PRODUCTIVITY COMMISSION

Work Arrangements in the Australian Meat Processing Industry

Labour Market Research

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FOREWORD

Meat processing is an important manufacturing activity in Australia. The industry directly employs around 27 500 people, and labour represents a large proportion of the cost of production at the processing stage. As such, the cost and productivity of labour is an important determinant of firm performance and competitiveness.

In recent years, increased competitive pressure on domestic and export markets has led to some rationalisation in the industry and, with a more facilitative regulatory environment, has brought changes in work arrangements as firms strive to improve their performance.

This study examines selected work arrangements and assesses their implications for the performance of meat processing enterprises. The effects on employees are also considered, and the scope to achieve further necessary change is analysed.

The study has drawn on information obtained from detailed discussions with industry representatives (including several meat processors), as well as previous industry studies. The Commission appreciates the time given by participants, including those who read and responded to a Work-in-Progress report in July.

This is one of a series of research reports requested by the Government on work arrangements in key industry sectors. It was prepared in the Labour Market Research Branch. Consistent with its objective to improve the information base on key issues affecting Australia's economic performance and living standards, the Commission welcomes further feedback on this report.

Gary Banks
Chairman
October 1998

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ABBREVIATIONS

AACM	AACM International Pty. Limited
ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACLE	Australian Council of Livestock Exporters
ACT	Australian Capital Territory
AIRC	Australian Industrial Relations Commission
ALFA	Australian Lot Feeders' Association
AMC	Australian Meat Council
AMH	Australia Meat Holdings Ltd.
AMIEU	Australasian Meat Industry Employees Union
AMLC	Australian Meat and Livestock Corporation
ANTA	Australian National Training Authority
ANZSIC	Australian and New Zealand Standard Industry Classification
AQIS	Australian Quarantine and Inspection Service
ASCO	Australian Standard Classification of Occupations
AUS-MEAT	Authority for Uniform Specification of Meat and Livestock
AWA	Australian Workplace Agreement
AWU	Australian Workers Union
BAH	Booz-Allen and Hamilton
BIE	Bureau of Industry Economics
CA	Certified Agreement
CES	Commonwealth Employment Service
CPI	Consumer Price Index
CPSU	Community and Public Sector Union

DEETYA	Department of Employment, Education, Training and Youth Affairs
DFAT	Department of Foreign Affairs and Trade
DIR	Department of Industrial Relations
DPIE	Department of Primary Industry and Energy
DWRSB	Department of Workplace Relations and Small Business
EFA	Enterprise Flexibility Agreement
FMIA	Federal Meat Industry Award 1981
FMIPA	Federal Meat Industry (Processing) Award 1996
HACCP	Hazard Analysis Critical Control Point
HRM	Human resources management
IAC	Industries Assistance Commission
IC	Industry Commission
ILO	International Labour Organisation
IR	Industrial relations
kg	Kilograms
KPI	Key performance indicators
kt	Kilotons
LIFO	Last in first out
LDG	Leadership Development Group
MATFA	Meat and Allied Trades Federation of Australia
MIC	Meat Industry Council
MICC	Meat Industry Consultative Council
MINTRAC	(National) Meat Industry Training Advisory Council
MRC	Meat Research Corporation
NEDO	National Economic Development Office
NMA	National Meat Association
NOHSC	National Occupational Health and Safety Commission
NSW	New South Wales

NT	Northern Territory
OEA	Office of the Employment Advocate
OECD	Organisation for Economic Cooperation and Development
OH&S	Occupational health and safety
PC	Productivity Commission
PIT	Process Improvement Team
QA	Quality assurance
QAC	Queensland Abattoir Corporation
QLD	Queensland
RDO	Rostered day off
RMAC	Red Meat Advisory Council
SA	South Australia
TAFE	Technical and Further Education
TAS	Tasmania
TPA	Trade Practices Act 1974
UK	United Kingdom
US	United States of America
VET	Vocational Education and Training
VIC	Victoria
WA	Western Australia
WRA	(Federal) Workplace Relations Act 1996

GLOSSARY

Abattoir	Animal slaughterhouse. Further preparation of meat products may also be carried out at the same site.
Absenteeism	Absence from work which has not been approved of in advance.
Award	A legally enforceable determination containing the terms and conditions of employment certified by an industrial tribunal at the Federal or State level.
Award simplification	Removal of all except 20 allowable matters from all Commonwealth awards by 31 June 1998, after which awards operate as safety nets only.
Casual employee	An employee engaged on a daily basis without explicit commitment by the employer, or employee, on the period of engagement.
Certified Agreement	A collective enterprise agreement which has been certified by the AIRC.
Custom and practice	Informal, typically unwritten, historically developed and mutually agreed codes of conduct which are used to govern how work is performed.
Daily hire	Contract of employment which is technically 'terminated' at the end of each working day, but is otherwise ongoing in nature.
Enterprise agreement	An agreement at a workplace between the employer and employees (or their representatives) on terms and conditions of employment.
Enterprise bargaining	Negotiations carried out between employer and employees (or their representatives) to formulate an agreement on pay and working conditions.
Feedlot	Establishment specialising in the intensive grain feeding of livestock, usually cattle, prior to slaughter.
Internal labour mobility	Ability of employees to transfer between tasks at a

	workplace.
On-costs	Direct costs associated with the employment of labour excluding wages and other remuneration.
Parent award	Award on which an enterprise agreement is based.
Part-time employee	Employee who works less than the standard hours of work.
Permanent employee	An employee engaged on a continuing basis.
Seasonality	The influence of climatic conditions on livestock turnoff.
Seniority	The gaining of benefits, such as promotion, based on length of service.
Site agreement	Written but unregistered agreement regulating work arrangements.
Stepping-up	The practice of temporarily promoting workers to a higher skill or occupational level.
Tally	Piecework payment system for slaughter, boning and slicing.
Turnoff rate	The ratio of livestock slaughtered to total livestock numbers.
Union preference	Practice of employing union members over non members.
Value added	The difference between the value of an industry's output and the cost of the inputs of raw materials, components or services bought in to produce that output. In this report, value added is calculated by summing wages and salaries, gross operating surplus, commodity taxes and indirect taxes.
Weekly hire	Permanent contract of employment with payment and work hours calculated on a weekly basis.
Work arrangement	The way in which work is performed and the conditions attached to that work.

KEY FINDINGS

- Significant changes in work arrangements have occurred in the past few years. Although concentrated among large, export oriented plants, changes have occurred in all segments of the industry.
- Greater competition, both internationally and domestically, is the major factor driving change. Changes in industrial relations legislation have facilitated improved work arrangements by providing a framework for bargaining at the workplace.
- There has also been a decline in the seasonal nature of the industry, allowing employment to become more permanent, compared with traditional 'daily hire at the gate'.
- The most important change in work arrangements has been a move away from the highly prescriptive **tally systems** in Federal and State industry awards. These are complex piecework payment systems based on inputs (number of head for slaughter tallies and weights for boning tallies). They distort incentives to increase throughput (yield), as unit wage costs increase once specified throughput levels are exceeded, and have been a source of friction in the workplace.
- It appears that the tally systems prescribed in industry awards are no longer widely used. Increasingly, firms are basing remuneration on time worked and/or modified incentive payment systems. However, many firms — particularly the smaller ones — still operate tally systems that continue to constrain performance.
- A range of **penalties and allowances** exaggerate the effects of input-based incentive systems. For example, shift penalties are applied on base rates of pay, which are then compounded by tally premiums. However, there are examples of enterprise agreements where penalties and allowances have been rolled into annualised pay.
- Award restrictions on **ordinary hours** mean that increasing the range and number of hours worked can involve significant overtime penalties. In many enterprise agreements, ordinary hours of work have now been expanded.
- **Seniority** traditionally determined hiring, firing, and promotion protocols, impeding management's ability to deploy workers according to ability. It remains an issue in some enterprises, although it is becoming less significant.
- An emphasis on **training** has not been a feature of this industry. However, it is getting more attention as seniority and daily hire practices become less common, and employment becomes more permanent.
- While there has been significant change in the industry, further improvements will be needed if the industry is to meet the challenge of increasingly competitive international markets.

OVERVIEW

The historical perspective

Historically, Australian meat processors were insulated from competitive pressures on the international market. This related to natural advantage (reflected in low livestock costs and a disease-free cattle herd) and trade policies overseas, which typically involved country-specific import quotas. On the domestic market, Australians had a strong preference for red meat over other forms of protein such as white meat and legumes. Among other things, this meant that managers faced little incentive to pursue strategies aimed at productivity improvement or cost minimisation. Increased costs of production could in part be passed on in the form of higher prices.

Over time, competition at all stages in the production chain has increased. Of particular significance in the 1990s has been increased competition in international product markets. Trade barriers have fallen and sources of supply have expanded. Per capita consumption of red meats has declined in all developed countries over the past 20 years, placing further pressure on all parts of the production chain.

These and other factors have increased the incentive to improve efficiency. In turn, this has put pressure on all parts of the meat processing industry — including the industry's work arrangements. This study focuses on issues directly related to work arrangements. It is not a study of all aspects of the meat processing industry. Work arrangements are defined to include the way in which work is performed and the conditions attached to that work.

The importance of work arrangements in meat processing

Meat processing is a significant manufacturing activity in Australia. In 1996, 27 500 people were employed in the industry, and meat was Australia's seventh largest export commodity. Work arrangements are important because labour accounts for around one-half of the total cost of meat processing (excluding livestock). Labour is also the major element of production over which managers have some control in the short-term.

Historically, when competitive pressures were lower, inefficient work arrangements were introduced and maintained in an environment where it was

possible to pass on higher costs to consumers. With greater competition came an awareness that the industry needed to increase both labour and capital productivity, and keep costs down. Several studies in the early 1990s found that the Australian industry was internationally competitive mainly because of lower livestock costs — reflecting a comparative advantage in the farming of livestock. These studies also found that in the manufacturing component, labour costs were higher and productivity lower than our overseas competitors.

Changes in other parts of the meat production chain have reinforced the impetus from competition to change work arrangements in meat processing. For example, the impact of seasonality in the supply of livestock has been reduced for some processors by the use of feedlots, improvements in road transport, better animal husbandry and the live export trade. In the expectation of a more constant supply of livestock year round (which allows greater use of plant capacity), some processors now guarantee annual incomes for their workforce, and the use of daily 'hire at the gate' as a means of employing labour has all but disappeared. A form of daily hire nevertheless still forms part of the major Federal award and many agreements, and 'shortage of livestock' provisions in the case of the main NSW awards. In the main Federal award daily hire attracts a 10 per cent premium over weekly hire rates.

The benefits from changing work arrangements

These trends in other parts of the meat production chain appear to have resulted in an understanding on the part of some managers and employees in the industry of the need for change in work arrangements. In these cases, recognition that all parties can benefit has been important to the success of negotiations for change. While progress has been slow — in some cases involving bitter and protracted industrial disputes — changes to work arrangements which have contributed to improved performance at the firm level have occurred in some parts of the industry over the past few years.

The Commission was not able to quantify precisely the benefits of changing work arrangements at the firm level. In some cases, managers attributed lower unit costs of production to changed work arrangements (and improved workplace relations), but generally argued that it was not possible to isolate and quantify the effects of specific work arrangements on firm performance. However, the benefits were described qualitatively in terms of improved productivity, and in some cases an improved workplace culture which meant less disputation. For employees, the benefits included greater security of income, sometimes higher income overall (albeit for a longer actual working

week closer to community norms), and improved training and career structures. In cases where change has occurred, there was a perception that improved workplace relations had been integral to this process.

This study

The major objectives of this study are to:

- describe the current state of work arrangements and their relationships to firm performance in the meat processing industry;
- identify recent changes in work arrangements in the industry; and
- assess any impediments to workplace change which, if addressed, could further enhance performance in this industry.

The study relied on a range of research methods, including reviews of previous studies, examination of industry awards and registered Certified Agreements, and consultation with interested parties. Detailed discussions were also held with five meat processors, collectively accounting for around 20 per cent of national output and around 27 per cent of exports. A 'Work-in-Progress' document was disseminated to around 50 interested parties, seeking feedback prior to the finalisation of this report.

In this study, work arrangements are classified in terms of their impact on labour flexibility in five areas:

- the size and composition of the workforce (includes work arrangements such as the use of daily hire and seniority in selection and promotion);
- hours of work and rosters (includes work arrangements such as the number of hours worked and provisions regarding ordinary hours and shift work);
- remuneration and on-costs (includes work arrangements such as the tally and other penalties and allowances);
- functions, tasks, and skills (includes work arrangements related to multiskilling and training); and
- general procedures (includes work arrangements related to communication and consultation mechanisms).

In turn, particular work arrangements are then examined in terms of their effects on several partial indicators of performance — labour productivity (number of carcasses per slaughterfloor worker per hour); unit labour costs (cost per slaughterfloor worker (including on-costs) per head and/or cost per kilogram); reliability (time lost to industrial disputes and timeliness of delivery); and product quality (macro and micro hygiene measures; customer satisfaction).

Work arrangements can influence these indicators on a given shift, but also in a 'dynamic' sense — in terms of the number of people employed, who is employed, when they are employed and for how long. Where appropriate, the study also considers these impacts.

The nature of changes in work arrangements

To assess the effects of changes in work arrangements, it was first necessary to consider the impact of key work arrangements as they applied in the late 1980s and early 1990s. Traditionally, the major work arrangements identified as impeding firm performance included:

- the tally system;
- penalties and allowances;
- ordinary hours; and
- seniority.

In some cases, these work arrangements interact, exacerbating their individual effects and increasing unit wage costs more than the sum of each separate work arrangement would suggest. For example, penalties and allowances compound the effect of tallies, which in turn compound the effect of the 10 per cent premium for daily hire where it applies.

However, there are examples of firms that have successfully implemented enterprise level agreements which incorporate significant departures from award conditions in each of these important areas. The evidence gathered suggests that change tended to occur first in larger, export oriented plants. However, there are also examples of small to medium sized firms which have implemented modified work arrangements in recent times.

Managers at some firms indicated that while the changes thus far represented significant progress, they were not yet where they would like to be. They anticipated further changes in subsequent enterprise agreements. For example, management at one firm indicated that they would be seeking to introduce further changes in remuneration, which might include elements such as a profit share scheme.

Tallies

The key work arrangements regarding remuneration have traditionally been tallies for slaughtering, boning and slicing, and the associated penalty rates and allowances related to characteristics of the livestock.

Tallies are a form of incentive payment system — a team-based, piece-rate system based on the number of head processed. However, the effect of tallies as prescribed in the major industry awards is to increase unit wage costs once output exceeds minimum and maximum tally levels. In addition, their application in practice introduces a number of incentives that may (in conjunction with other factors) limit throughput both on a given shift and overall. In turn, this can lead to significant under-utilisation of capital, thus reducing capital productivity.

Box 1: Tallies as prescribed in industry awards

The major industry awards all contain tallies for slaughtering and boning and slicing. In the case of the *Federal Meat Industry (Processing) Award* 1996, the tally provisions go for over 50 pages, and the high level of prescriptiveness has not changed over time. This award contains unit tallies which are calculated according to a formula which takes into account the number, size and condition of animals, the size of a work team, and a prescribed amount of labour input per head. Under the *Federal Meat Industry (Processing) Award* 1996, tally employees are engaged on the basis of daily hire and are therefore entitled to a 10 per cent loading over the regular daily rate. Key elements of unit tallies are:

- the fixed 'units of labour required per 100 head' — that is, the assignment of a set amount of labour to each specified task;
- the formula determining minimum tally and associated team size (minimum tally is calculated as 100 x the number of team members, divided by the number of units of labour per 100 head);
- the penalty payments associated with cattle processed above minimum and maximum tally (per unit increases above minimum and maximum tally are 25 per cent and 37.5 per cent respectively); and
- penalty payments associated with different cattle sizes — for example, bulls above a certain weight count as two head for tally purposes.

Source: See appendix B.

Previous studies found tallies had numerous deleterious effects, including being responsible for high levels of industrial disputation and contributing to poor workplace relations. Further, they were found to restrict incentives to invest in new technology and were complex and costly to administer. Many managers argued that any improvements in technology over time had simply resulted in shorter working hours for employees rather than improvements in overall firm performance.

The Commission found that a move away from the tally systems *as prescribed in the major industry awards* was the major trend in remuneration in meat processing in the past few years. The changes have taken different forms. Some firms have retained a form of the tally system, but have simplified it relative to the prescriptive award provisions. Other firms have developed firm-specific agreements with different forms of incentive payment systems with, in some cases, payment based on output. There are also examples of firm-specific agreements which contain remuneration systems which are time-based.

A move away from the use of tallies as prescribed appears to have occurred first in the larger export oriented firms. However, change in remuneration systems is not restricted to this segment of the industry. Many smaller firms also appear to have negotiated changes in tally provisions — including examples where payment is on the basis of time worked. Sometimes these arrangements take the form of registered agreements, but, particularly for smaller firms, many are informal.

While the use of prescribed tally provisions appears to have declined significantly, the existence of these award provisions can be an important issue in the negotiation of Certified Agreements, as they are the basis against which 'no disadvantage' is assessed. The Australian Industrial Relations Commission is required to assess 'no disadvantage' (comparing the proposed Certified Agreement to the relevant award). For all Certified Agreements — whether first, second, or third generation — the industry award is the relevant benchmark against which 'no disadvantage' is measured.

Penalties and allowances

Penalties for overtime and shifts, and other allowances based on livestock characteristics, are included in the industry awards. For example, for tally purposes, bulls are counted as two head. The application of these penalties and allowances compounds the effects of tallies. The overall effect is that the unit cost of livestock processed beyond maximum tally on a given night shift, could exceed the unit cost of processing up to minimum tally on day shift by nearly 80 per cent.

Second shifts have accordingly not been a feature of the meat processing industry. Shift penalties, compounding the effects of tally premiums, were identified as a major factor which made it less profitable for firms to run second shifts.

In cases where firms have opted for time-based work payment, penalty payments and overtime have been simplified, with many of them being rolled in

to the basic payment. In some cases, where a shift penalty remains, it has been reduced.

Ordinary hours

The important work arrangements which affect the number of hours worked relate to ordinary hours of work (as specified in awards or agreements), provisions regarding shiftwork, and the application of tallies. In the late 1980s/early 1990s, ordinary hours were worked in a single daytime shift of anywhere between four and seven hours duration — the time it took to reach maximum tally. This meant that many slaughterfloor employees were working a very short week by most industry standards.

Ordinary hours of work are prescribed in the major industry awards. In the *Federal Meat Industry (Processing) Award* 1996 they are 6am to 8pm, Monday to Friday. Although the awards typically include provisions for shiftwork, there is no possibility of running a second shift under the awards without paying significant shift penalties.

In some cases, the spread of hours classed as ordinary has increased relative to those prescribed in the awards — which has the effect of making it less costly to work more hours without overtime penalties. As well, there are examples of enterprise agreements where shift penalties have either been reduced or, in some cases, removed, again making it less costly to run second shifts.

Training and consultative mechanisms

Historically, industry characteristics such as seasonality and seniority-based promotion meant that there was little incentive for employers or employees to undertake training, or to develop mechanisms for consultation.

Some of the changes that have occurred during the past several years have encouraged and required additional training of employees — in particular, these include the trend toward greater permanence in employment and the implementation of quality assurance systems. Typically, where enterprise agreements have been implemented, formal consultative mechanisms have been activated and have persisted after implementation of the agreement.

Other changes have included:

- increased employee responsibility for production processes and quality assurance — including, in some cases, for meat inspection procedures (with the associated need for training); and

- recognition of the need for formal, competency-based training programs which have been progressed through the establishment of the (National) Meat Industry Training Advisory Council Ltd (MINTRAC).

Table 1: Summary of the nature of change in key work arrangements

Work arrangement	*Old approach*	*Some changes*
Tallies	Highly prescriptive piecework payment system based on number of head slaughtered. Major source of disputation.	More time-based work with annualised salaries. Less prescriptive incentive systems in many enterprises (eg based on yield.) Other measures forming part of payment system (eg absenteeism bonus) Guaranteed minimum annual incomes in some cases.
Penalty rates	Included as part of tally. Applicable also to shifts.	Rolled into annualised pay. Shift penalties reduced and simplified.
Allowances	Numerous allowances for different size stock, dirty animals etc.	Rolled into annualised pay.
Ordinary hours		Expanded.
Seniority	In conjunction with daily hire, applicable to hiring and firing. Also for determining progression on the job.	Remains an issue for employees. Breaking down as firms formalise training regimes and move to merit-based progression. Still relevant for redundancy.
Training	On the job. Seniority, daily hire and seasonality meant that the benefits to employers and employees from training were limited.	Formal, competency based training programs, developed and introduced.
Consultative mechanisms	Written into award.	Use of consultative committees has broadened. An important means of progressing enterprise bargaining.

Extent of change in work arrangements

Change appears to have been initiated (and to be concentrated) in certain parts of the industry — in particular, larger companies operating in the export sector. However, changes are not restricted to this segment of the industry. Information obtained from State branches of the National Meat Association suggests that enterprise agreements negotiated in the past three to four years have seen changes throughout the industry in important areas such as tallies and remuneration.

One indicator of change is the take up of enterprise agreements, although this by itself provides no indication of the *extent* of change in work arrangements relative to industry awards. Nevertheless, in terms of industry output, a large proportion of the processing sector is now covered by enterprise-level agreements. Of the 25 largest firms in the industry (which account for around 60 per cent of industry output and over 80 per cent of exports), 15 of them have implemented at least one enterprise agreement in the past three years (see table 2).

Industry-wide, at least 40 meat processing companies have registered an enterprise agreement over the past five years. Previous studies found there were 16 registered in 1994 (MRC 1994), and 27 in March 1995 (Fellows Medlock and Associates 1995).

Table 2: Use of awards and enterprise-level agreements by largest 25 companies by State[a]

State	*no. companies (no. plants)*	*prop. State output (%)*	*prop. national output (%)*	*prop. national exports (%)*
Enterprise agreements				
Queensland[b]	6 (20)	90[c]	26	40
NSW[b]	3 (3)	14	4	5
Victoria	4 (6)	42[d]	10	9
Other	2 (6)	na	6	9
Total	15 (35)	na	46	63
State or Federal Award[e]				
NSW	9 (13)	48	14	17
Victoria	1 (1)	6	1	2
Total	10 (14)	na	15	19
Share of industry total	na	na	61	82

na not applicable.

a The largest 25 firms are based on 1996 production data. Use of enterprise agreements is current. Companies are categorised by size according to total output (estimated tonnes carcase weight).

b Some firms are multi-site, and in some cases not all sites have enterprise agreements.

c Includes output from 2 sites in NSW.

d Includes output from 1 site in Tasmania.

e The only plants operated by the largest 25 firms that use awards are in NSW and Victoria.

Sources: Data from *AUS-MEAT* 1997, Commission estimates based on ABS data.

Large enterprises appear to account for a disproportionate number of enterprise agreements in the industry. However, it is likely that the trend toward enterprise-level negotiation of work arrangements will continue.

Likely future change

Greater competition in the industry has been identified in this study as the major factor driving change in work arrangements. The competitive pressures will not abate in the future, and this is likely to ensure that the broad trends in work arrangements identified in this study will continue and spread throughout the industry — or companies will go out of business. In addition, further changes are also likely as the structure of the industry evolves. Specifically:

- smaller scale establishments will come under increasing pressure to survive as the larger firms grow further — in the process putting downward pressure on unit costs in the industry;
- tally systems featuring payments based purely on inputs (ie number of head) are incompatible with objectives such as maximising yields and improving product quality;
- the trend to different remunerations systems will facilitate greater utilisation of capital equipment;
- a greater proportion of firms will run double shifts, and their larger scale of operation will enable them to minimise the impact of seasonality on their operation;
- further changes in work arrangements will follow. The need for the flexibility in employment numbers provided by daily hire and shortage of stock provisions will decline; and
- greater permanence in employment will provide opportunities for alternative remuneration systems, and the continued development of career paths which will enable both employers and employees to benefit from training and skill development.

Achieving further change

Significant change has occurred throughout the industry since 1994. However, in the course of this study, some managers commented that there was still a way to go. As recently as 1995 a study commissioned by the then Department of Industrial Relations found that reform in work arrangements in the meat processing sector lagged behind many other industries (Fellows Medlock and Associates 1995).

Responsibility for implementing change in work arrangements at the enterprise level rests primarily with management and employees, including unions. However, the government is involved directly and indirectly in several areas,

particularly in establishing the industrial relations framework within which managers and workers negotiate work arrangements.

The role of management

Management has the primary role in implementing change. However, industry participants commented that management has traditionally been poor in this industry. For example, it was argued that some managers liked the tally system because it removed their responsibility for managing work. The lack of formal management training and experience outside the meat processing industry, with many managers being promoted from the abattoir floor, was raised as a constraint on managers' ability to identify and implement needed change.

However, there were also examples, particularly in the export sector, where greater competition in meat product markets had resulted in an increased focus by management on how to improve productivity. This has in turn involved greater recognition of the need for changed work arrangements.

The role of employees and unions

The meat processing industry is highly unionised, with over 80 per cent of employees belonging to the Australasian Meat Industry Employees Union (AMIEU). Historically, the lack of competitive pressures in the industry and limited management capacity allowed the AMIEU to achieve work arrangements which led to productivity improvements being taken as shorter working hours, and which increased unit wage costs (through penalties etc).

Where modified work arrangements have been implemented, often this has reflected recognition on the part of employees and their representatives that change is required for the industry to remain competitive (and therefore retain jobs), and that it is possible for both parties to benefit from change.

A common view found in the industry is that it is important for management to gain the trust of the workforce, something that had typically been lacking in the past.

The role of government

It is important to distinguish between the role of government in the meat industry overall and the role of government as it relates to work arrangements — in particular the industrial relations system. Specific to the meat industry are requirements relating to inspection, food hygiene and safety standards, workers'

compensation systems, and occupational health and safety. In these areas, the government sets (and in some cases enforces) standards and legal requirements. However, the impact of these government interventions on work arrangements is indirect, and in most cases, limited. One exception concerns the changes in the inspection regime for domestic abattoirs (and anticipated changes in inspection for export plants). These changes have had demonstrated implications for work arrangements. For example, domestic managers reported the need for increased workforce training and skills to implement quality assurance systems.

In terms of work arrangements, governments set the regulatory framework within which managers and workers negotiate conditions of employment. A key objective of the Commonwealth legislation in this area — the *Workplace Relations Act 1996* — is to facilitate change in work arrangements by reducing the regulatory requirements relating to workplace negotiation to a set of minimum 'safety net' conditions, as part of the award simplification process. The Act also emphasises the role of negotiation at individual workplaces between managers and employees in establishing conditions of employment. In the case of the *Federal Meat Industry (Processing) Award 1996*, the award simplification process is currently before the Australian Industrial Relations Commission.

In sum, competitive pressure and a facilitative regulatory environment should ensure further progress in changing work arrangements in this industry. Relative to the 1980s and early 1990s, there has been significant change in recent years. However, there remains scope for further improvements. Indeed, further change will be needed if the industry is to meet the challenge of increasingly competitive international markets.

1 INTRODUCTION

The focus of this study is on work arrangements in the meat processing sector. The emphasis has been on beef and veal, and sheep which account for a large proportion of industry output. Major study objectives are to provide information on the current state of work arrangements in meat processing, and to assess any impediments to further reform in work arrangements. Having established an analytical framework, the study employed a range of research methods, including detailed discussions with firms which accounted for around 20 per cent of industry output (and 27 per cent of industry exports). Prior to the finalisation of this document, a 'Work-in-Progress' document was produced and sent to a number of industry participants as a means of testing preliminary findings and gathering additional information.

1.1 Background

In January 1997 the Treasurer asked the Productivity Commission (then Industry Commission) to undertake separate research studies on work arrangements[1] in four industries — black coal; stevedoring; building and construction; and meat processing. Priority was to be given to black coal and stevedoring, with the others to follow.

In July 1997, the Treasurer directed that the Commission undertake a 12 month inquiry into the black coal industry. The black coal work arrangements study was incorporated into the inquiry. A final report of that inquiry was submitted to the Government in July 1998. The Commission's *Work Arrangements in Container Stevedoring* study (PC 1998) was released in April 1998.

Work arrangements in the Australian meat processing sector are the focus of this study. As described in greater detail in chapter two, the meat processing sector is in the middle of the meat production chain. Meat processors take livestock — cattle, sheep, pigs and game — and transform them to meat for sale on domestic and international markets. The Australian meat processing sector

[1] The Commission has defined work arrangements broadly to include the way in which work is performed and the conditions attached to that work.

accounts for around 25 per cent of the total cost of production (excluding farm and transport costs).

While livestock is the major input cost overall, labour accounts for around half of total cost at the processing stage (although this proportion can vary between one-third and two-thirds). It is also the major input over which managers have some control.

In the remainder of this chapter, information is provided on the study objectives, scope, and method.

1.2 Objectives

The major objectives of this study are to:

- describe the current state of work arrangements and their relationships to firm performance in the meat processing industry;
- identify recent changes in work arrangements in the industry; and
- assess any impediments to workplace change which, if addressed, could further enhance performance in this industry.

To meet these objectives, the study has sought to:

- identify the competitive pressures on the meat processing link in the meat production chain;
- identify the key arrangements affecting the way work is performed;
- describe the effect of these arrangements on firm performance;
- describe the interrelationships between specific work arrangements;
- describe changes in work arrangements that have occurred in the industry;
- provide an indication of any impediments to further change; and
- draw out any implications for government policy.

1.3 Scope

For the purposes of this study, ‘meat processing’ is defined as comprising the major red meat products — beef, veal, mutton and lamb. However, the emphasis is on the work arrangements related to production of beef and veal, and to a lesser extent sheep meat. This emphasis is due to the relative size of these categories. Beef accounts for around two-thirds of Australian red meat production — and nearly 80 per cent of red meat exports. Sheep meats account for a further 20 per cent of red meat production.

For statistical classification purposes, the Australian Bureau of Statistics (ABS) groups all red meats together including beef, sheep and pork, along with game meats such as buffalo, kangaroo, wallaby and rabbit (ANZSIC 2111). Further disaggregation is not possible.

While Australia is not a large producer of red meat in world terms[2], it is the largest exporter of beef and veal. Around half of Australia's total red meat production is exported.

Work arrangements operating in the meat sector are the focus of this study. However, an understanding of the pressures for change in the industry generally — and on work arrangements specifically — requires an appreciation of the changes that have been occurring in the other parts of the meat production chain. In particular, changes in both the input markets (livestock production) and in the markets for meat were examined. Changes in livestock production and the demand for meat are examined in the next chapter, highlighting how these factors have influenced changes at the firm level, including changes in work arrangements.

The extent of change in work arrangements throughout the industry is also an important consideration for this study. One indicator of change is the take up of enterprise agreements. However, this provides no indication of the extent of change in work arrangements relative to the relevant award. In terms of industry output, a large proportion of the processing sector is covered by enterprise agreements. Of the 25 largest companies (which account for around 60 per cent of total industry output), 15 have implemented at least one enterprise agreement in the past three years (see table 1.1).

However, the available data suggest that enterprise agreements are most common among large export plants, which account for a large proportion of total industry output. As illustrated in table 1.1, it is estimated that at least 46 per cent of output and 63 per cent of total exports are produced by companies which have implemented enterprise agreements.

There is also variation by State. For example, 90 per cent of meat produced in Queensland is from companies which have implemented enterprise agreements. All of the 'top 25' companies based in Queensland have implemented at least one enterprise agreement.

Work arrangements applying in smaller, domestic plants and the extent to which change may be beneficial, is less clear. However, it is likely that over time competitive pressures — domestic as well as international — will result in a

[2] Australia accounted for two per cent of world production in 1996.

move to performance enhancing work arrangements throughout the industry. Further, the information gathered suggests that change is occurring throughout the industry. The nature and extent of change in work arrangements is discussed in chapter eight.

Table 1.1: Use of awards and enterprise-level agreements by largest 25 companies by State[a]

State	*no. companies (no. plants)*	*prop. State output (%)*	*prop. national output (%)*	*prop. national exports (%)*
Enterprise agreements				
Queensland[b]	6 (20)	90[c]	26	40
NSW[b]	3 (3)	14	4	5
Victoria	4 (6)	42[d]	10	9
Other	2 (6)	na	6	9
Total	15 (35)	na	46	63
State or Federal Award[e]				
NSW	9 (13)	48	14	17
Victoria	1 (1)	6	1	2
Total	10 (14)	na	15	19
Share of industry total	na	na	61	82

na Not applicable.
a The 25 largest firms are based on 1996 production data. Use of enterprise agreements is current. Companies are categorised by size according to total output (estimated tonnes carcase weight).
b Some firms are multi-site, and in some cases not all sites have enterprise agreements.
c Includes output from 2 sites in NSW.
d Includes output from 1 site in Tasmania.
e The only plants operated by the largest 25 firms that use awards are in NSW and Victoria.
Source: Data from *AUS-MEAT* 1997; Commission estimates based on ABS data.

In considering the impact of specific work arrangements, several indicators of performance have been used (see below). Where possible, the effects of changes in work arrangements on employees have also been considered.

1.4 Study method

For this study, the Commission has used a range of research methods including:

- consultation with participants and interested parties;
- reviews of previous studies;
- examination of major industry awards and a number of registered certified agreements in both the Federal and State systems;
- analyses of available data from a variety of government and other sources;
- detailed discussions with management and employees at selected abattoirs; and

- dissemination of a 'Work-in-Progress' document for comment.

As a basis for consultation, an Issues Brief was prepared which outlined the main areas of interest to the study. The study was advertised in the press and the Issues Brief was available on request.

In July 1998, the 'Work-in-Progress' document was circulated to around 50 interested parties. It was also available on request from the Commission. The 'Work-in-Progress' represented preliminary views and findings from the Commission's research, and also included a number of 'issues for comment' — areas where additional information was sought.

Consultation

The Commission spoke with a number of participants in the industry. These included meat processors (both management and employee representatives); peak bodies (as they existed prior to 1 July 1998) such as the Meat Industry Council (MIC), Meat Research Corporation (MRC), and Australian Meat and Livestock Corporation (AMLC); national and State branches of the National Meat Association (NMA); and relevant government departments.

In-depth discussions were held with five meat processing firms. At three of these, discussions involved both management and employee representatives. These discussions were designed to explore some key issues such as:

- the impetus for change in the industry generally and at the firm level;
- the extent of changes in work arrangements that had occurred;
- the nature of any changes (for example, in remuneration systems);
- the need for further change; and
- any impediments to further change.

Discussions with employees were held to obtain their views on the impact of any changes in terms of the way work is undertaken, and in particular the associated impact on employees.

In all these discussions, the information obtained was largely qualitative. In addition, managers indicated it was not possible to quantify the effects of changes in specific work arrangements directly on any indicators of performance. Instead, managers felt many factors operated in combination to determine observed outcomes.

The five meat processing firms were selected to obtain a cross-section of firms which was illustrative of the changes occurring in the industry. They covered:

- single and multi-site firms;

- export only, export and domestic, and domestic only firms;
- single species and multi-species plants;
- foreign owned and domestically owned firms;
- publicly owned and privately (including family) owned firms; and
- firms located in the three major meat producing States — Queensland, NSW, and Victoria.

The sample included firms that had recently implemented Federal or State registered site-level agreements, as well as firms using relevant awards.

Collectively, the five firms accounted for around 20 per cent of total industry output, and around 27 per cent of total exports.

Prior to release of the 'Work-in-Progress', written submissions were received from two organisations — the Cattle Council of Australia and the NSW Farmers' Association.

In response to the 'Work-in-Progress', five sets of written comments were received, including several from abattoir operators. Verbal responses were received from a further five parties in the industry.

Analysis

The starting point in the analysis was to gain an understanding of the nature of competition at 'both ends' of the meat processing sector — the input and product markets. An understanding of the competitive pressures at work in the industry provides an indication of the incentives firms might face to implement new (or modify existing) work arrangements which improve performance. The Commission then sought to identify the key work arrangements, and examine them in terms of their effects on different aspects of firm performance. Discussions with industry participants and previous studies revealed a number of work arrangements which were considered to be important to the way work is undertaken in the industry.

The effects of the work arrangements on firm performance were then summarised in terms of their potential impact on several partial indicators:

- labour productivity — number of carcasses per slaughterfloor worker per hour;
- unit labour costs — cost per slaughterfloor worker (including on-costs) per head and/or cost per kilogram;
- reliability — time lost to industrial disputes and timeliness of delivery; and

- product quality — macro and micro hygiene measures; customer satisfaction.

In some cases, it is appropriate to consider these indicators in terms of their separate short-term and long-term effects. In doing so, however, there is no baseline against which to compare the impact of particular arrangements. Further, it became apparent through discussions that there are no commonly used, industry-wide indicators of performance.

Several other considerations are also relevant. None of the work arrangements identified operates in isolation from the others. Therefore it is important to consider the interaction of these arrangements. For example, while some of the incentives are likely to be mutually reinforcing, others might work in opposite directions.

Many other factors (not related directly to work arrangements) also affect firm performance — such as the quality of management, levels of technology and age of equipment, and the regulatory environment. As such, it is possible to provide only an indication of the possible incentive effects associated with the particular work arrangements, and the direction of their impact on firm performance.

Impediments to change and the role of government

The final objective of the study is to assess any impediments to workplace change which could further enhance performance in this industry. In this regard, an important policy question concerns the extent to which existing direct and indirect government interventions in the industry affect work arrangements.

The government is involved in many aspects of the operation of the meat processing industry — for example, it regulates inspection, workers' compensation, and occupational health and safety. However, these roles are related only indirectly to work arrangements in meat processing. The government involvement which affects work arrangements in meat processing directly concerns the institutional industrial relations setting. The emphasis in this study is on this latter issue. A key objective of the Federal government in this sphere is to provide an industrial relations framework which allows managers and employees to negotiate work arrangements at the enterprise level against a set of minimum conditions, with minimal intervention of third parties such as the Australian Industrial Relations Commission (AIRC).

Classification of work arrangements

An important element of the way work arrangements affect performance is through their impact on flexibility. Indicators of performance such as productivity, unit labour cost and quality described above are related mainly to how the work is performed during a given shift or roster. However, work arrangements may also affect decisions such as the number of people employed, who is employed, when they are employed and for how long, as well as what tasks they undertake while at work. The effects of these work arrangements will not be restricted to how work is performed in a given shift or roster.

For that reason, chapters five, six, and seven examine the work arrangements in detail and their effect on both performance and labour flexibility in five areas. This mode of classification is based on work done by NEDO 1986 and OECD 1988. The framework has been used by the Commission previously as a means of evaluating firms' labour market flexibility[3]. Where appropriate, this study also discusses the short-term and long-term effects of particular work arrangements in terms of the four performance indicators outlined above.

The five areas of flexibility identified are:

- the size and composition of the workforce — refers to the ability of firms to adjust employment numbers and composition of the workforce to meet changes in demand;
- hours of work and rosters — refers to the ability of firms to adjust the number of hours worked and when work is performed;
- remuneration and on-costs — refers to the ability to change labour costs in response to changes in product markets;
- functions, tasks, and skills — refers to the capacity to move labour to different tasks in the workplace; and
- general procedures — refers to the existence of structures for consultation and negotiation of the other four aspects of flexibility.

Caveats

An important source of information for this study were the detailed discussions held with five firms. However, while they represent a significant proportion of the industry (estimated at 20 per cent of total industry output and 27 per cent of exports) it is not claimed that these five firms are a complete or even a

[3] See Industry Commission report *The Australian Black Coal Industry* (IC 1998), and Productivity Commission *Work Arrangements in Container Stevedoring* (PC 1998).

representative sample of the whole industry. For example, the firms were all relatively large. Recognising this limitation, the 'Work-in-Progress' document was sent to a range of around 20 small, medium, and large abattoirs. It should also be noted, however, that information obtained from other sources regarding what is happening in the industry more generally tended to support the information obtained in workplace discussions.

In the workplace consultations, where possible discussions were also held with employees. This was not possible at all plants visited. No strong conclusions are drawn regarding the impact of changed work arrangements on employees.

In all cases, the discussions with management and employees were relatively informal and did not form the basis for in-depth case studies. A more systematic approach would have required the development of sampling frames to conduct an industry-wide survey of plants, and of employees. This was beyond the scope of this study.

The emphasis of the study is on work arrangements in the Australian meat processing industry and how they have changed. There is no obvious point of reference, other than an historical comparison within the Australian industry. A useful extension would be a comparison with the work arrangements in the meat processing industry of a major competitor, such as the US. Where possible, secondary sources reporting on the industry in the US and elsewhere are cited in this document. A full comparison of work arrangements in the Australian meat industry with those in the US or any other major competitor was also beyond the scope of this study.

1.5 Study outline

The recent trends in meat consumption and supply are considered in chapter two. Chapter two concludes with a discussion of the factors which have provided a significant impetus for change in work arrangements. The features of the meat processing industry workforce are described in chapter three. The focus of chapter four is the industrial relations institutional environment. Specific work arrangements and their effects on performance are detailed in chapters five, six, and seven. The study concludes with a summary discussion of the nature and extent of change in the industry in chapter eight.

2 RECENT TRENDS IN MEAT PROCESSING

The meat processing sector is between the farm and retail sectors in the red meat production chain. Meat processing is one of Australia's largest agribusiness sectors, and a significant exporter in world terms — accounting for around 20 per cent of world red meat trade in 1996. However, Australia's share of world trade is declining, due mainly to increased competition from other countries. Competitive pressures on domestic markets have increased also.

2.1 Introduction

Both the demand for meat and the level of competition on domestic and export markets have changed over time. Per capita consumption of red meats in Australia and other western countries has been in decline. Internationally, Australia now accounts for a smaller proportion of world trade in meat than it did a decade ago, despite increases in aggregate trade levels. There have also been changes in input markets, such as the recent strong growth in live exports which has reduced the amount of livestock available for processing in Australia.

These trends have put pressure on the meat processing sector — establishment numbers have fallen and foreign ownership has increased. While still relatively uncommon, vertical integration between the feedlot and processing sectors has increased, particularly among the larger companies. Businesses have been looking for ways to enhance their competitiveness through improvements in productivity, and this has led also to pressure for change in work arrangements.

The focus of this chapter is on the red meat production chain and trends that have created pressure for change in work arrangements. In subsequent chapters, the changes that have occurred in work arrangements are described.

2.2 The red meat production chain

The red meat production chain consists of a series of integrated sectors, beginning on-farm and progressing through the meat processing, transport[1] and retail sectors (see figure 2.1). Overall, the red meat industry is one of Australia's

[1] The transport sector includes all road, rail, water and air transport of meat and livestock within Australia.

largest rural based industries, contributing around $4.5 billion in value added.[2] By sector, the Commission estimates 60 per cent of total value added is attributable to the farm sector, 27 per cent to the meat processing sector and 13 per cent to the transport sector.

There are strong interdependencies between all sectors in the red meat chain. For this reason, the performance of the meat processing sector is likely to have a significant impact on farm incomes, as well as incomes generated up-stream from processing. The production of livestock for meat processing is also closely related to other parts of the agribusiness sector — such as dairy and wool production. Recent trends which have had important implications along the red meat chain include:

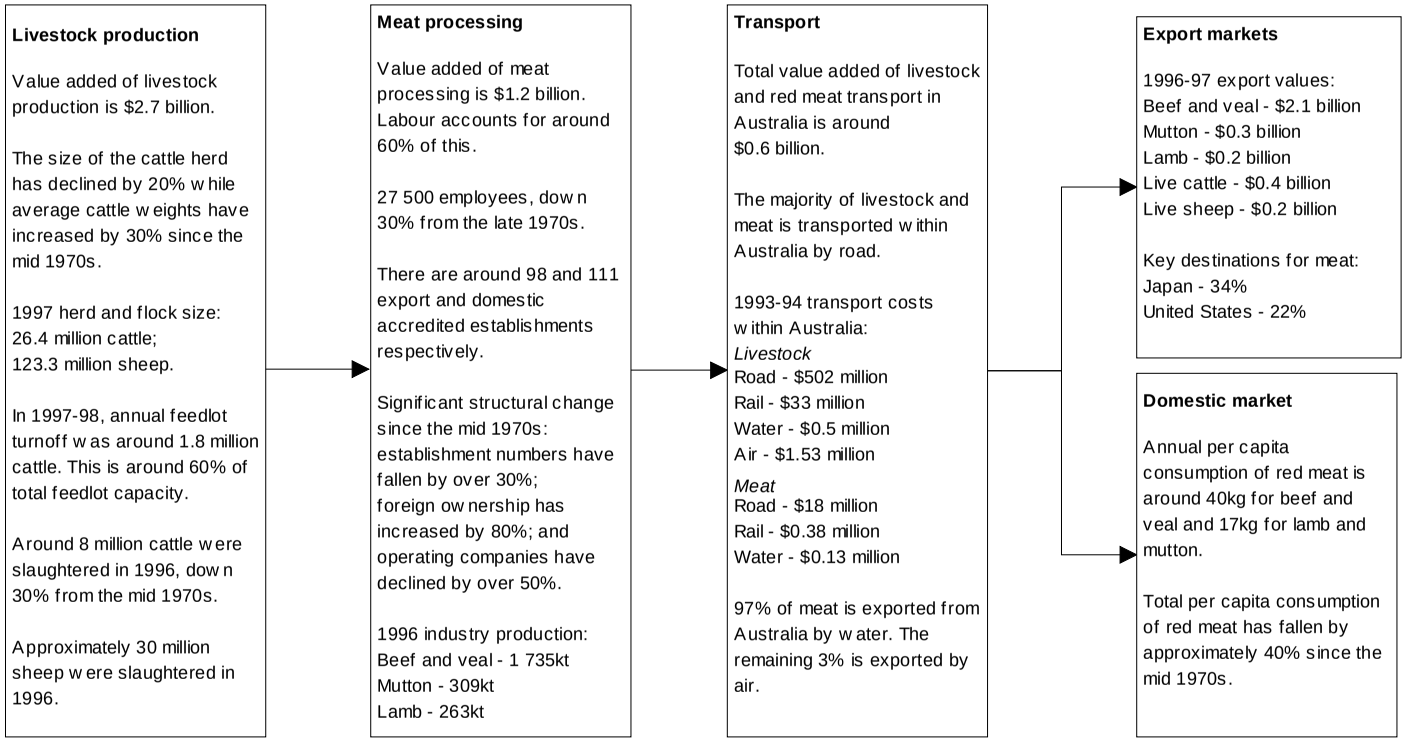
- reductions in the national herd and flock since the 1970s;
- increased live exports over the last decade;
- the expansion of the feedlot sector;
- decreasing consumption of red meat on the domestic market; and
- stagnating export levels, despite significant increases in world trade and population.

2.3 Consumption trends

The major trend in domestic meat consumption over the last two decades has been a shift away from red meats towards poultry. Since the late 1970s, per capita consumption of beef and veal in Australia has decreased significantly while consumption of poultry and pigmeat has increased steadily. Since its peak in 1977, per capita consumption of beef and veal has decreased by over 40 per cent while lamb and mutton consumption has gone down by 10 per cent. Over the same period, per capita consumption of poultry and pigmeat increased by around 80 per cent and 40 per cent respectively (see figure 2.2).

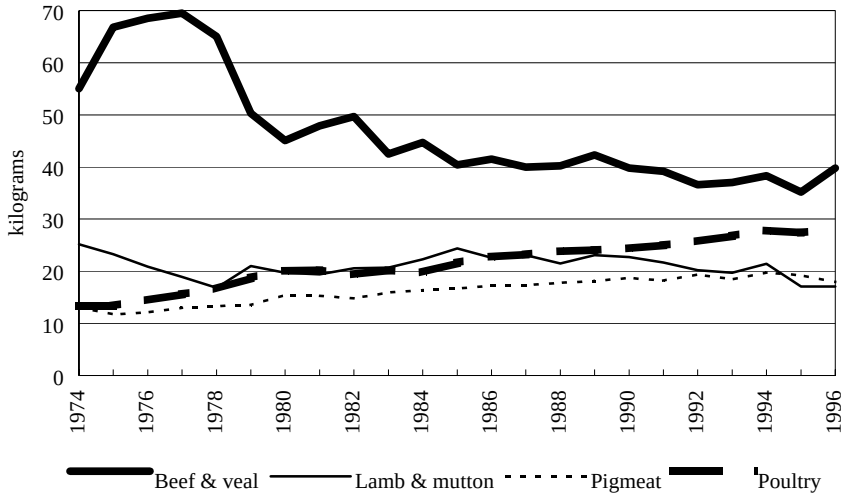
[2] There are a range of estimates of value added for the red meat chain, such as AACM (1996a), who estimated value added at $3.04 billion (including retail and by-product sectors). The Commission estimates of value added are calculated for the 1993–94 financial year using ABS National Accounts data. It is the sum of wages and salaries, gross operating surplus, commodity taxes and indirect taxes. The estimates include the farm, processing and transport sectors but exclude the retail and by-product sectors.

Figure 2.1: The red meat production chain



Sources: ABARE 1997 and 1998; ALFA Quarterly Feedlot Survey; ABS 1997a, 1997e and 1997b; MRC 1997b; IC 1994; AMLC 1997; AUS-MEAT 1997.

Figure 2.2: Domestic per capita meat consumption, 1974–96 (kg)



Source: ABARE 1997.

Declining consumption of red meat is common in all western economies. Conversely, red meat consumption in many Asian economies has increased significantly as incomes have increased. In Australia, the price of meat has changed also over the last 15 years, with beef prices increasing relative to poultry. In real terms, between 1981 and 1996 the retail price of beef decreased by 22 per cent while that of poultry decreased by 36 per cent[3]. Real prices of lamb and pork decreased by 19 per cent and 15 per cent respectively over this period.

2.4 Supply-side issues

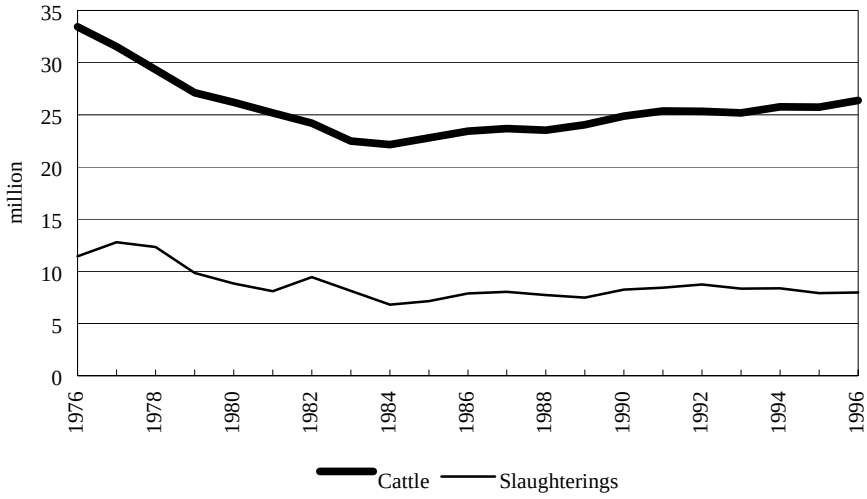
Trends in livestock production

Australia's cattle herd has declined by over 20 per cent since the mid 1970s (see figure 2.3). A major reduction in cattle numbers occurred between 1976 and 1984 in response to, among other factors, a depressed world livestock market, the policies of major trading countries and protracted drought conditions in Australia. Cattle slaughterings have followed a similar trend to herd size, and decreased by 30 per cent between 1976 and 1996 (see figure 2.3). The

[3] Australian retail prices of meat are sourced from ABARE 1997, Australian commodity statistics and are adjusted using an ABS (1997d) CPI food deflator.

divergence between herd size and slaughterings in the mid 1990s reflects in part the increasing number of live cattle exports from Australia.

Figure 2.3: Australian cattle herd and slaughter numbers, 1976–96 (million)

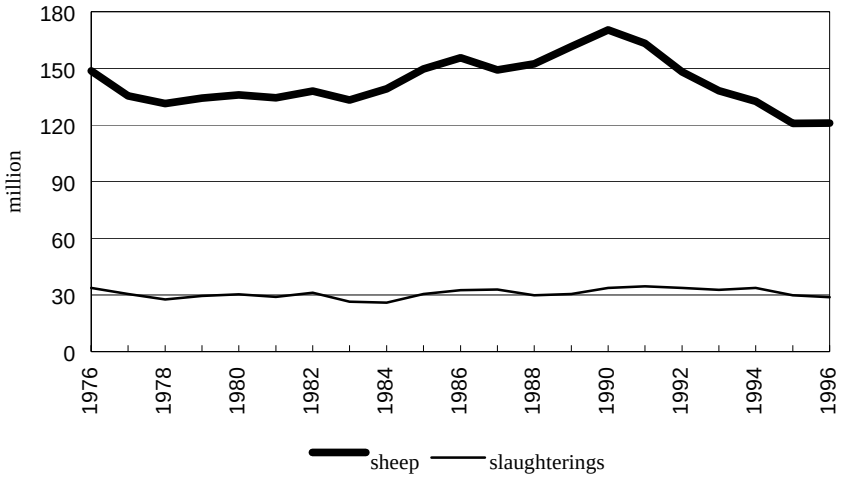


Source: ABARE 1997.

The sheep flock declined by around 20 per cent between 1976 and 1996, but fluctuated more than the trend for cattle (see figure 2.4). This may be because sheep production is more closely linked to other parts of the agribusiness sector, particularly wool production. Sheep slaughter levels increased marginally until 1991, but declined by 16 per cent from 1991 to 1996 when the sheep flock contracted (see figure 2.4). The decline in the wool market in 1990 was a major factor explaining the substantial reduction in sheep numbers and slaughterings in the 1990s.

These changes in livestock numbers have not been reflected in meat production volumes. A greater quantity of meat is now produced per head than 20 years ago. Between 1976 and 1996, beef and veal production declined by 10 per cent while herd numbers dropped by 20 per cent. Over the same period, lamb and mutton production has remained constant while the size of the sheep flock has fallen by 20 per cent (ABARE 1997).

Figure 2.4: Australian sheep flock and slaughter numbers, 1976–96 (million)



Source: ABARE 1997.

Pasture grazing and feedlots

Livestock production occurs mainly in the high rainfall and wheat-sheep belt regions, with significant grazing also occurring in Australia's pastoral zones. By State, 39 per cent of the total cattle herd is located in Queensland, 24 per cent in NSW and 17 per cent in Victoria (ABARE 1997). The major sheep producing States in 1997 were NSW (35 per cent), WA (23 per cent) and Victoria (19 per cent) (ABARE 1997).

The majority of livestock in Australia are grazed on pasture, although the proportion in feedlots appears to be increasing. Data are limited, however industry estimates put the proportion of feedlot cattle between 20 and 25 per cent of total cattle slaughterings, and around 25 to 30 per cent of total beef production[4]. Between 1996 and 1998, the data indicate that the number of feedlot cattle increased by 24 per cent. The largest increase occurred in Victoria, albeit from a relatively low base. NSW and Queensland together account for over 80 per cent of total feedlot cattle in Australia (see table 2.1).

[4] Feedlot cattle account for a greater proportion of total meat production than total slaughterings because of their heavier carcass weights.

Table 2.1: Change in the number of feedlot cattle, 1996–98, March quarter[a]

State	*1996*	*1998*	*Percentage change*
NSW	159 150	217 116	36
Victoria	29 270	50 209	72
Queensland	196 030	229 013	17
SA	28 727	23 733	-17
WA	21 517	16 629	-23
Total	434 396	536 700	24

a These two periods were selected as it is the longest available time series for which consistent data are available.

Sources: ALFA March 1998 and 1996.

The number of feedlots[5] owned by meat processing companies is low. Currently, approximately 10 feedlots, or one per cent of the total number of feedlots, are integrated with the processing sector (ALFA 1998). However, they account for around 25 per cent of Australia's total feedlot capacity. The five largest feedlots in Australia are owned by companies which also operate in the meat processing sector (ALFA 1998). Typically, it is the larger meat processing companies which are involved in the production of feedlot cattle.

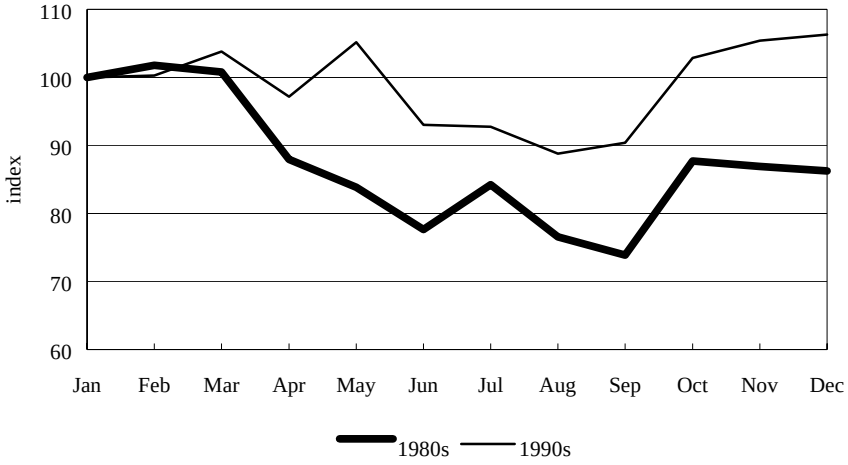
Seasonality

Historically, livestock turnoff is higher in the dry months than in the wet months for cattle grazed on pastures. For example, average cattle slaughterings in Victoria and Queensland peak in the dry months and reach a trough in the wet months. This seasonality has implications for the meat processing sector — particularly on the demand for labour. In contrast, feedlot cattle production is not influenced by climatic conditions.

Despite increasing feedlot turnoff, there is still evidence of seasonality in cattle slaughterings for Victoria and Queensland. In Victoria, the average number of cattle slaughtered over a year appears to be more stable in the 1990s than the 1980s, suggesting that the impact of seasonality on production has decreased (see figure 2.5). Despite this reduction in seasonality, it was suggested in workplace and industry discussions that some plants in Victoria, particularly the smaller plants, still close in the winter (wet) months.

5 These data exclude pig feedlots.

Figure 2.5: Change in average cattle slaughterings for Victoria in the 1980s and 1990s (index)[a]



a The index is calculated using January as the base month. The index shows average cattle slaughterings between 1983–87 for the 1980s, and between 1993–97 for the 1990s.

Source: ABS 1997f, various issues.

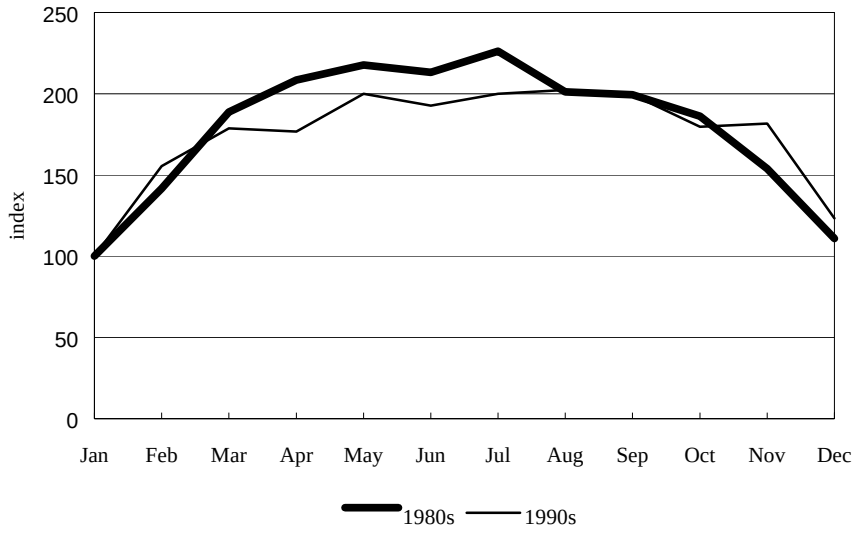
The seasonality of average cattle slaughterings is more pronounced in Queensland than in Victoria. In Queensland, there are declines in output in the summer (wet) months. The average variation in cattle slaughterings has however fallen in the 1990s (see figure 2.6). The evidence suggests also that the duration of seasonality has reduced in the 1990s, with slaughter levels remaining constant for longer periods. In response to the Work-in-Progress report, one company noted that lower slaughterings in December and January is not always due to inadequate livestock numbers — but reflects the tradition of some workplaces to close over the Christmas period.

In workplace and industry discussions, the Commission was advised that declining seasonality was due to a range of factors, including:

- the growth of the feedlot sector;
- improvements in transport infrastructure, allowing processing to source livestock from greater distances;
- the closure of seasonal plants in northern Queensland and the Northern Territory in response to increased live cattle exports from these regions;
- greater competition in the markets for meat, increasing the economic incentives for plants to maintain throughput year round; and
- the move to annualised salaries by some plants in Australia.

The seasonal trends depicted in figures 2.5 and 2.6 suggest that while seasonality has reduced, there are still many plants operating in the industry that are subject to fluctuations in livestock supply over a year.

Figure 2.6: Change in average cattle slaughterings for Queensland in the 1980s and 1990s (index)[a]



a The index is calculated using January as the base month. The index shows average cattle slaughterings between 1983–87 for the 1980s, and between 1993–97 for the 1990s.

Source: ABS 1997f, various issues.

Livestock exports

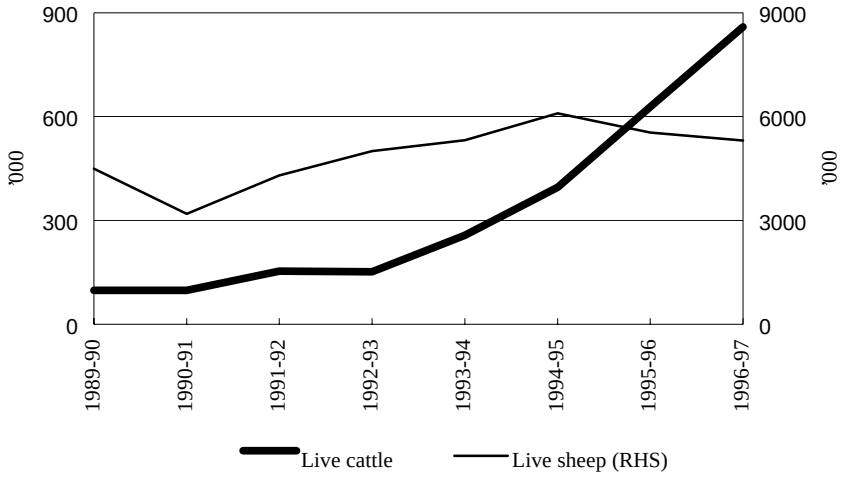
Most recent data available indicate that Australia is the largest livestock exporter in the world. In 1996–97, live cattle and sheep exports were valued at around $430 million and $185 million respectively. Livestock exports from Australia are generally sold for slaughter in the importing country (usually after additional feeding) or used for breeding purposes. Live cattle exports are destined mainly for Asian markets and live sheep exports to Middle East destinations.

Livestock exports increased rapidly over the decade to 1996–97. This is particularly true for live cattle exports, which increased at an average annual rate of 110 per cent between 1989–90 and 1996–97 (see figure 2.7)[6]. The

6 It is not clear what effects the recent downturn in Asian economies will have on this trend. Early indications are that live cattle exports have declined markedly in recent months.

growth in live sheep exports has been more modest than that of live cattle exports, increasing by around 20 per cent over this period (see figure 2.7).

Figure 2.7: Australian live exports, 1989–90 to 1996–97 ('000)



Source: ABARE 1997.

Changes in industry structure

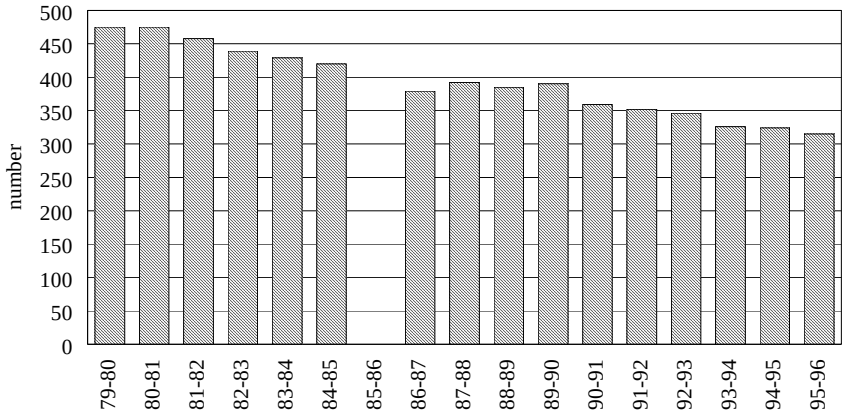
Meat processing plants were traditionally located close to where livestock were grazed — mainly in regional areas. The number of meat processing establishments[7] in Australia declined by over 30 per cent between 1979–80 and 1995–96 (see figure 2.8). The steady decline in establishments during the 1980s reflects the significant reduction in the herd size over this period, the closure of plants owned by the public sector and the imposition of stricter hygiene and slaughter standards (MRC 1997b). Further rationalisation has occurred in the industry in the 1990s.

Meat processing establishments are classified as either export or domestic plants. Export plants can supply both overseas and domestic markets, while domestic plants can supply meat to the domestic market only. ABS data indicated that there were 315 meat processing establishments in 1995–96 (see figure 2.8). However, data are not available by type of establishment. Of 209

[7] Establishments refers to all entities involved in meat processing, including processing plants, boning rooms, manufacturers and wholesalers. The ABS advises caution in the use of establishments data, primarily because 'establishment' is a statistical data collection unit and does not necessarily represent a physical unit.

AUS-MEAT registered establishments in 1998, 98 were export registered and 111 domestic registered (AUS-MEAT 1998)[8].

Figure 2.8: Meat processing establishments, 1979–80 to 1995–96[a]



a Data are not available for 1985–86 because the ABS did not conduct the manufacturing survey in that year.

Source: ABS 1997e, various issues (1995–96 data is unpublished).

Rationalisations have been particularly evident among export establishments — the number of which declined by over 40 per cent between 1976 and 1996 (see table 2.2). In workplace discussions, industry participants commented that rationalisations were also strong among the smaller processing establishments. There have also been significant changes in the ownership of export plants over the last 20 years. In particular, there has been a decline in Australian and public sector ownership and an increase in foreign ownership (see table 2.2).

There is no recent official information regarding capacity utilisation in the industry, however, throughput has increased while plant numbers have decreased. This suggests either that capacity utilisation in the existing plants has increased or that these plants have expanded. However, excess capacity is still considered a problem in the industry. One estimate put excess capacity in Australia at around 30 per cent, compared with 15 per cent in the US and 10 per cent in New Zealand (Steering Committee and Task Force Report 1996; AUS-MEAT 1997).

8 These data were as at the 19 June 1998. The majority of export establishments in Australia are accredited by AUS-MEAT, while most domestic establishments do not have AUS-MEAT accreditation. This explains the difference between the AUS-MEAT data and ABS data.

Table 2.2: Export establishments and ownership, 1976 and 1996

	1976	*1996*	*Percentage change*
Australian-owned	67	33	-51
Foreign-owned[a]	13	23	77
Public sector-owned[b]	20	4	-80
Producer co-operative[c]	8	2	-75
Total	108	62	-43
No. of companies	89	43	-52

a Foreign-owned is defined as a company in which majority ownership is held by a non-Australian company or by an Australian holding company acting for a foreign company.

b Public sector refers to plants owned and/or operated by a shire, municipality or State authority.

c Producer co-operatives comprise plants which are managed by producers or their representatives.

Source: MRC 1997b.

The level of concentration in the Australian meat processing sector is low by international standards. In 1996, the five largest firms accounted for 29 per cent of industry output in Australia, compared to 71 per cent in the US, 60 per cent in New Zealand, and 64 per cent in Argentina (Steering Committee and Task Force Report 1996; AUS-MEAT 1997).

2.5 Pressures for change

Factors affecting meat production — including consumption trends and trends in livestock production — were described in previous sections. An important implication is that increased competition in the markets for meat has placed pressure on workplaces in Australia to minimise costs and improve productivity. This pressure has resulted in (and been compounded by):

- concerns in the early 1990s regarding the cost-competitiveness of the Australian industry compared with international competitors;
- concern that health and hygiene standards needed to be maintained in the more competitive environment; and
- a major industrial dispute at Australia's largest meat producer (Australia Meat Holdings Ltd (AMH)) in 1994–95 over changes to work arrangements which sought to increase labour productivity.

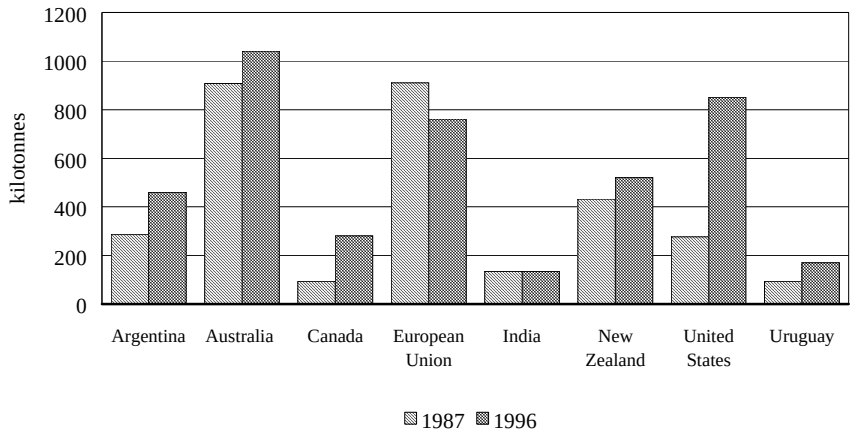
In the following section, changes in international and domestic markets are described in more detail. Some of the industry and firm-level responses to increased competition are then described.

International trade

In 1996, Australia was the largest exporter of red meat in the world, despite accounting for only 2 per cent of world red meat production (ABARE 1997). The ability of processors in Australia to compete on international markets is affected by changes outside the industry's control — such as movements in exchange rates and the trade policies of importing countries. With respect to this latter point, bilateral trade policies have been particularly significant in international markets for meat. Kreuger (1995) argued that since 1983, the US has applied pressure to selected meat importers to agree to 'Voluntary Import Expansions' of US beef. Korea, for example, changed import regulations in 1988 to expand the volume of grainfed beef (which the US specialises in) at the expense of grass fed beef (Kreuger 1995, pp. 54-5 and 81-2).

International trade in red meat has increased over the past decade — partly due to the progressive reduction of trade barriers in many economies — while Australia's share of world trade has declined. Between 1987 and 1996, total world exports of beef and veal increased by around 30 per cent, while exports from Australia increased by only 15 per cent. Over the same period, beef and veal exports from the US, Canada and Argentina increased by 207 per cent, 201 per cent and 60 per cent respectively (see figure 2.9).

Figure 2.9: Beef and veal exports by major exporting countries, 1987 and 1996 (kt)



a Exports are measured in carcass weight.

b European Union includes twelve countries, and the figure does not include intra EU trade.

Source: ABARE 1997.

The US is Australia's major competitor in the beef and veal export market. Japan is Australia's largest export market, and the US overtook Australia as the

biggest exporter of beef and veal to Japan for the first time in 1996. In 1996, the US accounted for 49 per cent of total Japanese beef and veal imports, up from 42 per cent in 1988. Australian exports as a proportion of total Japanese beef and veal imports fell from 51 per cent in 1988 to 45 per cent in 1996.

In its submission to this study, declining market share in major markets was identified as a major problem by the NSW Farmers' Association.

Domestic markets

In workplace discussions, it was noted that competitive pressures on the domestic market were also a significant factor driving change at the plant level. One firm noted that competition on the domestic market was as strong as on the export market. This competition was mainly attributed to changes in product markets — particularly the reduced size of the domestic market due to the fall in demand for red meat in Australia. Another firm indicated that changes in work arrangements were required to achieve productivity improvements so they could compete on price in the domestic market.

On the supply-side, large supermarket chains have emerged as significant retailers of meat on the domestic market, replacing the smaller retail outlets (such as butchers). This has been to the detriment of small processing establishments which have traditionally supplied the smaller domestic retailers. From the point of view of a supermarket chain, it is more efficient to deal with a small number of larger suppliers. Finally, declining cattle and sheep numbers in Australia have increased competition between processors for livestock.

Cost competitiveness

Several studies in the early 1990s were undertaken to examine the cost competitiveness of the Australian industry relative to its major competitors. The two major industry studies were the AACM study (1992) and that by Booz-Allen and Hamilton (BAH) (1993). Both sought to compare aspects of the performance of the Australian meat processing sector with major international competitors. While it is acknowledged that international comparisons are problematic (in particular, due to difficulties in comparing 'like with like' in terms of production processes and outputs), the reports concluded, among other things, that it was more costly to process livestock in Australia than in major competing countries.

BAH (1993) found that while Australia was competitive in livestock production, it lagged behind its major competitors at the processing stage. Processing costs

in Australia were found to be higher, particularly compared with the US where costs in 1991–92 were estimated to be around one-third of those in Australia. The study found also that labour, which accounted for around 50 per cent of total processing costs[9], was the single largest factor explaining higher costs for Australian processors. In general, BAH (1993) attributed this to lower labour productivity and higher on-costs in Australia relative to the other countries in the study. Wage rates in Australia were similar to our overseas competitors.

Quality and hygiene

The demand for red meat can be influenced by non-price factors, such as quality and hygiene. In workplace and industry discussions, the need to maintain and improve the quality of red meat was noted as an important factor driving change in the meat processing sector. Both Federal and State Governments and the meat processing sector considered quality improvements important to assist in marketing red meat and to avoid hygiene problems, which can have major implications for the domestic industry. The most recent example in Australia was an E-coli scare in 1996.

Government requirements have also influenced quality and hygiene standards. For example, since 1997 both domestic and export plants have been required to operate under a new Australian standard which includes a mandatory hazard analysis critical control point (HACCP) plan. HACCP plans in processing assist in identifying, measuring, monitoring and verifying critical points in meat production to ensure food hygiene and quality is maximised. The new Australian standard has also reduced the differences which previously existed between domestic and export plants regarding quality standards.

The quality and hygiene of meat produced in Australia has increasingly become the responsibility of the meat processing workforce. Industry participants commented that increased education has raised the awareness of the workforce to the importance of food quality and hygiene, while increased training has allowed workers to undertake this responsibility.

AMH dispute

In 1994–95, there was a protracted dispute at AMH which ultimately resulted in a Certified Agreement (CA) which some industry participants have argued set a

9 Excluding purchases of livestock.

new standard for the industry[10]. Participants commented that it represented a further catalyst for change in the industry, setting the benchmark for future enterprise agreements which were often in line with, or better than that at AMH.

In a report commissioned by the then Department of Industrial Relations to examine progress in workplace reform in the export sector, it was noted that management at the company felt fundamental changes had to be made to improve competitiveness. Specifically, this meant removing the tally system and introducing greater flexibility in hours worked. The dispute was also seen as being significant for future reform, in that other companies saw it as a watershed for the industry (Fellows Medlock and Associates 1995).

The outcome was a CA which included expanded ordinary hours of work and increased hours worked per shift. The tally was replaced with a flat hourly wage supplemented by a production bonus and payment was not linked to team size.

2.6 Summary

Over the past decade, competition in meat processing has increased at both ends of the production chain. This has resulted in, among other things, changes in the structure of the meat processing sector and has put pressure on firms to improve productivity. This, in turn, has led to pressure for change in work arrangements. Specifically:

- reductions in herd and flock sizes and increased livestock exports have increased competitive pressures between processors operating in Australia;
- the size of the domestic market has reduced due to decreased domestic consumption;
- there have been important structural changes occurring in the domestic industry, such as decreased establishment numbers and increases in foreign investment;
- over time, there has been a substantial increase in the level of competition on export markets, from countries such as the US, Argentina and Canada;
- Australia's share of international trade is falling, despite increases in aggregate trade levels and world population. These competitive pressures are likely to continue into the future; and

[10] In its submission to this study, the Cattle Council of Australia put the cost of the dispute to AMH at $16m. Other industry participants estimated the cost to be significantly higher.

- other factors, such as a growing awareness of uncompetitive labour costs, quality and hygiene issues and changes to benchmark work arrangements arising from the AMH dispute have also provided impetus for change.

3 THE MEAT PROCESSING WORKFORCE

The meat processing labour market has undergone considerable change over the last decade. Industry employment has been in decline and is still characterised by significant seasonality — despite more regular livestock supplies. The typical employee is likely to be a young male with low educational attainment, and a union member. Over time, some meat processors have introduced guaranteed minimum wages for their employees.

Meat processing has a long history of poor workplace relations. Despite evidence of progress in parts of the industry, there remains room for improvement. Poor workplace relations is likely to reduce the industry's ability to meet ongoing change. Workplace culture and relations appear to be improving in some workplaces, albeit slowly. For example, although the aggregate OH and S record remains relatively poor, other indicators, such as the level of industrial disputes and training, are improving.

3.1 Introduction

Processing meat is labour intensive. While mechanisation is a feature of the industry, significant amounts of manual labour are required to convert livestock into meat products. In 1993–94, labour inputs accounted for around 60 per cent of total industry value added[1] — suggesting that labour costs and productivity have implications for the competitiveness of the meat industry, as well as the quality of output.

Increasing competition in the markets for meat have placed pressure on processors in Australia to minimise costs, improve productivity and product quality. For this to happen, the labour market must be able to adapt to changing circumstances. Workplace characteristics, particularly 'culture', are important for enabling change to occur in the labour market.

This chapter describes the size and key characteristics of the meat processing workforce and discusses some important characteristics of the workplace, including indications of change.

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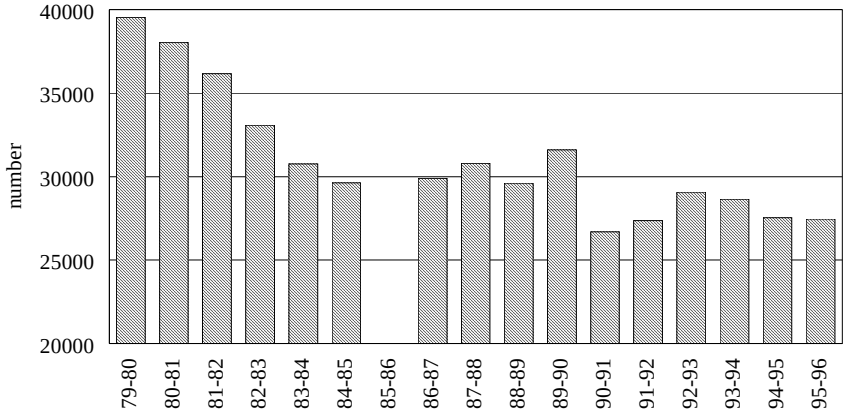
1 Commission estimates. Excludes purchases of livestock.

3.2 Employment

In 1995–96, around 27 500 persons were employed in the meat processing sector, accounting for around three per cent of total manufacturing employment (see figure 3.1). Between 1979–80 and 1995–96, employment in meat processing decreased by 30 per cent, compared with 20 per cent for all manufacturing. Much of the decline in meat processing employment occurred between 1979–80 and 1984–85, when employment fell by 25 per cent. Despite increased rationalisations in abattoir numbers, employment decreased by only seven per cent between 1984–85 and 1995–96, suggesting that employment at some of the larger abattoirs has increased.

Figure 3.1: Number of employees in the Australian meat processing industry, 1979–80 to 1995–96



a Between 1979–80 and 1988–89 the data are ASIC 2115, and after this the data are ANZSIC 2111. Data are not available for 1985–86 because the ABS did not conduct the manufacturing survey this year.

Source: ABS 1997e, various issues.

State and regional distribution

Queensland accounts for the largest share of meat processing employment (30 per cent), nearly matched by NSW (29 per cent) (see table 3.1). Although employment in absolute terms has been decreasing in all States, employment shares have fluctuated somewhat. Since at least the mid 1980s, the proportion of the total workforce employed in Victoria has declined substantially, while NSW and SA have increased their shares of total employment (see table 3.1).

Table 3.1: Share of meat processing employment by State[a] (per cent)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*
1986-87	26	21	31	9	10	3
1987-88	25	21	34	9	9	3
1988-89	25	22	33	9	8	3
1989-90	22	20	33	11	11	2
1990-91	25	19	33	11	9	3
1991-92	29	19	31	10	8	3
1992-93	30	16	32	10	9	2
1993-94	30	16	34	10	8	3
1994-95	29	16	32	11	9	3
1995-96	29	16	31	12	9	3

a Excludes the NT and the ACT.

Sources: ABS 1997e, various issues.

Meat processing is an important source of regional employment, with the majority of plants located near regional towns (see table 3.2). Changes in the distribution of meat processing employment can therefore affect regional communities. In 1996, the 25 largest meat processors employed approximately 17 600 workers, or around 65 per cent of the total workforce. Table 3.2 shows that collectively, these processors operated 43 plants in regional locations and only 6 capital city plants.

Seasonality in employment

Given the seasonal (though declining) variability of processing throughput, some flexibility in employment numbers might be expected. Full-time employment[2] varies between and within States from month to month and seasonal declines are evident in some States (see figure 3.2). Employment seasonality is most evident in Victoria where lower employment levels are experienced in late summer. Queensland exhibited slight declines around November while NSW experienced fluctuations which may reflect seasonal aberrations (see figure 3.2). Under the main industry awards (Federal and State), daily and weekly hire provisions allow firms to reduce workforce size in the short term to accommodate a reduction in livestock numbers or product demand (see chapter 5).

2 Employees who work 35 hours or more per week. However, they may not have worked during the reference period.

Table 3.2: Plant location and workforce size of major meat processors, 1996

Processor	Regional plants	Capital city plants	Total workforce size
Queensland			
Australian Meat Holdings P/L	5		2760
Nippon Meat Packers P/L	4		1750
Queensland Abattoir Corporation	2	1	660
Consolidated Meat Group	3		1000
Teys Brothers P/L	2		760
South Burnett Meat Works	1		600
NSW			
Northern Co Operative Meat Co Ltd	1		773
Bindaree Beef P/L	2		500
Cargill Foods Australia	1		450
PD Mulligan	1	1	650
Anzco Foods P/L	1		600
Southern Meats P/L	3		500
Burrangong Meat Processors	1		330
RJ Fletchers and Co	1		650
Rockdale Beef P/L	1		440
Bunge Meat P/L	1		140
Mudgee Regional Abattoir	1		350
Midcoast Meat P/L	1		350
Victoria			
SBA Foods P/L	2	1	900
Castricum Brothers Pty Ltd		1	450
G&K O'Connor P/L		1	380
MC Herd	1		350
Hurstbridge Abattoir		1	110
Other			
Metro Meat International Ltd	5		1800
EG Green & Son P/L	1		340
Total	**43**	**6**	**17 593**

note The processing companies listed are the 'Top 25' processors in Australia as ranked by AUS-MEAT. Rankings are based on output.

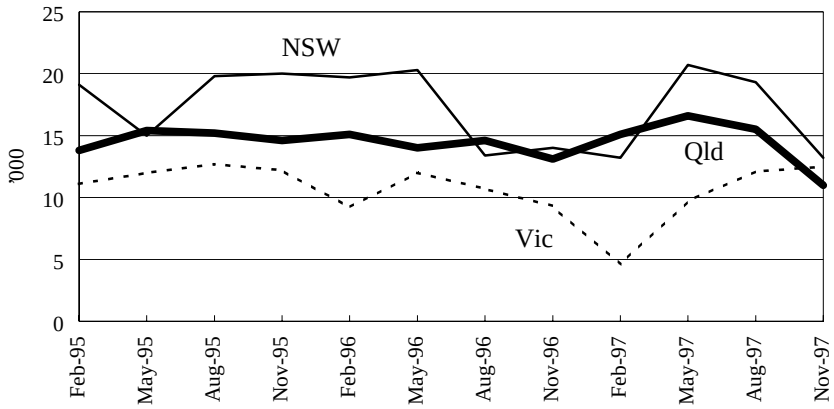
Source: AUS-MEAT 1997.

In workplace discussions, it was suggested that seasonal variation in output is less for larger plants compared with smaller plants. Given their greater capital investment, large processors face stronger economic incentives to maintain relatively constant throughput all year round. Major processors have developed a range of techniques to improve the regularity of livestock supply to their abattoirs, including:

- vertically integrating with the feedlot sector;
- direct contractual relationships with specialist livestock producers; and

- improvements in transport infrastructure, allowing processors to source livestock from greater distances.

Figure 3.2: Full-time meat and meat product manufacturing employment, 1995 to 1997, (thousand persons)



Source: ABS 1998a.

Part-time employment

The *Federal Meat Industry (Processing) Award 1996* (FMIPA 1996) prescribes the maximum amount of part-time[3] employment at a meat processing establishment, 'the number of part-time employees shall not exceed one for every three full-time employees' (c.19.3.3). In practice, less than 10 per cent of the meat and meat product manufacturing[4] workforce were employed part-time in 1997, compared with 25 per cent for the total workforce (ABS 1998a). However, average hours worked by part-time employees in the meat processing sector are far higher than the average across all industries.

Most recent ABS data do not provide evidence of any strong seasonal trend in part-time employment in the meat and meat product manufacturing sector — rather, part-time employment fluctuates from month to month and year to year.

[3] As a general rule, a worker is considered part-time by the ABS if they usually work less than the agreed or award hours for full-time employees in their occupation. If agreed or award hours do not apply, employees are regarded as part-time if they ordinarily work less than 35 hours in a week.

[4] The meat and meat product manufacturing sector (ANZSIC code 211) includes meat processing, poultry processing and small goods manufacturing.

This suggests that processors are not using part-time workers to counter seasonal variation in throughput.

3.3 Workforce characteristics

A meat processing worker is likely to be:

- a young male;
- educated to secondary school level and with some accredited industry competency;
- slightly more 'mobile' than workers in other industries; and
- a member of a trade union.

Age and gender

In 1996, around 51 per cent of workers in the meat processing sector were less than 35 years of age, compared to 43 per cent for total manufacturing and total industries. The average age of the meat processing workforce has increased over the last decade, with the proportion of workers aged 35 years and over increasing by around five per cent since 1986 (ABS 1987 and 1997g).

There are significantly more males than females employed in the meat processing industry compared with the workforce as a whole. In 1996, males accounted for 83 per cent of the total meat processing workforce, compared with 56 per cent for all industries. The proportion of females employed in meat processing has marginally increased over the last decade, albeit from a low base (ABS 1987 and 1997g).

Educational attainment

In 1996, around 20 per cent of the meat processing workforce had completed post-school qualifications — with around 85 per cent of these workers undertaking some form of basic or skilled vocational training. The remaining 15 per cent had undertaken some form of diploma or degree (ABS 1997g). Anecdotal evidence supplied to the Commission suggests that workers with these qualifications are likely to undertake managerial tasks at the plant. In the future, the adoption of the National Meat Industry Training Advisory Council (MINTRAC) programs may lead to a higher incidence of vocational training among the workforce.

Labour mobility and tenure

Employees in the meat and meat product manufacturing sector appear to be less mobile than the average for all manufacturing and all industries. In the twelve months to February 1998, eight per cent of all persons employed in the meat and meat product manufacturing sector changed either their employer or location of work, compared with 11 per cent for all manufacturing and 13 per cent for the economy as a whole (see table 3.3)[5].

Table 3.3: Persons who changed employer, business or locality in previous twelve months, February 1998 (per cent)

Whether changed employer or location	*Meat and meat product manufacturing*	*All manufacturing*	*All industries*
Changed employer, business or location	8.4	10.8	13.2
Changed employer, business only	7.2	8.4	9.5
Changed location only	1.2	2.0	3.3
Did not change employer, business or location	91.6	89.2	86.8

Source: ABS 1998b.

Most employment flows over the twelve months to February 1998 occurred within an industry rather than between industries. The proportion of meat and meat product manufacturing workers who changed their industry of employment between 1997 and 1998 was below that for all manufacturing and all industries — 4.5 per cent compared with 7.6 per cent and 7.3 per cent respectively (ABS 1998b).

Overall, employment tenure appears to be lower in the meat and meat product manufacturing sector than in other industries. In 1998, around half of those employed in the meat and meat product manufacturing sector had been in their current job for less than three years, compared with 40 per cent for all manufacturing and 45 per cent for all industries. In addition, only 16 per cent of the total meat and meat product manufacturing workforce had been in their current job for more than 10 years, compared with 26 per cent for all manufacturing and 24 per cent for all industries (ABS 1998b).

[5] The relatively low proportion of meat and meat product manufacturing workers who changed their location of employment in 1998 may be due to the inclusion of poultry processing, which is not a seasonal industry.

Unionisation

The level of unionisation in the industry is high. Most workers are members of the Australasian Meat Industry Employees Union (AMIEU). In 1996, an average of 74 per cent of workers in the meat and meat product manufacturing sector were members of a trade union — more than double the all industry average of 31 per cent. Unionisation in the meat and meat product manufacturing sector is highest in Tasmania (84 per cent) and Queensland (81 per cent) and lowest in SA (64 per cent) and WA (47 per cent) (ABS 1997c). Some export abattoirs visited by the Commission indicated that up to 95 per cent of their workforce were members of a trade union.

3.4 Workplace characteristics

An adaptable and flexible workforce can enhance an industry's ability to respond to increasing competitive pressures. Indicators of flexibility are reflected in measures such as industrial disputes, occupational health and safety (OH&S) records, absenteeism, the extent of training, and turnover. Meat processing plants historically have had poor records on each of these indicators. Over recent years, however, there have been significant improvements.

In describing changes in workplace characteristics, it is necessary to recognise the interaction between these and changes in work arrangements. In particular, a key to changes in both areas would appear to be improvements in communication processes and strategies. The potential for change also needs to be considered against some understanding of workplace relations in an historical context, including the roles of the major participants in the industry: the employees, unions and managers.

Historical context

There is a long history of poor workplace relations in the meat processing industry. The Meat and Allied Trades Federation, in their submission to the AIRC Inquiry (1991) into the meat industry, described the industry as having:

> ... an abysmal record of industrial disputation, distrust and open hostility; a crisis involving attitudes and the culture of participants within the industry — a culture conceived in history, born out of mutual oppression, nurtured by self interest ... (AIRC 1991, p.10)

This culture dates back to the colonial era and is attributable to a range of factors, including: the unpleasant nature of the work environment in abattoirs;

management exploitation of unfair and unsafe work arrangements; the social and geographical isolation of abattoirs; and seasonal employment.

With the growth of the export trade, the slaughtering and processing of smallgoods, sausage casings and processing of meat for export markets moved to specialised establishments. Slaughtermen were brought together at centralised public abattoirs and export meat works. The export industry was notorious for its poor wages, bad conditions and strong anti-union stance by employers (Jones 1989). Willis (1985) described the work at the abattoirs as, 'hard physical labour, brutalising and unhealthy'. The industry suffered from OH&S problems — particularly infections from animal diseases, back strain and knife wounds. The intermittent and seasonal employment in export abattoirs was often a source of industrial disputation.

Today, in some regional centres, many employees are second and third generation meat workers, which may entrench these old values, behaviour and perceptions. However, many aspects of the work environment appear to have improved over time.

Factors affecting workplace relations

In their 1995 review of workplace reform in the export meat processing sector for the Department of Industrial Relations, Fellows Medlock and Associates concluded that employee, union and managements attitudes were all impeding opportunities for change in the industry (see box 3.1).

But some changes are occurring. In general, there appears to be slow but discernible improvements in workplace relations at most major processing plants. At one workplace the Commission visited it was acknowledged that:

> The culture of complaint is declining as employment and income stability improve and clearer career paths are established (through formal training and recognition of prior learning).

Industry consultations revealed that workplaces are acutely aware of the need to improve competitiveness and quality, and the important role labour can play.

In workplace discussions it was highlighted that these changes have 'brought into focus the consultative process' within individual processing plants. Communication channels such as consultative committees are now often formalised through enterprise agreements. Several workplaces noted that workers are kept abreast of the company's financial performance. For example:

> Information about the operation of the company and company performance is now passed onto the workforce. This has been important also in generating trust between management and the workforce.

Box 3.1: Attitudes which can impede change

Employees

'Are strongly influenced by traditional attitudes and history and have therefore adopted a conservative approach to change. Employees are suspicious of management and generally see little incentive to fundamentally change long accepted ways of operating.'

Unions

'Adopted a narrow view of enterprise bargaining and have been reluctant to allow direct discussions between management and employees. There is a significant gap between the positive views expressed by national officials and the approach of officials at plant level. The union has not been active in educating the workforce to the benefits of change and lacks capacity resources and commitment to reform throughout its organisation.'

Managers

'Traditional and narrow approach to relations with their employees and unions and have failed to acknowledged change where it has occurred. The concept of Best Practice is not well understood by the industry employers who have generally looked for excuses rather than accept that the initiative for reform must lie with management.'

Source: Fellows Medlock and Associates (1995), p.5.

Most workplaces visited did not see poor workplace relations arising solely from the attitudes of workers. For example, management at one workplace commented that:

> performance was poor under the old system. New managers were brought in and managers and employees alike were aware that changes were necessary to ensure the plant's long term future.

However, while some workplaces have been able to improve aspects of culture, many workplaces are likely to find change difficult to achieve. The MRC (1996) survey of meat processors found that:

> most red meat processing firms tend to have an organisational culture that strongly values compliance with rules and managerial directives and status. This gives less weight to human resource management considerations and discourages employee participation in decision making and in other forms of organisational change and innovation. The older and larger the firm, the stronger this is likely to be.

The survey found also that relatively few firms employ specialist training personnel and that decision making was centralised. It concluded that:

> firms in this industry do not possess an organisational culture which encourages the take up of high performance work organisation and management practices such as multiskilling, employee self management and a quality focus. (MRC 1996, p. 5)

Other recent research indicates that workplace culture at some individual abattoirs remains poor. For example, at one Victorian abattoir, Bodi et al (1996) found 'high levels of mistrust and suspicion' still evident despite efforts to improve workplace culture.

The MRC (1996, p.5) survey of meat processing managers also found that their top five strategic concerns were:

- customer service;
- product quality;
- operating efficiency;
- employee commitment; and
- brand identification and company image.

The increasing importance of customer service and quality, and the increased responsibility of workers in these areas, has led to greater investment by workplaces in human capital through training and quality assurance programs. At one workplace, management claimed improvements in workplace relations occurred when OH&S was given more substance in the Certified Agreement (CA) and the responsibility for quality assurance was spread throughout the workforce. At another, training and better equipment 'had improved attitudes, OH&S and hygiene, with fewer accidents and workcare claims.'

Another factor credited with leading to improvements in workplace relations has been the changing industrial relations environment. In particular, the development of enterprise bargaining and changes to the *Workplace Relations Act 1996* appear to be facilitating change (see chapters four and eight). At one workplace, employees and management commented that the success of their agreement was attributable to:

> ... ownership of the agreement on both sides. The involvement of both parties in the negotiation process meant that there was general agreement on the intent and the wording of the agreement. This reduced the likelihood of any disputes over content — in contrast to the award.

Indicators of change

Discussions at workplaces indicate that the meat processing industry has historically been characterised by poor workplace outcomes, such as:

- high levels of industrial disputes;
- poor OH&S;
- high levels of absenteeism;
- inadequate emphasis on training; and
- high labour turnover and unreliable employment.

There are indications that improvements in some of these outcomes are occurring — albeit slowly.

Disputation levels

The level of industrial disputation in the meat and meat product manufacturing sector is generally far higher than the level for all industries. However, in 1996, average working days lost due to industrial action dropped substantially from previous levels — and was below the all industry average (see figure 3.3). Overall, the level of industrial disputation in the meat and meat products sector is declining.

Figure 3.3: Working days lost per '000 employees[a], 1982 to 1996,

a The data excludes disputes which involve stoppages of less than 10 working days. The data also excludes work bans, work-to-rules and go-slows.

Source: ABS 1997h, various issues.

A variety of factors may be underpinning this fall. For example, concerns important to workers — such as job security, career paths and training — are

slowly being addressed by most management. As well, new industrial relations legislation has generally resulted in lower strike activity in most industries (Hawke and Wooden 1998, p.13).

Occupational health and safety

The meat processing industry has a poor OH&S record which, in contrast to industrial disputes, shows few signs of improvement. Along with high compensation premiums, poor OH&S outcomes are reflected by the relatively high incidence of injury and disease. Worksafe Australia (1996) noted that the OH&S performance of the meat processing industry was poor relative to other industries, and was increasing annually. In 1993–94, there were over 180 claims per thousand employees — up from around 135 per thousand employees in 1991–92. The comparable figure for all industries in 1993–94 was 28. Incident rates were highest in Queensland where carcass weights are on average heavier (Worksafe Australia 1996, p. 4).

Trades assistants and factory hands have the highest incidence of disease or injury in meat processing plants (53 per cent), followed by meat tradespersons (23 per cent). Strains and sprain injuries and open cuts account for 37 and 27 per cent of total injuries respectively.

However, there is an increasing awareness of OH&S issues in the industry. In 1993 the Meat Research Council (MRC), with the cooperation and involvement of the National Meat Association (NMA) and the AMIEU, developed the 'Occupational Health and Safety Best Practice Project'. The project involved 40 meat processing companies who were involved in developing best practice models of OH&S at the enterprise level to be applied across the industry. The program has been particularly effective in changing the attitudes towards, and increasing the importance of OH&S issues at the workplace. One plant visited by the Commission, established 'Process Improvement Teams' as a result of the project. These teams are comprised of worker, management and union representatives, who jointly assess and improve OH&S systems at the plant. The plant indicated that OH&S had improved substantially as a result.

Absenteeism

Workplace discussions revealed that absenteeism has been a problem at some processing plants. Daily hire arrangements may be one potential source of absenteeism as workers feel less loyal to their employers. Some workplaces[6]

[6] The Commission is aware of at least two.

have attempted to address absenteeism by offering an annual $500 bonus to each worker with a 100 per cent attendance record as part of recently implemented CAs. Indications are that bonus systems are having a positive effect on attendance records. In some cases absenteeism has dropped 10 percentage points to near negligible levels.

Training

Historically, the meat processing sector has not displayed a training culture. However, the industry has recognised the need to change the level and type of training at the workplace. Training increases the scope for multiskilling, flexibility and worker commitment to the company. Job rotation is important for acquiring new skills and may also reduce repetitive sprain injuries. In a study reviewing progress in workplace reforms in the export meat processing sector, Fellows Medlock and Associates (1995, p. 16) found also that training has played a major role in influencing worker attitudes to change.

MINTRAC was established in 1993 to develop structured training programs for meat processing employees — providing the workers with recognised qualifications which are transferable across plants. MINTRAC is currently developing a level four certificate which reflects the skills of first line managers. Levels one to three have already been developed. At some plants these training levels have been extended to place additional emphasis on quality assurance.

Quality assurance has played a major part in the training agenda — given the greater emphasis placed on quality and hygiene at the plant level. Increased reliance on quality assurance and total quality management systems require a more skilled workforce. Increasing attention to health and safety standards requires also the training of employees and supervisors on OH&S issues, and their application at the workplace.

Turnover and employment security

Labour turnover in the meat processing sector has traditionally been high. Some workplaces visited by the Commission reported annual workforce turnover in the order of 10 to 20 per cent. Some, in the face of major plant changes, experienced even higher turnover levels. However, at some plants where employment conditions appear to be more favourable, lower turnover resulted. For example, MC Herd in Geelong reported a turnover in 1995 of five per cent (Herd 1996, p. 3).

People move in and out of employment for a variety of reasons. For meat processing, relatively high labour turnover may reflect:

- a relatively young workforce, who are generally more mobile than their older counterparts;
- the unpleasant working conditions; and
- changing labour demand.

Although daily hire is still a feature of the main Federal awards covering large parts of meat processing employment, there are signs that employment security may be improving. For example, some State awards in NSW and Queensland have moved to weekly hire (see chapters five and six). Moreover, some workplaces have moved workers from daily hire arrangements to a guaranteed income status.

3.5 Summary

The meat processing labour market has undergone considerable change over the last 20 years. Overall, industry employment has fallen by around 30 per cent since 1979–80. Employment numbers now appear to be more stable, despite continual rationalisations in plant numbers. By state, employment shares have fluctuated somewhat, with employment decreasing in Victoria relative to NSW over (at least) the last decade. Queensland has remained Australia's largest meat processing employer over this period. Meat processing is an important source of regional employment — most processing plants are located near rural towns. A typical employee is still likely to be a young male with low educational attainment and to be a union member.

Most workers are employed on a full-time basis, with provisions in the FMIPA 1996 limiting the ratio of part-time to full-time staff. Historically, employment in the industry has been irregular and characterised by daily hire arrangements. Over time some major meat processors have introduced guaranteed minimum wages for their employees.

Changes in workplace characteristics are influenced by the interaction between changes in workplace relations and changes in work arrangements. Poor workplace relations are likely to reduce the industry's ability to meet ongoing change. Improvements in workplace relations are occurring in some workplaces, albeit slowly. For example, although the aggregate OH&S record remains relatively poor, other partial indicators such as the level of industrial disputes and participation in training are improving.

4 THE INSTITUTIONAL ENVIRONMENT

A large proportion of Australian meat is produced by workers operating under the Federal industrial relations system. Many of the larger processors operate under Federal Certified Agreements. However, smaller processors operate under a broad range of Federal and State awards, agreements and informal arrangements. Recent changes to the Federal industrial relations system, such as the Workplace Relations Act 1996, may further facilitate workplace bargaining in the industry.

4.1 Introduction

Legislative arrangements have implications for the way work arrangements operate and change over time. During the last decade there has been significant change in the institutional structure of workplace relations in Australia at both Federal and State levels. Of most importance has been the shift away from the centralised system of awards and industry-level bargaining towards more decentralised, enterprise-level bargaining and agreement making with awards providing minimum safety nets. This chapter describes the key features of the institutional context for work arrangements in meat processing, including the Federal and State systems[1].

4.2 Federal and State industrial relations coverage

There are seven industrial relations systems in Australia: the Federal system (including the two Territories) and six State government systems[2]. Historically, each jurisdiction has utilised awards to specify wages and basic conditions of employment. More recently, wages and conditions have also been negotiated at the workplace between workers, unions and management under enterprise bargaining frameworks established by each jurisdiction.

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1 Information in this chapter is based on data relating to award and agreement coverage for the largest 25 processors and for NMA members in Queensland, NSW and Victoria. The NMA data do not distinguish plants by size of throughput or employment.

2 The Victorian Government referred all State industrial relations matters to the Federal jurisdiction in 1996. Meat processors who previously operated under Victorian awards and agreements are now covered by the Federal system.

Industrial relations in meat processing generally come under Federal jurisdiction. Although few major meat processors operate exclusively under the main Federal award, many have Certified Agreements (CAs) which are registered through the Federal system and which are derived from one of the Federal awards (their 'parent award').

Some major meat processors — primarily those in NSW — have plants operating under State industrial relations regulations. Nevertheless, in terms of throughput, most meat is produced by employees working under the Federal industrial relations jurisdiction (see chapter one).

Federal Awards

Historically, a large number of Federal awards have been used by the meat processing industry — 45 were in use in 1994 (IC 1994, p. 176). At that time, the main Federal award was the *Federal Meat Processing Award 1981* (FMPA 1981), which covered smallgoods and wholesale and retail butchers as well as meat processors. Other Federal awards were for particular regions, individual companies or sites (known as 'enterprise awards') or for particular groups of employees (for example technical and maintenance employees)[3].

In 1996, the FMPA 1981 was replaced by three separate awards covering processing, smallgoods and retail and wholesale[4]. The main Federal award for the processing sector is now the *Federal Meat Industry (Processing) Award 1996* (FMIPA 1996). Over 30 other Federal awards relating to the meat processing industry continue to exist, many of which are enterprise awards. All of these are currently under review in the Federal award simplification process (see section 4.3). In keeping with FMPA 1981, FMIPA 1996 contains similar prescriptive details on tally, penalty rates, hours of work and the use of part-time and casual employees (see chapters five to seven).

FMIPA 1996 covers only meat processors which are NMA members and does not apply in WA, Tasmania, the ACT or the City of Broken Hill (c. 6.1). In the States covered by FMIPA 1996, the NMA estimates that its membership varies from around 85 per cent of export processors and 95 per cent of domestic processors in Queensland, to around 73 per cent of all processors in NSW.

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[3] Enterprise awards operate in a similar way to enterprise agreements in that they apply to a particular workplace only. Examples include the *Federal Meat Processing (Innisfail) Award 1991* and *the Meat Processing (Smorgon Meat Group) Award 1995*.

[4] The three 1996 awards evolved from the Harrison Report 1991 which was commissioned by the Full Bench of the AIRC to investigate industrial relations in the meat industry.

Data from the NMA show that domestic processors are more likely to be working to FMIPA 1996 than export processors. The NMA estimates that of its 35 members in NSW, virtually all domestic but no export processors use the FMIPA 1996. In Queensland, five of the eight domestic processors but only one of the 10 export processors in the NMA use the FMIPA 1996. In Victoria, eight of the 24 domestic processors responding to an NMA survey reported working to FMIPA 1996 exclusively and 10 others reported using it in conjunction with unregistered site agreements. Four of the five Victorian export processors surveyed by the NMA reported using the FMIPA 1996 as the basis for registered or unregistered agreements but none used it directly (industry consultations).

Looking at the use of the FMIPA 1996 by firm size, only two of Australia's largest 25 meat processors rely primarily on FMIPA 1996, with the majority using CAs or, in NSW, State awards (see table 4.1)[5].

State Awards

With the exception of Victoria, each State has its own awards relating to meat processing. Under the Queensland jurisdiction, there is a general award for domestic meat processors, the *Meat Industry (Other than Export) Award* (1996), as well as a number of site-specific enterprise awards, such as the *Brisbane Abattoir Award 1994* for the Queensland Abattoir Corporation (QAC). In NSW, there is a general meat industry award, the *Butchers' Wholesale Award*, for each of three regions: Country, Newcastle and Northern, and Wagga Wagga. (NSW *Industrial Gazette*, 1996 and 1997).

These State awards differ to FMIPA 1996 in both coverage and content. For example, they apply to a wider range of businesses, including abattoirs, smallgoods producers, wholesalers and, in Queensland, retail butchers. The Queensland non-export award is much shorter and less detailed than the Federal and NSW awards. For example, the Queensland non-export award sets out single minimum weekly wages for 10 grades of work, while the NSW and Federal awards list complex tally payment tables for slaughter and boning which differ in their coverage of species (see chapter six).

[5] Largest 25 processors identified according to production output (AUS-MEAT 1997, p.13).

Table 4.1 Top twenty five processors awards and agreements coverage, 1997

Processor	*Federal Award*	*State Award*	*Enterprise Agreement*		
Queensland			**Federal**	**State**	**Private**[a]
Australian Meat Holdings P/L			Yes[b]		
Nippon Meat Packers P/L			Yes[b]		
Queensland Abattoir Corporation		Yes[c]			Yes
Consolidated Meat Group			Yes[b]		
Teys Brothers P/L			Yes[b]		
South Burnett Meat Works			Yes[b]		
NSW					
Northern Co Operative Meat Co Ltd		Yes			
Bindaree Beef P/L					
Cargill Foods Australia		Yes			
PD Mulligan		Yes			Yes[d]
Anzco Foods P/L		Yes		Yes[d]	
Southern Meats P/L	Yes		Yes[e]		
Burrangong Meat Processors	Yes				
RJ Fletchers and Co		Yes			
Rockdale Beef P/L					
Bunge Meat P/L			Yes		
Mudgee Regional Abattoir		Yes			
Midcoast Meat P/L		Yes[c]			
Victoria					
SBA Foods P/L		Yes[f]	Yes		
Castricum Brothers Pty Ltd			Yes		
G&K O'Connor P/L			Yes		
MC Herd			Yes		
Hurstbridge Abattoir			Yes		
Other States					
Metro Meat International Ltd		Yes			
EG Green & Son P/L			Yes		

a Not registered under any jurisdiction.
b Stand alone Certified Agreement.
c Enterprise award.
d Boning room only.
e At only one of the three plants operating.
f State awards used by plants in states other than Victoria.

Source: *AUS-MEAT* 1997 and industry consultations.

Differences between these awards in relation to hours, remuneration and other employment conditions are discussed in chapters five to seven.

As in the Federal system, State enterprise awards (applying to a single site or company only) are possible, but have become less common since the advent of enterprise bargaining. However, some meat processors still choose to use

enterprise awards rather than agreements. For example, one export processor in NSW commenced new State enterprise awards in 1996 and 1997.

State awards appear to be used most frequently in NSW. Seven of the 12 largest NSW processors use a State award and the majority of all export processors — but not domestic processors — in NSW use a State award exclusively or with an unregistered site agreement. By contrast, only one of the top 25 processors in Queensland (the Queensland Abattoir Corporation) uses a State award (see table 4.1) (industry consultations).

Following the transfer of Victorian industrial relations powers to the Commonwealth in 1996, all meat processors in Victoria are covered by the Federal jurisdiction and operate under the FMIPA 1996 or a Federal agreement. Few, if any, major meat processors appear to operate under WA, SA or Tasmanian jurisdictions. However, it is likely that some smaller processors are operating under these State awards (industry consultations).

Enterprise agreements

The rise of formal enterprise bargaining mechanisms has arguably been the most significant change in Australian industrial relations in the 1990s. Enterprise agreements cover groups of employees in one agreement, while individual agreements cover individual employees separately. Both types may be made between employers and employees directly or through their union and can supplement or replace a previous award or agreement. Various types of enterprise agreements are available under Federal and State jurisdictions.

In the Federal system, enterprise agreements have been available in various forms since the early 1990s[6]. In 1994, the *Industrial Relations Act 1988* was amended to strengthen the role of enterprise bargaining and to introduce Enterprise Flexibility Agreements (EFAs), negotiated directly between employers, employees and unions and approved by the Australian Industrial Relations Commission (AIRC). In the *Workplace Relations Act 1996* (WRA 1996), EFAs were superseded by Certified Agreements (CAs) (collective agreements, registered by the AIRC) and Australian Workplace Agreements (AWAs) (individual agreements registered by the Office of the Employment Advocate).

Enterprise agreements have been available in most State industrial relations jurisdictions for a similar period. Different jurisdictions have placed varying degrees of emphasis on the role of awards and agreements, but all offer some

6 AIRC, *Enterprise Bargaining Principle* 1991 and *Enterprise Awards Principle* 1993.

type of enterprise agreement and all except WA uses a 'no disadvantage test', measured against the parent award, in assessing agreements for registration (WA uses a set of legislated minimum requirements instead of this test).

In total, over 40 meat processing plants appear to have registered at least one Federal or State enterprise agreement over the last five years and over 20 have second or third generation agreements in place. This total is low when compared with the total number of establishments in the industry (over 300 in Australia). To date, CAs have been the dominant form of agreement making and the Australasian Meat Industry Employees Union (AMIEU) has been a signatory to all CAs in the meat processing industry. Only a handful of processors are known to have entered into AWAs with processing employees. Others may have negotiated AWAs with individual managers rather than with processing workers.

The extent to which the various types of agreements are used by meat processors varies considerably between States and between processors of different sizes. In Queensland, all but one of the six largest processors (all export processors) have CAs. For all of these CAs, the parent award is either the FMIPA 1996 or the Federal *Queensland Meatworks Industrial Agreement Award 1983*, which contains similar provisions in most areas, including hours of work and tally. By contrast, most of the eight smaller, domestic processors who are members of the NMA in Queensland work to the FMIPA 1996 (primarily its timework provisions), with only one using a CA and one using AWAs for all employees. No Queensland processors appear to use State registered enterprise agreements (industry consultations).

In Victoria, State registered agreements are not an option. Federal agreements appear to have been mainly taken up by the larger, export processors. All of the five largest Victorian processors (all but one registered for export processing) have CAs and one other Victorian export processor is believed to be currently negotiating AWAs for all employees. However, in a recent NMA survey of its members in Victoria, only six of the 24 domestic processors who responded had CAs, with the rest apparently using FMIPA 1996, sometimes in conjunction with unregistered site agreements (industry consultations).

In contrast to Victoria and Queensland, a minority of NSW processors have registered Federal or State agreements, regardless of size. Among the 35 processors who are members of the NMA in NSW, there are thought to be only two processors using CAs (both larger export processors), two using State registered agreements and three using AWAs for all or most employees. Another two CAs and one State agreement are believed to have been registered by NSW processors who are not NMA members (industry consultations).

Looking at the content of registered enterprise agreements in meat processing, anecdotal evidence suggests that many of the earlier agreements did not significantly alter the arrangements prescribed by the previous award. Particularly in Victoria, the earlier agreements were often part of a pattern bargaining process which resulted in a series of almost identical agreements across a number of companies. A 1996 review of employee payments and benefits in the meat processing industry found that there was 'generally a lack of innovation' in agreement-making, with most companies retaining the major sections of their previous award, such as the tally (usually with modified calculation rates), and some even adopting the whole of their award as an enterprise agreement (AACM 1996b, p. iii).

The reasons for the slow pace of negotiating change appear to have been generally related to the industry's traditional problems of poor communication and high levels of disputation and distrust. An example of these problems and the attempts to resolve them at one Victorian processor are discussed in box 4.1.

In meat processing, as in other industries, the process of negotiating workplace change has been (and is likely to continue to be) incremental rather than immediate. In a number of more recent CAs (often second or third generation CAs) there has been some progress in developing innovative and flexible work arrangements. For example, a small number of major processors in some second generation CAs have developed new remuneration systems which do not rely on tally and/or have altered their hours of work and shift arrangements. At least three major processors have negotiated payment schemes based on time worked, usually including a productivity bonus component.

The extent to which workplaces have the scope and ability to change work arrangements via agreements is discussed in more detail in chapters five, six and seven.

Box 4.1: Negotiating changes to remuneration

Negotiating change can be very difficult — large amounts of time and resources are often required. Sometimes changing one work arrangement such as the tally may require more fundamental changes in other aspects of the workplace. This is illustrated by the efforts to introduce an annualised salary at the Castricum Brothers plant in Dandenong. While there appeared to be significant benefits to both workers and management in moving from a tally to an annual salary remuneration system, both parties appeared sceptical and reluctant to accept such a change. Maggs et al (1995, p. 49) concluded that before an annualised salary system could become viable, more fundamental management issues needed to be addressed, including:

- establishing a pilot annualised salary scheme and management information systems to compare outcomes;
- improving livestock supply sourcing to ensure stable throughput (and therefore stable work hours and incomes); and
- improving workplace culture — a relationship of trust between workers and management is required so management can be confident workers will work to capacity and achieve quality standards, and workers are confident that workloads will be reasonable during peak times.

Despite further negotiation and research, Castricum Brothers are yet to introduce an annualised salary or time-based wages in their 1997 Certified Agreement.

In contrast, several processors visited by the Commission have negotiated and implemented Certified Agreements which include new or modified remuneration systems (see chapter six).

Source: Maggs et al 1995 and industry consultations.

4.3 The Workplace Relations Act 1996

As discussed above, awards remain a key component of the Federal and State industrial relations systems, but now play a different role than in the past. In the last decade there has been greater focus placed on industrial bargaining at the workplace, particularly under Federal industrial relations legislation.

In the Federal system, the WRA 1996 reinforces these trends through:

- the award simplification process, based on a set of '20 allowable matters' for award provisions and the use of awards as 'safety nets' on minimum wages and conditions (as opposed to paid rate awards of the past);

- two main enterprise agreement mechanisms, CAs (collective agreements) and AWAs (individual agreements);
- a no disadvantage test against the designated parent award for registration of CAs (examined and registered by the AIRC) and AWAs (examined and registered by the Office of the Employment Advocate), to be done on balance of the whole agreement rather than a clause by clause comparison;
- freedom of association and non-discrimination on the basis of union membership;
- a 'more conveniently belong' rule governing employees' choice of union;
- changes to dispute procedures including the introduction of 'protected industrial action' which gives limited rights to strikes, lock-outs and other action during defined negotiating periods; and
- changes to the role of the AIRC in award and agreement enforcement and in dispute resolution procedures, including the shifting of power to deal with secondary boycotts to the Australian Competition and Consumer Commission and the Federal Court.

The significance of these changes for individual meat processors and for the industry as a whole will vary according to whether they use awards or agreements, whether they work under Federal or State industrial relations jurisdiction and the extent to which they engage in protected industrial action or other dispute situations (traditionally high in this industry).

For example, processors working exclusively to Federal awards will be affected directly and immediately by the award simplification process. Other processors will be affected where FMIPA 1996 or other Federal awards act as the parent award to their CAs or AWAs and provide the relevant benchmark for future 'no disadvantage' tests upon renewal of the agreements.

In the short term, meat processors working under State jurisdiction rather than the Federal system might not alter workplace arrangements to reflect Federal award simplifications. However, in the longer term, competitive pressures may lead to similar work arrangements across jurisdictions.

The FMIPA 1996 was intended to run for 12 months from its introduction but remains in force pending the award simplification process. Negotiations have commenced between the NMA and AMIEU (representing their respective members) to simplify the FMIPA 1996, but were not concluded at the time of writing.

As for all awards, clauses remaining after June 1998 which are outside the 20 allowable matters or which otherwise contravene the WRA 1996 are no longer

enforceable. In award simplification negotiations between the NMA and AMIEU, the Full Bench of the AIRC has been called to arbitrate on four issues relating to Federal meat processing industry awards:

- reducing the number of Federal meat industry awards to one;
- simplifying hours of work provisions (discussed in chapter five);
- simplifying tally provisions (discussed in chapter six); and
- simplifying leave and training provisions (discussed in chapter seven).

Significantly, piece-rates — including tallies — are an included allowable matter (WRA 1996, s.89A(2)(d)). However, there has been some contention about simplifying existing tally provisions into less prescriptive arrangements. In the draft *Metal, Engineering and Associated Industries Award 1998*, broad provision has been made for payment by results with no disadvantage in remuneration (relative to time-based payments) and with no specific prescriptions about how such payments are to be calculated:

> An employer may remunerate any employees under any system of payment by results based on rates which will enable employees of average capacity to earn at least the award rate for the relevant classification provided that they shall not earn less than the rate of pay applicable to [the lowest] classification level (*Metal, Engineering and Associated Industries Award 1998 (draft)* c.5.7).

Nevertheless, how prescriptive meat processing tally provisions will be after the simplification process is completed remains unclear. Depending on the simplification decision on tally, meat processors who wish to alter the way they calculate the tally or to move from a tally to time-based payment systems may need to negotiate the change — as some have already done — directly with their employees through CAs.

The freedom of association provisions in the WRA 1996 will also have implications for the simplification of the FMIPA 1996 and may reduce the formal role of the AMIEU at workplaces. In particular, the WRA 1996 contains provisions to ensure:

- workers, employers and contractors have a right to chose to belong or not to belong to a union; and
- discrimination does not occur because of that choice.

But notwithstanding these two clauses, the WRA 1996 also specifies that:

- the choice of union by an employee is limited to an existing organisation that employees could either ‘more conveniently belong to’ or an organisation that would more effectively represent those employees.

Union preference clauses are contained in FMIPA 1996 which may be affected by these legislative requirements. For example:

> In engaging or dismissing labour preference of employment must be given to financial members of the Australasian Meat Industry Employees Union. In the event of no financial members of the union being available for a position employment may be given to an unfinancial member or non-member of the union, but such person shall within fourteen days of being employed become a financial member of the union. Any employee who at the date of making this award is not a member of the union shall become a financial member within fourteen days. (FMIPA 1996, c.54)

Union coverage in the meat processing industry by the AMIEU appears unlikely to change because of the 'more conveniently belong to' rule. However, other aspects of the WRA 1996 may have implications for union representation in the industry, including for example, the right to chose union membership and the restriction of access of union officials to workplaces.

4.4 Unregistered and informal agreements

In meat processing, as in other industries, there are a small number of employers and employees who choose not to formally sign an award or agreement to define their work arrangements. Instead, they rely on unregistered (but written) 'site agreements' or simply on verbal agreements and 'custom and practice'.

Site agreements are, in effect, the formalisation and documentation of arrangements normally regarded as workplace 'custom and practice'. Examples of site agreements include agreements to modify tally calculation formulae; variations to minimum and maximum tally levels for particular classes of livestock; additional penalties for processing animals with particular conditions such as lice, maggots, burrs or excessive dirt; agreements to provide additional benefits for employees on workers' compensation (such as remaining eligible for leave entitlements); and agreements detailing how seniority systems are to apply in practice.

The number of site agreements currently being used in the meat processing industry is unclear. Only one major meat processor reported the use of such a private agreement at one of their plants. In Victoria, at least four export processors and ten domestic processors are believed to currently have unregistered site agreements which operate in conjunction with FMIPA 1996. The prevalence of site agreements in other states is not known, but in general, they appear to be more common at smaller domestic processors with few employees, typically owner-operated slaughterhouses providing a service kill for local customers. They make up only a small proportion of Australia's meat

processing output and employment and do not always operate on a year-round basis. (industry consultations).

With the advent of enterprise agreements which can address the circumstances of each workplace more directly than awards, it is likely that site agreements — as a form of unregistered workplace agreement —will decline as more processors move towards negotiating registered enterprise agreements.

5 STRUCTURE OF THE WORKFORCE AND HOURS WORKED

This chapter describes work arrangements in the meat processing industry related to contracts of hire, recruitment, promotion and termination of employees, hours of work and rostering and shift arrangements.

The key arrangement for the industry in this area is 'daily hire'. Notable changes by some meat processors over the last five years have included moves to more permanent contract of employment arrangements, more regular work hours and multiple shifts.

5.1 Introduction

This chapter looks at work arrangements in the meat processing industry which can affect the number and status of workers employed and their hours and rosters of work. These arrangements affect firm performance in terms of labour costs, capital utilisation, productivity, product quality and timeliness of output. They affect workplace flexibility via their effects on the ability to respond and adjust to changes in product demand, supply chains, regulatory requirements and other aspects of the operating environment.

The work arrangements examined are those documented in current awards and Certified Agreements (CAs). Examples of 'custom and practice' from industry participants consulted for this study are also discussed. Several companies have achieved significant changes in work arrangements regarding their ability to adjust employee numbers and/or hours, demonstrating that at least part of the meat processing industry is responding to changing competitive conditions. Contract of employment arrangements are examined first, including daily hire, part-time and casual employment. This is followed by a description of recruitment, promotion and termination arrangements, hours of work and shiftwork arrangements.

5.2 Contract of employment arrangements

Contract of employment refers to the way in which workers are engaged by their employer. Types of employment contracts include:

- permanent employment, which is long-term, ongoing employment;
- temporary employment, which is for a fixed period of time only; and
- casual employment, which is not fixed or guaranteed, but organised on an 'as needs' basis (Deery et al 1997, p. 38).

These types of employment can be full-time or part-time, depending on the number of hours worked per week.

In the Australian meat processing industry, the most common contract of employment arrangement is a type of permanent but flexible employment known as 'daily hire', most of which is conducted on a full-time basis. The *Federal Meat Industry (Processing) Award* (FMIPA) 1996 and various industry CAs allow for other types of employment including permanent part-time employment and for casual employment but these are not as widespread. Part-time employment is not common in this industry, while casual employment tends to be used primarily to cover absences of permanent (daily hire) employees and other temporary situations.

Daily hire arrangements

Meat processing is one of the last industries in Australia to retain 'daily hire' for permanent employees. This means that workers are employed on an ongoing basis 'by the day', as opposed to permanent employees on a weekly wage or annual salary arrangement as is common in most other industries.

Historically, daily hire arose from the seasonal nature of meat processing and the high variability in daily throughput. In these conditions, daily hire allows employers to adjust the number of workers required each day. This feature has been retained by many meat processors, even though for some parts of the industry, seasonal and other throughput variations appear to be less significant than they once were.

Award provisions for daily hire

FMIPA 1996 specifies that as a general rule, meat processing workers shall be employed by the week and their pay shall be calculated on a weekly basis (c. 19.1.1). The exceptions to this are casual employees (discussed below) and, more importantly, all workers engaged under the 'tally and incentive pay systems' of FMIPA 1996, who must be employed as 'regular daily employees' (App. 3, c. 2.1). This applies to:

> all employees employed in establishments being abattoirs and boning rooms and/or pre-packing areas, rooms or factories in which any employees are working under any tally, or piece-work system. (FMIPA 1996, App. 3, c. 1.1)

FMIPA 1996 technically gives employers a choice of electing to work under weekly hire or tally (ie daily) hire arrangements (c. 26.1). However, virtually all major export abattoirs moved to the tally during the 1960s and are not able to unilaterally switch back to weekly hire and time-based work under FMIPA 1996. This is because the award tally provisions of Appendix 3 (and not the weekly hire provisions in the body of the award) apply for all abattoirs operating to payment by results prior to the commencement of the award (c. 26.2).

Under FMIPA 1996 then, virtually all abattoir and boning room workers are employed on a daily hire contract. Their employment terminates at the end of each day, but 'without prejudice' to entitlement to other Award conditions for permanent workers, including sick leave, long service leave, annual leave and superannuation (App. 3, c. 2.2) but excluding severance payments. Payment is calculated per day according to tally and attracts an additional 10 per cent daily hire loading (App. 3, c. 2.5).

Even though their employment is terminated on a daily basis, daily hire workers have guaranteed ongoing employment until the engagement — as opposed to their daily work — is terminated. Where they are not required for work on a particular day (that is, a temporary stand-down), notice of the termination must be during normal hours the day before termination (App. 3., c. 2.3). As regular rostered employees, daily employees must be at work at the normal starting time unless they have been advised the day before that they are not required for that day (App. 3 c. 2.4). Where they are advised not to work on a rostered day, they must be paid one fifth of the minimum weekly tally. It is therefore in the employer's interest to offer enough work to enable daily hire employees to meet the minimum weekly tally.

The *NSW Butcher's Wholesale (Country) Award 1996*[1] differs to FMIPA 1996 in that although employees can be 'engaged either as a weekly hand or a daily hand' (NSW 1996, c. 39(i)), weekly hire is the main type of employment for non-casual workers. In this award, daily hire is equivalent to 'regular casual' employment which is paid at a casual rate of pay but requires attendance at work each day unless notified otherwise (c. 39 (iv)). All non-casual workers employed under this NSW award are entitled to standard notice periods and redundancy payments in the event of redundancy (NSW 1996, c. 49 (i)), although some important exemptions apply for seasonal closures (see section 5.4).

[1] NSW has three Butcher's Wholesale Awards covering different regions, namely, Country, Newcastle and Northern and Wagga Wagga (see chapter 4).

Agreement provisions for daily hire

Most, but not all, meat processors using CAs have retained daily hire as the predominant type of permanent employment (but may allow for weekly hire or other permanent employment arrangements also). However, there is considerable variation in the detail and application of daily hire arrangements between meat processing CAs. This would indicate that over the last three to five years, some (predominantly larger) processors have been able to use CAs to negotiate contract of employment arrangements which better suit their own firm's employment requirements.

For example, one Victorian processor employs its permanent butchers, drivers, lumpers, breakers up, loaders and meat room labourers as weekly employees, with slaughter floor workers and all others hired as daily employees (MC Herd 1995, c. 2.1.2). Another engages 'drivers and the afternoon lamb cutting shift' as weekly employees but all others as 'regular dailies' (Castricum Bros 1997, c. 2.1.2 (a)). By contrast, other meat processors' CAs have included only one type of permanent employment, with all permanent employees engaged by the week (Fletchers 1995, c. 2.2; RJ Gilbertson 1994, c. 2.1.2) or all engaged as 'regular dailies' (Teys 1997, c. 12 (i); AMH Dinmore 1996, c. 13).

All CAs which include daily hire arrangements extend all normal leave and superannuation conditions of permanent employment to daily hire employees. Importantly, the ability to stand-down daily hire employees at short notice is retained in all CAs using daily hire, as is the daily hire penalty of 10 per cent.

In addition to these award and agreement arrangements, custom and practice have long dictated that in much of the industry, long-term daily hire employees work on a full-time permanent basis and receive virtually all the normal benefits of permanent employment, including guaranteed day-to-day employment and severance payments in the event of termination (to which they are not always entitled according to the letter of awards and CAs). In some cases, this extension of entitlements has been limited through CAs or through informal company policies. For example, at least one company guarantees regular, daily employment only for permanent daily hire employees with more than four years' service but not for those with a shorter record of service (industry consultations).

In some CAs, the formal extension of termination and redundancy provisions to daily hire employees means that the practical differences between daily and weekly hire employees have lessened (see section 5.4). However, as in all redundancy situations, these provisions apply only in cases of permanent termination due to major workplace change or closures which necessitate workforce reductions. The primary feature of daily hire — the ability to stand

down employees with little notice and low additional costs[2] — remains available.

Effects of daily hire

In practice, a large proportion of full-time daily hire meat workers — whether covered by awards or agreements — are now employed in a similar fashion to more standard permanent employees (such as weekly wage or annualised salary workers). All receive conditions of permanent employment such as leave entitlements and superannuation, and some are formally or informally entitled to termination and redundancy provisions. However, status as a daily hire worker still carries important implications for employment stability and continuity and for workforce costs and flexibility.

Effects of daily hire for the firm

Even though daily hire employees are, for all practical purposes, permanent employees, they can be temporarily stood down or terminated with one day's notice in the event of no work being available. Retaining daily hire therefore allows the employer greater flexibility — in particular, lower adjustment costs and faster response times — in changing the size of the workforce on a daily basis if necessary. This is an important mechanism in reducing short-term, day-to-day labour costs where seasonality and throughput variability are factors in production planning. These short-term effects on labour costs are shown in column two of table 5.1.

In theory, long-term labour costs should also be lower for daily employees than for weekly employees because of the lower costs in termination and redundancy (see table 5.1). However, these savings are not guaranteed to apply in all cases due to the application in many CAs (or if not included in the CA, sometimes applied in practice) of termination and severance payments to long-serving daily hire employees (see section 5.4). Potential savings also need to be offset against the daily hire penalty, which has been firmly established in the industry at 10 per cent.

[2] No cost additional to minimum weekly tally payments (FMIPA 1996) or other award or CA entitlements which may apply.

Table 5.1: Summary of effects of daily hire on short-term and long-term firm performance

General effects of daily hire:	*Unit Labour Costs*		*Labour Productivity*[a]		*Product Reliability*		*Product Quality*	
	S/T	L/T	S/T	L/T	S/T	L/T	S/T	L/T
One day notice for termination	↓	↓	—	—	—	—	—	—
No wage cost if no daily work	↓	↓	—	—	—	—	—	—
Daily hire penalty of 10%	↑	↑	—	—		—		—
Possible disincentive for staff training and development	↓	↓	—	↓	—	↓	—	↓
Possible disincentive for staff commitment and loyalty	—	—	↓	↓	↓	↓	↓	↓

a Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

Considered by itself, the daily hire penalty increases unit labour costs by 10 per cent above the cost of weekly or other permanent employees. While some processors have used CAs to move all employees to weekly hire arrangements, most have retained daily hire for some or all employees. This would indicate that for these firms, the ability to alter the number of employees on a daily basis is important. Discussions with some processors indicated that even where they have not used this facility for some time, the knowledge that their workforce size can be adjusted if necessary is important due to continuing perceptions of uncertainty about future throughput levels.

To the extent that daily hire creates an atmosphere or perception of unreliable or impermanent employment, it may also act as a disincentive to invest in training and staff development for both employers and employees and may have a negative impact on employee morale and commitment to the company. If it arises, negative morale can affect the speed, quality and timeliness of workers' output in the short-term and, by acting as a disincentive to training and development, can also affect quality, speed and timeliness of work in the long-term.

Effects of daily hire on employees

The main effect of daily hire on employees is that their day-to-day employment and income is less secure. Notice periods for temporary and seasonal terminations can be as short as one day, although with the decline of seasonal closures in the industry, such short-term stand-downs or terminations may now be rare for more permanent daily hire employees.

On the other hand, daily hire workers are paid a wage premium of 10 per cent for this flexibility. In the event of redundancy (as opposed to termination), many daily employees are — in practice if not actually written into their CA — given notice and severance pay in a similar way to other permanent employees.

As mentioned above, where daily hire is perceived to decrease security of employment, it may also affect workplace culture, employee commitment and attitudes to training. Where workers feel insecure in their employment, they may be disinclined to undertake training, particularly if they must bear some or all of the costs or if it requires a long-term commitment.

Part-time and casual employment arrangements

Use of part-time and casual employment

The use of part-time and casual labour in meat processing varies across workplaces. Processors operating multiple shifts tend not to use part-time employment for processing workers. Indeed, part-time employment appears to be most common for cleaning workers doing short, regular shifts between the processing shifts.

Some larger processors maintain a pool of regular casual workers to cover absences or to occasionally supplement permanent workers (daily hire and others) during temporarily busy periods. At least one processor is known to use no casual employees at all, preferring to instead reduce throughput if too many employees are absent (industry consultations).

Some firms use casual labour as a form of initial recruitment, hiring people first as casuals and later upgrading them to full-time employees as their skills and experience improve and vacancies arise. This allows a certain amount of on-the-job training and vetting of the employee before they are taken on permanently. For example, one large export processor recruits general abattoir workers (including unskilled slaughter, boning and packing labourers) firstly as casuals for the regular casual pool, then, after gaining enough experience and skills, they can apply for permanent full-time vacancies (industry consultations).

Such practices differ from the use of casual employees in the industry in previous decades, when high day-to-day variability of throughput meant that many more abattoir labourers and even higher skilled workers were employed on a casual — but often regular — ‘hire-at-the-gate’ basis.

Award provisions for part-time and casual employment

FMIPA 1996 regulations for employing part-time employees (permanent or otherwise) are highly prescriptive. In particular, the number of part-time employees may not exceed one for every three full-time employees (c. 19.3.3). They must work between 20 and 32 hours per week and between four and eight hours per day, from Monday to Friday (c. 19.3.2). Permanent part-time employees are to be paid all leave and other on-costs on a pro-rata basis, as well as tally, daily hire, shift penalties and overtime rates where applicable.

Like permanent daily hire workers, casual workers are employed by the day or by the shift, with employment terminating at the end of each shift. However, casuals are not guaranteed ongoing work and are not entitled to paid leave or other conditions of permanent employment.

The minimum engagement period is four hours for casual processors and two hours for casual cleaners (c. 19.2). If casual employees terminate their own employment before the end of normal hours during a shift, they are not entitled to payment for the actual time worked (c. 19.2.2). That is, if they do not finish the shift, they are not to be paid for any of it. This provides a strong incentive for casual tally workers to finish their shift rather than allowing for the possibility of them leaving when a desired level of income has been reached.

Casual employees are entitled to a 20 per cent loading in lieu of leave entitlements (c. 19.2.4) and are to be paid for all fares 'reasonably incurred' to and from work (c. 19.2.8). Their base rate is calculated from the highest class of work performed at any time during the shift (c. 19.2.6) and will include any tally, shift, overtime or other penalties which normally apply. They can request payment for work completed at the end of each day (c. 19.2.9).

Like other employees, casuals can be required to work 'reasonable overtime'. They are entitled to overtime penalties of 150 per cent for the first three hours and 200 per cent thereafter (c. 19.2.10). Excepting shiftworkers, casuals are to be paid double their normal rate for any time worked between 8pm Friday and 4am Saturday and all hours on Sundays (with a minimum of four hours on Sundays) (c. 19.2.11-13).

The *NSW Butcher's Wholesale (Country) Award 1996* does not prescribe the number of part-time employees. Instead, part-time numbers and hours must be set according to the NSW *Industrial Relations Act 1996* (c. 18(iii)). Casual employees in the NSW award are divided into 'regular casuals', who must present for work every day unless notified by the employer that they are not required (in a similar manner to daily hire employees) and 'general casuals' who work on demand (c. 39). Regular casuals are paid a 10 per cent penalty while

general casuals are paid a 12.5 per cent penalty, with a minimum of four hours' work time (c. 18).

Agreement provisions for part-time and casual employment

The arrangements for part-time and casual employees in CAs tend to reflect the individual company's actual use of these forms of employment. Some agreements make no provision for the employment of part-time workers because the company does not apparently use them (eg, Castricum Bros. 1994 and 1997). Others contain arrangements for casuals who work occasionally or regularly, depending on operational requirements.

Virtually all CAs follow FMIPA 1996 in setting a minimum shift duration for casuals of four hours. Casual penalty rates in CAs vary from 10 per cent (Teys 1997, c. 14(ii)) up to 25 per cent (MC Herd, 1995 c. 2.1.4 (c)) (see chapter 6).

Some agreements include clauses which limit the period of employment for casuals — for example, a limit of 20 ordinary working days or of regular weekend work only (Teys 1997, c. 14 (iii)). Another recent CA includes the unusual feature of automatically changing an employee's status from casual to daily or weekly hire (depending on their occupation) after three consecutive days of work (MC Herd 1995, c. 2.1.4). This has the effect of reducing the amount paid in casual penalties (a very high rate of 25 per cent for this firm) but increasing the amount due in on-costs for permanent workers.

Effects of part-time and casual employment

Effects of part-time and casual employment for the firm

Part-time employment is not widely or consistently used in meat processing. It appears to be more common for cleaning staff, who tend to work a short shift of around four hours between full-time processing shifts, or for regular weekend workers.

In terms of unit labour costs, part-time workers will generally cost more than the equivalent hours performed by full-time employees due to the fixed 'per worker' nature of some on-costs such as recruitment and induction training costs. Where they have equal training and experience, part-time employees should have skills and abilities comparable to full-time employees, with no effect on product reliability or quality (see table 5.2).

Table 5.2: Summary of effects of part-time and casual employment on short-term and long-term firm performance

Arrangement:	*Unit Labour Costs*		*Labour Productivity*[a]		*Product Reliability*		*Product Quality*	
	S/T	L/T	S/T	L/T	S/T	L/T	S/T	L/T
Permanent part-time employment	↑	↑	—	—	—	—	—	—
Regular casual employee pool	↑	↑/↓	↑	↑	↑	↑	↑	↑
Occasional casual employment	↑	↑/↓	↓	↓	↑	↑	↓	↓

a Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

In looking at the use of casual employees, different effects on the firm can be identified for 'regular casuals' and 'occasional casual' workers. Some larger processors maintain pools of 'regular' casual workers (ie a contact list of available workers) which allows them to increase employment numbers quickly and easily, while minimising the administrative costs of casual recruitment. This system provides timely and easily administrated short-term flexibility to cover absences or temporary increases in throughput and at the same time, allows the casual employees to build up knowledge and experience. In the long-term, 'regular' casual employees would therefore carry lower administrative and on-costs and be better able to maintain productivity levels, product quality and timeliness than less experienced, occasional casual workers. Both regular and occasional casual workers will enhance a firm's ability to deliver products reliably and on time by minimising the need to reduce or slow throughput due to staff absences (see table 5.2).

Casual workers are paid loadings or penalties in lieu of paid leave and other benefits of permanent employment. For casuals employed for more than a certain period and earning over a certain amount, the employer must pay superannuation contributions. In FMIPA 1996, these are set at one month of employment and at least $450 earned in a calendar month and $50 in any one week (c. 29.2). Employing casuals in place of permanent workers will therefore increase wage costs and decrease some labour on-costs.

The relative cost of employing casual workers in place of permanent employees will depend on the size of loadings and on-costs payable as well as the length of employment periods involved. Generally, the immediate unit labour costs of employing casuals will be higher than the cost of permanent workers. However, total labour costs over the longer term can be reduced if the use of casual labour means the firm can maintain a smaller permanent workforce (see table 5.2).

Effects of part-time and casual employment on employees

Compared with full-time employment, part-time workers have decreased hours and incomes but get the same security and other benefits of permanent employment. This will suit some workers — such as parents of young children or small acreage farmers — depending on their individual circumstances.

Casual workers do not receive paid leave and face increased uncertainty of employment. However, they receive a higher immediate rate of pay as compensation for this. In some firms, casual work also provides an entry route to full-time and permanent employment, especially where they are part of a pool of regularly employed casuals.

5.3 Recruitment and promotion arrangements

Recruitment strategies

While aggregate employment in the meat processing industry has been shrinking, some individual workplaces will continue to expand and others will continue to recruit new workers to replace those who have left.

Some firms prefer to recruit experienced workers, often from nearby abattoirs which have scaled down or closed, or to promote regular casual workers to permanent positions as vacancies arise. Others prefer 'green' recruits. That is, workers without industry experience (and importantly for some employers, without knowledge of pre-existing workplace habits and attitudes) who can be trained on-the-job or through formal training programs (industry consultations).

Each approach has merit, depending on the objectives to be achieved. Where a company wants workers to quickly fill vacancies in an established production chain team, recruiting experienced workers or previously employed casuals may be preferable. This strategy can help to keep training and induction costs down, and minimise any slowing of the production chain as the new workers come up to speed. The short-term effects on unit labour costs and worker productivity are therefore less than the effects of recruiting inexperienced workers.

Where a company is setting up a greenfield site or wants to implement new procedures or technologies, people new to the industry who can be trained from scratch may be more suitable, but they will cost more initially due to higher induction and training costs and possibly a longer period before they are fully up to speed. Some industry participants commented that, particularly on greenfield sites, selecting recruits from outside the industry can help to quarantine the

worksite from established work habits and attitudes which experienced abattoir workers may bring with them. The relative effects of these different strategies are summarised in table 5.3.

Table 5.3: Summary of effects of recruitment arrangements on short-term and long-term firm performance

	Unit Labour Costs		*Labour Productivity*[a]		*Product Reliability*		*Product Quality*	
	S/T	L/T	S/T	L/T	S/T	L/T	S/T	L/T
General recruitment strategies:								
Recruit from casual employee pool	↓	↓	↑	—	↑	—	—	—
Recruit experienced workers	↓	↓	↑	—	↑	—	—	—
Recruit 'green' workers	↑	↑	↓	—	↓	—	↓	—
Restrictions of FMIPA 1996:								
Limit on number of trainees	—	—	—	↓	—	—	—	↓
Limit on number of apprentices	—	—	—	↓	—	—	—	↓

a Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

Although FMIPA 1996 does not specify general recruitment procedures, it places restrictions on the employment of trainees. Traineeship systems must be established and the number of trainees must not exceed 33 per cent of all permanent employees (c. 45.2–4). This is more generous than the previous 1981 Federal Award, which specified that trainees could not exceed 20 per cent of the permanent workforce (Pt.I, 10E (4)) and apprentices could not exceed one for every two adult employees (Pt.I, 14 (a)). However, it still places strict limits on the flexibility and choice available to employers in recruiting certain types or levels of employees, and may inhibit long-term employee training and development strategies. This in turn can harm company efforts to improve productivity, product quality and product reliability in the long-term.

FMIPA 1996 has no limit on the employment of juniors (under 21 years) except that they may not work on night shifts (c. 33.13). The heavy physical nature of the work may preclude the employment of juniors for some tasks in some areas of the abattoir.

Promotion opportunities and procedures

Procedures for selecting employees for promotion and/or training are generally dictated by the immediate requirements of the vacancy and by the customs and

practices developed at each firm, rather than by award and agreement arrangements. Traditionally, seniority (length of service with the particular firm) has played a major role in the selection of staff for internal promotion (see below). Promotion from labourer to the key skilled occupations of slaughterer and boner has generally occurred by moving through various grade levels according to skills, industry experience and seniority.

More recently, promotion procedures for general processing workers have been influenced by the introduction by the National Meat Industry Training Advisory Council (MINTRAC) of an industry-wide training and skills classification system. This system provides guidelines and procedures for formal recognition of existing knowledge and skills as well as a structured hierarchy of training programs and qualifications which can be used by management and employees to clarify promotion paths and procedures (see chapter 7).

Impact of seniority and union preference in recruitment and promotion

Recruitment and promotion in the meat processing industry have traditionally been dominated by two principles: seniority and union preference. Seniority is the practice of selecting staff for promotion, termination or other purposes based on their length of service with the particular company. Union preference refers to the practice of selecting union members over non-members in recruitment or promotion. Giving preference to union members (or indeed, to non-members) in awards and CAs is illegal under the WRA 1996 and is no longer enforceable as an award condition (since July 1998).

Effects of seniority and union preference in recruitment and promotion

Seniority and union preference operate in conjunction with (or occasionally instead of) merit and other performance-based selection principles. It is difficult to isolate the practical effects of seniority and union preference on firm performance, particularly in the short-term. However, where they have a strong influence, seniority and union preference can impede management's ability to select employees according to merit and ability, and can impede employees' access to fair and equal employment, promotion and other opportunities. They directly contravene the equal employment opportunity principles which have been included in many recent meat processors' CAs.

If seniority and union preference imply the recruitment and promotion of more experienced workers at a more senior level than may otherwise have been the case, this may result in an increase in short-term unit labour costs even though induction and training costs would be lower. On the other hand, the more

experienced workers recruited or promoted through seniority and preference may have a positive effect on short term labour productivity relative to other new recruits.

In the long-term, these factors may have a negative impact on the commitment and productivity of employees, especially if they act as a disincentive to individuals to extend their skills and knowledge. This might eventuate if employees perceive that seniority and/or preference operate instead of (as opposed to as an adjunct to) merit in staff in selection.

Application of seniority in recruitment and promotion

Seniority is not included in FMIPA 1996. Instead, it has traditionally arisen according to the custom and practice established at each workplace (IC 1994).

In recruitment, seniority has sometimes been relevant to the industry where an abattoir has re-opened after a regular seasonal closure. In this context, seniority has acted as a mechanism to improve job security for more experienced workers by giving them first preference in employment when the abattoir re-opened. It also has provided some assurance for processing companies that they would get their more experienced workers back after a seasonal break. With the decline of seasonality of operation in the industry over the last decade, seniority has become less relevant as a practical consideration in recruitment, although it may still be used in smaller, seasonal abattoirs (industry consultations).

More recently, seniority has been formally included in some meat processors' CAs in relation to promotion. However, it is generally applied only where employees meet all other job requirements:

> Seniority will be applied as agreed through the Consultative Committee, recognising the employees being employed on the basis of seniority have the skills required for the jobs available. (MC Herd 1995, c. 2.1.8)

And:

> The employer shall engage and retrench employees according to their seniority; provided that where two or more employees have equal seniority, the employer shall determine who shall be engaged or retrenched....nothing in this clause shall require an employer to employ or retain employees in any position for which they are not competent. (Teys 1997, c. 26 (ii)).

In some CAs, seniority and how it is attained are not defined. In others, it is defined in detail. For example, at one company seniority is 'granted' to all employees (other than casuals) who have worked 90 actual days within a 12 month period (Teys 1997, c. 26).

At another, seniority is defined as 'length of service' (after a trial period of 60 work days over six months):

> an employee shall acquire length of service on completion of a trial period totalling 60 days actually worked within a period of six months from the employee's commencement date....the employer will engage and retrench employees according to their length of service [as well as merit and competence]. (AMH Dinmore 1996, c. 23)

These seniority clauses exist in conjunction with — and in contradiction of — equal opportunity clauses, which require recruitment and promotion to be on the basis of merit and suitability for the vacancy (Teys 1997, c. 10; AMH Dinmore 1996, c. 3). In both the above examples, seniority is forfeited if service or attendance become unsatisfactory or if the employee ceases to be a 'financial' member of the union (Teys 1997, c. 26(iv); AMH Dinmore 1996, c. 23.5)[3].

In practice (and in CAs which specify seniority systems), seniority generally operates only within each area of the plant, so that seniority privileges on the slaughter chain would not necessarily confer the same privileges for obtaining work in the boning room or elsewhere in the plant (Teys 1997, c. 26(iii); AMH Dinmore 1996, c. 23.3). Departmental seniority in promotion can provide an incentive for employees to specialise in one area of the plant, as opposed to moving around the plant and developing a range of skills and experience. This can have a positive or negative effect for employers, depending on the level of specialisation required (as opposed to inter-departmental multiskilling).

The introduction by MINTRAC of a formal training structure may weaken these effects of seniority on promotion as more workers in the industry gain formally recognised vocational skills and qualifications (see chapter 7).

It was suggested by some industry participants that the seniority system may contribute to the industry's poor OH&S record by enabling older workers to be promoted to positions for which they may not be physically suitable (ie physically demanding jobs). However, there is no evidence that this is a common practice. Data on work-related injury and illness rates by age show that older workers in meat processing have fewer, not more, injuries than younger workers.

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[3] In the case of Teys 1997 CA, this interesting feature largely negates the effect of another clause which states 'The Company recognises that an employee's decision to belong to a trade union is entirely the discretion of the individual'. (c. 25)

Application of union preference in recruitment and promotion

Preference for union members in 'engaging or dismissing' labour is currently part of FMIPA 1996. This specifies that preference in recruitment must be given to financial members of the AMIEU (c. 54.1). Where no members are available, the job may be given to 'an unfinancial member or non-member' who must join (or 'become financial') within 14 days of commencing work (c. 54.2).

From 1998, the influence of union preference can be expected to decline because union preference in awards and CAs is illegal under the WRA 1996. Although it remains in the text of the FMIPA 1996, it has been unenforceable since July 1998.

Similar preference clauses have been included in a number of meat processing CAs, all of which have so far been signed with the AMIEU. Some agreements have qualified their preference clause by requiring other selection criteria to be met:

> Nothing in this clause shall require the employer to engage any person who is not able or competent to perform efficiently the work for which the employer intends to engage an employee....[or] to engage any particular person who the employer has reasonable grounds to believe would not give satisfactory service. (MC Herd 1995, c. 7.1.3)

Even with such qualifications, the effect of union preference in recruitment and promotion is to limit the ability of management to utilise principles of merit and equality of opportunity in employment selection. Given the dangers and high accident rates of abattoir work (and its history of poor workplace relations), proper selection of employees should be given high priority in recruitment and promotion.

In the case of CAs, the Office of the Employment Advocate has initiated proceedings in the AIRC to have union preference clauses removed from all CAs, since they are illegal under the WRA 1996 (after July 1998) (OEA 1998).

5.4 Termination and redundancy provisions

Termination and redundancy provisions have often been contentious in the meat processing industry and have long been a significant cause of disputes. This is because the industry has traditionally been seasonal and, more recently, has experienced significant rationalisation and ownership changes.

Unfortunately, as in other industries, these have included cases where company closure has resulted in incapacity to pay for outstanding leave entitlements, redundancies and other debts. One recent high-publicity case in the meat

processing industry was the closure of the RJ Gilbertson abattoir at Grafton, NSW in 1997, which allegedly left the appointed administrators owing around $1.9m in unpaid holidays, long service leave, redundancies and other liabilities to 245 former employees (*Sydney Morning Herald*, 11 Dec 1997, p. 9 and industry consultations).

Award provisions for termination and redundancy

Meat processing employees who work to tally under FMIPA 1996 are permanent daily hire (or 'regular daily') employees. Their conditions of employment include termination at the end of each day of work and the ability of both sides to terminate employment with one day's notice, 'whether the employee is employed on that day or not' (App. 3, c. 2.3). This is an important feature of this form of employment and, given the continuing uncertainties of daily throughput for some processors, one of the reasons for it being retained by employers.

For 'weekly' hire employees, FMIPA 1996 sets out the following standard notice periods for termination:

1 year or less	1 week
1 to 3 years	2 weeks
3 to 5 years	3 weeks
5 years or more	4 weeks.

For weekly hire employees over 45 years old with at least two years' service, one additional week's notice is required (c. 23.1.2).

In the case of redundancy, FMIPA 1996 sets out fairly standard provisions for weekly hire employees where their job is no longer required and this is not due to 'ordinary or customary turnover' (c. 22.1). In the meat industry, this definition is important as it distinguishes redundancy from customary, seasonal stand-downs (which can extend over many months). FMIPA 1996 redundancy provisions require employers to consult with the employees and the union, to grant one day's leave per week during the notice period for jobseeking activities, to notify the then Commonwealth Employment Service (CES, now replaced with Centrelink) and severance pay of two weeks' pay for each year of service, up to a maximum of eight weeks' pay (c. 22.3). This maximum level is equal to that found in many other Federal industrial awards including the *Poultry Industry Award 1994*, the *Transport Workers Award 1983* and the *Metal Industry Award 1984.*

Although not technically covered by the redundancy provisions of FMIPA 1996, these redundancy arrangements have, in the past, been extended to daily

employees (who have an ongoing engagement of employment but are technically terminated at the end of each day) where their jobs are no longer required in the long term. This was achieved through the use of site agreements and other informal supplements to the Award. Over the last five years, this role has been progressively filled by CAs, particularly among larger abattoirs.

The *NSW Butchers' Wholesale (Country) Award 1996* is more generous in maximum severance payments than FMIPA 1996, with up to 16 weeks' severance pay for those aged under 45 with six or more years of service, and up to 20 weeks for those aged over 45 with six or more years of service (c. 49.5). These provisions apply 'in respect of full-time and part-time persons employed in the classifications specified in this award' (c. 49).

The permanent nature of job loss through redundancy means that job losses due to seasonal downturns are generally not treated as 'redundancies' in the meat industry. The NSW award is notable for containing a specific 'seasonality' clause in its termination and redundancy provisions (c. 49.1). This allows processors to terminate their employees without severance pay liability where the terminations are a 'direct result of seasonal factors affecting the meat industry or shortages of livestock', that is, due to 'climatic features such as droughts, floods and fires and changes in seasons and animal breeding cycles'. However, where such a plant has been closed for eight months, the closure will be deemed to be permanent and severance payments are due (c. 49.1(vii)).

Agreement provisions for termination and redundancy

To date, termination and redundancy provisions negotiated by meat processing firms through enterprise agreements have varied. Notification periods are generally the same as FMIPA 1996 but some CAs provide significantly higher maximum severance payments. Some examples are shown in table 5.4, including one CA which has taken the unusual step of keeping its redundancy package for 'long-term employees' confidential (QAC Ipswich 1997, c. 24).

In general, the main difference between awards and agreements in this area is that while the ability to terminate daily employees at a day's notice has been retained in most CAs, redundancy provisions have often been extended to formally apply to all permanent employees, including daily employees.

Table 5.4: Examples of current redundancy arrangements in the meat processing industry (awards and CAs)

Source	*Eligibility*	*Notice period*	*Maximum severance pay*[a]	*Other conditions*
FMIPA 1996, c. 22	weekly employees, where employer has 15 or more employees	1 to 4 weeks (plus 1 week if over 45) or pay in lieu	8 weeks (not to exceed earnings due if emp'ment had continued until normal retirement)	1 paid day off per week in notice period to attend job interviews (proof required). Severance pay can be varied if company finds acceptable new employment for employee.
NSW Award 1996, c. 49	full-time & part-time employees; where employer has 15 or more employees	1 to 4 weeks (plus 1 week if over 45) or pay in lieu	16 weeks (20 weeks if over 45)	Seasonal closures not liable for redundancy payments until 8 months after closure.
AMH Dinmore 1996, c. 24 & c. 25	regular daily employees	1 to 4 weeks (plus 1 week if over 45) or pay in lieu	8 weeks ordinary pay	1 paid day off per week in notice period to attend job interviews (proof required). Severance pay can be varied if company finds acceptable new employment for employee.
Teys Bros Beenleigh 1997, c.23 & c. 24	all permanent employees	1 to 4 weeks (plus 1 week if over 45) or pay in lieu.	9 weeks ordinary pay	1 paid day off per week in notice period to attend job interviews (proof required). Severance pay can be varied if company finds acceptable new employment for employee.
Q Meat Ipswich 1997, c. 24	all permanent employees	As per 'Statement of Policy', Queensland IR Commission Decision, 16 June 1987.		Improved redundancy package for long term employees. Details confidential to parties.
MC Herd 1996, c. 2.8	all permanent employees	2 weeks' pay in lieu of notice	26 weeks' ordinary pay	Employees who are terminated for up to 8 months and are subsequently not re-hired paid additional 10 % severance pay. To be subsequently considered for employment on same basis as new employees.
Castricum Bros No 2 1997, c. 2.8	all permanent employees	2 weeks' pay in lieu of notice	26 weeks' ordinary pay	To be subsequently considered for employment on same basis as new employees.

a In all cases, severance payments can be varied if incapacity to pay is proven before the relevant Commission.

Source: FMIPA 1996, *NSW Butchers Wholesale (Country) Award 1996* and Certified Agreements.

One example is a CA in which all workers (excepting casuals) are 'regular dailies' (with a 10 per cent loading). It specifies notice periods for termination and severance payments as per FMIPA 1996 for all employees terminated as a result of 'changes to machinery, procedures or other relevant matters likely to affect employment', that is, who are made redundant (Teys 1997 c. 23 (i)). Terminations for other reasons (such as reduced stock throughput) can still be made with one day's notice.

This arrangement provides increased long-term employment security for permanent employees while still allowing the company some day-to-day flexibility in the event of seasonal or other temporary throughput variations. However, the distinction between termination (without severance payment) and redundancy (with payment) can cause conflict where the reasons for the distinction are disputed.

Two rather more generous Victorian CAs provide two weeks' pay in lieu of notice and two weeks' ordinary pay for each year of service up to a maximum of 26 weeks' pay, for both weekly and daily hire employees 'where the employer decides to close down all or part of an operation or calls for voluntary redundancies' (Castricum No 2 1997, c. 2.8; MC Herd 1995, c. 2.8).

In addition, if employees covered by these CAs are terminated (without severance pay) on the understanding that they will later be re-employed and this does not occur within eight months, severance payments plus 10 per cent will then become payable.

Where CA redundancy provisions increase severance payments and/or are applicable to a larger number of employees, a firm's redundancy liability — and therefore its long-term labour costs — will obviously increase.

Another arrangement used in some CAs is to provide higher severance payments for older workers. For example RJ Gilbertson's 1994 CA (which allowed weekly employment only) provided maximum payments of 16 weeks' pay for those aged under 45 years and up to 20 weeks' for those aged over 45 (c. 4.5.3).

Some CAs also contain clauses giving those made redundant the right to be subsequently considered for re-employment on the same basis as any other new recruits (MC Herd 1995, c. 2.8.1; RJ Gilbertson 1994, c. 4.5.4; Castricum Bros No 2 1997, c. 2.8).

Impact of seniority in termination and redundancy

Seniority is not included in FMIPA 1996, but has been firmly established within the custom and practice of many firms and throughout the industry in relation to redundancy (IC 1994). It is included in some processors' CAs.

In termination situations where some but not all employees are being terminated, seniority generally implies a 'last in first off' (LIFO) policy, whereby those who have been employed longest are the last to be terminated.

In redundancy situations where some but not all employees are made redundant, seniority can be applied either on a LIFO basis, or it can operate in a way that gives older employees first choice in accepting voluntary redundancy packages.

The effect of this is to reduce management's ability to target redundancy packages to suit continuing operational requirements. In the long term, LIFO practices can directly reduce labour productivity and increase unit labour costs, by limiting the employer's ability to retrench on the basis of worker productivity (and increasing the possibility of skills mismatches among remaining workers); by reducing incentives for training for new workers who would be the first to leave; and by producing a tendency for remaining workers to become clustered at the upper ends of workplace pay scales. On the other hand, LIFO practices can reduce the short-term disruption of redundancy and can help to reduce redundancy payouts (IC 1998, p. 85).

Impact of union preference in termination and redundancy

Union preference is currently included in FMIPA 1996 (c. 54.1). Since July 1998, these clauses are no longer enforceable award matters. Union preference is also included in many current meat processors' CAs in relation to termination and redundancy but are soon to be removed from all CAs by the Office of the Employment Advocate (see section 4.3).

Prior to this legislative change, preference in termination might have been applied where some but not all employees were to be terminated. In this situation, union members would be preferred over others for any continuing employment. On the other hand, where voluntary redundancies were to be offered, union preference would see union members getting first option for the packages offered.

As in recruitment and promotion situations, union preference can impede management's ability to terminate employment or to offer voluntary or other redundancies according to operational requirements and employee preferences.

In practice, the very high rate of union membership in the industry would limit the applicability of preference in termination and redundancy situations.

5.5 Hours of work

Hours of work for meat processing are governed by awards, agreements and, at many workplaces, long-standing — but largely undocumented — traditions of custom and practice. These affect daily, weekly and annual cycles of work.

Custom and practice in hours of work

Traditionally, ordinary hours in abattoirs were worked in a single daytime shift. The day began early (around 6am) and was relatively short (averaging six to seven hours), with no weekend work and in many workplaces, a shorter working day on Friday. These arrangements were more the result of custom and practice and of the way the award-based tally affected operating costs over a shift than of specific hours of work prescribed by awards and written agreements.

Apart from closures due to seasonal stock variations, some abattoirs traditionally had an annual shut-down over the Christmas period (and in northern Australia, the wet season), although this has never been a universal feature of the meat processing industry (as it has in some manufacturing industries in the past). Many abattoirs — particularly those servicing export markets or large domestic customers — have always operated year round, with the Christmas period among the busiest times of the year.

One undocumented custom in work hours has been the practice known as the 'Short Friday', whereby work finishes several hours early on Fridays, and by extension, on the eve of certain public holidays such as Easter and Christmas. This was not unique to meat processing and was found in other parts of Australian manufacturing, but is now relatively rare in most industries. With increased competitive pressures and industry restructuring over the last decade, the Short Friday is now less common in meat processing. It is more likely to have survived in smaller, regional abattoirs, particularly in Victoria where it had been fairly widespread in the past (Maggs et al 1995). Some workplaces have replaced the Short Friday with a system of variable rostered days off (RDOs), or now use a mix of both (eg, by retaining short 'Eve's' days).

Traditionally, the Short Friday was said to be justified by the heavy, physical nature of work in abattoirs and the need for extra rest time, but it is likely to have been encouraged by the culture of short working hours engendered by the tally. On the former grounds, the Short Friday would be less necessary now

than in the past as the introduction of automatic production chains have significantly lessened the manual lifting work required at many larger abattoirs. Any need for extra rest time can also be addressed more flexibly through RDOs. As is often the case with long-established practices, the demise of the Short Friday has been unpopular with workers (Maggs et al 1995 and industry consultations).

Ordinary hours

Weekly hours of work for meat processing workers are divided into ordinary hours and overtime hours, with various shifts and rosters available at ordinary or penalty rates, depending on award or agreement arrangements.

Ordinary hours in FMIPA 1996

FMIPA 1996 sets out ordinary hours for full-time weekly meat processing workers in detail:

- an average of no more than 38 hours per week (c. 30.1), which may be worked over a roster cycle of no more than 28 consecutive days, with an optional rostered day off (c. 30.3). Weekly rosters must be posted on site and 36 hours notice given to employees for any amendments (c. 30.7);
- ordinary hours must be worked on Monday to Friday (c. 30.2) between 6am and 8pm (c. 30.4.1);
- up to 10 ordinary hours may be worked on any single day (c. 30.4.2); and
- ordinary hours for cleaners are a maximum of 7.6 hours per day, to be worked between 6:30am and midnight on Monday to Friday (c. 30.6).

These hours were unchanged from the previous Federal award (1981) and apply to the full-time day shift, which normally commences at around 6am. Ordinary hours for afternoon and night shifts (at shift penalty rates) are described in section 5.6.

For full-time daily hire employees working under FMIPA 1996, these commencement times and span of hours apply, but the length and finishing times of daily shifts are largely dictated by the operation of the tally. That is, the length of the working day is defined by the number of units (or heads) to be processed rather than the number of hours to be worked. The faster the units are processed, the shorter the working day. Over the years, as technology and work procedures have improved productivity, the standard tally-based working day has progressively become shorter, until by the early 1990s, an average working day of six to six and a half hours had become common for tally workers (industry consultations).

For permanent part-time employees, FMIPA 1996 specifies ordinary hours of between 20 and 32 hours per week, Monday to Friday, with shifts of between four and eight hours per day (c. 19.3) and pro-rata payments for all allowances, leave entitlements and penalties paid to permanent full-time employees.

Ordinary hours in State awards

State meat processing industry awards follow broadly similar prescriptions for ordinary hours as FMIPA 1996, but tend to be less detailed.

In the *Queensland Meat Industry (other than export) Award 1996* (which covers meat wholesale and retail as well as processing), ordinary hours of up to ten hours per day can be worked on any five days from Monday to Saturday, but a penalty of 25 per cent applies for any 'ordinary hours' worked on Saturday (c. 5.2).

The *NSW Butchers' Wholesale (Country) Award 1996* offers potentially greater flexibility by allowing ordinary hours to be worked as five days of eight hours each or four days of ten hours each or any consecutive three to five days of two eight hour periods each, Monday to Sunday, from 5am to 8pm (c. (iv)(b)). However, any hours arrangements must be formally agreed upon and any ordinary hours worked on Saturday and Sunday must be paid at time and a half and time and three quarters respectively.

Ordinary hours in Certified Agreements

The introduction of CAs over the last five years has enabled variation in hours of work away from the awards and from established industry practices for some larger meat processors. Variations in arrangements for work hours have included changes in the length and timing of ordinary work hours and the introduction of multiple shifts. In general, the amount of work done as ordinary hours has increased under these arrangements. In terms of enabling these changes in hours of work, the most important factor has been changes in penalty rates for shiftwork.

One notable example of experimentation in hours of work is a NSW export processor which moved from the traditional five day week of six to seven hours per day (depending on daily tally variations) to an ordinary hours roster of 13.75 hours per day for three days followed by four days off. This proved unsuccessful as workers could not maintain productivity, speed or quality over such a long shift. The company then reverted to a more standard arrangement of five eight hour days spread over a six day roster. In conjunction with other reforms, the new arrangements improved productivity and workplace morale

and decreased injuries and labour turnover relative to either the three day roster system or the previous tally-based arrangements (industry consultations).

In the AMH Dinmore 1996 CA (which incorporates a time-based rather than a tally pay system), ordinary hours of work for all full-time employees are 40 hours worked over five days of eight hours each (not including meal breaks). These hours can be worked Monday to Saturday between 5am and midnight (c. 34). In the AMH Rockhampton 1997 CA, the 40 ordinary weekly hours can be worked Monday to Saturday inclusive, and daily hours may be up to 10 hours per day (not including meal breaks). The first shift must be worked between 5am and 7pm (c. 9). These arrangements allow significant labour flexibility (including enhanced shiftwork arrangements) and importantly, increase plant capacity utilisation, but do not require excessively long or irregular ordinary work hours from individual workers.

Effects of changes in ordinary hours

Some meat processors have been able to negotiate increases in the amount and flexibility (in terms of shift and rostering arrangements) of work done as ordinary hours. This allows them to reduce more expensive overtime penalty hours and to introduce multiple shifts at flat ordinary hours rates rather than shift penalty rates (which was not possible under FMIPA 1996).

The effects of various arrangements for ordinary hours on firm performance are summarised in table 5.5. In general, shorter, more restricted ordinary hours will increase unit labour costs and decrease product delivery timeliness and reliability. If workers are rushing to complete their work in a shorter period of time (as can happen under tally), product quality may also be affected.

Where the span of ordinary hours is greater (that is, the times within which a fixed or flexible number of ordinary hours can be worked), unit labour costs will decrease over the long-term as the need for overtime or other penalty rate hours is reduced. The benefits for workers in these arrangements are greater regularity and reliability in weekly hours of work (and importantly, in income) compared with variable, tally-based hours of work.

In terms of the length of hours of work (as opposed to the span), longer shifts will reduce unit labour costs and enhance product timeliness, but excessively long shifts can be detrimental to worker productivity and product quality. The effects of various ordinary hours arrangements are summarised in table 5.5.

Table 5.5: Summary of effects of ordinary hours arrangements on short-term and long-term firm performance

Ordinary hours arrangements:	*Unit Labour Costs*		*Labour Productivity*[a]		*Product Reliability*		*Product Quality*	
	S/T	L/T	S/T	L/T	S/T	L/T	S/T	L/T
Ordinary hours set by tally (around 6.5 hours average per day)	—	↑	↑	↑	—	—	↓	↓
'Short Friday' ordinary hours	↑	↑	—	—	↓	↓	—	—
Limit of one shift per day at ordinary hours rates	↑	↑	—	—	↓	↓	—	—
Broader span of ordinary hours	—	↑	—	↑	↑	↑	—	—
Longer ordinary hours shift	↓	↓	↑[b]	↑[b]	↑	↑	—[b]	—[b]

a Labour productivity is defined as output per worker per hour of work time.

b Excessively long work shifts may have a negative effect on labour productivity and product quality.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

Overtime hours

Use of overtime in meat processing

Some processors prefer to use permanent workers on overtime rates rather than increasing the use of casual labour to accommodate temporary increases in throughput or absences. Where processors have introduced multiple shifts, one effect has been that overtime is no longer necessary or even possible.

Award provisions for overtime

Overtime is defined in FMIPA 1996 as all work outside ordinary hours or in addition to an ordinary shift. Employers may require any employees to work 'reasonable overtime' at prescribed overtime rates (c. 32.3). Any time on Saturday is to be paid as overtime, at time and a half for the first three hours and double time for the remainder (c. 34). All work on Sunday is paid at double time with a minimum payment of four hours (c. 35). These rates apply to daily hire tally workers as well as to weekly employees. Overtime rates in the NSW award are very similar, with the addition of an overtime meal allowance of $6.60 per shift.

Agreements provisions for overtime

Regardless of whether overtime is used regularly or not, all CAs must include rules governing overtime hours and rates. Some of these differ significantly from the industry award provisions while others largely mirror them.

For example, at AMH's Dinmore and Rockhampton abattoirs, ordinary hours run from 5am to midnight Monday to Saturday. Any work outside these hours attracts a 30 per cent penalty and Sunday work is paid at double time. While back-to-back shiftwork arrangements largely preclude overtime during weekdays, the CAs prescribe overtime rates of time and a half for the first two hours and double time thereafter (for work over 8 hours per day at Dinmore and over 10 hours at Rockhampton) (AMH Rockhampton 1997, c. 10.5; AMH Dinmore 1996, c. 37).

Hours of work for meat inspectors

In its 1994 report on Australian meat processing, the Industry Commission found that there was a serious mismatch between the ordinary working hours of Australian Quarantine and Inspection Service (AQIS) meat inspectors and the normal operating hours of abattoirs. AQIS meat inspectors must be present during abattoir processing for export inspection purposes. In 1994, AQIS meat inspectors worked under the *Food Standards Officers (Australian Government Employment) Award 1990*. This prescribed ordinary working hours of 7am to 5pm Monday to Friday, even though many export abattoirs begin the morning processing shift at 6am (sometimes as early as 5am). Overtime rates — at double ordinary time — plus an overtime breakfast allowance were paid to inspectors for any hours worked before 7am (IC 1994, p. 192).

AQIS explained at the time that they were seeking to bring ordinary work hours for inspectors more closely into line with the standard operating hours of export abattoirs but that this could not be done quickly:

> Where applicable, AQIS is endeavouring to bring its labour practices as close as possible to those of industry, but this involves lengthy negotiations with the union and progression through the Industrial Relations Commission. (IC 1994, sub. 50, p. 11)

The Industry Commission supported this course of action, recommending that

> AQIS negotiates with its employees sufficient flexibility to allow common normal working hours between processors and inspectors...(IC 1994, p. 194)

AQIS finalised a new CA for its meat inspectors in November 1997 which has addressed many of the previous concerns with meat inspectors' ordinary work hours. The most significant changes in this CA in terms of improving concordance of hours with export abattoirs are:

- ordinary hours of duty increased from 38 hours to 40 hours per week, implemented through abolition of RDOs (and offset with a base salary increase);

- increased span of daily ordinary hours of work from 7am to 5pm, to 5am to 5pm, with a maximum of 10 ordinary hours per day;
- paid overtime on weekdays only after 42.5 ordinary hours of work (overtime still payable at award rates for Saturday and Sunday); and
- other overtime and associated allowances (including overtime breakfast and excess travel time allowances) rolled into base salary (DPIE and CPSU, CA 1997).

These new work arrangements for AQIS meat inspectors should significantly improve the match between ordinary hours for inspectors and those for export abattoirs. This can be expected to contribute to better productivity and product quality control in export abattoirs. These new arrangements have coincided with changes in the costs charged to abattoirs for AQIS meat inspection which may increase the amount they pay for the service.

5.6 Shiftwork arrangements

Utilisation of shiftwork in meat processing

Traditionally, meat processing plants operated on a single daily shift, Monday to Friday, commencing at around 6am. The early start was partly due to the need to utilise the cooler morning hours for abattoir work and partly due to the social circumstances of abattoir workers in (predominantly) rural areas, where many had a second job on small farms or in other rural industries in the afternoons and during the seasonal closures. Generally, only one shift a day was necessary because most abattoirs serviced their local area only (transport and refrigeration limitations often precluded a wider catchment of supply or of customers). Over time, this pattern of work became standard practice.

Over the last few years, competition, supply chains and technology in meat processing have altered in important ways. Some meat processors (typically larger, export plants) have responded by introducing multiple shift arrangements through CA negotiations. In 1996, the MRC reported that 29 per cent of 71 plants surveyed were operating more than one shift (MRC 1996), compared with only three out of 101 meat processors in 1994 (IC 1994). Most of these arrangements are limited to weekdays and involve two processing shifts. Regular weekend shifts are starting to appear in the industry but are still relatively rare due to operational and product demand constraints.

Shiftwork arrangements in awards

Under Federal and State meat industry awards, multiple shifts are allowable. However, the conditions and penalties attached to them are strictly defined and may be prohibitive.

FMIPA 1996 allows one to three shifts to be worked per day (c. 33.3) but penalties apply for all but the standard morning shift. Ordinary hours for shifts are strictly prescribed at 38 hours per week, Monday to Friday, to be worked in five equal shifts of 7.6 hours (c. 33.7). Starting and finishing times for shifts must be fixed by the employer and may be varied only by agreement with the majority of shift workers or with at least seven days' notice (c. 33.10). Employees may not be transferred from day work (ie, standard morning hours) to shift work unless they agree (c. 33.2). Juniors (under 21) may not work night shifts (c. 33.13).

FMIPA 1996 definitions for shifts are complex, with strictly prescribed starting and finishing times (c. 33.5):

- afternoon shifts (with a 15 per cent penalty) must commence at 2pm or after and finish at or before midnight;
- night shifts (with a 25 per cent penalty) must finish after midnight but before 9am (including 9am Saturday for Friday night shifts); and
- fixed night shifts (with a 30 per cent penalty) are any night shift roster where workers are not rotated to other shifts for at least one week in three.

Where an employee does not continue in a regular shift (afternoon or night) for at least five successive shifts, these penalty rates plus an additional 50 per cent for the first three hours and 100 per cent thereafter are payable (c. 33.5.4). Casual workers employed in shifts receive the 20 per cent casual penalty in addition to these shift allowances.

Similar regulation of shiftwork appears in the *NSW Butcher's Wholesale (Country) Award 1996*:

- ordinary hours for shift workers must be five days of eight hours worked Monday to Friday (c. 4 (I));
- permanent afternoon shift workers (finishing between 6pm and midnight) are paid an additional $8.92 per shift (Table 2, Item 2);
- permanent night shift workers (finishing between midnight and 8am) receive a 25 per cent penalty (c. 4 (iii));
- shifts commencing after 11pm Friday and continuing into Saturday receive a 25 per cent penalty (c. 4 (vi)); and

- employees who are rotated between shifts are to be paid an additional $6.21 per shift (Table 2, Item 1).

The prescriptiveness of both these awards is a strong disincentive to meat processors wishing to operate two or more shifts, or even just to change their hours of operation. Reduction or removal of these restrictive penalties has therefore been a pre-condition for companies seeking to introduce shiftwork.

Shiftwork arrangements in agreements

The biggest factor enabling recent increases in shiftwork in the meat processing industry has been changes in penalty rates negotiated in some recent CAs. Some companies have been able to reduce shift penalties or roll them into the base rate, so that multiple shifts become viable.

An example of a two shift roster negotiated through a CA is shown in box 5.1. This operates with some shift penalties retained, though at lower rates than FMIPA 1996.

Box 5.1: Example of a weekly multiple - shift roster[a]

	Monday - Friday	Saturday[b]	Sunday
Processing shift 1: (ordinary hours rates)	5am - 2pm	5am - 2pm	plant closed
Processing shift 2: (10 per cent loading)	2pm - 11pm	—	
Clean-up & maintenance: (25 per cent loading)	1am - 5am	2pm - 6pm	

a All processing shifts are eight hours (not including meal breaks - 1 hour additional).
b Saturday shifts are irregular and optional. Employees may work the whole shift or half the shift.
Source: Industry consultations.

Only one meat processor, AMH, is known to have rolled shift penalty rates completely into base wages. As discussed above, ordinary hours of work at AMH's abattoirs at Dinmore and Rockhampton are 5am to midnight (work outside these hours is allowable, but carries a 30 per cent penalty rate). This allows the company to operate two daytime shifts of eight hours each at flat, ordinary hours rates. Operating two or more daily shifts in this way can bring significant efficiency gains, primarily through the substantial increase in plant utilisation over the week (though not necessarily lower unit wage costs or total wage costs if base wage rates are increased as a trade-off).

Effects of shiftwork arrangements

Effects of shiftwork for employers

Multiple shift arrangements have a number of benefits for meat processors. In terms of direct costs of production, the biggest advantage is the increased active use of plant and machinery (or capital utilisation). This significantly decreases total unit costs by spreading the company's fixed capital costs over a larger amount of output.

Another important benefit of shiftwork is that by reducing down-time, it improves the speed and reliability of product delivery over a given day or week. This can be especially important to customers of seasonal and perishable goods such as fresh meat products. Similarly, having the abattoir operating for more hours of the day can allow processors to slow down the chain and to concentrate on product quality or on product differentiation.

These effects are summarised in table 5.6. The ability of each processor to take advantage of these benefits varies according to the age and type of plant and equipment, regularity and reliability of throughput and product demand levels.

Unlike some of the largest meat processors in the US, no abattoirs in Australia operate continuously, seven days per week. This is due in part to the traditionally high penalty rates payable for afternoon, evening and weekend shifts for meat processing and in part to technical requirements and capital limitations. Hygiene standards require a comprehensive cleaning and maintenance shift approximately once every 24 hours. This can take several hours, or longer where temperatures must be altered for cleaning and then reset to allow processing to commence again.

In some cases, CAs have been made that allow for regular weekend shifts which have not been subsequently implemented. During industry consultations, a number of processors reported that their ability to implement weekend shiftwork was restrained by inadequate freezer and storage capacity, by transport linkages and by the need to build some down-time into the week for regular equipment inspections and maintenance work. That is, 24 hour, seven day per week processing was precluded by capital limitations and operational requirements rather than by employment arrangements.

Table 5.6: Summary of effects of shift work arrangements on short-term and long-term firm performance

Shift work arrangement	*Unit Labour Costs*[a]		*Labour Productivity*[b]		*Product Reliability*		*Product Quality*	
	S/T	L/T	S/T	L/T	S/T	L/T	S/T	L/T
single weekday shift only	—	—	—	—	↓	↓	—	—
multiple weekday shifts (no penalty)	↓	↓	—	—	↑	↑	—	—
multiple weekday shifts (with penalty)	↑	↑	—	—	↑	↑	—	—
regular weekend shifts (with penalty)	↑	↑	—	—	↑	↑	—	—
regular night shifts (with penalty)	↑	↑	—	—	↑	↑	—	—
rotating shift rosters	—	—	—	—	↑	↑	—	—

a Effect on unit labour costs of each shift depend on penalty rates payable in each case.

b Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

In order to maximise plant utilisation and lower total unit costs, the optimal shift arrangement for most single chain plants therefore appears to be a weekday roster of two processing shifts of around eight hours each plus breaks (morning and afternoon), followed by a night shift of around four to five hours for cleaning, maintenance and temperature control. This can be implemented also on Saturday and/or Sunday where plant capacity, product demand and throughput levels allow for it.

Like promotion and training selection, shiftwork rosters can be affected by seniority in meat processing plants. However, seniority in allocating shift rosters does not appear to be common and is not included in any industry awards or agreements. It works by giving more senior employees first choice of regular roster shifts in their work area and first option to undertake any additional shifts (eg, irregular weekend shifts) or overtime. For example, at one abattoir, Saturday shifts (paid at time and a half) are voluntary. On the weeks when more workers volunteer for a Saturday shift than are needed, seniority is used to decide allocations (industry consultations).

Effects of shiftwork for employees

For individual employees, fixed multiple shift arrangements can offer stability and security in working hours at the same time as providing the opportunity to

vary work hours over a longer period (for example, through rotating shifts and rostering arrangements). Regular and occasional weekend shifts give employees the opportunity to increase their incomes and to vary their work hours to suit personal and other commitments (for example, a second job or family care responsibilities during the week). On the other hand, multiple shift arrangements tend to reduce (or sometimes remove) opportunities to increase income from overtime.

For employees in general, the introduction of shiftwork has often meant an increase in total employment at individual workplaces — an important local employment effect for abattoirs in regional areas. Where new shifts have been introduced which require more workers (for example, commencing a regular afternoon shift), one practice has been to offer existing employees first choice of shift hours. New recruits are then offered the remaining hours of work.

6 REMUNERATION AND ON-COSTS

Traditionally, levels of remuneration for meat industry employees were prescribed as part of industry awards. Wages are not high by average industry standards, and have fallen relative to other parts of the economy. Workers' compensation costs are high. A complex piece-rate system (tally) has been the key work arrangement in this industry relating to remuneration. Tallies also introduce a number of incentives that adversely affect firm performance, particularly in conjunction with award penalties. However, a feature of some enterprise level agreements negotiated in the past two to three years has been a move away from tallies to payment systems characterised by timework, sometimes in conjunction with modified incentive payment systems, or to modified tally systems.

6.1 Introduction

Total labour costs (comprising wages and on-costs) at the abattoir level are affected by a range of factors, such as the cost of labour relative to capital and the ease with which capital and labour can be substituted. The unit cost of labour is affected by market forces, general requirements such as superannuation and payroll tax, and the outcome of negotiations over award and Certified Agreement (CA) provisions. Award and CA provisions are affected, in turn, by factors such as the relative bargaining strength of employers and employees.

Traditionally, minimum rates of pay for a given week (or shift in the case of tally employees) were prescribed in Federal and State awards. More recently, awards have been supplemented and in some cases replaced by agreements (both formal and informal) negotiated at the enterprise level.

Since the early 1960s, the stand out feature of remuneration in the meat processing sector has been tallies, which determine payment for slaughtering, boning and slicing. Tallies are a form of a piece-rate incentive payment system, albeit with a requirement (if work commences on a given day) to pay a minimum wage and a requirement to process a minimum volume. In addition, as distinct from other piece-rate systems, tallies are team-based. As applied in the meat industry, tallies also introduce a number of incentives affecting how and when work is performed — for a given shift as well as overall. Some of

these effects are compounded by the interaction of tallies with other elements of remuneration such as penalty rates and allowances.

Discussions at workplaces revealed tallies are a major issue for some firms. However, the Commission also found examples where firms have moved away completely from tally systems to a timework basis of payment. In other cases, firms have implemented modified tally systems as part of a wider range of changed work arrangements.

The remainder of this chapter looks firstly at average wage levels in the meat industry. Sections examining tallies and penalties follow, including their effects on performance. Modified payment systems are a feature of some recent enterprise agreements and these are described in section 6.5. Finally, labour on-costs (including workers' compensation) are examined in section 6.6.

6.2 Wage levels

Base rates of pay are specified in the industry awards and agreements. In the case of tally employees, payment above minimum tally depends on throughput.

The *Federal Meat Industry (Processing) Award 1996* (FMIPA 1996) specifies 10 grades of employment. Under this award, other activities (such as supervision and working in a cool room) attract additional payments. Other than for tally employees, employment is on the basis of weekly hire, with a minimum weekly wage ranging from $374 to $419 (according to grade of employment).

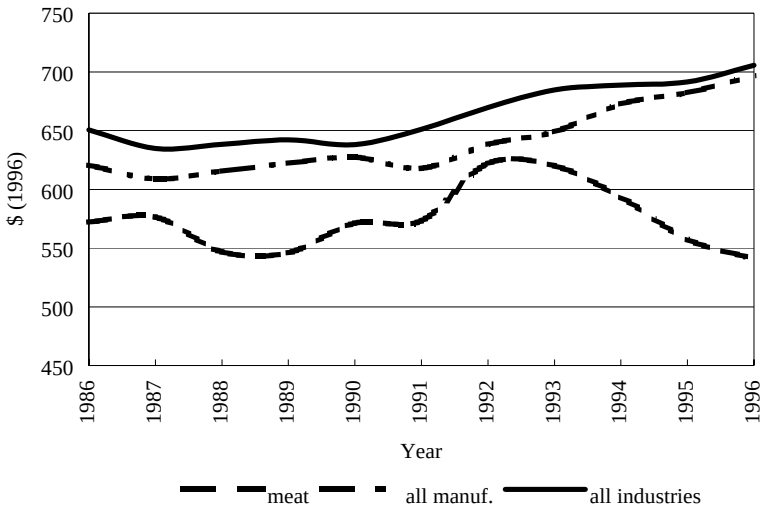
For tally employees payment depends on throughput, and employment is on the basis of daily hire. In the course of this study, the Commission was advised that maximum weekly earnings for a highly skilled slaughterer or boner would be around $1000. However, historically weekly earnings of tally employees would fluctuate considerably week to week (even day to day) due to variable supply of livestock. A Meat Research Corporation (MRC) study looking at workplace culture change at Castricum Brothers found, among other things, that there were large variations in slaughterers' weekly earnings under tallies, and that this variation was only partly explained by seasonal factors (Bodi et al 1996).

Average employee earnings in meat processing are not high by all industries standards. Over the decade 1986 to 1996, several features stand out. In real terms, average earnings trended up in the manufacturing sector and for all industries. In the meat industry, no clear trend is evident, and earnings were lower in real terms in 1996 than in 1986. Having declined significantly between 1992 and 1996, the gap between earnings in meat processing compared with

manufacturing and all industries was greater than at any time in that decade (see figure 6.1).

The average earnings in the meat industry may also disguise significant variation both between and within firms. As discussed previously, traditionally day to day variation in production (and therefore wages) was common throughout the industry due to seasonality. Available information suggests that seasonality is less of a problem for large firms in the industry, and its significance may have also declined for some smaller firms (that is, the part of the industry which represents a large proportion of firms but a relatively small proportion of total industry output). However, for tally employees in firms where seasonality remains a significant issue, weekly — and even daily — incomes could vary significantly.

Figure 6.1: Real full-time average weekly earnings for meat, all manufacturing and all industries 1986–96 ($1996)[a]



a These data are derived from the manufacturing industry survey. This is an employer based survey. Meat industry data refer to ASIC 2115/ANZSIC 2111.

Source: ABS 1997i.

6.3 Tallies[1]

Historically, the most notable feature of remuneration in the meat processing sector is tallies. Tallies were introduced by employers in the early 1960s. Since that time, tallies have been used throughout the meat processing industry for

1 Tallies are discussed in greater detail in appendix B.

employees on the slaughter floor (slaughterers) and in boning rooms (boners and slicers). Follow on labourers in abattoirs are not always employed under tally, but their workrate is determined by tally employees.

There are two forms of tally — head tallies and unit tallies Head tallies are simpler, and usually specify the number of heads that equate to minimum and maximum tally. Unit tallies are more complex, and are calculated according to a formula which takes into account the number, size and condition of animals, the size of a work team, and a prescribed amount of labour input per head. Under the FMIPA 1996, tally employees are engaged on the basis of daily hire and are therefore entitled to a 10 per cent loading over the regular daily rate[2]. Key elements of unit tallies are:

- the fixed 'units of labour required per 100 head' — that is, the assignment of a set amount of labour to each specified task (in the case of the 'canpak' slaughter tally in the FMIPA 1996, 48 tasks are specified for a total of 7.898 units of labour per 100 head);
- the formula determining minimum tally and associated team size (minimum tally is calculated as 100 x the number of team members, divided by the number of units of labour per 100 head);
- the penalty payments associated with cattle processed above minimum and maximum tally (per unit increases above minimum and maximum tally are 25 per cent and 37.5 per cent respectively); and
- penalty payments associated with different cattle sizes — for example, bulls above a certain weight count as two head for tally purposes.

The simple effect of the unit tally (as specified in the FMIPA 1996) is to increase unit labour costs as output exceeds minimum and then maximum tally. However, the extent to which this feature of the tally constrains capacity utilisation and the level of output on a given shift depends also on a number of other factors, such as stock availability on the day and chiller capacity. These issues are discussed further below, and in chapter eight.

Both head and unit tallies are based on inputs — such as the number of heads — rather than a measure of output, such as weight processed, yield per animal, or any other measure of quality. This has implications for the impact of the tally on incentives facing both employees and management. Unit tallies in particular are complex and prescriptive. The FMIPA 1996 tally provisions are over 50 pages long.

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[2] The regular daily rate is based on the minimum weekly rate specified in the FMPIA 1996. The regular daily rate for tally employees is the payment for minimum tally.

The major industry awards (namely the FMIPA 1996, the Federal *Queensland Meatworks Industrial Agreement-Award 1983* and the NSW State awards (for example, the *Butchers' Wholesale (Country) Award 1996*)) all contain unit tallies for slaughter and boning. In the case of the *Butchers' Wholesale (Country) Award 1996*, while there is a unit tally for boning, a head tally is specified for slaughter. The *Brisbane Abattoir Award 1994*, and a number of site level agreements registered Federally contain head tallies for slaughter.

Tallies remain a significant issue for the industry, although some recent enterprise agreements have established modified systems of remuneration (see below). Previous studies found tallies had numerous deleterious effects, including:

- manipulation by employees using RDOs, sick leave and annual leave to maximise earnings;
- wide variations in employee earnings, leading to employee dissatisfaction and disputes;
- excessive sick leave and workcover claims due to the emphasis on maximising throughput speed;
- emphasis on volume of output at the expense of quality of output;
- restricted incentives to invest in new technology, training and other initiatives;
- detrimental workplace culture;
- high levels of industrial disputation; and
- complex and costly administration (IAC 1983; AIRC 1991; IC 1994; Maggs et al 1995).

In a submission to this study, the Cattle Council of Australia argued:

> [the tally system] is a disincentive for productivity gains, capital investment and technological uptake ... the result is that processors who are hamstrung due to the tally system pass on their costs to producers ...

Similarly, the NSW Farmers' Association said:

> the tally system imposes a number of constraints on productivity improvements in meat processing. Penalty rates ... effectively increase marginal costs significantly as productivity improves ... there is a significant disincentive for the company to increase productivity above tally for a given shift...

Effects of tallies in a given shift

Specific work arrangements are considered here in terms of their effects on firm performance in a given shift — measured by labour productivity, unit labour

cost, reliability and product quality — as well as more broadly in terms of their overall effects on a firm's cost structure and performance. The following sections focus on the effects of unit tallies in particular, although many of the effects identified would apply also to head tallies.

Labour productivity

In a given shift tallies provide an incentive for employees to increase the volume of throughput — in other words, to increase labour productivity (expressed as the number of animals processed per worker per hour). However, this may be at the expense of quality. Further, it may not happen to the extent that tallies link team size, earnings and output (see below and appendix B). This latter point was noted by Maggs et al:

> [There is] no straightforward relationship between manning levels, earnings and production. This possibly indicates that the tally may not be providing the incentives for high volume production outcomes typically expected by a piece rate payment system. (Maggs et al 1995, p. 46)

Several other considerations are relevant also. Labour productivity is only a partial indicator of productivity. In the case of unit tallies in the FMIPA 1996, the labour input per slaughter is prescribed, and has not changed over time. For example, the tallies specified in the *Federal Meat Industry Award 1981* (FMIA 1981) are identical to those in the FMIPA 1996. This point was noted in workplace discussions, where it was argued that this meant that incremental improvements in technology had been reflected in a shorter working day for tally employees, as increasing unit labour costs (because of an inability to change tally parameters) made it unprofitable to process more than maximum tally.

As such, labour productivity per hour worked had improved, but not per shift which now finished in a shorter time than in the past.

In workplace discussions, managers argued that tallies also acted as a disincentive to investment and training.

> It is also possible that the tally acted as a disincentive to greater investment given that employers did not benefit significantly from the improvement in equipment and facilities.

To the extent that this is the case, which seems plausible, tallies are likely to have a negative effect on labour productivity in the longer term.

Unit labour costs

The effect of tallies on unit labour costs of production is explored in greater detail in appendix B. In summary, for a given shift and a given team size, both

unit and head tallies have the effect of raising significantly the unit labour cost of production for head processed above minimum and maximum tally[3]. In the case of the unit slaughter tally contained in the FMIPA 1996, for a given number of tally employees, as throughput increases beyond minimum and then maximum tally the cost per animal increases by 25 per cent and 37.5 per cent respectively over the minimum tally rate. The size of the premiums means that the average cost per head increases also soon after minimum tally is reached.

Total wage costs

To process a given number of cattle under the unit slaughter tally, several factors interact to determine the total wage cost. The unit tally specifies the amount of labour required to process 100 head of cattle. Minimum and maximum tally levels (which determine the cost per head of cattle processed) are then determined according to the number of members of a tally team. Thus to minimise total wage costs, there is a trade-off between team size and unit wage cost. For a given number of animals, a smaller team will mean a higher proportion of livestock are slaughtered at above minimum tally rates (therefore higher wage costs per unit per person). A larger team will mean lower unit wage costs, but may mean higher total wage costs (see appendix B).

Reliability

The study has considered reliability in terms of time lost to industrial disputes and timeliness of supply. As described in chapter three, tallies have been seen as one of the causes of high levels of industrial disputation in the industry. This point was also made in workplace discussions. At one firm, the comment was made that many disputes related to the tally. Others commented that the tally was responsible for a culture of leaving work early, especially on Fridays and immediately before public holidays (see chapter five). This meant it was difficult to implement change which involved working a full 38 hour week. Another firm indicated that historically there had been strong union resistance to changes in the tally. Companies had gone along with this during the 1960s and 1970s, as meat processing was extremely profitable over this period — and higher wage costs were able to be passed on to consumers.

The complexity of tallies was also reported as being a source of disputation. One workplace described how it was necessary to hire a ‘tally clerk’ for each

[3] The focus here is on the partial indicators set out in chapter one. The effect that tallies have on average total unit cost is less clear. It is possible that despite the increase in per unit labour cost above minimum tally, average total unit wage costs may fall due to better use of fixed factors.

boning chain to ensure the quantity of throughput was correct for each team size and each hour of work.

Quality

Both head tally and unit tally are focused solely on quantity of production, and do not provide incentives or rewards for improved quality. As described in chapter two, the need for improved quality has been identified by all in the industry as an important driver of change. Exporters in particular have sought to promote 'quality production' in the attitudes, responsibilities and work practices of their employees (rather than leaving it to inspectors as in the past).

In workplace discussions with firms where tallies had been replaced by timework or other remuneration systems, the comment was made that quality had improved as employees (and inspectors) were now able to slow down without losing money.

Other effects of tallies

Capacity utilisation

The effect of tallies on capacity utilisation was an issue of concern for the industry. It was argued that over time maximum tally (irrespective of team size) had come to be achieved in a time significantly less than a 7.6 hour working day, ranging from as little as 4 hours up to 7 hours. Capacity utilisation was therefore argued to be low, and tally in conjunction with the compounding effects of award provisions regarding shift penalties (see below) and ordinary hours (see chapter five) represented a major disincentive to spread fixed costs through greater capacity utilisation.

In a survey of abattoirs done for the Industry Commission's 1994 Inquiry into Meat Processing, abattoirs operated for an average of 6.9 hours a day, although half operated for more than 7.5 hours. Further, only 3 out of 101 respondents reported running a second shift (IC 1994). In a 1996 survey of 71 plants, the MRC reported that 29 per cent were operating more than one shift (MRC 1996). Neither survey categorised abattoirs by size, location or export orientation. Information obtained from workplace discussions suggests that firms operating more than one shift are more likely to be large export plants.

Cause of Industrial Disputes

Previous studies found tallies were a major source of industrial disputation in the industry (see IC 1994; AIRC 1991; Maggs et al 1995). In workplace

discussions, tallies were frequently criticised on these grounds. In part, this was attributed to tally complexity. One firm described how many plant disputes had been related to tally:

> Previously, many disputes at the plant were related to tally. For example, a dispute would arise if management did not allocate the right number of workers to a team for a given amount of livestock.

Effects on managers

Tallies are highly prescriptive — defining tasks, specifying amounts of labour and payments. In workplace discussions, it was argued that for some managers, this is beneficial. For these managers, the level of prescriptiveness means that responsibility for managing the workforce to deal with variable numbers of livestock — or managing stock numbers to keep employees on-site — is removed from management. Further, it meant also that in the past firms knew what their competitors were paying for processing a given number of head.

As such, a move away from tally introduces new requirements for managers. In workplace discussions — at a workplace where payment is on the basis of timework — an employee representative noted:

> [timework eliminated uncertainty of income levels that existed under the tally] and ... it was also the case that timework and the fixed salary provided an incentive for management to maintain a constant supply of livestock.

Effects on employees

For employees, there were positive and negative aspects to tallies. On the plus side, some workplaces indicated that employees were strongly attached to the tally as it meant a relatively short working day. One workplace reported that the culture of leaving work early was extremely strong, and this was associated with tally.

This aspect of tally was also emphasised in an attitudinal survey of tally employees. This study reported also that most tally employees surveyed had a good idea of the range of their wage variation, although many were ‘not fully aware of how their earnings were determined’. In addition, about half indicated that income fluctuation ‘was a cause for concern in terms of personal budgeting’ (Maggs et al 1995, pp. 40-41).

In workplace discussions, where firms had moved to annualised payment systems, a major employee benefit was reported to be greater income security (see below).

Variation also existed in the various penalty rates associated with the tally and with various shiftwork and casual employment arrangements. In recent years, some processors have used enterprise bargaining to move away from the tally and penalty rates and towards flat-rate, time-based wage systems (normally with a bonus system attached). This is discussed below.

Table 6.1: Summary of effects of tallies on a given shift

General effects on a given shift	*Unit Labour Costs*	*Labour Productivity*[a]	*Product Reliability*	*Product Quality*
Provide an incentive to work faster.	—	↑	—	↓
Prescribe labour input to process a given quantity.	↑	↓	—/↓	—/↓
Increase cost per head per person as output increases.	↑	—/↑	—	↓
Focus on quantity, provide no incentive or reward for quality.	—	↑	—	↓

a Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

6.4 Penalty rates

Some workplaces reported that the interaction of payment under tally systems and penalties for shifts and overtime were important factors in influencing relatively low levels of capacity utilisation.

Penalty rates (additional payments or loadings other than those related to tally described above) under meat processing awards and agreements payable to meat processing employees can be grouped into several areas according to:

- the type of work;
- hours of work; and
- contract of employment, such as shift work, casual and daily hire penalties.

Award provisions

The FMIPA 1996 contains a number of allowances and penalties:

- leading hands are entitled to up to an additional $10.30 per week (c. 28.1);
- employees working in cold temperatures are entitled to up to an additional $0.99 per hour (c. 28.3.1);

- overtime — payable at time and a half for the first three hours and double time thereafter — is to be paid for any time outside normal hours (6am to 8pm - see chapter 5) (c. 32.1); and
- for employees other than shiftworkers, time worked between 8pm Friday and 4am Saturday is paid at double time (c. 33.2).

Shift allowances are payable also, depending on whether it is the afternoon or night shift. Shift allowances are not high by industry-wide standards (see table 6.2), however, there is a compounding effect when they apply in conjunction with tallies.

Casual employees are entitled to a loading of 20 per cent over the minimum rates specified in the award (c. 19.2.3). If they work shifts, they are entitled to the 20 per cent loading on the relevant shift rate (c. 33.6).

Table 6.2: Comparison of shift allowances (per cent of ordinary rates)

Award	*Afternoon*[a]	*Night*[a]
Stevedoring Industry Award 1991	150	200
National Building and Construction Industry Award 1990	150	150
Transport Workers Award 1983	117.5	130
Storage Services - General - Interim Award 1990	150 / 200[b]	150 / 200[b]
Metal Industry Award 1984	115	150
Federal Meat Industry (Processing) Award 1996	115 (≤158)[c]	125/130 (≤172/179)[c]

a Timings of afternoon and night shifts vary slightly between awards.

b Overtime penalties apply for more than 8 hours of work and for work outside ordinary hours (7am - 5:30pm), paid at 150 per cent for the first two hours and 200 per cent after that.

c Including the compounding effect of penalty and maximum tally (discussed below). The compounding effect would be greater for daily hire (tally) employees who are paid an additional 10 per cent premium on minimum rates (App.3, FMIPA 1996).

Sources: PC 1998; Industry awards; Commission estimates.

Saturday work is overtime, paid at the rate of time and half for the first three hours with double time thereafter (c. 34). All work performed on Sundays is paid for at double time with a minimum payment of four hours (c. 35).

As described in chapter five, tally employees are engaged on the basis of daily hire which attracts a loading of 10 per cent. Tallies contain a number of other penalties related to the size of stock. For example, bulls under 136.1kg and aged over two years old or a bull over 136.1kg and under 362.9kg count as 1.5 head for tally purposes. Bulls over 362.9kg count as two head for tally purposes (App.3, c. 4.5).

Tally employees are entitled to waiting time for delays (not caused by employees) exceeding 15 minutes in a day, paid on the basis of tally submitted for the day (App.3, c. 7).

Other penalties are payable to tally employees for crippled cattle or calves — $1.86 in the case of cattle and $0.41 in the case of calves (App.3, c. 11).

The *New South Wales Butchers' Wholesale (Country) Award 1996* contains 32 specific rates and allowances that are payable to different parts of the workforce[4]. For example:

- item 2 - afternoon shift attracts an extra $8.92 (for by-product department employees);
- item 4 - horse allowance $10.10 per week (for stockpersons);
- item 6 - temperature allowance up to $1.40 per hour (for cold rooms);
- item 13 - leading hand $18.60 per week;
- item 20 - condemned carcase allowance $2.30 per day (employees on the slaughterfloor);
- item 24 - temporary promoted slaughtering allowance $3.40 per day; and
- item 27 - knife allowance $1.80 to $2.50 per day (the employer would ordinarily supply a working kit (including knives), if not this allowance is payable.

Enterprise level agreements

In developing CAs and other enterprise agreements, there are several examples of firms which have rolled many of the penalties into the basic wage. In workplace discussions, several firms indicated that a number of penalties were incorporated into the basic wage — such as the weight penalties. However, others remained separate, such as overtime.

In contrast, other firms have included all the penalties previously payable under the relevant award as separate items in their CAs — despite the prescriptiveness of the award penalty provisions. In one case a number of penalties that existed previously under the award were carried over into a CA. In another case, the CA called up the provisions of the relevant award detailing penalties.

[4] There are three State awards, identical in content, covering different regions in NSW. The other two are the *Butchers' Wholesale (Newcastle and Northern) Award* and the *Butchers' Wholesale (Wagga Wagga) Award*.

As part of the 1997 Federal CA for Castricum Brothers, a suite of allowances remain. These relate to penalty payments for bulls and diseased cattle, lot-fed and overweight cattle, as well as meal and waiting time allowances, and a daily allowance for on the job training are recognised (c.34.6). Similarly, a 1996 CA at G A Gathercole includes allowances for bulls and diseased cattle, lot-fed and overweight cattle, as well as meal and waiting time allowances.

Effects of penalties

All other things being equal, penalties and allowances can increase unit wage costs, and total wage costs. However, many of the penalties and allowances described above are designed to compensate employees for particular tasks that are unpleasant or make the job harder (such as dirty cattle and working in cold conditions), reward greater responsibility (such as allowances for leading hands and 'step-up' allowances), or compensate employees for working odd hours (such as shift work). As such, they may have a positive effect on performance in terms of reliability.

Another important aspect of the application of the range of penalties is in terms of the interaction with other aspects of remuneration — in particular tallies. As described above, tallies in conjunction with penalty rates have been argued to adversely affect the ability of firms to increase capacity utilisation by increasing throughput on a given shift and operate more than one shift.

For example, under the FMIPA 1996, the nightshift penalty is 30 per cent for a permanent night shift. The 30 per cent premium is payable on the base rate — in the case of a tally employee, that is the minimum tally rate which is the basis of tally calculations. For permanent night shift, this minimum tally rate is 30 per cent higher. For animals processed above maximum tally, a 37.5 per cent premium is payable. Taking into account the night shift penalty rate, animals processed above maximum tally on night shift would attract a 79 per cent premium over the minimum tally day shift rate. Clearly, this premium would not be payable for the whole shift, and the likelihood of this occurring is low. However, it is illustrative of the compounding effect of the shiftwork penalties and tallies.

It should be noted also that there are a number of variables that are likely to influence a firm's decision on the number of shifts they run. For the meat industry, a major consideration is the supply of livestock. In workplace discussions, the Commission was told in one case that one shift was preferred (even though the site agreement included provision for multiple shifts on timework basis), for reasons related to the supply of livestock and the

infrastructure that would be required to source stock and sell the output. In this case, these factors outweighed any potential increase in capacity utilisation.

In another case, the company indicated that in the short-term, the major constraint on moving to a double shift operation was chiller capacity.

However, other firms indicated that the need to increase capacity utilisation (through running double shifts) was a major driver of changes in work arrangements which made this viable.

Table 6.3: Summary of effects of overtime and penalties

General effects on a given shift	*Unit Labour Costs*	*Labour Productivity*[a]	*Product Reliability*	*Product Quality*
Extra reward for unpleasant tasks; odd hours.	↑	↑	-/↑	—
Changes unit labour costs according to time of day	↑	—	—	—
Interaction with tallies affect ability of firms to utilise existing capacity on a given shift.	↑	—	—	—

a Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

6.5 Alternative means of remuneration

Based on the findings of previous studies and workplace discussions during the course of this study, until recently payment by tallies was almost universal in the meat processing industry. In recent years, this has begun to change.

Annualised payment and timework

Various forms of time-based payment systems have been adopted by meat processors as part of enterprise agreements. Often, time-based payments have been introduced incrementally, during successive negotiated agreements.

The Australia Meat Holdings Ltd (AMH) industrial dispute was identified in chapter two as being a catalyst for further change in work arrangements in the industry more generally. One of the changes introduced at several AMH plants since 1995 has been a move away from payment based on tallies to time-based payment systems. There are other examples in the industry of firms that have followed this approach.

In the case of AMH, tallies were replaced by a flat weekly wage which is not linked to the number of head processed, or even carcase weights. The agreements also increased ordinary hours of work so it was possible to work

two shifts a day on the same wage rates. As noted by the MRC, from the point of view of the company, a significant effect of these changes has been that the plants can be worked for up to 19 hours a day, 6 days a week on the same hourly rate of pay (MRC 1996).

Current CAs at Castricum Brothers and G A Gathercole include a guaranteed minimum weekly payment for tally employees (as well as guaranteed minimum daily payments, as exist under the FMIPA 1996).

This study has found — through examination of CAs, secondary sources and the workplace discussions — that a small (but growing) group of firms, which collectively account for a significant proportion of total industry output, have implemented modified systems of payment in the past several years.

Annualised or time-based payment systems have advantages for both employers and employees. For employees, the benefits of time-based payment systems include:

- greater security and certainty of a consistent weekly wage or salary;
- rolling in of penalties and allowances to a single rate mean they may be less vulnerable to being eroded;
- competition for shifts that attract higher penalty rates is removed; and
- knowledge and understanding of how payment is calculated (MRC 1996; Maggs et al 1995).

Similarly, workplace discussions as part of this study found that enhanced security of income and the removal of income variability meant, among other things, it was possible to obtain bank finance for housing. In some cases, it has also meant an increase in average annual incomes, although a major trade-off has been a longer (that is, a full eight hour shift) working day.

For employers, the benefits have included:

- more predictable labour costs;
- less overall wage and salary administration; and
- a more even spread of labour costs (MRC 1996).

For employers, it has meant also that they must work to ensure a constant supply of livestock.

In workplace discussions, some managers highlighted the risks — on both sides — that were involved in moving away from the tally. At one plant, management highlighted the large degree of trust it required on both sides. Management was concerned that employees could ‘apply the brakes’ and go slow as their remuneration no longer depended on a certain number of

throughput. On the other hand, employees were concerned that management could 'apply the accelerator' and increase the chain speed during the longer shifts to increase throughput. Both managers and employees at this plant noted, however, that these fears had not been realised.

Modified tallies and other incentive payment systems

Payment by results systems are intended to provide both incentives and rewards for performance. Traditionally, tallies have provided incentives to work faster (regardless of quality) with a reward of a short working day. However, as discussed in chapter two, the meat industry has changed. There is now greater emphasis, for example, on product quality for reasons related to hygiene and the demands of consumers. Competitive pressures have also driven some firms to find ways to increase capacity and capital utilisation. Tallies in conjunction with shift penalties, mean that unit labour costs increase with increases in throughput above minimum tally (all other things being equal). An emphasis on quality implies a need for a payment system which provides incentives and rewards for performance measured by factors other than speed.

Features of any incentive payment system which are more compatible with these changes might include incentives and rewards related to:

- quantity — based on output or yields (rather than inputs);
- quality — based on hygiene outcomes and customer satisfaction;
- reliability — based on level of industrial disputation and/or absenteeism and timeliness of supply; and
- occupational health and safety — based on claims outcomes.

There are examples where companies have moved to modified tally payment systems. For example, one company's CA increased ordinary hours and employees are engaged on a time-work basis. However, their remuneration depends also on an incentive payment system based on carcase weight — that is, on output rather than the traditional input measure. The company believed that it was important to include some element of performance pay in the agreement as the tally had created an 'incentive culture' in the industry.

The Commission is aware also of at least two companies that have introduced bonuses for perfect attendance records for rostered days over a 12 month period, thus discouraging absenteeism.

Other companies have also included sets of key performance indicators (KPIs) as part of recent CAs. For example, one CA has KPIs for the plant maintenance

department. Another has specified labour cost; the absenteeism rate; and the lost time injury frequency rate as areas that will be monitored.

While these are not yet linked to remuneration, they are evidence of a changed approach to assessing workplace performance. In workplace discussions, several companies which have implemented CAs over the past two years indicated that some sort of incentive-reward scheme would be looked at as part of future agreements. One firm indicated that profit sharing was one option.

6.6 Labour on-costs

In addition to direct wage and salary payments to employees, employers may need to pay a number of other costs associated with employment which are known collectively as 'labour on-costs'. The ILO (1966) definition of on-costs includes employer expenditure on food, drink and other payments in kind, housing, social security payments, vocational training, transport costs, work clothes and personal equipment, recruitment costs and government taxes and charges associated with labour costs.

In Australia, the main labour on-costs for all industries are:

- payroll tax;
- superannuation contributions;
- training and recruitment costs;
- payments to employees for time not worked (ie, leave entitlements); and
- workers' compensation and occupational health and safety costs.

The amounts payable for these on-costs are set by Federal and State legislation as well as by awards and agreements. Many on-costs are not open to negotiation at the enterprise level or even at industry level. In particular, superannuation contributions, payroll tax and workers' compensation premiums are set by Federal and State legislation and are mandatory for all employers (subject to the criteria and regulations of each).

Changes in government policies regarding these on-costs can therefore have significant implications for labour cost structures across all industries. For example, legislation to extend the coverage and minimum amounts of employer-funded superannuation contributions led to a strong rise in labour on-costs in the early 1990s (EPAC 1996, p. 20).

The effect of labour on-costs for the employer is to increase the cost of labour. However, these costs are levied on employers across all industries and are not peculiar to meat processing. Nor are they peculiar to Australia.

By international standards, average Australian labour on-costs are not high. Australia's average labour on-costs and total labour costs per hour are lower than most other OECD countries, including the main competitor for Australia's meat exports, the US. Australian labour on-costs as a proportion of total labour costs are also lower than for most other OECD countries (EPAC 1996, pp. 19-20).

Looking at the meat processing industry alone, BAH (1993) found that in 1991–92, Australia's 'Best In Class' meat processors faced labour on-costs which added 36 per cent to the basic wage, compared with 35 per cent for US 'Best In Class' processors, 62 per cent for Argentina (including 20 per cent additional for pension contributions) and 20 per cent for New Zealand (traditional 'Best In Class' processors). The major components of Australian meat processing labour on-costs at that time (1991-92) were payroll tax, leave entitlements and workers' compensation premiums. Since then, mandatory superannuation contributions have increased to become a fourth major category of labour on-cost for employers.

In the Bureau of Industry Economics (BIE) Agri-food Survey 1996, meat processors ranked reform of 'input taxes and on-costs' (including wholesale sales taxes, licensing and excise duties as well as labour on-costs) as the fourth most important micro-economic reform issue for future competitiveness, behind industrial relations, food standards and related regulations and environmental regulation (BIE 1996, pp. 89-90). Meat processors ranked 'input taxes and on-costs' as a lower priority than did other food industries in the survey, including fruit and vegetable processors, flour mills, cereal foods and baking mixes, confectionery and fruit and vegetable wholesalers, who all ranked it as second only to industrial relations as a microeconomic reform issue (BIE 1996, p.90).

Workers' compensation

The on-cost of significance to the meat industry is workers' compensation. The cost of workers' compensation to firms (comprising insurance cost and lost time) and individuals (pain and suffering) in the meat industry is high relative to other industries.

Cost to the firm

Accident risks vary between occupations, and so (all other things being equal) some variation in workers' compensation insurance premium rates is expected. However, costs in the meat industry are recognised as being high when compared with averages for all industries.

Workers' compensation insurance schemes are administered on a State basis, and in all jurisdictions the meat industry average is considerably higher than the all industries average (see table 6.4). In addition, there is wide variation between States, within States, between firms, and even between plants operated by the same firm.

The ability of individual firms to influence the cost of insurance through individual performance varies. Industries are allocated to pools, and firms within an industry initially face a premium based on the performance of other firms in the pool which have been assessed actuarially as having a similar risk and claim profile. In Victoria, for example, meat firms are allocated to the pool with the highest premium rate.

Table 6.4: Comparison of average workers' compensation premium rates 1997–98 (per cent of payroll)[a]

Industry	*VIC*	*NSW*	*QLD*	*SA*	*WA*
Meat products	8.4	13.36	8.77	7.5	6.17-6.44
All industries	1.8	2.8	2.15	2.86	2.4

a Tasmania and Northern Territory operate full private insurance systems. Rates are not available.

Sources: Secretariat Workers' Compensation Authorities (1998) and Workcover NSW (1997).

The ability of firms to 'internalise' some of the benefits of improved occupational health and safety performance (in the form of reduced workers' compensation premiums) is limited by the operation of workers' compensation insurance systems. For example, in NSW the impact of performance and claims history on workers' compensation premiums for all industries varies significantly according to size of the workforce (measured by the total wages bill) and the average premium for the industry in which you operate.

Cost per claim

Data on the cost of workers' compensation claims are available only at the three digit ANZSIC level[5]. As illustrated in table 6.5, the cost of workers' compensation for these industries is higher than for the total manufacturing sector.

In 1996–97, the direct cost of workers' compensation for meat and meat product manufacturing was around $2 000 per person, compared with $1 100 for the whole of the manufacturing sector. These figures equate to around 6.4 per cent and 3.1 per cent of the total wage cost for meat and meat product manufacturing

5 ANZSIC 211 includes meat processing; poultry processing; bacon; ham; and smallgoods manufacture. The meat processing component (ANZSIC 2111) accounted for 62 per cent of ANZSIC 211 employment and wages and salaries in 1995–96.

and the manufacturing sector respectively. These costs and proportions have increased each year for the meat and meat product manufacturing sectors.

As discussed above, there is variation even between plants operated by the same firm. In workplace discussions, one firm indicated that its premium rates varied between 8 per cent and 12 per cent of total wages across its plants.

Table 6.5: Direct cost of workers' compensation for meat and meat product manufacturing and all manufacturing, 1992–93 to 1996–97

Year	*Cost per employee*[a] *($ 000)*	*Cost as a proportion of total wages (%)*	*Cost per employee ($ 000)*	*Cost as a proportion of total wages (%)*
	Meat and meat product manufacturing		All manufacturing	
1992-93	1.5	5.1	1.0	3.2
1993-94	na	na	na	na
1994-95	1.7	5.9	0.9	2.9
1995-96	1.8	6.2	1.0	3.2
1996-97	2.0	6.4	1.1	3.1

a Cost per employee is the direct cost which comprises workers' compensation insurance premiums and claims costs not met by the insurer.

Source: ABS 1997e.

7 FUNCTIONS, SKILLS AND GENERAL PROCEDURES

'Functional' flexibility refers to the ability of employers to move workers to different tasks in the workplace. Greater functional flexibility may mean firms are better placed to respond to changes in the product market in the short and longer term. The level of functional flexibility depends on provisions in awards and agreements and the skill level of the workforce, which is in turn affected by the level of training (of both workers and management). Skill levels of workers and management, and the amount of training have traditionally been low in this industry, but there is some evidence of change in recent times.

'Procedural' flexibility refers to the mechanisms for consultation and the ability of firms to negotiate changes. There is evidence that change is occurring in this area as well.

7.1 Introduction

This chapter examines work arrangements which can affect the functional and procedural efficiency and flexibility of a company and its employees. These include the skills and abilities of employees, the organisation of work tasks, training, career linkages and the procedures used for communication, production planning, company policy and dispute resolution.

In the past, there have been impediments to change in these areas arising from the workplace culture, seasonality of operation, seniority in selection, the effects of the tally and other characteristics of the industry (see chapters two and three). Historically, these factors also meant there was little incentive for employers and employees to invest in training, development, participation, consultation and formalised dispute resolution. However, over the last decade — in particular the last three to five years — some of these characteristics have altered such that changes in work skills and organisation have become both necessary and possible.

At some larger meat processing firms, there is evidence of recent change in the organisation and development of work tasks and skills, and in the procedural relationships between employees and management. Compared with the

organisation and relationship patterns typical of the industry in the 1980s and earlier (IC 1994), several related trends have emerged in some parts of the industry over the last two to three years:

- increased employee responsibility for production processes and quality assurance — including, in some cases, for meat inspection procedures (see chapter eight);
- increased awareness and utilisation of multiskilling arrangements including job rotation and articulated training initiatives;
- increased awareness of the value of training and employee development including on and off-the-job training programs and formal skills recognition; and
- introduction of formal communication and consultation mechanisms.

However, these trends and changes have emerged only in parts of the meat processing industry, particularly in some of the larger export abattoirs which face stronger competitive pressures (see chapter two). It is not clear how widespread these emerging trends are, particularly among small and medium sized abattoirs. The issue of the extent of change in work arrangements is discussed in chapter eight.

7.2 Tasks and skills organisation

So-called 'functional' flexibility refers to the scope for employees to be moved to different tasks in the workplace. The extent to which this is possible depends on the range of tasks workers are able to perform which in turn depends on their level of skill. It may also be affected by legislative or award requirements regarding movement between job classifications.

The highest skilled workers in meat processing are slaughterers and butchers. Most other jobs are labouring-level and require no formal training.

FMIPA 1996 sets out two employee classification systems (depending on whether employees are daily or weekly hire) and 10 grades of employment for each. Movement between grades was traditionally related to seniority.

Skilled tasks

The principal skilled occupations in meat processing are slaughterers, who carry out slaughter and related tasks, and boners and slicers (sometimes referred to as butchers), who carry out boning, jointing, slicing and related tasks. These occupations require on-the-job training and experience and are usually graded

hierarchically according to the level of skill and experience required. Although formal trade certificates are not generally required for these jobs, some workers in these occupations hold relevant trade qualifications, primarily in butchery. In 1996, approximately 15 per cent of meat processing employees are estimated to have held vocational qualifications equivalent to a trades certificate (ABS 1997g).

Slaughterers and boners are the highest non-managerial grades of employment on the slaughter floor and in the boning room respectively. Depending on their classification level, some of the tasks performed by slaughterers include:

- stun, shackle and stick livestock using mechanical or electric devices;
- clear and tie rectum, gut and bladder;
- saw up carcases, skin carcases, feet and heads;
- cut out and tie gullets, windpipes and neck tissue; and
- slit open abdominal cavities and remove intestines, stomach and organs.

Tasks performed by various classification levels of boners and slicers include:

- sawing meat into sides, quarters and other pieces;
- boning out and jointing meat; and
- filleting, slicing and trimming meat into cuts (FMIPA 1996, App. 3).

General tasks

Most employees in the meat processing industry work in labouring-level jobs which require no formal qualifications. In 1996, 80 per cent of the workforce had no identified post-school qualifications (ABS 1997g). The most common abattoir labouring jobs are meatworks labourers and meat packers. Labourers generally perform one or two tasks only as part of a production line on either the slaughter floor or in the boning and packing areas. In small abattoirs, they are more likely to perform a variety of tasks including:

- separate and wash organs, glands and lungs for further processing;
- trim fat, brisket ends and blemished and ragged tissue;
- wash, wrap or shroud carcases;
- move carcasses from slaughter floor to chillers, freezers and boning room;
- sorting and moving meat, fat and bones for boners and slicers; and
- loading, weighing, packaging and packing (FMIPA 1996, App. 3, c.3).

In both the slaughter floor and the boning room there is a well developed hierarchy of work tasks, but movement between jobs (in the sense of a

structured career path) can be limited. Historically, movement and promotion have been governed by seniority and daily throughput levels, although both these factors are breaking down as work becomes more regular (see chapter 5).

In general, work involving knives and other cutting equipment is paid at a higher rate than washing, sorting, moving or packing. For example, on the slaughter floor, knocking, sticking and skinning are rated at a higher grade (and are better paid) than cleaning and sorting offal (FMIPA 1996, c. 24.1).

Similarly, in the boning room, labourers trimming or cutting meat in preparation for packing are a higher pay grade than vacuum-pack machine operators or chiller room hands (FMIPA 1996, c. 24.3). The higher grade and more experienced labourers in the boning areas can undertake further off or on-the-job training and move up to meat boning and slicing, which is more skilled and higher paid than most labouring tasks.

Traditionally there has been a strong gender division in the allocation of work. While relatively few women work in abattoirs, nearly all are employed in the packing areas rather than as slaughter floor or boning room labourers or skilled slaughterers or butchers. There is no evidence that this pattern is changing.

Employee classification categories

Occupational categories can be defined in terms of award or agreement classifications (linked to grades of employment and wage rates) or in terms of the skills and qualifications associated with each occupation. As in most industries, there is a strong hierarchy of occupations in meat processing in terms of skills and remuneration, with labouring jobs at the lower end, semi-skilled workers in the middle and skilled, experienced slaughterers, butchers and boners at the upper end of the scale. Production supervisors and managers have traditionally worked their way up from the processing floor, but more recently they have also come from other industries or from formal training (see section 7.3).

FMIPA 1996 sets out two separate employee classification systems, one for weekly employees and one for daily or 'payment by results' employees. In this respect, FMIPA 1996 is far more complex than any meat processing Certified Agreements (CAs). Where CAs only need to describe the occupations actually used by the company, the award must comprehensively cover all occupations used in the industry. As noted by Deery et al:

> [Awards are industry awards] in the sense that the occupational classification of most employees ... are catered for in each award (Deery et al 1997)

For permanent weekly employees, FMIPA 1996 has five divisions of occupation with up to ten grades or levels of employment within each. The five divisions are defined by functional areas within the abattoir:

- A: Abattoirs (ie slaughter floor) — with grades from offal labourer (grade 2) up to carcase grader (grade 8) and slaughterman (grade 10);
- B: Carters and drivers — from grade 2 to grade 5;
- C: Boning and pre-packing — from wrapping and packaging labourers (grade 1) to slicer (grade 6), boner (grade 7) and butcher (grade 8);
- D: Clerks and cashiers — all at grade 3; and
- E: Storage — all at grade 3 (FMIPA 1996, c. 24).

For processors working to tally (and employing slaughter floor and boning room workers as daily hire on tally), Appendix 3 of FMIPA 1996 sets out complex tables of tasks and wage rates (that is, minimum tally rate per five days' work). In addition, Appendix 3 has tables for piece-work team workers for each of 'Cattle slaughtering — Can-Pak systems and dressing on rail', 'Cattle slaughtering — bed and cradle system' and 'Calf slaughtering — chain or rail system' (FMIPA 1996, App. 3, c. 3-6).

For example, 'indicative tasks' and pay rates are described for three classes of slaughterers as well as 'learner slaughterers'. These are specified according to the type of livestock (cattle or calves), the position on the processing chain and whether the processing is done solo or as part of a team (FMIPA 1996 App 3. c.3). Traditionally, promotion between classes and team member positions has been based on demonstrated skills and, informally, on seniority.

With respect to employee classifications, FMIPA 1996 is less complex than the award it replaced, the *Federal Meat Industry Award* (FMIA) 1981. For permanent employees, in addition to slaughter and boning, the weekly employment classification system in FMIA 1981 (consisting of 10 grades) applied to retail shops, small goods manufacturers, domestic meat markets in Brisbane, domestic and wholesale meat markets in SA and NSW, and in the production of ham and bacon. Provisions relating to daily (tally) employees were carried over unchanged to FMIPA 1996.

Effects of classification structures

This occupational classification structure will have implications for firm performance only if it affects a firm's ability to move labour as required between grades and tasks. This may be the case where there are, for example, legislative or union-based demarcation rules which determine task allocations.

In workplace discussions, demarcation did not arise as an important issue for the industry. For example one firm observed:

> Demarcation (for example, between slaughterers and boners) is not an issue. Similarly, it is not an issue between maintenance and meatwork employees for minor maintenance tasks where the latter group have been appropriately trained.

While it does not appear that the classification structure *per se* restricts firms' abilities to move labour between tasks in the meat processing sector, it may to the extent that seniority determines promotion and selection. Seniority may limit the ability of employers to move employees around to meet changing throughput levels (that is, short term flexibility). Subject to a firm's requirements, seniority in conjunction with the classification structure may also limit opportunities (and incentives) for employees to gain new skills outside very narrowly defined job tasks — a longer term effect. If these factors combine to reduce functional flexibility below what it otherwise might be, this may, in turn, also have a negative impact on occupational health and safety (OH&S) outcomes.

As discussed in chapter five, seniority in selection and promotion remains an issue for some parts of the industry. Seniority is not part of FMIPA 1996 — rather, it operates as a 'custom and practice' in some workplaces. Seniority clauses also appear in some processors' CAs, although in these cases, it is always qualified by the requirement that employees still meet all other job criteria.

The classification structure may increase unit labour costs on a given shift if workers are moved between categories. FMIPA 1996 and most enterprise agreements have a 'mixed functions' clause which requires that if an employee is engaged for two hours or more on any day or shift on duties carrying a higher classification rate than normal, they are paid at the higher rate for the whole shift (c. 25.1).

Changes under enterprise agreements

CAs contain similar — though often less complex — classifications of employment to FMIPA 1996. One innovation to appear in some CAs in this area is the utilisation of competency based skills recognition (derived from vocational education and training standards) as the basis for employment classifications rather than the traditional award classification according to work areas and tasks. The new competency based structure enables employees to work their way up through a clear path of wage and skill levels using on and off-the-job training programs and skills recognition procedures.

For example, the 1996 CA for AMH's Dinmore abattoir has seven employment classifications and specifies the skills and knowledge required rather than the tasks to be performed. At the highest level (level one), slaughtermen must be 'fully competent on at least three level 1 slaughtering tasks' and boners must be 'fully competent to ... perform all boning tasks and all tasks incidental to boning'. All employees at this level are responsible for quality standards, hygiene requirements, correct use of tools and equipment, provision of on-the-job training in their area and maintaining departmental procedures (c.26.1).

The lowest level (level seven) in the AMH Dinmore CA is for new employees working under close supervision for a trial period of 60 working days. They must follow directions and maintain hygiene and quality standards as directed (c 26.7). Movement between each level is subject to availability of a position and 'satisfactory acquisition and assessment of the necessary skills and competency' (c.26). This provides a structured path for employees wishing to progress to higher wage and skill rates (or to different areas of work) and clearly sets down criteria for use in employee management and evaluation.

Similarly, the 1996 CA for R J Fletcher and Co. recognises four 'skill levels', each with its own set of required competencies. For example, entry-level employees are classed as 'meat worker level 1' and are promoted to level 2 when assessed as competent (or after six months) (c. 12). The agreement also states that a consultative committee (comprising management and employees' representatives) has a brief to, among other things, consider career development for each skill stream and develop assessment criteria (c. 1.5).

Effects of changes under enterprise agreements

The changes identified in some CAs do not alter the ability of firms to move employees on to different tasks *per se*. However, to the extent that the changes improve overall levels of skill, there may be greater scope for improved functional flexibility to meet short-term changes in requirements. On a given shift, this implies improved labour productivity (all other things being equal). The effect on unit labour costs is uncertain, given 'mixed function' provisions in the CAs which are similar to those under the FMIPA 1996 — that is, if an employee performs at a higher classification for two hours or more, the higher rate is payable for the whole shift. However, with fewer classifications, this provision becomes less significant.

Similarly, with respect to quality and reliability, the effects relate more to the benefits of training and levels of skill rather than functional flexibility *per se*.

Multiskilling and internal mobility

Job rotation, multiskilling and other internal employee mobility arrangements can significantly improve the ability of a workplace to quickly adjust to changes in demand and production throughput by allowing workers to move between different tasks or even different work areas.

Initially, unit labour costs for a given shift may increase as workers are re-trained and get up to speed in new tasks or are entitled to higher rates of pay. In the longer term, multiskilling can help the firm avoid the additional (and sometimes substantial) costs of hiring additional workers to cover absences or fill skills gaps. Where they are properly trained and motivated, the productivity of multiskilled and mobile employees is likely to be high, so they can better accommodate throughput changes, and help to improve product reliability and quality without increasing unit labour costs (as would hiring additional workers).

However, where a high level of job specialisation or particular skills are required, rotation and multiskilling may not always be appropriate (for example in technical, engineering or plant maintenance work).

Multiskilling can benefit employees by allowing them to develop new skills which can lead to promotions or other employment opportunities. Job rotation improves workers' understanding of how their work fits into overall production processes, providing an incentive to improve the reliability and quality of their own work. This has been found to work well when combined with increased employee responsibility (or job ownership) and participation in production planning and priorities (Bodi et al 1996).

For workers on production lines where tasks are repetitive and monotonous, job rotation and multiskilling can also help to reduce boredom or tedium at work. It may also assist in lowering the incidence of OH&S injuries related to repetition. This in turn can boost worker morale and productivity. These potential effects for the firm are summarised in table 7.1.

In workplace discussions, some firms described the use of job rotation:

> most of the sheep chain slaughterers are multi-skilled and swap jobs every couple of hours.

Table 7.1: Summary of effects of internal mobility arrangements on short-term and long-term firm performance

Type of arrangement	*Unit Labour Costs*		*Labour Productivity*[a]		*Product Reliability*		*Product Quality*	
	S/T	L/T	S/T	L/T	S/T	L/T	S/T	L/T
Job rotation within work areas	—/↑	—/↑	↑	↑	—	—/↑	—	—/↑
Job rotation between work areas	—/↑	—/↑	↑	↑	—	—/↑	—	—/↑
Multiskilling training	↑	↓	—	↑	—/↑	—/↑	—/↑	—/↑
'Stepping up' of labour	↑	↑	↑	↑	—/↑	—/↑	—/↑	—/↑
Competency based skills classification and promotion	—	—	↑	↑	—/↑	—/↑	—/↑	—/↑

a Labour productivity is defined as output per worker per hour of work time.

— indicates no direct effect; ↑ indicates an increase in the indicator; ↓ indicates a decrease in the indicator.

The 1996 MRC survey of 71 red meat processing plants found that the extent of job rotation differed significantly across different work areas. Around 80 per cent of firms had some form of job rotation for slaughter floor skilled workers and labourers (within the slaughter floor) and around 45 per cent had job or task rotation for boning room skilled workers and labourers. None of these involved movement between work areas but only within them. Movement between skilled and semi-skilled jobs was also seen as difficult (MRC 1996, p. 6).

Multiskilling and job rotation can also be used in conjunction with staff development and promotion. For example, two abattoirs consulted for this study use a system of 'stepping up' employees to cover absences and to improve work skills. In this system, employees in each work area are selected for training up to the next level of work skills (for example, labourers trained up to do slicing and boning work). These workers can then be slotted in to the higher level as absences require. This gives these workers the chance to gain additional skills and, for the days that they are 'stepped up', the opportunity to increase their income. It also increases their chances of being considered for promotion when permanent vacancies arise. However, they can only 'step up' to a job within their own work area and not to other parts of the plant, limiting the extent of this form of internal mobility.

FMIPA 1996 does not appear to encourage job rotations for training or any other purpose. Under FMIPA 1996, the 'mixed function' provisions (described above) could act as a disincentive to 'stepping up' or rotating employees between jobs for training and development purposes or encouraging workplace multiskilling. It may also increase unit labour costs.

Some CAs specify arrangements for improving skills flexibility and job rotations, although this would appear to be limited to larger export firms (job rotation by its very nature, will be more limited in small abattoirs). For example, in the 1997 CA for AMH Rockhampton (which operates on a competency based classification system), job rotation has become a requirement of employment:

> A system of rotation will be introduced which will require the co-operation of all employees concerned and will be by agreement with the Department Supervisor. Each employee must be aware of the requirements and standards necessary to complete each task competently .... An employee not seen to be competent in all tasks required in the system will be referred to the task tutor for reassessment. (AMH 1997, c. 16.4)

7.3 Training opportunities and career paths

Employee training and development has many recognised benefits for both the employer and the employee. For employees, the benefits include higher wages due to higher productivity and greater mobility. For employers, a more highly skilled workforce is likely to be more productive. Expenditure on training in the meat processing sector has traditionally been low. Despite some increase since 1990, aggregate expenditure as a share of gross wages and salaries in 1997 remains well below the average for all industries, at 1.8 per cent compared with 2.5 per cent (ABS 1998c).

In the 1994 meat industry inquiry, the Industry Commission (IC) identified managerial and employee skills as key determinants of workplace productivity:

> Improvements in labour productivity depend not only on remuneration incentives, but also on basic education levels of employees and opportunities for skills development. Technological opportunities and an emphasis on value added have elevated the importance of a trained and skilled workforce. (IC 1994, p.194)

However, the IC inquiry found that 'the industry does not currently display a training culture which is observed to exist in several overseas competitors' meat industries', including Denmark, Germany and the US (IC 1994, p. 195).

In its submission to the 1994 IC inquiry, the AMIEU stated that:

> There has been no recognition of skills in any career structure...Improved recognition of skills, the development of accredited training...are important factors in improving productivity in the industry. (IC 1994, Sub 9, p.6).

At management level, it was claimed that 'the generally low levels of managerial skills ...[were] contributing to relatively high levels of industrial confrontation and poor workplace practices' (IC 1994, AMIEU sub. 9, p. 4),

indicating a need to develop more sophisticated management skills in the industry (IC 1994, WA Farmers' Federation, trans. p. 414).

The historical reasons for this relative lack of interest in training and skills development in meat processing have included:

- workplace culture (including a 'school of hard knocks' view on training);
- daily hire and seasonality, which would limit willingness of both employers and employees to invest in longer term training commitments;
- relatively high levels of turnover in the industry, which reduces incentive for workers or management to undertake or promote training;
- seniority system of promotion, which means skills and training can go unrewarded; and
- the tally system and its emphasis on quantity and speed over quality of output.

In workplace discussions, the level of skill of both managers and workers was raised as a continuing issue at many workplaces. Parts of the industry do not participate in training and the majority of employees are still without any formal qualifications.

Some of these factors have changed in the last three to five years in the industry. In particular, workplace changes such as the move to quality assurance (QA) systems require a more skilled workforce. The importance of training in the industry has been recognised through the development of the National Meat Industry Training Advisory Council Ltd (MINTRAC).

MINTRAC and vocational education and training

MINTRAC coordinates the development and implementation of industry vocational education and training (VET) programs and represents the industry in national VET forums. It is jointly funded by the Australian National Training Authority (ANTA), Department of Employment, Education, Training and Youth Affairs (DEETYA) and the MRC and has a tripartite membership representing the industry, government agencies and the AMIEU.

MINTRAC advised that over the past four years, expenditure has been around $14.7 million. This has been used on programs including traineeship subsidies, training delivery and workplace language and literacy and has come from various Federal and State government agencies (MINTRAC, correspondence). While this figure is not directly comparable with the total expenditure on training figures noted above, it would appear to represent a significant proportion of total expenditure on training in the industry.

MINTRAC participates in the National Training Framework for VET programs. The framework consists of registered skills recognition arrangements (the Australian Recognition Framework) and integrated, competency based training packages. ANTA guidelines for these require that:

- there is quality assurance of public investment in training;
- the expressed training needs of industry are recognised and met;
- training results in nationally portable skills and qualifications; and
- qualifications are based on the concept of competency based training.

MINTRAC has developed a draft VET Framework for the meat processing industry which has been approved by ANTA and is now being discussed with State VET authorities and industry organisations before full implementation later in 1998.

This framework will formalise the competency based VET system that has been gradually introduced to the industry since the early 1990s. The system consists of core and non-core units of training arranged into levels for each occupational area of meat processing such as slaughtering, boning and packing, and for separate or specialist topics such as hygiene management and quality control.

For each competency level, a certain number of core and non-core units must be completed per subject area, or, for experienced workers, sufficient prior knowledge or skills must be formally recognised. Approximately a quarter of each level is conducted in classes (eg, at TAFE or by AQIS) and three quarters is conducted on the job by in-house or external trainers. Indeed, one Queensland meat processor has been dubbed ‘the largest TAFE in the State’ due to the number of employees who have undertaken in-house VET training.

Senior employees with appropriate skills and experience are encouraged to participate in VET delivery and assessment (eg, level one employees in the AMH Dinmore CA 1996 discussed above).

Examples of certificates and units planned for each competency level are:

- levels one and two consist of general technical and vocational units (already available);
- level three consists of units in slaughtering, boning, rendering and meat safety; and
- level four consists of units in leadership, meat safety and QA procedures.

The more traditional apprenticeship system of training is to be integrated into this framework so that for example, meat workers wishing to progress to a butchery apprenticeship may be able to gain credit for completed VET competency level certificates in relevant areas.

This flexibility in training has the potential to improve the skills development and career paths of meat processing workers and appears to be spreading. Table 7.2 shows that the number of people in accredited training for meat-related occupations increased significantly in 1997. It also shows that training for certain occupations has often been concentrated in particular States. For June 1995, 1996 and 1997, all slaughter training participants were in Queensland and all meat boning and slicing training participants were in NSW and Victoria. This pattern changed for December 1997, with a wider geographic spread of training participation (but the vast majority of meat labourer training occurring in Queensland, as opposed to SA six months earlier).

The large increase in training for meat labourers in Queensland in December 1997 may have been due to employees taking up newly accredited training programs with assistance from the Queensland government's unique provision of VET funding for existing employees (other States fund VET only for new employees). This arrangement ceased in 1998 and future VET trainee numbers could fall again as a result. Alternatively, as the benefits of training to the firm are increasingly recognised, the level of industry funding may increase. Future changes in the number of VET trainees in Queensland will provide information on the extent to which the industry is sensitive to the availability of public funding in training provision.

MINTRAC estimates that in 1997, another 1500 people may have been undertaking *ad hoc* units of training relevant to meat processing (for example on hygiene or transport) but not whole qualification levels (MINTRAC, correspondence). This suggests that the data of registered trainees underestimates the extent of formal training in the industry.

Greater training resulting in higher skill levels is designed to increase productivity in the medium term. While unit labour costs may increase in the short-term (if the firm is contributing to the cost or time of the training), this should be offset in the longer term by improved productivity.

Table 7.2: Persons in training by occupation, 1995–97, Australia.

Occupation (ASCO first edition)	*30 June 1995*	*30 June 1996*	*30 June 1997*	*31 Dec 1997*[a]
Meat trades not further defined	196	137	139	-
Butcher[b]	2663	2731	2757	2696
Smallgoods maker	13	10	10	168
Slaughterman/woman	Qld: 9 Aust: 10	Qld: 15 Aust: 16	Qld: 15 Aust: 17	NSW: 18 Qld: 6 SA: 20 Tas: 9 Aust: 56
Meat and fish process worker not further defined	-	-	-	NSW: 472 Vic: 97 Aust: 569
Meatworks labourer	0	0	SA: 44 Aust: 44	Qld: 1905 WA: 40 Aust: 1945
Meat boner and slicer	NSW: 92 Aust: 92	NSW: 166 Vic: 2 Aust: 168	NSW: 324 Vic: 403 Aust: 727	Vic: 493 SA: 188 Tas: 37 Aust: 718

a ASCO second edition occupations.

b Includes butchers training in retail, wholesale, processing and other establishments.

Source: National Centre for Vocational Education Research (unpublished).

Management training, skills and career paths

The predominant management career path in the meat processing industry — now and in the past — is for managers to come from the factory floor and work their way up. In the case of the many family operated abattoirs, managers come from the family but have often worked throughout the plant during their working career. Reflecting these practices, extremely few people working in the meat industry have higher education qualifications. 1.3 per cent have a bachelor degree or higher and 1.8 per cent have an undergraduate or associate diploma (ABS 1997g). As could be expected given the low proportion of females in the industry's total workforce, there are few women working at management level in the industry (and those that are managers are generally in their own family's firms).

As discussed in chapter eight, in workplace discussions, some managers admitted that traditional work arrangements — in particular tallies — had been

good for 'bad' managers, as it took away the responsibility for managing work flows (industry consultations).

A 1996 management benchmarking project (MRC and LDG 1996) looked at the meat processing industry's management abilities in five key areas — managing operations, finance, personnel, information and strategic planning. Overall, the study found that meat processing managers in Australia were below a derived international 'best practice' standard (a rating of 80 per cent effective or higher) in all five areas. They were rated highest for managing operations and quality control (60 per cent effective) and lowest for personnel and information management (44 per cent and 52 per cent effective) (MRC and LDG 1996, p. 3).

That is, meat industry managers were found to be more effective in industry-specific, technical management areas but less so in general management areas such as personnel, communications and information. This would indicate a need for better training in general management skills.

Anecdotal evidence suggests this traditional approach to management training and careers is slowly changing, with some (mostly larger) firms beginning to employ specialist, qualified managers from outside the industry for areas such as marketing, QA and human resources management (HRM), though not generally for plant and stock management, where experienced, industry-trained staff still tend to dominate.

In 1992 the Diploma of Meat Management was established as an industry initiative due to concern that generally available management training courses were not fully appropriate for the industry, and that the generally low level of formal education would preclude many from entering those courses. This Diploma course is the only management program tailored specifically for the industry and has had about 50 graduates since it was established[1]. It enrols around 15 new students each year from around Australia, taken from smallgoods manufacturers as well as meat processors. All students are nominated and sponsored through the course by their employer. The course is currently restricted to people already working in the industry. This may change in the future, subject to funding and student demand (industry consultations).

The factors driving change in the industry are reflected also in the factors driving changes in management. Improvements in management training and competencies would be expected to have a positive effect on firm performance. Higher skill levels for managers may be reflected in improvements in product quality and reliability and overall productivity.

[1] There is also a management training program for the meat processing industry in New Zealand, which some Australian industry managers have attended.

Box 7.1: Diploma of Meat Management, Victoria University of Technology, Werribee.

Prerequisites:

At least three years' meat industry experience and written support of the current employer. No formal tertiary studies are assumed, but pre-course studies in mathematics, science, animal biology and engineering concepts can be required.

Duration and structure:

Three years comprising two, five week residential periods of formal study each year followed by industry-based projects after each residential period.

Course content:

Year 1:	Introductory management skills,	Introductory meat technology,
	Australian meat industry,	Meatworks engineering services.
Year 2:	Management of employees,	Meatworks plant operations,
	Meat processing,	Meat quality,
	Principles of meat science.	
Year 3:	Manufacturing management,	Plant and process design,
	Product and process development,	Quality management.

Source: Victoria University of Technology.

Impact of changing quality assurance requirements

Responsibilities for meat hygiene and public health and safety are split between the Federal and State governments. The significant change in the past four years has been a move in the domestic sector to QA systems which place a greater level of responsibility on individual firms. There are movements in the same direction in the export sector. As was noted by managers during workplace discussions, this has had implications for skill levels for both workers and management.

MINTRAC now provides the curricula and program for training in quality control for the meat processing industry. This was developed in conjunction with AQIS, industry associations and other government agencies. AQIS is one of the largest providers of this training, with some TAFEs and larger meat processing firms also providing some training in this area.

During the 1990s, QA has steadily increased in importance as a production and marketing issue for export licensed meat processors. This has been coupled with a shift in day-to-day responsibility for this area away from AQIS and State

government meat inspection agencies (who still have ultimate responsibility) toward the meat processing firms and their employees.

In Victoria, domestic meat inspection has been the responsibility of each company since the introduction of Hazards Analysis Critical Control Point (HACCP) inspection in 1994. Under this system, QA employees can be dedicated inspectors or they can combine these duties with other tasks. At MC Herd for example, the CA allows employees holding a Competency Certificate in Meat Inspection to become either:

- Quality Assurance Officer Class 1 — employees selected and employed exclusively in this position; or
- Quality Assurance Officer Class 2 — employees 'whose usual classification is that of a labourer or slaughterer who has been offered and accepted to participate in a Quality Assurance Officers pool' (MC Herd 1996, c.12.2).

These additional tasks and responsibilities expand the (otherwise rather limited) opportunities for skills development and job advancement for meat processing employees. At this company, in-house QA inspection employees have largely replaced the previous system of State government inspectors (AQIS still controls inspection for meat exports but this is also moving toward a HACCP based self-regulation system). In other CAs, QA responsibilities have been included in virtually all job descriptions as one of the required generic competencies (for example, AMH Dinmore 1996).

7.4 Workplace consultation and dispute resolution arrangements

Many procedures and considerations are involved in how firms consult, communicate, and solve problems in production, finances, HRM, marketing and other areas of operation. They depend on firm ownership, size, composition, structure, industry, operating environment as well as the personal preferences and management style of owners and managers.

Workplace decision making processes

The MRC's 1996 survey of 71 red meat processors found that decision making responsibilities tend to be located fairly high in the company hierarchy. No firms reported any involvement in decision making from operator-level employees (who make up the majority of meat processing workers).

For decisions regarding production, the lowest rank of employee to be involved was 'above works manager' in 3 per cent of firms, 'works manager' in 46 per cent, 'manager' in 44 per cent, and 'supervisor' in seven per cent of firms (MRC 1996, p. 5). This emphasis on management prerogative in decision making can be found in many manufacturing and processing industries where much of the work is routine, task oriented and conducted as part of a production team or chain rather than autonomously.

More recent developments indicate that these attitudes are changing in some parts of the industry. One 1997 CA is notable for including a 'self management' element not previously encouraged in meat processing work:

> It is the intention of the Company, with the commitment of the employees, and through training and education, to make the plant more self-regulated. To this end and in accordance with this agreement, the employees agree, in the case of limited or reduced supervision, to continue to perform work to the required Company standard and accept responsibility for self-supervision. (AMH Rockhampton 1997, c. 16.3)

This emphasis on employee responsibility and ownership of work tasks and output is by no means widespread but may spread if successfully implemented.

In the more specialised area of HRM decision making, the MRC survey found that in the meat processing industry, this was more often the responsibility of plant or general managers than specialist HRM managers. 30 per cent of firms delegated this responsibility to a specialist HRM manager (23 per cent) or officer (7 per cent). In other firms, HRM was the responsibility of plant managers (36 per cent), general managers (9 per cent), QA managers (4 per cent), supervisors (7 per cent) or other managers and administrators (14 per cent). Just under a third of all firms had a formal HRM strategic plan (MRC 1996, p.7).

Low priority given to HRM and to employee participation can have implications for employer-employee relations, consultation and dispute resolution. However, the absence of specialist HRM managers may not indicate necessarily a neglect of these issues. It may also be related to firm size. As discussed in chapter two, the 25 largest firms account for around 60 per cent of industry output, but less than 20 per cent of the number of plants.

The MRC survey concluded that for the meat processing industry as a whole:

> Human resource management practices are typically highly centralised and not guided by formal strategic plans. Unfortunately, limited formal training and other supporting human resource management practices complement the importance placed on skilling and flexibility of the workforce. (MRC 1996, p. 2)

Workplace consultation mechanisms

Effective workplace consultation and communication is necessary in all workplaces. The form these processes take will depend on the characteristics of the workplace, the workforce and the industry. For example, very informal, personalised communications can be appropriate to small, stable workplaces but may be less appropriate to larger organisations, companies with high staff turnover or those undergoing significant change. In all industries, the need for effective consultation has increased with the growth of enterprise bargaining and reliance on CAs as a vehicle for workplace change.

FMIPA 1996 and many (if not most) meat processors' CAs require the establishment of a formal consultation process through a workplace consultative committee, except in establishments employing fewer than 15 workers (FMIPA 1996, c. 15). These committees are made up of management, employee and union representatives, with the exact composition and representation largely determined by the size and structure of the workforce.

Consultative committees meet regularly to discuss and, in some cases, arrange implementation of decisions, on a range of day-to-day workplace issues such as multiskilling and training arrangements, shifts and rosters, the physical work environment, OH&S and general matters affecting immediate workplace efficiency and productivity (FMIPA 1996, c. 12.1).

The effectiveness of committees and similar consultation arrangements is affected by the personal commitment of the parties involved, the trust and relationship between them and the general atmosphere or culture of the workplace. These factors can enhance or inhibit the effectiveness of consultation procedures, regardless of the formal mechanisms put in place. The importance of trust and goodwill is acknowledged in FMIPA 1996, which states that the object of consultative committees is to 'improve consultation and not to promote a forum to reduce wages and conditions' (c. 12.3).

In the case of major workplace change, direct consultation with the affected employees — as opposed to working through a representative committee — is required by FMIPA 1996 and by most meat processors' CAs. In this context, relevant workplace changes are those which will affect the way people work (such as introducing new technology or production systems), the times they work (such as changes to the length or commencement of shifts) or even whether they work at all (such as large scale recruitment or redundancy).

At the minimum, the employer has a duty to inform workers and their union of any major changes and to discuss the anticipated effects with them. In some CAs, though not in the award, this information must be in writing (eg., Teys

Beenleigh 1997, c. 23 viii). The notice required for major change also varies, from 'as early as practicable after a definite decision has been made' (FMIPA 1996, c. 16.2.1) to more specific time periods such as seven days before the change is to occur (MC Herd 1996, c. 2.3.2).

The previous *Federal Meat Industry Award* (FMIA) 1981 also contained provisions relating to the establishment of consultative mechanisms at each plant or enterprise. However, these were less detailed than those contained in FMIPA 1996 and the day-to-day role of consultation at that time is not clear.

In workplace discussions, there was recognition of the benefits of consultation and training, which were also associated with a change in workplace culture. For example:

> Over time, there had come to be a greater recognition of the importance and the benefit of training and consultation. [Regarding the MRC's OH&S best practice program]... which among other things, involved all workers in training, health and safety at the plant. This program also offered workers a chance to learn a non-technical skill that would enable them to participate in other areas of the company. From this, the company formed Process Improvement Teams (PIT) which involved the workers in decision making processes at the plant.

Another firm indicated that improved consultation was an essential part of the process of negotiating a CA:

> A consultative committee was formed at the start of negotiations comprising workers (elected by the workforce), management and union officials. The main function of the committee was to identify issues and problems which both management and the workers felt needed to be addressed. ... Resources were also spent in educating the workforce about the agreement. Structured meetings were held explaining the agreement, and all employees were involved in training courses. Management also attended these courses.

Dispute resolution procedures

Workplace disputes are disagreements arising between employees, supervisors and managers and can occur for a variety of reasons. Workplace disputes are usually resolved through internal mechanisms or, if that is not possible or has failed, the parties can go to the Australian Industrial Relations Commission (AIRC) or other external arbitrators. Industrial disputes are conflicts over wages and conditions of work and can involve individuals, work teams or a whole workforce. Such disputes need to be resolved quickly and fairly to minimise immediate and long term disruption to workplace productivity and morale.

Effective dispute resolution mechanisms are particularly important for the meat processing industry which has a long history of bitter disputes, albeit fewer in recent years (see chapter 3). FMIPA 1996 sets out a detailed procedure to be followed in 'avoiding industrial disputes', including unfair dismissal disputes. This stands in contrast to one of the current black coal industry Federal awards[2] (another industry noted for historically high dispute levels) which contains no dispute resolution procedures (IC 1998, p. 120).

Under FMIPA 1996, unless genuine OH&S issues are involved, work should continue during a dispute while certain procedural steps are followed:

- as soon as possible after the dispute has arisen, the employee(s) concerned shall explain the matter with their immediate supervisor, who will endeavour to remedy the situation;
- if the immediate supervisor cannot resolve the dispute, or if the nature of the dispute means discussion with the immediate supervisor would be inappropriate (eg, if the supervisor is the subject of complaint), the employee(s) shall discuss the matter with their union representative, who will consider the matter and discuss it with the employer; and
- if the matter is not settled by the union representative and the employer, the dispute is to be submitted to the AIRC, which will attempt to resolve the dispute by conciliation and then if necessary, arbitration (c.17.1-2).

FMIPA 1996 also requires the establishment of a 'Board of Reference' in each State covered by the award. Each Board is composed of two union representatives, two employer representatives and one Industrial Registrar or their nominee. The Board is available to 'settle disputes as to matters under this award', deal with 'matters directed by the award' to the Board and 'deal with any dispute affecting the amicable relations of the parties' (c. 18).

Under the *Workplace Relations Act* 1996, all CAs must include a dispute resolution mechanism. The FMIPA 1996 procedure outlined above is the model for most meat processing industry CAs, although some have a stronger role for management before referral to the union or other external agencies.

For example, in the CAs for AMH Dinmore (1996) and Rockhampton (1997), disputes are to be firstly referred to the supervisor, then if not resolved, to management, then if not resolved, to the workplace consultative committee (made up of management, employee and union representatives), then if not resolved, to management and the union, and finally, to the AIRC (AMH Dinmore 1996, c.12; AMH Rockhampton 1997, c.8). Other CAs refer disputes

[2] *Coal Mining Industry (Supervision and Administration) Interim Consent Award 1990, NSW and Tasmania.*

not resolved at supervisor level to the workplace consultative committee or 'union shop' committee and then on to management rather than directly to the union (Castricum 1997, c.8.3; MC Herd 1996, c. 8.3).

The AMH Dinmore CA is notable for specifying separate resolution procedures for disagreements over the suitability of beef for boning (c. 60). This is an example of how CAs can be used to address localised workplace issues, in this case, aimed directly at product quality improvement.

8 CHANGE IN WORK ARRANGEMENTS

In some parts of the meat processing sector, it appears that changes have occurred in work arrangements over the past few years. The process of negotiation has, in some cases, involved protracted industrial disputation. These changes have included a move away from the tally systems as prescribed in the major awards toward time-based payment systems and/or modified incentive payment systems. However, the extent of change varies throughout the industry, and the pace of change seems slow relative to other parts of the economy. Although there are benefits to both management and workers from changing work arrangements, trade-offs are involved and there are a number of factors at the firm and industry level which affect firms' abilities to modify work arrangements.

8.1 Introduction

Previous chapters have described the key work arrangements operating in the sector, and their likely impact on firm performance. Where changes have occurred, these have been described. In some cases, the changes represent a significant departure from the work arrangements that existed previously.

The evidence gathered in the course of this study suggests that change has occurred mainly in larger, export-oriented establishments. However, there are also examples of small to medium size firms which have implemented modified work arrangements. It appears that the changes have been concentrated in the past few years.

Improved workplace relations have been an important factor related to change for some companies. For others, change has come about through bitter and protracted industrial disputation, and workplace relations remain poor.

While different parts of government are involved directly in the meat industry (in areas such as inspection), the government involvement most relevant to this study is in setting the industrial relations framework within which work arrangements are negotiated. In terms of responsibility for further change in work arrangements at the enterprise level, the primary role rests with management and employees.

This chapter starts with a summary of the institutional environment and the role of government in the meat industry. In section 8.3, the nature of the changes in the key work arrangements in the meat processing sector are discussed, followed by a discussion of the benefits of change in the industry in section 8.4. Issues regarding the extent and pace of change are covered in section 8.5, and the chapter concludes with a discussion of other factors affecting change (section 8.6).

8.2 The institutional environment and the role of government

Federal and State governments are directly involved in regulating the operation of parts of the meat industry. Governments set industry standards relating to inspection systems, as well as food hygiene and safety. In addition, there are economy-wide requirements for workers' compensation systems and occupational health and safety (OH&S).

While responsibility for furthering change in work arrangements rests mainly with management and employees, governments establish the industrial relations framework within which managers and employees negotiate work arrangements. It is that aspect of government intervention that is most relevant to this study.

In the last decade, Federal and State industrial relations systems have increasingly focused on bargaining at the workplace. In the Federal system, the *Workplace Relations Act (WRA) 1996* reinforced those trends through provisions relating to:

- the award simplification process;
- a variety of bargaining agreement mechanisms;
- the no disadvantage test;
- freedom of association;
- a 'more conveniently belong' rule governing employees' choice of union;
- the introduction of 'protected industrial action' which gives limited rights to strikes, lock-outs and other action during defined negotiating periods; and
- the role of the Australian Industrial Relations Commission (AIRC).

As described earlier, meat processing firms in Victoria, Queensland and SA operate mainly under the Federal industrial relations system. In NSW, most firms operate under the State system.

In industry discussions, the current legislative frameworks at the Federal and State levels were not generally seen as an impediment to firms' abilities to

facilitate change — with the exception that award provisions — even if not strictly applied in a particular workplace — become relevant in the negotiation of certified agreements as they are the basis against which 'no disadvantage' is assessed. The AIRC is required to assess 'no disadvantage' (comparing the proposed CA to the relevant award). For all certified agreements — whether first, second or third generation — the industry award is the relevant benchmark against which 'no disadvantage' is measured.

Management at several firms indicated that the crucial factor in negotiating change was the support for change of the union and employees.

8.3 The nature of change

Historically, workplace change in the meat industry was restricted through the prescriptive award provisions relating to important work arrangements such as tallies, and the interaction of tallies with allowances and penalties for overtime and shiftwork. For firms, these factors made it costly to expand output levels in a given shift, or by running additional shifts.

Increased competitive pressure in the industry and a more facilitative industrial relations institutional framework has made it possible for some firms to make productivity improving changes at the workplace level. In parts of this industry, a process of change in work arrangements appears to have gathered pace over the past few years. Where significant change has occurred, it happened in this period.

As a result, there are examples of firms that have successfully negotiated enterprise level agreements which incorporate departures from previous award conditions in important areas such as remuneration systems. This view is based on detailed discussions at five meat processing plants, reinforced by information obtained from a variety of sources, including peak industry bodies and government representatives, consultations with other industry participants, other meat industry studies and responses to the 'Work-in-Progress' report.

Chapters five, six and seven examined the key work arrangements affecting the performance of firms in the industry. The following sections briefly summarise the nature of the changes in these work arrangements. A brief summary of some of the changes in key work arrangements is provided in table 8.1.

Size and composition of the workforce

As described in chapter five, the main work arrangements affecting the ability of firms to change the number of people employed have traditionally been:

- daily hire;
- provisions for part-time and casual employment; and
- seniority.

Daily hire is part of Federal award provisions for tally workers. Originally, daily hire was introduced to allow firms to deal with daily fluctuations in the supply of livestock and the demand for meat. Employees were compensated for the employment insecurity in the form of a 10 per cent premium over the regular daily wage.

Other awards, such as the main NSW awards, facilitate this sort of flexibility through the use of 'shortage of livestock' provisions. In the NSW case, this means that employees can be given a week's notice (due to a shortage of stock) and then be employed as a casual and paid for any days worked at a rate equal to one-fifth of the weekly rate plus 15 per cent.

Daily hire or shortage of livestock provisions remain a feature of enterprise agreements, as well as the major Federal and State awards. However, in workplace discussions some managers indicated that although daily hire remained written into agreements and awards, these provisions were rarely used. For example, at one workplace, management commented:

> There is no real difference in job security for daily and weekly hire employees.

Similarly, at another:

> Nearly all workers are regular daily hire employees. Daily hire has been retained in case there is a need to reduce workforce size in response to a fall in demand for product (or a shortage of livestock due to seasonal factors), but has so far not been utilised [since the commencement of the enterprise agreement in 1996].

In another case, management indicated that daily hire had been retained in the firm's enterprise agreement for reasons related to the 'no disadvantage' test:

> ... daily hire was retained partly due to the 'no disadvantage' test under the legislation, as the 10 per cent daily hire loading is included in the base rate of pay.

In some cases, a more permanent workforce structure is underlined by provisions written into enterprise agreements guaranteeing annual incomes.

Part-time and casual employment have also been used in the industry as a means of dealing with uncertain demand and supply issues. Greater emphasis on

training and a more skilled workforce has meant, in some cases, that casual employment is no longer used. In workplace discussions, managers at two firms indicated that they no longer employed casuals to fill gaps, and would reduce production on a given day if they did not have enough workers, rather than take on casuals for the day — for reasons related to skill levels:

> Absence of a worker would result in lower output rather than employment of a casual for the day.

Seniority was traditionally a work arrangement important for initial selection, and for promotion or termination. With greater permanence in employment, seniority in hiring has virtually disappeared. However, seniority in promotion remains important in parts of the industry. To the extent that it interferes with merit selection principles, it may adversely affect firms' performance. This is important also in the context of training in the industry.

For termination or redundancy, seniority generally implies a 'last in first out' policy. For termination, employees who have been with the firm the longest are the last to be terminated. For redundancy, it may mean that longer term employees are given first choice in accepting redundancy packages.

Hours of work and rosters

Chapter five also outlined the work arrangements which affect the number of hours worked (including shifts). These relate to:

- ordinary hours of work; and
- shiftwork.

Ordinary hours are specified in the industry awards and agreements. Ordinary hours under the major awards are usually between 6am and 8pm, with a 38 hour week.

The expansion in ordinary hours has involved a broader spread of hours, which has the effect of making it possible to work more hours of the day without overtime penalties. Recent changes included as part of a CA for government-employed meat inspectors have aligned inspectors' ordinary hours more closely with plant operating hours.

Where firms have moved to time-based pay systems, this has also increased employees' working hours, from a range of 4 to 7 hours, to a full 7.6, 8, or 10 hour shift.

Major industry awards such as the FMIPA 1996 and the major NSW State awards contain provisions describing penalties payable for shiftwork. However,

second shifts have not been a feature of the meat processing industry. Shift penalties, compounding the effects of tally premiums, were identified as one of the key factors which made it less profitable for firms to run second shifts, thus leading to capital under utilisation.

However, a number of factors determine whether or not firms work one or two shifts per 24 hours. In workplace discussions, managers at some firms indicated that they chose to work one shift only for several reasons. In one case, it was because any expansion in throughput (and an additional shift) would require increased chiller capacity. In another, it related to the need for the additional infrastructure that would be required to source livestock and market the product.

Remuneration and on-costs

Key work arrangements regarding remuneration have traditionally been:

- tallies for slaughtering, boning and slicing; and
- penalty rates.

While tallies are an incentive payment system — albeit based on inputs — their application in practice has served to limit incentives to increase throughput both on a given shift and overall. For example, on a given shift, operating under the tally as prescribed in the FMIPA 1996, the unit wage cost of production would increase as throughput exceeds minimum and maximum tally. Maximum tally would typically be reached in significantly less than 7.6 hours — varying from plant to plant, but ranging from as little as 4 hours up to 7 hours. Management at some firms indicated that over time, the short working day reflected improvements in technology being passed on to employees as a reduction in working hours, as the tally system meant it was not profitable to increase throughput beyond maximum tally.

Penalties for overtime and shifts compound the effects of tallies. Under the FMIPA 1996, the combination of these factors means that the unit cost of livestock processed beyond maximum tally on night shift would be nearly 80 per cent more than the unit cost of processing up to minimum tally on the day shift.

A move away from tallies as prescribed in the awards is the major trend in remuneration in meat processing. In some cases, different forms of incentive payment systems (modified tallies) have also been introduced — including examples of firms which retained payment based on the number of head slaughtered, as well as others where payment is based on output. In cases where firms have opted for time-based payment, penalty payments and overtime have

been simplified with many of them being rolled in to the basic payment. In some cases, where the shift penalty remains, it is reduced.

One of the most significant on-costs to the meat processing industry is workers' compensation. While not directly related to work arrangements, it is a major cost — high in the meat industry relative to all industry averages — and there is significant variation between States, and between firms.

Other

Work arrangements which affect the skills of employees and managers, the way work is organised, the nature and amount of training, and procedures for consultation and dispute resolution were examined in chapter seven. It was noted also that an important element of improved performance relates to training in the industry and levels of skill.

Historically the meat processing sector has spent less on training than the manufacturing sector average, and the level of educational attainment of employees has been below that of other industries. Industry-wide expenditure on training increased between 1990 and 1997, but the most recent data indicated that it remained below that of the manufacturing sector average (per person). It was noted also that over the past four years the (National) Meat Industry Training Advisory Council (MINTRAC) had administered training projects for the meat industry valued at nearly $15 million.

Training has traditionally been conducted on-the-job as required. The prevalence of work arrangements such as seniority and daily hire — together with the seasonal nature of employment in the industry — may have all contributed to a poor training culture. Since the early 1990s, formal competency-based training programs have been introduced through MINTRAC. The numbers of meat workers in formal training more than doubled between 1994 and 1997. However, while there are no formal data on this issue, it would appear that at this early stage public funds represent a significant proportion of training expenditure in this industry.

If expenditure on training — whether publicly or privately funded — is shown to yield some benefit, in the future firms may be more inclined to invest in training. Further, if employment in the industry continues to become more permanent (as the effects of seasonality are reduced), there will be greater incentives for both employers and employees to undertake training.

Other factors have also provided impetus for increased training. Changes in hygiene and quality requirements and standards have meant that some firms have taken a different approach to production which has involved, among other things, increased employee responsibility for production processes and quality assurance (QA). This requires, in turn, higher levels of workforce skills and training.

There is also evidence that some firms have adopted modified work organisation practices in recent years — such as multiskilling and job rotation. This has been corroborated by other studies.

Table 8.1: Summary of the nature of change in key work arrangements

Work arrangement	*Old approach*	*Some changes*
Tallies	Highly prescriptive piecework payment system based on number of head slaughtered. Major source of disputation.	More time-based work with annualised salaries. Less prescriptive incentive systems in many enterprises (eg based on yield.) Other measures forming part of payment system (eg absenteeism bonus) Guaranteed minimum annual incomes in some cases.
Penalty rates	Included as part of tally. Applicable also to shifts.	Rolled into annualised pay. Shift penalties reduced and simplified.
Allowances	Numerous allowances for different size stock, dirty animals etc.	Rolled into annualised pay.
Ordinary hours		Expanded.
Seniority	In conjunction with daily hire, applicable to hiring and firing. Also for determining progression on the job.	Remains an issue for employees. Breaking down as firms formalise training regimes and move to merit-based progression. Still relevant for redundancy.
Training	On the job. Seniority, daily hire and seasonality meant that the benefits to employers and employees from training were limited.	Formal, competency based training programs, developed and introduced.
Consultative mechanisms	Written into award.	Use of consultative committees has broadened. An important means of progressing enterprise bargaining.

Finally, there is evidence in new enterprise agreements that some firms have made greater use of formal communication and consultation mechanisms. For

some, this has been related to the enterprise bargaining process. This continues a trend of enhanced mechanisms for communication. The *Federal Meat Industry Award (FMIA) 1981* contained provisions for consultative committees as a means of improving industrial relations at an enterprise. These provisions were developed further in the FMIPA 1996, setting out requirements such as a need for formal procedures if there are more than 15 employees. Over the past several years, usage of these consultative procedures appears to have increased.

In workplace discussions, mechanisms for communication and consultation (and greater appreciation of their value) were seen as necessary precursors to successfully negotiating changed work arrangements with employees. For example, one firm indicated:

> A consultative committee was formed at the start of negotiations comprising workers (elected by the workforce), management and union officials. The main function of the committee was to identify issues and problems which both management and the workers felt needed to be addressed.

8.4 The benefits of change

As discussed above, an important element of the willingness of managers and employees to negotiate changed work arrangements was a recognition that it was possible for both sides to benefit from change. This was borne out in workplace discussions. Improved performance was not attributed simply to specific changes or particular work arrangements, although managers often indicated that a modified payment system was their key objective in negotiating change. At the workplaces which reported improved performance, managers and employees alike felt that this was the result of a combination of the changed work arrangements and improved workplace relations. In addition, both groups felt that improved workplace relations had both contributed to and resulted in improved work arrangements.

Companies

From the companies' points of view, benefits of the changed work arrangements were frequently expressed in terms of higher productivity. One firm indicated that productivity per person per shift had increased by over 35 per cent following implementation of their CA. Reliability was also a factor that was said to have improved, as was quality. Quality was said to have improved in the cases where payment was on the basis of time, as this meant that employees were not penalised (in terms of lost pay) by slowing down, thus enabling them to pay more attention to customer needs and meat quality.

Several firms reported a significant decline in the level of industrial disputation following the implementation of their enterprise agreement.

Employees

A major benefit in some cases has been higher earnings and more stable income. In some cases this has meant that workers have been able to obtain bank finance for housing loans, something they found more difficult in the past. However, it has come at the expense of the shorter working day. Many employees now work longer hours than they did under their award, but still averaging no more than about 8 hours per shift.

Employees have benefited also from greater opportunities for training and the introduction of career paths linked to training.

Economy-wide

If work arrangements restrict productivity in the industry, national output is likely to be less than it would otherwise be. Improvements in productivity mean that more output is produced with the same or less inputs, or the same output can be produced with less inputs. Accordingly, an improvement in the productivity of all factors of production (in particular capital and labour) would benefit the meat industry, employees in the industry and the economy generally.

Illustrative of this general case, in 1995 the National Farmers' Federation commissioned the Centre for International Economics to undertake an analysis of the economy-wide effects of the changes in work arrangements proposed by AMH. The analysis found, among other things, that the labour cost per tonne of production would decline by 19 per cent, and that average fixed costs would fall by 75 per cent due to the increase in capacity utilisation. Overall, unit costs would fall by four per cent (CIE 1995).

The modelling estimated that a four per cent reduction in unit costs across the industry would result in a net annual increase in national gross domestic product of around $170 million (1994-95 dollars).

8.5 The extent and pace of change

Extent of change

There are no official data describing coverage of Federal or State industrial relations systems nor awards or agreements. However, as described in chapter four, of the major meat processing States, it appears that most firms in Victoria,

SA and Queensland operate under the Federal industrial relations system. In NSW, most firms operate under that State's industrial relations system.

Examination of the list of Federally registered agreements indicates that over 40 meat processing companies have registered at least one enterprise agreement over the past five years. In at least half of those cases, the companies are now on their second or third agreement. By way of comparison, in September 1994 it was estimated that there were 16 in total (MRC 1994). In March 1995, it was noted that there were around 27 Federally registered agreements (Fellows Medlock and Associates 1995). State registered agreements are not significant in number, with a handful only in NSW and Queensland.

Large enterprises appear to account for a disproportionate number of enterprise agreements. Of the 25 largest companies in the industry, around 15 have implemented at least one enterprise agreement. These 15 companies are estimated to account for around 45 per cent of national output, and around two thirds of total exports.

However, the number of enterprise agreements is inadequate by itself as a proxy for measuring the extent and effect of change. Understanding the implications for firm productivity and performance requires knowledge of the details of the agreements and the extent to which they differ from the prescriptiveness of the awards.

The five workplace case studies undertaken as part of this study were with firms that collectively account for around 20 per cent of industry output. All these firms had implemented firm level agreements over the past three years. Though the extent of change varied between these firms, the current work arrangements in at least three represent a significant departure from the previous award conditions. In the other two, there are also signs of significant change in some aspect of their operation. In all cases, the changes had taken considerable time and effort by all parties to the agreements — management, employees and union representatives. Periods of negotiation of between 12 and 18 months were not uncommon. There were also instances where these processes had involved protracted industrial disputation.

However, as discussed earlier, it is acknowledged that these five firms are not a complete or even a representative sample of the whole industry. For example, the firms were all relatively large.

Other evidence suggests that change in important areas such as remuneration may be more widespread in the industry. For example, information from State branches of the NMA suggests that in many cases, enterprise agreements negotiated in the past three to four years have had the effect (among other

things) of modifying the application of tally systems as prescribed in the various awards. For example, in some cases the award tally provisions serve only as a guide to the minimum payments made to employees. In others, award tally provisions have been replaced by other, less prescriptive forms of incentive payment systems — such as payment based on volume of throughput processed per employee. A further variation is an application of only parts of the award tally — one example sees the award tally as being used for establishing teams but not for payment.

Among the changes in the meat processing sector has been plant rationalisation resulting in some closures. Most industry employment is located in regional areas, and the plant closures are likely to have resulted in a shift in employment between regions.

Pace of change

There was agreement in all industry discussions that the pace of change had picked up over the past couple of years, albeit from a very low base. Some in the industry argued that change was still well behind that which has occurred in other industries.

In March 1995, a report was produced for the then Department of Industrial Relations (DIR), reviewing progress in workplace reform in the export sector of the meat industry. Among other things, this report found that while there was an acceptance of the need for change — and that enterprise bargaining was the way forward — there were conflicting views as to how enterprise bargaining should progress. It found also that:

> The meat processing sector is clearly lagging behind many other industries where a broad reform agenda has been pursued jointly by companies, their employees and their unions as essential to ensuring competitiveness in the international marketplace... (Fellows Medlock and Associates (1995))

However, other more recent studies corroborate a view that change is now occurring. As discussed previously, in 1996 the MRC commissioned a survey involving 71 red meat processing plants in Australia, examining the issue of the extent to which firms in the meat industry are responding to changed competitive pressures. An important conclusion was that red meat processing firms were responding to increased competitive pressure in the market — evidenced by a move to improved product quality and some changes in the way work is undertaken. However, that study did not distinguish between export and domestic plants, by plant size or location (MRC 1996).

Further, many enterprise agreements in the industry have been negotiated in the past three years. In discussions with industry participants, the comment was made frequently that change was (finally) underway in the industry and that this was likely to continue.

8.6 Enabling change

This study has identified increased competition on product markets as providing the main impetus for change. This is particularly true of those parts of the industry with an export focus. A firm's ability to modify work arrangements is affected by factors at the enterprise level and at the industry level, including the broader regulatory environment under which workplace negotiations take place.

Workplace factors

Role of management

Management has the major role in initiating any changes in work arrangements. However, industry participants commented that management in the industry has traditionally been poor. Management in some firms admitted that tallies had been good for bad managers, as they took away the responsibility for managing work. As well, throughout the 1970s and into the 1980s, margins in meat processing were high, and some managers indicated that this meant that firms did not face strong pressure to keep their costs down throughout this period. Rather, at this time the prime objective was to keep production up, almost regardless of quality or efficiency. One firm indicated that the 'old way' had been to maintain production at any cost, and this included a culture of meeting wage and other demands (such as maintaining prescriptive and detailed tally provisions) rather than stopping production[1].

Since that time, major changes in meat product markets have resulted in greater competition on both domestic and export markets. This, in turn, has been reflected in changed incentives and attitudes at management level regarding the need for improved work arrangements.

In workplace discussions, there was recognition of the need for change at management level if they were to change work arrangements successfully. It was also recognised that change did not happen overnight, even with the best

[1] A similar lack of competition was noted in recent Commission reports as contributing to the poor work arrangements that had developed in the black coal industry and in container stevedoring (IC 1998; PC 1998).

management. Management at some firms indicated that it took considerable time to build trust with the workforce. At least two firms had taken 12 to 18 months to develop their enterprise agreements.

Role of employees and unions

The meat processing industry is highly unionised, with over 80 per cent of employees belonging to the AMIEU. Historically, because of the lack of competitive pressures in the industry and the quality of management, the AMIEU had been able to achieve work arrangements which led to productivity improvements being taken as shorter working hours and which increased unit labour costs (through penalties etc.).

As demonstrated by some companies in the meat industry, changed work arrangements can benefit employees as well as the company. In some cases, employees have traded off a shorter working day for guaranteed incomes, greater employment security and a career structure — and higher average wages overall.

Factors affecting the industry

In this study, increased competition in domestic and export product markets were found to have contributed to:

- a greater emphasis in the industry on cost competitiveness;
- a greater focus on hygiene standards following health scares in domestic and overseas markets; and
- the AMH dispute, which acted in turn as a catalyst for change throughout the industry.

Other factors, such as the slowdown in Asian economies, some reduction in seasonality, and growth in live exports were also identified as being important. The slowdown in Asian economies is likely to have implications for meat and live animal exports in the short to medium term. Comprehensive data are not yet available. However, early indications are that live exports in particular have decreased significantly in recent months.

Seasonality

Aggregate data suggest that there also may be two distinct categories of companies in the industry, based on the relevance of seasonality. Seasonality has traditionally had a major influence on work arrangements. However, for some processors, seasonal variation has been smoothed by the use of feedlots

and improved animal husbandry. Some managers indicated that the increase in live exports also had the effect of reducing seasonality for larger firms (particularly in northern Australia), as it had contributed to the closure of some smaller, seasonal plants and resulted in greater availability of supply for the remaining larger plants. For large processors, improvements in road transport have also made it feasible to transport cattle long distances to cover local shortages in supply. For these firms, the importance of seasonality has been reduced.

Seasonality may also be less of a problem for some smaller firms now than in the past. For example, one firm indicated:

> [we are] a medium sized plant and it is fair to say that the problems of seasonality are less now than what they were ten years ago ... primarily due to the fact that we are able to access livestock from further afield.

However, aggregate data do not indicate a marked change in seasonality over time. It may therefore be the case that while large processors (accounting for the majority of industry output) are now able to manage seasonal variations, smaller plants are not. If this is the case, regular employment is more likely to be a feature of large firms.

'Smoothing' of seasonality is reflected in a move in some enterprise agreements at larger firms to guarantee an annual income level for employees — based on the premise that the firm will have access to a relatively constant supply of livestock.

The industrial relations environment

As discussed in section 8.2, a key objective of current legislation is to facilitate change in work arrangements by simplifying the regulatory requirements and by placing greater responsibility for determining arrangements on management and employees.

However, the main industry awards remain relevant in the context of the negotiation of CAs, even if specific award provisions are not in use at particular enterprises. For example, even if tallies (as prescribed in the award) are not being used — and this appears to be the case in a large proportion of the industry — the award tally provisions are the basis against which 'no disadvantage' is assessed. The AIRC is required to assess 'no disadvantage' (comparing the proposed CA to the relevant award). For all CAs — whether first, second, or third generation — the industry award remains the relevant benchmark against which 'no disadvantage' is measured.

Increasingly, firms and workers in this industry are using CAs to negotiate at the enterprise level work arrangements which suit their particular requirements. There are many examples — particularly for the larger, export oriented firms — where CAs have moved significantly from conditions specified in the main industry awards. As discussed earlier, these changes have been focused on key areas including: the means of remuneration (in particular, tally systems); penalties and allowances; ordinary hours of work; and seniority.

8.7 Further change

The impact of greater competition in different parts of the meat production chain — in particular the demand for meat — has been identified as the major driver of change in work arrangements. Competitive pressures will not abate in the future and may well intensify. This is likely to mean that the broad trends in work arrangements identified in this study will continue — or companies will go out of business. An additional consequence is that smaller scale establishments will come under increasing pressure as larger firms improve capital utilisation and lower their unit costs.

It is likely that the surviving firms will increase their market share, further increasing industry concentration. A greater proportion will run double shifts and their scale of operation will enable them to minimise the impact of seasonality on their operation.

In this environment, the need for the flexibility in employment numbers provided by daily hire/shortage of stock provisions will decline. As some firms have already found, tallies and associated penalties *as prescribed in industry awards* will become increasingly incompatible with large scale enterprises seeking to run capital equipment for up to 20 hours a day. Tally systems featuring remuneration based purely on inputs are also incompatible with objectives such as maximising yields and improving product quality. There are a number of options for alternative remuneration schemes — some of which have already been implemented.

Greater permanence in employment (as a result of the decline in seasonality) also provides opportunities for alternative remuneration systems incorporating options such as profit share schemes. In addition, more permanency in employment allows the development of career paths which enable both employers and employees to benefit from training and skill development.

Competitive pressure and a facilitative regulatory environment should ensure further progress in changing work arrangements in this industry. Relative to the 1980s and early 1990s, there has been significant change in recent years. However, there remains scope for further improvements. In addition, change will need to be ongoing to meet the challenge of increasingly competitive international markets.

A MEAT PROCESSING AWARDS

Work arrangements under Federal and NSW meat processing industrial awards.

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
Application of award			
Commencement	1981 (with many subsequent variations).	15 December 1996.	
Commencement	1981 (with many subsequent variations).	15 December 1996.	11 Septmeber 1996.
Geographic coverage	QLD, NSW (except Broken Hill), Vic, SA, Workplaces not using tally in NT (Pt.I:4).	QLD, NSW (except Broken Hill), Vic, SA and NT (c.6.1).	Parts of northern NSW.
Parties to award	AMIEU and employers named as respondents (Pt.I:3, Schedules B to G). Includes abattoirs, boning, packing, bacon, smallgoods, meat wholesale and retail.	AMIEU and NMA members excepting those working to State awards (c.8). Includes abattoirs, boning and packing (excludes smallgoods, wholesale and retail) (c.6.2).	AMIEU, NSW Branch. Meat processing and preserving works in the prescribed area except bacon factories, wholesale and retail butchers.
Size and structure of the workforce			
Terms of employment	All employees are engaged by the week unless otherwise specified (ie, casuals and daily hire tally workers) (Pt.I:6(a)).	All full-time employees are engaged by the week unless otherwise specified (ie, casuals and daily hire tally workers) (c.19.1).	Employees engaged as weekly hand, daily hand, part-time or casual. To be specified upon commencement (c.39(i)).
Daily hire	All employees in abattoirs, boning rooms, packing areas etc which work to tally or piece-work rates are regular daily employees (except casuals) (Pt III:2(a)).	All employees in abattoirs, boning rooms, packing areas etc which work to tally or piece-work rates are regular daily employees (except casuals) (App.3, c.2.1).	Daily hand is a 'regular casual', employed on 'regular casual' rate of pay (c.39(iv)).
	Daily hire employees must attend work at normal commencement times unless notified that they are not required (Pt III:2(d)).	Daily hire employees must attend work at normal commencement times unless notified that they are not required (App.3, c.2.4).	Daily hire/regular casuals required to attend work each day unless notified the day before that they are not required (c.39(vi)).
Casual employment	Minimum engagement is 4 hours. Ordinary hours up to 38 hours per week (Pt I:11(b),(d))	Minimum engagement is 4 hours. Ordinary hours up to 38 hours per week (c.19.2.1).	Minimum engagement is 4 hours. Ordinary hours up to 40 hours per week (c.18(ii)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
	Casual paid at the rate for the highest class of work performed during the shift (Pt I:11(c)).	Casual paid at the rate for the highest class of work performed during the shift (c.19.2.6).	
	Casual overtime rates are 150 per cent for first 3 hours; 200 per cent thereafter and for all work on Sundays (Pt I:11(e)(ii) - (g)).	Casuals overtime rates are 150 per cent for first 3 hours; 200 per cent thereafter and for all work on Sundays (c.19.2.10-13).	Normal overtime rates apply to all casual workers.
	Casuals reimbursed for fares (Pt I:11(c)(iv)).	Casuals reimbursed for fares (c.19.2.8).	
	Casuals who terminate their employment before completing ordinary hours for a shift shall not be paid for any time actually worked (Pt III:2 (f))	Casuals who terminate their employment before completing ordinary hours for a shift shall not be paid for any time actually worked	
Part-time employment	Minimum of 20 hours, maximum of 32 hours, Monday to Saturday (Pt I:6(d)(i)).	Minimum of 20 hours, maximum of 32 hours, Monday to Friday (c.19.3.2).	Part-time employees refer to NSW *Industrial Relations Act 1996.*
	Limit of 1 part-time for every 3 full-time employees (Pt I:6(d)(ii)).	Limit of 1 part-time for every 3 full-time employees (c.19.3.3).	
Termination and redundancy	Redundancy provisions do not apply to daily hire tally employees (Pt I:42 (n))	Clause excluding daily hire employees from redundancy provisions removed, but clauses still refer only to weekly employees.	Redundancy and termination provisions apply to full-time and part-time employees (c39(ii) and c.49(1)).
	Redundancy provisions do not apply to employers of less than 15 workers (Pt I:42(l))	Redundancy provisions do not apply to employers of less than 15 workers (c.22.12)	Redundancy provisions do not apply to employers of less than 15 workers (c.49(1)).
	Employer must hold discussions with employees and the union (Pt I:42(a)(i)).	Employer must hold discussions with employees and the union (c.22.1.1).	Employer must notify union and hold discussions if requested (c.49(1)).
	Weekly employees must be given up to 4 weeks notice, with an additional week for those aged over 45.	Weekly employees must be given up to 4 weeks notice, with an additional week for those aged over 45 (c.23.1).	Employees must be given up to 4 weeks notice, with an additional week for those aged over 45 (c.49(4)(i)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
	Maximum severance pay is 8 weeks pay for 4 years service and over (Pt I:42(c)). Severance pay may be varied by the AIRC due to incapacity to pay (Pt I:42(m)).	Maximum severance pay is 8 weeks pay for 4 years service and over (c.22.3.1). Severance pay may be varied by the AIRC due to incapacity to pay (c.22.13).	Maximum severance pay is 16 weeks pay for 6 years service and over, 20 weeks pay if over 45 years old. Severance pay may be varied by NSW IRC due to incapacity to pay (c.49(5)). Where termination is the direct result of seasonal factors (climatic or animal breeding factors) severance pay is not due until plant is closed for 8 months. continuously (c.49(1)(iii)(vi)(vii).
	Weekly employees entitled to one day off a week during redundancy notice period to seek other employment (Pt I:42(f)(i)).	Weekly employees entitled to one day off a week during redundancy notice period to seek other employment (c.22.6.1).	Weekly employees entitled to one day off a week during redundancy notice period to seek other employment (c.49(4)(iii))
Termination of daily hire	Regular daily hire employees are terminated at the end of each shift but remain employed until the engagement of employment is terminated. Notice may be given on the day of termination (Pt III:2 (c)).	Regular daily hire employees are terminated at the end of each shift but remain employed until the engagement of employment is terminated. Notice may be given on the day of termination (App. 3, c.2.3).	Daily hire employees are 'regular casuals'. Employment terminates at end of each shift as for other casuals (c.39(vi)).
	Daily employees who terminate their employment before the end of ordinary hours on a shift are not to be paid for any actual time worked on that shift (Pt III:2 (c)).	Daily employees who terminate their employment before the end of ordinary hours on a shift are not to be paid for any actual time worked on that shift (App. 3, c.2.3).	
Dismissal	Right of dismissal without notice for inefficiency, misconduct etc. (Pt I:6(b)(6)).	Right of dismissal without notice for inefficiency, misconduct etc. (c.23.5).	Right of dismissal without notice for inefficiency, misconduct etc. (c.39(iv)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
Hours of work and rosters			
Ordinary full time hours	Ordinary weekly hours shall average 38 hours per week (Pt I:16(a)) over a cycle of up to 152 hours per 28 days (Pt I:16(b)).	Ordinary weekly hours shall average 38 hours per week (c.30.1) over a cycle of up to 152 hours per 28 days unless agreed otherwise (c.30.3).	Ordinary hours shall average 38 hours over any period from 1 week to 365 days (c.3(i)). Ordinary hours may not exceed 8 hours in 24 hours or 40 hours in 7 days or 80 hours in 14 days or 160 hours in 28 days. (c.3(ii)).
	To be worked Monday to Friday, between 6 am and 8 pm (Pt I:16(i)).	To be worked Monday to Friday (c.30.2); between 6 am and 8 pm (c.30.4.1).	To be worked as 5 days of 8 hours, Monday to Friday between 5 am and 8 pm unless otherwise agreed by employer and employees (c.3(iv)).
Overtime hours and rates	All time outside ordinary hours is overtime (excepting shift work), payable at 150 per cent for the first 3 hours; 200 per cent after that (Pt I:18(a)).	All time outside ordinary hours is overtime (excepting shift work), payable at 150 per cent for the first 3 hours; 200 per cent after that (c.32.1).	All time outside the agreed ordinary hours is overtime (excepting shift work), payable at 150 per cent for first 2 hours on Monday to Friday and first 3 hours on Saturday and at 200 per cent thereafter (c.9(i)).
	8 pm Friday to 4 am Saturday (except shift workers): 200 per cent (Pt I:18(b)).	8 pm Friday to 4 am Saturday (except shift workers): 200 per cent (c.32(2)).	Minimum of 4 hours work on Saturday at appropriate rate (c.9(iii)). Minimum of 2 hours work at 200 per cent for 'emergency work' between 8PM and 5AM (c.9(v)).
	Sunday and public holidays: 200 per cent, minimum 4 hours (Pt I:18(b)).	Sunday and public holidays: 200 per cent, minimum 4 hours (c.35).	Sundays and public holidays: 200 per cent, minimum 4 hours (c.32 and c.33)
Shifts	One, two or three shift systems may be worked with agreement of AMIEU or with AIRC determination (Pt I:39(a) and (c)).	One, two or three shift systems may be worked with agreement of AMIEU or with AIRC determination (c.33.3).	Ordinary hours for shifts shall be 5 days of 8 hours, Monday to Friday unless otherwise agreed by employer and employees (c.4(i)). Shift times must be displayed and may be changed with 7 days notice (c.4(ii)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
Shift penalties	Afternoon shift is 115 per cent basic rate; night shift 125 per cent; fixed night shift 130 per cent (Pt I:39(e)).	Afternoon shift is 115 per cent of basic rate (c.33.5.1); night shift 125 per cent (c.33.5.2); fixed night shift 130 per cent (c.33.5.3).	Afternoon shift is an additional $8.92 per shift; Alternating shift is an additional $6.21 per shift (Table 2).
	Afternoon shift not continuing for 5 days is 150 per cent of normal rate for first 3 hours, 200 per cent thereafter (Pt I:39(e)(iv)).	Afternoon shift not continuing for 5 days is 150 per cent of normal rate for first 3 hours, 200 per cent thereafter (c.33.5.4).	Night shift only or commencing at or after 11 pm Friday is 125 per cent of basic rate (c.4(v) and (vi)).
Meal breaks	Not less than 30 minutes, not counted as ordinary hours of work (Pt I:17(a) and (h)).	30 minutes, not counted as ordinary hours of work (c.31.1 and 31.5).	Up to 1 hour (c.7(i)).
	5 hours maximum period without break unless otherwise agreed (Pt I:17(g)). Shifts commencing before 12 noon must break between 11:30 am and 2.30 pm (Pt I:17(a)).	5 hours maximum period without break (c.31.4).	5 hour maximum work period without a break (c.7(i))
	Employees working 1.5 hours overtime or more, 30 minute meal break (optional if overtime is less than 2 hours) (Pt 1:17(i)).	Employees working 1.5 hours overtime or more, 30 minute meal break (optional if overtime is less than 2 hours) (c.31.6).	Employees working 1.5 hours overtime or more, 15 minute paid crib break (c.7(iv))
	Time of break can only be changed with 24 hours notice (Pt I:17(b)).	Time of interval can only be changed with 24 hours notice (c.31.2).	Smoke-oh of 15 minutes (10 minutes for shift workers) in morning and afternoon for employees working more than 8 hours, to be taken at mutually agreed time (c.8).
	If employee must work during meal break, overtime rates apply until break is taken (Pt I:17(f)).	If employee must work during meal break, overtime rates apply until break is taken (c.31.3).	Meal break can be delayed by up to 15 minutes by agreement. If employee must work during break, overtime rates apply until break is taken (c.7(i) and (v)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
Rostered day off	Average 38 hour week may include a system of one rostered day off during the roster cycle for all employees, to fall on a week day with 3 days' notice. Employer may substitute days off for breakdowns, rush orders or other emergencies (Pt I:16 (m) ,(r) and (s)).	38 hour week may include a rostered day off, with 2 hours pay credited per week, to be taken when 8 hours' credit has accrued. Up to 10 days' may be accrued and must be taken in whole days, Mon day to Friday, with 3 days' notice (c.30.3).	Full-time employees accrue 2 hours credit per 40 ordinary hours worked, or 24 minutes per 8 hour day. Days may be accrued and taken on a roster basis, during slack periods or with annual leave. Roster should minimise interference with production (c.3(ii)).
Leave entitlements			
Annual leave	28 consecutive days leave (Pt I:21(a)); (additional 7 consecutive days for 7 day shift workers (Pt I:21(b)).	4 weeks annual leave (c.36.1) (5 weeks for 7 day shift workers (c.36.2).	Refer to *Annual Holidays Act 1944.*
	17.5 per cent leave loading (Pt I:17(i)(1)).	17.5 per cent leave loading (c.36.8.4).	17.5 per cent loading paid in advance (c.29).
Parental leave	Unpaid maternity leave of up to 52 weeks (Pt I:44(b)).	Unpaid maternity, paternity and adoption leave of up to 52 weeks (c.40.1.3; c.40.2.3) and unpaid family care leave (c.39.2).	
Long service leave	Refer to legislation.	Refer to legislation.	Refer to *Long Service Leave Act 1955*
Sick leave	All employees (except casuals): 60.8 hours per year or 5 hours 4 minutes per month (Pt I:22(a)(iv)). Pro-rata for part-time.	All employees (except casuals): 60.8 hours per year or 5 hours 4 minutes per month (c.37.1.4). Pro-rata for part-time.	All employees (except casuals but including 'regular casuals') with 3 months' service or more: in first year of employment, entitled to sick pay equivalent to 40 ordinary hours or 5 ordinary tally days. In subsequent years, entitled to sick leave of 80 ordinary hours or 10 ordinary tally days (c.27(v)(vi)).
	If able, must notify employer before half an hour before rostered finishing time (Pt I:22(a)(ii)).	If able, must notify employer as soon as possible on day of absence (c.37.1.2).	
	Sick leave may be accrued for up to four years (Pt I:22(e)).	Accrued sick leave may be used as special family leave (c.39).	Sick leave may be accrued for up to 5 years (c.27(vii)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
	Employer may grant 8 days holiday in lieu of sick pay (Pt I:22(c)).	Employer may grant 8 days holiday in lieu of sick pay (c.37.3).	Unused sick leave not accrued can be paid in lieu (c.27(vii) or converted to 5 to 10 additional days annual leave (c.27(xiv)).
Other leave	Compassionate leave (2 days) (Pt I:43(a)).	Bereavement leave (2 days) (c.38).	Compassionate leave (2 days) (c.31).
Remuneration and on-costs			
Wage rates for weekly employees	Basic weekly wage rates (for each of 10 employment grades) from $364 to $409 (Pt I:10(a)) (as at 24/7/96).	Basic weekly wage rates (for each of 10 employment grades) from $374 to $419 (c.24.6) (as at 9/6/97).	Minimum weekly wage rates prescribed (40 ordinary hours) for 28 occupations and for juniors (Table 1).
Tally rates for daily employees	Employers may elect to work under incentive pay scheme (tally) or timework but may not change from tally to timework where tally is already established (Pt III:1(a)).	Employers may elect to pay for work by piece-rates / tally or timework but may not change from tally to timework where tally is already established (c.26.1).	Tallies prescribed for slaughter, adult follow on labour (c.13-16), boning (c.41), learner slaughter (c.40) and learner boning (c.42).
	Tallies are prescribed for slaughter (Pt III:4) and for boning and slicing (Pt III:5).	Tallies are prescribed for slaughter (App.3, c.4;5;6) and for boning and slicing (App.3, c.12;13).	Additional penalties and allowances apply for overweight animals, burrs, objectionable work, condemned carcases etc. (Table 2).
Daily hire loading	Daily hire tally rates include a loading of 10 per cent (Pt III:2 (e))	Daily hire tally rates include a loading of 10 per cent (App.3, c.2.5).	'Regular casuals' (daily hire) paid additional 10 per cent (c.18(ii)).
Casual loading	Casual loading is 20 per cent in lieu of leave entitlements (Pt.I:11(c)(i)). Casual loading on tally is the award rate less 10 per cent plus 17.5 per cent (Pt III:2 (e)).	Casual loading is 20 per cent in lieu of leave entitlements. (c.19.2.4). Casual loading on tally is the award rate less 10 per cent plus 17.5 per cent (App.3, c.2.7).	Casual loading is additional 12.5 per cent (c.18(iii)).
Waiting time	Waiting time adding to 15 minutes or more paid at ordinary time rates in some circumstances (Pt III:4).	Waiting time adding to 15 minutes or more paid at ordinary time rates in some circumstances (App.3, c.7).	Ordinary time or overtime rate of pay as applicable for waiting (excepting where due to employee misconduct) (c.12).
Allowances	Supervisor: $6.50 per week for 3-10 people; $9.70 per week for over 10 (Pt I:11E(a)).	Supervisor : $6.90 per week for 3-10 people; $10.30 per week for over 10 (c.28.1).	Leading hand, $18.60 per week (Table 2).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
	First-aid officer: $1.78 per day (Pt I:11A(e)).	First-aid officer: $1.78 per day (c.28.4).	First aid attendant: $2.50 per day (Table 2).
	Work in cold rooms: up to $0.72 per hour (Pt I:11A(c)(i)).	Work in cold rooms: up to $0.99 per hour (c.28.3).	Work in cold rooms: up to $1.40 per hour. Freezing g room: 0.32 per hour (Table 2).
	Meal allowance if working 1.5 hours overtime or more: $7.50 (Pt I:17(j)).	Meal allowance if working 1.5 hours overtime or more: $7.50 (c.31.7).	Meal money for some overtime: $6.60, plus extraordinary hours: $5.40 per day (Table 2).
Equipment	Employer to supply all equipment or payment in lieu.	Employer to supply all equipment or payment in lieu.	Employer to supply all equipment (c. 34) or pay allowance up to 0.50 per day (Table 2). Drovers and penners-up: horse allowance ($10.10) and dog allowance ($5.20) Muzzles and meat provided for dogs (c.21; Table 2).
Clothing	Employer shall supply protective clothing and boots or payment in lieu (Pt I:24(a)).	Employer shall supply protective clothing and boots or payment in lieu (c.48.3).	Employer shall supply protective clothing and boots (c.35). Clothes and laundry allowances for export meat workers: 0.11 to $1.00 per day (Table 2).
Superannuation	Employees can choose between 2 funds, or other approved by union (Pt I:10A(a)).	Employees can choose between 2 funds, or other approved by union (c.29.1.4).	Superannuation to be paid to an approved fund as per legislation (c.46).
Workers' compensation	In Victoria, employer is to pay, for up to 26 weeks, the difference between compensation under the relevant Act and the weekly award rates (Pt I:45(a)(i)).	In Victoria, employer is to pay, for up to 26 weeks, the difference between compensation under the relevant Act and the weekly award rates (App.2).	Employee may request employer to pay difference between compensation under the *Workers Compensation Act 1987* and their ordinary time or minimum tally pay (c.27).
Functions, skills and training			
Categories of employment	10 grades of employment across 9 employment divisions (including retail, smallgoods, domestic and wholesale, ham and bacon - 4 divisions).	10 grades of employment across 5 different employment divisions, containing numerous task classifications.	28 occupations plus 5 junior wage grades (Table 1).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
Mixed functions	Where employee works at a higher skill classification than normal, they shall be paid at the higher rate for a minimum of 2 hours, or if over 2 hours, they shall be paid the higher rate for whole shift (Pt I:8)	Where employee works at a higher skill classification than normal, they shall be paid at the higher rate for a minimum of 2 hours, or if over 2 hours, they shall be paid the higher rate for whole shift (c.25).	Where an employee works at higher skill classification than normal, they shall be paid at the higher rate for a minimum of 3 hours. If they perform work at a lower classification than normal, pay rate is not reduced (c.25).
Apprenticeships & Traineeships	Number of apprentices not to exceed one to two adult employees (Pt I(14(a))). Traineeship system required (Pt I(10E(2))); Trainees not to exceed 20 per cent of permanent employment (Pt I(10E(4)(g))).	Traineeship system required (c.45.2). Trainees not to exceed 33 per cent of total permanent employment (c.45.4.7).	Tally rates allow for learner slaughterers and learner boners. Learners may be adults or juniors.
Procedural arrangements			
Consultation	If over 15 employees, consultative committees to be formed to discuss disputes and significant change (Pt I:10C(a)).	If over 15 employees, consultative committees to be formed to discuss disputes and significant change (c.12.1 and c.15)).	Consultative mechanism and procedures to be established appropriate to size of establishment (c.48).
	Duty to notify and discuss all 'major changes' with committee, workers and union (Pt I:41(a)(i)) (Pt I:41(b)).	Duty to notify and discuss all 'major changes' with committee, workers and union (c.16.1) (c.16.2).	Duty to notify and discus changes with significant workplace effects with workers and union (c.48(2)).
Dispute resolution	Work to continue (except in an OH&S risk) while set procedure is followed for dispute or grievance resolution (Pt I:6(b) and Pt I:15A).	Work to continue (except in an OH&S risk) while set procedures is followed for dispute or grievance resolution (c.17).	Procedure of up to 10 steps proscribed for individuals' grievances and disputes. OH&S grievances to be investigated immediately. Establish a Disputes Committee (c.43).
Enterprise agreements & arrangements	Agreements must reflect 'national standards' of the AIRC; structural efficiency principles must not be applied in a negative or cost cutting manner; the majority of employees covered must agree; AMIEU must be consulted and not be unreasonably opposed (Pt I:6A(c)).	Agreements must meet the no disadvantage test of the *Workplace Relations Act 1996;* the majority of employees covered must agree and the agreement must be made available union (c.13.7.2-5).	Arrangements must be consistent with current State Wage Case principles and the majority of employees must agree (c.47(1)).

Type of arrangement	*Federal Meat Industry Award 1981*	*Federal Meat Industry (Processing) Award 1996*	*Butchers' Wholesale (Country) Award, NSW (Sept. 1996)*
Union preference	Preference in employment given to AMIEU members (Pt I:7(a)).	Preference in employment given to AMIEU members (c.53.1).	No preference stated in award.
	If no members available, non-members may be employed but must join AMIEU within 14 days (Pt I:7(b)).	If no members available, non-members may be employed but must join AMIEU within 14 days (c.54.2).	
Right of entry/ union inspection	AMIEU representative has right of entry during mealtimes (Pt I:32).	AMIEU representative has right of entry during mealtimes (c.52).	

B TALLIES

Tallies have been a feature of meat industry awards since the early 1960s. They take the form of both head tallies and the more complicated unit tallies. They share characteristics of piece-work payment systems, but are prescriptive and complex. They also affect the way work is performed, and when it is performed.

There are examples of firms in the meat industry which have adopted timework as the basis of payment for all employees, or implemented modified incentive payment systems, incorporating other aspects of firm performance.

The major Federal meat industry award, State meat awards and many certified agreements contain some form of tally systems for slaughtering, boning and slicing. Tallies have been a feature of industry awards since the early 1960s.

There are two major types of tally — head tallies and unit tallies. Head tallies tend to be simpler, specifying a certain number of head to be processed per shift per person. There are also unit tallies relating to both slaughter and boning. In the case of the unit tally for slaughter, the process of slaughter is broken down into a number of separate tasks each of which is assigned an amount of labour. For the boning tally, different weights and cuts are specified. Each of these are then assigned an equivalent unit of tally.

Both head and unit tallies are based on the number of livestock being slaughtered rather than a measure of output, such as weight processed, yield per animal, or any other measure of quality. This has implications for the impact of the tally on incentives facing both workers and management.

Unit tallies in particular are complex and prescriptive. For example, the Federal award provisions which outline the tallies go for over 50 pages, and the level of prescription has not changed over time. In discussions with industry participants, the Commission heard often that there would be very few people in the industry who fully understood how they worked. Historically, they were also a major source of industrial disputation in the industry (see, for example, IC 1994).

B1 Federal Meat Industry (Processing) Award 1996

Appendix 3 of the Federal Meat Industry (Processing) Award (FMIPA) 1996 describes the piece-work (tally) systems which may apply in an abattoir. The tallies described in appendix 3 were carried from the previous major Federal award, the Federal Meat Industry Award 1981. Slaughter tallies in the Federal award are specified for cattle and calves only, and consist of unit tallies for slaughter and boning on a rail system, and a head tally for slaughter under a bed or cradle system.

General provisions

There are a number of general provisions which affect the conditions of employment under appendix 3:

- employment is by daily hire (unless a casual). Daily hire attracts a 10 per cent loading over the ordinary weekly hire rates (App.3, c.2.5);
- there are general provisions relating to waiting time, where employees are entitled (under certain circumstances) to payment for delays (App.3, c.7);
- tally teams must be 'balanced' (see below) (App.3, c.9);
- minimum payment per shift is minimum tally (ie regardless of throughput) (App.3, c.10.5); and
- penalties apply to crippled cattle ($1.86 per head) (App.3, c.11).

Slaughter tallies

The award describes different unit tallies applying to the slaughter of cattle and calves. The detail of the slaughter unit tally systems may vary according to mode of operation — for example, in the case of cattle slaughtering, the tally is specified differently according to whether the slaughter is done under the 'Can-Pak' system or a 'bed or cradle' system, and according to the method of hide removal (whether by 'downward hide-puller', 'hide-stripper', 'hide-puller', or 'non-mechanical'). There is an additional category also, for the slaughter of calves. In each case, the award specifies the range of tasks relating to slaughter, according to the system in use.

Can-Pak and other systems of dressing on rail

For cattle slaughter using the 'Can-Pak' system, 48 separate tasks are defined. In addition, there is a 'mathematical adjustment for tally purposes not manning' (also known as the Johnson effect) that is added to any tally application. Typically, an abattoir would undertake some combination of some but not all of

the 48 tasks specified, varying between plants according to factors such as the type of technology in use on the slaughter floor. There are also a number of other penalties built in. For example, bulls weighing above 362.9kg (dressed weight) count as two head for tally purposes. An ox or cow over 306.2kg but less than 374.2kg count as 1.1 head for tally purposes.

The key feature of the unit tallies is the assignment of a fixed labour requirement per head of cattle slaughtered to each of the defined tasks (see table B1). In other words, the tally prescribes the quantity of labour to be used for each task on the slaughter chain. This quantity is quoted in terms of the units of labour required for this task per 100 head of cattle. The total units of labour required to slaughter 100 head is then calculated as the sum of the units required for each of the individual tasks, plus the 'Johnson effect'. In the FMIPA 1996, this total is specified as 7.898, or around 8 units of labour required to process 100 head. As discussed above, there is overlap in some of the tasks specified as the award incorporates different types of technology in use in the industry. While a given plant would not undertake all 48 tasks in the process of slaughter, for simplicity the analysis below assumes all 48 tasks are undertaken, and this sums to 7.898 units of labour per 100 head (including 0.149 for the 'Johnson effect')[1].

Further, clearly units of labour are not divisible. The detailed specification of the units of labour per 100 head for each task, combined with an inability to combine some or all the tasks on the slaughter floor (and the indivisibility of labour) means that adherence to award tally provisions may mean a greater quantity of labour (ie persons) is required for a given job as a result of 'rounding up' than is specified in the tally.

Remuneration of team members is linked to the tally of the team, which is linked in turn to the number of members of the team, and the given number of units of labour required per 100 head. Minimum tally for the team is calculated according to the formula:

Minimum tally of team = (100 * no. team members)/(no. units of labour required per 100 head)

The award specifies a minimum daily payment for each team member (according to class of worker), irrespective of the number of cattle processed.

[1] This mathematical adjustment is significant in that it implies that for a given tally calculation, 0.149 units of labour must be added to the 'units of labour required for 100 head'. For example, if the total units of labour required per 100 head summed to 6.2, 0.149 must be added to that total — an additional 2.4 per cent.

Maximum tally is specified as the minimum tally plus 25 per cent. Cattle killed above minimum tally but below maximum tally attract a 25 per cent premium per head (above the rate which equates to the rate-per-head for minimum tally). Cattle killed above maximum tally attract a 37.5 per cent premium over the minimum rate. As such, three different rates per head per person may apply in calculating payment. If maximum tally has been exceeded, animals slaughtered up to and including minimum tally attract the minimum rate; between minimum and maximum, the minimum rate plus 25 per cent; over maximum, the minimum rate plus 37.5 per cent.

Table B.1: Example of task classification and specification of units of labour in unit tally for slaughter[a]

task classification number	*tasks*	*units of labour per 100 head*[b]
1	Feeding cattle from race into box	0.119
2	Knocking	0.179
3	Shackling (chaining) and hoisting	0.260
4	Wash anus and pit	0.070
..	..	..
49	Mathematical adjustment for tally purposes (aka 'Johnson effect')	0.149
Total		7.898[c]

a Relates to 'Can-Pak' system, using downward hide-puller.

b The 48 tasks in the slaughter process are defined according to the amount of labour required per 100 head.

e Represents the sum of all the 'units of labour per 100 head' for the 48 tasks.

Source: Federal Meat Industry (Processing) Award 1996.

Key elements of the tally system are therefore:

- the fixed 'no. units of labour required per 100 head' — that is, the assignment of a set amount of labour to each specified task;
- indivisibility of labour and subsequent 'rounding up' when summing the number of units of labour required per 100 head — which may result in a total wage cost greater than the theoretical amount;
- the formula determining minimum tally;
- the penalty payments associated with cattle processed above minimum and maximum tally; and
- penalty payments associated with different cattle sizes.

Bed or cradle system

The award also specifies a head tally for the slaughter of cattle on a bed or cradle system, a system rarely now used in the industry. In this case, a minimum tally per day per slaughterer (or team member) is specified at 12.15 head. Maximum tally is minimum tally plus 25 per cent, and penalties apply for bulls.

The team comprises anybody engaged in any of the 24 tasks outlined in the award (App.3, c.5.3).

Calf slaughtering - chain or rail

The unit tally for calf slaughtering describes 21 tasks, each attracting a prescribed amount of labour per head (App. 3, c.6.3.1). Calves under 31.3kg are counted as one head. For calves over 31.3kg, there are three weight divisions, and calves weighing more count for more than one head. For example, top weight range is between 67.6kg and 95.3kg, and calves in that range count as 1.75 head for tally purposes.

Tally is calculated in the same way as for the cattle unit tally described above.

Boning and slicing

Tallies relating to boning and slicing are specified for beef, veal, mutton or lamb.

Boning tallies

Minimum tally is set at 52 units of beef or 80 units of mutton, lamb or veal. Maximum tally is minimum plus 25 per cent: 65 units of beef or 100 units of mutton, lamb or veal. Each category of cut together with a specified weight range is attributed a certain number of units of tally and the number of pieces that are equivalent to minimum and maximum tally.

Similar to the general provisions under the slaughter tallies, boners are entitled to a minimum payment equivalent to minimum tally if there is insufficient product to bone (App.3, c.12.5). Further, employees are entitled to waiting time for delays longer than 15 minutes on any one shift (App.3, c.12.6). The award also specifies that a boning team will complete up to maximum tally per team member within ordinary hours of work (App.3, c.13.2.1).

Table B.2: Extract from beef table boning tally (individual)

	Category and weight range	*Equivalent units of tally*	*Number of pieces equivalent to min and max tally*	
			52 (min)	*65 (max)*
1	Standard cut (as for canning or USA boneless beef.			
	Hindquarters and crops (fleeced out) -			
	not more than 45.5 kg	1.000	52.000	65.000
	over 45.5kg and not more than 56.7kg	1.125	46.222	57.778
	over 56.7kg and not more than 68kg	1.225	42.449	53.061
	over 68kg and not more than 79.4kg	1.300	40.000	50.000
	over 79.4kg	1.375	37.818	47.273
	..	..	..	..
2	Boned out in one piece			
	Hindquarters and crops			
	not more than 45.5 kg	1.100	47.273	59.091
	over 45.5kg and not more than 56.7kg	1.250	41.600	52.000
	over 56.7kg and not more than 68kg	1.400	37.143	46.429
	over 68kg and not more than 79.4kg	1.550	33.548	41.935
	over 79.4kg and not more than 90.7kg	1.700	30.588	38.235
	over 90.7kg	1.850	28.108	35.135

Source: Federal Meat Industry [Processing] Award 1996.

Payment is similar to the slaughter tally in that for units boned in excess of minimum tally, a premium of 25 per cent is payable. For units boned in excess of maximum tally, a premium of 37.5 per cent is payable (App.3, c. 13.2.9 &13.2.10).

An additional premium is payable if, through no fault of the team, members are required to work through a meal break or beyond 7.6 hours to reach maximum tally. If this is the case, work attracts an additional 5.26 per cent plus 50 per cent of the relevant rate (ie minimum, between minimum and maximum, or beyond maximum tally rates)(App.3, c.12.2.13).

Table B.3: Extract from beef boning tally (team on conveyor or rail)

	Category and weight range	*Equivalent units of tally*	*Number of pieces equivalent to min and max tally*	
			60 (min)	*75 (max)*
B	Quarters, Crops, Butts and Rumps and Butts			
	Hindquarters and crops			
	not more than 45.5 kg	1.010	59.406	74.257
	over 45.5kg and not more than 56.7kg	1.115	53.812	67.265
	over 56.7kg and not more than 68kg	1.198	50.083	62.604
	over 68kg and not more than 79.4kg	1.281	46.838	58.548
	over 79.4kg and not more than 90.7kg	1.365	43.956	54.945
	over 90.7kg and not more than 102.1kg	1.385	43.321	54.152
	over 102.1kg	1.448	41.436	51.796

Source: Federal Meat Industry (Processing) Award 1996.

The award also specifies a team boning tally on conveyor or rail. Under this system, minimum tally is 60 units, and maximum team tally is set at 75 units per team member (App.3, c.14.3.1) (see table B3).

Slicing

For slicing, the award prescribes a ratio of boners to slicers according to the type of boning operation. For beef table boning, there is to be a ratio of 3 slicers to 5 boners. For rail boning, there is to be a ratio of 15 slicers to 13 boners.

The ratios vary for mutton and lamb, and for veal. For mutton and lamb the ratios vary according to whether the meat is for export or local trade. For local sheep and mutton trade, there is to be 1 slicer to 2 boners; for export, 2 slicers to 3 boners. For local veal trade, there are to be 2 slicers to 7 boners; for export, 1 slicer to 2 boners (App.3, c.15.2.1).

Payment to slicers is calculated according to the formulae:

- For slicing team following individual boning at tables:

$$\text{rate for a slicer employed as a regular daily employee} \div \frac{\text{total minimum tally of boners engaged}}{\text{numbers of boners engaged}}$$

- For slicing team following boning team:

$$\text{rate for a slicer employed as a regular daily employee} \div \frac{\text{total minimum tally of boning team}}{\text{numbers of boners in team}}$$

Tally above minimum and above maximum attracts the 25 per cent and 37.5 per cent rates respectively.

B2 Queensland Meatworks Industrial Agreement-Award 1983

Clauses 34 and 35 of the Queensland Meatworks Industrial Agreement-Award (QMIA) 1983 describe slaughter, boning and slicing tallies. While similar to the unit tallies in the FMIPA 1996, they differ with respect to one element relating to payment in that there are only two rates per head per person which may apply. Under the QMIA 1983, all tally up to and including the maximum is paid at the rate corresponding to the 'maximum rate' divided by maximum tally. The 'maximum rate' is equal to the daily minimum tally rate plus 31.25 per cent (c.34(vii)(i)). For tally in excess of maximum tally, the rate is the daily minimum tally rate plus 50 per cent (c.34(vii)(ii)).

The penalty for crippled cattle is slightly higher under the QMIA 1983 also, at $1.93 per head (c.34(viii)(a)).

Boning and slicing tallies are identical to those in the FMIPA 1996. However, the penalty payments are 31.25 per cent for units in excess of minimum tally, and 50 per cent for units in excess of maximum tally.

B3 State awards

New South Wales: Butchers' Wholesale (Country) Award 1996

There are three state awards, identical in content, covering different regions in New South Wales. The other two are Newcastle and Northern; and Wagga Wagga.

Slaughter tallies

Clause 13 of the award describes head slaughter tallies for cattle, calves and/or vealers, sheep and/or lambs, and pigs. Daily tallies for slaughter vary according to animal size and the level of mechanisation.

For cattle, minimum tally per person per day is 16.5 head for bed or cradle dressing; 19 head for mechanical rail dressing; and 18.65 head for gravity rail. However, tally may be increased depending on the existence of any mechanical aids. For example, a hide puller increases tally by 0.5; a downward hide puller by 3.00.

Tally for calves and/or vealers is based on the cattle tally, depending on weight. For example, 4 calves equal 3 head of cattle for the purposes of tally. However, there are also weight ranges for calves which attract their own tally. For example, on the mechanical conveyor, tally for calves less than 40.5 kg is 60.75, 40.5 to 68 kg, 32 head; 68 to 100 kg, 26.65 head. Tally may be increased if there are mechanical aids (such as hidepullers) in place.

Payment is adjusted according to numbers in excess of tally. For all head killed between daily tally and daily tally plus 50 per cent, the per unit premium is 50 per cent on the unit rate implied by the daily tally. Any stock killed in excess of 150 per cent of tally attracts a premium of 100 per cent of the unit rate implied by the daily tally.

Boning tallies

Clause 41 of the award describes boning tallies for beef, mutton and lamb, and veal. Minimum tallies for beef are set at 53.338 units (table boning); 57.338 units (belt boning); and 61.544 units (rail boning). For mutton and lamb and veal, tally is 82.000 units (table boning), and 84.200 units (belt boning).

While similar, the tally is specified differently to that in the FMIPA 1996. Since minimum tally is slightly higher (eg. 53.338 units for beef compared with 52 units under the FMIPA 1996), the ‘number of pieces equivalent to tally’ also vary slightly.

For any boning in excess of minimum tally, the premium is set at 50 per cent per unit (c.41(vii)(a)).

Queensland: Brisbane Abattoir Award 1994

Part 3 of the award describes, among other things, slaughter tallies for sheep, lambs, pigs, goats, cattle and calves. Tally for sheep, lambs, pigs and goats is a head tally, and is set at 64 per slaughterer per day. Maximum tally is 80. Rates per head between minimum and maximum are 125 per cent of the minimum rate. Tally in excess of maximum is paid at 150 per cent of the minimum rate (c.3.4).

Other penalties apply, such as double rate for rams.

Tally for calves is similar to the unit tally system for slaughter in the federal award. It includes overweight penalties. For example, any stock weighing in excess of 95.5kg shall count as 4.2 head (c.3.5(5)). Payment calculation is similar to that under the FMIPA 1996, in that there are three 'steps' in payment per head per person — the rate equivalent to minimum tally; between minimum and maximum tally; and above maximum tally. The premium for tally above maximum tally is 50 per cent.

The award does not specify boning or slicing tallies.

B4 Payment systems in meat industry enterprise agreements

Certified agreements and enterprise-specific awards contain a variety of traditional and modified payment systems. Several examples are described below.

Company A - domestic (federal agreement)

Company A is a multi-species domestic plant. It contains a head tally system for cattle slaughterers which incorporates minimum daily payments for up to minimum tally which is 19 head per slaughterer. Maximum tally is 25. For production between 20 and 25, the cost per head is fixed at 37.5 per cent above the minimum tally rate per head.

For sheep, minimum tally is set at 80 per slaughterer, and maximum at 110. Between 81 and 110, the cost per head is set at 37.5 per cent above the minimum tally rate per head. Slaughterers are also guaranteed a minimum weekly payment.

Company B - export (federal agreements)

Company B operates two single-species (cattle), export sites with separate agreements. One agreement includes provisions relating to 'incentive employees'. A minimum five day incentive rate is specified, as is a maximum five day incentive rate. The maximum incentive rate is 25 per cent higher. The incentive rates are based on the weight of animals killed, not the number of head.

The other agreement specifies a 'classification rate' for five days and an incentive rate, also 25 per cent higher. The agreement states also that the employer will endeavour to provide sufficient stock for the employee to earn the incentive rate.

The incentive rates apply to both slaughter floor and boning room employees.

Company C - export (federal agreement)

Company C operates several sites, all export accredited. Some sites are multi-species. Each have their own federally registered certified agreements. The company operates a timework-based payment system. The agreements guarantee minimum annual salaries. They also provide that the company and employees shall work together to establish a 'bonus scheme' — consisting of a bonus payment or payments in return for improved performance on a continuous basis.

Company D - export (federal agreement)

Company D operates one single-species (cattle) export plant. For its slaughterers working on piece-rates, the agreement specifies a base daily payment for tally of up to 20 head of cattle. For production between 21 and 27 head, the rate per head is 34 per cent higher. For boning, the agreement specifies that minimum tally is 50 head of beef, and maximum is 73. The same penalties apply as for the slaughter tally.

Company E - domestic (state agreement)

This company operates several sites. One agreement applies to a domestic abattoir which is multi-species. A weekly 'base rate' wage is specified, as is a 40 hour working week. The agreement also includes a daily requirement of head to be slaughtered per slaughterer. For cattle, this is set at 20. For sheep and lambs, 74.25.

Company E - export (state agreement/award)

The site is a multi-species export plant. The enterprise agreement calls up a state award which contains unit tally systems.

Company F - export (state consent award)

The company operates a single species (cattle) export plant. The agreement provides for a weekly wage with no incentive system, other than a clear 7-tier job classification system where base rates of pay per week range from $385 to $810. This applies for both slaughter and boning.

Company G - export (federal agreement)

The company operates a multi-species export plant. The agreement provides for a guaranteed minimum weekly income for pieceworkers. It includes a minimum daily tally per worker. In the case of cattle slaughter, this is set at 21 head. Between 21 and 32 head, the unit rate is 40 per cent above the minimum tally rate. In addition, for 40 minutes at the end of the shift the rate per head is double the minimum tally unit rate.

For beef boners and slicers, minimum tally is set at 53 heads, maximum at 80. Similar arrangements exist for the slaughter, boning and slicing of mutton and calves.

B5 Piece-rate systems in other industries

The Department of Workplace Relations and Small Business (DWRSB) has compiled a list of awards which incorporate piece-rate payment systems.

Table B.4: Piece-rate systems in other industries

Award	*Provision*
Clothing Trades Award 1982 (C0037)	*(i) An employer shall pay a worker working under a payment by results system a minimum amount each week equal to the award wage appropriate to his or her wage band …(ix) An employer…may fix or alter a time standard… provided such time standard is set consistent with the objective that 75 per cent of workers (excluding trainees…) in any given period earn at least **20 per cent** more than the total award wage for wage band 1B [C.20(c)]*

Table B.4 (cont.): Piece-rate systems in other industries

Award	*Provision*
Dried Fruits Etc, Industry (AWU) Award 1993 (D0007)	*Piece-work rates may be fixed by an employer and the employee at such rates approved by the Union as will enable the average employee working the ordinary hours prescribed by this award to earn at least **12½ per cent** above the prescribed time rate [C.11]*
Dry-Cleaning Industry Award 1966 (D0008)	*Subject to payment of minimum weekly wages prescribed by this award for employees in their respective classes…an employer in conjunction with the employees, may fix his own piece-work rates provided such rates enable an adult male or adult female of average capacity working under like conditions to earn at least **ten per cent** more than the minimum weekly wage in their respective class [C.22 Section B, sub-c.(a)]*
Felt Hatting (Consolidated) Award 1993 (F0010)	*Piece-work incentive of **12.5 per cent** is available for felt hatters grade 3 and 4 [see C.15]*
Vehicle Industry – Repair, Services and Retail – Award 1983 (V0019)	*…an employer may remunerate any of his employees under any system of payment by results based on rates which will enable workers of average capacity to earn at least **10 per cent** in excess of their prescribed weekly rates [C.12(a)]*

Source: DWRSB (correspondence).

B6 Implications: illustrative example of slaughter tally under FMIPA 1996

Several factors interact to determine the total labour cost of slaughtering a given number of cattle:

- the amount of labour required to undertake all the tasks identified in the slaughter process (expressed in terms of labour required per 100 head);
- the levels of minimum and maximum tally per worker (derived according to team size); and
- the size of the team[2].

[2] This analysis is indicative (rather than representative) of the way the unit slaughter tally operates according to its specification in the FMIPA 1996. It is meant to be illustrative of the likely incentives that operate under this tally rather than the accurately illustrate its operation. The team sizes, number of head processed, and cost per person are suggestive of a relatively small operation, although they are not derived from an actual example. Further, the way tallies operate in practice vary from plant to plant. In this analysis, the denominator used in the minimum tally equation is 7.898 — the total for all 48 tasks specified in appendix 3 of the FMIPA 1996 for 'can pak' system using a downward hide puller (plus the mathematical adjustment for the 'Johnson Effect'). As discussed

The award specifies the amount of labour required to process a given number of head (see table B1). The award also specifies a 'de facto' minimum and maximum tally per slaughterer, according to the number of team members. Unit labour costs are lowest for head slaughtered at minimum tally. They are 25 per cent higher for head slaughtered between minimum and maximum tally, and 37.5 per cent higher for head slaughtered above maximum tally.

These premia also interact with penalty rates in the award. These are applied on the base rates, which compound the tally premia. For example, maximum tally premium on top of the night shift premium of 30 per cent becomes nearly 80 per cent (see table 6.3).

In minimising total labour costs, there is a trade-off between team size and unit labour costs. For a given number of cattle, a smaller team will mean a higher proportion of the cattle are slaughtered at premium rates, therefore higher cost per person. For the same number of cattle, a larger team will mean lower cost per person, but may means higher total labour costs.

Two scenarios illustrate the effect on total wage cost of the interaction of the number of team members and the proportion of the kill processed at beyond maximum tally — varying team size while holding output constant, and varying output while holding team size constant.

Impact of varying team size

Assume first that the number of head killed is fixed while the number of team members is allowed to vary. The larger the team, the higher minimum tally becomes — implying a reduction in the cost per head per person (as a greater proportion of animals are killed at minimum tally rates). However, the increase in the number of workers may increase the total wages bill. In the simplified example below, it can be seen that the optimum team size for processing 200 head of cattle is a team of between 14 and 16.

Decreasing the team size to 10 (implying minimum tally of 127, maximum of 158), increases the total wage cost to $1589, due to the higher proportion of the total number of cattle processed attracting penalty rates of either 25 per cent or 37.5 per cent (see table B.5, and figure B.1).

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previously, a given plant would not undertake all 48 tasks as some of them overlap according to factors such as the technology in use. However, for simplicity, this total is used. It does not alter the general implications and incentive effects operating under the tally system. For simplicity, the issue of the indivisibility of labour when summing the units of labour per 100 head for tasks which are able to be combined is also ignored.

Table B.5: Varying team size for processing 200 cattle: the effect on total wage cost under the tally[a]

size of team	*minimum tally*	*maximum tally*	*total wage cost*[b]
10	127	158	$1 589
12	152	190	$1 515
14	177	222	$1 440
16	203	253	$1 440
18	228	285	$1 530
20	253	317	$1 800

a Several simplifying assumptions have been made. The estimates are based on the operation of the 'Cattle slaughtering - can-pak and other systems of dressing on rail' tally. It assumes a kill of 200 head for the shift; 7.9 units of labour per 100 head; and an average daily rate for minimum tally of $90 for each worker.

b Total wage cost comprises [{(kill - max. tally) * (1.375 * (daily rate for min. tally/ min. tally))} + {(max. tally - min. tally) * (1.25 * (daily rate for min. tally/ min. tally))} + {daily rate for min. tally}] * no. team members. *In this example (eg team size of 12): [{(200 - 190) * (1.375 * ($90/152))} + {(190 - 152) * (1.25 * ($90/152))} + $90] * 12 = $1515.*

Source: Federal Meat Industry (Processing) Award 1996.

Impact of varying throughput

The second scenario holds the number of team members constant, and increases the number of head killed. In this scenario, a team of 15 results in a minimum tally of 190, and maximum tally of 237. The lowest possible average cost per head is $7.11, processing around 190 cattle - close to minimum tally.

Below that figure, average cost per head is higher as minimum payment per worker is the daily rate for minimum tally. Above it, the average cost per head increases as higher proportions of the total number processed are killed at above minimum tally, incurring premia of either 25 per cent (between minimum and maximum) or 37.5 per cent (above maximum) (see table B.6, and figure B.2).

Table B.6: Varying throughput for team size of 15: the effect on average cost per head and total wage cost[a]

number of head	*average cost per head*	*total wage cost*
170	$7.94	$1 350
180	$7.50	$1 350
190	$7.11	$1 350
200	$7.20	$1 440
210	$7.28	$1 530
220	$7.35	$1 620
230	$7.42	$1 710
240	$7.49	$1 800
250	$7.58	$1 900

a Several simplifying assumptions have been made. The estimates are based on the operation of the 'Cattle slaughtering - can-pak and other systems of dressing on rail' tally. It assumes a team of 15, implying a minimum tally of around 190, and a maximum tally of 237 (given 7.9 units of labour per 100 head). An average daily rate for minimum tally of $90 for each worker is used.

Source: Federal Meat Industry (Processing) Award 1996.

Summary

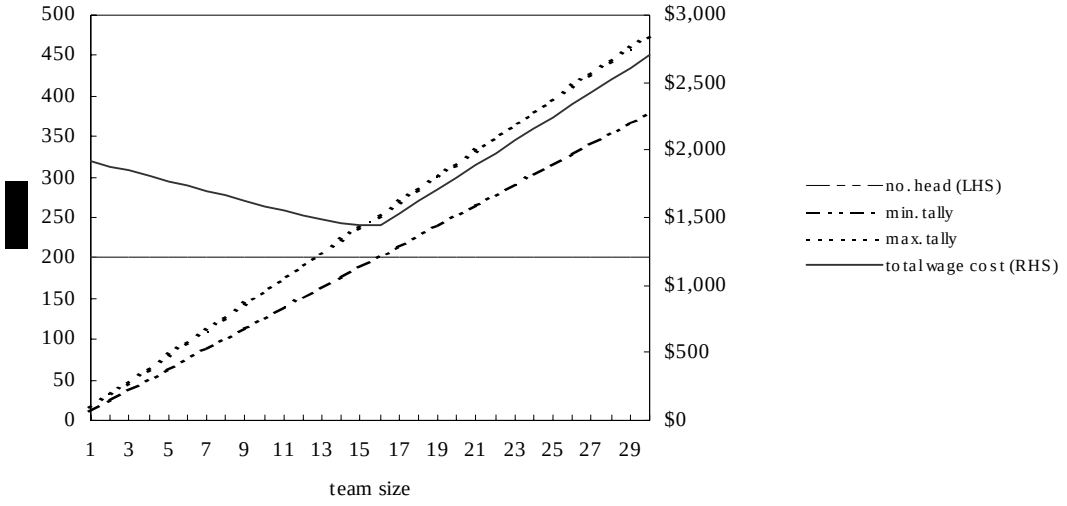
Tallies affect the way work is organised. To process a given number of cattle under the award the units of labour required for a given task are fixed and there are penalty payments for processing above minimum tally. Reducing the number of team members to process a certain number of cattle (for example, through improvements in technology) may not result in a reduction in the total wage cost.

Similarly, processing more cattle using the same number of team members increases the average cost per head (as maximum tally is exceeded) and may result in higher wage costs overall.

B7 Tallies and incentive payment systems

Incentive payment systems can be set at the individual, group or organisational levels. As well, incentive systems may use a combination of these levels. At the individual level, piece-rate systems are not uncommon in Australian industry (see B5 above). In general, piece-rate systems are used when outputs can be objectively measured. All or part of employees' incomes may be paid according to a set output.

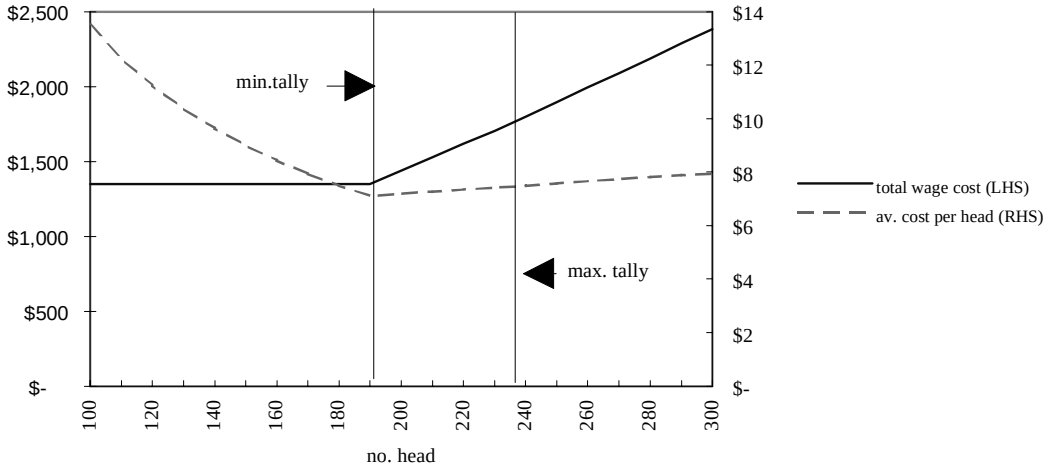
Figure B.1: Effect on total wage cost as team size changes holding output constant



a Assumes a kill of 200 head for the shift; 7.9 units of labour per 100 head; and an average daily rate for minimum tally of $90 for each team member.

Source: Federal Meat Industry (Processing) Award 1996.

Figure B.2: Effect on total wage cost and average cost per head holding team size constant while output changes[a]



a Assumes a team of 15, implying a minimum tally of around 190, and a maximum tally of 237 (given 7.9 units of labour per 100 head). An average daily rate for minimum tally of $90 for each worker is used.

Source: Federal Meat Industry (Processing) Award 1996.

At the slaughterfloor level in the meat industry, tallies exhibit some of the features of conventional individual or group piece-rate reward systems. Payment for tally workers depends to some extent on throughput — measured at the 'front end' by the number of head going in. In some cases, tallies are individually based, although more commonly the individual's payment is related to the size and performance of a team (see B6).

However, the tallies are prescriptive and complex. As the examples above illustrate, tallies reward increased throughput but also introduce a number of other incentives affecting the way work is done, when it is done, and how it is done.

As outlined in B6, for a given team, once minimum tally has been reached, the cost per unit of output rises. From the point of view of the company, increasing output may not increase profitability, as costs start to rise also. As such, the tally may reduce the potential gains from increasing capacity utilisation and spreading fixed costs. In discussions, companies indicated that one effect of the tally had been that a number of incremental improvements over time in technology had not resulted in lower costs or greater output, but shorter working hours — it became too expensive to process stock beyond maximum tally which was typically reached well under 7 hours.

At the broadest level, payment by results systems are intended both to provide incentives for, and reward performance. Tallies provide incentives to work faster (regardless of quality) with a reward of a short working day. However, as discussed in chapter two, the industry has changed. There is now greater emphasis, for example, on product quality for reasons related to hygiene and the demands of consumers.

An emphasis on quality implies a need for a payment system which provides incentives and rewards for measures of performance other than speed. Examples exist already in the industry. In some cases, these incorporate performance measures other than the amount of meat produced.

Some companies have moved to timework. Others have moved to guarantee minimum annual incomes working in conjunction with modified incentive payment systems. Features of modified incentive payment systems include, for example, simplified tally based on quantity of output rather than the number of head. A focus on output quantity (as opposed to inputs) provides, among other things, an incentive to increase yields and quality.

There are examples of companies which have included other non-product related incentive-reward components as part of their agreements. For example, several companies have implemented an absenteeism bonus, where employees

are rewarded with a payment if they do not miss a rostered day over a 12 month period.

As discussed elsewhere, the meat processing industry is changing. Among other things, these changes mean a greater emphasis on factors such as quality. Features of any incentive payment system likely to be more compatible in the industry today include incentives and rewards related to:

- quantity — based on output or yields (rather than inputs);
- quality — based on hygiene outcomes and customer satisfaction;
- reliability — based on level of industrial disputation and/or absenteeism; and
- occupational health and safety — based on claims outcomes.

C THE RED MEAT INDUSTRY

C.1 Introduction

This appendix examines recent changes in domestic and international product markets for red meat, as well as the international trade environment. This appendix concludes by analysing in more detail the red meat production chain discussed in chapter 2, and discussing the factors which have influenced change at the firm level. In particular, changes in input markets (livestock production) and product markets have been important drivers of change in work arrangements in the meat processing sector.

C.2 Demand for meat

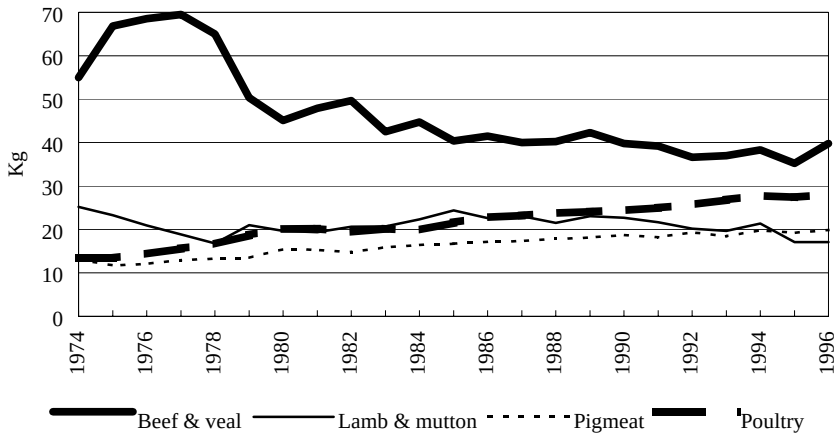
The proportion of red meat production consumed domestically has remained around 50 per cent over the last decade (ABARE 1997).[1] This proportion varies between products:

- 42 per cent of beef and veal;
- 36 per cent of mutton;
- 76 per cent of lamb; and
- 96 per cent of pigmeat.

The major trend in domestic meat consumption over the last two decades has been a shift away from red meat towards poultry. Since its peak in 1977, per capita consumption of beef and veal has decreased by over 40 per cent while lamb and mutton consumption has gone down by 10 per cent. Over the same period, per capita consumption of poultry and pigmeat increased by around 80 per cent and 40 per cent respectively (see figure C.1).

[1] Domestic consumption figures include meat that is cold stored, and may be exported at a latter date: this amount is however only minimal.

Figure C.1: Domestic per capita meat consumption, 1974–96 (kg)



Source: ABARE 1997, Australian commodity statistics.

Despite these trends in consumption, Australians remain one of the largest per capita consumers of red meat in the western world (see table C.1). Decreasing per capita consumption of red meats is common in all western economies. Conversely, red meat consumption in many Asian economies has increased significantly as incomes have increased.

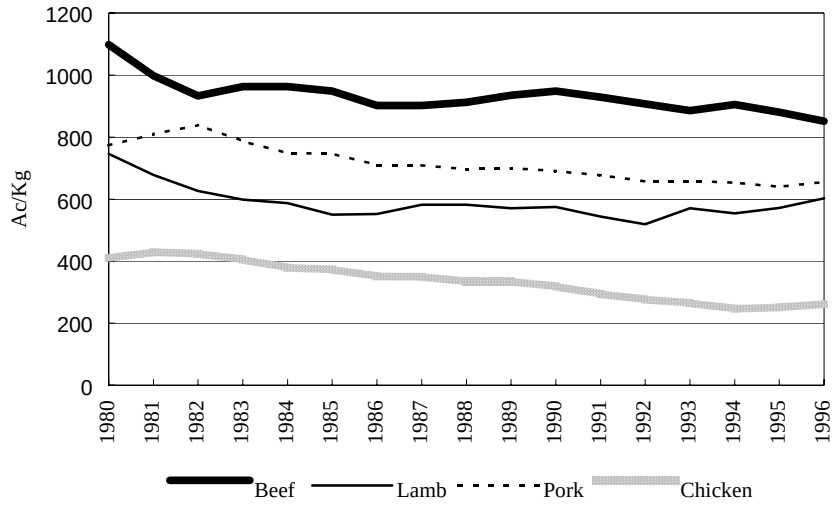
Table C.1: Per capita red meat consumption levels for selected countries, 1996 (kg)

Country	*Beef and veal*	*Mutton, lamb and goat*	*Pigmeat*
Argentina	60.7	1.7	na
Australia	37.2	16.6	18.4
Japan	12.3	0.6	16.7
New Zealand	30.2	32.5	na
South Korea	10.0	na	19.2
US	44.8	0.6	28.8
Uruguay	61.7	na	na

Source: AMLC 1997, Statistical review.

In Australia, the price of meat has changed also over the last 15 years, with beef prices increasing relative to poultry (see figure C.2). In real terms, between 1981 and 1996 the retail price of beef decreased by 22 per cent while that of poultry decreased by 36 per cent. Retail prices of lamb and pork decreased by 19 per cent and 15 per cent respectively over this period (see figure C.2).

Figure C.2: Australian retail prices[a] of meat, 1980–96 (Ac/kg)



a *Retail prices are adjusted using a CPI food deflator.*
Source: ABARE 1997, Australian Commodity Statistics.

C.3 International trade

In 1996, Australia was the largest exporter of red meat in the world, exporting mainly beef and veal to over 100 countries. In 1996–97, beef and veal together were Australia's seventh largest export income earner ($2.1 billion) behind coal ($8.0 billion), non-monetary gold ($4.7 billion), wheat ($4.3 billion), iron ore and concentrates ($3.2 billion), wool ($3.0 billion) and alumina ($2.5 billion) (DFAT 1998). Lamb and mutton exports were valued at around $540 million in 1996–97 (DFAT 1998). However, the value of beef and veal exports has declined by over $1 billion since the peak in 1992–93 (see below).

In 1996, exports from Australia accounted for 18 per cent of the total quantity of world red meat trade, 23 per cent of world beef and veal trade and 40 per cent of lamb, mutton and goat trade (see table C.2). Total red meat exports from the US were slightly lower than Australia in 1996, although the composition differed somewhat.

Table C.2: Exports from major exporting countries, 1996 (kt)[a]

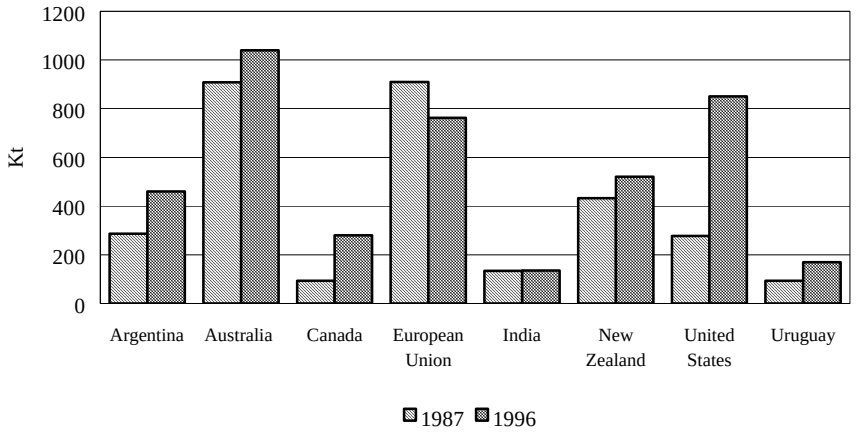
Country	*Beef and veal*	*Mutton, lamb and goat*	*Pigmeat*	*Total*
Argentina	450	1	na	451
Australia	1 097	280	5	1 382
Canada	260	na	340	600
Denmark	30	na	380	410
New Zealand	505	400	na	905
US	894	3	430	1 327
Total	**4 839**	**714**	**2 313**	**7 866**

a Carcass weight.

Source: AMLC 1997, Statistical review.

Aggregate levels of international trade have increased over the last decade — partly due to the progressive reduction of trade barriers in many economies — while Australia's share of world trade has declined. Between 1987 and 1996, total world exports of beef and veal increased by around 30 per cent, while exports from Australia increased by only 15 per cent. Over the same period, beef and veal exports form the US, Canada and Argentina increased by 207 per cent, 201 per cent and 60 per cent respectively (see figure C.3).

Figure C.3: Beef and veal exports by major exporting countries, 1987 and 1996 (kt)



a Exports are measured in carcass weight.

b Data for the European Union includes twelve countries, and excludes intra-EU trade.

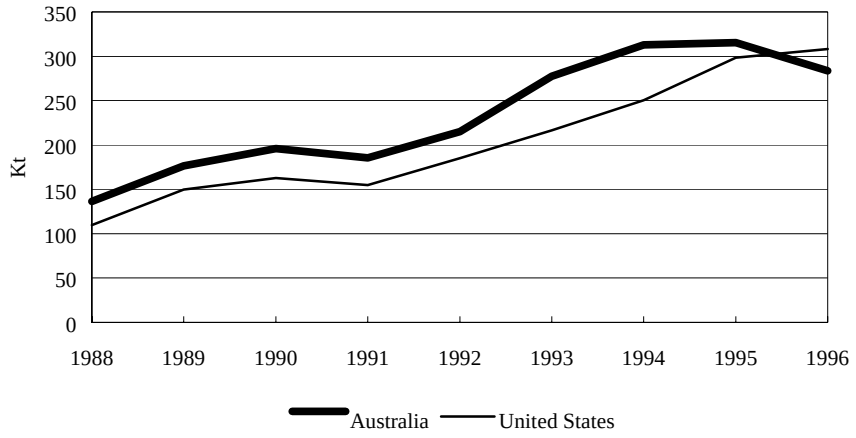
Source: ABARE 1997, Commodity Statistics, p. 152.

Australia, the US and the European Union collectively accounted for 61 per cent of total beef and veal trade in 1996 (see figure C.3). However, Australia is far more dependant on international trade than these other major exporters. In 1996,

beef and veal exports accounted for 60 per cent of total Australian production, compared with 7 per cent in the US and 10 per cent in the European Union (ABARE 1997).

As depicted in figure C.4, the US have emerged as Australia's major competitor in the beef and veal export market. This is particularly true in the Japanese market, where the US overtook Australia as the largest exporter of beef and veal to Japan for the first time in 1996 (see figure C.4).

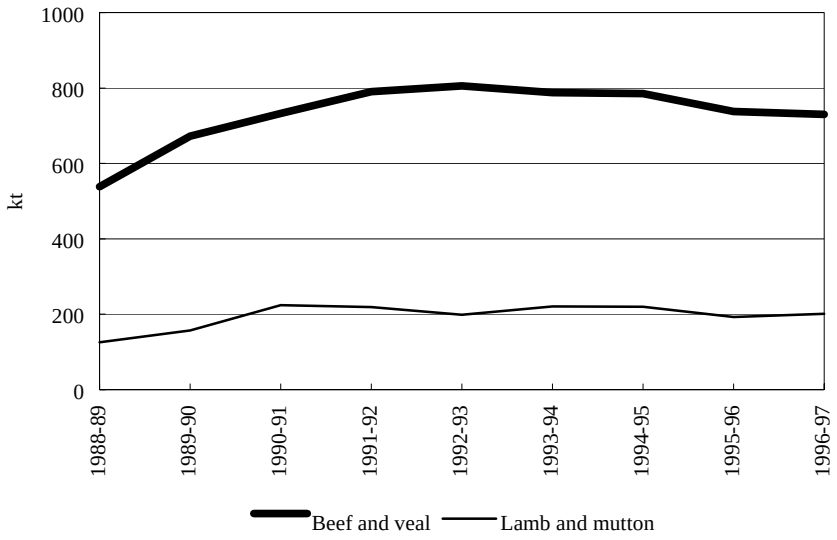
Figure C.4: Australian and United States exports of beef and veal to Japan, 1989 to 1996 (kt)



a *Quantity recorded in product weight.*
Source: ABARE 1997, p. 153.

In Australia, beef and veal exports increased by nine per cent while lamb and mutton exports increased by 28 per cent between 1989–90 and 1996–97 (see figure C.5). The decline in beef and veal exports after 1992–93 is due to declining exports to Japan and the US. Australia exported only 7 kilotonnes of pigmeat in 1996–97. World trade in pigmeat is dominated by the US, Denmark, Taiwan, Canada and China.

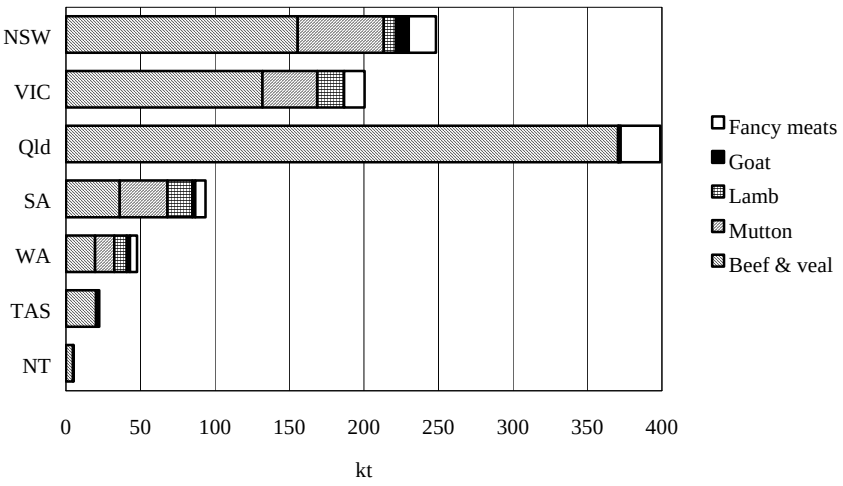
Figure C.5: Australian red meat exports, 1989–90 to 1995–96 (kt)



a *Excludes re-exports and ships stores.*
b *Fresh, chilled and frozen; shipped weight.*
Source: ABARE, Commodity Statistics, 1997.

By State, Queensland is Australia's largest exporter of red meat products, followed by NSW, Victoria and SA (see figure C.6). The majority of red meat exported from Queensland was beef and veal. NSW, Victoria, and SA are Australia's largest exporters of lamb and mutton (see figure C.6).

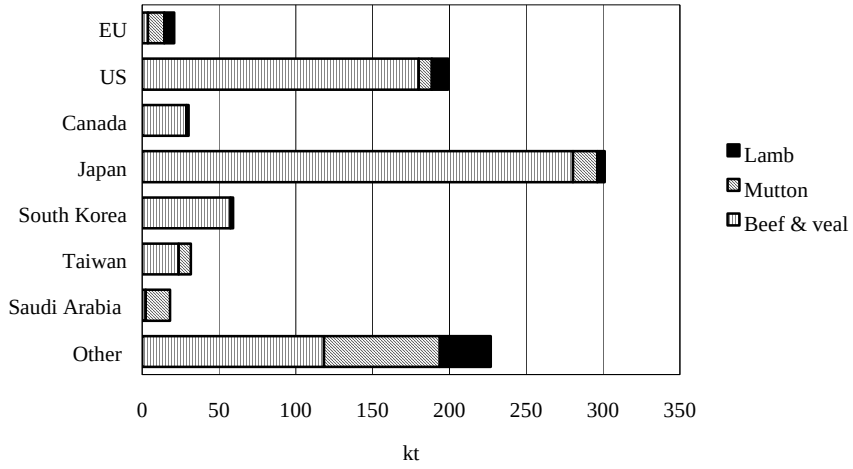
Figure C.6: Exports by state of production and type of meat, 1995–96 (kt)[a]



Source: AMLC 1997, Statistical Review, pp. 21-22.

In 1996, Australian exports were destined mainly for the Pacific Rim and north Asia, particularly Japan (300 kt), the United States (200 kt) and South Korea (60 kt) (see figure C.7). Most of this was beef and veal, which accounted for around 76 per cent of total exports in 1996 (ABARE 1997). Mutton accounted for 15 per cent of total exports, and was exported mainly to Japan, Saudi Arabia and the European Union (see figure C.7). Lamb and pigmeat exports accounted for around six per cent and one per cent of total exports respectively in 1996.

Figure C.7: Australian meat exports by destination, 1996 (kt)[a, b]



a *Quantity recorded in tonnes net shipped weight.*
b *Data for pigmeat exports by destination are not available.*
Source: ABARE 1997, Australian Commodity Statistics.

The destination of red meat exports from Australia has changed over time. The US was Australia's largest export market prior to the liberalisation of the Japanese market in 1991. Between 1989 and 1996, exports of beef and veal to the US decreased by 35 per cent while exports to Japan increased by 59 per cent. Exports to Canada have declined also since 1989.

The largest importing countries in 1996 were Japan, the US and the Former Soviet Union (see table C.3). Australia is not a large importer of red meat.

Table C.3: Imports by major importing countries, 1996 (kt)[a]

Country	*Beef and veal*	*Mutton, lamb and goat*	*Pigmeat*	*Total*
Canada	235	na[b]	50	285
Former Soviet Union	612	9	545	1 166
Hong-Kong	72	na	175	247
Japan	957	75	822	1 854
South Korea	218	na	45	263
US	950	28	279	1 257
United Kingdom	172	121	2	295
Total	**4 075**	**383**	**2 113**	**6 608**

a Carcass weight.
b Not applicable.
Source: AMLC 1997.

C.4 The red meat production chain

The red meat production chain consists of a series of integrated sectors, beginning on-farm and progressing through the meat processing, transport[2] and retail sectors. This section discusses the farm, meat processing and transport sectors. The sale of meat on domestic and international markets has been discussed in sections C.1 and C.2.

The Commission estimates value added for the red meat chain at around $4.5 billion in 1993–94 (see chapter 2). By sector, the Commission estimates value added at:

- $2.7 billion for the farm sector;
- $1.2 billion for meat processing; and
- $0.6 billion for transport.

Farm sector

Livestock production

The farm and feedlot sectors are both located mainly in the high rainfall and wheat-sheep belt regions of Australia, with significant grazing also occurring in Australia's pastoral zones. There are around 20 800 specialist beef producing

2 The transport sector includes all road, rail, water and air transport of meat and livestock within Australia.

properties, 12 500 properties specialising in sheep production and 7 700 sheep-beef properties in Australia (see table C.4). Since 1989–90, there are around 30 per cent more specialist beef farms and around half the number of specialist sheep farms.

Table C.4: Number of farms by farm activity, 1996–97

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*NT*	*Aust*
Sheep	4 073	3 963	1 000	1 330	1 639	519	-	12 523
Beef	6 324	5 160	5 877	1 566	1 021	612	206	20 766
Sheep-beef	2 950	1 905	1 174	378	1 054	213	-	7 674

Source: ABARE 1998, *Farm Survey Report*.

By State, Queensland, NSW and Victoria produce the bulk of Australia's livestock (see table C.5).

Table C.5: Livestock numbers by state, 1997 ('000)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	***Aust***
Cattle and calves	6 435	4 368	10 373	1 213	1 987	762	1 205	26 354
Sheep and lambs	43 473	22 852	10 479	13 771	28 499	4 146	na[a]	123 332
Pigs	798	508	666	381	304	24	4	2 684

Source: ABARE 1997, Australian commodity statistics.

The majority of livestock in Australia are grazed on pasture, although turnoff from feedlots is increasing. The feedlot industry is concentrated in Queensland and NSW, although feedlot capacity in Victoria is increasing steadily (see table C.6). Capacity utilisation in the feedlot sector is relatively low — particularly in Queensland, WA and SA — despite recent increases in feedlot turnoff (see table C.6).

Table C.6: The Australian feedlot sector, March 1998

State	*Capacity*	*Numbers on feed*	*Utilisation (%)*
NSW	305 520	217 116	71
Vic	66 916	50 209	75
Qld	441 779	229 013	52
SA	46 328	23 733	51
WA	31 816	16 629	52
Total	**892 359**	**536 700**	**60**

Source: ALFA, *Quarterly Feedlot Survey*, March 1998.

The rapid expansion in feedlot cattle is largely due to increased demand on overseas markets and the growing consumer demand in Australia for grainfed beef. Although the majority of feedlot cattle are exported, the proportion consumed on the domestic market has increased substantially since 1995 (see table C.7).

Table C.7: Market destination for feedlot cattle, 1995 and 1998[a]

	December–1995		**March–1998**	
	Numbers	%	Numbers	%
Japan	329 038	71	310 294	57.8
Korea	16 378	4	1 042	0.2
Other export	20 925	4	10 404	1.9
Domestic	91 441	20	214 882	40.0
Total	461 515	100	536 700	100.0

a These two periods were selected as it is the longest available time series for which consistent data are available.

Source: ALFA, *Quarterly Feedlot Survey*, March 1996 and 1998.

Livestock slaughterings

The number of livestock slaughtered in Australia has fallen significantly from the levels of the mid 1970s, but increased steadily since the 1980s (see table C.8).

Table C.8: Livestock slaughterings, 1986 to 1996 ('000)

	Cattle and calves	*Mutton*	*Lambs*	*Pigs*
1986	7 883	14 223	18 356	4 610
1987	8 040	15 314	17 516	4 793
1988	7 723	13 130	16 675	4 962
1989	7 483	13 698	16 864	4 940
1990	8 253	17 254	16 549	4 949
1991	8 427	18 750	15 818	4 942
1992	8 731	18 186	15 595	5 138
1993	8 343	18 047	14 668	5 082
1994	8 366	17 991	15 718	5 174
1995	7 906	15 228	14 680	4 995
1996	7 964	14 665	14 206	4 670

Source: ABARE 1997, *Australian Commodity Statistics*.

In Australia, the number of cattle slaughtered is higher in the dry months than in the wet months for the eastern states (see table C.9). The data suggest however that livestock slaughterings have been more stable in the 1990s than the 1980s (see table C.9). As discussed in chapter 2, industry and workplace discussions

suggested that increased livestock numbers in the 1990s and improved transport infrastructure have reduced the impact of seasonality for some plants in Australia (see table C.9).

Table C.9: Average livestock slaughterings for the eastern states, 1980s and 1990s[a]

	1980s			1990s		
	NSW	*Vic*	*Qld*	*NSW*	*Vic*	*Qld*
Jan	131	126	105	154	128	126
Feb	131	128	148	164	128	196
Mar	143	127	198	176	133	225
Apr	133	111	218	164	124	223
May	138	106	228	186	135	251
June	119	98	223	173	119	242
July	126	106	237	165	119	251
Aug	113	96	211	171	114	254
Sep	119	93	209	171	116	251
Oct	133	111	195	172	132	226
Nov	131	110	161	177	135	228
Dec	131	109	116	153	136	155

a The data are averaged for each month between 1983 and 1987 for the 1980s, and between 1993 and 1997 for the 1990s.

Source: ABS, various issues, *Livestock products Australia.*

The number of livestock slaughtered as a proportion of total livestock numbers — or the turnoff rate — varies for cattle, sheep and pigs (see table C.10). Between 1984 and 1996, the turnoff rate for cattle and pigs has remained constant, while the turnoff rate for sheep increased by around 30 per cent (see table C.10).

Table C.10: Livestock turnoff rates, 1984 to 1996 (per cent)

	Cattle and calves (%)	*Sheep (%)*	*Pigs (%)*
1984	30.8	18.6	177
1985	31.4	20.4	180
1986	33.6	20.9	181
1987	34.0	22.0	184
1988	32.8	19.6	183
1989	31.1	18.9	185
1990	33.2	19.8	187
1991	33.2	21.2	195
1992	34.5	22.8	200
1993	33.1	23.7	192
1994	32.5	25.4	186
1995	30.7	24.7	188
1996	30.2	23.8	185

Source: ABARE 1997 and 1993, *Australian Commodity Statistics.*

Although the number of livestock (and slaughterings) is lower than in the 1970s, beef, veal, lamb, mutton and pig production has remained relatively constant. This is due to an increase in the quantity of meat produced per animal slaughtered — or an increase in meat yields. Between 1984 and 1996, meat yields increased by:

- 17 per cent for cattle and calves;
- 8 per cent for sheep; and
- 21 per cent for pigs(see table C.11).

Table C.11: Production of meat per animal slaughtered (meat yield), 1984 to 1996 (kg)

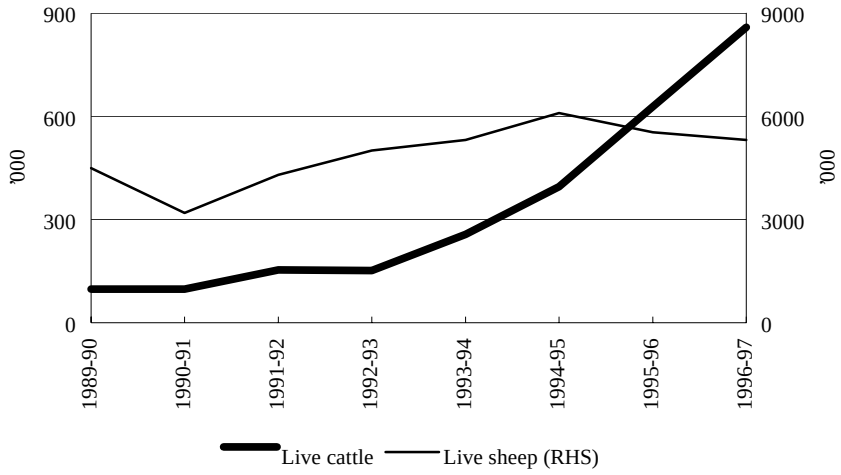
	Cattle and calves	*Sheep*	*Pigs*
1984	186.4	18.3	57.5
1985	187.1	18.2	59.1
1986	187.9	18.0	59.7
1987	194.3	18.3	60.1
1988	200.8	18.5	60.7
1989	210.2	19.0	63.0
1990	210.6	19.1	64.5
1991	207.5	19.4	63.1
1992	210.1	19.3	65.4
1993	217.4	19.8	64.5
1994	220.5	19.5	66.7
1995	217.4	19.2	69.7
1996	217.9	19.8	69.4

Source: ABARE 1997 and 1993, *Australian Commodity Statistics.*

Livestock exports

Most recent data indicate that Australia is the largest livestock exporter in the world. Livestock exports have increased rapidly over the decade to 1996–97. This is particularly true for live cattle exports, which increased at an average annual rate of around 110 per cent between 1989–90 and 1996–97 (see figure C.8). Over the same period, live sheep exports increased by around 20 per cent. However, it is not clear what effects the recent downturn in Asian economies will have on this trend. Early indications are that live exports have declined markedly in recent months.

Figure C.8: Australian live exports, 1989–90 to 1996–97



Source: ABARE 1997, Australian Commodity Statistics.

Australian live cattle are exported mainly to Southeast Asia, and sheep to Middle East destinations (ABARE 1997). Livestock exports from Australia are generally sold for slaughter in the importing country (usually after additional feeding) or used for breeding purposes (see table C.12).

Table C.12: Australian livestock exports by destination and end use, 1995–96 (number)

	Central and South America	*Japan*	*Other Asia*	*Middle East*	*Other*	*Total*
Cattle breeding	-	226	15 048	186	1 695	17 155
Slaughter	-	9 718	539 652	8 553	52 617	610 540
Total cattle	-	9 944	554 700	8 739	54 312	627 695
Buffalo	-	-	394	-	-	394
Sheep breeding	19	12	2	-	435	468
Slaughter	-	-	49 772	5 431 438	57 455	5 538 665
Total sheep	19	12	49 774	5 431 438	57 890	5 539 133
Goats	-	-	21 191	9 498	1 114	31 803

Source: AMLC 1997, *Statistical review.*

The meat processing sector

The meat processing sector is one of Australia's largest rural based industries. In 1995–96, gross product was over $1 billion (ABS 1997e).[3] In the decade to 1996, the gross product of the meat processing sector increased at a faster rate than that for total manufacturing (see table C.13). Queensland accounts for the largest proportion of total meat processing value added, followed by NSW and Victoria.

Table C.13: Constant price gross product at factor cost by state, meat processing and total manufacturing, 1987 to 1996 ($m)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Aust*	*Total manufacturing*
1987	262.3	235.2	456.2	96.6	151.3	1 251.6	52 130.7
1988	296.8	287.8	493.7	99.7	184.6	1 414.5	55 637.1
1989	319.8	281.1	509.6	111.8	161.4	1 436.5	58 835.0
1990	360.7	240.3	568.6	127.6	162.3	1 518.9	58 300.7
1991	347.4	222.7	545.8	124.8	160.6	1 453.7	57 499.1
1992	332.6	222.2	535.9	113.7	154.1	1 407.2	56 094.5
1993	427.5	217.6	581.4	120.7	178.2	1 573.0	56 981.1
1994	436.9	165.8	606.6	121.4	137.7	1 521.7	59 835
1995	411.1	189.6	572.0	126.8	160.6	1 510.6	62 031.2
1996	451.0	233.4	552.9	127.8	167.8	1 580.3	62 780.2

Source: ABS 1998, *National Accounts (Manufacturing)*, unpublished data

[3] Gross product is a measure of the value which is added by the industry's production processes to the raw materials and services which are inputs to those processes, or the value of an industry's output minus the value of intermediate inputs.

In 1995–96, industry turnover was around $6 billion. Similar to gross product, turnover increased steadily between 1987 and 1996 (see table C.14). In the 10 years to 1996, turnover increased most in NSW and Queensland (see table C.14).

Table C.14: Constant price turnover by state, meat processing and total manufacturing, 1987 to 1996 ($m)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Aust*	*Total manufacturing*
1987	925.1	1 212.1	1 801.3	346.0	492.6	4 963.1	148 323.0
1988	1 046.1	1 483.0	1 949.3	357.6	601.1	5 631.7	157 797.0
1989	1 127.6	1 449.1	2 012.2	400.4	525.6	5 711.7	166 874.5
1990	1 271.7	1 238.0	2 244.8	457.1	528.5	5 963.1	169 968.7
1991	1 224.8	1 147.5	2 154.9	447.1	523.1	5 702.4	166 042.2
1992	1 172.3	1 145.1	2 116.0	407.2	502.0	5 533.2	162 903.4
1993	1 507.3	1 121.4	2 295.5	432.6	580.1	6 123.1	165 779.3
1994	1 540.3	854.2	2 395.4	435.2	448.5	5 870.6	174 233.9
1995	1 449.4	976.7	2 258.6	454.4	523.1	5 848.3	180 415.9
1996	1 590.2	1 203.0	2 183.2	458.1	546.1	6 154.5	181 688.1

Source: ABS 1998, *National Accounts (Manufacturing)*, unpublished data.

Industry Structure

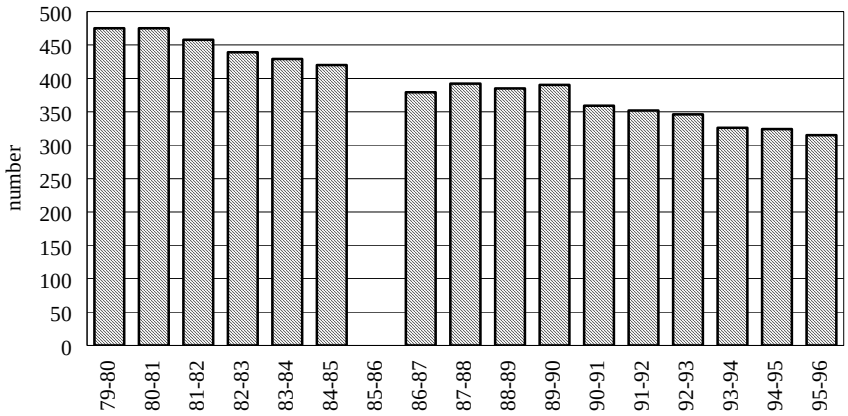
There has been considerable structural change in the meat processing sector over the last decade:

- establishment numbers have fallen;
- foreign ownership has increased; and
- the number of operating companies has declined.

ABS data indicate that there were 315 meat processing establishments[4] in Australia in 1995–96 — down 34 per cent from 1979–80 (see figure C.9).

[4] Establishments refers to all entities involved in meat processing, including processing plants, boning rooms, manufacturers and wholesalers. The ABS cautions the use of establishments data primarily because ‘establishment’ is a statistical data collection unit and does not necessarily represent a physical unit.

Figure C.9: Number of meat processing establishments, 1979–80 to 1995–96



Source: ABS, Cat. No. 8221.0, ABS, unpublished data.

ABS data do not distinguish the type of establishment. The Authority for Uniform Specification of Meat and Livestock (AUS-MEAT) data specify establishment type and whether they have export or domestic accreditation. The majority of export establishments in Australia are accredited by AUS-MEAT, while most domestic establishments do not have AUS-MEAT accreditation.[5] Overall, the number of AUS-MEAT accredited establishments have remained relatively stable since 1995 (see table C.15). However, the composition of these establishments has changed somewhat:

- export abattoirs have decreased by 11 per cent;
- export boning rooms have decreased by 27 per cent;
- domestic abattoirs have increased by 7 per cent; and
- domestic boning rooms have increased by 179 per cent (see table C.15).

[5] The AUS-MEAT data may therefore under-estimate the number of domestic establishments.

Table C.15: AUS-MEAT accredited establishments, 1995 to 1998[a] (number)

	1995	*1996*	*1997*	*1998*
Export abattoir	71	70	61	63
Export boning room	48	43	32	35
Domestic abattoir	67	67	76	72
Domestic boning room	14	22	31	39
Total	**200**	**202**	**200**	**209**

a These data are taken on the 13 July 1995, 19 July 1996 and the 19 June 1998.

Source: AUS-MEAT, *Accredited Establishment List*, various issues.

Export establishments have been in decline since the mid 1970s. The number of export establishments decreased by over 40 per cent between 1976 and 1996 (see table C.16). Australia's major exporting States — Queensland, NSW and Victoria — experienced the greatest losses, with export establishments falling by around 40 per cent in each State since 1976 (see table C.16). WA also experienced a significant decline in export establishments.

Table C.16: Change in the number of export establishments by state, 1976 to 1996[a]

State	*1976*	*1986*	*1996*	*Percentage change*
NSW	30	18	19	-37
Vic	18	15	10	-44
Qld	28	28	16	-43
SA	7	6	6	-14
WA	14	8	6	-57
Tas	8	7	3	-63
NT	3	4	2	-33
Total	**108**	**86**	**62**	**-43**

a These data are taken on the 1 July 1976, 1 November 1985 and 1 December 1996.

Source: MRC 1997, *Changing Ownership in the Australian Meat Processing Industry — A Perspective Over Two Decades.*

There have also been significant changes in the ownership of export plants and the number of operating companies between 1976 and 1996:

- Australian ownership has fallen by 50 per cent;
- public sector ownership has declined by 80 per cent;
- foreign ownership has increased by 80 per cent; and
- the number of operating companies has dropped by 52 per cent (see table C.17).

Table C.17: Changes in the ownership of export establishments, 1976, 1986 and 1996

	1976	*1985*	*1996*
Australian-owned	67	67	33
Foreign-owned[a]	13	9	23
Public sector-owned[b]	20	7	4
Producer co-operative[c]	8	3	2
Total	108	86	62
No. of operators	89	58	43

a Foreign-owned is defined as a company in which majority ownership is held by a non-Australian company or by an Australian holding company acting for a foreign company.

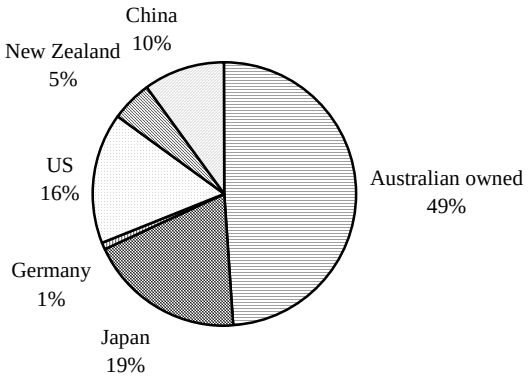
b Government refers to plants owned and/or operated by a shire, munipacity or State authority.

c Producer co-operatives comprise plants which are managed by producers or their representatives.

Source: MRC 1997, Changing Ownership in the Australian Meat Processing Industry, p. 1.

Foreign investment is heavily concentrated on export establishments and reflects the major overseas markets for Australian red meat. There have been considerable changes in the sources of foreign investment since the 1970s — when foreign ownership was mainly from the UK and the US. Foreign investment from Japan has recently increased as demand for Australian red meat from this country has increased. Japan and the US are currently the largest sources of foreign investment in the domestic industry (see figure C.10).

Figure C.10: Estimated market share of foreign investors as a percentage of total red meat production, 1996



Source: MRC 1997, *Changing Ownership in the Australian Meat Processing Industry*, p. 5.

The level of concentration in the Australian meat processing sector is not high by international standards. In 1996 the five largest companies in Australia

accounted for 29 per cent of total industry output — compared to 71 per cent in the US, 64 per cent in Argentina and 60 per cent in New Zealand. The 25 largest companies owned 16 per cent of total establishments — despite producing over 60 per cent of total output (see table C.18). This suggests there are many small establishments operating in the Australian meat processing sector.

Table C.18: Concentration in the Australian meat processing industry, 1996

	Production (t)	*Kill share (%)*	*Establishment (no.)*	*Employees (no.)*
Largest 5 companies	732 800	29	23	7 870
10 companies	1 016 570	40	32	11 353
15 companies	1 232 770	49	40	13 933
20 companies	1 417 470	56	46	15 843
25 companies	1 573 387	63	51	17 593
Total companies	**2 510 800**	**100**	**315**[a]	**27 467**[b]

a Establishments data are for the 1995–96 financial year.

b Employment data are for the 1995–96 financial year.

Source: AUS-MEAT 1997, *Feedback magazine*, ABS 1997, *Manufacturing Industry, Australia*.

Industry production

There has been a great deal of yearly fluctuation in meat production since the 1970s, due in large to changing market and seasonal conditions. Overall, red meat production increased by 12 per cent between 1986 and 1996 (see table C.19). The rate of growth however differs between products:

- beef and veal production increased by 17 per cent;
- mutton production increased by 10 per cent;
- lamb production decreased by 14 per cent; and
- pork production increased by 17 per cent.

Table C.19: Production of meat by type; 1986 to 1996 (kt)

	Beef and veal	*Mutton*	*Lamb*	*Pork*	***Total***
1986	1481	280	305	275	**2341**
1987	1564	302	297	288	**2452**
1988	1551	261	290	301	**2404**
1989	1573	283	300	311	**2465**
1990	1738	358	289	319	**2705**
1991	1749	395	274	312	**2739**
1992	1834	377	275	336	**2821**
1993	1814	388	259	328	**2793**
1994	1845	375	281	345	**2849**
1995	1719	312	263	348	**2642**
1996	1735	309	263	324	**2632**

Source: ABARE 1997, *Australian Commodity Statistics.*

By state, Queensland is Australia's largest producer of red meat, followed by NSW and then Victoria (see table C.20). Collectively, the three eastern States produced around 80 per cent of total Australian red meat output in 1996–97. By product:

- Queensland is Australia's largest beef producer;
- NSW is Australia's largest veal, mutton and pork producer; and
- Victoria is Australia's largest producer of lamb (see table C.20).

Table C.20: Production of meat by State, 1996–97 (tonnes)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*Aust*
Beef	469 831	373 785	683 174	85 350	93 625	52 485	1 774 599
Veal	16 515	14 344	5 194	530	290	920	37 888
Mutton	109 311	55 367	19 328	56 875	55 337	8 464	306 654
Lamb	66 944	111 293	14 171	35 081	35 881	7 043	275 075
Pork	88 547	85 765	72 834	29 853	38 897	5 171	324 937
State	**751 148**	**640 554**	**794 701**	**207 690**	**224 030**	**74 083**	**2 719 153**

Source: ABS 1998, *Livestock Products.*

World red meat production increased by 25 per cent over the decade to 1996 (see table C.21). However, much of this growth is due to the 42 per cent increase in world pork production. World beef and veal production increased by six per cent and mutton and lamb by 19 per cent.

Table C.21: World red meat production by type, 1986 to 1996 (mt)

	Beef and veal	*Mutton and lamb*	*Pork*	*Total*
1986	51.0	6.2	61.4	118.6
1987	51.1	6.4	63.5	121.0
1988	51.4	6.6	67.0	125.0
1989	51.6	6.8	68.0	126.4
1990	52.8	7.0	69.8	129.6
1991	53.4	7.1	70.8	131.3
1992	52.3	7.0	72.9	132.2
1993	51.7	7.1	75.3	134.1
1994	52.7	7.2	78.6	138.5
1995	53.6	7.3	82.9	143.8
1996	53.9	7.4	87.0	148.3

Source: ABARE 1997, *Australian Commodity Statistics.*

Major inputs and sales: Input-output analysis

Input-output tables record the linkages between different industries in the domestic economy. The tables specify how the output of an industry is used as either an intermediate input, for final consumption, investment or for exports. The tables also show the inputs used by an industry. The most recent input-output data are for 1993–94.

The input-output classification, meat and meat products (2101), includes red meat processing, poultry processing, smallgoods manufacturing and by-product manufacturing. All data, apart from beef cattle, pigs and sheep are weighted by 0.58. This weight provides a more accurate account of the inputs and sales for the meat processing sector. The sheep sector is weighted by 0.23 to exclude sheep used for wool production.

The largest input costs for the meat processing sector are livestock — beef cattle, pigs and sheep — which collectively accounted for around 65 per cent of total costs in 1993–94 (see table C.22). Labour is the largest cost outside livestock, with wages and salaries accounting for around 10 per cent of total costs in 1993-94 (see table C.22). Other significant costs were road transport, gross operating surplus,[6] and wholesale trade.

[6] Gross Operating surplus represents the returns to capital in the national accounts. It is found by subtracting from the value of output all intermediate inputs; indirect taxes; the stock valuation adjustment; and wages, salaries and supplements. Interest payments to capital are also included.

Table C.22: Major industry inputs, 1993–94

Inputs	*$m*[a]	*% of total production*
Beef cattle	3 845.6	51.3
Wages, salaries and supplements	790.5	10.6
Pigs	586.7	7.8
Sheep	506.3	6.8
Road transport	310.3	4.1
Gross operating surplus	280.1	3.7
Wholesale trade	151.4	2.0
Other property services	86.8	1.2
Paper bags and products	67.8	0.9
Australian production	**7 488.7**	**100**

a Input output tables are constructed using basic values, which is the ex-factory price.

Source: ABS 1997, *Australian National Accounts: Input–output tables*, 1993–94.

In 1993–94, over 80 per cent of the output produced by the meat processing sector was either exported or consumed domestically (see table C.23). The largest users of processed meat as inputs to production were the accommodation, cafes and restaurants, other food products, meat and meat products and the leather and leather products sectors (see table C.23).

Table C.23: Major Industry Sales, 1993–94

Sales	*$m*[a]	*Percent of total sales*
Exports	2 472.6	42.5
Consumption expenditure (Australia)	2 340.9	40.2
Domestic industry:		
Accommodation, cafes and restaurants	424.2	7.3
Other food products	162.8	2.8
Meat and meat products	159.4	2.7
Leather and leather products	90.0	1.5
Defence	30.0	0.5
Basic chemicals	24.9	0.4
Bakery products	22.6	0.4
Total sales	**5 824.2**	**100**

a Input output tables are constructed using basic values, which is the ex-factory price.

Source: ABS 1997, Australian National Accounts, 1993–94.

C.5 Delivery

The rural location of many processing establishments and the large volume of meat exported make transport networks particularly important for the meat processing sector. The majority of meat is frozen or fresh when transported,

requiring sophisticated refrigeration, monitoring and packaging systems to ensure quality is maintained during transit.

Meat and livestock is transported within Australia by road, rail, water and air. In 1993–94, ABS data indicate that most meat is transported within Australia by road, and to a lesser extent rail (see table C.24). The data in table C.24 indicate the value of each type of transport, from the farm (sheep, beef cattle and pigs) and meat processing sector[7] to:

- the meat processing sector (1);
- the wholesale sector (2);
- the retail sector (3);
- the accommodation, cafe and restaurants sector (4);
- to the final consumer (5);
- to the port or air terminal for export (6); and
- total transport for the red meat chain (7).

Table C.24: Transport flows for the red meat industry, 1993–94 ($'000)

From industry	*1*	*2*	*3*	*4*	*5*	*6*	*7*
Road transport							
Sheep	15 303	-	-	-	564	26 946	42 813
Beef cattle	386 552	-	-	-	5 679	11 181	403 412
Pigs	54 837	-	-	-	441	108	55 387
Meat processing	5 789	56	133	16 752	93 572	61 178	177 481
Rail transport							
Sheep	223	-	-	-	8	11 616	11 847
Beef cattle	17 072	-	-	-	251	494	17 816
Pigs	3 580	-	-	-	29	7	3 616
Meat processing	13	-	-	26	141	202	382
Water transport							
Sheep	31	-	-	-	1	478	510
Beef cattle	-	-	-	-	-	-	-
Pigs	-	-	-	-	-	-	-
Meat processing	4	-	-	9	46	72	131
Air transport							
Sheep	-	-	-	-	-	-	-
Beef cattle	1 462	-	-	-	21	42	1 526
Pigs	-	-	-	-	-	-	-
Meat processing	-	-	-	-	-	-	-

Source: ABS 1997, *1993–94 Australian National Accounts*, unpublished data.

[7] As explained earlier, data for meat and meat products and sheep sectors have been weighted by 0.58 and 0.23 respectively.

Container shipping is the most common method of exporting meat from Australia. In 1996 around 97 per cent of meat was exported by water. The majority of meat is exported from the three eastern city ports:

- Brisbane (40 per cent);
- Melbourne (33 per cent); and
- Sydney (17 per cent).

The major regional ports are Townsville, Newcastle and Port Alma (see table C.25).

Table C.25: Red meat exports by port of loading, 1994–95 and 1995–96, (tonne)[a,b]

State and loadport	*1994–95*	*1995–96*
NSW	168 977	178 111
Newcastle/Yamba	9 307	3 520
Sydney	159 670	174 591
Vic	357 619	332 611
Geelong	6 675	1 190
Melbourne	350 944	331 422
Qld	486 805	429 650
Townsville	28 931	18 759
Port Alma	8 037	2 144
Brisbane	448 138	407 740
SA	38 841	29 951
Adelaide	38 841	29 951
WA	42 968	42 890
Fremantle/Perth	42 968	42 890
Tas	2 468	1 860
Burnie	1 825	1 257
NT	935	2 167
Darwin	935	2 167
Australia	1 098 612	1 017 241

a The data are measured in shipped weight.

b Includes ports where red meat exports exceeded 1 000 tonne in 1996.

Source: AMLC 1997, *Statistical Review.*

Only a small quantity of meat is transported around the world by air (see table C.26). Likewise, the majority of live animals are exported by sea, with only a marginal amount transported by air.

Table C.26: Air freight export to major destinations, 1994–95 and 1995–96 (tonne)[a,b]

	1994–95	*1995–96*
Switzerland	1 270	1 288
US - West Coast	2 663	4 243
Japan	8 741	7 827
Hong-Kong	1 116	1 029
Singapore	2 740	2 705
Other Asia	1 084	1 234
Saudi Arabi	1 351	1 090
Dubai	3 722	3 300
Total	**27 537**	**26 223**

a The data are measured in net shipped weight.

b Includes countries where red meat imports exceeded 1 000 tonne in 1996.

Source: AMLC 1997, *Statistical Review*.

D WORKFORCE

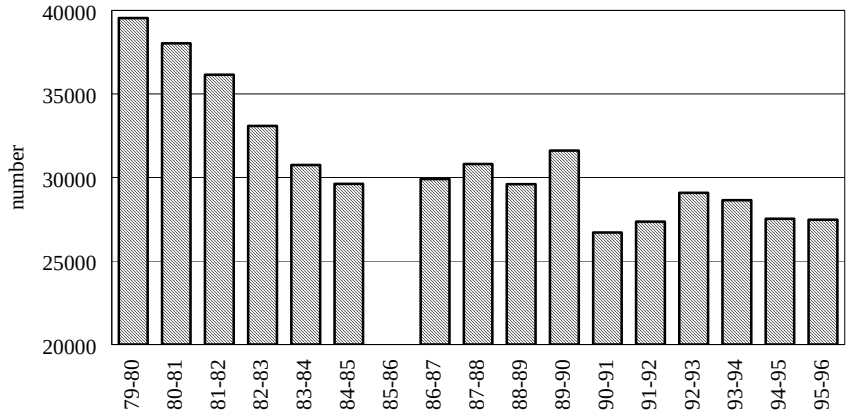
D.1 Introduction

This appendix examines the structure and characteristics of the meat processing workforce. The average wage levels and hours worked by the meat processing workforce is discussed also.

D.2 Employment

There were 27 500 persons employed in the meat processing sector in 1995–96 — accounting for around three per cent of the total manufacturing workforce (see figure D.1). Overall, total employment in meat processing declined by over 30 per cent between 1979–80 to 1995–96 — compared to 20 per cent for all manufacturing.

Figure D.1: Number of employees in the Australian meat processing industry, 1979–80 to 1995–96



a Between 1974–75 and 1988–89 the data are ASIC 2115, and proceeding this the data are ANZSIC 2111. Data are not available for 1985–86 because the ABS did not conduct the manufacturing survey this year.

Source: ABS Cat. No. 8221.0, various additions.

State employment

By state, Queensland and NSW collectively accounted for 60 per cent of the total meat processing workforce in Australia in 1995–96 (see table D.1). Victoria was the third largest employer in 1995–96 (16 per cent), followed by SA (12 per cent), WA (9 per cent) and Tasmania (3 per cent). Although total employment has declined in all states, employment shares have fluctuated somewhat (see table D.1). Since the mid 1980s, employment shares have increased in NSW and SA, but declined substantially in Victoria.

Table D.1: Share of meat processing employment by State[a] (per cent)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*
1986-87	26	21	31	9	10	3
1987-88	25	21	34	9	9	3
1988-89	25	22	33	9	8	3
1989-90	22	20	33	11	11	2
1990-91	25	19	33	11	9	3
1991-92	29	19	31	10	8	3
1992-93	30	16	32	10	9	2
1993-94	30	16	34	10	8	3
1994-95	29	16	32	11	9	3
1995-96	29	16	31	12	9	3

a Excluding the NT and the ACT.

Source: ABS, Cat. No. 8221.1 to 8221.7 (various years).

Meat processing is an important source of regional employment — the majority of plants are located near regional towns. Only a relatively small number of plants are located in, or on the fringe of capital cities (see table D.2). In 1996, the 25 largest meat processing companies employed 17 600 workers, or around 65 per cent of the total workforce (see table D.2). This broadly corresponds with the total output share of these processors.

Table D.2: Plant location and workforce size of major[a] meat processors, 1996

Processor	Regional plants	Capital city plants	Total workforce size
Queensland			
Australian Meat Holdings P/L	5		2760
Nippon Meat Packers P/L	4		1750
Queensland Abattoir Corporation	2	1	660
Consolidated Meat Group	3		1000
Teys Brothers P/L	2		760
South Burnett Meat Works	1		600
NSW			
Northern Co Operative Meat Co Ltd	1		773
Bindaree Beef P/L	2		500
Cargill Foods Australia	1		450
PD Mulligan	1	1	650
Anzco Foods P/L	1		600
Southern Meats P/L	3		500
Burrangong Meat Processors	1		330
RJ Fletchers and Co	1		650
Rockdale Beef P/L	1		440
Bunge Meat P/L	1		140
Mudgee Regional Abattoir	1		350
Midcoast Meat P/L	1		350
Victoria			
SBA Foods P/L	2	1	900
Castricum Brothers Pty Ltd		1	450
G&K O'Connor P/L		1	380
MC Herd	1		350
Hurstbridge Abattoir		1	110
Other			
Metro Meat International Ltd	5		1800
EG Green & Son P/L	1		340
Total	**43**	**6**	**17 593**

a The processing companies listed are the 'Top 25' processors in Australia as ranked by AUS-MEAT. Rankings are based on output.

Source: AUS-MEAT 1997, Feedback magazine.

Seasonality in employment

As discussed in chapter 2, seasonality in livestock turnoff has implications on the demand for labour over a year. Typically, the demand for labour is higher in the dry months than in the wet months — when cattle are grazed. ABS data indicates that employment changes from month to month, and that seasonal trends are still evident (see table D.3).

Table D.3: Quarterly employment[a] by state, meat and meat product manufacturing,[b] 1995 to 1997 ('000)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*Aust*
Q1 - 1995	19.1	11.1	13.8	5.3	3.3	1.8	54.5
Q2 - 1995	15	12	15.4	5.3	3.7	1.6	53.4
Q3 - 1995	19.8	12.7	15.2	4.6	4.7	1.6	58.8
Q4 - 1995	20	12.2	14.6	3	4.3	2	56.1
Q1 - 1996	19.7	9.2	15.1	3.5	3.6	1.4	52.4
Q2 - 1996	20.3	12	14	2.3	3.7	0.9	53.2
Q3 - 1996	13.4	10.7	14.6	2.2	3.9	1	45.9
Q4 - 1996	14	9.3	13.1	4	5.7	0.6	46.9
Q1 - 1997	13.2	4.6	15.1	2.5	5.5	0.4	41.3
Q2 - 1997	20.7	9.7	16.6	2.4	3.8	0.8	54.1
Q3 - 1997	19.3	12.1	15.5	2.8	3.7	0.9	54.4
Q4 - 1997	13.2	12.5	11	2.8	3.7	1.5	44.8

a Data for Q1 correspond to the February quarter, Q2 the May quarter; Q3 the August quarter; and Q4 the November quarter for each year. The data include full-time and part-time workers.

b Meat and meat product manufacturing (211) includes meat processing, poultry processing, smallgoods manufacturing and by-product manufacturing.

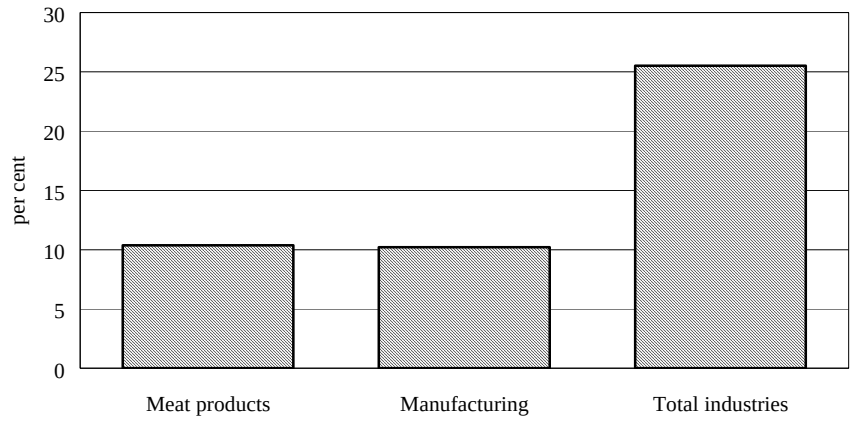
Source: ABS, various issues, *Labour Force Australia*, unpublished data.

Part-time employment

In 1997, less than 10 per cent of the total workforce were employed part-time[1] (see figure D.2). This is similar for all manufacturing, but far less than for all industries — where around 25 per cent of the workforce were employed part-time in 1997.

[1] A worker is generally considered part-time by the ABS if they usually work less than the agreed or award hours for full-time employees in their occupation. If agreed or award hours do not apply, employees are regarded as part-time if they ordinarily work less than 35 hours in a week.

Figure D.2: Persons employed part-time, 1997 (per cent)



Source: ABS, *Labour Force Australia*, unpublished data.

The level of part-time employment in each state is continually changing between quarters. There appears also to be evidence of seasonality in part-time employment in the meat and meat products sector (see table D.4).

Table D.4: Quarterly part-time employment[a] by state, meat and meat products, 1995 to 1997 ('000)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*Aust*
Q1 - 1995	1.9	0.5	1.1	0.3	0.2	0.2	4.2
Q2 - 1995	0.3	0.9	1.5	0.5	0.2	0.0	3.4
Q3 - 1995	0.7	2.3	0.9	0.7	0.4	0.2	5.1
Q4 - 1995	1.0	2.0	1.1	0.4	0.2	0.2	4.8
Q1 - 1996	1.6	1.8	1.3	0.3	0.4	0.2	5.6
Q2 - 1996	1.6	1.0	1.6	0.3	0.7	0.0	5.2
Q3 - 1996	1.2	0.8	1.2	0.2	0.3	0.0	3.6
Q4 - 1996	1.3	1.1	1.7	0.2	0.0	0.1	4.4
Q1 - 1997	1.8	0.9	1.6	0.3	0.0	0.0	4.7
Q2 - 1997	2.8	1.2	2.1	0.0	0.0	0.1	6.2
Q3 - 1997	2.0	1.8	0.6	0.2	0.5	0.1	5.3
Q4 - 1997	0.3	1.4	1.2	0.3	0.3	0.2	4.0

a Data for Q1 correspond to the February quarter, Q2 the May quarter; Q3 the August quarter; and Q4 the November quarter for each year.

Source: ABS, various issues, *Labour Force Australia*, unpublished data.

D.3 Workforce characteristics

A meat processing worker is likely to be:

- a young male;
- secondary schooled and with some level of accredited industry competency;
- marginally more mobile than workers in other industries; and
- a member of a trade union.

Age and gender

In 1996, around half the meat processing workforce were less than 35 years of age, compared to 55 per cent in 1986. The comparable figure for all industries was 43 per cent (see table D.5). There were also significantly more males employed in meat processing than all industries — 83 per cent compared to 56 per cent in 1996 (see table D.5). However, the proportion of females employed in meat processing has marginally increased since 1986, albeit from a low base (see table D.5).

Table D.5: Age and gender of workforce, 1996 and 1986

	Meat processing			**All industries**		
Age	*% of workforce*	*Male (%)*	*Female (%)*	*% of workforce*	*Male (%)*	*Female (%)*
1996						
15-24	23	85	15	18	51	49
25-34	28	84	16	25	56	44
35-44	24	79	21	26	55	45
45-54	17	80	20	21	56	44
55-64	7	90	10	8	65	35
65+	1	89	11	2	69	31
Total	100	83	17	100	56	44
1986						
15-24	27	84	16	22	54	46
25-34	28	85	15	27	61	39
35-44	22	82	18	25	60	40
45-54	14	84	16	16	63	37
55-64	8	92	8	9	72	28
65+	1	94	6	1	69	31
Total	100	85	15	100	61	39

Source: Commission estimates based on ABS, unpublished data from the *1996 Census of Population and Housing*.

Education and training

The level of formal educational attainment in the meat processing sector is low — around 20 per cent of the meat processing workforce had completed post-school qualifications in 1996. The majority of these workers had undertaken skilled vocational qualifications (73 per cent) and basic vocational qualifications (7 per cent) (see table D.6). Less than five per cent had undertaken a bachelor degree or higher in 1996. Table D.6 shows also that 90 per cent of those workers who had undertaken post school qualifications were male.

Table D.6: Qualifications of the workforce by gender and state, 1996 (per cent)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*Aust*
Males							
Higher degree	0.4	0.0	0.4	1.0	0.0	0.0	0.3
Postgraduate diploma	0.2	0.5	0.0	0.0	0.7	0.0	0.2
Bachelor degree	3.7	4.0	5.4	1.3	4.3	5.5	4.2
Undergraduate diploma	2.3	3.1	2.4	1.0	2.9	5.5	2.5
Associate diploma	4.0	2.6	5.0	2.9	1.7	2.7	3.6
Skilled vocational qualifications	72.7	74.0	71.0	70.2	72.1	71.8	72.2
Basic vocational qualifications	6.4	7.8	6.2	13.0	7.9	9.1	7.3
Total	89.7	92.0	90.5	89.2	89.7	94.5	90.5
Females							
Higher degree	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Postgraduate diploma	0.0	0.3	0.0	0.0	0.0	0.0	0.1
Bachelor degree	1.5	1.6	3.3	1.0	1.4	0.0	2.0
Undergraduate diploma	1.2	1.4	1.3	1.0	1.4	0.0	1.2
Associate diploma	3.0	1.6	1.0	1.6	0.0	0.0	1.7
Skilled vocational qualifications	1.7	1.4	2.0	3.2	3.6	2.7	2.0
Basic vocational qualifications	3.0	1.7	1.9	4.1	3.8	2.7	2.6
Total	10.3	8.0	9.5	10.8	10.3	5.5	9.5

Source: Commission estimates based on ABS, unpublished data from the *1996 Census of Population and Housing*.

In 1986, ABS data indicate that 20 per cent of the meat processing workforce had completed post school qualifications[2] — suggesting there has been no increase in the educational attainment of the meat processing workforce between 1986 and 1996. However, a greater proportion of workers had completed a bachelor degree or higher in 1996 than in 1986 (see table D.7 and D.6). In addition, a greater number of female workers held post school qualifications in 1996 than in 1986 (see tables D.7 and D.6).

Table D.7: Qualifications of the workforce by gender and state, 1986 (per cent)

	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*Aust*
Males							
Higher degree	0.2	0.3	0.0	0.0	0.0	0.0	0.1
Graduate diploma	0.0	0.3	0.0	0.7	0.0	0.0	0.1
Bachelor degree	2.4	1.5	2.2	1.8	1.2	0.0	2.0
Diploma	2.0	1.9	1.6	1.1	0.6	4.1	1.7
Certificate - Trade	70.4	76.8	79.8	74.2	80.8	75.2	75.6
Certificate - Other	17.8	15.1	11.2	18.5	10.5	16.6	14.8
Total	92.8	95.9	94.8	96.2	93.0	95.9	94.3
Females							
Higher degree	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Graduate diploma	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bachelor degree	0.6	0.7	0.0	0.0	1.2	0.0	0.4
Diploma	0.0	0.3	0.3	0.0	0.6	0.0	0.2
Certificate - Trade	0.6	0.7	1.1	1.6	1.2	0.0	0.9
Certificate - Other	6.0	2.3	3.8	2.2	4.1	4.1	4.1
Total	7.2	4.1	5.2	3.8	7.0	4.1	5.7

Source: Commission estimates based on ABS, unpublished data from the *1996 Census of Population and Housing*.

In 1996, total expenditure on training in the meat and meat product manufacturing industry was equivalent to 1.8 per cent[3] of gross wages and salaries — up from 1.0 per cent in 1990 (ABS 1998c). Despite this increase, expenditure on training was still less than all manufacturing and all industries, which were 2.2 per cent and 2.5 per cent respectively.

[2] The census data for 1986 differs to 1996 due to changes in classifications. The ABS advised the Commission that the classification changes have little influence on the data for meat processing.

[3] The ABS cautions that high standard errors are associated with these data.

Labour mobility

Overall, workers in the meat and meat product manufacturing sector appeared more mobile than the manufacturing workforce, but less mobile than the total workforce (see table D.8). In 1996, 20 per cent of meat and meat product workers changed either their employer, business or locality, compared to 18 per cent for all manufacturing workers and 24 per cent for all workers in the economy (see table D.8).

Table D.8: Persons who changed employer, business or locality in previous twelve months, February 1996 ('000)

	Did not change industry	*Changed industry*	*Total*
Meat and meat product manufacturing			
Changed employer/business or locality	5.9	4.1	10.0
Changed employer/business and locality	0.0	0.0	0.0
Changed employer/business only	4.8	4.1	9.0
Changed locality only	1.1	0.0	1.1
Did not change employer/business or locality	39.2	0.0	39.2
Total	45.2	4.1	49.3
Manufacturing			
Changed employer/business or locality	102.4	87.6	190.1
Changed employer/business and locality	1.7	1.4	3.1
Changed employer/business only	78.1	86.2	164.3
Changed locality only	22.7	0.0	22.7
Did not change employer/business or locality	840.5	0.0	840.5
Total	943	87.6	1 030.6
All industries			
Changed employer/business or locality	1 198.1	610.4	1 808.5
Changed employer/business and locality	22.2	14.1	36.4
Changed employer/business only	907.7	596.0	1 503.7
Changed locality only	268.2	0.3	268.5
Did not change employer/business or locality	5 680.6	0.0	5 680.6
Total	7 489.1	610.4	7 489.1

Source: ABS, *Labour Mobility Australia*, unpublished data.

The proportion of meat and meat product manufacturing workers who changed their industry of employment between 1995 and 1996 was higher than for all manufacturing and all industries — 9.4 per cent compared to 8.3 per cent and 8.2 per cent (see table D.9).

Table D.9: Employees who changed industry between 1995 and 1996 ('000)

	Did not change industry	*Changed industry*	*Total*
Meat and meat product manufacturing	45.2	4.7	49.9
Manufacturing	943.0	85.3	1 028.2
All industries	6 878.6	610.4	7 489.1

Source: ABS, *Labour Mobility Australia*, unpublished data.

Average job tenure appears to be slightly lower in the meat and meat product manufacturing industry than for all manufacturing and all industries. In 1996, 17 per cent of the meat and meat product manufacturing workforce had been in their current job for more than 10 years — compared to 24 per cent for all manufacturing and 23 per cent for all industries (see table D.10). At the other end, a greater proportion of workers in the meat and meat product manufacturing sector had been employed for less than three years — 50 per cent compared to 42 per cent for all manufacturing and 45 per cent for all industries (see table D.10).

Table D.10: Duration of current job as a percent of total employment, 1996 (years)

	Meat and meat product manufacturing	*All manufacturing*	*All industries*
Under 3 months	5.0	6.8	8.9
3 and under 6 months	9.3	4.5	5.6
6 and under 12 months	9.4	8.8	8.9
1 and under 2 years	11.7	11.9	12.2
2 and under 3 years	13.7	10.0	9.3
3 and under 5 years	10.5	12.3	12.3
5 and under 10 years	22.8	21.7	19.5
10 and under 20 years	12.3	16.8	15.1
20 years and over	5.2	7.1	8.2

Source: ABS, *Labour Mobility Australia*, unpublished data.

Unionisation

In 1996, the proportion of workers who were members of a trade union was far higher in the meat and meat product manufacturing sector than for all industries — 74 per cent compared to 31 per cent (see table D.11). Unionisation is highest in Queensland, where over 80 per cent of the workforce were members of a trade union.

Table D.11: Unionisation by State, August 1996 (per cent[a])

	Meat and meat product manufacturing		All industries	
	Union member	*Not union member*	*Union member*	*Not union member*
New South Wales	76	24	31	69
Victoria	72	26	32	68
Queensland	81	19	31	69
South Australia	64	32	35	65
Western Australia	47	50	25	75
Tasmania	84	16	39	61
Total	74	25	31	69

a Percentages do not round to one hundred because of the unknown status of some workers.

Source: Commission estimates based on unpublished ABS Labour Force Survey data.

D.4 Average wages

On average, wages in the meat processing sector were lower than wages in all manufacturing and all industries in 1996. Average wages were highest in NT, Victoria and WA (see table D.12).[4] ABS data indicate that overtime earnings are relatively low in the meat processing sector (see table D.12).

[4] Many factors contribute to wage differentials between states — such as difference in the cost of living.

Table D.12: Average weekly earnings, meat processing, all manufacturing and all industries, 1996 ($A)

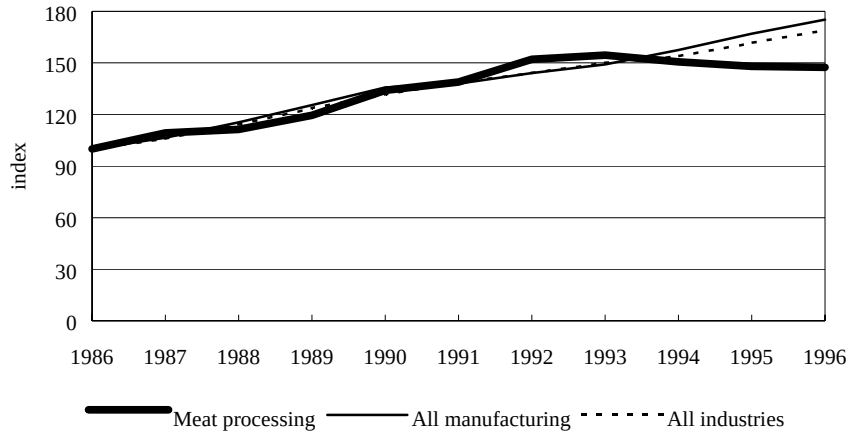
	Average weekly ordinary time earnings	*Average weekly overtime earnings*	*Average weekly total earnings*
Meat processing			
NSW	503.20	35.40	538.60
Vic	593.30	9.10	602.40
Qld	474.60	32.80	507.40
SA	517.10	31.50	548.60
WA	530.70	32.40	563.10
Tas	524.80	35.20	560.00
NT	984.00	0.00	984.00
ACT	na[a]	na	na
Aust	509.20	31.40	540.60
All manufacturing			
NSW	636.70	90.60	727.30
Vic	635.00	77.80	712.80
Qld	577.70	74.70	652.40
SA	568.30	61.40	629.70
WA	614.40	69.00	683.40
Tas	582.10	58.10	640.20
NT	688.00	51.60	739.60
ACT	694.00	27.00	721.00
Aust	618.30	78.70	697.00
All industries			
NSW	690.20	42.50	732.70
Vic	672.80	39.60	712.40
Qld	623.80	39.60	663.40
SA	622.30	33.00	655.30
WA	656.70	42.00	698.70
Tas	598.00	27.30	625.30
NT	684.80	56.50	741.30
ACT	794.80	18.20	813.00
Aust	665.80	39.80	705.60

a No data available.

Source: ABS, various issues, *Employee earnings and hours, States and Australia*, unpublished data.

Between 1986 and 1992, movements in average weekly earnings in the meat processing sector paralleled that for all manufacturing and all industries (see figure D.3). However, since 1992, wage increases in the meat processing sector have been below wages increases for all manufacturing and all industries (see figure D.3).

Figure D.3: Movements in the average weekly wage, 1986 to 1996 (index)[a]

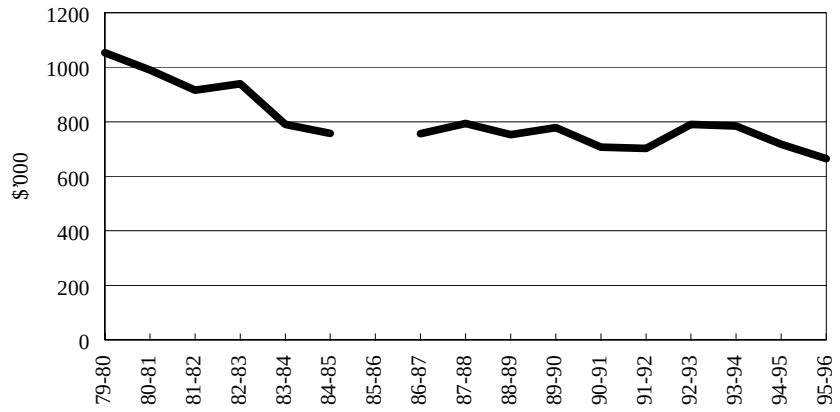


a The index is calculated using 1986 as the base year. The index shows movements in average weekly total earnings between 1986 and 1996.

Source: ABS, various issues, *Employee earnings and hours, States and Australia*, unpublished data

Overall, aggregate wages and salaries declined by around 37 per cent between 1979–80 and 1995–96 (see figure D.4). This decline is consistent with falling employment numbers over this period (see figure D.1).

Figure D.4: Aggregate wages and salaries, constant[a], 1979–80 and 1995–96 ($'000)



a Data have been adjusted, using the CPI deflator, with. 1989–90 the base year.

Source: ABS, various issues, *Manufacturing industry, Australia.*

D.5 Hours worked

Average hours worked[5] by full-time employees have declined over the decade to 1996 (see table D.13). On average, full-time meat processing employees worked fewer hours than the average for all manufacturing, but more than the average for all industries (see table D.13).

Table D.13: Average weekly paid hours by full-time employees, May 1986 to 1996

	Meat processing	*All manufacturing*	*All industries*
1986	40.2	40.7	39.6
1987	40.2	40.7	39.6
1988	40.0	40.7	39.3
1989	39.5	41.0	39.4
1990	39.6	40.3	38.9
1991	40.4	40.0	38.8
1992	40.1	40.0	38.8
1993	39.9	40.1	38.5
1994	39.4	39.9	37.4
1995	39.5	40.1	37.8
1996	37.4	39.9	37.2

Source: ABS, various issues, *Employee earnings and hours, States and Australia*, unpublished data.

As discussed earlier, there are relatively few part-time workers in the meat processing sector (see figure D.2). However, part-time workers in the meat processing sector worked, on average, longer hours than part-time workers in all manufacturing and all industries — 26.7 hours compared with 19.8 hours and 16.8 hours respectively (see table D.14).

[5] The average hours worked data include paid hours worked only.

Table D.14: Average weekly paid hours by part-time employees, May 1986 to 1996

	Meat processing	*All manufacturing*	*All industries*
1986	23.6	18.8	16.5
1987	24.3	18.8	16.5
1988	17.2	20.0	16.3
1989	18.7	20.1	16.6
1990	24.2	20.4	16.6
1991	21.2	20.3	16.7
1992	21.4	18.5	16.6
1993	21.8	19.9	16.7
1994	22.9	20.2	16.7
1995	23.0	18.9	16.8
1996	26.7	19.8	16.8

Source: ABS, various issues, *Employee earnings and hours, States and Australia*, unpublished data.

D.6 Industrial disputes

The level of industrial disputation in the meat and meat product manufacturing industry has fallen significantly since the early 1980s. In 1996, the number of working days lost due to industrial action in the meat and meat product manufacturing industry dropped below the industry average (see table D.15).

Table D.15: Working days lost per 1000 employees, Australia, 1982 to 1996

	All industries	*Meat and meat product manufacturing*
1982	392	3 137
1983	249	894
1984	248	3 075
1985	228	2 286
1986	242	1 545
1987	223	738
1988	269	757
1989	190	2 498
1990	217	1 110
1991	265	1 535
1992	147	726
1993	100	858
1994	76	594
1995	79	913
1996	131	107

Source: ABS various issues, Industrial Disputes Australia, Cat. No. 6321.0.

E WORKERS' COMPENSATION

Workers' compensation is a major cost for the meat industry. The most recent data indicate that the direct costs of workers' compensation are higher in the meat industry compared with manufacturing industry averages, and they have increased over time. For insurance purposes, firms in the meat industry attract high premiums relative to other industries.

This appendix briefly describes the costs of workers' compensation for the meat industry, and the operation of workers' compensation insurance systems.

The meat industry has traditionally had a poor occupational health and safety record, which is reflected in high workers' compensation costs relative to other industries. The most recent data available indicate that the direct costs per employee of workers' compensation (comprising workers' compensation insurance premiums and claims costs not met by the insurer) are higher in the meat industry than for all manufacturing. In all states, the workers' compensation insurance premium rates for the meat industry are higher than average rates.

Some variation in premium rates between industries is to be expected — some occupations and tasks are riskier than others. If premiums are higher for higher-risk employers, they may provide an incentive to improve safety. However, both insurance rates and the incidence of injury are high in the meat industry (relative to other industries), and this does not appear to have changed in the past few years.

Workers' compensation insurance systems also interact with incentives to improve overall occupational health and safety performance. 'Experience rating' of insurance premiums means that (to varying degrees) the number and cost of claims in previous periods affect future premiums. Firm size (in terms of payroll) is an important determinant of how important experience rating is in affecting premiums. The use of experience rating is based on the premise that employers will have an incentive to improve occupational health and safety outcomes if their costs (including insurance costs) reflect a substantial proportion of the costs of injuries and disease.

E.1 Cost of workers' compensation in the meat processing sector

Employers in the meat industry — as with all other employers — are required to insure against their liability arising from the costs associated with work related injury or disease. Workers' compensation insurance in Australia is administered at the state and territory levels of government by authorised authorities in all jurisdictions (see below).

Employers are required to pay insurance premiums based on their annual wages bill and to varying extents, the incidence of injury and disease in their workplaces. In some cases, employers are required to also pay an excess if claims are made. Significant variations in the operation of schemes, benefits and premium rates exist between jurisdictions.

Direct cost of workers' compensation

The direct cost of workers' compensation for statistical purposes is made up of the insurance premiums and other claims costs not met by the insurer. Cost has risen in the meat industry over time. Data indicate that the direct cost of workers' compensation for the Australian meat and meat product manufacturing industries (ANZSIC 211) increased in real terms by 25 per cent between 1992–93 and 1996–97 (see table E1)[1].

In 1989–90, the direct cost of workers' compensation in the meat processing industry (abattoirs only) was $1192 (1992-93 dollars) per employee or 4 per cent of labour costs, while the all industry cost per worker was $653, or 2.2 per cent (IC 1994, p. 198). On a per person basis, the cost for a meat industry employee was nearly double the manufacturing sector average in 1996-97.

The cost of workers' compensation in meat processing varies between states. While comprehensive data are not available, Worksafe Australia estimated the direct costs of workers' compensation ranged from $843 per employee (Western Australia) to over $3500 per employee (Victoria) in 1993-94. The national average for the industry was estimated to be nearly $2200 (Worksafe 1997)[2].

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[1] Workers' compensation data for the meat processing sector (ANZSIC 2111) are not available separately. ANZSIC 211 — meat and meat product manufacturing — includes meat processing, poultry processing and bacon, ham and smallgood manufacturing. In 1995-96, ANZSIC 2111 accounted for around 62 per cent of ANZSIC 211 employment.

[2] These data are not directly comparable with the ABS data presented in table F1. These figures were estimated by Worksafe Australia, based on information from State Workcover authorities. They do not include, for example, poultry and smallgoods.

Table E.1: Workers' compensation data for meat and meat product manufacturing and total manufacturing: 1992–93 to 1996–97[a] (1992-93 dollars)

Year	*Workers' comp. Cost ($m)*	*Cost per employee ($'000)*	*Workers' comp. prop. of wages (%)*	*Workers' comp. Cost ($m)*	*Cost per employee ($'000)*	*Workers' comp. prop. of wages (%)*
	Meat and meat product man. (ANZSIC 211)			*Total manufacturing (ANZSIC 21–9)*		
1992–93	65.4	1.5	5.1	871.9	1.0	3.2
1993-94	na	na	na	na	na	na
1994–95	71.2	1.6	5.9	829.6	0.9	2.9
1995–96	71.7	1.6	6.2	849.1	0.9	3.2
1996–97[b]	81.4	1.8	6.4	915.6	1.0	3.1

na Not available.
a Calculated on employment measured at the end of June.
b Preliminary.
Source: Unpublished ABS manufacturing industry survey data

Workers' compensation insurance premium rates

A major component of the direct cost of workers' compensation is the cost of insurance. Premium rates vary between states, between firms within states, and even between sites within firms.

In 1997-98, the 'class rates' (see below) for the meat industry ranged between around 6 per cent to over 13 per cent (see table E2).

The class rates for meat processing are high relative to the average figures. For example, as illustrated in table E2 the class rate for meat in Victoria for 1997–98 was the highest industry premium rate (8.4 per cent) allocated in that state. By comparison, the average industry rate was 1.8 per cent. In New South Wales the meat processing industry class rate was the second highest premium rate (13.4 per cent) for 1997–98.

Individual firms in the industry may pay premiums above or below the published class rates due to their experience rating (see below). However, in workplace discussions, managers reported workers' compensation insurance rates substantially above the class rates. One firm in Queensland reported paying 14 per cent, while another multi-site plant indicated the premiums ranged between 8 and 12 per cent of their total wages bill.

Table E.2: Meat processing and average workers' compensation premium rates: 1997–98 (per cent)

	VIC	NSW	SA	WA	QLD	TAS	NT
Meat prod. industry rate 1.7.97	8.4	13.4	7.5	6.2–6.4	8.8	Full private insurance	Full private insurance
Av. ind. levy	1.8	2.8	2.9	2.4	1.9	na	na
Highest (published) ind. rate	8.4	14.4	7.5	7.7	15.0	na	na

na Not available.
npa Not presently available as ANZSIC based rating system introduced in Queensland from 1.7.97.
Source: Secretariat Workers' Compensation Authorities 1998, Workcover New South Wales 1997 and industry consultations.

E.2 Workers' compensation arrangements[3]

Premium setting

The basic principle of insurance premium setting is that in the long term, the charge for insurance should reflect the 'true risk' experience of an employer. In other words, in the long term the insured should expect to pay for their true claims experience. In the short term, for an insurance system to work the risks are pooled.

The main mechanisms by which insurance premiums are calculated and adjusted are according to ratings by class and experience.

Class rating

Class rating involves setting premiums according to some form of industry categorisation based on actuarial analysis of historical claims data. The individual firm's experience does not affect the class premium rate.

The Workcover or the equivalent authority in most Australian states calculates average premium rates for industries, or groups of industries, based on actuarial analysis of historical claims data. For example, in New South Wales, all industries are currently allocated to one of 28 insurance rate pools based on each industry's claims experience over the previous three years. For 1997–98 the

3 Table F4 summarises workers' compensation arrangements by state.

lowest risk pool in New South Wales had a premium of 0.45 per cent and the highest a rate of 14.36 per cent. The meat processing industry in New South Wales was in the same pool as underground gold mining. Similarly, in Victoria, industries are allocated to one of 18 pools with premium rates ranging from 0.3 per cent to 8.4 per cent for 1997–98. The meat processing industry shared the same pool as logging, roof tiling and bricklaying. In Victoria five years accident experience are taken into account in deciding the average industry premium rate. Workcover Queensland assigns six digit ANZSIC industries to one of over 50 pools with industry premiums ranging from 0.3 to 13.9 per cent.

For efficiency, each class should be homogenous — that is, contain firms with closely similar risk profiles. Where this is not the case, there will be cross subsidies between firms within the one class, implying some firms are not facing the full cost of insurance in the long term. For the same reason, there should be no cross subsidies between classes.

Experience rating

Experience rating adjusts a firm's premium (usually the class rate or previous year's premium) according to recent claims history. Experience rating provides the mechanism for transmitting incentives regarding improved performance in this area. As discussed below, experience rating and the resulting incentives to improve performance tend to be stronger for large firms.

Authorised insurance companies in all states categorise firms which approach them for workers' compensation insurance to an industry, and hence pool, and adjust the industry premium rate calculated by the Workcover Authority using accident and disease information provided by the firm. A firm's premium for the current year is adjusted at the end of the year given the firm's accident record for that year. This is called the 'hindsight premium' adjustment, and provides employers with a financial incentive to reduce incidents over the year. The extent to which experience rating affects insurance premiums — and therefore provides incentives for improved performance — varies according to firm size. Small firms have relatively less of their own experience driving their premiums.

The rate a firm is levied by an authorised insurance company may only be adjusted for a firm's accident and disease experience using formulae devised by the Workcover Authority of the jurisdiction. These formulae are designed to provide an incentive for employers to improve safety and to penalise poor performers. For example, in New South Wales only firms which pay more than $3000 have their premiums experience adjusted. Where the premium exceeds $3000, employers whose basic tariff premium (the annual wage cost multiplied

by the gazetted industry rate) does not exceed $100 000 may only have their experience adjusted premium increased by up to twice the employer's basic tariff premium. In addition, when the experience adjustment component of the premium is being calculated, the cost of claims are limited to a maximum of $150 000 per claim (Workcover New South Wales 1997).

Illustrative effects of experience rating in New South Wales

As a means of illustrating some of the effects of the restrictions on experience rating, an example based on the operation of the New South Wales system is described here. Applying the experience rating rules as they apply, both the incentive to lower the cost and incidence of claims varies significantly according to firm size.

Table E.3: Illustrative example of New South Wales workers' compensation scheme characteristics: 1997–98

	Outcome	*Selected input variables*			*Effects*		
	Final premium[a]	Current year claims cost	Claims cost previous two years	Final total current year wage cost	Claim % of wages	Prem. as % of claims	Prem. as % of wages
	($'000)	($'000)	($'000)	($'000)	(%)	(%)	(%)
Firm A	811.9	300	300	8 000	3.8	271	10.2
Firm B	133.6	300	300	500	60.0	45	26.7

a Calculated using abattoir industry insurance premium rates and 'F' factor values as per Attachment D *Workcover New South Wales* (1997, p. 29) It is assumed that there were no claims in excess of $150 000.

Source: Commission estimates based on *Workcover New South Wales 1997.*

For example, as illustrated in table E3, for two firms with the same annual claims but of different size (reflected in different wages bills), both the amount paid and the premium as a proportion of total wages varies significantly. For the larger firm, the premium is in excess of the cost of the claims. For the smaller firm, the premium represents less than half the cost of claims, but a significant proportion of total wages.

Privatised schemes

Workcover providers in the other jurisdictions, (Tasmania, the Northern Territory, Western Australia and from July 1998 New South Wales), adopt a monitoring role and have transferred the responsibility for calculating industry premium rates to authorised workers' compensation insurers. Firms in these jurisdictions are free to shop between authorised insurers for the best insurance

rate. Tasmania has authorised 13 insurers while the Northern Territory uses seven insurers.

Self insurance

The choice of self insurance exists in all jurisdictions provided certain prudential and other requirements are met. For instance, prudential requirements for Queensland include the firm having a minimum of $100 million in net tangible assets, long term viability, insurance to cover unlimited claims above a nominated amount (between $300 000 and $1 million) and an unconditional bank guarantee or cash deposit of 150 per cent of estimated annual claims liability or $5 million. However, such requirements in all jurisdictions would exclude all bar a few meat processors from self insurance. At present no meat processors in Australia are believed to self insure.

Table E.4: Comparison of workers' compensation arrangements by jurisdiction: 1997–98

	VIC	*NSW*	*SA*	*WA*	*QLD*	*TAS*	*NT*
Scheme	Workcover	Workcover NSW	Workcover	Workcover Western Australia	Workcover Queensland	Workplace Safety Tasmania	Work Health
Legislation	Accident Compensation Act 1985, Accident Compensation (Workcover Insurance) Act 1993	Workers Compensation Act 1987	Workers Rehabilitation and Compensation Act 1986	Workers Compensation and Rehabilitation Act 1981	Workcover Queensland Act 1996	Workers Rehabilitation and Compensation Act 1988	Work Health Act 1986
Fund type	Central fund	Managed fund	Central fund	Approved insurers. 50% loading on set premium & full discounting allowed	Central fund	Approved insurers. No set rates, essentially a private scheme	Approved insurers. No set rates, essentially a private scheme
Self insurance [a]	Prudential requirements. >500 workers. Assets > liabilities by $2m	Prudential requirements. >1000 workers	Prudential requirements. 200 workers	Prudential requirements	Prudential requirements. >500 workers. Net tangible assets >$100m	Prudential requirements	Prudential requirements
Employer excess	First 10 days and first $462 medical costs	First $500 weekly payments	First two weeks per worker per calendar year. No medical costs	No excess	Day of injury plus 4 days. Can remove excess for greater of 8.5% of premium or $10	First 5 days of each injury and first $200 of other costs	Day of injury only. No medical costs

	VIC	*NSW*	*SA*	*WA*	*QLD*	*TAS*	*NT*
Contrib. of emp'ment to incident	A significant contributing factor	A substantial contributing factor	A substantial cause (stress only)	To a significant. degree (disease only)	The major significant factor	To a substantial degree. 'Major or most significant. factor', disease only	Included for diseases and injuries that occur gradually
Weekly benefit rate	Post 12.11.97 < 13 weeks 95% pre-injury average weekly earnings (PIAWE) > 13 weeks 75% PIAWE or 60% PIAWE if some capacity to work >104 weeks benefit ceases unless unlikely to return to work	<26 weeks current weekly wage > 26 weeks 90% worker's av. weekly earnings (WAWE) plus allowances > 104 weeks review of benefits particularly where no serious on-going incapacity	< 52 weeks WAWE > 52 weeks 80% WAWE if total incapacity otherwise 80% of difference between adjusted notional weekly earnings and earnings from employment > 104 weeks, as above or if partially incapacitated and not working 80% normal weekly earnings (NWE) less what the worker is deemed capable of earning	< 4 weeks greater of pre-injury rate to a max. of $737.80 or award plus allowances excl. over time >4 weeks award plus allowances excl. over time Total payments limited to $104,810 plus $50,000 in certain circumstances	<26 weeks 85% NWE or amount specified under award or agreement or 70% Queensland ordinary time earnings (QOTE) >26 weeks greater of 65% NWE or 60% QOTE > 104 weeks to 5 years if > 15% impairment greater of 65% NWE or 60% QOTE. If <15% DSS single pension rate. Total payment limit $110,430	< 6 weeks greater of NWE over past 12 months or ordinary time rate of pay prior to injury > 6 weeks 95% of weekly payment > 25 weeks 90% weekly payments. Total amount payable $146,249.46	< 26 weeks NWE > 26 weeks Greater of 75% NWE or $355 plus $88.75 for dependant. spouse and $44.38 per child or lesser of this and 90% NWE

a See text above.

Source: Secretariat Workers' Compensation Authorities 1998 and correspondence

F OCCUPATIONAL HEALTH AND SAFETY

Available data indicate that the meat processing industry had a poor occupational health and safety record between 1991–92 and 1994–95. The incidence of injury and disease is high relative to other industries, and increased over this period. The major type of injury has been muscle strains relating to manual handling, followed by cuts. The industry has recognised that OH&S *is a problem in meat processing.*

Elsewhere, the Commission has estimated that the indirect costs of work related injury and disease average around three times the direct cost, and that these costs are borne by the injured worker, the employer, and the community. On this basis, the total cost of work related injury and disease in the meat processing sector was estimated at around $240 million in 1996-97 (1992-93 dollars).

Work related injury and disease imposes considerable costs on employees, employers and the community. Injured workers (and their families) face a loss of income, suffer pain and temporary or permanent disability. Employers face high workers' compensation premiums, lose productive employees and incur the costs of training new staff. The community bears the costs of social welfare payments, medical and hospital costs, and the loss of human capital.

Historically, the occupational health and safety (OH&S) performance of the meat industry has been poor relative to other industries. As discussed below, the most recent data available indicate that the incidence of work related is higher in the meat industry relative to the averages for all industries. Further, OH&S performance deteriorated between 1991-92 and 1994-95.

Concern about the industry's occupational health and safety performance has prompted several initiatives over the past five years. In workplace discussions, OH&S was acknowledged by firms as a significant issue for the industry, however, it remained a problem.

F.1 Occupational Health and Safety legislation

Governments are heavily involved in the regulation of OH&S. Employers and employees have insufficient incentive to prevent injuries and disease, as a significant proportion of the cost is met by the community — in other words, they do not incur the full costs of work place injury and disease (see below). In

addition, employers and employees may be unaware of work hazards, or of how to assess the risks involved and how to implement strategies for managing them.

States and territories have primary responsibility for the regulation of OH&S. In all cases, principal legislation is based on the common law concept of 'duty of care'. In practice, this requires that duty holders (employers and employees) do everything that is 'reasonably practicable' to protect health and safety in the workplace[1].

F.2 Indicators of OH&S in meat processing

For all industries, data on the level and incidence of work related injuries and diseases are limited. Some information is available from Worksafe (based on data supplied by jurisdictions on workers' compensation claims) which has reported periodically on the occupational health and safety performance of the meat industry (Worksafe 1996; Worksafe 1997). For some indicators, the data are available at four-digit ANZSIC level (ANZSIC 2111 - meat processing). For others, the data refer to the three-digit ANZSIC (ANZSIC 211 - Meat and Meat Products), of which meat processing accounts for around 62 per cent in terms of employment (see appendix C).

Further, as part of its labour costs survey, the Australian Bureau of Statistics (ABS) reports on workers' compensation costs. However, these data are not available at an industry level. Included in National Health Surveys (undertaken in 1989 and 1995) is a question on injuries sustained from work related accidents. This information is available by occupation only, and not on an industry basis.

The Worksafe reports on the meat industry use data up to 1994-95. This is the most recent information available. Based mainly on this information, meat processing industry OH&S performance is considered here in terms of:

- incidence;
- duration;
- nature;

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[1] The actual wording varies between jurisdictions. Some legislation requires that anything 'practicable' be done (Victoria, Western Australia, Northern Territory); for New South Wales, Tasmania, and South Australia the requirement is that anything 'reasonably practicable' be done. Worksafe use the term 'workable'; in Queensland duty holders need to 'take reasonable precautions and exercise due diligence'. (See IC 1995).

- mechanism; and
- cost.

Incidence

Based on data from 1994-95, Worksafe Australia found that the incidence rate of injury and disease in the meat processing industry was significantly worse than the average across the manufacturing sector and for all industries[2]. Further, between 1991-92 and 1994-95, the incidence increased by around 13 per cent per year for meat processing, compared with just over one per cent for all industries. Worksafe estimated that in 1994–95, a worker in the industry had approximately a one in five chance of experiencing a serious work related injury or disease over the course of a working year (Worksafe 1997).[3]

As illustrated in figure F.1, in 1994–95 the meat products industry had an incidence of injury and disease over seven times the average of all Australian industries.

Incidence by age and occupation

Occupation

Data describing injuries and disease by occupation are available only in the form of total numbers for each occupational group. As such, high numbers of claims in a particular group could reflect the relative number of workers in a particular group rather than higher rate of accidents per worker. In other words, they provide no indication of the relative incidence between occupations.

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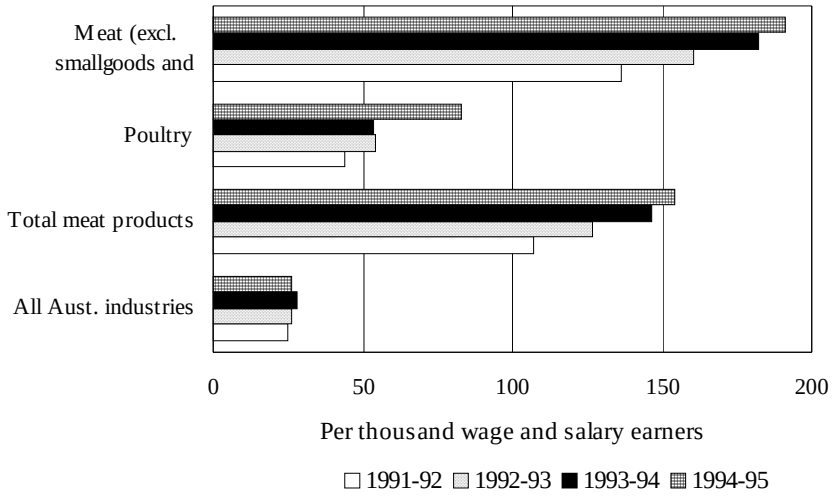
[2] Incidence rates are defined as the number of occurrences expressed as a rate per 1000 wage and salary earners.

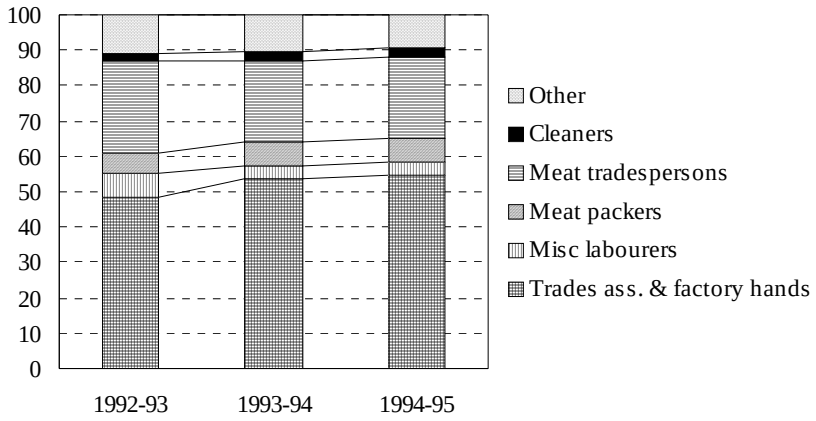
[3] Serious work related injury or disease is defined as one entailing a fatality, permanent or temporary disability resulting in five or more days lost from work.

Figure F.1: Incidence of injury and disease, 1991–92 to 1994–95 (per thousand wage and salary earners)[a]



a Excludes Victoria and the ACT.
Source: Worksafe 1996, Worksafe 1997.

Figure F.2: Distribution of injury and/or disease by meat processing industry occupation, 1992–93 to 1994–95 (per cent) [a]



a Excludes Victoria and the ACT.
Source: Worksafe Australia 1996, Worksafe 1997.

However, examining the data between years might indicate changes in the relative number of injuries per group, and therefore per person on the assumption that the relative proportions of workers in each group do not change significantly between years.

The data indicate that in 1994-95 more than half of all injuries and disease in the meat processing industry were sustained by trades assistants and factory hands (this group includes labourers, boners and slicers), and an increase over the corresponding share in 1992-93 (see figure F.2).

Age

Data are available describing the incidence and frequency rates of injury and disease for meat and meat products (ie ANZSIC 211) by age groups[4].

These indicate that in 1994-95, the incidence rate of injury and disease was highest for workers between the ages of 20 and 24, and lowest for those between 45 and 49. Similarly, the frequency rates were highest for the 20 to 24 age group and lowest for the 45 to 49 age group (Worksafe 1997).

Duration

Data are classified for duration as less than five days absence from work (although these include permanent disabilities and fatalities), between five and 10 days absence, and more than 10 days absence from work. For the meat processing sector, around half of all claims involve more than 10 days absence from work.

As discussed below, the most common type of injury which occurred in 1994-95 involved sprains and strains. Although they accounted for 42 per cent of total occurrences, they accounted for nearly half of the total days lost to injury or disease. Each claim averaged 35 days lost (Worksafe 1996).

By comparison, the second most common type of injury (open wounds) averaged 16 days lost per claim.

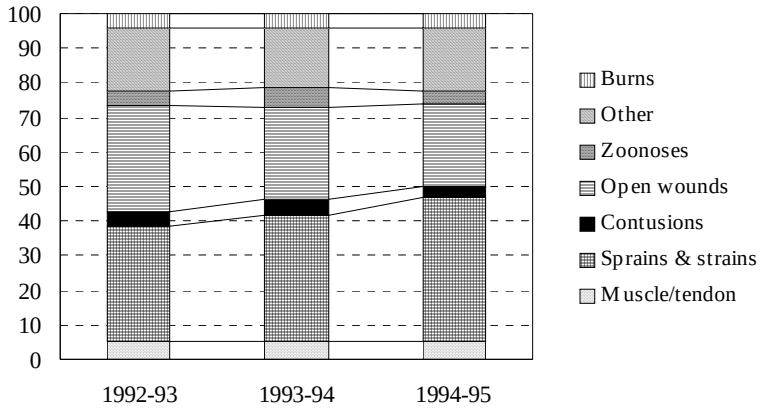
Nature

In 1994–95, the largest single category of injury was sprains and strains, which accounted for 42 per cent of total industry injuries and diseases. The next largest was open wounds, which accounted for 24 per cent. (Figure F.3). The total includes muscle and tendon injuries which comprised 5 per cent of claims. Sprains and strains of joints and adjacent muscles were the most frequent injury in the meat products industry accounting for almost a half of the total compensated days lost. In 1993–94, the average lost time from this type of

[4] Frequency rates refer to the number of cases per million hours worked.

injury was 34 days (Worksafe Australia 1996, p. 13). Open wounds and contusions comprised 27 per cent of all injuries in 1994–95. Zoonoses, bacteria and other micro-organisms passed from animals to humans, were responsible for six per cent of industry claims and four per cent of days lost in 1993–94.

Figure F.3: Nature of meat processing industry injury/disease, 1992–93 to 1994–95 (per cent)[a]



a Excludes Victoria and the ACT.
Source: Worksafe Australia 1996, Worksafe 1997.

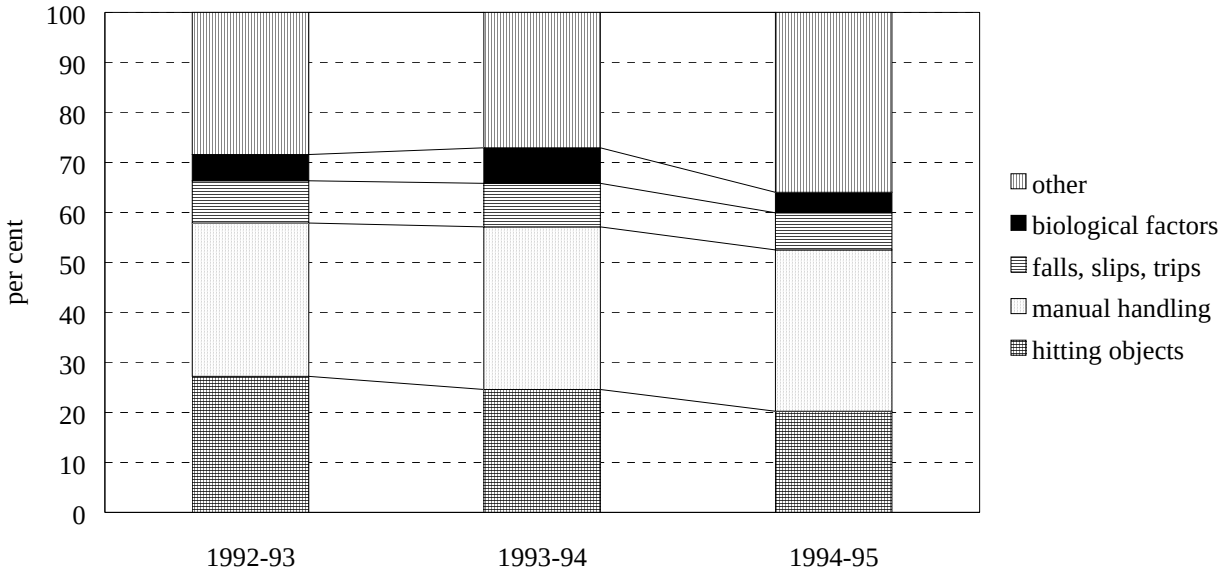
Mechanism and agent

The 'mechanism' of injury or disease is defined as the 'action, exposure' or event' which is the direct cause of the injury or disease, while the 'agent' is defined as the 'object, substance or circumstance' involved in the event (see Worksafe 1997).

For meat processing, manual handling (lifting or carrying) causing muscular stress accounted for 32 per cent of all injuries in 1994-95, compared with 31 per cent in 1992-93. In turn, over one third of these affected the back and a further fifth affected the shoulder.

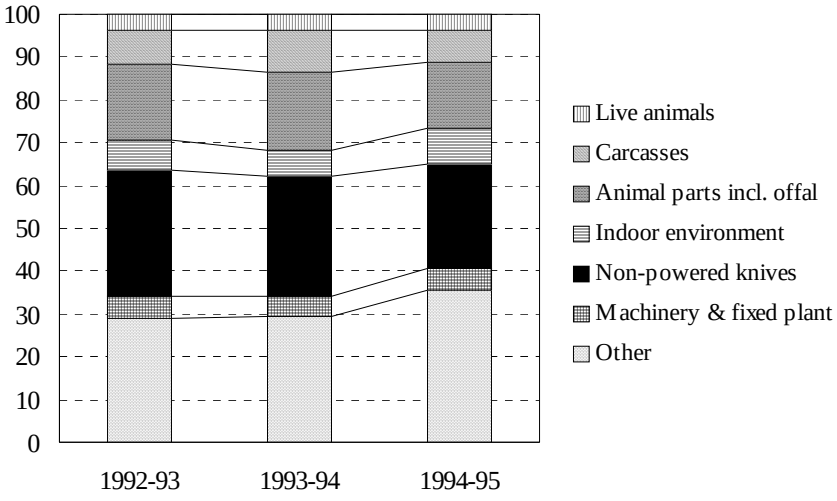
The next largest 'mechanism' of injury was objects hitting the body, which accounted for a further 20 per cent (see figure F.4).

Figure F.4: Mechanism of injury or disease 1992-93 to 1994-95 (per cent)



a Excludes Victoria and the ACT.
Source: Worksafe Australia 1996,Worksafe 1997.

Figure F.5: Agent of meat processing industry injury/disease, 1992–93 to 1994–95 (per cent)[a]



a Excludes Victoria and the ACT.
Source: Worksafe Australia 1996, Worksafe 1997.

In meat processing, in 1994-95 the largest single 'agent' was non-powered knives which were involved in 24 per cent of injuries. This was less than the comparable proportions for 1992-93 and 1993-94, where knives accounted for 29 per cent 28 per cent respectively (see figure F.5).

The 'other' category accounted for more injuries and diseases in total (29 per cent), but includes a number of agents, such as team and hot water, contact with live animals, and tother elements of the indoor environment — such as steps and stairways, wet or oily ground areas.

Cost

As discussed in appendix F, the direct cost of workers' compensation (comprising workers' compensation insurance premiums and claims costs not met by the insurer) in the meat processing industry were estimated to be around $81m in 1996-97 (1992-93 dollars). However, there are also a number of indirect costs of workplace accidents that are not compensated. These involve employees, employers, and the community more generally. For example, employees may face reduced future income or a loss in quality of life. Employers may bear costs such as reduced productivity, legal penalties, or loss of goodwill. The community bears costs such as welfare payments and underutilisation (and sometimes loss) of human capital.

A number of studies have sought to estimate the magnitude of the indirect costs. Estimates of the indirect costs range from a ratio of 1:1 up to 1:7, depending on factors such as the seriousness of the injury or illness. In its 1995 *Work, Health and Safety* inquiry, the Commission used an average ratio of around 1:3 (see IC 1995). On this basis, the total (direct and indirect) cost of workplace accidents and incidents could have been around $243m in 1996-97.

These costs are distributed between employers, individual employees, and the community in general. As part of the *Work, Health and Safety* inquiry, the Commission also estimated the distribution of the costs between employers, workers, and the community — at 40 per cent, 30 per cent, and 30 per cent respectively. However, it was noted that the share of costs borne by workers increases as the severity of injury or disease increases (IC 1995).

F.3 Prevention measures

There has been concern at the industry level about the relatively poor OH&S performance in meat processing. In addition to the Best Practice Project

(discussed below), a number of research projects and initiatives have been undertaken over the past decade[5].

Responses at the firm level vary. In 1992, it was found that size was an indicator of the processes firms had in place for dealing with injuries. Most small firms did not keep data on work injuries, and did not investigate trends of causes. Medium sized companies most commonly recorded days lost as an indicator, or injuries per kill, per worker, or hours worked. Larger companies (employing more than 100 people) were found to usually have a systematic injury recording program in place, and this was closely monitored (MRC 1992).

Best Practice Project

In 1993 the Meat Research Corporation (MRC) initiated an OH&S Best Practice Project. One of the objectives for this project was to increase the competitiveness of the meat processing industry by reducing OH&S costs. Another was to produce 'flow on effects' by changing the 'them and us' attitude prevalent in the industry by proving that workplace consultation and cooperation could produce gains for both management and the workforce. It was believed that an effective demonstration of workplace reform would set the stage for further mutually beneficial productivity enhancing reforms in the industry.

The first round of the project was funded until 1995 and a second round commenced in June 1997 (Meat Research Corporation 1997). In all, 40 firms have participated in this project.

A review of 26 plants which participated in the OH&S Best Practice project by Brown, White and Drew (1996, p. 69) concluded that there were statistically significant improvements in indices measuring variables such as cooperation between management and employees, OH&S functions in the workplace, use of OH&S standards and the involvement of management from 1993 to mid-1995.

In workplace discussions, OH&S and workers' compensation remained an issue for processors. In one case, while acknowledging that workers' compensation

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[5] See, for example, MRC 1992 *Performance Indicators Relating to Occupational Health and Safety for the Australian Meat Industry* for projects undertaken between 1988 and 1992. The titles include: AMLIPC (Australian Meat and Livestock Industry Policy Council) 1988, Report No. 9 *OH&S in Australian Meat Processing*; AMLRDC/MRC (Australian Meat and Livestock Research and Development Corporation/Meat Research Corporation) 1990 *OH&S Plans Parts 1 and 2*; Worksafe (1991) *OH&S Training for the meat industry*; Worksafe (1992) *Draft Code of Practice on Meat Industry*.

was a high cost, management indicated that targeted OH&S policies had been successful in reducing claims. Management at another firm indicated that training and better equipment had improved attitudes to OH&S, and this had resulted in fewer accidents and workers' compensation claims.

National Guidelines for Health and Safety in the Meat Industry

Concern about poor OH&S in the industry led to the joint development by the Australasian Meat Industry Employees Union (AMIEU) and the Meat and Allied Trades Federation of Australia (MATFA) of the *National Guidelines for Health and Safety in the Meat Industry* (1995). These guidelines provide detailed guidance on many of the major workplace hazards encountered in the meat processing industry and was meant to be considered as the industry standard where other standards are silent. With regard to knives, for instance, it suggests that alternative knife designs be used which incorporate 'bent' handles so that the operator's wrist remains straight, that knives with different sized handles be available and that staff be trained to maintain the sharpest possible cutting edge at all times (AMIEU and MATFA 1995, pp. 76–9).

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