, Boreham and Harley 1995);
 - a study of EGMs in Sydney registered clubs (Prosser et al. 1997).

The main interest in this appendix is to outline how the SOGS has been used in previous Australian prevalence surveys, noting in particular the timeframe used and the number and wording of individual questions.

V.2 Use of the SOGS in Australian surveys

Shaffer et al. (1997) have urged researchers who use a particular problem gambling screening instrument to do so with care and caution:

If you select an existing instrument, do not make significant modifications to the survey [instrument]; instead, consider adding questions relevant to your particular data needs. In this way, the psychometric properties of the original survey instrument will be maintained (p. 114).

Timeframes for the SOGS

The original SOGS was famed as a ‘lifetime’ screen, with questions posed in terms of whether the respondent had ‘ever’ undertaken a particular behaviour. Such a lifetime SOGS measure may therefore detect whether people have at *some time* in their life had problems with their gambling.

But clearly a lifetime screen has limitations as a measure of current prevalence of problems. For that reason, a current SOGS measure was devised which posed questions in terms of behaviour over the past 12 months. Reflecting a concern over the potentially high false positive rate for the current measure, Australian studies (other than the Commission’s) ask respondents about possible behaviours or problems experienced over the last 6 months.

This diverges from most international studies which tend to use a 12 month period.¹ The false negative rate in a 6 month SOGS appears to be considerably higher than in the 12 month SOGS, while the false positive rates appear to be very similar. Moreover, there is interest in trying to measure the annual prevalence rate and the associated annual costs of problem gambling, which would suggest a year rather than 6 months as the appropriate unit of time for all measures.

¹ Shaffer et al. (1997, pp. 107-8) reviewed all major prevalence surveys of problem gambling in the US. Among 43 studies of adult populations using the SOGS they found that 16 used lifetime SOGS only, 17 used the lifetime SOGS and a 12 month SOGS, 8 used a 12 month SOGS, and 2 used a lifetime SOGS and a 6 month SOGS. In other words, no US adult study reviewed by Shaffer et al. used a 6 month SOGS as the *only* test of prevalence rates.

Differences in question wording and survey contexts

The SOGS has been subject to considerable testing of its validity and reliability (Lesieur and Blume 1987; Lesieur 1994, Abbott and Volberg 1992). However, in many of its Australian manifestations, researchers have altered the wording or context of the test, usually without specific acknowledgment of the variation. Some changes may improve a test, especially where it is being applied in a different cultural context. For example, the question, ‘Have you lost time from work or *school* because of gambling?’ is routinely and appropriately changed in Australia to ‘Have you lost time from work or *study* because of gambling?’ reflecting the different understanding of the term ‘school’ in Australia compared to the United States. But other question differences may lead to biases.

As well, where different studies use different sets of words or different questions, comparisons between the studies have to be undertaken with greater care.

Some of the differences between Australian studies have been:

- In some studies (the Tasmanian and New South Wales studies), the SOGS questions were changed from a simple question to a statement and a question. For example, instead of ‘Have you felt guilty about the way you gamble or what happens when you gamble?’ the survey asks ‘When I have finished gambling I have felt guilty. In the last 6 months how often has that applied to you?’ This rephrasing has unknown impacts on bias.
- Some studies repeat the time period relevant for each SOGS question (the 1996 Tasmanian study and the 1997 Sydney Registered Clubs study), while others only state the relevant period just once, prior to implementing the SOGS (for example, the 1996 South Australian survey). The former approach appears more likely to elicit appropriate current measures of prevalence than the latter. This is because after several questions, some respondents may well forget that the relevant time period is 6 months rather than a longer period.
- In some surveys (the Tasmanian and New South Wales surveys) respondents are asked to rate the frequency that a behaviour applies to them (never, rarely, sometimes, often or always). This clearly provides additional useful information over the original SOGS instrument, which mainly requests yes/no responses. However, it seems possible that people who say ‘no’ to the original SOGS might say ‘rarely’ to this revised version (which would be scored as a yes), leading to higher average SOGS scores.
- A number of studies avoid the term ‘loan sharks’ in the question on borrowing for gambling, and instead adopt the terminology ‘high interest rate finance companies’ (for example, the Victorian 1997 and the South Australian 1996 surveys). This is problematic. While some people or organisations which provide

loans at usurious rates may be finance companies, many will not be. Secondly, 'loan sharking' connotes the combination of a penal interest rate, and implies a sense of desperation in the borrower and a more threatening context for the loan. The questions may both have usefulness in identifying problem gamblers, but they may often relate to divergent behaviours.

- In some cases, (for example, the Tasmanian and New South Wales studies) the question 'Have you ever claimed to be winning money when you really had lost?' was re-worded as 'When I have lost at gambling I have bragged about winning. How often has that applied to you?' 'Bragged' is an emotive term with pejorative overtones, and could lead to a possible downward bias in answers.
- In the 1996 Tasmanian study, the original SOGS question 'Did you ever gamble more than you intended to?' was amended to 'When I have gambled I have gone on longer than planned. In the last 6 months how often has that applied to you?' The first question can relate to both expenditure and time, whereas the second only relates to time.
- Also in the Tasmanian study, there are omissions and additions to questions relating to borrowing money for gambling. No question is asked on loan sharks, nor is there a question about writing cheques knowing there was no money in the account (passing bad cheques). Instead there is a question about borrowing from friends and another about borrowing from other sources. 'Household' money is rendered as the narrower term 'housekeeping' money. These alterations have unknown impacts on the specificity and sensitivity of the test.
- The placement of the SOGS within the surveys has been different. In the New South Wales studies, the SOGS questions are interspersed among a range of other questions about the harmful and beneficial impacts of gambling, rather than appearing as a bloc.
- In some cases, for example the 1997 Victorian study, the SOGS appears near the end of a very long survey, while in others, such as the 1996 Tasmanian study, the overall survey length is short and undemanding, probably improving the accuracy of responses.

In summary, there have been significant differences in both the wording and placement of the SOGS in surveys implemented in Australia. This means that the variations in the prevalence rates observed will inevitably reflect an amalgam of real differences, random sampling errors and differences in test instruments and contexts.

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