

**Income and Wealth: How Did Households Owning Small Businesses Fare from
1992 to 1998**

Contact Author:

George W. Haynes, Ph.D.

Associate Professor

Department of Health and Human Development

Montana State University

Bozeman, MT 59717

(406) 994-5012 (voice)

(406) 994-2013 (fax)

Haynes@montana.edu

Charles Ou, Ph.D.

Senior Economist

Office of Advocacy

Small Business Administration

409 Third Street, SW

Washington, D.C. 20416

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Abstract

The 1990's were marked by the largest ever peacetime expansion in the U.S. economy. This rapid expansion of business income has raised an important equity question: who's earning the income and accumulating the wealth? This study compares changes in income and wealth between small business owning households and other non-business owning households and examines what types of small businesses realized the most substantial gains in income and wealth. While the robust financial growth in the early 1990's increased aggregate household wealth, small business owners actually saw their share of aggregate household wealth decline. The relatively modest financial success of households owning at least one small business in relation to households not owning a business in this very prosperous economic time suggests that investments in businesses realized lower financial returns than investments in other assets.

Introduction

According to the Small Business Administration new business formation reached a record level in 1998 with 898,000 new firms opening their doors (SBA, 1999). Between 1982 and 1998, the number of non-farm business tax returns increased by over 70 percent to nearly 25 million (SBA, 1999). Between 1988 and 1998, the number of firms employing workers increased by over 12 percent to over 5.5 million; and the number of self-employed individuals increased by nearly four percent to over 10 million. All of these indicators suggest that small businesses have continued to grow and develop over the past decade. Not only has the number of small businesses grown, but the income derived from these business activities continues to increase. Income from non-farm sole proprietors and partners, who comprise the vast majority of small businesses, increased by over 6 percent from 1997 to 1998 and compensation to employees rose by over 7 percent (SBA, 1999). The 1990's have been marked by the largest ever peacetime expansion in the U.S. economy. The Dow Jones Industrial Average has increased from 3,250 to over 10,000 points, unemployment rates declined from 6.9 to less than 5 percent and consumer confidence soared. This growing economy has stimulated a growth in the number of businesses, growth in owner and investor income, growth in the payments to employees working for these businesses and changes in wealth. This rapid expansion of business income has raised an important equity question: who's earning the income and accumulating the wealth?

The general economic expansion of the 1990s has dramatically increased the wealth of some individuals while leaving others with less modest increases, or decreases, in wealth. While there was ample discussion of the growth of businesses in the U.S.

during the past 20 years, there is very limited knowledge about the owners (individuals or households) that owned privately-held businesses in the U.S. The public debate about the wealth distribution and income inequality centered around the divide of the rich versus the poor or the wealthy versus the poverty-stricken, rather than those that owned and/or operated businesses versus those that worked for others and the unemployed. This study examines changes in the distributions of income and wealth for three primary types of households: households not owning a business, households owning and managing only one small business (single business owners) and households owning and managing at least one small business and owning other businesses (multiple business owners). Using this classification of households (and business owners) and the Surveys of Consumer Finance in 1992 and 1998, this study assesses changes in the income earned and wealth accumulated by different types of small businesses from 1992 to 1998. This study addresses five questions:

1. Are households that own and manage at least one small business more likely to be high income earners and high wealth holders than households with no business ownership in 1992 and 1998;
2. What characteristics differentiate single- and multiple-small business owners in 1992 and 1998;
3. What types of small business owning households (single owner-manager or multiple owner-manager) realized the most significant gains/losses in real mean income and wealth from 1992 to 1998';

4. What types of small business owning households (single owner-manager or multiple owner-manager) realized the most significant gains/losses in aggregate income and wealth from 1992 to 1998?
5. After controlling for personal and demographic characteristics of the households, what types of small business owning families are most likely to be high income and wealth.

Literature Review

The financial situation of U.S. families changed substantially between 1983 and 1998. The literature review examines relevant literature assessing changes in income and wealth of U.S. families. Special attention is given to evidence on changes in the income and wealth of U.S. families who own one or more small business. A relatively comprehensive literature exists on the financial condition (income and wealth) of families, but the literature is much less comprehensive for that subset of families who own businesses.

The Federal Reserve Board assesses recent changes in the U.S. family finances every three years when summarizing results derived from the most recent Survey of Consumer Finances (Kennickell and Shack-Marquez, 1992; Kennickell and Starr-McCluer, 1994; Kennickell and Starr-McCluer, 1997; Kennickell, Starr-McCluer and Surette, 2000). The mean and median income and net worth summarizes from these reports are summarized in Table 1 in 1998 dollars. The reporting of both mean and median financial estimates (income and net worth) is important because of the skewed distribution of both income and net worth data. For instance, a comparison of the relative

changes in mean and median net worth indicates whether the share of aggregate net worth held by the poorest or wealthiest has increased or decreased. An increase in the mean that is higher than a corresponding increase in the median often suggests an increase in the wealth shares of families at the top end of the distribution.

(place table 1 here)

Between 1983 and 1989 real mean family income increased (\$44,400 to \$51,700 in 1998 dollars) while real median family income remained virtually unchanged around \$32,000 (Kennickell and Shack-Marquez, 1992). Mean wealth rose by over 24 percent, while median wealth rose nearly 10 percent. These findings suggest that family income and wealth became somewhat more concentrated among families with higher income and wealth, respectively. Kennickell and Shack-Marquez (1992) suggest that several factors affected family income and wealth, including financial deregulation; progressive elimination of tax deductions for consumer interest; and tax changes, such as the elimination of general deductions for individual retirement accounts.

Between 1989 and 1992, real mean and median family income and real mean and median family wealth decreased (Kennickell and Starr-McCluer, 1994). Several important changes occurred during this period of time. Interest rates declined and families tended to move their asset portfolios away from time deposits and toward mutual funds; families owned more tax deferred retirement accounts; and income and wealth grew substantially for non-White and Hispanic families.

Between 1992 and 1995, real mean and median family income increased slightly, although not sufficiently to offset the declines realized from 1989 to 1992 (Kennickell and Starr-McCluer, 1997). By 1995, median income and wealth were nearly the same as

in 1989, however mean income and wealth had not fully recovered. This period of time from 1992 through 1995 was one of continued economic expansion in the U.S. economy. By 1998, real mean and median family income had surpassed their 1989 levels, having exhibited strong growth between 1995 and 1998. This period was marked by an increase in the holding of stock equity and a booming stock market (Kennickell, Starr-McCluer and Surette, 2000). While family indebtedness increased over this period of time, asset growth was more rapid. At this juncture in 1998, the economy was in the seventh year of an economic expansion. Civilian unemployment was around 4.5 percent and the average annual inflation rate of 2.2 percent, as measured by the consumer price index, had been low for the previous 3 years.

From 1989 through 1998, real family income and wealth increased in the U.S. However, this growth in family income and wealth did not appear to be evenly distributed across the economy. Using the 1989 through 1995 Survey of Consumer Finances, Wolff (1998) argued that the distribution of wealth had become much less equal and that only households in the top 20 percent of income and wealth made any substantive gains. He suggested that all other groups suffered real wealth and income losses.

While no other authors addressed small business owners, Wolff (1998) argued that “. . . small business equity, which tends to move with stock prices, is also highly concentrated among the rich.” While small business owners may have realized an increase in the value of their assets with the increase in the stock market, other evidence suggests that small business owners hold more debt than non-business owning families (Haynes and Avery, 1996). In addition, recent research suggests that small business

owners are willing to assume more risk and hold more risky portfolios of assets (Xaio, Alhabeeb, Hong and Haynes, 2001). Thus, whether or not families owning small businesses have improved their financial status between 1992 and 1998 is an open question. This study examines changes in the real income and wealth of families owning small businesses to determine if they have higher mean income and wealth and increasing or decreasing shares of total income and wealth from 1992 to 1998.

Empirical Considerations

This section summarizes the data utilized in this study from the 1992 and 1998 Surveys of Consumer Finances and presents the statistical models employed. While this study is primarily a descriptive study of small businesses in two time periods, it employs multivariate logistics regression models to assess the determinants of high income and wealth small business owning households.

Data

The 1989 through 1998 Surveys of Consumer Finances (SCF) were conducted for the Federal Reserve Board. The 1989 SCF was collected by the Survey Research Center at the University of Michigan. The most recent surveys were collected by the National Opinion Research Center at the University of Chicago. The surveys are designed to supply detailed and reliable information on balance sheets, use of financial services, pensions, labor force participation, cash income and demographic characteristics of U.S. households.

The SCF utilizes a dual frame sample to provide adequate coverage of the population. One frame is a multistage area probability sample, which provides adequate coverage of widely held assets and liabilities. The second frame is a list design employed to over-sample relatively wealthy households. Response rates for the area probability and list samples in 1992 were approximately 70 and 34 percent, respectively (Table 2).

(place table 2 here)

Research conducted by the Federal Reserve Bank suggests that non-response is positively correlated with wealth. This study is primarily interested in examining small business owning families. However, the entire sample is employed to assess the differences between business owning and non-business owning families. The SCF survey asks respondents about the previous year, hence the SCF for 1998 actually gathers information about the finances of the family and business in 1997.

The variables of interest in this study include business ownership status of the household, household income and household wealth (including assets and debt held by members of the household). Business ownership status was determined by whether an individual owned and/or actively managed at least one business. Households owning large businesses (500 or more employees) and household with only investors (owner, but not managers) were not included in this study. Small business owners are separated into two categories: single business owners, who own and manage only one business; and multiple business owners, who own and manage at least one small business and own (and possibly, manage) other businesses.

Financial data, such as income and wealth data, often has a substantial percentage of missing values. The SCF is a fully imputed data set with five separate imputates

available for every missing value. This study utilizes only one imputation in the SCF. Household income and wealth was computed using all of the financial information reported in the SCF. Household income is computed by summing the following sources of income: wages and salaries, interest, dividends, asset sales, rents, unemployment, child support, welfare, social security and other sources. The wealth of the household was determined by generating a balance sheet, using a program supplied by the Federal Reserve Board, to estimate the wealth of each household. Total wealth was computed by subtracting total liabilities from total financial and non-financial assets. Financial assets were computed by summing the value of transaction accounts, certificates of deposit, directly held mutual funds, stocks, bonds, individual retirement accounts, saving bonds, cash value of life insurance, other managed assets and other financial assets. Non-financial assets were computed by summing the value of vehicles, primary residence, other residential real estate, equity in nonresidential real estate, business interests and other non-financial assets. Liabilities were tabulated by summing the value of housing debt, other lines of credit, debt for other residential property, credit cards, installment loans and other debts.

In all cases, mean and median family income was higher in 1989 than in 1992. Hence, this study will discuss the changes in income from the recession in the early 1990's to the most recent data collected in 1998. All income figures have been adjusted to 1998 dollars using the current Consumer Price Index (CPI) as employed by Kennickell and Starr-McCluer (1997).

Control variables include personal and demographic characteristics of the household head and business owner, and characteristics of the business. The personal

and demographic characteristics include age, race (White, Black, Hispanic and other), gender, education (no high school diploma, high school diploma, some college and college degree or more), marital status (married, previously married or never married) and census region (north east, north central, south and west). Business characteristics include, number of employees, age of the firm, legal organization, industrial classification, founding strategy and gross sales.

The sampling frame for this analysis is U.S. households, which are referred to as families in this report. Personal and demographic characteristics are those characteristics of the respondent interviewed, typically the household head. If the respondent or someone in the household owns and manages a business, this study is referring to the largest business. No business information is available for businesses owned but not managed by the respondent. Small businesses are those businesses with fewer than 500 employees that are owned and managed by a family member.

Models

This study is primarily descriptive, where family income and wealth are compared for business and non-business owning families. This descriptive analysis requires the careful comparison of means using chi-square and t-tests to assess difference among business and non-business owning families across time (1992 through 1998). These simple comparisons are supported by more complex empirical models, which are designed to assess the determinants of high income (greater than \$50,000 total family income) and high wealth (greater than \$1,000,000 total family wealth).

Logistic regression models are used to assess the types of families and business owners more likely to be classified as high income or high wealth. This study uses non-linear logistic regression models to predict the likelihood of high family income or wealth from binomial classifications high income (yes/no) and high wealth (yes/no). Personal and demographic characteristics of the family are regressed on dummy variables representing high income and high wealth. The income model is specified as follows:

$$HI = \alpha_0 + \alpha_1 \text{age} + \alpha_2 \text{race} + \alpha_3 \text{gender} + \alpha_4 \text{ed} + \alpha_5 \text{ms} + \alpha_6 \text{cen} + \alpha_7 \text{stocks} + \alpha_8 \text{emp} + \alpha_9 \text{firm_age} + \alpha_{10} \text{org} + \alpha_{11} \text{sic} + \alpha_{12} \text{found} + \alpha_{13} \text{multiple} + \varepsilon$$

where HI = high income dummy (1=high income, 0 otherwise);

age = age of the household head (dummy variables for less than

35, 35 to 44, 45 to 54, 55 to 64, 65 to 74 and 75 or older);

race = race of the household head (dummy variables for White and
and other);

gender = gender of household head (dummy variables for male and
female);

ed = education level (categorical variables for some high school,
high school graduate, some college, college graduate);

ms = marital status (dummy variables for married or otherwise);

cen = census region (dummy variables for north east, north central,
south, west);

stocks = owns publicly traded stock (yes=1, no=0);

employ = number of employees in the business (continuous);

firm_age = age of the business (continuous);

org = legal organization of the business (dummy variables for partnership, sole proprietorship, subchapter s corporation and regular corporation);

sic = standard industrial classification of the business (dummy variables for agriculture, construction/manufacturing, wholesale/retail and service/other);

found = founding status of the business (dummy variables for inherited, bought/invested and started); and

multiple = household owns multiple businesses (1=yes, 0=no).

The wealth model, which uses the same independent variables as those employed in the income model, is represented as follows:

$$HW = \alpha_0 + \alpha_1 \text{age} + \alpha_2 \text{race} + \alpha_3 \text{gender} + \alpha_4 \text{ed} + \alpha_5 \text{ms} + \alpha_6 \text{cen} + \alpha_7 \text{stocks} + \alpha_8 \text{emp} + \alpha_9 \text{firm_age} + \alpha_{10} \text{org} + \alpha_{11} \text{sic} + \alpha_{12} \text{found} + \alpha_{13} \text{multiple} + \varepsilon$$

where HW = high wealth dummy (1=high wealth, 0 otherwise);

These regression models are employed for 1992 and 1998. The model specification is identical for each year. The next section summarizes the results of this study.

Results

This section assesses the probability of being classified as high income and/or high wealth, examines the number of business-owning households, compares the demographic and financial characteristics of single- and multiple-business owning

families, compares real mean and median income and wealth, compares the shares of total family income and wealth between business and non-business owning families and across different types of business owners, and assesses the determinants of high income and high wealth families over the six years of this study (1992 through 1998).

Families owning businesses are significantly more likely to be high income earners and high wealth holders than families not owning businesses (Table 3.0). In both 1992 and 1998 business owning households were substantially more likely to be classified as high income and high wealth than households not owning a business. In 1992, small business owning households were more than two times more likely to be classified as high income (53.4 percent versus 24.3 percent) and nearly ten times more likely to be classified as high wealth (14.4 percent versus 1.5 percent) as households not owning a business. Multiple business owners had the highest probability of being classified as high income (63.2 percent) and high wealth (35.0 percent) of the small business owners. In 1998, a household owning any business had over a 58 percent chance of being classified as high income and over a 17 percent chance of being classified as high wealth. By 1998 the high income and wealth gap between households with and without businesses had narrowed. Small business owning households were now less than two times more likely to be classified as high income (57.3 percent versus 30.2 percent) and small businesses were now less than five times more likely to be classified as high wealth (16.1 percent versus 2.4 percent). Multiple business owners still appeared to be the most prosperous small business group with over two-thirds of them classified as high income and over one-third classified as high wealth.

(place table 3 here)

From 1992 to 1998 the likelihood of being high income or high wealth increased at a faster rate for households without small businesses (24 percent increase in the percentage of high income earners and 60 percent increase in the percentage of high wealth holders) than for households with small businesses (7.3 percent increase in the percentage of high income earners and 12 percent increase in the percentage of high wealth holders). The relatively lack luster performance of households owning a small business in relation to household with no business ownership would indicate that small business investment may have been a less attractive investment between 1992 and 1998. Interestingly, the number of households owning a small business and number of small business owned by these households was very stable between 1992 and 1998 (Table 4). The 12.6 million business owning households identified in the SCF owned 16.7 million businesses in 1992. By 1998 the number of business owning households had remained very stable with 12.0 million business owning households owning 16 million businesses. Households with a single business declined slightly from 10.1 million households in 1992 to 9.6 million households in 1998. Households with multiple businesses declined slightly, but the number of business owned per household increased slightly from 2.59 to 2.67 businesses per household.

(place table 4 here)

Households owning multiple businesses appear to be the most prosperous small business owners. Table 5 compares the personal, demographic and financial characteristics of households owning one and more than one small business in 1992 and 1998. In 1992, household heads in households owning more than one business were more likely to be in their prime working years (35 to 64), male, better educated and

married. These households were higher income and wealth. Multiple business owning households earned a high percentage their total household income from professional practice, interest, dividend and stock sale sources. A higher percentage of their assets were concentrated in stocks, business ventures and non-residential real estate than single business owning households. A quite similar picture emerges for 1998. Multiple business owning households were more likely to be in their prime working years (35 to 64), non-minority, male, less well educated and married. A higher percentage of total household income was derived from professional practice, sale of stocks and net rents, trusts and royalties for the multiple business owners than the single business owners.

(place table 5 here)

Table 6.0 compares mean household income for all households and those owning at least one business. Real mean income was significantly higher in 1998 than in 1992, increasing by 16.6 percent from \$45,576 in 1992 to \$53,121 in 1998. Statistically significant differences were found only for households not owning a business, where real mean income increased by 15.6 percent from 1992 to 1998. Even though small business income increased from \$87,775 to \$109,207 and single and multiple business owning household realized substantial increases in real mean income no significant differences were found. The wealth story is very similar. Real mean wealth increased by nearly 34 for the entire sample, however only one group (households not owning a business) realized a statistically significant increase in wealth, where real mean wealth increased by 37.3 percent from \$125,164 to \$171,904. Small businesses realized a substantial, yet not statistically significant, increase in wealth from \$672,501 to \$910,637 (or 35.4 percent).

In 1992 and 1998, multiple business owning households had significantly higher real mean income and wealth than other small business owners.

(place table 6 here)

Aggregate family income increased by nearly 25 percent between 1992 and 1998 (Table 7). The unit of observation is all families belonging to a specific group in each time period. Aggregate income may increase over time either because the group has become larger or group members have earned more income. Families with no business ownership realized higher percentage changes in aggregate income than families with some business ownership (25.7 percent versus 21.8 percent). Household owning multiple businesses realized the largest increase in aggregate income (41.7 percent) of any group. Families with no business also realized higher percentage changes in aggregate wealth than families with some business ownership (49.4 percent versus 36.5 percent). Small business owners fared even worse by realizing increases in wealth of 30.2 percent and 27.5 percent for single and multiple business owners, respectively.

(place table 7 here)

Multiple business owners are a critical part of the economic engine provided by small business owners. In 1992 these multiple business households comprised about 21 percent of all small business owning households, however they earned over 30 percent of total household income and held 47 percent of the wealth of small business owners. In 1998, they still comprised about 20 percent of all small business owning households, however they now earned nearly 37 percent of total household income and held 46 percent of the wealth of small business owning households.

Table 8 examines the determinants of high income and high wealth for households owning a small business in 1992 and 1998. In 1992 high income households are likely to be headed by an individual in their prime working years (35 to 64 years of age) who is male, well-educated and married. The household is more likely to own public stock. Household owning a sole proprietorship were less likely than households owning a regular corporation to be high income. A somewhat different picture emerges for 1998. Household heads most likely to be high income are between 35 and 54 years of age, male, well-educated and owners of public stock. These households are most likely to own larger and older businesses engaged in the service industry. In addition, those starting their own business are less likely to be high income than those who have inherited the business. Most importantly, households owning single and multiple businesses were equally likely to be high income households.

(place table 8 here)

In 1992 high wealth households were typically headed by older individuals with public stock holdings. These high wealth households owned larger and older businesses and they were more likely to own multiple businesses. In 1998, the age effect was no longer evident, however wealthy households were still more likely to hold public stock. Households owning sole proprietorships were less likely to be millionaires than households owning regular corporations. In addition, these wealthy households typically owned larger and older businesses and they were more likely to own multiple businesses.

Conclusions

This study is primarily concerned with changes in income and wealth of families owning and not owning small businesses from the recession of the early 1990s through 1998. Who were the winners and losers in the early 1990s? This study utilizes cross-section data to assess changes in income and wealth of families owning different types of businesses from 1989 to 1998. While panel data would be preferred, the unit of observation is all families belonging to a specific group in each time period. Clearly, the economic pie increased in size from 1991 through 1997 for most groups of small business owners, however some types of small businesses appeared to have fared better than others.

This study suggests that households owning and managing at least one small business are more likely to be high income earners and high wealth holders than households with no business ownership in 1992 and 1998. Small business owners with more than one business are more likely to be high income earners and high wealth holders than small business owners with only one business. Multiple business owners are more likely to be in their prime working age (35 – 64 years of age), male and married. These multiple business owners have a larger share of their total household income from non-taxable investments, interest income and net rent/trusts/royalties than single business owners. And, multiple business owners have a larger share of their assets invested in business ventures than single business owners.

The number of households owning businesses and the total number of businesses was relatively static from 1992 to 1998. While households with multiple businesses had

significantly higher real mean income and wealth than households with a single business, neither type of business realized a statistically significant increase in either mean income or wealth from 1992 to 1998. The only group realizing a significant increase in both real mean income and wealth was households with no business ownership.

Small business owners realized an increase of 18.5 percent in aggregate income and an increase of 28.9 percent in aggregate wealth between 1992 and 1998. Households owning a small business comprise about 13 percent of all households, however these households earned over 24 percent of total household income and held over 38 percent of household wealth in 1998. Households owning more than one small business comprise about 20 percent of all households owning a small business, and these households have consistently earned over 30 percent of the total household income of small business owners and hold over 45 percent of the total household wealth of small business owners. Multiple business owners realized the most substantial gains in aggregate income (41.7 percent), however their gains in aggregate wealth (27.5 percent) were very similar to the aggregate wealth gains realized by single business owners. Even though aggregate wealth gains were very similar for the two types of business owning households, the multivariate analysis still suggests that multiple business owners are significantly more likely to be classified as high income and high wealth.

Interestingly, the only significant growth in real mean income and wealth occurred in households with no business ownership. In addition, the largest percentage growth in aggregate income and wealth was realized by households with no business ownership. This evidence suggests that other investments, such as investments in public stock, produced a higher rate of return from 1992 to 1998 than investments in business

ventures. The period of rapid economic expansion may have been a difficult time to start and nurture a new business and grow an existing small business venture for several reasons:

- (1) Labor costs increased. The unemployment rate fell nearly 7 percent in 1990 to less than 5.0 percent in 1997, hence labor supplies tightened; and average earnings increased by nearly 3.7 percent annually (Statistical Abstract, 2000). In this type of labor market, small business owners were facing higher wages. In addition, small business owners may face substantial challenges finding and retaining high quality employees.
- (2) The opportunity cost of capital increased. While financial capital became less expensive to borrow over this period of time with the prime rate declining from just over 10 percent in 1990 to 8.8 percent in 1997, the value of the stock market (S&P 500) was increasing over 16 percent annually (Statistical Abstract, 2000). Investors, particularly family and friends who may have been willing to invest in a small business venture, had less risky alternatives for their excess cash. In this type of financial market, small business owners may have been facing higher costs of financing and restricted access, especially for start-up financing.
- (3) Other employment opportunities increased the opportunity cost of prospective owners. If higher inflation adjusted net income and wealth are the only important criterion considered by the business owner, many of the families members owning a business may have been better off working for someone else. In a market with relatively low unemployment in a

growing economy, the opportunity cost of risking one's family's financial resources in a small business venture increases substantially.

The competitive challenges of owning and managing a business are only compounded by higher labor costs and lower quality labor available in the market, less access to financial capital from family and friends and the lure of reasonably good job opportunities working for someone else in a vibrant economy.

Among households owning small businesses, multiple business owners seemed to realize the most substantial financial gains from 1992 to 1998. However, these gains were realized in the growth of mean and aggregate income only. Multiple business owners had about the same probability of being classified as high wealth, the same real mean wealth growth and slightly lower aggregate wealth growth than single business owners. Most importantly, small business owners as a group realized substantial gains in real income and wealth from 1992 to 1998, but they still lost the race. Households without any business ownership realized the only statistically significant gains in mean income and wealth and realized higher rates of growth for both aggregate income (25.7 percent versus 18.5 percent) and aggregate wealth (49.4 percent versus 28.9) than small business owners. The relative modest financial success of households owning at least one small business in relation to households not owning a business in this very prosperous economic time suggests that investments in businesses realized lower financial returns than investments in other assets. Even among the small business owners, it appears that more of the growth in wealth was derived from ownership in publicly traded stocks than from the ownership of the small business. Given these relatively modest gains it should

be no surprise that the number of households owning small businesses has remained quite stable around 12 to 13 million households.

These results should concern small business investors. Small businesses are risky ventures, hence these owners reasonably expect higher returns on their investments in business assets than can be earned in other investments. While the robust financial growth in the early 1990's appeared to increase the size of the economic pie (measured in household wealth), small business owners actually saw their piece of the pie decline from 42 to 38 percent of aggregate household wealth. It is possible that these results are created by a sampling problem. During an economic expansion families that previously wouldn't have been included in the sampling frame because they were relatively poor and couldn't be easily contacted by telephone are included in the more recent sampling frames. These families are less likely to be small business owners, hence the population of families owning small businesses may be underestimated. It is also possible that robust economic times are fiscally challenging for small business owners as human, physical and financial capital become more expensive and other less risky investments yield similar or better returns. If a risk premium isn't earned by small business owners, other non-pecuniary benefits (such as being your own boss and having a passion for your vocation) of small business ownership become more important. Further research utilizing high quality panel data is needed to compare the returns on business and other assets and assess the lack luster performance of small business owning households during this time of robust economic growth.

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Table 1 Mean and Median Income and Net Worth, 1983 to 1998

Thousands of 1998 dollars

Year	Before Tax Income		Net Worth	
	Mean	Median	Mean	Median
1983	44.4	32.3	189.8	54.4
1989	51.7	32.8	236.9	59.7
1992	45.6	30.4	212.7	56.5
1995	47.5	32.7	224.8	60.9
1998	53.1	33.4	282.5	71.6

Sources: Kennickell, A. & Shack-Marquez, J. (1992). Changes in family finances from 1983 to 1989: Evidence from the Survey of Consumer Finances. Federal Reserve Bulletin, Tables 1 and 2; and Kennickell, A.B., Starr-McCluer, M. & Surette, B.J. (2000). Changes in family finances in the U.S.: Evidence from the Survey of Consumer Finances. Federal Reserve Bulletin, Tables 1 and 3.

Table 2 Sample Size for the 1989 through 1998 Surveys of Consumer Finance

Year	Area Probability Sample (number)	Response Rate (%)	List Sample (number)	Response Rate (%)	Total Sample (number)
1998	2,813	70	1,496	35	4,309
1995	2,780	70	1,519	35	4,299
1992	2,456	70	1,450	34	3,906
1989	2,277	70	866	34	3,143

Table 3 Probability of Being a High Income or High Net Worth Household in 1992 and 1998

Characteristics	1992			1998		
	n	High Income ¹ (%)	High Wealth ² (%)	n	High Income (%)	High Wealth (%)
All respondents	3,906	28.5	3.5	4,305	33.8	4.3
No business ownership	2,640	24.3	1.5	3,028	30.2	2.4
Any business ownership	1,266	53.5	15.2	1,277	58.3	17.4
Small business ownership (less than 500 employees)	1,089	53.4	14.4	1,098	57.3	16.1
Owns and manages a single business	628	50.9	9.2	682	54.9	11.3
Owns and manages multiple businesses	461	63.2	35.0	416	66.9	35.7

¹ Households with \$50,000 or more total household income are classified as high income.

² Households with \$1 million or more of net worth are classified as high wealth.

Table 4 Number of Total Households, Business-Owning Households and Businesses, 1992 and 1998

Characteristics	1992			1998		
	Number of Households	Number of Businesses	Businesses per Household	Number of Households	Number of Businesses	Businesses per Household
	(x 1 million)			(x 1 million)		
Total households	95.9	18.3	0.19	102.5	17.7	0.17
No business ownership	82.2	0.0	0.00	89.5	0.0	0.00
Any business ownership	13.7	18.3	1.33	13.1	17.7	1.35
Small business ownership	12.6	16.7	1.32	12.0	16.0	1.33
Owns and manages a single business	10.1	10.1	1.00	9.6	9.6	1.00
Owns and manages multiple businesses	2.6	6.6	2.59	2.4	6.4	2.67

Table 5 Profile of the Characteristics of Multiple and Single Owner/Managers, 1992 and 1998

Family Characteristic	1992		1998	
	Single Business Owners ¹	Multiple Business Owners	Single Business Owners	Multiple Business Owners
<i>Age of household head</i>				
Less than 35	19.7	15.0 *	16.1	8.2 *
35-44	31.6	33.8 *	27.4	35.5 *
45-54	20.9	18.8	29.3	29.6 *
55-64	16.3	21.3 *	15.5	19.2 *
65-74	9.2	7.7	9.3	6.8
75 and over	2.4	3.5	2.4	0.8 *
<i>Race of household head</i>				
White	86.4	84.9	88.3	95.3 *
Black	4.4	6.3	5.4	2.7 *
Hispanic	3.2	3.8	2.7	1.7 *
Other	5.9	5.0 *	3.5	0.3
<i>Gender of household head</i>				
Male	90.2	96.6 *	92.3	94.2 *
Female	9.8	3.4 *	7.7	5.8 *
<i>Education of household head</i>				
No high school diploma	7.9	4.4 *	7.2	6.8 *
High school diploma only	25.7	18.7 *	22.6	22.5 *
Some college	17.5	19.0	21.6	25.9 *
College degree or more	48.9	57.8 *	48.6	44.8 *
<i>Income of household (dollars)</i>				
Less than 10,000	3.8	0.4	3.6	3.6 *
10,000-24,999	17.9	10.2 *	13.6	1.9 *
25,000-49,999	27.3	26.1 *	27.9	27.5 *
50,000-99,999	32.3	23.6 *	34.3	31.6
100,000 or more	18.7	39.6 *	20.6	35.4 *
<i>Net worth of household (dollars)</i>				
Less than 50,000	19.7	3.2 *	17.1	5.8 *
50,000-99,999	13.6	2.4 *	11.8	10.0 *
100,000-249,999	30.3	19.9 *	21.3	21.1 *
250,000-499,999	15.3	19.2 *	21.8	14.1 *
500,000-999,999	11.9	20.4 *	16.7	13.3 *
1,000,000-2,499,999	6.3	21.0	6.8	15.7 *
2,500,000-4,999,999	1.9	8.2	3.2	8.9 *
5,000,000-9,999,999	0.8	4.0 *	0.9	7.9 *
10,000,000 or more	0.2	1.8 *	0.4	3.2 *
<i>Marital status of household head</i>				
Married or living with a partner	76.9	85.3 *	82.6	85.3 *
Previously married	13.7	8.4	10.5	11.1 *
Never married	9.5	6.3 *	6.9	3.6 *
<i>Structure of income (shares of total household income)</i>				
Wages and salaries	62.4	50.6 *	64.9	60.4 *
Professional practice	20.2	28.2 *	20.3	23.7
Non-taxable investments	0.4	0.9 *	0.3	0.8 *
Other interest income	1.8	3.3 *	1.4	2.2 *
Dividends	0.7	2.8 *	0.9	1.0
Sale of stocks/bonds/r. estate	0.5	2.9 *	1.4	2.0
Net rent/trust/royalties	3.7	3.7 *	0.9	3.6 *
Unemployment/workmans compensation	0.5	0.8	2.2	0.0
Child support/alimony	0.5	0.2	1.2	0.2
TANF, food stamps, etc.	0.5	0.0	0.4	0.0
Social security/pensions	7.2	2.9 *	0.5	0.2 *
Other income	1.5	4.0	5.6	6.0
<i>Structure of wealth (shares of total assets)</i>				
Stock mutual funds	0.5	0.5	1.9	1.3 *
Total directly-held mf	1.0	1.1	2.5	2.0
Stocks	3.1	5.8 *	5.9	5.3
Thrift-type plans	2.0	2.6	3.7	2.0 *
Other financial assets	1.4	1.3	2.2	0.7 *
Vehicles	10.6	5.0 *	8.7	5.6 *
Residential real estate	36.8	25.0 *	32.1	29.4
Business	24.9	38.6 *	24.9	36.3 *
Net equity in nonres r estate	3.1	5.9 *	3.2	3.6
Other nonfinancial	1.2	0.8	1.7	1.1
Other assets	15.5	13.5	13.3	12.7
Observations	628	461	682	416

¹ Single owners and angel investors are compared with multiple owners in this table for both years. An asterisk (*) indicates statistical significance at the 0.05 level.

Table 6 Mean Income and Wealth for All Households and Selected Types of Business-Owning Households, 1992 and 1998

Characteristics	1992	1998	Percent Change	1992	1998	Percent Change
	Mean Income	Mean Income		Mean Wealth	Mean Wealth	
	(1998 Dollars)		(%)	(1998 Dollars)		(%)
Total households	45,576	53,121	16.6*	208,480	278,876	33.8
No business ownership	38,077	43,999	15.6*	125,164	171,904	37.3*
Any business ownership	90,682	115,629	27.5	709,659	1,011,924	42.6
Small business ownership	87,775	109,207	24.4	672,501	910,637	35.4
Owns and manages a single business	76,134	86,049	13.0	447,369	609,150	36.2
Owns and manages multiple businesses	133,575	202,345	51.5	1,558,176	2,123,188	36.3

* Significant at the 0.05 level.

Table 7 Shares of Household Population and Aggregate Income and Wealth, 1992 and 1998

Household/Business	Number of Households			Aggregate Income			Aggregate Wealth		
	1992	1998	Percent Change	1992	1998	Percent Change	1992	1998	Percent Change
	(x 1 million)			(x \$1 billion)			(x \$1 billion)		
All households	95.9	102.5	6.9	4,371.5	5,447.5	24.6	19,996.9	28,598.4	43.0
No business ownership	82.2	89.5	8.9	3,131.6	3,937.5	25.7	10,294.1	15,383.7	49.4
Any business ownership	13.7	13.1	-4.4	1,239.9	1,510.0	21.8	9,702.8	13,241.7	36.5
Small business ownership	12.6	12.0	-4.8	1,107.0	1,311.3	18.5	8,481.2	10,934.5	28.9
Owns and manages a single business	10.1	9.6	-5.0	765.6	827.5	8.1	4,498.5	5,857.9	30.2
Owns and manages multiple businesses	2.6	2.4	-7.7	341.4	483.8	41.7	3,982.7	5,076.6	27.5

Table 8 Determinants of High Income and High Wealth for All Currently Employed Small Business Owners

Dependent Variable	High Income				High Wealth			
	1992		1998		1992		1998	
	Parameter		Parameter		Parameter		Parameter	
Characteristics ^{1,2}	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	-3.1087	0.0007	-4.2359	0.0001	-6.0117	0.0001	-5.1994	0.0007
Age, 35 - 44	1.0443	0.0016	1.2974	0.0003	0.7848	0.3018	-0.2158	0.7293
Age, 45 - 54	1.4678	0.0001	0.9750	0.0089	1.7640	0.0197	0.1793	0.7744
Age, 55 - 64	0.5988	0.1650	-0.0341	0.9363	1.7513	0.0257	0.8036	0.2304
Age, 65 - 74	-0.2856	0.5736	0.6415	0.2334	2.9409	0.0005	-0.1502	0.8505
Age, 75 and over	0.3367	0.6854	-1.2558	0.1492	1.5771	0.1843	-0.5243	0.6224
Race, non-minority (white)	-0.3024	0.3805	0.5451	0.1417	0.7445	0.1289	-0.9895	0.1671
Gender, male	1.1230	0.0369	1.0315	0.0343	1.0383	0.2558	0.9188	0.2450
Education, high school diploma	-0.0047	0.9921	0.4790	0.2874	-1.0654	0.1832	0.6245	0.5494
Education, some college	0.4048	0.4290	0.6594	0.1541	0.0804	0.9151	0.3704	0.7288
Education, college degree or more	1.3876	0.0037	1.3126	0.0038	0.3549	0.6116	1.4217	0.1643
Marital status, married	1.1708	0.0003	0.5497	0.0658	0.1168	0.8283	-0.1096	0.8015
Region, Northcentral	-0.0232	0.9472	-0.1024	0.7716	-0.5019	0.3168	-0.5267	0.3171
Region, South	-0.4669	0.1563	0.3015	0.3378	-0.0525	0.9130	0.3073	0.4779
Region, West	-0.2016	0.5506	0.4764	0.1823	0.2231	0.6412	0.5876	0.2097
Public stock ownership	1.2942	0.0001	1.0570	0.0001	1.3649	0.0001	1.4170	0.0001
Employees	0.0166	0.1453	0.0805	0.0095	0.0085	0.0368	0.0117	0.0101
Business age	0.0057	0.6532	0.0319	0.0234	0.0498	0.0039	0.0660	0.0002
Organization, partnership	-0.3726	0.4343	-0.0582	0.8965	-0.2753	0.5969	-0.5730	0.2674
Organization, sole proprietorship	-0.8037	0.0492	-0.5280	0.1877	-0.6946	0.1274	-1.4999	0.0007
Organization, corporation - subchapter s	-0.7315	0.1606	-0.1752	0.7148	0.7188	0.1881	-0.7064	0.1468
Industry, construction, manufacturing	0.2995	0.4987	0.6197	0.1664	0.1623	0.8199	-1.0288	0.1725
Industry, wholesale, retail	-0.6967	0.1074	0.3636	0.4287	-0.1630	0.8132	-0.3338	0.6593
Industry, services and other	0.3125	0.4299	1.3328	0.0021	0.5926	0.3529	0.1528	0.8145
Founding status, bought or invested	0.1439	0.6244	-0.2779	0.3472	-0.5184	0.1976	0.4630	0.2733
Founding status, started	0.0844	0.8889	-1.2968	0.0219	0.2432	0.7254	-0.3597	0.6107
Owns and manages more than one business	-0.3442	0.2563	0.3293	0.2690	1.3175	0.0001	1.6065	0.0001
-2 Log Likelihood		499		521		275		288
Observations		1,089		1,098		1,089		1,098

¹ The left-out dummy variables are age (less than 35), race (minority), gender (female), education (less than high school), marital status (not married), region (Northeast), organization (regular corporation), industry (agriculture), founding status (inherited) and owner-manager/investor families.

² Unclassified legal organizations are included in partnerships and other; unclassified industrial classifications are included in service and other; and unclassified founding status are included with started and other.