
# WOMEN-OWNED BUSINESSES IN THE 21st CENTURY

Prepared by the
U.S. Department of Commerce
Economics and Statistics Administration

for the
White House Council on Women and Girls

October 2010

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Under Secretary for Economic Affairs
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# WOMEN-OWNED BUSINESSES IN THE 21st CENTURY

## EXECUTIVE SUMMARY

This report documents the changes in women-owned businesses over time, explores disparities in the characteristics of businesses owned by women as compared to those owned by men, and discusses potential reasons for these disparities and the different outcomes that are associated with them. The focus is on proprietorships, partnerships, or any type of privately-held corporation with one or more owners. Publicly-held companies are not included. Highlights include:

- Women-owned businesses contribute significantly to the U.S. economy. In 2007, 7.8 million firms were owned by women, accounting for almost 30% of all non-farm, privately-held U.S. firms. Women-owned firms had sales/receipts of $1.2 trillion and those with paid employees had 7.6 million workers.
- The number of women-owned businesses has grown over time. Between 1997 and 2007, the number of women-owned businesses grew by 44%, twice as fast as men-owned firms, and they added roughly 500,000 jobs while other privately-held firms lost jobs. In part, this is because women-owned firms were more likely to be located in industry sectors that experienced employment growth, such as health care and education services.
- Between the years 1997 and 2002, the number of businesses owned by minority women increased faster than those owned by non-minority women, with minority women-owned firms accounting for more than half of the increase in women-owned businesses.
- Women-owned businesses are typically smaller than men-owned businesses. Although women own 30% of privately-held businesses, these businesses account for only 11% of sales and 13% of employment among privately-held companies. Average sales/receipts for women-owned businesses are only 25% of average sales/receipts for men-owned businesses. Women-owned businesses are concentrated in industry sectors where firms are typically smaller.
- There are substantial differences in the financing utilized by women-owned versus men-owned businesses. Women start with less capital than men and are less likely to take on additional debt to expand their businesses. They are more likely than men to indicate that they do not need any financing to start their business. It is difficult to distinguish preferences from constraints in these data. For instance, women may encounter less favorable loan conditions than men or they may be less willing to take on risk by seeking outside capital.
- The characteristics of self-employed women are similar to those of self-employed men. Compared to the non-self-employed, self-employed women and men are older, more likely to be married, and less likely to have children at home. However, women who are self-employed work fewer hours on average in their business than self-employed men.
- The annual earnings ratio between self-employed women and men is 55%, well below the ratio between non-self-employed women and men.

The growth of women-owned businesses, and their performance as job creators at a time when other privately-held businesses were losing jobs, testifies to the importance of women-owned businesses to the economy. These businesses represent a potential source of future economic growth, yet they have a long way to go to achieve parity with men-owned businesses. More consideration should be given to identifying and implementing measures that support women's business ownership, such as increasing the networks, mentoring, and information available to potential women business owners, as well as assuring that start-up capital is available.

# WOMEN-OWNED BUSINESSES IN THE 21st CENTURY

## I. INTRODUCTION

Women-owned businesses make a significant contribution to the U.S. economy and have grown in number and size over the past two decades. Yet, women-owned businesses still have a long way to go to achieve parity with men-owned firms.

This report, prepared by the Economics and Statistics Administration (ESA) of the U.S. Department of Commerce at the request of the White House Council on Women and Girls (www.whitehouse.gov/administration/eop/cwg), analyzes the changing role of women-owned businesses in the U.S. economy. The report explores differences between women-owned and men-owned businesses and investigates how the characteristics, choices and constraints of female business owners relate to these differences.

Throughout this report, a business is defined as a proprietorship, partnership or privately-held corporation with one or more owners. Publicly-held companies are not included in any of the analysis, hence we do not look at women who serve as CEOs or senior managers in publicly-held companies.

The data presented in the report come from three different data sources. The Survey of Business Owners (SBO), conducted by the U.S. Census Bureau, collects data every five years from a sample of businesses as part of the Economic Census of all U.S.-based establishments. The Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) is conducted by the Census Bureau and provides annual data on a scientifically-selected sample of the U.S. population. It has extensive information on the characteristics of workers, including whether they are self-employed. The Kauffman Firm Survey (KFS) is conducted by the Kauffman Foundation and provides annual information about a set of firms that were established in 2004. The report also relies on a host of recent research studies that investigate differences between women-owned and men-owned businesses.[1]

This report does not, itself, attempt to measure the effects of direct or indirect discrimination faced by women in their decision to start a business, their access to capital, or their ongoing business operations. The report does discuss the difficulty in measuring gender discrimination against business owners and reviews some of the literature that investigates whether women-owned businesses appear to face larger barriers than other businesses. The report discusses areas where discrimination may help to explain some of the differences between women-owned and men-owned businesses.[2]

[1] The Appendix to this report presents more detailed information on the SBO, CPS and KFS used in this analysis as well other data sources on women-owned businesses, including the National Survey of Small Business Finance, the Survey of Consumer Finance and the Panel Study of Entrepreneurial Dynamics.

[2] The report does not look at the role of women-owned businesses in the Federal contracting process.

# II. THE STATUS OF WOMEN-OWNED BUSINESSES

The role of women-owned businesses in the U.S. economy has expanded greatly over time. This section provides evidence of the growing economic significance of women-owned businesses relative to men-owned businesses.

## Business Ownership by Gender

We start by looking at trends in business ownership by gender. There are two sources of data for this section. We use the CPS ASEC data to compare trends in self-employment rates over time between women and men. The ASEC also includes additional data on demographic characteristics and income for self-employed workers, which we will look at later in this report. The most recent CPS ASEC data are from 2008. The 2007 SBO provides information on more than 27 million U.S. businesses and can be used to identify the number of businesses owned by women. Unlike the CPS ASEC, which provides information on self-employed individuals and their families, the SBO has detailed information on the businesses they operate. These two surveys provide complementary information on gender and business ownership, and we discuss the trends from each survey in the next two sections.

Since the data used in this analysis do not go beyond 2008, the effect of the recent recession on women-owned businesses is unclear. We do discuss differences in the cyclical nature of some of the industries where men-owned businesses are concentrated, which suggests one reason why women-owned businesses are likely to have outperformed men-owned businesses in recent years.

### Self-Employment Rates

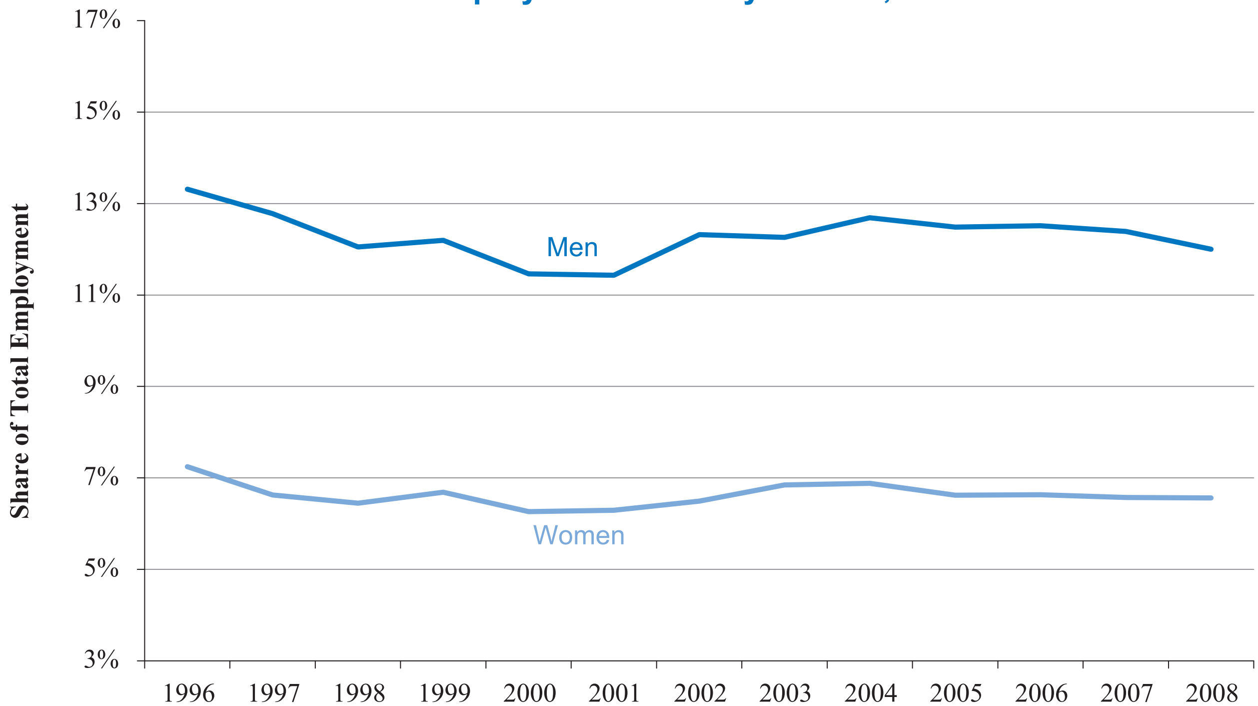
The CPS ASEC can be used to identify trends in self-employment by gender. Those who report themselves as self-employed are typically assumed to be business owners. The self-employment rate is the percent of the employed population who report self-employment as their primary job activity. This can include self-employment in either incorporated or non-incorporated businesses. We show the data for those individuals who reported working at least 15 hours per week in their business and 50 or more weeks in the previous year. This excludes people who are primarily employed elsewhere or are engaged in non-market activities.[3] These self-employed individuals may own their own firm or may jointly own a business with others. Therefore, the number of self-employed *individuals* as reported in the ASEC is not comparable to the number of *businesses* as reported in the SBO.

Estimates of non-farm self-employment rates for men and women are presented in Figure 1. In 2008, 6.6% of all employed women in the labor force were self-employed. This is slightly more than half the self-employment rate for men, which is 12%.

[3] Farmers also are not included in this analysis as the structure of self-employment in agriculture is different. Self-employment rates in agriculture are much higher, at around 45% (Georgellis and Wall, 2000).

As Figure 1 demonstrates, the self-employment *rates* for both men and women have changed only slightly since 2000, but since employment has grown over this period, the *number* of self-employed women has increased. Between 2006 and 2008, the number of self-employed men fell 7.6%, whereas the number of self-employed women declined by only 0.6%.

**Figure 1**
**Share of Self-Employed Workers by Gender, 1996-2008**




*Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 1997-2009.*

## Business Ownership Rates

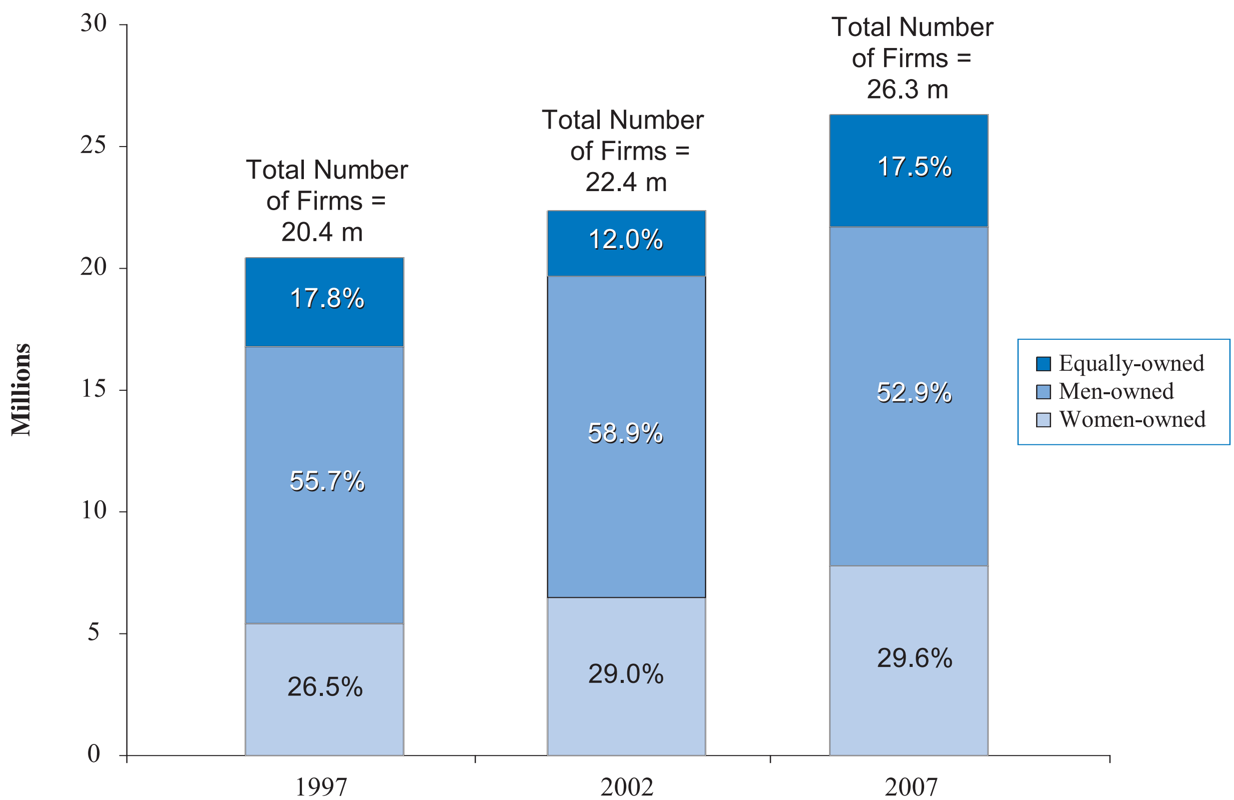
Turning from the self-employed to their businesses, the Survey of Business Owners (SBO) identifies the number of privately-held businesses. The SBO asks about the gender of owners and categorizes each business as women-owned, men-owned, or equally-owned.[4] Firms that are jointly owned by married couples would typically fit into this last category.

As Figure 2 and Table 1 indicate, in 2007 roughly 30% of the total 26.3 million firms were owned by women. Men-owned firms accounted for 52.9% of all businesses, while 17.5% of businesses were equally-owned. The *proportion* of women-owned firms increased only slightly between 1997 and

[4] The SBO designates gender of ownership according to the gender of the individual or individuals owning 51 percent or more of the interest or stock of the business. Equally women- and men-owned firms report 50-percent female ownership and 50-percent male ownership of the interest or stock of the business. Some privately-owned firms in the SBO were not classifiable by gender of ownership and are excluded from all of our calculations. Also excluded from the SBO data are publicly-held corporations, foreign-owned firms, and not-for-profit firms.

2007, from 26.5% to 29.6%. However, the overall number of privately-owned firms has increased, so the *number* of women-owned firms has grown rapidly, as did the number of self-employed women. Between 1997 and 2007, the number of women-owned businesses grew from 5.4 to 7.8 million, an increase of 44%. This is almost twice as fast as the rate for men-owned and equally-owned firms. Between 1997 and 2007, the number of men-owned firms increased by 22%, from 11.4 to 13.9 million, and equally-owned firms increased by 28%, from 3.6 to 4.6 million.

**Figure 2**
**Number of Privately-Owned Businesses by Gender of Owner**
**1997, 2002 and 2007**

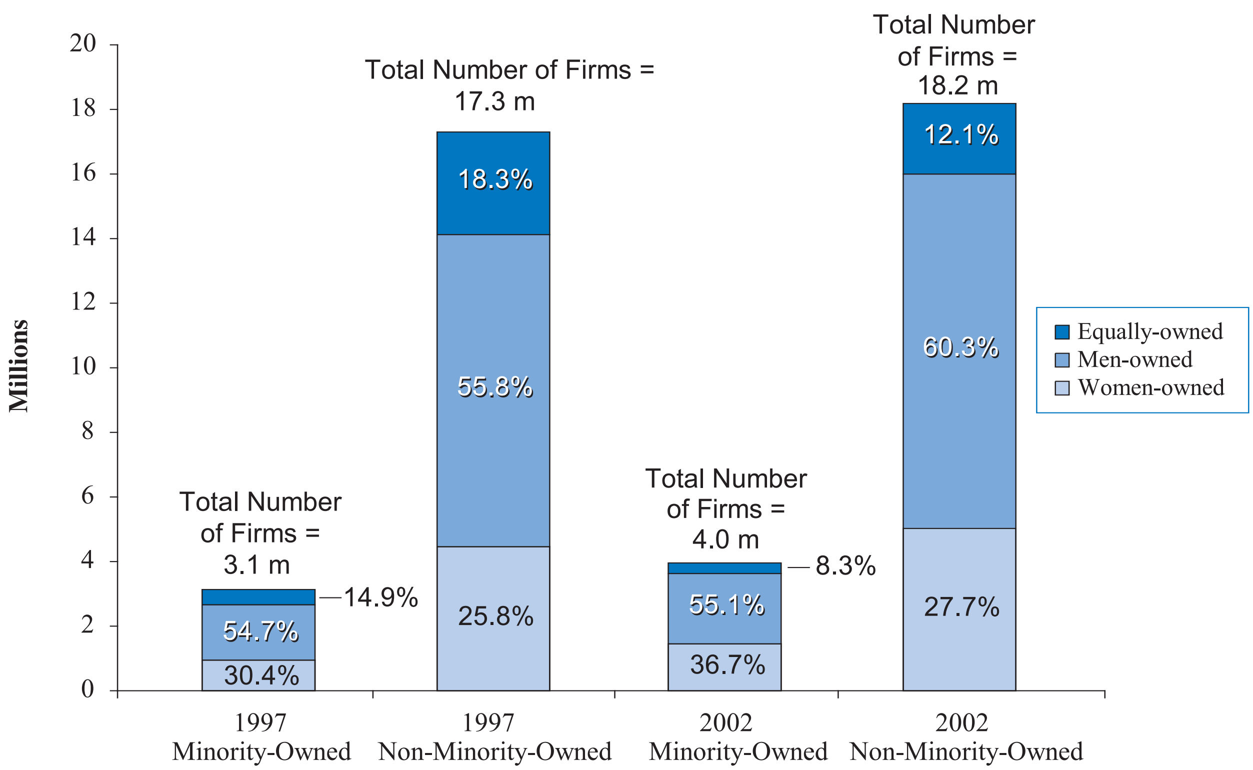



*Sources: U.S. Census Bureau, Survey of Business Owners, 2002 and 2007 and Survey of Women-Owned Business Enterprises, 1997.*

## Racial/Ethnic Composition

There are notable differences in private business ownership among minority and non-minority men and women as shown in Figure 3-A. In general, women-owned businesses constitute a higher share of all businesses in the minority community. In 2002, the latest year for which racial/ethnic data are available, 27.7% of all non-minority businesses were owned by women, while 36.7% of minority businesses were owned by women. The share of women-owned businesses has increased for both minority- and non-minority-owned firms.

**Figure 3-A**
**Number of Privately-Owned Businesses by Ownership Status (Gender and Minority), 1997 and 2002**



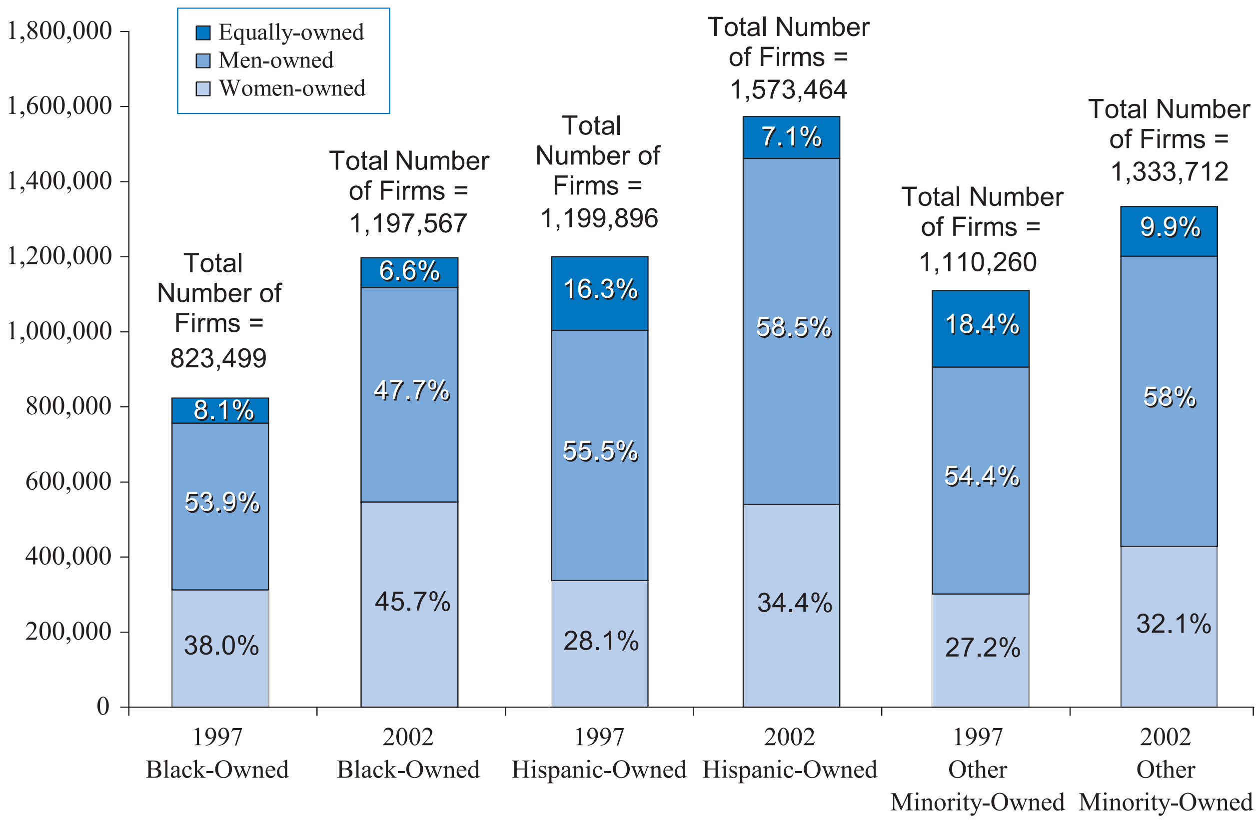

*Sources: U.S. Census Bureau, Survey of Minority-Owned Business Enterprises, 1997 and Survey of Business Owners, 2002 (unpublished data).*

Note: Contains some double counting as Hispanic-owned firms are included in one or more race categories; excludes a small number of equally minority/non-minority owned firms; percentages may not sum to 100% because of rounding.

Figure 3-B looks separately at gender ownership patterns among Black-owned firms, Hispanic-owned firms, and all other minority-owned firms. Ownership by gender was most evenly split among blacks, with 45.7% of all black firms owned by women in 2002. The share of women-owned firms was 34.4% among Hispanic businesses and 32.1% among all other minority-owned firms. Each of these groups had a higher rate of women-owned firms than occurred among non-minority-owned firms.

The growth rates of business ownership also varied across race and ethnicity. Between the years 1997 and 2002, the number of businesses owned by women increased by 20%, resulting in one million more women-owned businesses. The number of minority women-owned businesses increased faster than non-minority women-owned business, with minority women accounting for more than half of the increase in women-owned businesses. Among all minority and ethnic groups, African-American women-owned firms saw the largest gain of more than 234,000 businesses for an increase of nearly 75%.

**Figure 3-B**
**Number of Minority-Owned Businesses by Ownership Status (Gender and Race/Ethnic Group), 1997 and 2002**




*Sources: U.S. Census Bureau, Survey of Minority-Owned Business Enterprises, 1997 and Survey of Business Owners, 2002.*

Note: Contains some double counting as Hispanic-owned firms are included in one or more race categories; excludes a small number of equally minority/non-minority owned firms; percentages may not sum to 100% because of rounding.

## Firm Growth and Business Outcomes

The next few tables and figures compare the characteristics of women-owned and men-owned businesses, and indicate how these characteristics have changed over time. Tables 1, 2, and 3 report historical trends using comparable data from 1982 to 1992, and from 1997 to 2007. The tables contain a dotted line between 1992 and 1997 because there were major changes to the 1997 survey and thus data between these two years should not be directly compared.[5] The Appendix provides more detail on these issues. The data confirm that women-owned firms continue to lag behind men-owned firms on a number of indicators, notwithstanding progress in recent years.

[5] The data discussed in this section come from Census Bureau business owner surveys that cover several years. The 2002 and 2007 estimates are from the SBO survey. Historical data are from an earlier survey, the Survey of Women-Owned Business Enterprises (SWOBE), which was conducted in 1982, 1987, 1992, and 1997. The data from SWOBE for 1982, 1987 and 1992 are largely comparable, but a number of key definitions changed in the 1997 survey.

## Sales/Receipts

As the number of women-owned firms has grown over time, so has their business volume. As shown in Table 1, total sales/receipts of women-owned, privately-held firms totaled $1.2 trillion in 2007, growing at much faster rates than among men-owned firms. From 1997 to 2007, sales/receipts among women-owned businesses grew 46% from $819 billion to $1.2 trillion, compared to 28% growth among men-owned businesses, for which sales/receipts rose from $6.6 to $8.5 trillion. This largely reflects the faster growth in the number of women-owned firms, from 5.4 million to 7.8 million over this time period. Average sales among women-owned firms are much lower than among men-owned firms, and have grown at a slower rate. Average sales for women-owned firms totaled $153,000 in 2007. This is only one-fourth as large as the average sales for men-owned firms, which totaled more than $612,000.

Although women-owned firms represented about 30% of business ownership in the U.S. in 2007, the sales/receipts from these women-owned businesses comprised only 11% of total sales/receipts, providing more evidence of the smaller size of women-owned firms. In comparison, men-owned firms accounted for almost 53% of total privately-held firms, but a substantially larger 77% of total sales/receipts.

Figure 4 shows the size distribution of sales/receipts among women-owned versus men-owned businesses. The results indicate that 67.9% of women-owned firms have sales/receipts of less than $25,000 annually, compared to 46.3% for men-owned firms. Similarly, Figure 4 shows that a higher proportion of men-owned firms than women-owned firms were in the higher sales categories. Only 3.7% of women-owned firms had sales/receipts of $500,000 or more, whereas 11.1% of men-owned firms were in this sales/receipts category. It would be interesting to have more information on some of these large women-owned businesses, but we are unaware of any detailed research that focuses only on this group of firms. Of course, as firms become larger, it becomes more and more likely that they will become publicly-held companies.

Figure 5 examines the disparity in sales/receipts between women- and men-owned firms by industry sector. Each point on the graph represents an industry sector, such as manufacturing or health care. The plot shows the percent of women-owned firms in each industry versus the percent of sales/receipts received by women-owned firms in that industry. Each point on the graph falls below the forty-five degree line, indicating that the percent of sales/receipts earned by women-owned firms in every industry is less than their concentration in that industry in terms of number of firms. In short, women-owned firms have disproportionately lower sales than men-owned firms throughout the economy.

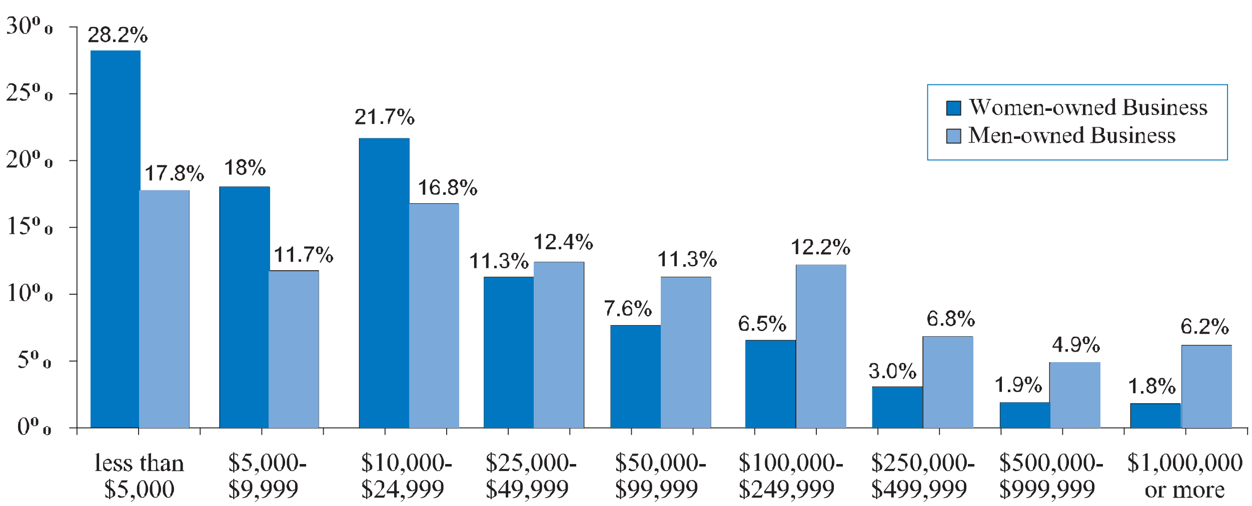
## Table 1
## Sales/Receipts of Privately-Owned Firms, by Gender

| | Survey Year | Includes C-Corps | All Firms | Women-Owned Firms | Women-Owned share of all Firms | Men-Owned Firms | Men-Owned share of all Firms | Equally Men- and Women-Owned Firms | Equally Men- and Women-Owned share of all Firms |
|---|---|---|---|---|---|---|---|---|---|
| **Total Number of Privately-Owned Firms** | 1982 | No | 12,060,000 | 2,613,000 | 21.7% | NA | --- | NA | --- |
| | 1987 | No | 13,695,000 | 4,115,000 | 30.0% | NA | --- | NA | --- |
| | 1992 | No | 17,253,000 | 5,889,000 | 34.1% | NA | --- | NA | --- |
| | 1997 | Yes | 20,432,000 | 5,417,000 | 26.5% | 11,374,000 | 55.7% | 3,641,000 | 17.8% |
| | 2002 | Yes | 22,367,000 | 6,489,000 | 29.0% | 13,184,000 | 58.9% | 2,693,000 | 12.0% |
| | 2007 | Yes | 26,306,000 | 7,793,000 | 29.6% | 13,911,000 | 52.9% | 4,602,000 | 17.5% |
| **Total Sales/ Receipts ($1,000)** | 1982 | No | $967,451,000 | $98,292,000 | 10.2% | NA | --- | NA | --- |
| | 1987 | No | $1,994,808,000 | $278,138,000 | 13.9% | NA | --- | NA | --- |
| | 1992 | No | $3,324,200,000 | $642,484,000 | 19.3% | NA | --- | NA | --- |
| | 1997 | Yes | $8,397,924,000 | $818,669,000 | 9.7% | $6,635,375,000 | 79.0% | $943,881,000 | 11.2% |
| | 2002 | Yes | $8,732,244,000 | $939,538,000 | 10.8% | $7,061,027,000 | 80.9% | $731,679,000 | 8.4% |
| | 2007 | Yes | $10,988,005,000 | $1,192,781,000 | 10.9% | $8,513,034,000 | 77.5% | $1,282,190,000 | 11.7% |
| **Average Sales/Receipts per Firm** | 1982 | No | $80,000 | $38,000 | --- | NA | --- | NA | --- |
| | 1987 | No | $146,000 | $68,000 | --- | NA | --- | NA | --- |
| | 1992 | No | $193,000 | $109,000 | --- | NA | --- | NA | --- |
| | 1997 | Yes | $411,000 | $151,000 | --- | $583,000 | --- | $259,000 | --- |
| | 2002 | Yes | $390,000 | $145,000 | --- | $536,000 | --- | $272,000 | --- |
| | 2007 | Yes | $418,000 | $153,000 | --- | $612,000 | --- | $279,000 | --- |

*Sources: U.S. Census Bureau, Survey of Business Owners, 2002 and 2007; Survey of Women-Owned Business Enterprises, 1982, 1987, 1992 and 1997.*

Note: 2007 estimates are preliminary. "All Firms" excludes publicly-held corporations, foreign-owned, not-for-profit firms and other firms not classified. Total reported under "All Firms" for 1997 to 2007 is the sum of women-owned, men-owned and equally-owned firms and may not match published Census totals for "All Firms." Estimates are not comparable between 1992 and 1997; the dashed line indicates a break in the series.

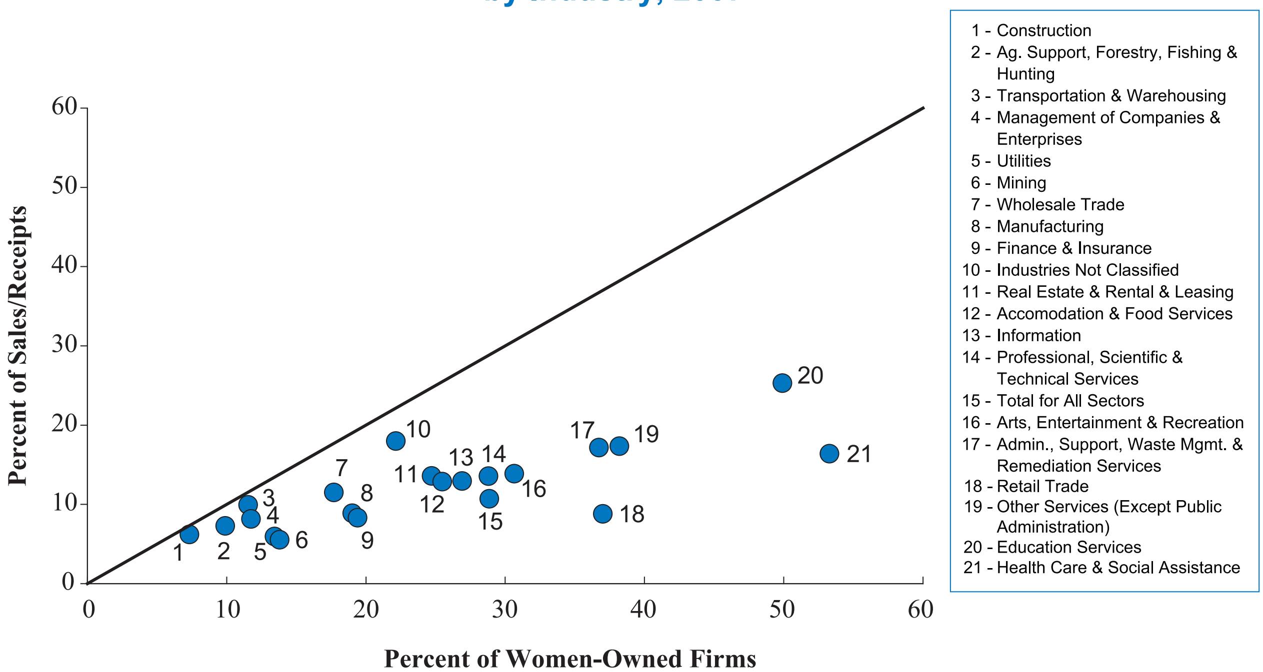
## Figure 4
## Distribution of Firms by Sales/Receipts Levels and Gender, 2002




*Source: U.S. Census Bureau, Survey of Business Owners, 2002.*

Note: Only firms with $1,000 or more in sales/receipts are included.

**Figure 5**
**Percent of Firms vs. Percent of Sales/Receipts for Women-Owned Firms by Industry, 2007**




*Source: U.S. Census Bureau, Survey of Business Owners, 2007.*

## Employment and Payroll

The U.S. economy has benefited from job creation in privately-held women-owned businesses. Table 2 shows total employment and average number of employees over time in women- and men-owned firms with paid employees. Excluded from the table are those businesses that are entirely operated by the owners without any additional hiring. The vast majority of privately-held companies do not hire employees. Among women-owned businesses, only 11.7% had paid employees, while 23.3% of men-owned businesses had paid employees. Hence, the total number of firms with paid employees shown in Table 2 (and Table 3) is much less than the total for all private firms reported in Table 1. On the other hand, although only a small share of all privately-held businesses have paid employees, these firms account for over 90% of all sales/receipts among privately-held businesses.

Employment created by women-owned businesses increased almost five-fold from 1982 to 1992, from 1.4 to 6.3 million workers. Between 1997 and 2007, employment at women-owned businesses grew at a slower rate from 7.1 million to 7.6 million, an increase of 7% or 500,000 jobs. This compares to a 3% *decline* in employment at all privately-held firms with paid employees during that time period. Furthermore, job losses at men-owned and equally-owned firms combined were over 2 million, indicating that without women-owned businesses, aggregate job loss at private firms during this period would have been even higher.

## Table 2
## Employment at Privately-Owned Firms with Paid Employees, by Gender

| | Survey Year | Includes C-Corps | All Firms | Women-Owned Firms | Women-Owned share of all Firms | Men-Owned Firms | Men-Owned share of all Firms | Equally Men- and Women-Owned Firms | Equally Men- and Women-Owned share of all Firms |
|---|---|---|---|---|---|---|---|---|---|
| **Firms with Paid Employees Share of All Private Firms (2007)** | | | 19.8% | 11.7% | --- | 23.3% | --- | 22.8% | --- |
| **Total Number of Privately-Owned Firms with Paid Employees** | 1982 | No | NA | 312,000 | NA | NA | --- | NA | --- |
| | 1987 | No | 3,487,000 | 618,000 | 17.7% | NA | --- | NA | --- |
| | 1992 | No | 3,135,000 | 818,000 | 26.1% | NA | --- | NA | --- |
| | 1997 | Yes | 5,027,000 | 847,000 | 16.8% | 3,151,000 | 62.7% | 1,029,000 | 20.5% |
| | 2002 | Yes | 5,160,000 | 917,000 | 17.8% | 3,525,000 | 68.2% | 718,000 | 13.9% |
| | 2007 | Yes | 5,199,000 | 911,000 | 17.5% | 3,237,000 | 62.3% | 1,051,000 | 20.2% |
| **Total Employment** | 1982 | No | NA | 1,355,000 | NA | NA | --- | NA | --- |
| | 1987 | No | 19,853,000 | 3,103,000 | 15.6% | NA | --- | NA | --- |
| | 1992 | No | 27,404,000 | 6,252,000 | 22.8% | NA | --- | NA | --- |
| | 1997 | Yes | 58,893,000 | 7,076,000 | 12.0% | 43,532,000 | 73.9% | 8,285,000 | 14.1% |
| | 2002 | Yes | 55,235,000 | 7,141,000 | 12.9% | 42,429,000 | 76.6% | 5,665,000 | 10.3% |
| | 2007 | Yes | 57,323,000 | 7,587,000 | 13.2% | 41,582,000 | 72.5% | 8,154,000 | 14.2% |
| **Average Number of Paid Employees** | 1982 | No | NA | 4.3 | --- | NA | --- | NA | --- |
| | 1987 | No | 5.7 | 5.0 | --- | NA | --- | NA | --- |
| | 1992 | No | 8.7 | 7.6 | --- | NA | --- | NA | --- |
| | 1997 | Yes | 11.7 | 8.4 | --- | 13.8 | --- | 8.1 | --- |
| | 2002 | Yes | 10.7 | 7.8 | --- | 12.0 | --- | 7.9 | --- |
| | 2007 | Yes | 11.0 | 8.3 | --- | 12.8 | --- | 7.8 | --- |

*Sources: U.S. Census Bureau, Survey of Business Owners, 2002 and 2007; Survey of Women-Owned Business Enterprises, 1982, 1987, 1992 and 1997.*

Note: 2007 estimates are preliminary. "All Firms" excludes publicly-held corporations, foreign-owned, not-for-profit firms and others not classified. Total reported under "All Firms" for 1997 to 2007 is the sum of women-owned, men-owned and equally-owned firms and may not match published Census totals for "All Firms." Estimates are not comparable between 1992 and 1997; the dashed line indicates a break in the series. Employment estimates for firms with paid employees exclude owners and partners.

Average employment in women-owned firms is smaller than men-owned firms, but higher than at equally-owned firms. Women-owned firms employed slightly more than 8 workers on average in 2007 compared to almost 13 for men-owned firms and slightly less than 8 for equally-owned firms. (Although the number of employees is low on average in privately-held companies, at the top of the size distribution of these companies are some very large firms.) Firm size, measured by average number of paid employees, fell in all three ownership categories over the 1997 to 2007 period. Average employment at women-owned businesses fell least, from 8.4 to 8.3 workers per firm, while it fell from 13.8 to 12.8 at men-owned firms and from 8.1 to 7.8 at equally-owned firms.

The comparatively better performance of women-owned firms between 1997 and 2007 is partly due to the different industries in which women- and men-owned businesses are located (a topic discussed further below.) For example, women-owned businesses are more highly concentrated in the Health Care and Education Services industries. Employment in this sector accounted for about 15% of total employment in 2007 and rose 24.9% between 1997 and 2007. Alternatively, men-owned businesses are more concentrated in Manufacturing industries, which experienced a 21.6% decline in employment over this time period. During the recent recession, which started at the end of 2007, the Manufacturing and Construction industries suffered large losses in output and employment, whereas the Health Care and Education Services sector experienced slight increases, suggesting that the declines in employment in men-owned businesses are likely to have continued since 2007.

Table 3 looks at payroll comparisons over time and among women- and men-owned firms with paid employees. Women-owned firms paid out $218 billion in annual wages and salaries to workers in 2007, a number that has grown rapidly over time. The average payroll for women-owned firms was $239,000, which was higher than for equally-owned firms ($209,000), but about half that for men-owned firms ($474,000). Consistent with more rapid growth in women-owned firms, both annual payroll and average pay per employee within women-owned firms have grown faster than within men- or equally-owned firms.[6]

## Table 3
## Payroll of Privately-Owned Firms with Paid Employees, by Gender

| | Survey Year | Includes C-Corps | All Firms | Women-Owned Firms | Women-Owned share of all Firms | Men-Owned Firms | Men-Owned share of all Firms | Equally Men- and Women-Owned Firms | Equally Men- and Women-Owned share of all Firms |
|---|---|---|---|---|---|---|---|---|---|
| **Firms with Paid Employees Share of All Private Firms (2007)** | | | 19.8% | 11.7% | --- | 23.3% | --- | 22.8% | --- |
| **Total Number of Privately-Owned Firms with Paid Employees** | 1982 | No | NA | 312,000 | NA | NA | --- | NA | --- |
| | 1987 | No | 3,487,000 | 618,000 | 17.7% | NA | --- | NA | --- |
| | 1992 | No | 3,135,000 | 818,000 | 26.1% | NA | --- | NA | --- |
| | 1997 | Yes | 5,027,000 | 847,000 | 16.8% | 3,151,000 | 62.7% | 1,029,000 | 20.5% |
| | 2002 | Yes | 5,160,000 | 917,000 | 17.8% | 3,525,000 | 68.2% | 718,000 | 13.9% |
| | 2007 | Yes | 5,199,000 | 911,000 | 17.5% | 3,237,000 | 62.3% | 1,051,000 | 20.2% |
| **Total Annual Payroll ($1,000,000)** | 1982 | No | NA | $11,000 | NA | NA | --- | NA | --- |
| | 1987 | No | $299,000 | $41,000 | 13.7% | NA | --- | NA | --- |
| | 1992 | No | $524,000 | $105,000 | 20.0% | NA | --- | NA | --- |
| | 1997 | Yes | $1,498,000 | $149,000 | 10.0% | $1,188,000 | 79.3% | $161,000 | 10.7% |
| | 2002 | Yes | $1,623,000 | $174,000 | 10.7% | $1,320,000 | 81.3% | $130,000 | 8.0% |
| | 2007 | Yes | $1,972,000 | $218,000 | 11.1% | $1,534,000 | 77.8% | $219,000 | 11.1% |
| **Average Annual Payroll per Firm** | 1982 | No | NA | $36,000 | --- | NA | --- | NA | --- |
| | 1987 | No | $86,000 | $66,000 | --- | NA | --- | NA | --- |
| | 1992 | No | $167,000 | $128,000 | --- | NA | --- | NA | --- |
| | 1997 | Yes | $298,000 | $176,000 | --- | $377,000 | --- | $156,000 | --- |
| | 2002 | Yes | $315,000 | $189,000 | --- | $374,000 | --- | $181,000 | --- |
| | 2007 | Yes | $379,000 | $239,000 | --- | $474,000 | --- | $209,000 | --- |
| **Payroll Per Employee** | 1982 | No | NA | $8,000 | --- | NA | --- | NA | --- |
| | 1987 | No | $15,000 | $13,000 | --- | NA | --- | NA | --- |
| | 1992 | No | $19,000 | $17,000 | --- | NA | --- | NA | --- |
| | 1997 | Yes | $25,000 | $21,000 | --- | $27,000 | --- | $19,000 | --- |
| | 2002 | Yes | $29,000 | $24,000 | --- | $31,000 | --- | $23,000 | --- |
| | 2007 | Yes | $34,000 | $29,000 | --- | $37,000 | --- | $27,000 | --- |

*Sources: U.S. Census Bureau, Survey of Business Owners, 2002 and 2007; Survey of Women-Owned Business Enterprises, 1982, 1987, 1992 and 1997.*

Note: 2007 estimates are preliminary. "All Firms" excludes publicly-held corporations, foreign-owned, not-for-profit firms and others not classified. Total reported under "All Firms" for 1997 to 2007 is the sum of women-owned, men-owned and equally-owned firms and may not match published Census totals for "All Firms." Estimates are not comparable between 1992 and 1997; the dashed line indicates a break in the series. Employment estimates for firms with paid employees exclude owners and partners.

[6] Recall that these changes in payroll in Table 3 are based only on those firms that have paid employees (other than the owners); as a result the pattern of change in payroll is somewhat different than the pattern of change in overall sales/revenue among all firms shown on Table 1.

Workers in women-owned firms are generally lower paid than at men-owned firms. The average payment per employee at women-owned firms in 2007 was $29,000, roughly 78% of the amount paid per employee at men-owned firms, $37,000. This comparison does not control for differences in industry, in workers' skills, or in occupations between women- and men-owned firms.

## Survival Rates

A high percentage of start-up firms fail within the first few years. A key issue for women-owned firms is their likelihood of remaining in business over time. Data from the SBO were combined with the Business Information Tracking Series (BITS) to provide a unique source of information on the expansion, contraction, and death of establishments during the 2002 to 2006 time period. These data allow us to compare survival rates by gender over a four-year time period. Table 4 shows that 72% of men-owned firms that were operating in 2002 were still in operation in 2006, whereas only 66% of women-owned businesses had survived.

**Table 4**
**Survival Rates of Privately-Owned Firms by Gender, 2002 to 2006**

| | Survival Rate (%) |
|---|---|
| **Total** | 70 |
| **Women-Owned** | 66 |
| **Men-Owned** | 72 |
| **Equally-Owned** | 69 |

*Source: Data used is produced by the U.S. Census Bureau for the Small Business Administration and the National Women's Business Council using 2002 Survey of Business Owners (SBO) and the Business Information Tracking Series (BITS).*

Note: Only those firms in the 2002 SBO sample that match the BITS sample were used to create the estimates. Therefore, the estimates presented here may not match other estimates produced from SBO data.

The SBO and BITS data include all firms in existence in 2002, regardless of when they were started.[7] It also is interesting to look at survival rates only among new start-ups. A study by Robb and Coleman (2009) which followed only firms that were newly established in 2004 using the Kauffman Firm Survey (KFS) data, showed similar results to Table 4. The authors found that newly-established women-owned businesses had a three-year survival rate of 69.5%, compared to 75.1% for men-owned businesses.

# III. THE ROLE OF GENDER IN BUSINESS OWNERSHIP

While women constituted almost half of the employed population in 2008, they are under-represented among business owners. Furthermore, privately-held women-owned businesses are substantially smaller than men-owned businesses, whether measured by average sales/receipts or employment. Although they have been growing faster, women-owned businesses still lag far behind men-owned businesses.

[7] In the 2002 SBO survey, only 10% of all firms were newly established in the survey year. However, 12.8% of women-owned businesses were newly established that year, compared to 9.4% for men-owned businesses and 8.4% for equally-owned businesses.

This section explores some of the possible reasons behind a woman's decision to start a new business venture and the unique business and owner characteristics that may lead to different outcomes of women-owned businesses compared to men-owned businesses. The analysis in this section draws upon previous research that attempts to identify the constraints faced by women-owned businesses and the firm and owner characteristics that might explain differences in business outcomes. We start with a brief description of the challenges that such research faces.

## How Effectively Can We Measure the Reasons for Gender Disparities in Business Ownership?

Despite the substantial progress women have made in business ownership over the last few decades, women are far less likely than men to be business owners. And for those women who do start their own businesses, their businesses are likely to be smaller, more likely to fail, and different from businesses owned by men along a variety of measures.

Discrimination is often suggested as a possible explanation for differing outcomes between women- and men-owned businesses, but finding conclusive statistical evidence to confirm systematic gender discrimination is difficult. Statistics showing disparate outcomes by gender typically have complex interpretations and do not provide evidence for or against discrimination. Ideally, studies of gender discrimination would be able to determine how the outcomes would have differed if the business owner were male instead of female (National Research Council, 2004), but we cannot observe how any firm would have performed with a different owner. A small number of studies have looked at the question of discrimination by trying to randomly assign male and female identities. For instance, one research study sent out job application resumes to a large number of potential employers (Bertrand and Mullainathan, 2004). These resumes were identical except for their readily identifiable ethnic male or female names and the researchers did find evidence of biased treatment. But in most cases, such a controlled experiment is not feasible, as there is no way to randomly assign gender to potential business owners.

Instead, researchers use statistical models that control for a variety of owner and business characteristics, and then test to see if there is any additional effect of race or gender on business outcomes. For minority-owned firms, this type of evidence reveals significant disparities in access to capital, even after controlling for all available characteristics of the business and the applicant. There are also ongoing disparities in business outcomes of minority-owned businesses in these models. These are often interpreted as evidence of present-day discrimination in financial and business markets against minority business owners, but could also reflect the long-term impact of cumulative discrimination due to the historical lack of equal access to housing, education and employment, particularly for African-American business owners.

Similar models have been used to look at differences between women- and men-owned businesses. It is harder to interpret the statistical evidence on discrimination for women-owned businesses, both in capital markets as well as in overall business outcomes of the firms. In particular, a range of factors, such as reported preferences and attitudes, that differ for female business owners appear to be important in explaining differences in selected business measures. Such factors include a lower tolerance for risk, fewer hours worked, different occupation and industry selections, and different underlying reasons for starting a business. If the models are controlled to take these factors and differences into account, then the remaining disparities diminish.

There are many ways to interpret this result. If women expect to face discrimination, they may seek less outside capital, or scale down their expectations for business growth. While gender roles have been changing, they still are shaped by centuries of historical differences in the accepted occupations and behaviors ascribed to women and men. For instance, women have historically performed the majority of childcare tasks. Given the long history of socialized gender distinctions and discriminatory laws, differences in attitudes and goals between male and female business owners may be a legacy of cumulative past discrimination and are perhaps not surprising. But some might argue that such differences in attitude and behavior may reflect unique differences in gender perspective and are not an indication of discrimination, *per se*. This report does not attempt to settle this debate. Instead, by way of background and context, the report discusses the economic literature, which suggests that women's businesses are different at least in part because female business owners hold different attitudes and behave differently than male business owners. We note how these differences may result from discrimination as well as other factors.

## Differences in Business Ownership and Outcomes by Gender

A growing number of research studies have investigated the characteristics of female business owners, the constraints that they face, and the reasons for differential business outcomes between women- and men-owned businesses. Access to and use of financing for business start-up and subsequent operations were found to be key in explaining differences between women- and men-owned businesses. Furthermore, women typically start businesses in different industries than men. And women who start businesses appear to be pursuing a somewhat different set of goals than men. Interestingly, the family and educational characteristics of business owners are quite similar irrespective of gender. In this section, we explore these different factors.

### Access to Credit/Capital

Access to capital often is a critical factor when starting a business. Continued access to credit is required for expanding a business and adapting to changing markets and economic conditions. Firms that start with higher amounts of capital tend to have higher levels of assets, revenues and employment (Fairlie and Robb, 2008a). The fact that women-owned firms have lower levels of financial capital both at start-up and at later stages helps explain why their business outcomes are typically lower relative to men-owned firms (Fairlie and Robb, 2008a; Robb and Coleman, 2009).[8] Robb and Coleman (2009) estimated the impact of financial capital on revenues, assets, profits and employment. Using KFS data on only the surviving surveyed firms over the 2004 to 2007 period, they found that women-owned businesses started their firms with 64% of the capital levels of businesses owned by men.

[8] See Robb and Coleman (2009) for a thorough review of studies on women-owned businesses and estimates of the effects of financial capital on business outcomes.

The reasons cited as to why privately-held, women-owned firms have lower levels of financial capital to start and grow their businesses are varied. Some studies have found that women are more likely to be turned down for loans or are given loans with less favorable terms than men (Fairlie and Robb, 2008a; Treichel and Scott, 2006; Coleman, 2002). And sometimes women report they do not apply for loans simply because they fear being turned down (Coleman, 2000). But the available research also suggests that once differences in credit standing, firm size, and business growth potential are taken into account, these factors explain most of the difference in loan approval rates between women and men who are starting or own businesses (Fairlie and Robb, 2008a; Treichel and Scott, 2006; Coleman, 2002). For example, one sample of female business owners was found to have proportionately lower business credit scores when compared with men who owned businesses (Fairlie and Robb, 2008a). This study does not examine the reasons for these differences in credit scores.

Lower business credit scores reduce women's ability to assume business debt and to expand their businesses. It is possible that credit scoring procedures and bankers' perceptions of a business' growth potential could be affected by financial institutions that view men-owned businesses as the norm. One interesting study found that female business owners faced lending discrimination when they operated in national instead of local markets. According to this study, women-owned businesses operating outside a local market are viewed as more risky than white men-owned businesses that operated in the same market with the same observable credit characteristics (Blanchard *et al.*, 2008).

The lower levels of capital used by women to start and expand their businesses are related to their use of different sources of financing relative to men. Women are more likely to launch their firms with larger amounts of owner-provided equity and substantially smaller amounts of outsider equity (Robb and Coleman, 2009). They also are less likely to use outside sources of financing, such as bank loans, angel investments, or venture capital for their business ventures. These differences are difficult to interpret. On the one hand, women appear to use outside capital less frequently than men; this might suggest that this is their preference. On the other hand, women either may be turned down for outside financing or may not apply for outside financing because they believe they are more likely to be turned down.

Tables 5 and 6 provide some evidence on financing differences between women- and men-owned businesses at start-up and for subsequent capital. Table 5 uses the KFS data to assess financing use by women- and men-owned firms. The KFS survey tracks firms that were established in 2004 and were still in existence in 2008.[9] Table 5 indicates that women-owned firms tapped into owner-provided equity financing for business start-up at only slightly higher rates than men (83.7% vs. 81.1%). A similar pattern exists for owner debt (50.8% vs. 47.7%). In contrast, men used outsider equity at higher rates than women, 7.3% vs. 5.0%, with similar patterns for outsider debt (55.1% vs. 46.7%). The same trend is observed in the use of subsequent capital to support business operations.

[9] For this report, primary firm ownership by gender in the KFS data was based on the owner who had the greatest percent ownership of the business. If there was more than one owner with equal ownership, then the combined ownership percentage was used to determine the predominant gender of ownership. If percent ownership was not available in the data, then primary ownership was determined by the number and gender of owners. In cases that were indeterminate, there was no attempt made to use other variables, such as hours worked, to determine primary ownership. This definition of primary ownership by gender differs from previous studies, such as Robb and Coleman, 2009.

Although both women and men increased their use of outsider debt in seeking additional capital for their business after start-up, men continued to use outsider debt at a higher rate (63.0% vs. 56.4%). According to the study by Robb and Coleman (2009), outsider debt and owner-provided equity combined provided 79% of the total amount of initial start-up financing for the firms that still existed in 2007 (Robb and Coleman, 2009). The amounts provided by these initial financing sources were about one-third lower for women-owned firms compared to men-owned firms ($46,000 vs. $67,000).

Table 6 provides additional information on financing sources for business start-up and subsequent capital for business expansion and improvements, by gender of owner and by size of business. Table 6 distinguishes between larger businesses with high sales levels (*i.e.*, $500,000 or more in sales annually) and smaller businesses with low sales levels (*i.e.*, less than $500,000 in sales annually). The information in Table 6 was compiled using the 2002 SBO data.[10] While a high share of all business owners indicated they used personal or family savings to start or acquire their business, a substantially lower share of women-owned than men-owned businesses used a bank loan (5.8% vs. 12.7%). This same pattern occurs in the use of financing sources to expand or improve businesses. Women-owned businesses were less likely than men to use a bank loan (4.0% vs. 10.7%).

## Table 5
## Percent of Firms by Sources of Startup and Subsequent Capital for Surviving Firms

| | Owner Equity | Insider Equity | Outsider Equity | Owner Debt | Insider Debt | Outsider Debt |
|---|---|---|---|---|---|---|
| **Startup Capital (2004)** | | | | | | |
| Women-Owned | 83.7% | 6.1% | 5.0% | 50.8% | 11.3% | 46.7% |
| Men-Owned | 81.1% | 6.7% | 7.3% | 47.7% | 11.6% | 55.1% |
| **Subsequent Capital (2004-2008)** | | | | | | |
| Women-Owned | 34.5% | 2.7% | 2.2% | 36.1% | 8.0% | 56.4% |
| Men-Owned | 32.2% | 2.9% | 2.4% | 36.0% | 7.6% | 63.0% |

*Source: The Kauffman Firm Survey, 2004-2008.*

Note: ***Insider equity*** includes spouse and parent equity. ***Outsider equity*** includes angel, venture capital, government and other company investments. ***Owner debt*** includes personal credit card use of the owners. ***Insider debt*** includes personal or business loans to the owner from family, employees, other owners, or other insider personal and business loans or funding. ***Outsider debt*** includes personal or business bank loans, business credit cards, credit lines, other business or non-bank loans, government business loans or other outside debt or loans.

An analysis of the use of outside sources of financing from banks and the government by level of sales provides some notable results. Women-owned businesses that were in the high sales category received business loans from banks in substantially higher proportions than those in the lower sales categories. The percentage of high sales women-owned businesses receiving bank loans was only slightly less than among high sales men-owned businesses. About 25% of women-owned businesses with currently high sales obtained bank loans to start or improve their businesses, compared to about 30% for the same class of men-owned businesses, possibly indicating that high sales businesses regardless of gender were

[10] The SBO business sample includes both businesses that started in 2002 and businesses that were in operation prior to 2002. Table 6 only includes data from those privately-held businesses whose ownership was classifiable by gender.

deemed by banks to be good investments. Among low sales firms, women-owned businesses were far less likely to rely on banks for outside financing. Only about 5% of women-owned businesses with lower sales obtained bank loans for financing their businesses, whereas about 10% of men-owned businesses did so.

## Table 6
## Sources of Capital Used by the Owners to Start and Expand Their Business by Gender, 2002

| | Personal/ Family Savings | Other Personal/ Family Assets | Personal/ Business Credit Card | Business Loan from Government | Government Guaranteed Bank Loan | Business Loan From Bank | Outside Investor | None Needed |
|---|---|---|---|---|---|---|---|---|
| **Start or Acquire the Business** | | | | | | | | |
| **All Firms** | | | | | | | | |
| Women-Owned Firms | 48.2% | 7.0% | 9.2% | 0.7% | 0.5% | 5.8% | 1.6% | 37.2% |
| Men-Owned Firms | 56.2% | 8.8% | 8.3% | 0.8% | 0.7% | 12.7% | 2.7% | 26.3% |
| Equally-Owned Firms | 68.2% | 15.2% | 11.4% | 1.5% | 1.3% | 17.6% | 2.9% | 12.4% |
| Total Firms | 54.6% | 9.0% | 8.8% | 0.9% | 0.7% | 11.4% | 2.7% | 27.7% |
| **Low Sales Firms (less than $500,000)** | | | | | | | | |
| Women-Owned Firms | 47.5% | 6.7% | 9.2% | 0.6% | 0.4% | 5.1% | 1.5% | 38.3% |
| Men-Owned Firms | 55.1% | 8.2% | 8.5% | 0.7% | 0.5% | 10.5% | 2.4% | 28.6% |
| Equally-Owned Firms | 68.0% | 14.7% | 11.6% | 1.4% | 1.1% | 16.2% | 2.7% | 13.1% |
| Total Firms | 53.9% | 8.5% | 9.0% | 0.8% | 0.5% | 9.6% | 2.3% | 29.6% |
| **High Sales Firms ($500,000 or more)** | | | | | | | | |
| Women-Owned Firms | 67.4% | 16.4% | 9.1% | 2.3% | 2.8% | 24.1% | 4.6% | 8.9% |
| Men-Owned Firms | 64.2% | 13.8% | 6.9% | 1.7% | 2.0% | 29.1% | 5.6% | 9.2% |
| Equally-Owned Firms | 71.0% | 19.0% | 9.4% | 2.4% | 3.6% | 30.2% | 4.8% | 5.0% |
| Total Firms | 60.6% | 13.7% | 6.8% | 1.9% | 2.1% | 27.6% | 6.5% | 10.8% |
| **Finance Expansion or Capital Improvements** | | | | | | | | |
| **All Firms** | | | | | | | | |
| Women-Owned Firms | 23.0% | 4.0% | 11.2% | 0.4% | 0.2% | 4.0% | 0.8% | 64.4% |
| Men-Owned Firms | 25.7% | 4.9% | 11.1% | 0.5% | 0.3% | 10.7% | 1.3% | 58.2% |
| Equally-Owned Firms | 34.4% | 8.3% | 15.0% | 0.8% | 0.4% | 13.4% | 1.2% | 47.1% |
| Total Firms | 25.5% | 5.0% | 11.4% | 0.5% | 0.3% | 9.2% | 1.2% | 58.5% |
| **Low Sales Firms (less than $500,000)** | | | | | | | | |
| Women-Owned Firms | 23.0% | 3.9% | 11.2% | 0.4% | 0.2% | 3.2% | 0.8% | 65.0% |
| Men-Owned Firms | 26.3% | 4.8% | 11.3% | 0.4% | 0.2% | 8.2% | 1.2% | 59.4% |
| Equally-Owned Firms | 35.3% | 8.4% | 15.3% | 0.8% | 0.3% | 11.6% | 1.1% | 47.4% |
| Total Firms | 26.1% | 4.9% | 11.6% | 0.5% | 0.2% | 7.1% | 1.1% | 59.6% |
| **High Sales Firms ($500,000 or more)** | | | | | | | | |
| Women-Owned Firms | 23.2% | 6.7% | 12.2% | 1.2% | 1.0% | 26.2% | 1.4% | 49.1% |
| Men-Owned Firms | 20.8% | 5.5% | 9.1% | 1.1% | 0.9% | 30.0% | 2.0% | 49.1% |
| Equally-Owned Firms | 26.3% | 7.9% | 13.0% | 1.2% | 1.0% | 30.7% | 1.5% | 44.1% |
| Total Firms | 20.0% | 5.5% | 9.1% | 1.1% | 0.9% | 28.4% | 2.3% | 49.2% |

*Source: ESA calculations using data from the U.S. Census Bureau, Survey of Business Owners, 2002.*

Note: Row percents may not sum to 100% because business owners could use more than one financing source. Only includes respondent firms with $1,000 or more in sales/receipts; excludes publicly-held and other firms not classifiable by gender.

Table 6 also shows that government sources of financing were used to finance business start-ups more often than business expansion or capital improvements in all categories. However, women- and equally-owned businesses relied more on these sources of financing than men-owned businesses. Women-owned businesses received nearly $2 billion in loans backed by the Small Business

Administration in FY 2009. All businesses in the high sales category were also more likely to use government financing for start-ups or business improvement than those in the lower sales category.

It would be interesting to know more about specific sources of financing to women-owned firms, such as the type of government loan programs that these firms are most likely to access or whether women who use government loan programs were unsuccessful in seeking private sector financing. Similarly, it would be interesting to know how female business owners use venture capital. Unfortunately, this level of detail is not available in our data.

Finally, women were found to be more likely than men to indicate that they did not need any financing to start their business. This is consistent with the fact that women tend to start smaller-sized businesses. An even higher share of all businesses indicated they did not need any financing for business growth and capital improvements. A higher share of businesses in the high sales compared to the low sales class did not need financing to expand their business; this may indicate that these larger firms are tapping into profits to finance business improvements.

The results in Tables 5 and 6 simply show the overall differences in financing choices between women- and men-owned firms, without controlling for any other differences between them. In research produced for the Minority Business Development Administration, U.S. Department of Commerce, Fairlie and Robb (2010) investigated disparities in capital access between minority and non-minority firms. They applied statistical models to test whether certain firm and owner characteristics are significant in explaining differences in level and type of financing. In these models, they also included gender as well as minority ownership, so the results allow us to assess differences in capital use between women and men.

Fairlie and Robb used the KFS data, which track a panel of firms that began in 2004 and were still in existence in 2007, to look at both start-up and subsequent capital use. In their model, they controlled for a number of characteristics such as age, education, hours worked, type of firm (*i.e.*, team ownership, limited liability corporation, corporation, partnership or home-based), intellectual property ownership, start-up and industry experience, and credit scores. They found that women obtained significantly less capital than men at start-up and for subsequent expansion. This is true even after all of these other factors are held constant, and it suggests that women- and men-owned firms diverge in their capital usage from the very beginning.[11] These differences in initial financing, of course, lead to very different patterns of growth. Such differences for newly-established firms cannot be clearly interpreted without further evidence. The differences may reflect the different types of businesses that women start and the different preferences among women for the size and scope of these businesses, but they may also reflect discrimination in capital markets against women-owned firms.

To better understand the limited use and amount of financing by women-owned businesses, it is important to understand the many considerations that can affect their ability or choice to obtain credit. These factors include type of industry or business, previous business experience, owner

[11] In contrast, an alternative data source, The Survey of Small Business Finances (SSBF), was used by Fairlie and Robb to look at equity and loan amounts for a broad set of existing firms. When controlling for several factors such as sales, firm and owner credit worthiness, age, education, experience and region, the results were not significantly different between women and men.

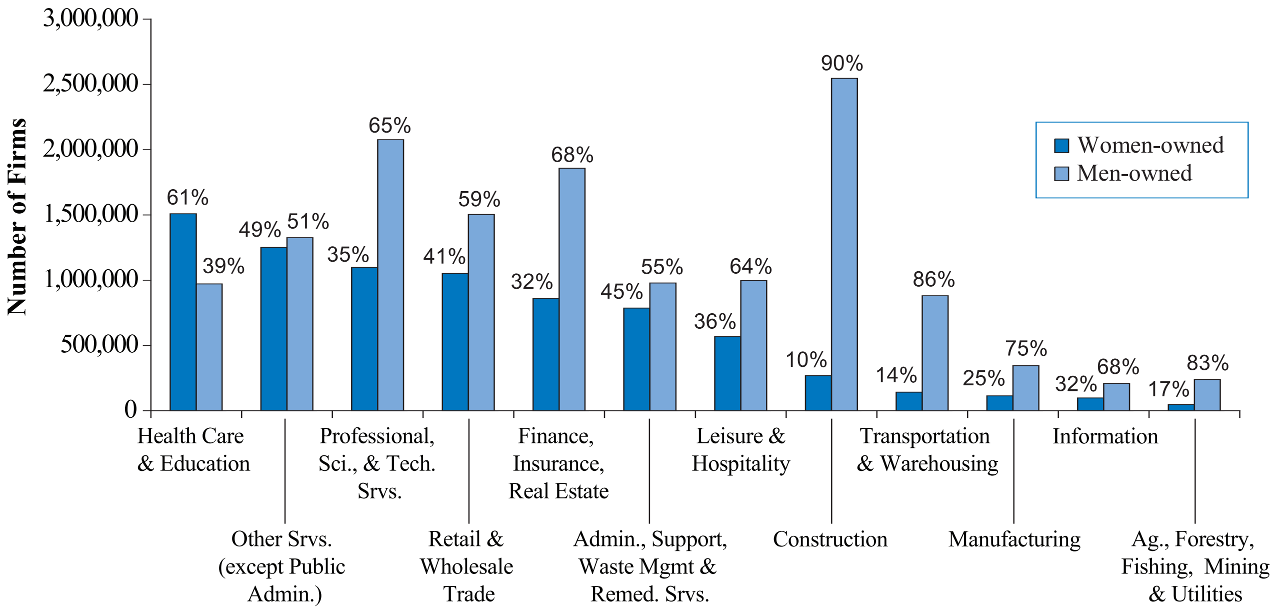
expectations about growth and desire to achieve a work-life balance. We focus on these factors in the rest of this section. It is important to note that discrimination or expectations of discrimination could also be factors that explain these differences, but a comprehensive measure of discrimination-related factors is not readily available and beyond the scope of this report.

## Type of Business/Profession

The type of business and profession of the owner often differs between women- and men-owned businesses. Women-owned businesses are concentrated in industry sectors that are dominated by firms that are smaller in size and in sales. Average sales and payroll within industries where women own businesses are typically lower than those where men own businesses. Furthermore, women-owned firms have lower total sales/receipts than men-owned firms in every industry sector, as shown previously in Figure 5. Women are more likely to own businesses in the services sector, such as in health care, education, personal or retail services, and men are more likely to own businesses in manufacturing or construction. The industries in which women choose to operate their businesses reflect, in part, the differences between women and men in fields of study and professional experience.

Figure 6 displays the industry distribution of firms by gender and shows the industry sectors with the highest concentrations of women- and men-owned firms. Healthcare and Education Services is the only sector that has a higher concentration of women-owned than men-owned firms, 61% compared to 39%. The industries within this sector that drive this result are Education Services, Social Assistance, and Nursing and Residential Care Facilities. Close to half of the Other Services category are women-owned firms. This result is driven by the Personal and Laundry Services industry. Other industries with a high proportion of women-owned firms are Retail and Wholesale Trade; Professional, Scientific and Technical Services; Administrative and Support Services; and Finance, Insurance and Real Estate. Some of the subsectors within these larger industry categories that are dominated by women-owned firms in terms of numbers of firms are Apparel Manufacturing; Health and Personal Care Stores; Miscellaneous Store Retailers; Non-store Retailers (likely internet retailers requiring little capital for start-up and operation); and Specialized Design Services. A relatively low percentage of women-owned businesses are in the Construction; Manufacturing; Agriculture; or Mining and Utilities sectors. Women-owned firms are also less likely to be found in industries with strong union activity, and more likely to be in lower paying industries (Blanchflower, 2009).

**Figure 6**
**Industry Distribution of Privately-Owned Firms by Gender of Owner, 2007**




*Source: U.S. Census Bureau, Survey of Business Owners, 2007.*

Note: Excludes equally-owned firms. This graphic combines data across industry sectors. Adding SBO data across industries will will introduce double-counting where firms operate in multiple industries. However, the impact of double-counting is small for non-public firms.

Business and employee income, on average, are relatively low in industries where women-owned businesses are primarily located. Analysis of the 2007 SBO data provides some evidence of this. For example, in the Healthcare and Education Services industry where the number of privately-held women-owned firms is large, annual sales/receipts per firm were $203,800 and payroll per employee was $35,400. This industry would include services such as nursing, social work, teaching (non-public), and daycare providers. Alternatively, in the Construction industry where the vast majority of privately-held firms are owned by men, annual sales/receipts per firm and payroll per employee were substantially higher, $448,000 and $43,700, respectively.

It would be particularly interesting to compare women- and men-owned businesses within the same industry area, for instance, looking at the differences in women- and men-owned firms within the health care sector or within the real estate industry. While we are not able to do this type of close comparison within an industry, it would be an excellent topic for future research.

In terms of occupations, a lower percentage of self-employed women are in managerial occupations compared to self-employed men (Fairlie and Robb, 2008a; Lowrey, 2006; and Hackler *et al.*, 2008). Occupation and industry are closely linked, and occupation overlaps strongly with educational credentials. Women make very different choices when selecting college majors and when selecting occupations. Not surprisingly, as the industry location of women-owned businesses indicates, women are more likely to have training and experience that prepares them for work in the education or health care sector, in retail trade, or in a host of other service sectors. For example, there are substantially more women than men holding postsecondary degrees in education, health professions and related sciences, psychology, and public administration and social services (U.S. Department of Education, 2009).

## Performance Expectations and Risk

While financing choices and capital availability are key reasons for size and growth differences, there are a number of other explanations that are more difficult to measure directly. Women business owners appear to have different performance expectations for their businesses than men. Kepler and Shane (2007) find that women expect lower levels of business growth in terms of sales and employment, perhaps because their businesses are smaller and they are located in different industries. One reason could be that women business owners spend more time in other activities, such as childcare or household activities (Gurley-Calvez *et al.*, 2009).[12]

Additionally, research has found that female business owners, and women in general, are more risk averse than men, especially when taking on financial risk (Kepler and Shane, 2007; Croson and Gneezy, 2009). Fairlie and Robb (2008a) also noted that female business owners are less likely to engage in risky business ventures and tend to minimize risk in their business operations. This is consistent with a growing body of research that suggests women are more risk averse than men along a number of dimensions (Powell and Ansic, 1997). In some circumstances, this behavior may reduce the long-term growth prospects of their business.

## Education and Experience

Human capital, measured as educational attainment or work experience, is often a key determinant of business performance. Male business owners are more likely to have only a high school education or less, and also more likely to have graduate level education (Fairlie and Robb, 2008a; Coleman, 2004). In a small sample of new business owners, Kepler and Shane (2007) found that educational attainment was similar between male and female business owners. While educational backgrounds and professional experience explain some of the differences in firm outcomes, differences in educational attainment are quite small relative to the large differences in size and sales between women- and men-owned businesses.

Table 7 looks at the characteristics of self-employed persons from the most recent CPS ASEC in 2007, 2008 and 2009.[13] The first two columns compare self-employed women to working women who are not self-employed; the third and fourth columns compare self-employed men to working men who are not self-employed. The final column shows average characteristics among all workers. As discussed earlier, the characteristics of self-employed women are not the same as the characteristics of female business owners, since many self-employed women may be in joint ownership arrangements with their

[12] We cannot evaluate the extent to which these different expectations and behaviors are the product of marketplace barriers that discourage women and alter their behavior.

[13] To reduce variation due to smaller sample sizes, the data in Table 7 combines samples from the 2007, 2008 and 2009 surveys.

husbands or with other partners.[14] The top row of Table 7 indicates that self-employed women constitute 3.0% of the employed labor force, while men are almost twice as likely to be self-employed and constitute 6.9% of all employed workers.

The education panel in Table 7 indicates that both self-employed women and men are more likely to have a college degree than are the non-self-employed. Among women, 36.0% of the self-employed have a bachelor's degree or more, while only 33.0% of non-self-employed workers hold at least a bachelor's degree. Among men, 37.9% of the self-employed are college graduates, compared with only 31.4% of the non-self-employed. Consistent with Kepler and Shane (2007), Table 7 shows that the education levels for self-employed women and men are not strikingly different.

Past business experience is an important form of human capital for new business owners. Prior business experience and family history of business ownership have been found to increase the likelihood of becoming a business owner and to contribute to business survival and growth (Fairlie and Robb, 2008b). Compared to female owners, male business owners typically have had more prior experience with start-ups and have been in management roles in their previous work. In the sample studied by Kepler and Shane (2007), women entrepreneurs were more likely than men to have parents who have been self-employed. There is very little research on whether perceptions, past labor market experiences, and family history might affect women and men differently in their decision to start a business.

Finally, there are differences in how women and men access information about business opportunities (Kepler and Shane, 2007). Women entrepreneurs were less likely to report that they used research to identify business opportunities, and were less likely to participate in social or business networks that would broaden their sources of information, business opportunities, investors, or mentors.

## The Family and Personal Characteristics of Self-Employed Workers

Women and men cite different reasons for starting a business. Men are more likely than women to start a business based on financial considerations, whereas women state that they are more interested in careers that help them achieve a work-life balance and that can provide personal satisfaction and recognition (Fairlie and Robb, 2008a). The phrase "work-life balance" may not fully reflect the fact that women continue to spend more of their time providing childcare, eldercare, spousal care and household care than their male counterparts. Thus, women may have less available time to devote to their businesses than men. Using data from the American Time Use Survey, Gurley-Calvez, *et al.*, (2009) find that self-employed women on average spend more time on childcare and household activities than self-employed men and non-self-employed women. The authors point out that these findings support the notion that some women may choose self-employment because of family factors. Gurley-Calvez, *et al.*, also note that self-employed women with professional degrees make time choices that are more similar to self-employed men.

The data in Table 7 indicate that the age structure, marital status, and family size of self-employed women are relatively similar to self-employed men. Not surprisingly, both self-employed women and

[14] In addition, business owners need not be actively employed in their businesses. It is possible to be a business owner but to work zero hours. The self-employed as defined in this report work at least 15 hours a week in their businesses and at least 50 weeks per year.

men are somewhat older than non-self-employed workers. Very few women or men under the age of 30 report themselves as self-employed.

**Table 7**
**Characteristics of Self-Employed and Non-Self-Employed Workers by Gender, 2007**

| | Self-Employed Women | Non-Self-Employed Women | Self-Employed Men | Non-Self-Employed Men | Total Employed |
|---|---|---|---|---|---|
| **Percent of Total Employment** | 3.0 | 41.9 | 6.9 | 48.2 | 100 |
| **Education Level** | | | | | |
| Less than high school | 6.7 | 7.1 | 9.2 | 11.0 | 9.1 |
| High school / GED | 25.8 | 28.0 | 28.5 | 30.5 | 29.1 |
| Some college | 31.5 | 31.9 | 24.4 | 27.1 | 29.1 |
| Bachelor's degree or more | 36.0 | 33.0 | 37.9 | 31.4 | 32.7 |
| Total | 100 | 100 | 100 | 100 | 100 |
| **Age** | | | | | |
| Under 30 | 6.5 | 21.8 | 7.4 | 22.6 | 20.7 |
| 30-44 | 32.8 | 34.2 | 31.6 | 36.7 | 35.2 |
| 45-64 | 53.1 | 40.8 | 52.2 | 37.5 | 40.4 |
| 65 and over | 7.6 | 3.2 | 8.7 | 3.2 | 3.7 |
| Total | 100 | 100 | 100 | 100 | 100 |
| **Marital Status** | | | | | |
| Married | 69.9 | 54.6 | 74.7 | 61.8 | 59.9 |
| Not married | 30.1 | 45.4 | 25.3 | 38.2 | 40.1 |
| Total | 100 | 100 | 100 | 100 | 100 |
| **Marital Status by Age of Children** | | | | | |
| Married | | | | | |
| With children under 6 yrs | 4.8 | 5.5 | 6.6 | 8.5 | 7.0 |
| With children over 6 yrs, under 18 | 25.5 | 20.0 | 28.6 | 24.7 | 23.1 |
| No children | 39.6 | 29.1 | 39.4 | 28.5 | 29.8 |
| Not married | | | | | |
| With children under 6 yrs | 0.8 | 2.4 | 0.7 | 1.1 | 1.6 |
| With children over 6 yrs, under 18 | 6.7 | 10.9 | 2.1 | 4.3 | 7.0 |
| No children | 22.6 | 32.1 | 22.6 | 32.9 | 31.5 |
| Total | 100 | 100 | 100 | 100 | 100 |
| **Average hours worked per week** | 40.1 | 38.9 | 46.2 | 42.9 | 41.4 |
| **Average annual earnings** | $38,172 | $38,670 | $69,652 | $55,233 | $48,769 |
| **Average hourly earnings** | $18.88 | $18.71 | $29.98 | $24.30 | $22.18 |

*Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2007-2009.*

These differences in age are correlated with differences in marriage since younger people are less likely to be married. A much higher share of the self-employed are married, nearly 70% of self-employed women and nearly 75% of self-employed men are married, compared with 55% and 62% respectively for the non-self-employed.

We find that there are relatively few differences in the ages and presence of children in the household between self-employed men and women. Table 7 indicates that the majority of self-employed women, 62.2%, do not have any children under 18 living at home (63.6% of these women are married, and 36.4% are unmarried.) This is very similar to the 62.1% of self-employed men with no children at home. Self-employed women are not very likely to have children under age six (only 5.6% of them have young children), and only 7.3% of self-employed men have young children. Again, this appears to reflect the older age structure of self-employed workers.[15]

## Hours Worked and Earnings

More successful firms tend to have owners who work more hours (Coleman and Robb, 2009). Self-employed women have been found to work fewer hours than self-employed men (Gurley-Calvez, *et al.*, 2009). As discussed above, many women provide more support for family and household responsibilities than men, and thus, have fewer available hours than men to work at their businesses. This could explain some differences between women-owned and men-owned businesses.

Table 7 indicates that the average hours worked per week by self-employed women are substantially lower than those of self-employed men. Self-employed women work on average 40.1 hours per week, compared with 46.2 hours for self-employed men. However, both of these groups work more than their non-self-employed counterparts.

While we have focused on the characteristics of women- and men-owned businesses in much of the earlier discussion in this report, it is interesting to ask how differences in these characteristics may relate to compensation for the owners. In general, we would expect female business owners to make less money than their male counterparts. This is because their businesses are typically much smaller, they are located in industries and occupations that tend to pay lower wages, and self-employed women owners put fewer hours into their business is smaller. On the other hand, the characteristics of self-employed men and women are quite similar, as shown in Table 7.

The final two rows in Table 7 demonstrate the differences in earnings between self-employed women and men. Self-employed women report earning only about $38,172 per year, while self-employed men report $69,652. This implies a female/male earnings ratio of 55% among the self-employed. This compares to a 70% female/male earnings ratio among non-self-employed women and men.

However, when we account for the number of weeks and the average hours worked per week that individuals reported, the difference in female/male earnings ratios between the self-employed and the wage and salary workers becomes smaller. Based on hourly earnings, self-employed women made 63% as much as self-employed men; among the non-self-employed the female/male hourly earnings ratio was 77%.

On a per hour basis, self-employed women made only slightly more than women who received a wage or salary ($18.88 compared with $18.71). The earnings differential among men is much more significant—self-employed men earned $29.98 per hour compared with $24.30 earned by non-self-employed men. This underscores the lower financial returns that women receive from self-employment.

[15] It is not inconsistent to say that women business owners are older, but that they also spend more time in childcare. Table 7 indicates that more than one-third of self-employed women have children under age 18.

# IV. CONCLUSION

When looking at recent trends in women-owned businesses in the United States there are both positive trends as well as stark differences between women-owned and men-owned businesses. On the one hand, women-owned businesses have grown rapidly in recent decades—faster than men-owned businesses—and account for over $1 trillion in economic output. Employment at women-owned firms has been increasing over the last 10 years, whereas it has declined in firms owned by men. Business ownership has expanded particularly rapidly among minority women. On the other hand, there continue to be substantial disparities between women-owned and men-owned businesses. Women-owned businesses start smaller, have lower survival rates, do not grow as fast as, and have lower levels of revenue and employment than men-owned businesses. The earnings of female business owners are much less than those of male business owners. This suggests that there is substantial potential for future growth in women-owned businesses.

There are many factors underlying differences between women- and men-owned businesses. The financing arrangements for women-owned firms are different, as are the industries in which their businesses are located. Both of these factors help explain the smaller size of women-owned businesses and will continue to limit the growth of these businesses in the future. Female business owners tend to work fewer hours and are more concerned with work flexibility and family-work balance than male business owners. They obtain less outside financing and may expect less business growth than do men. On the other hand, self-employed men and women have very similar characteristics in terms of age, education and marital status. While self-employed women earn less than self-employed men, this is not because their current demographic characteristics are substantially different. None of this evidence conclusively resolves the question of whether women-owned businesses face greater discrimination; further research on that issue would be useful. For instance, differences in the choices of female business owners may reflect differences in treatment in financial markets, experiences of past discrimination, or the long history of constrained gender roles for women.

Steps can be taken to foster the development of more women-owned businesses and encourage women to consider self-employment. The evidence on business ownership suggests that persons who have family members or friends who have started businesses are more likely to do so themselves. Since women-owned businesses constitute only a small share of businesses currently, women are less likely to know other women business owners. This suggests that increasing the networks, mentoring, and information available to women may be important. These contacts could help them assess the risks and opportunities of self-employment and make effective decisions about financing and managing companies.

Making sure that women are aware of the availability of start-up financing and have full access to it on a non-discriminatory basis is critical. Furthermore, women-owned businesses are more likely to rely on government financing than are men-owned businesses, suggesting that women-owned firms may benefit from improved knowledge of and access to financing that is provided by or guaranteed by the government.

Finally, given women's greater concerns with work-life balance, it may be important to assure the availability of affordable and safe childcare. Particularly for the self-employed, for whom access to good health insurance can often be difficult, assuring that all families have access to affordable and quality health insurance can be helpful in enabling women to take on more risks and start their own firms.

The strong growth of women-owned businesses in recent years, and their performance as job creators at a time when other businesses have been losing jobs, testifies to the importance of women-owned businesses to the economy. Women-owned businesses are an economic resource that has not yet been fully developed. Thus, more attention needs to be given to identifying opportunities to encourage and support women who wish to become entrepreneurs.

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# APPENDIX

## DATA SOURCES FOR STUDYING WOMEN-OWNED BUSINESSES

This Appendix provides information on six data sets that provide information on self-employment or business ownership. Only three of these data sets are utilized in the figures and tables in this report, but this Appendix is designed to provide a wide range of information to those interested in finding data on this topic and replicating data included in this report.

## Census Bureau Surveys

### I. Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC)

http://www.census.gov/cps/ and http://www.bls.census.gov/cps_ftp.html#cpsmarch

The Current Population Survey (CPS) is a monthly survey of about 60,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The CPS is the primary source of information on the labor force characteristics of the U.S. population. The sample is scientifically selected to represent the civilian non-institutional population. Respondents are interviewed to obtain information about the employment status of each member of the household who is 15 years of age and older.

The CPS includes detailed information on the labor force such as employment, unemployment, earnings, hours of work, and other indicators. The data are available by a variety of demographic characteristics including age, sex, race, marital status, and educational attainment. They are also available by occupation, industry, and class of worker (*e.g.*, wage and salary workers, self-employed workers, and unpaid family workers).

The Annual Social and Economic Supplement (ASEC) is conducted in the months of February, March and April each year. The ASEC surveys 99,000 households, which is a much larger sample size than the other monthly CPS surveys. The ASEC provides additional information on demographic and income characteristics of American adults and their families, including those who report that they are self-employed.

***Self Employment***

The CPS has the most up-to-date estimates of self-employment rates in the U.S. We define the self-employed as persons who report self-employment as their primary job and who work at least 15 hours per week in their businesses and at least 50 hours per year. Our purpose is to include only those individuals who identify themselves as self-employed and spend their time working in the business. Our analysis includes self-employed workers of both incorporated and unincorporated businesses. We exclude self-employed persons in the agricultural industries since the rate of self-employment in those industries is much higher than in other industries. Self-employment rates in agriculture are around 45% of total industry employment (Georgellis and Wall, 2000).

Our report uses the Annual Social and Economic Supplement (ASEC) because it provides the income data necessary to estimate the earnings for the self-employed.

## II. Survey of Business Owners (SBO)

http://www.census.gov/econ/sbo/

The Survey of Business Owners (SBO) is conducted every five years as part of the Economic Census. Included are all nonfarm businesses that filed IRS tax forms as individual proprietorships, partnerships, or any type of corporation, and with receipts of $1,000 or more. It also covers both firms with paid employees (employer firms) and firms without paid employees. The final data are compiled by combining data collected on businesses and business owners in the SBO with data collected on the main economic census and administrative records. The SBO has been in use since 2002.

Earlier surveys of business ownership include the Survey of Women-Owned Business Enterprises (SWOBE) and the Survey of Minority-Owned Business Enterprises (SMOBE), which were the first efforts at collecting specific information on women-owned and minority-owned businesses. These two surveys were last conducted in 1997. The Characteristics of Business Owners (CBO) was conducted in 1992 and contained more business level detail than the subsequent surveys that replaced it.

***Business Ownership***

The SBO designates gender of ownership according to the gender of the person or persons who own 51 percent or more of the interest or stock of the business. Equally women- and men-owned firms have a 50-percent women and 50-percent men ownership of the interest or stock of the business. A number of characteristics of businesses and owners are published as part of the SBO including number of firms, sales, employment, employer firms and payroll. These characteristics are available by geographical location, by industry, financing sources, legal organization and age of business.

***Other Details***

Business ownership data from the SBO, SWOBE and SMOBE were used in this analysis. Race and ethnicity data for number of firms used in Figures 3-A and 3-B are from the 1997 SMOBE and 2002 SBO. Preliminary 2007 SBO estimates released in July 2010 are available for business owners by gender or by race, but not both. Therefore, Figure 2 provides 2007 data for all women-owned businesses, but Figures 3-A and 3-B, show number of women-owned businesses by race and ethnicity only for 1997 and 2002. Detailed women-owned business data for 2007 by race and ethnicity will be available in June 2011. In Figure 3-A, for 1997, minority-owned firms are defined as belonging to the following race/ethnic groups: Black or African American; Hispanic; American Indian; Asian; and Native Hawaiian and Other Pacific Islander and non-minority firms are defined as White, non-Hispanic. Minority and non-minority ownership for 2002 are from special tabulations provided by the Census Bureau. For both years, a small number of equally minority/non-minority-owned firms were excluded—roughly 85,000 in 1997 and 220,000 in 2002. In Figure 3-B, All other minorities include American Indian; Asian; and Native Hawaiian and Other Pacific Islander business owners.

Tables 1, 2 and 3 include number of all private firms, sales/receipts, number of private firms with paid employees (which the Census Bureau refers to as employer firms), employment and payroll for all privately-owned firms by gender of ownership. The tables provide historical data from several different Census business owner surveys and because of changes to the surveys, the data are not directly comparable over time. Data for 1982 to 1992 are comparable as are data for 1997 to 2007. The tables contain a dotted line between 1992 and 1997 because there were major changes to the 1997 survey and thus data between the two years should not be directly compared. The latter period is not comparable to the earlier period because estimates from 1997 to 2007 include C-corporations and gender of ownership did not include a category for equally women- and men-owned businesses for the earliest years. Also excluded are some privately-held firms that were not classifiable by gender of ownership.

Data to calculate survival rates by gender for Table 4 were based on matching businesses from the SBO and Business Information Tracking Series (BITS). More information about this Census data effort, based on a multi-year agreement with the Small Business Administration Office of Advocacy and the National Women's Business Council, can be found at http://www.census.gov/econ/sbo/longitudinal02/longitudinal02.html.

## Federal Reserve Board Surveys

### I. National Survey of Small Business Finances (SSBF)

http://www.federalreserve.gov/pubs/oss/oss3/ssbf03/ssbf03home.html

This data from the SSBF provides detailed information on the use of credit and other financial services by small businesses. The SSBF began in 1987 and was conducted about every 5 years until it was discontinued in 2003. It was a comprehensive source of information on the characteristics of small businesses, their owners, and their finances. The data includes for-profit, nonfinancial, nonfarm, nonsubsidiary business enterprises that had fewer than 500 employees and were in operation as of year-end 2003. The latest survey included a sample of 4,240 firms.

***Business Ownership***

Information on the owners of the firm was collected differently for the 2003 survey than it had been previously. In the past, characteristics of owners were collected only for the owner with the largest share, and respondents were asked whether a majority of firm owners were Hispanic, minority, or female. The 2003 survey followed the lead taken by the U.S. Census Bureau in its 2002 SBO, and collected individual demographic information on up to three owners. Respondents were asked to report on the individual with the largest ownership share first; if that individual did not have a controlling interest in the company (an ownership share of at least 51 percent), information was also collected on all remaining owners up to a maximum of two additional individuals.

### *Other Details*

The data includes information on the types of financial institutions used by small businesses including depository, non-depository, brokerage, finance companies, leasing companies and pension and trust companies. It also includes data on the types of credit used by small businesses including lines of credit, equipment loans, mortgages, personal credit cards and business credit cards.

## II. Survey of Consumer Finances (SCF)

http://www.federalreserve.gov/pubs/oss/oss2/about.html

The SCF is conducted every three years to provide detailed information on the finances of U.S. families. Respondents are selected randomly and a strong attempt is made to select families from all economic strata. Participation is voluntary. About 4,500 families are interviewed in the main study. These data are collected every three years starting in 1983, with the most recent data being 2007. In 2010, the SCF will collect more information on the businesses for those indicating self-employment (for firms with less than 500 employees).

### *Business Ownership*

Business ownership is only covered through a variable for the self-employed. For each head of household, the survey collects information on balance sheets, pensions, income, and other demographic characteristics of the family. The survey also gathers information on the use of financial institutions.

# Private Surveys

## I. Kauffman Firm Survey (KFS)[16]

http://www.kauffman.org/kfs/

The KFS is a longitudinal business-level database which annually tracks businesses that were newly established in 2004; the most recent data are from 2008. The survey sample began with 4,928 firms. The panel of businesses was created by using a random sample from Dun & Bradstreet's (D&B) database list of new businesses started in 2004. The data are an oversample of businesses based on the intensity of R&D employment in the businesses' primary industries.

### *Business Ownership*

The KFS collects annual information on the characteristics of business and the business owners, collecting information on up to ten owners for each business in the survey. In this report, primary ownership by gender was based on the owner who had the greatest percent ownership of the business, based on equity shares. If there was more than one owner with equal ownership, then the combined

[16] This report uses data from the Kauffman Firm Survey release 4.0. Any opinions, findings, and conclusions or recommendations expressed in this report do not necessarily reflect the views of the Ewing Marion Kauffman Foundation.

ownership percentage was used to determine the predominant gender of ownership. If percent ownership was not available in the data, then primary ownership was determined by the number and gender of owners. In cases that were indeterminate, such as those businesses that were owned equally by men and women, there was no attempt made to use other variables, such as hours worked, to determine primary ownership. This definition of primary ownership by gender differs from previous studies, such as Robb and Coleman (2009).

### *Other Details*

In this report, for Table 5, the financing definitions are as follows: ***Insider equity*** includes spousal and parental equity. ***Outsider equity*** includes angel, venture capital, government and other company investments. ***Owner debt*** includes personal credit card use of the owners. ***Insider debt*** includes personal or business loans to the owner from family, employees, other owners, or other insider personal and business loans or funding. ***Outsider debt*** includes personal or business bank loans, business credit cards, credit lines, other business or non-bank loans, government business loans or other outside debt or loans.

## II. Panel Study of Entrepreneurial Dynamics (PSED)

http://www.psed.isr.umich.edu/psed/home

This is a nationally-representative sample of nascent entrepreneurs. Screening of businesses began in 1998-2000 to select a cohort of 830 with three follow-up interviews. A control group of those not involved in firm creation is available for comparisons. PSED II began with screening in 2005-2006, with two follow-up interviews. The information obtained includes data on the characteristics of those active as nascent entrepreneurs, the activities undertaken during the start-up process, and the characteristics of start-up efforts. It is a self-reported survey and captures very small enterprises on average.

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