

**WEALTH AND INCOME:  
HOW DID SMALL BUSINESSES FARE FROM 1989 TO 1998?**

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## **Abstract**

This study employed the Federal Reserve Board's Survey of Consumer Finances for 1989, 1992, 1995 and 1998 to assess changes in income and wealth by small business owners. This study suggests that small business owners without any financial resources invested in publicly traded stock realized very modest gains in wealth and modest losses in net income; larger small businesses registered the most substantial gains in mean and aggregate net family income and wealth; and the self-employed (0 to 1 employees) realized very substantial gains in wealth, but much less modest gains in net income.

## **Wealth and Income: How Did Small Businesses Fare from 1989 to 1998?**

### **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 peace time expansion in the U.S. economy. The Dow Jones Industrial Average has increased from 3,250 to over 10,000 points, unemployment rates have declined from 6.9 to less than 5 percent and consumer confidence has 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 is increasing 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 operate businesses versus those that worked for other and the unemployed. This study examines changes in the distributions of income and wealth for four primary types of businesses: self-employed; small business owner-manager; angel investor; and small business owner-manager and angel investor (called other angel capitalists). Using the owner/investor/manager distinction of the business owner and Surveys of Consumer Finance from 1989 to 1998, this study assesses changes in the income earned and wealth accumulated by different types of small businesses from 1989 to 1998. This study addresses three questions:

- (1) Have families with small business owners living in the household increased their incomes by more than families without small business owners living in the household;
- (2) Have families with small business owners living in the household increased their wealth by more than families without small business owners living in the household; and
- (3) Who are those small business owning families that have prospered and declined in the 1990s (*who are the winners and losers*)?

## **Literature Review**

The financial situation of U.S. families changed substantially between 1989 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.

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

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.

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 1989 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 1989 to 1998.

## Conceptual Model

The number of businesses, mostly of them are small businesses, has grown significantly during the past twenty years. It is especially true for minority and women-owned businesses. The surge in entrepreneurial spirit in the US is not mistakable, according business press and many organizations championing entrepreneurship and entrepreneurial spirits. Is there a corresponding rise the number or business owners or the percentage of US population entering entrepreneurship as their career? How have they accomplished in achieving greater income and wealth through this venture? This is primarily an empirical study that examines the changing economic status of families who do and do not own a small business in the U.S. from 1989 through 1998. Three major hypotheses are explored:

- (1) Families owning small businesses have increased real **mean income and wealth** from 1992 through 1998 more than families not owning small businesses;
- (2) Families owning small businesses have increased their **share of aggregate income and wealth** from 1992 through 1998 more than families not owning small businesses; and,
- (3) Families owning a small business are more likely to be classified as high income and wealth than families not owning a small business.

## Empirical Considerations

### *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).

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

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. Business owners are separated into four categories: self-employed, who are business owner/managers with one or fewer employees; small business managers, who are business owner/managers with more than one employee; angel investors, who are business owners with no active management responsibilities in any business; and other angel investors, who are primarily business owners with other investments where they provide some management support.

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.

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 (1989 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:

$$HI = \alpha_0 + \alpha_1age + \alpha_2race + \alpha_3gender + \alpha_4ed + \alpha_5ms + \alpha_6cen + \alpha_7bus + \varepsilon$$

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 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); and

bus = business owner/manager (1 = yes, 0 = no).

The wealth model, which uses the same independent variables as those employed in the

income model, is represented as follows:

$$HW = \alpha_0 + \alpha_1 \text{age} + \alpha_2 \text{race} + \alpha_3 \text{gender} + \alpha_4 \text{ed} + \alpha_5 \text{ms} + \alpha_6 \text{cen} + \alpha_7 \text{bus} + \varepsilon$$

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

These regression models are employed for each of the years (1989, 1992, 1995 and 1998). The model specification is identical for each year, except in 1989 when census region information was not available. 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, 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 nine years of this study (1989 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 1998, a typical business owning family has over a 58 percent chance of being classified as high income and over an 18 percent chance of being classified as high wealth. If the business owning family also holds publicly traded stock, they have a 73 percent chance of being classified as high income and a 35 percent chance of being a millionaire. Since 1989, business owning families have been nearly twice as likely to be high income as non-business owning families. In addition, business owning families who hold stock are about twice as likely as business owning families not holding stock to be high income.

The wealth picture is even more dramatic. Business owning families are over seven times more likely to be millionaires than non-business owning families and business owning families who hold stock about four times more likely to be millionaires than those who do not hold stock. Business owning families who hold stock are those most likely to be classified as high income and high wealth families. In general, families owning larger and older businesses are more likely to be classified as high income and high wealth than other families.

### *Mean and Median Income*

The seemingly robust economy of the 1990s has produced a higher percentage of high income (31.0 percent in 1989 to 33.8 percent in 1998) families, but a smaller percentage of high wealth (4.3 percent in 1989 to 3.9 percent in 1998) families since 1989. However, variations in income and wealth are often large. Table 4.0 compares mean family incomes by selected personal, demographic and business characteristics from 1992 through 1998. 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). When comparing real mean family income from 1992 through 1998, no statistically significant differences are found

Table 3.0 Probability of Being a High Income (>\$50,000) or High Net Worth (>\$1 million) Family

**High Income/Business and Non-Business Owning Families**

	1989			1992			1995			1998		
	Business	No Business	All	Business	No Business	All	Business	No Business	All	Business	No Business	All
Owned Stocks												
Yes	83.9	57.1	63.4	76.5	54.0	59.6	76.5	50.5	56.0	73.2	57.2	60.6
No	41.2	20.7	22.9	39.7	17.5	20.0	38.5	19.1	21.1	45.3	21.1	23.4
All	56.4	27.1	31.0	53.5	24.3	28.5	52.3	25.4	28.8	58.2	30.2	33.8

**High Net Worth/Business and Non-Business Owning Families**

	1989			1992			1995			1998		
	Business	No Business	All	Business	No Business	All	Business	No Business	All	Business	No Business	All
Owned Stocks												
Yes	30.1	7.6	12.4	27.5	5.6	10.3	29.2	6.1	11.9	35.6	6.7	13.5
No	6.4	0.7	1.2	7.3	0.4	1.2	6.8	0.4	1.2	9.7	0.5	1.5
All	17.4	2.4	4.3	14.7	1.5	3.2	15.2	1.5	3.5	18.9	1.6	3.9

for any group except small businesses with 25 or more employees. A further breakdown of this group into stock holding and non-stock holding family businesses, suggests that no statistical differences exist in mean family income.

Table 4.0 summarizes changes in mean real income for families owning and not owning businesses. While mean household income appeared to increase by over 16 percent from 1992 through 1998, business owning families appeared to realize a higher percentage change in income than other (non-business owning) families (27.5 percent versus 15.6 percent). On average, business investors (angel capitalists) and those owning and investing in businesses (other angels) realized the highest increases in income. Business owning families that also held publicly traded stock did much better than those with no stock holdings (26.2 percent increase versus 0.4 percent decline). Families owning multiple businesses had substantially higher mean household income in 1992 and 1998 than other households. In addition, these families realized nearly a 50 percent increase in real net income, over three times higher than the average increase in mean household income for the sample, from 1992 to 1998. Larger, older, corporate, service and inherited small businesses seemed to realize higher percentage changes in income than other small businesses.

### *Mean and Median Wealth*

Table 5.0 summarizes the changes in mean household wealth from 1992 through 1998. These changes in wealth were consistent with changes in income. Inflation adjusted mean household wealth increased by nearly 34 percent. Families owning businesses realized higher percentage increases in wealth than families not owning a business (42.6 percent versus 37.3). In 1998, non-business owning families held just over 61 percent of the average wealth of all families. Business owning families held over 3.5 times the average wealth of all families. Business owning stockholders realized substantially larger gains than business owning families without any stock holdings (39.4 percent increase versus 0.1 percent decline). Families owning multiple businesses held nearly seven times the average wealth for all families (and two times the average wealth for all business owning families) in both time periods and they realized over a 40 percent increase in real mean household net worth between 1992 and 1998. Larger, corporate, service industry and owner started small businesses appear to have realized larger percentage increases in wealth than other small businesses.

### *Shares of Income*

Aggregate family income increased by about 25 percent between 1992 and 1998 (Table 6.0). 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). Business investors (angel capitalists and other angels) realized much larger percentage increases in aggregate income than other business owners. Business owners with stock holdings realized substantially higher increases in aggregate income than business owners without stock holdings (49.7 percent increase versus 18.6 percent decline). Families owning multiple businesses held about 10

Table 4.0 Summary of Changes in Mean Household Income by Selected Characteristics

## Mean Household Income in 1998 dollars

Characteristic	Mean Household Income		Percent Change 92-98
	1992	1998	
Mean Income, Total Sample	45,576	53,121	16.6
No Business	38,077	43,999	15.6
All Business	90,682	115,629	27.5
Self-employed	59,611	65,010	9.1
Owner manager	100,693	123,718	22.9
Angel capitalist	100,708	149,248	48.2
Other angel	202,437	423,793	109.3
Stock owners	86,979	96,977	11.5
Non-business owners	68,228	74,324	8.9
Business owners	143,331	180,940	26.2
Non-stock owners	34,313	36,181	5.4
Non-business owners	31,136	33,812	8.6
Business owners	59,152	58,890	-0.4
Multiple business owners	129,162	193,106	49.5
<b>Small Businesses Only</b>			
All Small Businesses	83,613	101,563	21.5
Employees, 0 - 1	59,611	65,010	9.1
Employees, 2 - 4	72,533	81,667	12.6
Employees 5 - 9	97,064	124,636	28.4
Employees 10 - 24	141,774	164,168	15.8
Employees, 25+	211,098	395,981	87.6
Business age, less than 1 year	64,792	66,791	3.1
Business age, 1 - 4	65,536	75,932	15.9
Business age, 5 - 9	85,493	98,359	15.0
Business age 10 - 19	103,510	117,311	13.3
Business age 20+	94,743	140,605	48.4
Legal organization, Partner	109,160	104,450	-4.3
Legal organization, sole proprietor	65,348	69,315	6.1
Legal organization, corporation - sub s	115,910	169,544	46.3
Legal organization, corporation - sub c	116,003	170,237	46.8
Industry, agriculture	58,576	57,364	-2.1
Industry, construction, manufacturing	81,993	79,580	-2.9
Industry, wholesale, retail	63,827	76,789	20.3
Industry, services, other	97,395	129,206	32.7
Industry, unclassified	n.a.	n.a.	n.a.
Founding status, bought, invested	92,367	101,153	9.5
Founding status, started	80,453	100,189	24.5
Founding status, inherited, other	85,890	120,681	40.5

Table 5.0 Summary of Changes in Mean Household Net Worth by Selected Characteristics

Mean Household Net Worth in 1998 dollars

Characteristic	Mean Household Net Worth		
	1992	1998	Percent Change 92-98
Mean Net Worth, Total Sample	208,480	278,876	33.8
No Business	125,164	171,904	37.3
All Business	709,659	1,011,924	42.6
Self-employed	257,118	450,616	75.3
Owner manager	822,627	1,063,989	29.3
Angel capitalist	983,427	1,759,360	78.9
Other angel	2,495,442	4,172,997	67.2
Stock owners	562,985	688,600	22.3
Non-business owners	339,020	409,444	20.8
Business owners	1,236,084	1,723,308	39.4
Non-stock owners	112,045	120,618	7.7
Non-business owners	75,930	92,109	21.3
Business owners	394,393	393,898	-0.1
Multiple business owners	1,443,463	2,079,219	44.0
<b>Small Businesses Only</b>			
All Small Businesses	587,519	832,514	41.7
Employees, 0 - 1	257,118	450,616	75.3
Employees, 2 - 4	471,165	536,061	13.8
Employees 5 - 9	766,370	872,449	13.8
Employees 10 - 24	1,213,774	2,072,016	70.7
Employees, 25+	2,329,978	4,530,685	94.5
Business age, less than 1 year	209,348	279,246	33.4
Business age, 1 - 4	276,936	392,560	41.8
Business age, 5 - 9	492,199	759,451	54.3
Business age 10 - 19	776,103	1,019,765	31.4
Business age 20+	1,163,404	1,657,084	42.4
Legal organization, Partner	793,216	1,010,581	27.4
Legal organization, sole proprietor	361,253	447,735	23.9
Legal organization, corporation - sub s	1,090,984	1,526,547	39.9
Legal organization, corporation - sub c	1,048,290	1,569,909	49.8
Industry, agriculture	533,335	754,240	41.4
Industry, construction, manufacturing	629,624	556,226	-11.7
Industry, wholesale, retail	485,085	644,439	32.9
Industry, services, other	623,236	1,009,741	62.0
Industry, unclassified	n.a.	n.a.	n.a.
Founding status, bought, invested	728,241	936,066	28.5
Founding status, started	505,951	774,222	53.0
Founding status, inherited, other	1,031,610	1,161,723	12.6

percent of aggregate income. These families realized over a 40 percent increase in aggregate income from 1992 to 1998. Families with mid-sized, older, corporate and inherited small businesses engaged in either construction, manufacturing or services realized larger increases in aggregate income than other small businesses.

### *Shares of Wealth*

Table 7.0 summarizes the changes in aggregate wealth for families with and without any business ownership between 1992 and 1998. Once again, the unit of observation is all families belonging to a specific group in each time period. Aggregate wealth may increase over time either because the group has become larger or group members have accumulated more wealth.

In real terms, aggregate wealth increased by over 40 percent from 1992 through 1998 (Table 5.0). Aggregate wealth increased for a broad segment of the population, however families with no business ownership realized larger gains than families owning a business (49.4 percent versus 36.2 percent). The remarkable rise in the value of the stock market allowed stockholders to enjoy a 70 percent increase in aggregate wealth, while non-stockholders realized gains of just over 5 percent. Business owners with stock holdings realized substantially larger increases in aggregate wealth than business owners without stock holdings (65.3 percent increase versus 18.4 percent decline).

Families owning multiple businesses held about 25 percent of all wealth and about 50 percent of all wealth held by business owners in 1992 and 1998. These families realized nearly a 39 percent increase in the aggregate value of wealth from 1992 to 1998.

In general, families with no business ownership realized larger percentage gains in wealth than families owning a business. While aggregate wealth increased for families with small businesses, the share of aggregate wealth actually declined for these families. The most substantial gains in the share of aggregate wealth among small business owning families were made by self-employed businesses, those with 10 – 19 years of experience, corporations, those engaged in the service industry and businesses started by the owner.

### *Determinants of High Income and High Wealth*

The determinants of high income and high wealth are assessed for families from 1989 through 1998 in Tables 8.1 and 8.2. Most importantly, this analysis assesses whether families owning a small business are more likely to be classified as high income or high wealth than families not owning a business. Logistic regressions are employed to assess the impact of personal and demographic characteristics on the income and wealth held by the family.

Tables 6.1 and 6.2 examine the determinants of high income and high wealth for families owning and not owning a small business. Families owning a small business are consistently more likely to be classified as high income than families not owning a small business, *ceteris paribus* (Table 8.1). In addition, families with older, non-minority and well-educated household heads were more likely to be high income families than other families.

Table 8.2 examines the determinants of high wealth families owning and not owning a small business. These results are very similar to the high income regression

analysis. Families owning a small business are consistently more likely to be classified as high wealth than families not owning a small business. Families with older, non-minority and well-educated household heads were more likely to be high wealth families than other families. These results are consistent across years for both high income and high wealth.

The logistic regression analysis confirms previous results derived from assessing mean income and wealth. Most importantly, families owning small businesses are more likely to be classified as high income and high wealth families than other families. The next section discusses the conclusions and implications derived from these results.

## **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 fared better than others.

- (1) Small business owners without any financial resources invested in publicly traded stock realized very modest gains in wealth and modest losses in net income. Larger small businesses registered the most substantial gains in mean and aggregate net family income and wealth. In addition, the self-employed (0 to 1 employees) realized very substantial gains in wealth, but much less modest gains in net income.
- (2) The picture was somewhat more mixed with respect to business age. Older businesses seemed to realize more substantial gains than younger businesses.
- (3) Small businesses with more complex legal organizations, such as corporations, were more likely to realize substantial gains than other types of legal organizations. Sole proprietors, the dominant form of ownership, realized smaller gains than any other type of legal organization.
- (4) Small businesses engaged in the service industry realized the most substantial gains in both net income and wealth.
- (5) Small businesses inherited by the current owner realized the largest gains in net income and very modest gains in wealth, while small businesses started by the owner realized the largest gains in wealth.

Small businesses that are larger, older and organized as corporations appear to have fared better in the early 1990s than other small businesses. These well established small businesses had the financial resources to invest in their business and the stock market to realize substantial gains in both net income and wealth. Other small businesses realized much more modest gains. While small business ownership is risky, small business owners had a significantly higher probability of being classified as high income and high wealth. Small business owners were somewhat more likely to be classified as

high income (52.2 percent in 1992 versus 56.7 percent in 1998) and high wealth (12.5 percent in 1992 and 14.8 percent in 1998) in 1998 than in 1992. Business investors (angel capitalists and other angels) had a substantially higher probability of being

Table 6.0 Summary of Changes in Aggregate Income by Selected Characteristics

Aggregate Income in billions of 1998 dollars

Characteristic	Aggregate Income				Percent Change 92-98
	1992	%	1998	%	
Total Aggregate	4,371.5	100.0	5,447.5	100.0	24.6
No Business	3,131.6	71.6	3,937.5	72.3	25.7
All Business	1,239.9	28.4	1,510.0	27.7	21.8
Self-employed	298.1	6.8	285.2	5.2	-4.3
Owner manager	710.5	16.3	895.5	16.4	26.0
Angel capitalist	76.7	1.8	151.3	2.8	97.3
Other angel	70.9	1.6	178.0	3.3	151.1
Stock owners	1,784.1	40.8	2,771.0	50.9	55.3
Non-business owners	1,050.1	24.0	1,672.5	30.7	59.3
Business owners	734.0	16.8	1,098.5	20.2	49.7
Non-stock owners	2,587.4	59.2	2,676.5	49.1	3.4
Non-business owners	2,081.5	47.6	2,265.0	41.6	8.8
Business owners	505.8	11.6	411.5	7.6	-18.6
Multiple business owners	459.0	10.5	661.0	12.1	43.9
<b>Small Businesses Only</b>					
All Small Businesses	1,005.6	23.0	1,180.7	21.7	17.4
Employees, 0 - 1	298.1	6.8	285.2	5.2	-4.3
Employees, 2 - 4	300.7	6.9	364.3	6.7	21.2
Employees 5 - 9	126.8	2.9	198.4	3.6	56.5
Employees 10 - 24	107.0	2.4	96.6	1.8	-9.7
Employees, 25+	173.0	4.0	236.1	4.3	36.5
Business age, less than 1 year	63.1	1.4	36.2	0.7	-42.6
Business age, 1 - 4	225.3	5.2	281.3	5.2	24.9
Business age, 5 - 9	248.4	5.7	233.7	4.3	-5.9
Business age 10 - 19	267.0	6.1	372.0	6.8	39.3
Business age 20+	201.8	4.6	257.4	4.7	27.6
Legal organization, Partner	209.4	4.8	217.8	4.0	4.0
Legal organization, sole proprietor	485.4	11.1	453.4	8.3	-6.6
Legal organization, corporation - sub s	139.6	3.2	258.6	4.7	85.2
Legal organization, corporation - sub c	171.2	3.9	250.8	4.6	46.5
Industry, agriculture	85.6	2.0	68.5	1.3	-20.0
Industry, construction, manufacturing	176.8	4.0	227.7	4.2	28.8
Industry, wholesale, retail	144.1	3.3	146.3	2.7	1.5
Industry, services, other	599.0	13.7	731.7	13.4	22.2
Industry, unclassified	n.a.	n.a.	n.a.	n.a.	n.a.
Founding status, bought, invested	267.7	6.1	264.5	4.9	-1.2
Founding status, started	682.9	15.6	836.9	15.4	22.6
Founding status, inherited, other	55.0	1.3	79.2	1.5	44.0

Table 7.0 Summary of Changes in Aggregate Net Worth by Selected Characteristics

Aggregate Net Worth in billions of 1998 dollars

Characteristic	Aggregate Net Worth				Percent Change 92-98
	1992	%	1998	%	
Total Aggregate	19,997	100.0	28,598	100.0	43.0
No Business	10,294	51.5	15,384	53.8	49.4
All Business	9,703	48.5	13,215	46.2	36.2
Self-employed	1,286	6.4	1,977	6.9	53.7
Owner manager	5,780	28.9	7,701	26.9	33.2
Angel capitalist	956	4.8	1,784	6.2	86.6
Other angel	1,681	8.4	1,753	6.1	4.3
Stock owners	11,548	57.7	19,676	68.8	70.4
Non-business owners	5,218	26.1	9,213	32.2	76.6
Business owners	6,330	31.7	10,462	36.6	65.3
Non-stock owners	8,449	42.3	8,923	31.2	5.6
Non-business owners	5,076	25.4	6,170	21.6	21.6
Business owners	3,373	16.9	2,753	9.6	-18.4
Multiple business owners	5,131	25.7	7,112	24.9	38.6
<b>Small Businesses Only</b>					
All Small Businesses	7,066	35.3	9,678	33.8	37.0
Employees, 0 - 1	1,286	6.4	1,977	6.9	53.7
Employees, 2 - 4	1,954	9.8	2,391	8.4	22.4
Employees 5 - 9	1,001	5.0	1,389	4.9	38.8
Employees 10 - 24	916	4.6	1,219	4.3	33.1
Employees, 25+	1,910	9.6	2,701	9.4	41.4
Business age, less than 1 year	204	1.0	151	0.5	-26.0
Business age, 1 - 4	952	4.8	1,454	5.1	52.7
Business age, 5 - 9	1,430	7.2	1,804	6.3	26.2
Business age 10 - 19	2,002	10.0	3,234	11.3	61.5
Business age 20+	2,478	12.4	3,034	10.6	22.4
Legal organization, Partner	1,521	7.6	2,108	7.4	38.6
Legal organization, sole proprietor	2,684	13.4	2,928	10.2	9.1
Legal organization, corporation - sub s	1,314	6.6	2,329	8.1	77.2
Legal organization, corporation - sub c	1,547	7.7	2,313	8.1	49.5
Industry, agriculture	779	3.9	901	3.2	15.7
Industry, construction, manufacturing	1,358	6.8	1,591	5.6	17.2
Industry, wholesale, retail	1,095	5.5	1,228	4.3	12.1
Industry, services, other	3,833	19.2	5,718	20.0	49.2
Industry, unclassified	n.a.	n.a.	n.a.	n.a.	n.a.
Founding status, bought, invested	2,111	10.6	2,448	8.6	16.0
Founding status, started	4,294	21.5	6,467	22.6	50.6
Founding status, inherited, other	661	3.3	763	2.7	15.4

Table 8.1 Determinants of High Income for All Respondents (focusing on families owning small businesses)

Logistic Regression

Characteristic of Household Head <sup>1</sup>	1989			1992			1995			1998		
	Parameter	Standard		Parameter	Standard		Parameter	Standard		Parameter	Standard	
	Estimate <sup>2</sup>	Error	p-value	Estimate	Error	p-value	Estimate	Error	p-value	Estimate	Error	p-value
Intercept	-4.7533	0.2248	<b>0.0001</b>	-5.0056	0.2527	<b>0.0001</b>	-5.3591	0.2447	<b>0.0001</b>	-5.3647	0.2381	<b>0.0001</b>
Age, 35 - 44	0.9539	0.1301	<b>0.0001</b>	0.8789	0.1222	<b>0.0001</b>	0.8839	0.1147	<b>0.0001</b>	1.0601	0.1153	<b>0.0001</b>
Age, 45 - 54	1.3189	0.1436	<b>0.0001</b>	1.4558	0.1328	<b>0.0001</b>	0.9204	0.1220	<b>0.0001</b>	1.3892	0.1226	<b>0.0001</b>
Age, 55 - 64	0.7204	0.1550	<b>0.0001</b>	0.8060	0.1463	<b>0.0001</b>	0.9728	0.1394	<b>0.0001</b>	0.8412	0.1386	<b>0.0001</b>
Age, 65 - 74	0.0439	0.1789	0.8059	0.1626	0.1725	0.3459	0.0051	0.1611	0.9749	0.2218	0.1530	0.1472
Age, 75 and over	-0.2570	0.2490	0.3019	-0.0202	0.2129	0.9245	-0.3480	0.1982	0.0791	-0.1767	0.1938	0.3618
Race, non-minority (white)	0.5693	0.1252	<b>0.0001</b>	0.5238	0.1183	<b>0.0001</b>	0.5943	0.1115	<b>0.0001</b>	0.7328	0.1086	<b>0.0001</b>
Gender, male	0.3181	0.1945	0.1020	0.5704	0.1775	<b>0.0013</b>	0.9353	0.1696	<b>0.0001</b>	0.6483	0.1479	<b>0.0001</b>
Education, high school diploma	0.9924	0.1551	<b>0.0001</b>	1.1352	0.1803	<b>0.0001</b>	1.0441	0.1576	<b>0.0001</b>	1.3306	0.1690	<b>0.0001</b>
Education, some college	1.5488	0.1736	<b>0.0001</b>	1.8149	0.1885	<b>0.0001</b>	1.5684	0.1684	<b>0.0001</b>	1.8805	0.1777	<b>0.0001</b>
Education, college degree or more	2.4605	0.1574	<b>0.0001</b>	2.6607	0.1760	<b>0.0001</b>	2.4338	0.1569	<b>0.0001</b>	2.7610	0.1684	<b>0.0001</b>
Marital status, married	1.8207	0.1589	<b>0.0001</b>	1.6094	0.1379	<b>0.0001</b>	1.6430	0.1306	<b>0.0001</b>	1.6767	0.1205	<b>0.0001</b>
Region, Northcentral				-0.2911	0.1263	<b>0.0212</b>	-0.0931	0.1216	0.4440	-0.2607	0.1206	<b>0.0306</b>
Region, South				-0.5859	0.1211	<b>0.0001</b>	-0.0710	0.1135	0.5318	-0.1016	0.1119	0.3639
Region, West				-0.2946	0.1329	<b>0.0266</b>	-0.0188	0.1246	0.8804	-0.0932	0.1240	0.4526
<b>Small business owner/manager</b>	0.4870	0.1392	<b>0.0005</b>	0.4961	0.1177	<b>0.0001</b>	0.4201	0.1149	<b>0.0003</b>	0.2386	0.1156	<b>0.0390</b>
-2 Log Likelihood			2,780			3,292			3,765			3,903
Observations			3,143			3,906			4,299			4,305

<sup>1</sup> 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) and non-business owning families.

<sup>2</sup> The sign (+/-) on the parameter estimate is employed to determine the influence of each characteristic on being classified as high income; standard error is the statistical error surrounding the estimate; and p-value determines if a characteristic causes a statistically significant change in high income status. Significant differences at the 0.05 level or below level are indicated in bold type.

Table 8.2 Determinants of High Wealth for All Respondents (focusing on families owning small businesses)

Logistic Regression

Characteristic of Household Head <sup>1</sup>	1989			1992			1995			1998		
	Parameter	Standard Error	p-value	Parameter	Standard Error	p-value	Parameter	Standard Error	p-value	Parameter	Standard Error	p-value
Intercept	-9.3890	0.7626	<b>0.0001</b>	-8.5787	0.7541	<b>0.0001</b>	-10.0011	0.8629	<b>0.0001</b>	-8.9349	0.7806	<b>0.0001</b>
Age, 35 - 44	0.1708	0.4931	0.7290	1.2118	0.5418	<b>0.0253</b>	1.1398	0.5887	0.0529	0.9294	0.4011	<b>0.0205</b>
Age, 45 - 54	2.0934	0.4457	<b>0.0001</b>	2.2486	0.5217	<b>0.0001</b>	2.3939	0.5528	<b>0.0001</b>	1.4725	0.3842	<b>0.0001</b>
Age, 55 - 64	2.4871	0.4516	<b>0.0001</b>	2.8732	0.5209	<b>0.0001</b>	3.3198	0.5597	<b>0.0001</b>	2.4873	0.3831	<b>0.0001</b>
Age, 65 - 74	3.0031	0.4621	<b>0.0001</b>	3.2472	0.5363	<b>0.0001</b>	3.5055	0.5673	<b>0.0001</b>	2.4921	0.3960	<b>0.0001</b>
Age, 75 and over	3.2155	0.5085	<b>0.0001</b>	3.1438	0.5699	<b>0.0001</b>	3.1557	0.5964	<b>0.0001</b>	2.3629	0.4467	<b>0.0001</b>
Race, non-minority (white)	1.1676	0.4456	<b>0.0088</b>	0.1033	0.2902	0.7218	0.6336	0.3576	0.0764	0.6647	0.2956	<b>0.0245</b>
Gender, male	1.0925	0.4816	<b>0.0233</b>	0.5719	0.4374	0.1911	1.1426	0.4169	<b>0.0061</b>	0.9640	0.3362	<b>0.0041</b>
Education, high school diploma	0.4041	0.4343	0.3522	0.4893	0.5074	0.3349	0.7675	0.5611	0.1714	1.1068	0.6400	0.0837
Education, some college	1.3926	0.4360	<b>0.0014</b>	1.4542	0.4898	<b>0.0030</b>	2.0902	0.5384	<b>0.0001</b>	2.3061	0.6234	<b>0.0002</b>
Education, college degree or more	2.5040	0.3701	<b>0.0001</b>	2.5417	0.4386	<b>0.0001</b>	2.9016	0.5038	<b>0.0001</b>	3.1596	0.6007	<b>0.0001</b>
Marital status, married	0.6381	0.3527	0.0704	0.7104	0.3359	<b>0.0344</b>	0.3247	0.2986	0.2770	0.2671	0.2543	0.2937
Region, Northcentral				-0.2601	0.2920	0.3731	-0.1316	0.2909	0.6510	-0.2258	0.2565	0.3786
Region, South				-0.2583	0.2741	0.3459	-0.1120	0.2637	0.6711	-0.1455	0.2320	0.5304
Region, West				0.2520	0.2669	0.3451	0.0631	0.2778	0.8204	0.4006	0.2346	0.0877
<b>Small business owner/manager</b>	2.0625	0.2336	<b>0.0001</b>	1.5568	0.2013	<b>0.0001</b>	1.9230	0.2031	<b>0.0001</b>	1.2922	0.1762	<b>0.0001</b>
-2 Log Likelihood			719			867			858			1,167
Observations			3,143			3,906			4,299			4,305

<sup>1</sup> 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) and non-business owning families.

<sup>2</sup> The sign (+/-) on the parameter estimate is employed to determine the influence of each characteristic on being classified as high wealth; standard error is the statistical error surrounding the estimate; and p-value determines if a characteristic causes a statistically significant change in high wealth status. Significant differences at the 0.05 level or below level are indicated in bold type.

classified as high income and high wealth families than traditional small business owners (self-employed and owner/managers).

Adequate financial capital is always crucial to success of small businesses. The rapid growth in the general economy, reflected in the increase in the value of publicly traded stock, enabled well-established small businesses to prosper. Small businesses with fewer financial resources that were less well-established realized much more modest gains and less than the gains realized by non-business owning families. However, small business owners as a group realized only modest gains in aggregate net income and wealth because the number of small business owning families (not the number of small businesses), as defined in this study, was quite stable at around 12 to 13 million families.

This estimate of the number of families should be used with caution because it could be represent a sampling problem in the SCF. 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.

This period of economic expansion appeared to be a less prosperous time for the smaller, younger, less well established small businesses. The period of economic expansion may have been a difficult time to start and nurture a 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 less well-established 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 ones family's financial resources in a small business venture increases substantially.

The competitive challenges of starting and nurturing a fledgling 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. The lack of success of the younger, less well established businesses in relation to older, more well-established business (and non-business owning families) in this very prosperous economic time suggests that there is an even more important role for agencies designed to assist fledgling small business start-ups.

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