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Women's Business Ownership: Data from the 2012 Survey of Business Owners

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Women make up more than 50% of the U.S. population, and they have grown to be 47% of the workforce.¹ They have surpassed men in educational attainment, with over 33% of women having a bachelor's degree or higher.² Women control \$14 trillion, or 51%, of U.S. personal wealth and are now the primary source of income in over 40% of households.³

Women's importance to the U.S. business community is self-evident, and statistics like these help our understanding of their impact. As the only large scale survey on business demographics, the Census Bureau's Survey of Business Owners (SBO) provides an opportunity to evaluate women-owned businesses. Using the SBO data, this report analyzes the unique characteristics, current role, and opportunities for growth of women-owned businesses in the U.S. economy. Due to changes in the SBO's survey methods, this report is primarily a snapshot of women-owned businesses in 2012.⁴

Top Line Statistics

In 2012, women were majority owners of 9.9 million businesses which generated \$1.4 trillion in sales and employed over 8.4 million individuals. In addition, another 2.5 million businesses were equally-owned by women and men, and they accounted for another \$1.1 trillion in sales and 6.5 million jobs. As majority and joint business owners, women entrepreneurs generated \$453 billion in payroll for 14.9 million workers through over 12.3 million businesses (Table 1).

1. DeWolf, Mark, U.S. Department of Labor, blog dated March 1, 2017. <https://blog.dol.gov/2017/03/01/12-stats-about-working-women>

2. Ryan, Camille L., and Kurt Bauman, "Educational attainment in the United States: 2015," Current Population Reports, March 2016. www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf

3. "Financial Concerns of Women," BMO Wealth Institute, March 2015. www.bmo.com/privatebank/pdf/Q1-2015-Wealth-Institute-Report-Financial-Concerns-of-Women.pdf

4. The SBO is produced every five years in years ending in 2 and 7. The 2012 SBO was released in early 2016 and is the most up-to-date data on business owner demographics. See SBO methodology here: www.census.gov/programs-surveys/sbo/technical-documentation/methodology.html

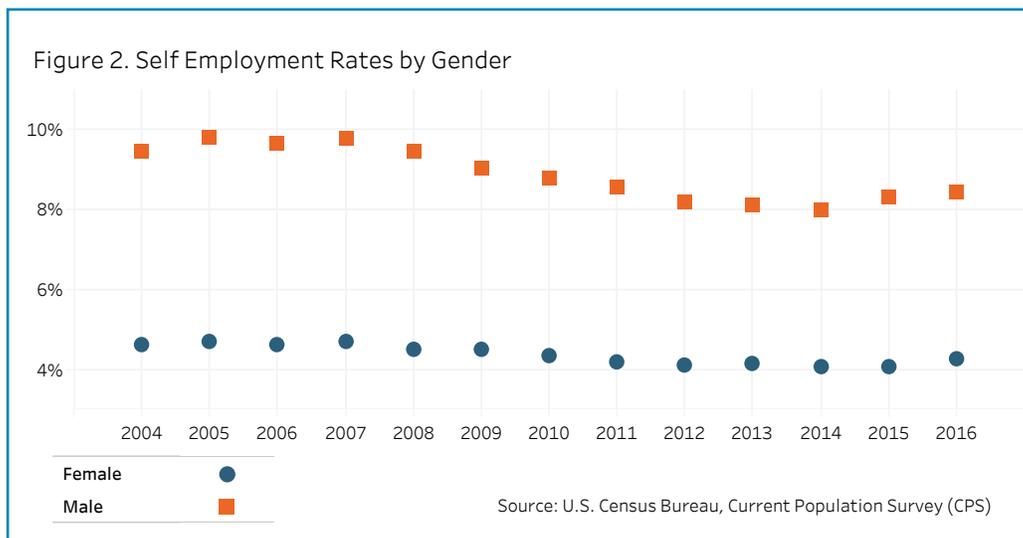
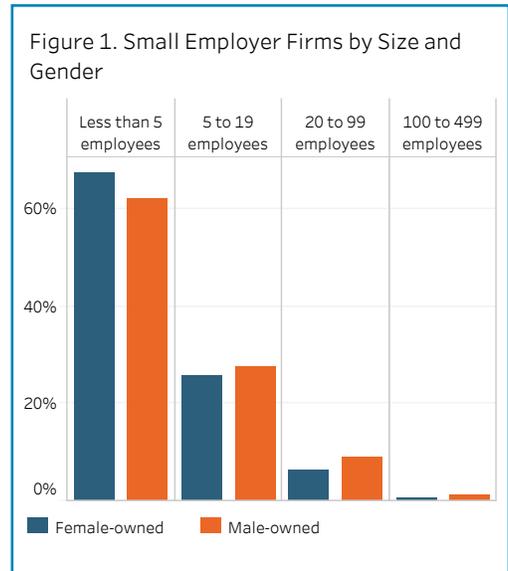
Table 1: U.S. Businesses, Sales, Employment, and Payroll by Business Owner's Gender

	Number of Businesses	Sales (\$ billion)	Employment	Payroll (\$ billion)
Male-Owned	14,845,000	\$ 9,466	41,132,000	\$ 1,644
Women-Owned	9,878,000	\$ 1,420	8,432,000	\$ 264
Equally-Owned	2,456,000	\$ 1,078	6,495,000	\$ 189
All Firms*	27,179,000	\$ 11,964	56,059,000	\$ 2,096

*Excludes publicly owned companies and other non-classifiable businesses.

Almost all (99.9%) of women-owned businesses are small businesses.⁵ While the vast majority of male- and female-owned employer businesses have fewer than five employees, more male-owned small businesses employ five or more employees (Figure 1).

Entrepreneurship. The Census Bureau's Current Population Survey can be used to examine trends in women's entrepreneurship rates (Figure 2). Women's self-employment rate has historically been lower than men's, but the rate for males has undergone larger changes in the past decade. Women's self-employment rate decreased during the Great Recession from 4.7% in 2007 to 4.1% in 2014. During the same period the rate of male self-employment dropped more significantly, from 9.8% to 8.0%. The data show an increase in self-employment for both genders in recent years.



5. A small business is defined as a business with fewer than 500 employees. Of the total 9,878,397 women-owned businesses, 9,877,577 are small.

Receipts and Employment. The almost 10 million women-owned businesses play a vital role in the nation’s economy. However, they own a smaller share of businesses than men, and average lower sales and employment.

SBO data show that women-owned businesses lag behind their male counterparts in employment and receipts. While 22% of male-owned businesses are employers, only 10% of women-owned businesses employ workers. When a women-owned business is an employer, on average it has fewer employees, and smaller payroll per employee. Further, women-owned businesses have, on average, lower receipts than male-owned businesses.⁶ The difference is considerable; while women-owned employer businesses average \$1.2 million in revenue, male-owned employers average \$2.6 million (Table 2).

Table 2: Employer Business Statistics by Business Owner’s Gender

	Percent Employer	Employees per Employer Business	Payroll per Employee	Sales per Businesses	Sales per Employer Business
Women-Owned	10%	8.1	\$31,000	\$144,000	\$1,150,000
Male-Owned	22%	12.3	\$40,000	\$638,000	\$2,642,000
Equally-Owned	31%	8.5	\$29,000	\$439,000	\$1,256,000

In aggregate, women own 36% of all businesses and 20% of employer businesses. However, women-owned businesses only account for 12% of business revenue and 15% of employment (Table 3). Male-owned businesses experience the reverse situation. While owning slightly more than half of all businesses, they account for 79% of sales and 73% of employment.

Table 3: Percent of Total Ownership, Sales, and Employment by Business Owner’s Gender

	Percent of All Businesses	Percent of All Sales	Percent of Employment
Women-Owned	36	12	15
Male-Owned	55	79	73
Equally-Owned	9	9	12

The economy-wide disparities seen in revenue and employment are often noted by researchers.⁷ The differences are a function of many factors, such as industry distribution, business characteristics, and business owners’ goals. The following sections evaluate two of these factors on which the SBO data can shed light: the industry distribution of women-owned businesses and differences in the characteristics of male- and female-owned businesses.

6. The Census Bureau SBO reports receipts which are defined as “operating revenue for goods produced or distributed, or for services provided.” In this report the terms “receipts,” “sales,” and “revenue” are used interchangeably.

7. “Wake-up call, opportunity lost: U.S. Census reports women-owned business revenues are lagging,” U.S. Women’s Chamber of Commerce, January 2016. <http://uswcc.org/wake-up-call/>

DeSilver, Drew, “Businesses owned by women, minorities lag in revenue share,” Pew Research Center, September 2015. www.pewresearch.org/fact-tank/2015/09/01/businesses-owned-by-women-minorities-lag-in-revenue-share/

“Women-owned businesses in the 21st Century,” U.S. Department of Commerce, Economics and Statistics Administration, October 2010. www.dol.gov/wb/media/women-owned_businesses_in_the_21st_century.pdf

Industry Distribution of Women-Owned Businesses

Economic Impacts of Women-owned Businesses by Industry. The five industries with the most women-owned employer businesses show the range of their industry participation: from physician’s offices with high sales, to restaurants that employ large numbers of workers. The employer businesses from these industries have combined sales of over \$122 billion. These 249,000 women-owned businesses employ 1.7 million workers and generate \$43 billion in wages (Table 4).

Table 4: Top Five Industries by Number of Women-owned Employer Businesses

Industry	Number of Employer Businesses	Sales (\$billion)	Employees	Payroll (\$billion)
Restaurants and other eating places	82,000	\$49.6	996,000	\$13.9
Personal care services	55,000	\$11.0	245,000	\$4.4
Offices of other health practitioners	39,000	\$12.9	161,000	\$5.2
Offices of physicians	38,000	\$28.7	209,000	\$11.8
Management, scientific, and technical consulting svcs	35,000	\$19.4	125,000	\$7.3

While employer businesses produce a larger amount of economic activity, nonemployer businesses are an important part of the U.S. business community. For entrepreneurs, a nonemployer business may be an initial step toward becoming a larger employer business. They also provide their owners with a job, extra income, or both. The vast majority of all businesses are nonemployers, including 90% of women-owned businesses (8.8 million). The five industries with the most women-owned nonemployer businesses tend to be in the services sector and contain over 3.3 million businesses (Table 5). While not providing additional employment, these women-owned nonemployer businesses have over \$51.8 billion in sales.

Table 5: Top Five Industries by Number of Women-owned Nonemployer Businesses

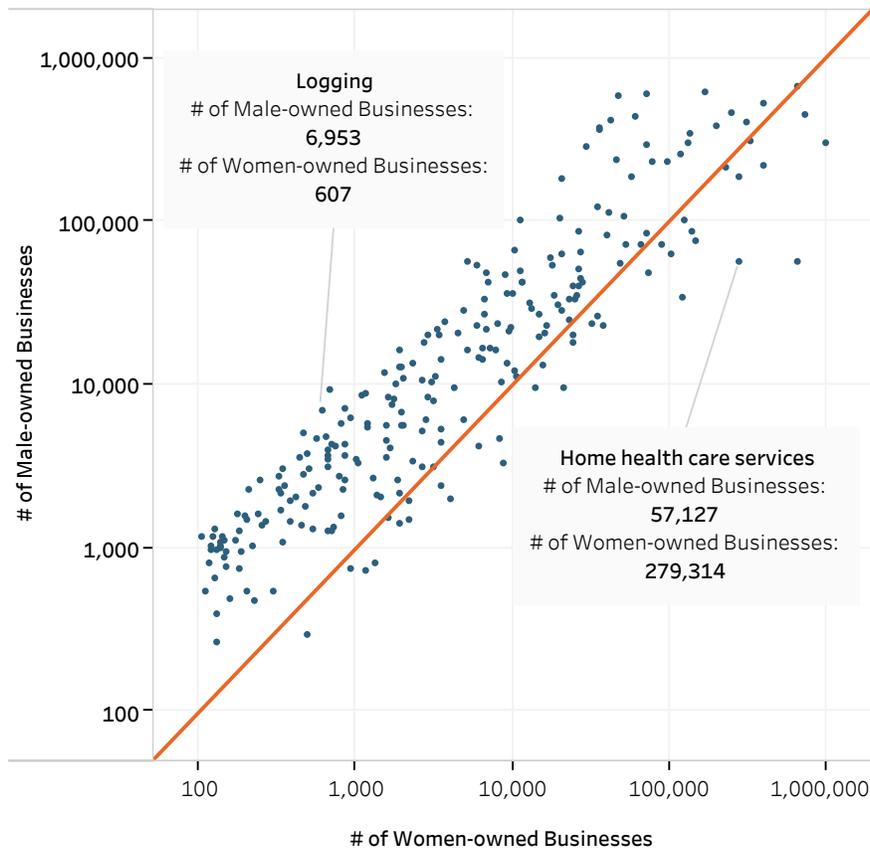
Industry	Number of Nonemployer Businesses	Sales (\$billion)
Personal care services	942,000	\$17.9
Other personal services	720,000	\$11.9
Child day care services	629,000	\$8.4
Services to buildings and dwellings	625,000	\$8.4
Direct selling establishments	397,000	\$5.2

The level of women’s business ownership varies dramatically from industry to industry. Of the 282 industries analyzed, 32 (or 13%) have more women-owned businesses than male-owned. About half have less than 19% female ownership. As seen in Figure 3, most industries are above the red line, meaning they are composed of a larger number of male-owned businesses than women-owned. Dots under the line, for example home health care services, designate industries with more female than male ownership.

Simple industry counts misrepresent the total contribution of women-owned businesses due to how industries are classified.⁸ Women-owned businesses are often underrepresented in industries that contain fewer total firms. (These are located in the lower left quadrant of Figure 3, such as logging or electric light manufacturing.) Larger industries like personal care services and home health care services (located in the upper right of Figure 3) often have a high share of female ownership.

8. Industries are classified by the SBO using the 2012 North American Industry Classification System (NAICS). Industries are divided into NAICS codes that vary in specificity. This report uses four-digit NAICS codes. For more information, see www.census.gov/eos/www/naics/index.html

Figure 3. Ownership of Industries by Gender



To see an interactive version of Figure 3:

[CLICK HERE](#)

The tendency of larger industries to have more women-owned businesses can be seen in the 36 industries with more women-owned businesses than male-owned. These 36 industries contain the same number of women-owned businesses, about 5 million, as the other 246 industries combined.

Top Sales and Employment Industries. One important factor in the sales and employment disparities could be the industries in which women-owned businesses dominate. An analysis of the 20 industries with the highest and lowest sales and employment shows that women-owned firms tend to be clustered in low-sales industries and are rarer in high-employment industries.

Sales. Table 6 shows the share of all women-owned businesses in the 20 highest and lowest industries ranked in terms of sales, and the share of these industries owned by women (plus comparable figures for men). For example, a very small share of all women-owned businesses (0.1%) are in the highest 20 sales industries, and they represent 16.1% of the businesses in these 20 industries.

The table also shows that 53.2% of all women-owned businesses are in the 20 industries with the lowest average sales. These industries tend to be very large, such as child day care, independent artists, and food services, and average sales of \$64,500 annually. For comparison, only 25.4% of all male-owned firms are in these industries.

On the other end of the spectrum, 70.7% of businesses in the top 20 high sales industries are male-owned (these include insurance carriers and manufacturers). While these industries have fewer total businesses, their sales average about \$14.1 million annually. Women-owned businesses are a small minority in these high-sales industries. The concentration of women-owned businesses in low sales industries and their lack of representation in high-sales industries helps explain the nationwide receipt disparities seen in the SBO data. (Note: Appendix A lists the top and bottom 20 industries by sales and owner's gender.)

Table 6: Percent of All Women-Owned Firms in the Lowest and Highest Sales Industries; Percent of Ownership by Gender

	20 Industries with the Lowest Sales		20 Industries with the Highest Sales	
	% of Firms Owned by this Gender in the Bottom 20	% of All Firms in the Bottom 20 Owned by this Gender	% of Firms Owned by this Gender in the Top 20	% of All Firms in the Top 20 Owned by this Gender
Women-Owned	53.2	54.7	0.1	16.1
Male-Owned	25.4	39.2	0.4	70.7

Employment. While there is a similar imbalance in the top employment industries by gender, it is not as stark as the uneven distribution in sales. For employment, women-owned businesses are less likely to be in high employment industries (Table 7). About 63% of businesses in top employment industries are male-owned, higher than their 55% share across all industries. (The top 20 employment industries tend to be in manufacturing, and employ 64 employees per firm on average.) The lowest employment industries, like child day cares and direct selling establishments, have more women-owned businesses than the national average. However, the difference from average is smaller compared to the difference in the lowest sales industries. (The top and bottom 20 employment industries by gender are listed in Appendix B.)

Table 7: Percent of All Women-Owned Firms in the Lowest and Highest Employment Industries; Percent of Ownership by Gender

	20 Industries with the Lowest Employment		20 Industries with the Highest Employment	
	% of Firms Owned by this Gender in the Bottom 20	% of All Firms in the Bottom 20 Owned by this Gender	% of Firms Owned by this Gender in the Top 20	% of All Firms in the Top 20 Owned by this Gender
Women-Owned	44.4	45.8	0.3	25.6
Male-Owned	29.4	45.5	0.6	63.3

While women-owned businesses are more likely to be in lower sales and employment industries, these industries may not necessarily be a poor option for entrepreneurs. The goal of many businesses is to maximize their return on investment, a measure which relates to profits and not necessarily revenue. In many instances, lower revenue industries may earn similar or larger profits than high-revenue industries.

Disparities Within Industries. In addition to the distribution of women-owned businesses in lower revenue and lower employment industries, the SBO data show other factors are at work in the sales and employment disparities. An analysis of individual industries shows that women-owned businesses still have smaller sales and employ fewer workers than their male counterparts. This trend holds true not only in industries with few women-owned businesses, but in some cases grows more apparent in those industries with high female ownership.

In the seven industries with very high ownership by women (over 60%) disparities in receipts and employment by gender persist. For example, while 81% of home health care service businesses are women-owned, they only account for 39% of industry receipts and 33% of employment (Table 8).

Table 8: Top Industries by Women's Ownership Share, and Percent of Other Business Indicators

Industry	% of All Firms	% of All Receipts	% of Employer Firms	% of Employer Receipts	% of Employment
Child day care services	89	69	70	57	59
Home health care services	81	39	45	32	33
Individual and family services	74	47	57	43	46
Personal care services	74	56	55	43	44
Vocational rehabilitation services	69	27	45	19	25
Community food and housing, and emergency services	64	42	46	34	44
Office administrative services	62	18	22	13	15

The significant disparities in receipts are partly due to the large number of women-owned nonemployer businesses. As noted before, women-owned businesses are half as likely to be employer businesses. Employer businesses earn far more in revenue regardless of gender (approximately 44 times more for a women-owned business). Many of these industries with high female ownership shares have a large number of nonemployers that depress the average value of business receipts and, of course, employment attributable to women-owned businesses. Table 8 also shows that the disparity in receipts shrinks when evaluating only employer businesses, but does not reach parity.

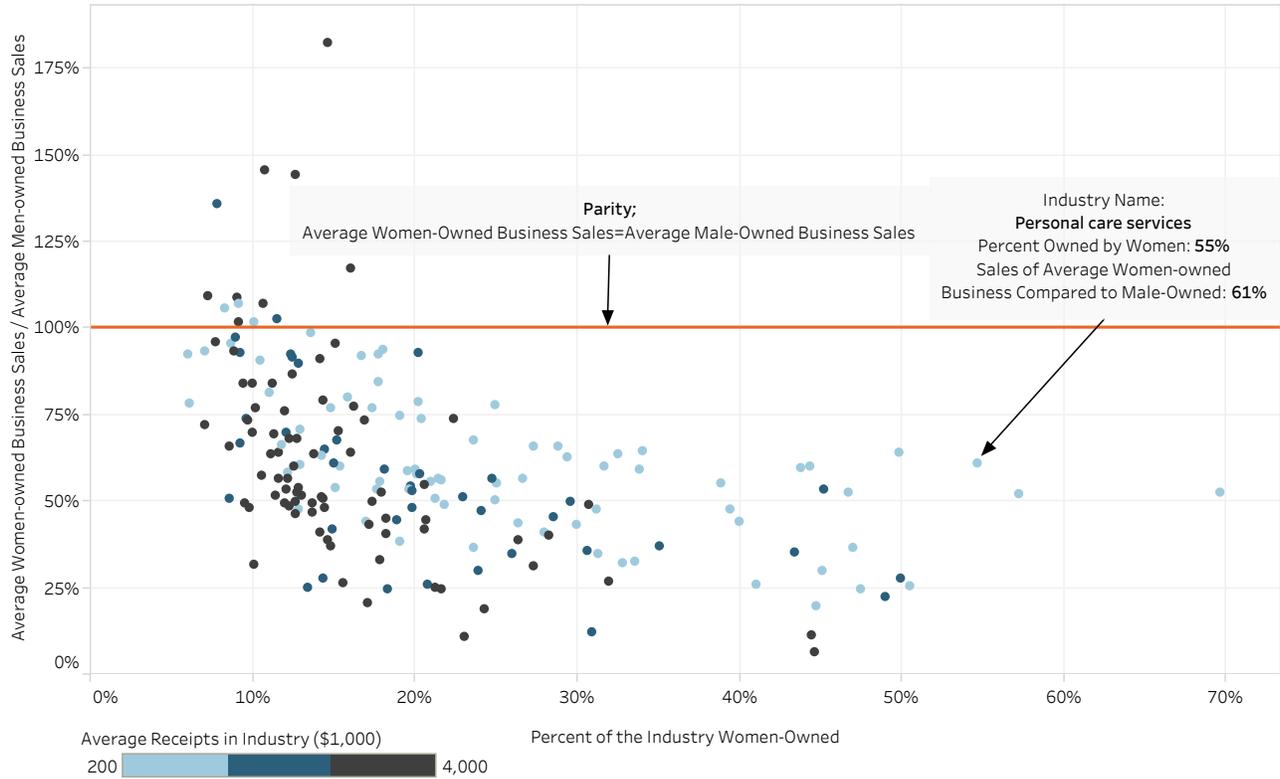
In almost all industries, the average sales of women-owned businesses are not equal to their male-owned counterparts. The figure below shows women-owned business receipts compared to their male counterpart in each industry. In the vast majority of industries women-owned businesses have less than equal sales (or 100%) compared to male-owned businesses in the same industry (Figure 4). Even in industries with higher shares of female ownership, the average women-owned business has smaller receipts than male-owned ones. For example, women own 55% of the personal care services industry, but the receipts of the average women-owned business amount to only 61% of the male-owned average. (The analysis in Figure 4 is limited to employer businesses due to the large number of women-owned nonemployers.)

Drawing firm conclusions from this data is difficult without additional information. First, with only revenue data, it is unknown if these women-owned businesses earn less in profits than their male counterparts. Second, entrepreneurs have goals beyond merely sales, such as workplace flexibility, independence, and passion for the industry.⁹ Finally, other business characteristics that may differ between male- and women-owned businesses, such as age of firm, can have large effects on these sales and employment numbers within industries.

9. "MasterCard Worldwide annual global small business survey finds mixed perceptions on current small business climate but optimistic outlook on future," MasterCard Worldwide, December 2006. www.mastercard.com/us/company/en/newsroom/pr_GlobalSmallBusinessSurvey2006.html

Lim, Katherine, "Self-employment, workplace flexibility, and maternal labor supply: A life-cycle model," December 31, 2015. http://sites.lsa.umich.edu/katherinelim/wp-content/uploads/sites/287/2015/10/jmp_lim_10_30_15.pdf

Figure 4. Women-owned Employer Business Sales compared to Male-Owned; by Womens' ownership in Industry



To see an interactive version of Figure 4:

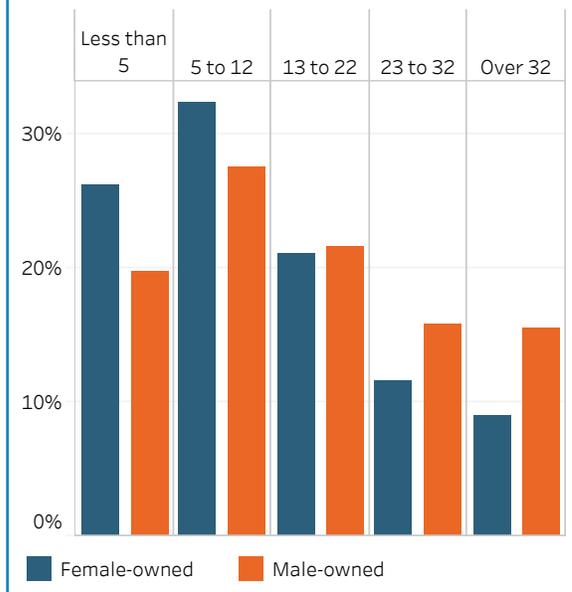
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Employer Business Characteristics

The SBO provides extensive detail on characteristics of businesses. Individual characteristics of a business have effects on a business's revenue and employment regardless of industry. Some key characteristics of women-owned businesses are discussed and compared with their male counterparts in this section.

Age of Firm. Older firms have higher revenues and employ more individuals than their younger counterparts regardless of gender. On average, women-owned firms tend to be younger than male-owned: 58% of all women-owned employer businesses are 12 years old or younger as compared to 47% of male-owned firms (Figure 5). An average women-owned employer business over 32 years old has \$4.2 million in receipts and employs 20 individuals. In comparison, a women-owned business less than five years old averages only \$432,000 in sales and four employees. The larger share of younger women-owned firms may contribute to the economy-wide disparities seen in receipts and

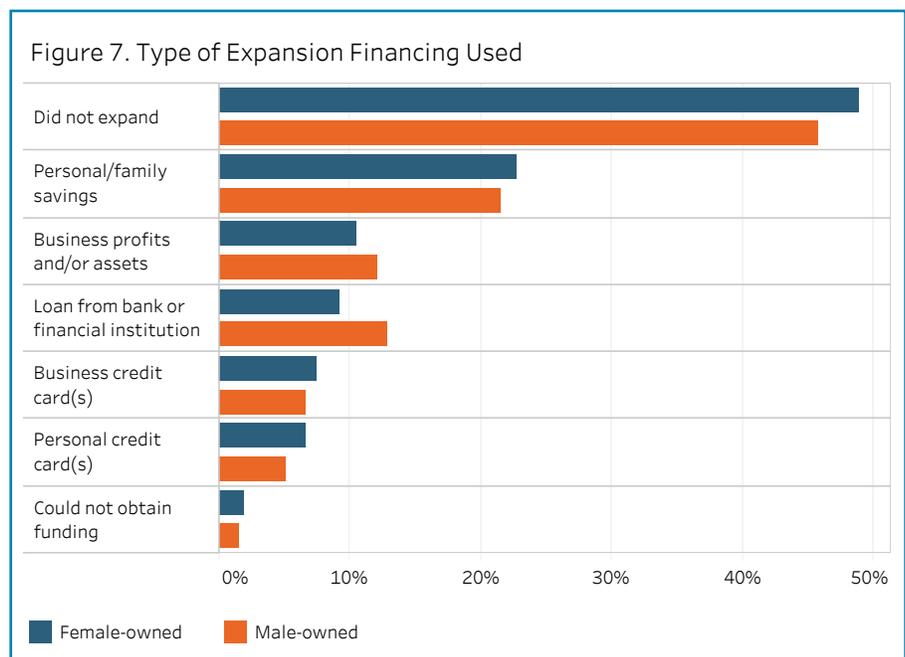
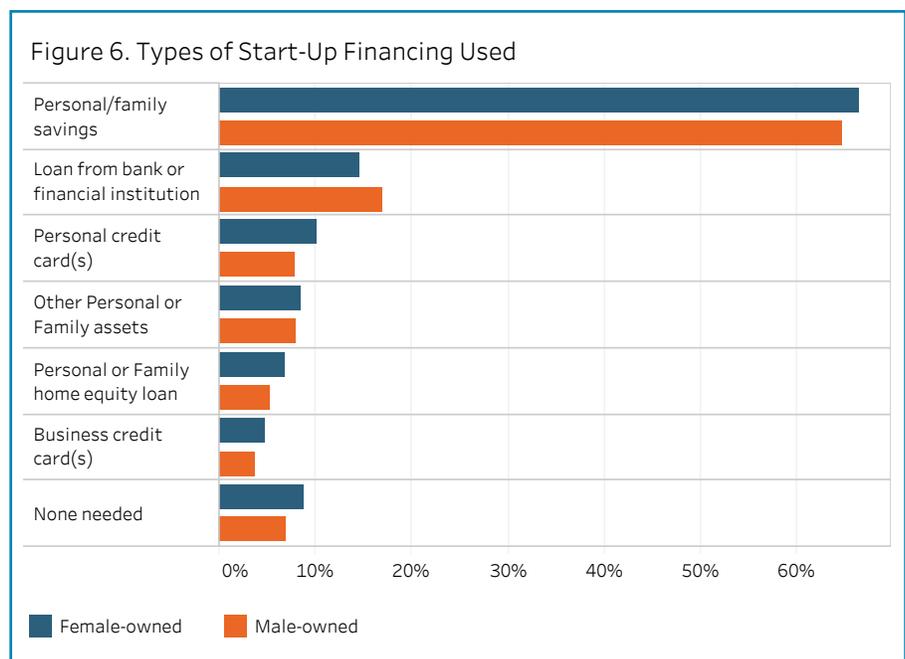
Figure 5. Age of Employer Business by Gender



employment. The SBO unfortunately does not provide data on business survival rates. If women-owned businesses close at similar rates as male-owned, then as they age these gaps may shrink, leading to higher receipts and more employment.

Sources of Financing. The SBO provides some insight on the methods of financing a business's start-up and expansion, and finds only small differences between male and female businesses' sources of financing at start-up. Women-owned businesses are more likely to use personal forms of financing like savings, personal credit cards, and home equity. Alternatively, male-owned firms are more likely to use traditional business loans from financial institutions (Figure 6). However, the differences in these groups are fairly small.

More women-owned businesses report not expanding their business in 2012 as compared to male-owned businesses (Figure 7). Male-owned businesses again use business loans from financial institutions to expand their businesses more than women-owned. However, the top sources of financing for expansion are similar between male- and women-owned businesses.



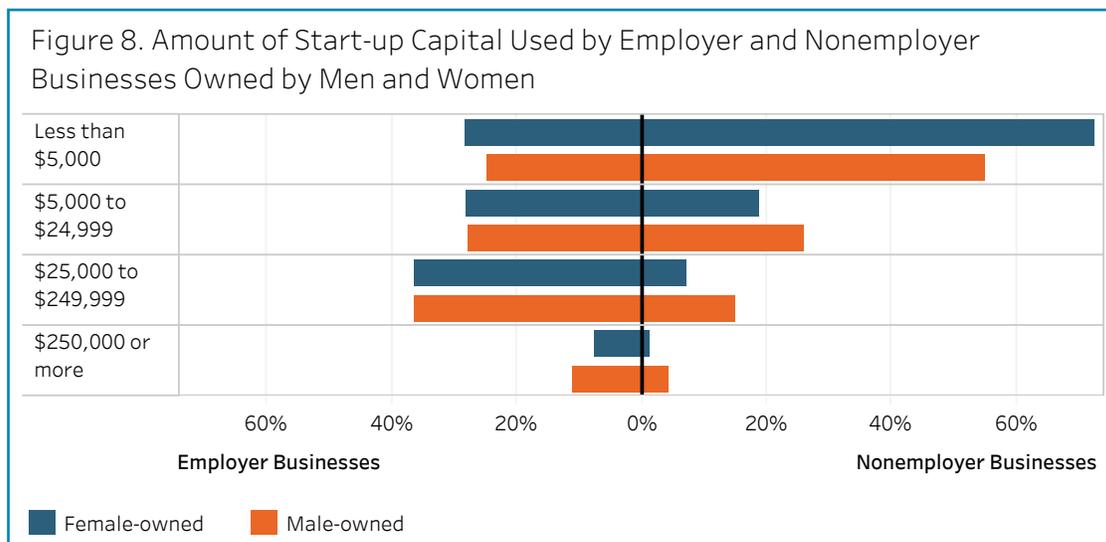
The SBO data on business financing can be fairly limited, as it does not capture the decision making process when seeking credit or the rate of denial for different credit sources. Some research shows that women are more likely to feel discouraged from applying for financing from traditional lenders.¹⁰ If

10. Kymn, Christine, "Access to capital for women- and minority-owned businesses: Revisiting key variables." U.S. Small Business Administration, Office of Advocacy, January 2014. www.sba.gov/sites/default/files/Issue%20Brief%203%20Access%20to%20Capital.pdf

women-owned businesses are more likely to be denied credit from traditional lenders they may be forced to use other financing sources or decide not to expand.

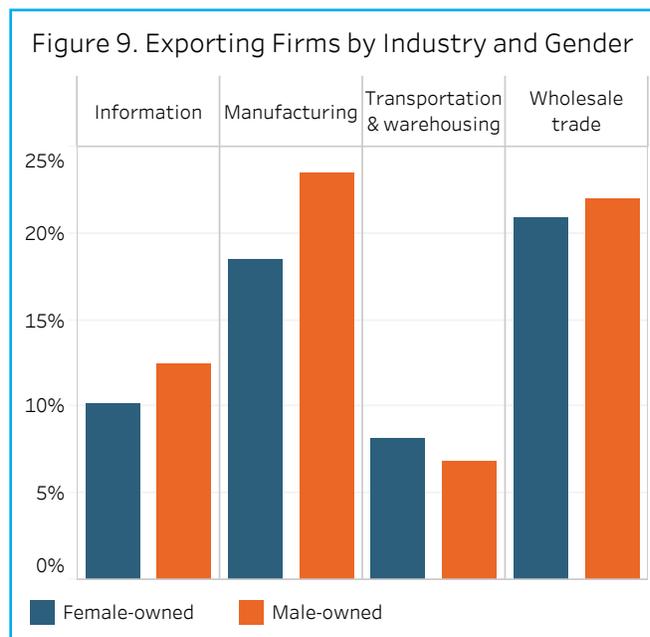
In addition, although the SBO asks businesses to report every source of financing, it does not show the importance or amount of capital they gather from each source. To fully understand the differences in sources of finance and access to capital between women- and male-owned firms this data is necessary.

Amount of Capital. According to the SBO, women-owned employer businesses are more likely to start with less capital than male-owned businesses. While small, the differences are seen in the lowest and highest categories: those firms starting with less than \$5,000 and more than \$250,000 (Figure 8). However, the differences grow substantially when evaluating non-employer firms. Almost three-fourths (72%) of all nonemployer women-owned businesses start with less than \$5,000, as compared to 55% for male-owned



On average, firms that start with more capital tend to have higher sales and employment. Nonemployer firms with higher start-up capital may be able to grow more easily into employer firms over time. In fact, some research shows that adequate capitalization is a leading indicator of long term success for women-owned businesses.¹¹

Exporting. Women-owned businesses in the top exporting industries are less likely to export as compared to their male counterparts. In manufacturing, 21% of male-owned firms export as compared to 17% of women-owned. Women-owned firms are slightly more likely to export in the transportation sector, 8% compared to 6%. In all firm sizes and industries, firms that export report higher sales than those that do not (Figure 9).



11. "Executive summary: Undercapitalization as a contribution factor to business failure for women entrepreneurs," National Women's Business Council. www.nwbc.gov/content/executive-summary-undercapitalization-contributing-factor-business-failure-women

Race and Ethnicity

The Survey of Business Owners reveals the particularly large contribution women-owned businesses make to minority business communities. Women own a larger share of minority-owned businesses than nonminority businesses. For example, 47% of all minority-owned businesses are also women-owned, as compared to 32% for nonminority-owned businesses. Within minority groups, women-owned employer businesses also perform closer to parity compared to their male counterparts.

As seen in Table 9, minority women own a larger share of businesses in their respective demographic groups compared to nonminority women. Interestingly, over half (59%) of all Black/African American-owned businesses are owned by women, a much higher percentage than in the nonminority group (32%). Every minority group has a higher rate of women's business ownership than nonminorities, and this is true of both nonemployer and employer firms.

Table 9: Women's Share of Businesses, Sales, and Employment by Racial or Ethnic Demographic

	Percent of Businesses	Percent of Employer Businesses	Percent of Revenue	Percent of Employment
Minority	47	26	19	23
Black/African American	59	35	28	33
American Indian	48	30	23	26
Asian	39	26	19	23
Native Hawaiian	46	31	23	30
Hispanic	44	23	17	20
Nonminority	32	19	11	14

In general, minority-owned businesses are less likely to be employers, have smaller sales, and employ fewer people than nonminority-owned businesses.¹² This holds true for minority women-owned businesses as well. However, when comparing the sales and employment of women-owned businesses to their male counterparts within their demographic group, minority women-owned businesses exhibit smaller disparities than nonminority with few exceptions (Table 10). For example, in the Black/African American group, women-owned businesses employ about 12% fewer employees than male-owned businesses on average. By comparison, nonminority women-owned businesses employ 35% fewer employees than their male counterparts.

Minority-owned businesses are an important and growing part of the U.S. economy. From 2007 to 2012, through the recession, a net 2 million minority-owned businesses were created, while a net 1 million nonminority-owned businesses were shed. Minority-owned businesses contributed an additional 1.35 million jobs and \$335 billion in sales during a time of economic turmoil. Data from the SBO highlight the role of minority women entrepreneurs as important drivers of local development and growth.

12. McManus, Michael, "Minority business ownership: Data from the 2012 Survey of Business Owners." U.S. Small Business Administration, Office of Advocacy, September 2016. www.sba.gov/sites/default/files/advocacy/minority-owned-businesses-in-the-us.pdf

Table 10: Sales, Employment, and Payroll Statistics by Owner's Demographic and Gender

	Owner Gender	Percent Employer	Employees per Employer Business	Payroll per Employee	Sales per Business	Sales per Employer Business
Black or African American	Female	2.5	8.2	\$24,300	\$28,000	\$557,000
	Male	6.0	9.3	\$32,100	\$99,000	\$1,252,000
American Indian and Alaska Native	Female	5.9	7.1	\$30,200	\$69,000	\$867,000
	Male	12.8	8.3	\$35,300	\$200,000	\$1,304,000
Asian	Female	16.9	6.4	\$28,100	\$181,000	\$894,000
	Male	28.5	8.0	\$33,500	\$476,000	\$1,529,000
Native Hawaiian and Other Pacific Islander	Female	5.9	8.0	\$32,200	\$75,000	\$932,000
	Male	10.5	8.3	\$40,500	\$211,000	\$1,640,000
Hispanic	Female	4.6	7.0	\$27,900	\$54,000	\$766,000
	Male	11.0	8.6	\$32,100	\$211,000	\$1,587,000
Minority	Female	6.3	6.9	\$27,500	\$70,000	\$809,000
	Male	14.5	8.4	\$33,100	\$256,000	\$1,531,000
Nonminority	Female	13.0	8.5	\$32,200	\$189,000	\$1,253,000
	Male	25.1	13.1	\$40,800	\$768,000	\$2,866,000

Equally-Owned Businesses

This report focuses specifically on businesses that are majority owned by women. However, there are a significant number of women entrepreneurs who are key parts of businesses equally-owned with men. “Equally-owned businesses,” as they are called, can be easily missed in analyses of business demographics.¹³

About 2.5 million firms are equally-owned and have combined sales of over \$1 trillion. Equally-owned businesses are far more likely to be employer businesses than either male- or women-owned businesses. 31% of equally-owned businesses are employers as compared to only 10% of women-owned businesses and 22% of male-owned. Equally-owned employer businesses have 6.5 million employees and provide over \$188 billion in payroll to the economy annually.

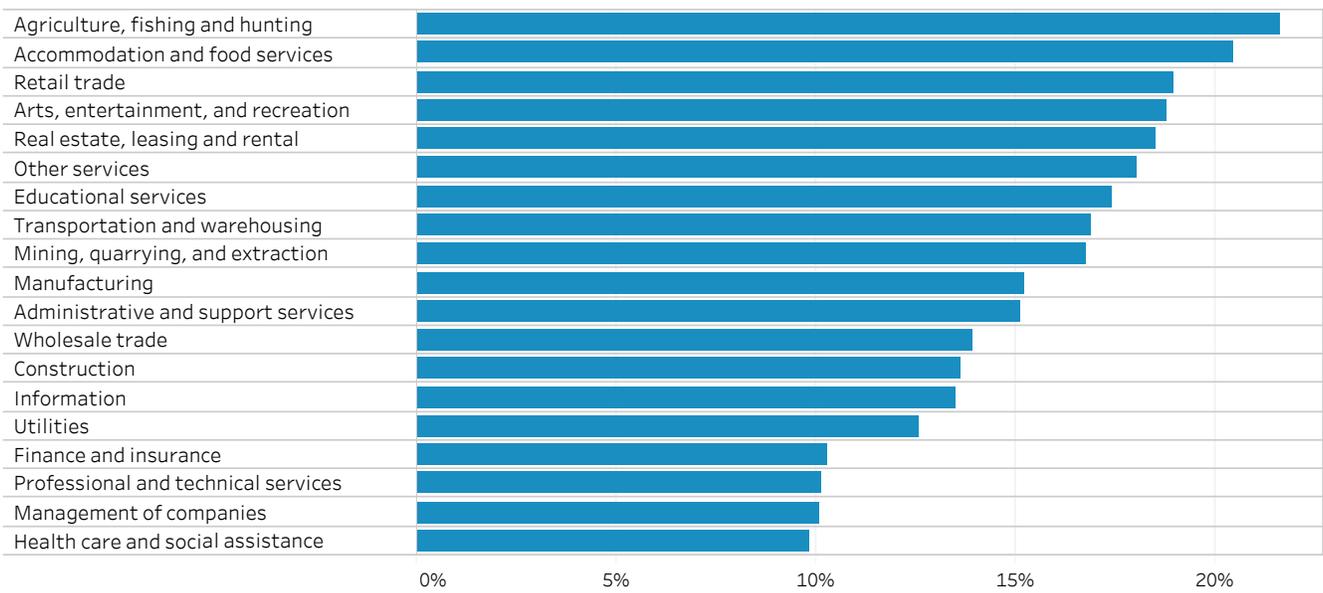
In many other ways, SBO data show equally-owned businesses looking similar to women-owned businesses. Both groups employ north of 8 people per business on average, and have a payroll of about \$30,000 per employee. Both equally-owned and women-owned employer businesses average sales of about \$1.2 million. As noted in relation with women-owned businesses, these averages are below that of male-owned firms.

Almost 90% of all equally-owned firms are family businesses. While appearing in every industry, they are most prominent in agriculture and the accommodations and food services sector (Figure 10). Equally-owned businesses make up over 20% of these industries.

Due to the higher rate of employer businesses among equally-owned enterprises, they are a large contributor of sales and employment from women entrepreneurs. An understanding of women’s entrepreneurship is incomplete without acknowledging equally-owned businesses.

13. Segal, Miriam, “An overlooked demographic: Equally-owned business or EOBs,” U.S. Small Business Administration, Office of Advocacy, June 2015. www.sba.gov/sites/default/files/advocacy/issue-brief-8-equally-owned-business_0.pdf

Figure 10. Percent of Businesses in Industry Equally-Owned by Women and Men



Conclusion

Key Findings. Women entrepreneurs continue to be a vital part of the American economy. Women-owned businesses contributed over \$1.4 trillion in sales and 8.4 million jobs in 2012. Women in equal business partnerships with men added another \$1 trillion in sales and 6.5 million jobs. Through the efforts of women business owners, more than \$450 billion in salary and wages were paid to their workers.

The importance of women entrepreneurs is clearly seen in minority communities. A larger share of the minority businesses are owned by women compared to their nonminority counterparts. The minority business community continued to grow throughout the recession and added millions of businesses. Minority women were likely a key element in the minority business community's steadfastness.

Despite women business owners' successes, their businesses lag behind in revenue and employment. For every dollar of revenue an average women-owned employer business earns, a male-owned business earns \$2.30. For every 10 employees at a women-owned business, a male-owned business employs 15. These differences are seen when evaluating economy-wide averages, and do not take into account important factors like industry, firm age, and other business characteristics.

The SBO data show that industry distribution may be one driver of some of these gaps. Women-owned firms are more likely to be in the lowest sales industries and are less represented in the highest sales industries. High employment industries also have lower numbers of women-owned businesses, with low employment industries having more.

However, the data also show that industry distribution alone cannot explain the revenue and employment disparities. Even within the same industries, women-owned businesses make less in sales and employ fewer workers compared to male-owned businesses. Evaluating the business characteristics data from the SBO shows some key differences between women and men business owners and businesses.

The characteristic data show women-owned businesses tend to be younger and rely more on personal savings and wealth as compared to male-owned firms. They are more likely to start with very little capital and are less likely to be exporters. While some of these characteristics (like firm age) can be directly linked to sales and employment outcomes, others are less clear.

Future Research. The report looks at the current state of women-owned businesses using descriptive statistics provided by the SBO. More work is needed to explain the disparities seen between male- and women-owned businesses. Future research can use statistical tools to evaluate the independent effects of industry and business characteristics on revenue and employment. Further research must also focus on choices made by women entrepreneurs and their motivations. Some patterns seen in the current data may be negative indicators if they are not made by choice but rather caused by systematic barriers or discriminatory practices. Any such barrier to women entrepreneurship limits the growth of their businesses, hurts innovation, and unduly constricts the U.S. economy.

Soon future research into how business performance and characteristics change will be easier. Currently, the SBO is the only consistent, reoccurring source of data for business ownership demographics. However it is limited due to the length between surveys, the delay in its release and changes in methodology. A new survey, the Annual Survey of Entrepreneurs (ASE), from Census partnering with the Kauffman Foundation and the Minority Business Development Agency, will help fill this gap and allow new research on how women and minority owned businesses are changing year to year. The ASE, performed annually, gathers similar data as the SBO. This new data product will provide researchers an important tool to understand the growth and changing characteristics of women- and minority-owned businesses.

Methodology Notes

The U.S. Census Bureau collects data on the demographics of businesses owners and characteristics of businesses every five years. All data provided is public, readily available and from the 2012 Survey of Business Owners (SBO), except Figure 2 and the self-employment discussion, which are from the Current Population Survey (CPS). SBO data were retrieved using American FactFinder in November 2016 through January of 2017. Calculations were performed by Advocacy to obtain percentages and ratios.

For use in this brief, “all firms” refers to all firms that can be classified by race and ethnicity, thereby excluding all publicly held and other non-classifiable firms. Gender, ethnic, and/or racial ownership is defined by the SBO as owning 51% or more of a business. A “minority” firm or business is defined as a firm that is not majority held by non-Hispanic White owners. Analysis presented for minority-owned businesses as a whole uses the “minority” subtotal provided by the SBO.

For the purposes of this report, a firm that is both minority-owned and women-owned is considered minority-women-owned. However, a small number of these firms, about 0.5% of employers, are not majority owned by minority women. Rather, they are dubbed minority-owned due to a combination of minority men and women owners. For example, consider an equal three person business partnership that includes a minority-male, minority-female, and nonminority-female. This business would be 66% minority-owned, 66% women-owned, but only 33% minority-women-owned. Census would consider this business as minority-owned and women-owned, but not minority-female-owned.

Industry distribution analysis was performed on 282 4-digit NAICS industries. Sales percentile calculation was performed on the metric “sales receipts per firm” to find the top and bottom 20 industries. Forty-one industries with fewer than 1,000 total firms were then filtered out. The employment percentile calculation was performed on the metric “employees per firm.” Sixty-four industries with fewer than 1,000 total employer firms were similarly filtered out.

Figure 3 filters out 35 industries with fewer than 100 women-owned businesses leaving 247 remaining. The equally-owned business industry distribution analysis (Figure 10) was performed using the broader 2-digit NAICS industries.

Within-industry disparity analysis (Figure 4) was performed using Tableau software and filtered out industries with fewer than 150 women-owned employer businesses. It also filtered out any industry where receipt data was suppressed by the Census Bureau and not publicly available. After filtering, 210 industries remained out of the 282 total industries.

Business characteristic analysis was performed using Tableau and considered only employer firms unless otherwise noted. Analysis removes “don’t know” and “N/A” responses before calculating percentages except for “start-up,” “expansion,” and “amount of capital.” The amount of respondents in these removed categories is not uniform between women and men, so unknown bias may be introduced in their elimination.

Entrepreneurship rates used CPS data and were calculated by using the number of self-employed individuals divided by all individuals of a specific gender over the age of 18. The Exporting section uses the 2-digit NAICS industries.

Appendix A

Top 20 Industries by Sales

Industry Title	NAICS	Sales Percentile	Percent of Industry Owned by Group	
			Men	Women
Petroleum and petroleum products wholesalers	4247	99	73	14
Petroleum and coal products manufacturing	3241	96	70	18
Basic chemical manufacturing	3251	94	76	14
Insurance carriers	5241	94	69	22
Wired telecommunications carriers	5171	94	73	15
Dairy product manufacturing	3115	93	57	29
Converted paper product manufacturing	3222	93	75	15
Motor vehicle body and trailer manufacturing	3362	92	77	7
Resin, synthetic rubber, and artificial synthetic fibers manufacturing	3252	91	72	12
Boiler, tank, and shipping container mfg	3324	91	86	7
Beer, wine, and distilled alc bev wholesalers	4248	90	63	23
Animal slaughtering and processing	3116	90	63	18
Nursing care facilities (skilled nursing facilities)	6231	89	60	26
Agriculture, construction, and mining machinery manufacturing	3331	88	81	7
Motor vehicle parts manufacturing	3363	88	78	9
Plastics product manufacturing	3261	87	76	11
Foundries	3315	87	77	9
Metal and mineral (except petroleum) merchant wholesalers	4235	86	71	16
Electric power generation, transmission and distribution	2211	86	79	7
Aerospace product and parts manufacturing	3364	86	76	10
		Average:	71%	16%

Bottom 20 Industries by Sales

Industry Title	NAICS	Sales Percentile	Percent of Industry Owned by Group	
			Men	Women
Other personal services	8129	0	36	59
Child day care services	6244	0	8	89
Personal care services	8121	1	22	74
Hunting and trapping	1142	1	83	6
Independent artists, writers, and performers	7115	1	53	41
Community food and housing; relief svcs	6242	2	32	64
Personal and household goods repair and maintenance	8114	2	69	23
Rooming and boarding houses	7213	3	30	52
Taxi and limousine service	4853	3	87	10
Support activities for animal production	1152	3	59	27
Fishing	1141	4	80	9
Direct selling establishments	4543	4	32	58
Services to buildings and dwellings	5617	4	47	47
Other professional, scientific, and technical services	5419	5	53	40
Performing arts companies	7111	5	57	37
Specialized design services	5414	5	42	51
Individual and family services	6241	6	21	74
Home health care services	6216	6	17	81
Special food services	7223	6	41	50
Offices of real estate agents and brokers	5312	7	45	46
		Average:	39%	55%

Appendix B

Top 20 Industries by Employment

Industry Title	NAICS	Employment Percentile	Percent of Industry Owned by Group	
			Men	Women
Nursing care facilities (skilled nursing facilities)	6231	98	60	26
Motor vehicle body and trailer manufacturing	3362	96	77	7
Employment services	5613	95	54	38
Converted paper product manufacturing	3222	95	75	15
Wired telecommunications carriers	5171	94	73	15
Foundries	3315	94	77	9
Management of companies and enterprises	5511	93	78	12
Plastics product manufacturing	3261	93	76	11
Residential disability, mental health facilities	6232	92	30	44
Veneer, plywood, and engineered wood product manufacturing	3212	92	80	11
Motor vehicle parts manufacturing	3363	91	78	9
Agriculture, construction, and mining machinery manufacturing	3331	91	81	7
HVAC, and commercial refrigeration equipment manufacturing	3334	91	75	9
Ship and boat building	3366	89	81	8
Forging and stamping	3321	89	76	11
Semiconductor and other electronic component manufacturing	3344	88	76	12
Aerospace product and parts manufacturing	3364	88	76	10
Animal slaughtering and processing	3116	87	63	18
Rubber product manufacturing	3262	86	79	11
Electrical equipment manufacturing	3353	86	80	11
		Average:	63%	26%

Bottom 20 Industries by Employment

Industry Title	NAICS	Employment Percentile	Percent of Industry Owned by Group	
			Men	Women
Independent artists, writers, and performers	7115	0	53	41
Fishing	1141	1	80	9
Other personal services	8129	1	36	59
Personal and household goods repair and maintenance	8114	2	69	23
Direct selling establishments	4543	2	32	58
Offices of real estate agents and brokers	5312	3	45	46
Support activities for animal production	1152	3	59	27
Agents and managers for public figures	7114	4	55	39
Lessors of real estate	5311	4	58	16
Taxi and limousine service	4853	4	87	10
Specialized design services	5414	5	42	51
Spectator sports	7112	5	74	21
Personal care services	8121	6	22	74
Other professional, scientific, and technical services	5419	6	53	40
Performing arts companies	7111	6	57	37
Sound recording industries	5122	7	81	14
Oil and gas extraction	2111	7	61	20
Child day care services	6244	8	8	89
Support activities for forestry	1153	8	76	13
Residential building construction	2361	8	85	7
		Average:	45%	46%