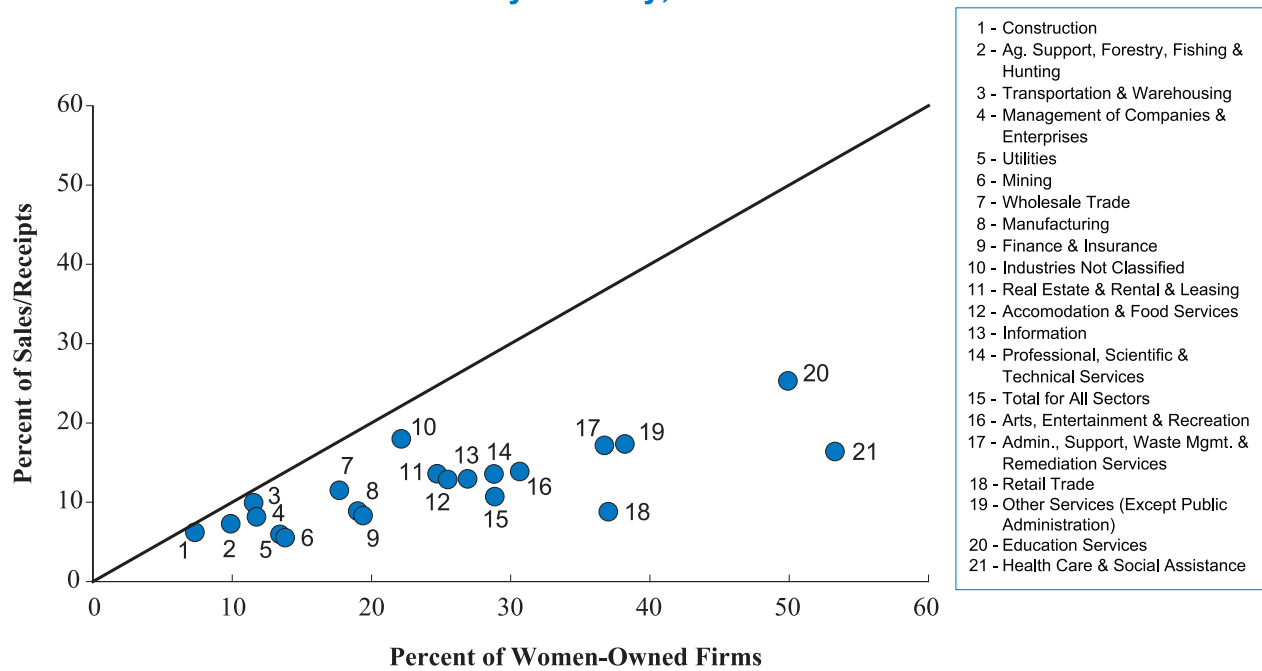


Figure 5
Percent of Firms vs. Percent of Sales/Receipts for Women-Owned Firms
by Industry, 2007



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.

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.

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.

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.