An Investigation of Women Business Owners, Industry Concentration, and Family Composition

by

Premier Quantitative Consulting, Inc.

Orlando, FL

for

Office of Advocacy
U.S. Small Business Administration
Under Contract Number SBAHQ-17-M-0111

Release Date: March 2020

Executive Summary

Women and men tend to start businesses in different industries, but little is known about why this phenomenon occurs. Understanding the factors that contribute to a skewed industrial distribution by gender, including the clustering of women business owners in low growth industries (where the number of businesses and employment per firm is decreasing) is important as women-owned businesses tend to be smaller than men-owned businesses. This research utilizes the U.S. Census Bureau's American Community Survey (ACS) data to present a profile of women business owners, as measured by self-employment and the industries in which they start their businesses, focusing on family and personal variables. While women-owned businesses are essential to the United States economy, a large body of work demonstrates that there are industry differences among women and men business owners.

Research shows women business owners are generally concentrated in retail and service industries, where businesses are typically smaller in terms of both employment and revenue. Specifically, women tend to start fewer "rapid growth" or "high technology" businesses relative to men. Expanding upon past research on women's business ownership as well as decades of literature, this research adopts a personal and family dynamics perspective when investigating industry-based gender differences among business owners. Women continue to face different competing demands on their time than men, including a greater role in childrearing and home management. At present, limited research exists exploring the link between the types of businesses that women start and their personal and family situations. Key findings include:

- *Trends in marital status.* For both women and men business owners, those operating in industries where women represent more than 80 percent of business owners are less likely to be married than those operating in other categories. Similar results exist for industry growth categories, where women are less likely to be married in low growth industries.

- *Differences in single household status.* Women business owners in women-concentrated industries are much more likely than women in men-concentrated industries, as well as men in all industry groups, to be single heads of household. In all industry growth categories, women business owners are five times as likely as men to be single heads of household.
- *Findings related to the presence of children.* Women in women-concentrated and low growth industries are more likely to have children and have more children than women business owners in other industry grouping categories. For men, there is little difference across industry categories in the presence and number of children.
- *Trends in time spent working on the business.* As the industry categories become more women-concentrated, the number of weeks per year that women business owners work declines among women with children. In addition, in both industry growth categories, women with children work fewer weeks per year than women without children, a trend that is reversed for men. Differences exist in hours worked per week as well. Women with children spend fewer hours on their businesses than women without children in the home across all industry categories.

Many of the demographic and personal characteristic findings *raise,* rather than *answer,* questions germane to supporting women business owners and developing an understanding of why gender-based industrial clustering exists. To develop further insights related to the observed gender industry clustering, this research tested two related research hypotheses examining the role that personal and family demands and characteristics can play in women business owners' propensity to operate in certain industries, including those that are lower growth. We explored the effect of personal factors on industry via two hypotheses and found the following, as illustrated in Table ES-1:

- The presence of children has a positive influence on the propensity of women business owners to cluster in certain industries. The opposite is true of men business owners.

- Unpartnered status has a positive influence on the propensity of women to cluster in certain industries. There is no effect for men business owners.
- The presence of children in the home has a negative relationship with the propensity of women business owners to operate in high growth industries (where the number of businesses and employment per firm is increasing)

Table ES-1

Summary of Hypothesis Testing

	Relationship with Operating in a Woman Concentrated Industry		Relationship with Operating in a High Growth Industry	
	Women	***Men***	***Women***	***Men***
Children in the Home	Positive	Negative	Negative	None
Unpartnered Status	Positive	None	Negative	Negative
College Degree	Negative	Positive	Positive	Negative
Income Above $50,000	Positive	Negative	None	Positive

Policymakers, women business owners, and stakeholders require an understanding that some women's roles in childrearing and home management can have an impact on the industries in which women start and operate businesses. As women continue to grow as business owners, additional work to understand the complex, competing demands that American women face is necessary. Much past research has focused on the influence of capital, gender, and race/ethnicity in entrepreneurial decision-making and growth without consideration of the different roles that women and men often play. The analyses presented herein build upon the quantitative profile of industry-based differences by gender to examine an often-overlooked dimension of women business owners' motivational and practical considerations, household dynamics. This provides policymakers and resource partners with information necessary to identify action items to encouraging women to start and grow better businesses.

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1. Introduction

Women and men tend to start businesses in different industries, but little is known about why this phenomenon occurs. Understanding the factors that contribute to a skewed industrial distribution by gender, including the clustering of women business owners in low growth industries, is important. This research utilizes American Community Survey (ACS) data to present a profile of women business owners and the industries in which they start their businesses, focusing on family and personal variables. America's 9.9 million women-owned businesses drive the United States economy, generating over $1.6 trillion in annual revenue. According to the Survey of Business Owners and Self-Employed Persons (SBO), 36 percent of American businesses are women-owned. While women-owned businesses are essential to the United States economy, a large body of work demonstrates that there are industry differences among women and men business owners.

Women business owners are generally concentrated in retail and service industries, where businesses are typically smaller in terms of both employment and revenue (Anna et al. 1999; Fairlie & Robb 2009; Coleman & Robb 2009). Specifically, women tend to start fewer "rapid growth" or "high technology" businesses relative to men (Menzies et al. 2004; Morris et al. 2006). In industries such as these that are traditionally comprised of majority male-owned enterprises, women also experience more pronounced access to capital challenges (Brush 2009), creating a gender divide even among businesses operating in the same sector. Prior work by Robb (2014) indicates that continued access to capital challenges facing women influence the types of businesses that women start, as well as their growth expectations once operating. While multiple factors influence an entrepreneur's decision to start a business and the characteristics of that business, women and men face different societal pressures and responsibilities related to home and family dynamics that may play a role.

Expanding upon past research on women's business ownership as well as decades of literature, this research adopts a personal and family dynamics perspective

when investigating industry-based gender differences among business owners. Women continue to face different competing demands on their time than men, including a greater role in childrearing and home management. At present, limited research exists exploring the link between the types of businesses that women start and their personal and family situations. To probe this issue, this research explores multiple areas of inquiry and questions in both an intra- and inter-industry construct:

- ***Intra-industry*** refers to analyses that compare women and men business owners operating within the same industry.
- ***Inter-industry*** refers to analyses that compare women operating businesses in one industry with women operating businesses in a separate, distinct industry.

The report is organized as follows. Chapter 2 presents a summary of the literature, providing a foundation for further research into the relationship between women's family obligations and personal background and the decisions made in pursuing entrepreneurship, including industry. Chapter 3 details the data source used as well as the research methodology, including univariate descriptive statistics and multivariate regression models. Chapter 4 presents the results and discusses observed trends. Finally, Chapter 5 draws conclusions and discusses next steps.

2. Literature Review

The review of existing literature related to women business owners and the industries in which they start their businesses considers multiple topics, all of which influence the entrepreneurial decision. This literature review first discusses past research on industry choices and gender differences in business ownership before exploring work related to entrepreneurial motivation and its influence on the types of businesses that women start. It is important to consider the socio-historical context in which much of contemporary discourse on work, family, and policy challenges remains embedded. The next section delves into work-family challenges for women and the influence of gendered family and personal responsibilities on business ownership, including the potential role of family variables in industry decisions. Finally, the literature review focuses on past work exploring gender differences in business growth and industry, which underscore the continued need for research of this type.

Industry Choices

As noted in the Introduction, industry differences exist among men and women business owners. Fairlie and Robb (2009) used confidential microdata from the US Census Bureau to examine gender differences in business performance, both growth and survival. Using econometric modeling, the authors found that businesses in different industries experienced varying levels of success. The study found that women-owned businesses were overrepresented in retail trade, personal services, and professional services compared to men-owned firms and that the industry differentials observed were associated with suboptimal outcomes in terms of both business growth and survival. Acknowledging the concentration of women in low revenue industries, Loscocco and Robinson (1991) suggested that industry choice can explain most of the economic differences between women and men owned businesses. Even within industries, women are often concentrated in businesses that generate less revenue. The research stops short of examining why these differences exist, but posits several factors including capital constraints, skill differences, discrimination, and preference differences.

In a comparative study, Menzies et al. (2004) interviewed women and men nascent entrepreneurs in Canada. Preferences for high business growth or a desired future business size were not found to be significantly different between women and men. However, men were significantly more likely to start a high-tech business and were significantly different from women by having some form of business-related intellectual property, suggesting a competitive advantage, potentially leading to higher levels of investment, profitability, and growth. Avoiding an androcentric bias, Anna et al. (1999) studied career orientation by comparing women business owners who started traditional and non-traditional businesses. To collect the requisite data, the authors surveyed and interviewed women business owners in Illinois and Utah. Their analyses suggest that women in these two categories may differ in how they define and subsequently achieve success. As they observed, women in historically gendered industries associated with higher female employment had higher expectations of work-life balance, while women in 'non-traditional' (associated with male occupation) businesses had higher expectations for profit. This demonstrates a recurring cycle where expectations lead to industry choices (expectancy theory) that explain economic differences (Loscocco and Robinson 1991), creating expectations for new entrepreneurs.

A more recent paper by Brown et al. (2017) explored high growth entrepreneurship and congruent expectations by those involved in those enterprises. The authors suggested that gaps in wages, longevity, and growth persist for African-American owned business for approximately seven years post-startup while such inequalities continue to persist for women in high-growth industries. This study also investigated the role of age, education, and founder/founding team characteristics (such as veteran entrepreneurial experience) and concludes that while many women and those with less education choose high-growth industry participation, they are less successful on average than their industry peers. In this research, we more closely examine some of those variables and suggest how they may influence the success or struggle of women business owners and their propensity to operate in particular sectors. Prior work supported by the SBA also highlights the importance of investigating differences in industry participation, particularly

in STEM fields (cf. Blume-Kohout 2014, McTavish 2014), and highlights the importance of addressing the persistence of gaps across gender in the US in surveys over the past decade (cf. McManus 2017).

Of course, how much of industry choice is determined by the financing gap that women-owned businesses face is an open question. Additionally, it is becoming clear that the gap is not just demand related. Women-owned firms had lower approval rates for business loans than men-owned firms and if they were approved for a loan, were less likely to receive the amount requested (Federal Reserve Bank of New York, 2017).

Setting financing issues aside, the industry concentration of women-owned businesses has implications for business performance and growth and as such, is an important policy avenue to pursue. Women tend to operate in lower-growth industries with smaller scale businesses. Understanding the effects of the societal and structural barriers that influence the industry concentration among women business owners in lower growth and less scalable industries will provide policymakers with valuable information to support new initiatives and polices designed to support women in starting businesses that are optimal for their careers and the economy, in addition to their lifestyles.

Entrepreneurial Motivation

Work by Upton et al. (2017) explored the multiple motivational factors and scenarios that drive women to start their own businesses, probing the role of work-family conflict in the types of businesses that women ultimately start. Gender norms exist, and social pressures to conform to these norms influence employment options and decisions for women, including the option to start a business. This highlights the inherent tension that exists between motivational push factors that women balance when starting a business. Women consider both *personal* and *structural* push factors when starting a business and making career decisions. Personal push factors relate to the individual characteristics of a woman business owner that influence the decision to start a business, such as personal preferences or experiences. Structural push factors are those that exist

that might be gender-specific but fail to address women entrepreneurs specifically. Thébaud (2015) investigated the relationship between work-family institutions and gender gaps in entrepreneurship. She found that there is theoretical traction in the observation that women are more likely than men to start a business in order to resolve work-family conflict. In such instance, entrepreneurship becomes a fallback or "Plan B" employment strategy. Just as work-family conflict influences women's startup decisions, it may influence the *types* of businesses and industries in which those businesses form.

DeMartino and Barbato (2003) examined the effects of marital status and dependent children on career motivations of women and men entrepreneurs. The authors administered a survey to the alumni of an MBA program at a high-ranking business school. Considering gender alone, women entrepreneurs were twice as likely to cite family and lifestyle reasons as entrepreneurial motivation than their male counterparts, who were more likely to cite advancement and wealth as primary motivators. Gender differences became even more apparent when comparing marital and dependent status. Married women with dependent children ranked family and lifestyle reasons as "very important" motivational factors at a statistically significantly higher rate than men who were married with dependent children. Among married and single entrepreneurs without children, the differences in motivational factors declined between genders. Comparing women with and without children, the authors find that women with children have different career motivators than women without children, including the desire to work in a family-friendly environment. However, this research demonstrates that marital and dependent status affected the entrepreneurial motivations of similarly educated men and women differently. While women placed a premium on family and lifestyle motivations and cited the presence of dependent children as the factor with greatest effect on career motivations, men's motivations varied less regardless of marital or dependent status.

Work by Patrick et al. (2016) noted the importance in recognizing women as a heterogenous group, noting that the motivations for entrepreneurship differ between married and single women. For example, having young children increased the likelihood that a married woman would be self-employed, but did not have the same effect on

unmarried women. Local gender attitudes had a larger effect on married women, while the local business climate played more of role in the entrepreneurial decision of single women.

Loscocco and Smith-Hunter (2004) compared women-owned home-based businesses and women-owned non-home-based businesses using data from the Upstate New York Small Business Project. The authors explored the connection between industry decisions and the role of time commitments in business success. The work demonstrated that home-based businesses were concentrated in small-scale manufacturing[1] and business services, while non-homed-based businesses were more evenly distributed among the industries examined. In addition, women with home-based businesses were more likely than their counterparts to cite "work-family balance" as a reason for choosing their specific industry, reporting increased flexibility. However, these women also worked 10 fewer hours per week than non-home-based women business owners. This work suggests that women's roles in the household and the need for work-family balance may lead to compromised business success.

Entrepreneurial motivation relates to the types of businesses that entrepreneurs start, as well as the industries in which they start those businesses. Namely, entrepreneurs select business models that they feel will best meet both their personal and professional needs. Women and men start businesses for different reasons, and findings suggest that many women business owners start businesses to alleviate work-family conflict. Analysis of women business owner's industrial decisions should include evaluation of their personal characteristics, including any home or family responsibilities.

Family Responsibilities

Loscocco and Leicht (1993) examined the connections between family obligations and business ownership by women, predicated on the idea that female entrepreneurship may facilitate more flexible schedules to achieve a desired work-life balance. The need

[1] This is principally the production of small goods that do not require large manufacturing equipment.

for more flexible schedules may, in turn, influence the industries in which women start businesses. The authors utilized data from a three-wave panel study of small businesses in south central Indiana to explore the effects of family and business variables on business success, both owner earnings and total business revenues, to answer the question *what gendered effect does family life play in women's entrepreneurship?* The authors found that women business owners spent more time on domestic duties and operated smaller, younger businesses, concluding that family dynamics influence the success and earning power of women-owned businesses differently than men-owned businesses. The reality is that 68 percent of working age women and 71 percent of mothers with children under 18 are in the labor force (Parker and Wang 2013). With the shift of women working outside of the home, it is possible that this influences women's decisions and goals when forming and running businesses, including the industries in which the businesses operate.

Although women represent nearly 47 percent of American workers (DeWolf 2017), women continue to play an outsized role in American family life and childcare versus their male counterparts. Decades prior to this research, Hochschild documented this split in her much-heralded books, *The Second Shift* (1989) as well as *The Time Bind* (1997). In each, Hochschild's research illustrates how women shoulder a disproportionate amount of home and childcare amongst working families. In her latter work, Hochschild also illuminated how obligations and roles in both home and work places can act in conflict as well as in concert for working women. More recently, Lareau and Weininger (2008) explored this concept, casting American women as family "managers," responsible for the day-to-day operations of the household. While fathers may devote time to interacting with their children outside of traditional work hours, mothers tend to be involved "behind-the-scenes" in nearly every aspect of their children's lives, intertwining responsibilities and disrupting work hours (Lareau and Weininger 2008). Garey (1999), too, documented how women often draw upon particular strategies (choosing nursing and other "pink collar" jobs with flexible and overnight hours) to perform that "behind-the-scenes" labor while still providing paid income to a household. As Shulevitz (2015) put it:

Mothers draft the to-do lists while fathers pick and choose among the items. And whether a woman loves or hates worry work, it can scatter her focus on what she does for pay and knock her partway or clean off a career path. This distracting grind of apprehension and organization may be one of the least movable obstacles to women's equality in the workplace.

The fact that housework and childcare, both in planning and activity, still predominantly fall to women despite nearly equal workforce representation provides a sense of the pervasiveness and power of American gender ideology as evidenced in ongoing research (Buchmann and McDaniel 2016, Grava 2017). This imbalance may influence the careers that women choose as well as the entrepreneurial decision, including industry. This hypothesis also suggests that industries require different resources and investments from business owners and that women, with potentially less time to devote to the business due to continued gendered demands, may not feel equipped to start businesses in all industry types.

Gender and Business Growth Status

Klapper and Parker (2010), in their literature review and analysis, examined women's participation in entrepreneurship with a focus on why women are underrepresented as high growth entrepreneurs worldwide. They considered multiple factors that may influence business success and economic impact differences along gender lines including household factors, industry choices, and intrinsic and extrinsic motivations. Budig (2006) classified American women entrepreneurs into two groups. The first group was women who engage in nonprofessional self-employment to both earn an income and work fewer hours, with a focus on family commitments. The second group was women who become business owners to advance their careers. Klapper and Parker (2010) went on to state that women's roles in the home might influence their entrepreneurial decisions:

> *With less time to spend on formal work, part-time entrepreneurship can offer married women the flexibility to combine home and work commitments. This might partly explain higher female rates of part-time participation in entrepreneurship.*

This is precisely the point that Parker (2009) made, noting that marriage and the presence of children are strongly associated with small business ownership among women. Further, the presence of young children under six years of age affects the probability that women are self-employed, particularly among women whose businesses are home-based (Edwards and Field-Hendrey 2002).

A natural extension of the gendered participation in business ownership and the competing demands that women face is consideration of the industries in which women start their businesses. Principally, *what is the effect of marital status and children in the home on a woman's selection of industry? How do marital status and the presence of children influence the growth trajectory for these women-owned businesses?* Klapper and Parker (2010) called for further research on the influence of family dynamics and responsibility on women's industrial and growth-related entrepreneurial decisions noting:

> *Even in industrialized countries, the ongoing gender differential in terms of the burden of household chores, which continues to fall largely on women, raises deep questions about underlying gender roles.*

Brush et al. (2009) developed a gender-aware framework to spur additional research on the work-family conflict facing women business owners. They argued that gender affects entrepreneurial decisions, both at the startup phase and during ongoing operations. The research drew on institutional theory, examining the meso and macro environments and their effects. The macro environment—the country's laws and culture—affects gender socialization and how women are viewed in society, while the meso environment refers to the institutions such as networks or business organizations that women entrepreneurs interact with regularly. Robb et al. (2014) identified these

networks as a key to success for women. However, the authors noted an overall shortage of mentors as a primary challenge for women, specifically in high-tech industries. This may have further negative ramifications for financing as well.

Brush et al. (2009) added “motherhood” and “meso/macro environment” to construct a framework for the study of women’s entrepreneurship, differentiating women business owners and their daily realities from those of men. Motherhood is the central component of their model, highlighting the influential role that women play in home life, and clarifying the importance of gender in exploring family environment in the context of entrepreneurship for women. This framework presents gender as a social construct that influences women’s entrepreneurial paths, clarifying that gender is not a central component of the entrepreneurial experience, but one arising out of cultural norms that negatively affect women.

In an effort to explain why women entrepreneurs may differ from men in their entrepreneurial endeavors, Sullivan and Meek (2012) suggested applying expectancy theory, an accepted and widely-used theory of work motivation. Expectancy theory bases human motivation on three factors: expectancy (efforts will yield specific results), valence (the results have value) and instrumentality (the efforts and results are overall advantageous). In entrepreneurship, expectancy theory suggests that entrepreneurs run their businesses in the manner that they believe will best achieve their desired outcomes. The authors find that women have a greater variety of motivations in pursuing entrepreneurship than do men, and as such, the outcomes and perceived benefits of entrepreneurship for women also vary. For example, women pursue entrepreneurship to have control over their advancement opportunities and their work environment. In addition, their findings support the notion that women value the schedule flexibility and family involvement allowed by entrepreneurship more than men. A woman’s business venture may reach her expected outcome without meeting the growth definition or even at the expense of growth. This has important implications for the development of policies and evaluation of structural barriers within the entrepreneurial ecosystem facing women when starting and operating their businesses.

Manolova et. al (2012) proposed that the disparity in business growth between women and men-owned businesses stems from a difference in desired outcomes for their business ventures. The authors used Panel Study of Entrepreneurial Dynamics (PSED) data to conclude that nascent entrepreneurs expend effort in order to achieve desired outcomes, but that those outcomes are not necessarily associated with growth for either gender. However, gender differences arise in the context of intended business growth. Where men in this study associated growth directly with financial success, women associated growth with a variety of factors such as self-realization, recognition, and a desire to innovate in addition to financial success. Acknowledging the gender clustering among industries and certain sectors, the authors call for further research analyzing the differences in expectations and growth intentions across different industries. It is possible that if women and men define entrepreneurial success differently, different industries may appeal to their motivations and eventual goals. One theory posed by Sullivan and Meek (2012) is that women may deliberately pursue lower growth industries or industries with lower required capital for venture creation because of their definition of success. More work is required to test this theory.

Morris et al. (2006) developed a survey that was sent to a random sample of female entrepreneurs in upstate New York and subsequently conducted in-depth interviews with entrepreneurs engaged in multiple types of entrepreneurship, from “lifestyle” to “high growth” ventures. Perceptions of growth, desired levels of growth, opportunities for growth, and experiences in achieving growth served as indicators of growth orientation. The authors found that whether a woman was pushed by life circumstances or pulled by opportunity to entrepreneurship was associated with growth orientation. Women who were pushed into entrepreneurship by lifestyle factors experienced the lowest growth on average, while the women who were pulled experienced the highest growth. The study raised the question *do women make the growth decision, or is it effectively made for them based on environmental conditions and the types of ventures they pursue?* The results of the study posit that growth is an active pursuit that women decide upon after evaluating the “trade-offs” inherent in entrepreneurship. Qualitative findings from the study indicate

this decision may involve prioritizing a predictable business environment over growth, allowing a woman the flexibility to accommodate other life and family responsibilities.

Literature and research over the past several decades as outlined above, while not exhaustive, clearly illustrate the need for continued attention to gender imbalances in industry participation. As Buchmann and McDaniel (2016) suggest, given these differences and the challenges that women still face in entrepreneurship, research should continue to examine the relationship between gender, childbearing, age, race/ethnicity and education among other factors. Here we attempt to directly contribute to that need and examine the relationship between types of industry and family composition in order to garner the most holistic and helpful sets of insights in to these persistent questions about work and family balance in the contemporary United States.

3. Research Design and Methodology

Data Source – American Community Survey (ACS)

The American Community Survey (ACS) is an annual survey of the American population sponsored by the United States Census Bureau. The ACS is nationally representative and offers reliable and generalizable data on labor force dynamics, including the prevalence of business ownership and self-employment activity. While the ACS is traditionally used to examine labor force dynamics, it contains personal and detailed information about business owners as well as their households. The combination of identifiable business owners and robust data related to personal and household dynamics makes the ACS well suited to this inquiry. This research relies on the Public Use Microdata Sample (PUMS) data files aggregated for the 2011 through 2015 period.[2] The ACS PUMS data permit analysis at the person and household levels and include critical demographic variables including age, gender, relationship status, and educational attainment, among others. The ACS PUMS data are particularly valuable because they represent timely data, collected on an annual basis. The dataset provides 933,407 observations of business owners with 502 distinct variables per observation.

Key Data Definitions

Defining a business owner within the context of the ACS data is central to this research. The ACS PUMS data include information on "Class of Worker," which can provide information on business ownership activity. Using this variable, we define entrepreneurs as individuals who identify one of the following as their primary employment activity:

- Self-employed in own not incorporated business, professional practice, or farm
- Self-employed in own incorporated business, professional practice, or farm

[2] These data are available from the US Census Bureau in a single 5-Year file.

There are important differences between incorporated and unincorporated businesses, largely related to liability and structure. The business and the owner are legally separate in incorporated business, contrasting unincorporated businesses where the owner is personally and legally responsible for the business actions and results. Although self-employment is not a perfect mapping to business ownership, researchers use self-employment as a proxy for business ownership.[3]

Given the focus of this research on the industries in which women business owners operate, defining industry is critical. We accomplish industrial classification using the INDP variable within the ACS. The variable includes detail for 267 industries at the 4-digit level, allowing cross-industry comparability. Table 3-1 contains the ten largest industries for women business owners and men business owners. (See www.census.gov/eos/www/naics/ for industry descriptions). As shown, while there is overlap among the top industries in which women and men business owners operate, key differences exist where the top industries are different for men and women, particularly related to "traditionally women-concentrated" industries such as child care and beauty salons and "traditionally male concentrated" industries such as construction and truck transportation.

[3] See Chatterji et al. 2014 and Wilmoth 2016 for examples.

Table 3-1

Industry Distribution by Gender – Top 10

NAICS	Description	Share of All Women Business Owners
814	Private Households	9.90%
6244	Child Day Care Services	7.39%
812112	Beauty Salons	6.75%
531	Real Estate	5.85%
5617z	Services To Buildings And Dwellings, Ex Constr Cln	3.87%
5416	Management, Scientific, And Technical Consulting Services	3.24%
722z	Restaurants And Other Food Services	3.03%
711	Performing Arts, Spectator Sports, And Related Industries	3.00%
23	Construction, Incl Cleaning During And Imm After	2.85%
611m3	Other Schools And Instruction, And Educational Support Services	2.73%
	Count	346,915

NAICS	Description	Share of All Men Business Owners
23	Construction, Incl Cleaning During And Imm After	23.99%
56173	Landscaping Services	4.91%
531	Real Estate	3.79%
5416	Management, Scientific, And Technical Consulting Services	3.29%
111	Crop Production	3.24%
484	Truck Transportation	3.05%
8111z	Automotive Repair And Maintenance	2.98%
5411	Legal Services	2.73%
711	Performing Arts, Spectator Sports, And Related Industries	2.44%
722z	Restaurants And Other Food Services	2.38%
	Count	586,492

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

When probing trends among gender and industry, it is useful to create groupings of industries for comparison instead of presenting individual analyses for all 267 industries per topic.[4] This research adopts two industry definitions based on the gender concentration and growth orientation of each industry:

[4] Appendix C contains the gender distribution for each individual industry.

Gender Concentration (Grouping A)

The literature review indicates that there are certain industries in which both men and women business owners cluster. To provide analyses along these lines, we employ a 5-category gender concentration grouping for industries using the following definitions:

- Category 1: industries in which 0 to 20 percent of business owners are women
- Category 2: industries in which 20 to 40 percent of business owners are women
- Category 3: industries in which 40 to 60 percent of business owners are women
- Category 4: industries in which 60 to 80 percent of business owners are women
- Category 5: industries in which 80 to 100 percent of business owners are women

Table 3-2 provides examples of the five largest industries in each category, as well as the percentage of women business owners in each industry.

Table 3-2
Grouping A – Category Breakdown

Category 1 (0-20% women)		**Category 4 (60-80% women)**	
484	Truck Transportation (9.2%)	5614	Business Support Services (70.2%)
483	Water Transportation (12.4%)	6241	Individual And Family Services (78.4%)
56173	Landscaping Services (8.7%)	6213zm	Offices Of Other Health Practitioners (71.8%)
23	Construction, Incl Cleaning During And Imm After (6.6%)	8121m	Nail Salons And Other Personal Care Services (74.3%)
111	Crop Production (15.6%)	611m3	Other Schools And Instruction, And Educational Support Services (66.0%)
Category 2 (20-40% women)		**Category 5 (80-100% women)**	
5415	Computer Systems Design And Related Services (21.4%)	6216	Home Health Care Services (86.0%)
524	Insurance Carriers And Related Activities (28.6%)	31m	Knitting Fabric Mills, And Apparel Knitting Mills (87.4%)
112	Animal Production and Aquaculture (21.2%)	812112	Beauty Salons (90.0%)
5411	Legal Services (29.0%)	814	Private Households (93.0%)
5416	Management, Scientific, And Technical Consulting Services (36.9%)	6244	Child Day Care Services (96.5%)
Category 3 (40-60% women)			
5412	Accounting, Tax Preparation, Bookkeeping And Payroll Services (50.9%)		
5617z	Services To Buildings And Dwellings, Ex Constr Cln (57.2%)		
722z	Restaurants And Other Food Services (43.0%)		
711	Performing Arts, Spectator Sports, And Related Industries (42.1%)		
531	Real Estate (47.8%)		

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Table 3-3 below shows the category distribution for both men and women. While the majority of men operate in a single category (Category 1) and exhibit a decline in the share of men business owners through Category 5, women business owners are more evenly distributed among the industry categories. This trend is related to the different sizes of the industry categories as well as the specific industries that belong to each category. For example, while Category 5 is comprised of industries where women represent more than 80 percent of business owners, 80 percent of women business owners do not operate in a single category.

Table 3-3

Share of Women and Men Business Owners per Category (Grouping A)

	Women	Men
Category 1	9.4%	51.3%
Category 2	16.9%	23.7%
Category 3	30.4%	19.1%
Category 4	17.7%	4.7%
Category 5	25.6%	1.2%
Total	100.0%	100.0%
Count	*346,915*	*586,492*

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Growth Orientation (Grouping B)

The literature demonstrates that women are less likely than men to start and operate high growth businesses. There are multiple definitions for high growth ranging from industry to the businesses and its revenue or employment growth. Multiple definitions in the literature define high growth businesses and industries by revenue and economic growth. Revenue may be more important for wealth accumulation for a particular group. However, examining revenue growth does not result in a complete understanding of the industry at-large.

Economic impact is tied to employment growth and the creation of new jobs. For that reason, this research categorizes industries using employment growth per firm. For this research, we utilize 2013-2014[5] US Census Bureau Statistics of US Businesses (SUSB)[6] data to create two growth categories for industry. The two categories consider growth in the number of businesses within an industry as well as the change in employment (growth or contraction) for existing businesses. In this sense, the

[5] This is the most recent period with available data.
[6] For more information, please see https://www.census.gov/programs-surveys/susb.html

categorization captures growing industries as well as industries in which firms are growing. The categories include:

- Low Growth (LG): number of businesses decreasing, employment per firm decreasing
- High Growth (HG): number of businesses increasing, employment per firm increasing

Table 3-4 provides examples of the five largest industries in each category. In examining the types of businesses that form the low growth and high growth groups, it is critical to recall the definition of both industry business growth and employment growth of constituent businesses in each industry (note that there are also industries classified as neither low or high growth). Also important is the clarification that in this research, high growth is not synonymous with high technology, nor is it synonymous with high revenue.

Table 3-4
Grouping B – Category Breakdown

Low Growth Category		High Growth Category	
814	Private Households	23	Construction, Incl Cleaning During and Imm After
6244	Child Day Care Services	56173	Landscaping Services
812112	Beauty Salons	5617z	Services to Buildings and Dwellings, Ex Constr Cln
722z	Restaurants and Other Food Services	484	Truck Transportation
5411	Legal Services	5412	Accounting, Tax Preparation, Bookkeeping and Payroll Services

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Table 3-5 shows the gender distribution by category for Grouping B. As shown, women business owners are more than twice as likely as men business owners to operate in the Low Growth Category.

Table 3-5

Gender Distribution by Category (Grouping B)

	Women	Men
Low Growth	44.4%	20.9%
High Growth	27.1%	49.1%
Neither	28.4%	30.1%
Total	**100.0%**	**100.0%**
Count	*346,915*	*586,492*

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Of particular interest is the overlap in the categorical definitions (A and B). Figure 3-1 shows the overlap in the categories and offers insight into the growth and gender concentrated patterns observed for business owners by gender. The figure refers to the percentage of business owners that are members of both categories. For example, 60.63 percent of high growth business owners are in Category A-1 (most male concentrated). While the definitions capture different facets of the industries they categorize, there is synergy, including the lack of overlap among high growth firms and gender concentration Category 5 (most women-concentrated).

Figure 3-1

Crosstabulation of Concentration and Growth Categorical Definitions

		Low Growth	High Growth
Male Concentrated	**A - 1**	11.60%	60.63%
	A - 2	25.41%	11.07%
	A - 3	20.88%	17.67%
	A - 4	9.70%	10.63%
Women Concentrated	**A - 5**	32.41%	0.00%
	Total	100.00%	100.00%
	Count	*270,211*	*370,436*

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Multivariate Empirical Strategy

Building upon the univariate statistics discussed above, this research employs multiple multivariate regression models to probe the relationship of work and family conditions on the industries in which women start their businesses. The models are used to test two distinct hypotheses related to the concentration of women business owners in select industries under the following research proposition:

> *Industry clustering and differences in industry growth status arise due to multiple factors. These include differences in household dynamics, such as the presence of children and marital status.*

This section discusses the hypotheses as well as the empirical models utilized to test the hypotheses. To control for observable differences in geography, as well as to ascertain differences in the behavior of the model coefficients among women and men, the models used to test hypotheses 1 and 2 were run conditionally on both gender and geographic location. Geographic location was categorized by the share of state residents in rural

areas using the six categories shown in Table 3-6.[7] To roughly balance the number of respondents included in each geographic category, the percentage intervals are not even.

Table 3-6
Geographic Categories

Rural Category	Description
1	Less than 10 percent of residents reside in a rural area
2	Between 10 and 15 percent of residents reside in a rural area
3	Between 15 and 25 percent of residents reside in a rural area
4	Between 25 and 30 percent of residents reside in a rural area
5	Between 30 and 40 percent of residents reside in a rural area
6	More than 40 percent of residents reside in a rural area

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

The probability of a characteristic or outcome, such as starting a business in a women-concentrated industry, is modeled as a function of business factors, personal factors, and household factors. The regression model takes the general form:

$$DV = \alpha + \beta(business) + \gamma(personal) + \delta(household) + \varepsilon$$

Where DV is the dependent variable specified for each hypothesis below, β is the coefficient vector for business-specific variables (such as business income to the owner, business location), γ is the coefficient vector for personal variables (such as marital status, race), δ is the coefficient vector for household-specific variables (such as number of children), and ε is the error term. Variables used in both Hypothesis 1 and Hypothesis 2 include:

[7] For example, North Carolina is in category 5 because 33.4 percent of its residents reside in a rural area.

- **Has Children:** binary variable equal to 1 if there are children under age 18 in the home and 0 otherwise.
- **Number of Children:** continuous variable equal to the number of children under age 18 in the home. Equal to 0 for individuals with no children.[8]
- **Number of Children Under Age 6:** continuous variable equal to the number of children under age 6 in the home. Equal to 0 for individuals with no children under age 6 in the home.
- **Number of Children Age 6 to 17:** continuous variable equal to the number of children age 6 to 17 in the home. Equal to 0 for individuals with no children age 6 to 17 in the home.
- **Household Status:** binary variable equal to 1 if the household is headed by a couple (married or unmarried), 0 otherwise.[9]
- **Divorced or Separated:** binary variable equal to 1 if the business owner has been divorced or separated, 0 otherwise.
- **Minority Race:** binary variable equal to 1 if the business owner is non-white, 0 otherwise.
- **Black:** binary variable equal to 1 if the business owner is Black, 0 otherwise.
- **Asian:** binary variable equal to 1 if the business owner is Asian, 0 otherwise.
- **Hispanic:** binary variable equal to 1 if the business owner is Hispanic/Latino, 0 otherwise.
- **Home-Based:** binary variable equal to 1 if the business operates out of the owner's home, 0 otherwise.
- **Immigrant:** binary variable equal to 1 if the business owner was not born in the United States or its territories, 0 otherwise.
- **Citizen:** binary variable equal to 1 if the business owner is a United States citizen, 0 otherwise.
- **Disabled:** binary variable equal to 1 if the business owner is disabled, 0 otherwise.

[8] In models where the variable "number of children" is used, the variables "number of children under age 6" and "number of children age 6 to 17" are excluded.
[9] Throughout the report, "head of household" is used interchangeably with "household status." Head of household does not refer to the tax filing status.

- **English Proficiency:** binary variable equal to 1 if the business owner is proficient in the English language, 0 otherwise.
- **Multi-Generational Household:** binary variable equal to 1 if the household has members of more than 1 generation residing, 0 otherwise.
- **Number of Non-Child People in Household:** continuous variable equal to the number of adult individuals residing in the household.
- **Education – High School Diploma:** binary variable equal to 1 if the business owner has a high school diploma or a GED, 0 otherwise.
- **Education – Associate's/Bachelor's Degree:** binary variable equal to 1 if the business owner has an associate's or bachelor's degree, 0 otherwise.
- **Education – Master's Degree or Higher:** binary variable equal to 1 if the business owner has a master's degree or higher, 0 otherwise.
- **Health Coverage:** binary variable equal to 1 if the individual has health insurance coverage, 0 otherwise.
- **Owns Home:** binary variable equal to 1 if the individual owns their own home, 0 otherwise.
- **Income Above $50,000:** binary variable equal to 1 if the individual earns more than $50,000 annually from the business, 0 otherwise.
- **Science Degree:** binary variable equal to 1 if the individual holds a degree in a STEM field, 0 otherwise.
- **Two Worker Household:** binary variable equal to 1 if the individual resides in a household with two labor force members, 0 otherwise.

Hypothesis 1

Hypothesis 1 includes two separate sub-hypotheses that were tested within the same model:

> *Hypothesis 1a: The presence of children is positively related to the propensity of women business owners to cluster in certain industries.*

Hypothesis 1b: Unpartnered status is positively related to the propensity of women to cluster in certain industries.

Hypothesis 1 uses the 5-category industry gender concentration definition as the dependent variable. Because the dependent variable is categorical and ordered, ordered logistic regression is employed.

Hypothesis 2

Hypothesis 2 includes two separate sub-hypotheses that were tested within the same model:

Hypothesis 2a: The presence of children is negatively related to the propensity of women business owners to operate in high growth industries. The presence of children has an opposite effect for men business owners.

Hypothesis 2b: Unpartnered status is negatively related to the propensity of women to operate in high growth industries. Unpartnered status does not influence the propensity of men to operate in high growth industries.

Hypothesis 2 uses the 2-category industry growth definition as the dependent variable. Logistic regression is utilized as it is appropriate for testing the relationship of independent variables on a binary dependent variable.

To ascertain differences among men and women, as well as across geographies, the models were run using survey weights and subpopulation commands to ensure accuracy in bifurcating the conditional sample. The main effects are examined by two variables, “Household Status” and “Has Children” which are binary indicators for the partnered status of the business owner as well as whether there are children in the business owner’s home. For instance, if a business owner was unmarried and had children, “Household Status” would equal 0 and “Has Children” would equal 1. A positive

and statistically significant coefficient on the “married” variable would indicate that being married is positively related to the propensity of the studied population to start businesses in women-concentrated industries or high growth industries. The same is true of the “has children” variable.

The next chapter presents analyses and results by research question heading, providing foundational information related to differences among men and women business owners that may explain *why* gender differences exist in industry choice. After presenting the quantitative profile, the chapter presents the results of the econometric analysis.

4. Results

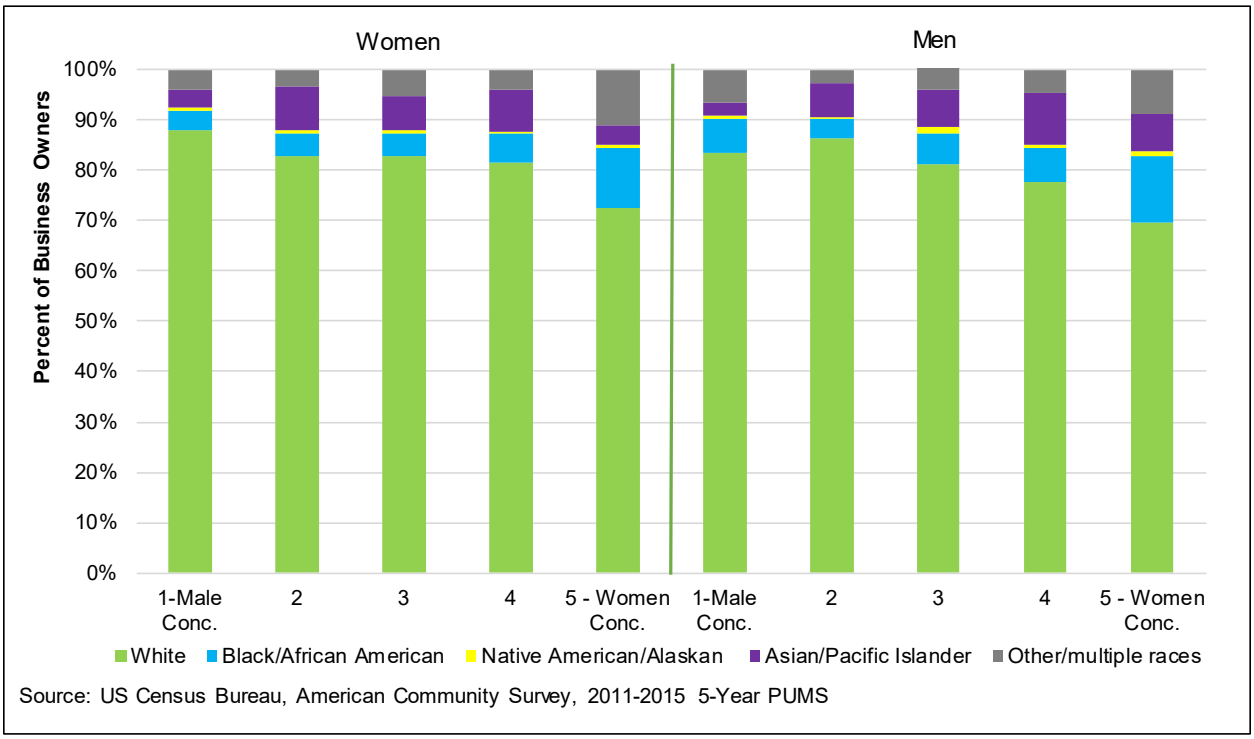
This chapter details the analyses undertaken and highlights key findings related to the reasons why women start businesses in different industries from men. The chapter is organized as follows. The first section details demographic and background information related to women and men business owners in both industry groupings. The second section builds upon the first and contains analyses related to family and household dynamics, including the presence of children as well as marital status. The third section presents results on business dynamics including location and owner earnings. Finally, the fourth section details the results of econometric testing of Hypotheses 1 and 2.

Demographic and Background Information

Figure 4-1 contains the racial distribution for men and women business owners using Grouping A (gender concentration). As shown, as the industry category becomes more women-concentrated, the percentage of business owners who identify as non-white increases. That is, there is greater racial diversity in industries that are more women dominated, with over 85 percent of women business owners in Category 1 (male concentrated industries) identifying as white, compared to just over 70 percent in Category 5 (women-concentrated industries). A similar observation holds for men business owners as well.

Figure 4-1

Racial Distribution by Gender and Grouping A (gender concentration)

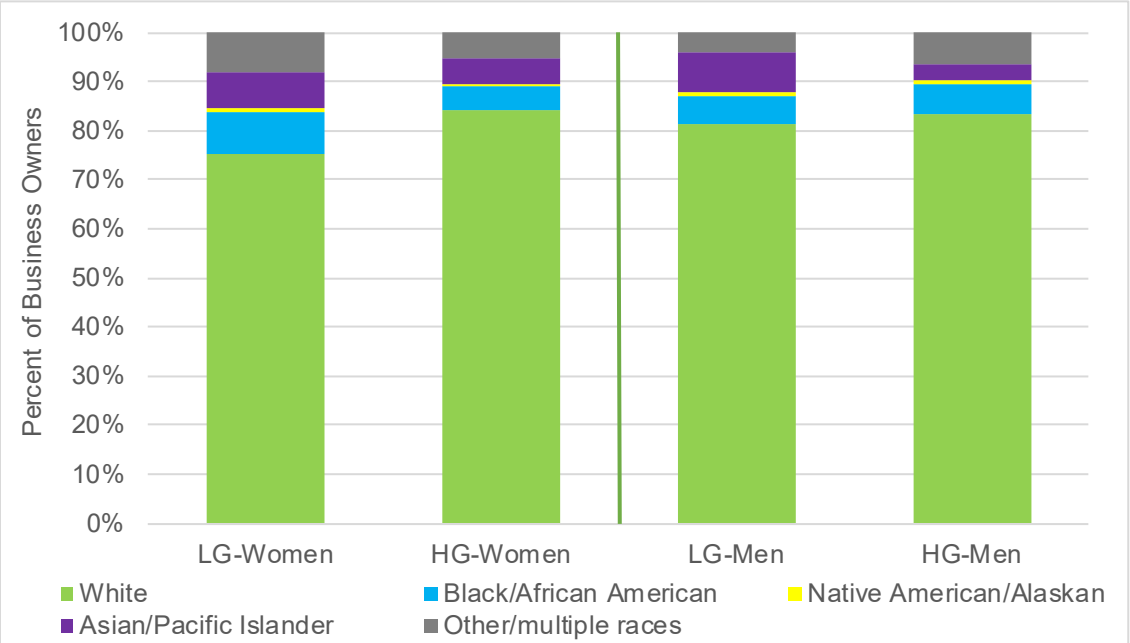


Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Similar, although less pronounced, trends exist for the racial distribution by gender and Grouping B (industry growth status). Figure 4-2 contains the racial distribution for men and women business owners using Grouping B. Among women, racial minority owners make up a greater share of business owners in low growth industries. In high growth industries, nearly 85 percent of women are white. The racial distribution for the Low Growth Category reflects overall population dynamics where approximately 72 percent of Americans identify as white. However, in high growth industries, racial minorities are underrepresented relative to their share of the United States population.

Figure 4-2

Racial Distribution by Gender and Grouping B (growth status)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

The American Community Survey captures Hispanic (ethnicity) and race separately. Table 4-1 contains the share of business owners (women and men) that identify as Hispanic by industry category. For example, the table shows that 10.4 percent of women in Category 1 are Hispanic. As shown, women in low growth industries are more likely to identify as Hispanic than men in low growth industries, hinting at a gender gap among Hispanic business owners. In addition, women operating in women-concentrated industries are more likely than women operating in male concentrated industries to identify as Hispanic. As of 2016, approximately 17.8 percent of the United States population is Hispanic.[10] This indicates that Hispanic women are slightly overrepresented among women business owners in low growth industries and overrepresented among women operating in women-concentrated industries compared to the general population.

[10] United States Census Bureau. For more information, please see https://www.census.gov/quickfacts/fact/table/US/PST045216

Table 4-1

Distribution of Hispanic Business Owners by Category and Gender

Grouping A (gender concentration)	Women	Men	Grouping B (industry growth)	Women	Men
Category 1	10.4%	16.5%	Low Growth	19.2%	9.6%
Category 2	7.6%	6.6%	High Growth	12.3%	16.7%
Category 3	12.4%	10.7%			
Category 4	8.0%	10.1%			
Category 5	26.2%	20.0%			

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Figures 4-3 and 4-4 show the educational attainment for business owners by gender and industry grouping. Across both groupings, education varies substantially for both men and women. Key findings include:

- *Grouping A: Gender Concentration Findings*

    - Women and men business owners in Category 5 (most women-concentrated) are the least educated, on average, with approximately 20 percent of women and 18 percent of men attaining less than a high school education. This may be driven by the types of businesses that operate in Category 5, including private households (employing cooks, maids, etc.) and child daycare services, which may not require post-high school education.

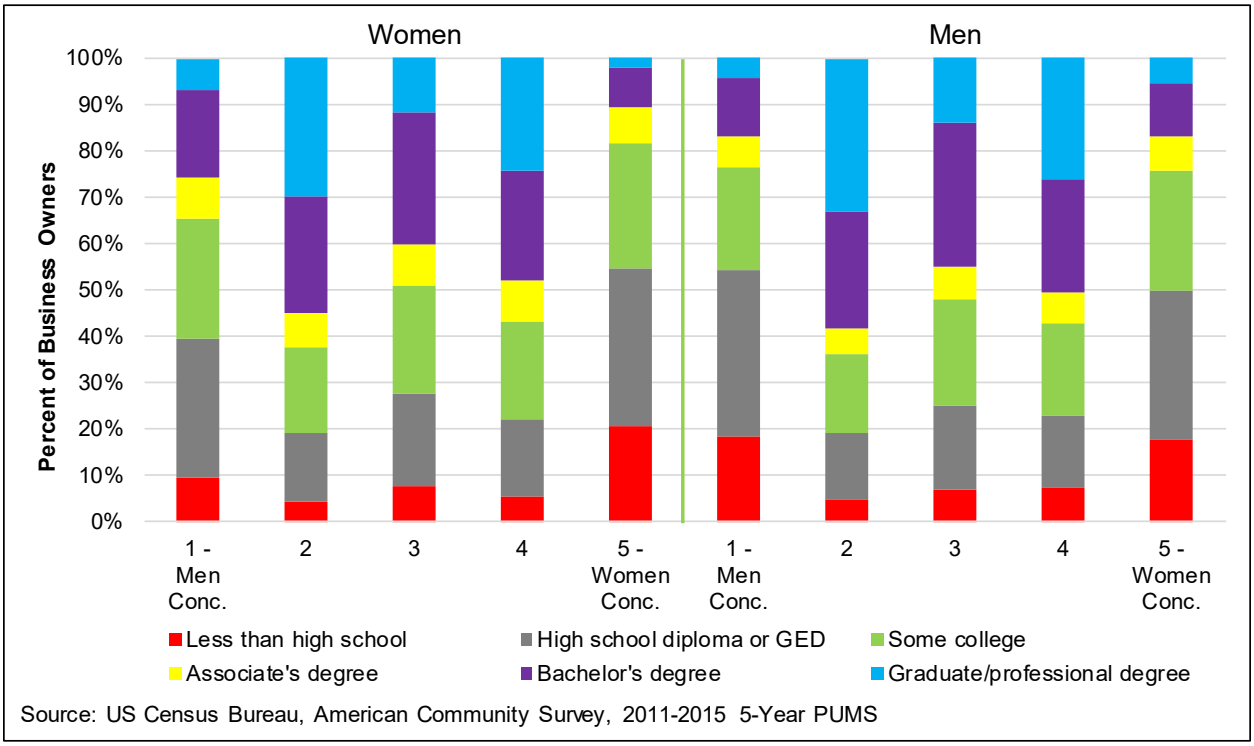
    - Men operating in Category 1 (most men concentrated) are less educated, on average, than women operating in Category 1. In these male-concentrated industries, including construction and trucking, over 50 percent of men lack post-high school education, compared to less than 40

percent of women. This raises questions related to barriers to entry for women, potentially requiring more education to compete in industries traditionally deemed "masculine," including gender bias in professional networking preventing women from competing in a level playing field.

- The most highly educated men and women operate in Category 2, which contains industries such as computer systems design, legal services, and financial services, all of which are likely to require post-secondary education.

Figure 4-3

Educational Attainment by Gender and Grouping A (gender concentration)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

- *Grouping B: Growth Category Findings*

  - Among high growth business owners, women are more highly educated than men, with almost 50 percent of women obtaining a post-secondary

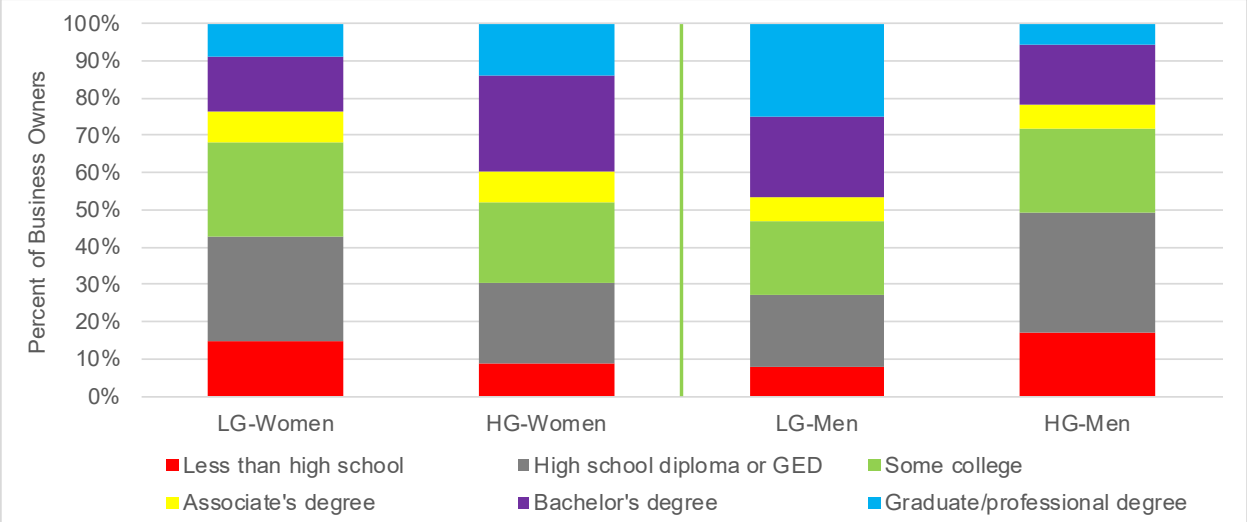
degree compared to less than 30 percent of men. Additional work is necessary to evaluate the relationship between educational status and the industrial growth clustering observed for women and men business owners.

- The opposite is true of women and men operating in low growth industries. In this category, just over 30 percent of women possess post-secondary degrees, compared to more than 50 percent of men. This appears to be related to the types of firms that women and men operate within the low growth category. The top industries for men in the Low Growth Category include legal services, securities and financial trading, and dentists, all of which require post-secondary education. This compares to women in the Low Growth Category where the most popular industries are private households, beauty salons, and child daycare services, none of which require post-secondary education.

- Among women, there are differences in education levels among high and low growth business owners. High growth business owners tend to be more educated, with nearly 50 percent of women in high growth industries obtaining a post-secondary degree compared to just over 30 percent of women in low growth industries. Women in low growth industries are also nearly twice as likely as women in high growth industries to lack a high school diploma or GED.

Figure 4-4

Educational Attainment by Gender and Grouping B (growth status)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Additional variables were examined as well to explore potential trends and differences across genders and industry groups. Figures and tables are included in Appendix D. Key findings include:

- *Age:* In Grouping A, women are younger than men in all categories except Category 1, the most male concentrated. In Grouping B, women are younger than men in low growth industries and older than men in high growth industries. While age differences exist and are statistically significant, the gender gap is small in all categories hinting that age may not be a distinguishing factor among women and men business owners and the industries in which they start and operate businesses. However, research indicates that age may be a proxy for experience, which lends support to the idea that to compete in male-concentrated industries, women may require greater experience than their male counterparts.

- *Geography:* Little difference exists among women and men within industry categories and groupings. That is, women and men business owners within a category are similarly geographically distributed. Similarly, among women and

men across industry groupings, the share of business owners located in a region does not vary widely.

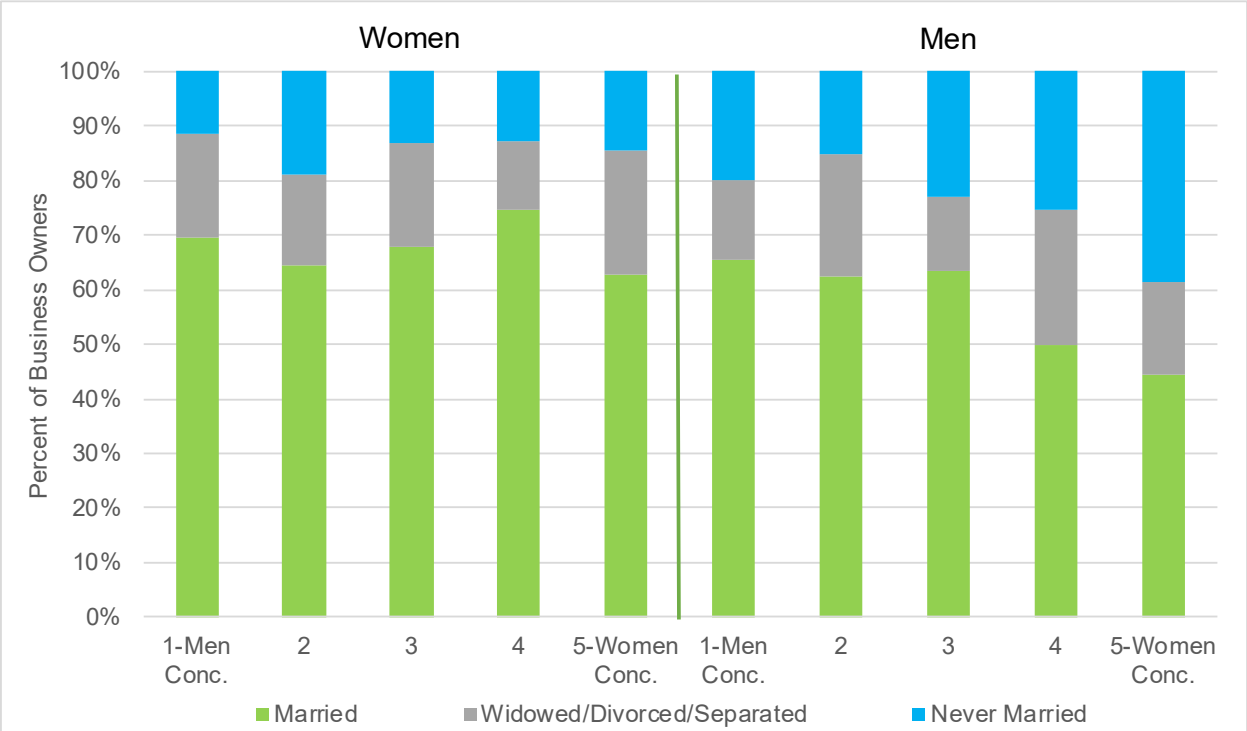
Household Dynamics

A key component of this research is the exploration of the effect of family dynamics and personal variables on the industries in which women start businesses. As noted in the literature review, women continue to play an outsized role in childcare and childrearing, which research indicates influences their careers. This section explores trends related to personal characteristics within the context of industry and business ownership.

Figure 4-5 contains the marital status distribution for women and men business owners by Industry Grouping A. Men and women business owners operating in Category 5, the most women-concentrated category, are less likely to be married than those operating in other categories. For men, there is a steady decline in the likelihood of marriage when moving from Category 1 to Category 5. For women, this trend is less visible. Figure 4-6 contains an identical analysis to that in Figure 4-5, except using the growth industry categories. Most notably, the results indicate that women were less likely to be married in low growth industries, complementing the results obtained in Figure 4-5.

Figure 4-5

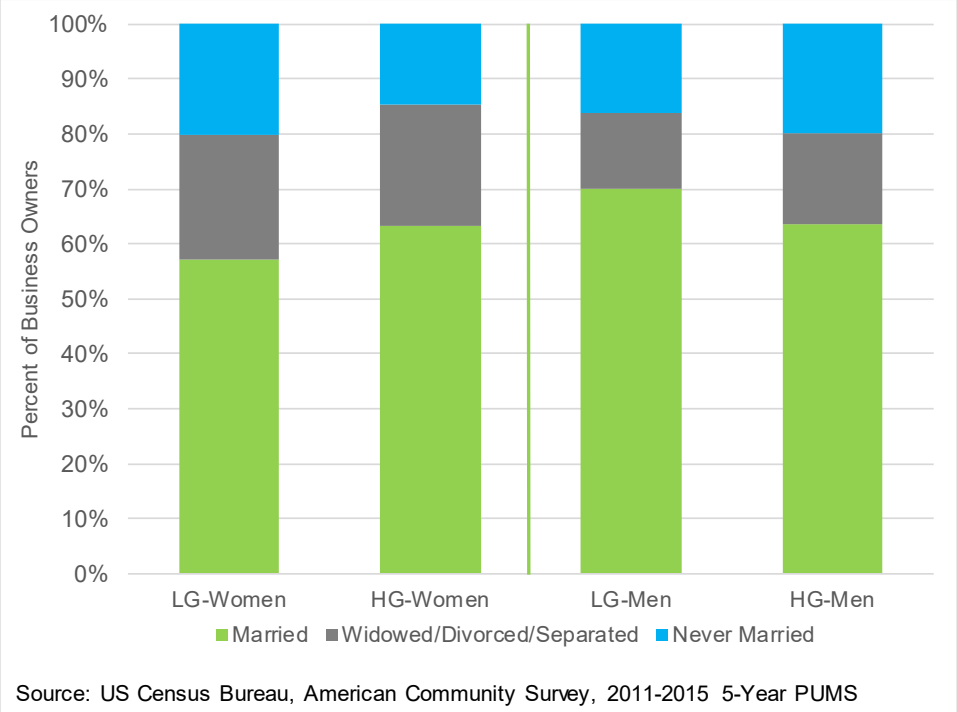
Marital Distribution by Gender and Grouping A (gender concentration)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Figure 4-6

Marital Distribution by Gender and Grouping B (industry growth)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Table 4-2 contains further information on marital and head of household status by growth category. The table displays the percentage of business owners (women or men) in each Gender Concentration Category that are householders with no spouse present. For example, in Category 1, 14.3 percent of women business owners are single heads of household. Key results include:

- In all categories, women are more likely than men to be single householders with no spouse present.

- Women are generally more likely to be single heads of household as the concentration of women in the industry in which they operate increases. That is, women in women-concentrated industries tend to be single householders.

- Women are more likely to be single householders than men, regardless of growth category. In both high and low growth industries, women business owners are more than five times as likely as men to be single heads of household.

These findings raise important questions about *why* women start their businesses, including the industries they select. Prior work from the National Women's Business Council indicates that women are pushed into business ownership by lifestyle factors. This may include single parenthood and the time constraints associated with working and being a single, full-time caregiver. It is possible that low growth industries and those that are women-concentrated are more favorable to single individuals, regardless of gender.

Table 4-2

Household Status by Industry Grouping Category

Gender Concentration Category (Grouping A)	Share - Female Householders with No Spouse Present	Share - Male Householders with No Spouse Present
1	14.3%	2.8%
2	12.6%	2.0%
3	17.1%	2.8%
4	16.5%	2.7%
5	29.9%	5.2%

Growth Category (Grouping B)	Share - Female Householders with No Spouse Present	Share - Male Householders with No Spouse Present
Low Growth	23.1%	4.2%
High Growth	17.5%	2.9%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

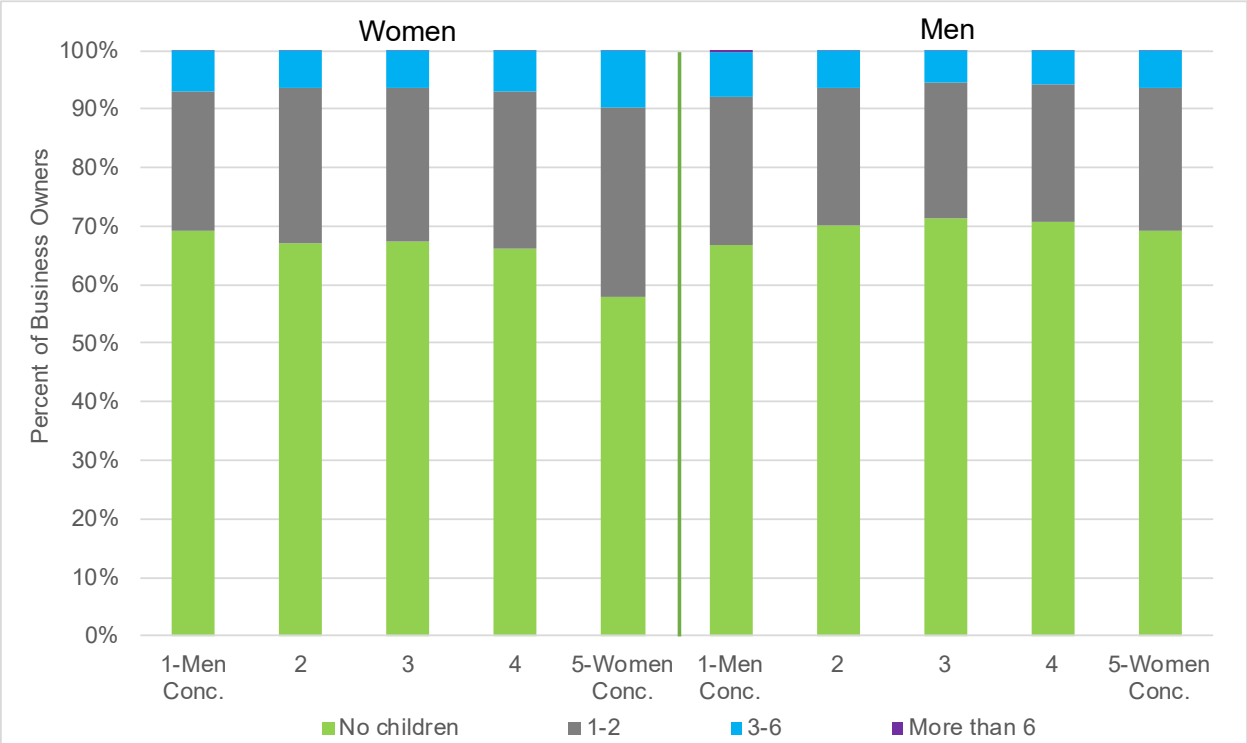
The presence of children and household status are intrinsically linked. Figures 4-7 and 4-8 display the distribution of child status for women and men business owners by industry category.[11] The figures demonstrate that for women, there is little difference among industry categories for the presence and number of children, besides in Category 5 for women concentration category and low growth. In both categories, women are more likely to have children, and more children, than women business owners in the other categories. For men, there is little difference across categories in the presence and number of children.

Using statistical difference in means testing, the results indicate that amongst business owners who have children, men have an equal or higher number of children in all industry categories across both groupings with the exception of women concentration Category 5 (Grouping A), where women business owners have more children in their homes than men business owners.[12] In addition, comparing women in different industry categories, as the industry becomes more women-concentrated (i.e., comparing Category 1 to Category 5), women tend to have more children. These figures hint that childrearing may be an influential factor for women business owners in relation to the industries in which they start their businesses but may not influence men in the same capacity. That is, a gender relationship may exist related to the presence of children and the types of businesses that individuals start. Figure 4-7 suggests that industries in Category 5 may be more attractive for women business owners with children without having the same effect for men with children. Further study is required to explore this phenomenon in detail.

[11] An important note is that this variable excludes adult "children" living in the home with the business owner. Children older than 18 years are not included in this analysis as "children."
[12] These differences were all statistically significant at the 1 or 5 percent level.

Figure 4-7

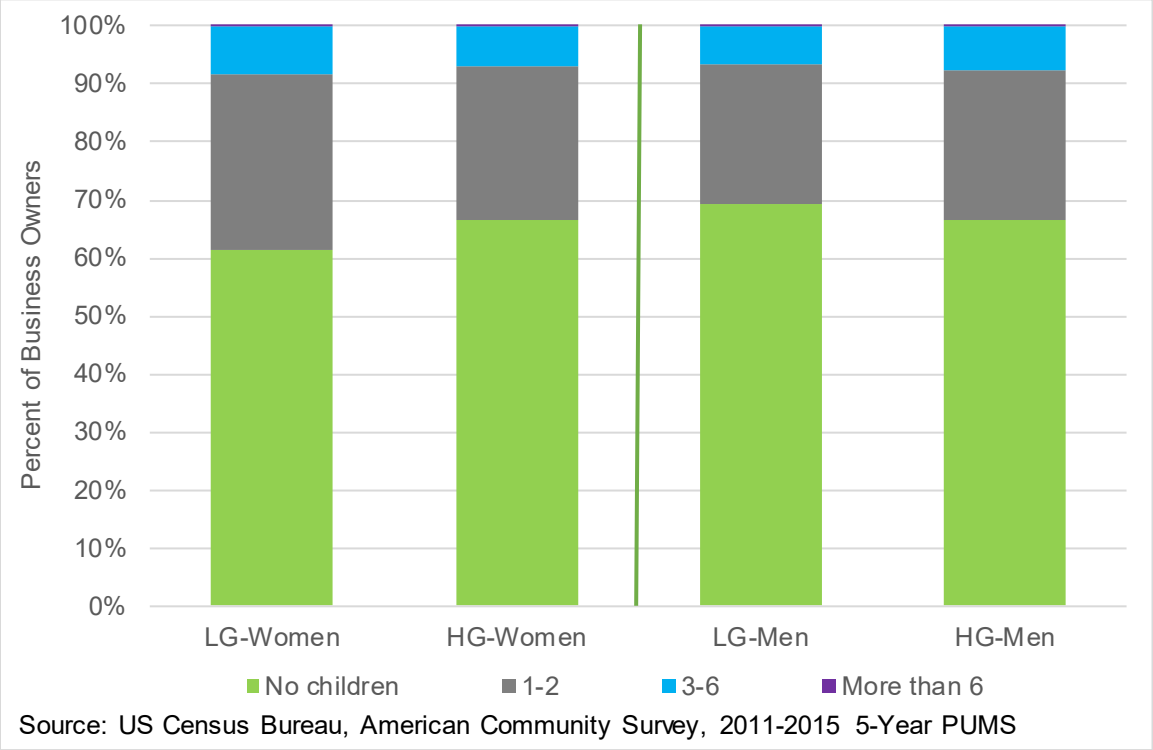
Number of Children Distribution by Gender and Industry Category (Grouping A)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Figure 4-8

Number of Children Distribution by Gender and Industry Category (Grouping B)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Business Dynamics

Prior research indicates that working from home is negatively associated with the operation of high growth businesses among both men and women (Coleman & Robb 2014).[13] Figures 4-9 and 4-10 show the distribution of business owners who operate their business out of their homes, segmented by child status and industry grouping. The columns on the left refer to individuals with no children and the columns on the right refer to individuals with children (marked "children"). Key takeaways include:

- In all categories in both industry groupings, women are more likely than men to work at home.

[13] Coleman & Robb use a different definition for high growth businesses than what is used herein.

- The share of women working from home increases when the business owner has children. This supports the hypothesis that women work at home and start home-based businesses to balance their personal and professional responsibilities, including childcare.

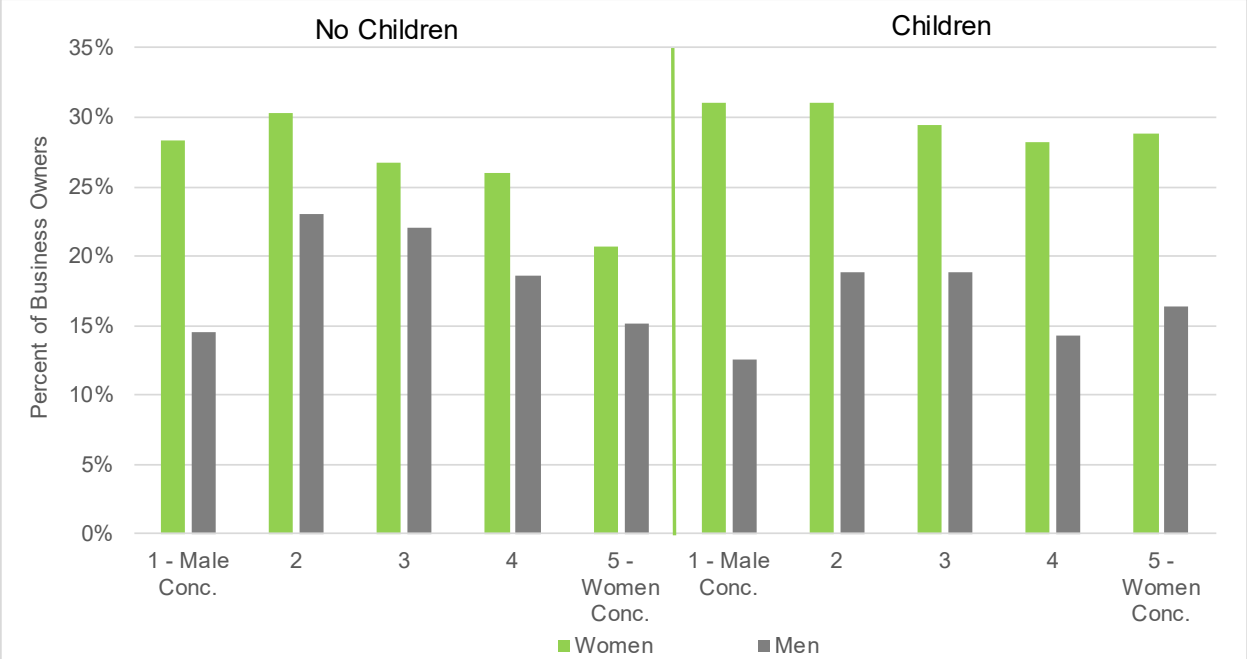
- The exact opposite is true of men. Namely, men with children are less likely than men without children to operate their businesses out of their homes.

- In Industry Grouping A, women in women-concentrated industries are less likely to work from home. This is a counter intuitive finding as women in Category 5 are also more likely to be single parents and spend less time working at their businesses. However, this finding appears to reflect the types of businesses that comprise Categories 4 and 5, including salons and private households.

- In Industry Grouping B, women in the Low Growth Category were less likely to operate out of the home than women in the High Growth Category. This trend also existed for women business owners with children.

Figure 4-9

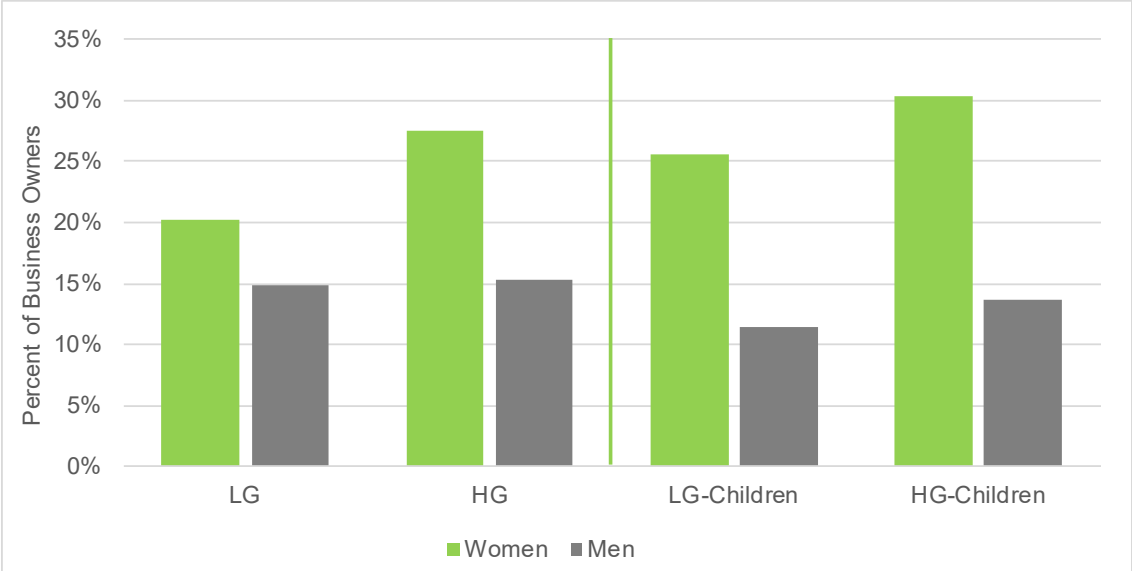
Distribution of Home-Based Businesses by Gender and Industry (Grouping A)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Figure 4-10

Distribution of Home-Based Businesses by Gender and Industry (Grouping B)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Different Industries may require various time investments which may influence the distributions of weeks worked per year differently for each gender, given the different personal demands that men and women face in the home. Tables 4-3 and 4-4 contain the distributions for weeks worked per year by gender and industry category for Groupings A and B, respectively. Key findings include:

- *Grouping A*
    - There is no difference in the number of weeks worked per year among women in Categories 1 through 3 related to the presence of children. However, women business owners with children in Categories 4 and 5 work fewer weeks per year than women with no children in the same categories.
        - For men, the general trend of fewer weeks per year is opposite that of women. That is, men with children tend to work *more* weeks per year than men without children.
    - As the industry categories become more women-concentrated, the number of weeks worked per year declines for women with children. That is, women with children in Category 5 work fewer hours per week, on average, then women with children in Category 1.
        - This observation also holds for men, where those operating in women-concentrated industries (e.g., Category 5) work fewer weeks than those men operating in Category 2, for example.
- *Grouping B*
    - Women in low growth industries work more weeks per year than women in high growth industries. For example, 73 percent of women business owners without children in the Low Growth Category work 48 to 52 weeks per year,

compared to 68 percent of women without children in High Growth Category.

- This trend exists for men as well and is more pronounced, with 80 percent of men without children in low growth industries working 48 to 52 weeks per year compared to 66 percent of men in high growth industries.

- Like Industry Grouping A, men with children in both industry growth categories work more weeks per year than men without children. For women, the inverse relationship exists, where women with children work fewer weeks per year than women without children in both industry growth categories.

Table 4-3

Weeks Worked per Year Distribution by Gender and Industry (Grouping A)

	Women Business Owners									
	Without Children					With Children				
	1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
48 to 52 Weeks	71.5%	73.8%	70.0%	67.0%	70.9%	71.3%	73.1%	67.2%	63.8%	63.8%
27 to 47 Weeks	13.8%	12.9%	14.2%	18.3%	14.0%	13.6%	13.4%	14.4%	18.6%	13.7%
26 Weeks or Less	14.8%	13.3%	15.8%	14.7%	15.1%	15.1%	13.5%	18.4%	17.6%	22.5%

	Men Business Owners									
	Without Children					With Children				
	1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
48 to 52 Weeks	67.0%	78.5%	74.6%	73.0%	72.1%	74.2%	88.6%	82.8%	80.7%	68.0%
27 to 47 Weeks	17.6%	10.6%	12.3%	13.8%	13.0%	15.3%	6.7%	9.0%	9.4%	9.6%
26 Weeks or Less	15.5%	10.9%	13.1%	13.2%	14.9%	10.5%	4.6%	8.3%	9.9%	22.4%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Table 4-4

Weeks Worked per Year Distribution by Gender and Industry (Grouping B)

	Women Business Owners			
	Without Children		With Children	
	LG	**HG**	**LG**	**HG**
48 to 52 Weeks	73.0%	68.1%	67.4%	66.1%
27 to 47 Weeks	13.3%	16.3%	13.5%	16.8%
26 Weeks or Less	13.7%	15.6%	19.2%	17.2%

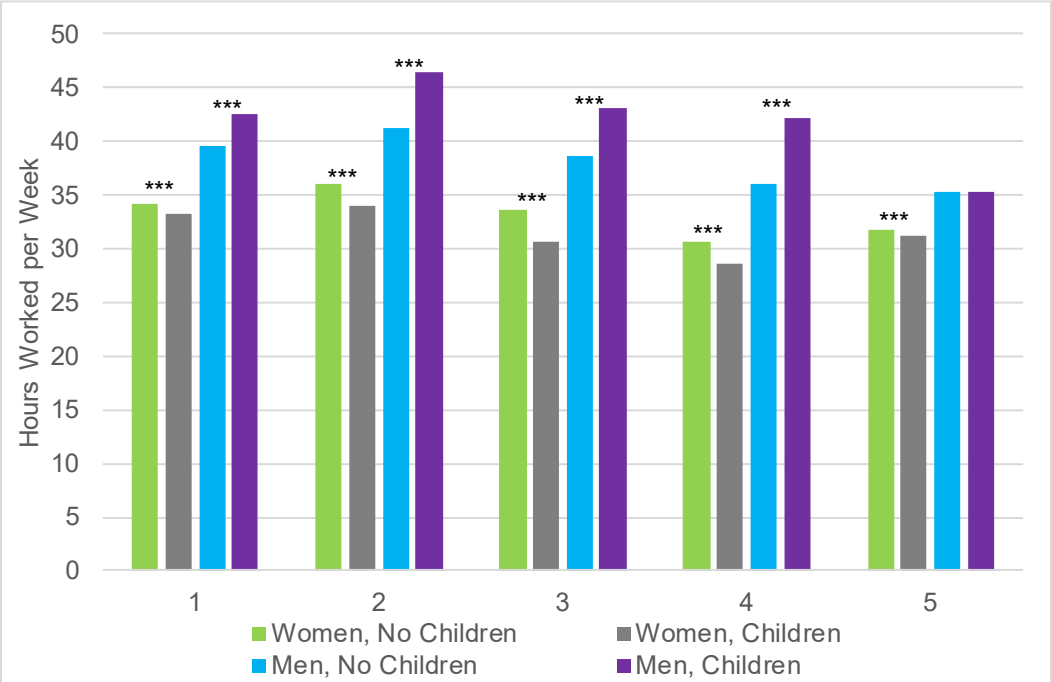
	Men Business Owners			
	Without Children		With Children	
	LG	**HG**	**LG**	**HG**
48 to 52 Weeks	79.6%	66.0%	86.6%	73.7%
27 to 47 Weeks	10.5%	18.1%	6.9%	15.6%
26 Weeks or Less	9.9%	15.9%	6.5%	10.7%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

In addition to analyzing weeks worked per year, we analyzed hours worked per week for both women and men business owners, with and without children, for each industry category. Figures 4-11 and 4-12 contain the results. Figure 4-11 indicates that overall, business owners in Category 5 work fewer hours per week than those in the other categories. In addition, men work more hours than women, both with and without children. A key observation, however, is a gender-specific change in hours worked per week related to the presence of children in the household. Namely, women with children spent fewer hours at work than women without children. The exact opposite is true of men (excluding Category 5, the most women-concentrated industries), where men with children work more hours than men without children. Combined with information related to the time-intensive nature of certain industries versus others, women may face challenges related to starting businesses in growth-oriented or time-intensive industries, creating gender differences among women and men business owners.

Figure 4-11

Average Hours Worked per Week by Gender and Industry Category (Grouping A)

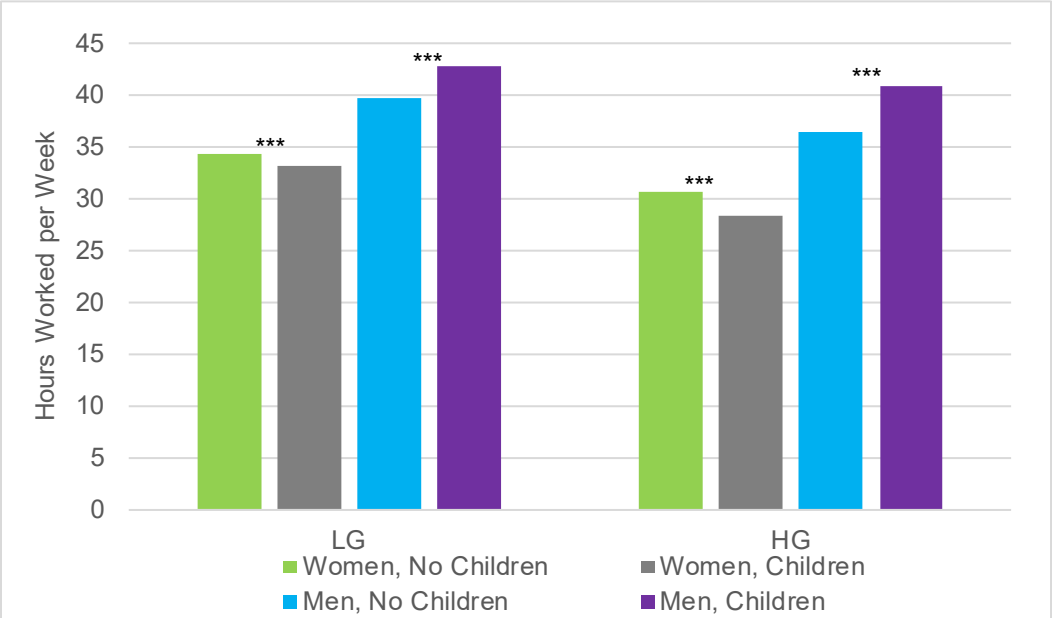


Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS
Note: *** p<0.01, ** p<0.05, * p<0.10

Figure 4-12 reaches similar conclusions to Figure 4-11 using industry growth categories. That is, women with children work fewer hours per week than women without children but men with children work more hours per week than men without children. In addition, there are hours worked differences between the industry categories, with women and men in high growth industries working fewer hours per week than those in low growth industries.

Figure 4-12

Average Hours Worked per Week by Gender and Industry Category (Grouping B)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS
Note: *** p<0.01, ** p<0.05, * p<0.10

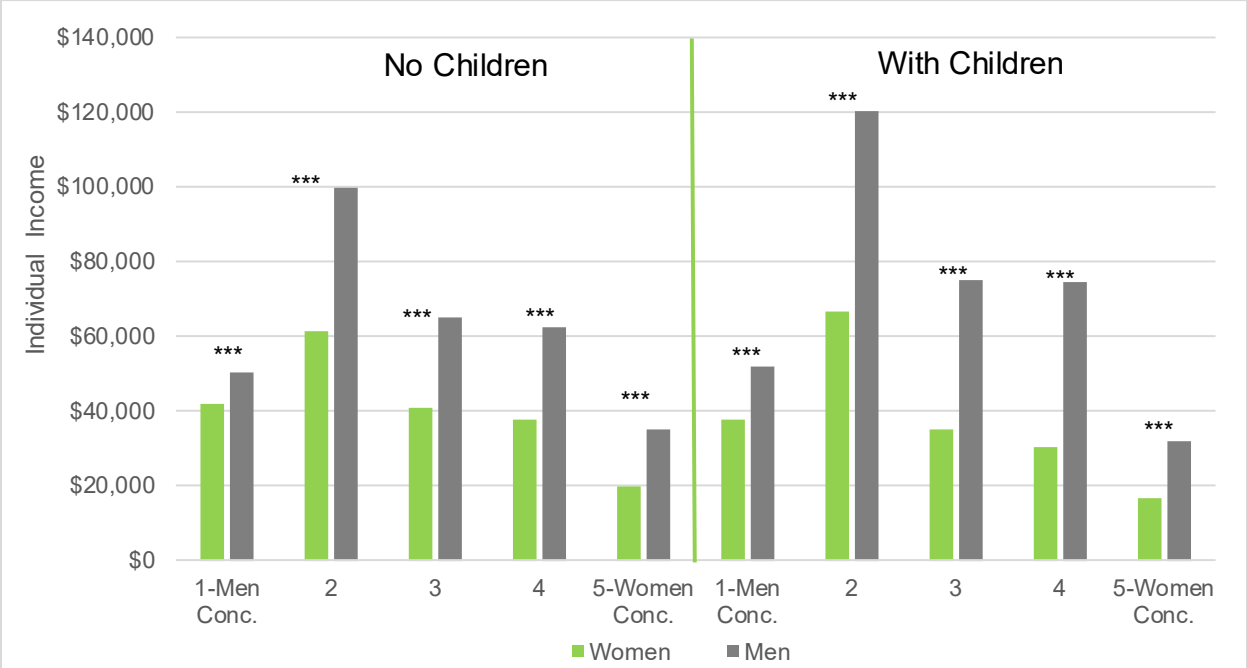
Related to the number of weeks worked per year and hours worked per week is the personal income that the business owner derives from their venture. Figure 4-13 contains the average individual income for men and women business owners, with and without children, by industry category. As shown, the highest income for both men and women is in Category 2, which contains legal services, computer systems design, insurance carriers, and management/scientific/technical consulting services. Across the board, women-concentrated industries produce business owners with lower average incomes from the business. In addition, men earn more than women. A key item of note is the disparity in income change with and without children. As shown, women with children experience almost no change in income related to their businesses and men with children experience an increase in income.

Figure 4-14 displays similar trends to those observed in Figure 4-13 for the industry growth categories, namely overall gender differences as well as growth in income for men with children and no growth for women with children. Interestingly, business owners in

high growth industries tend to earn less than those in low growth industries. At face value, this seems counterintuitive. However, it is important to note that the industries considered high growth oriented by the definition in use vary significantly. While the high growth category includes specialized design and computer design, the category also includes lower-earning industries such as construction, construction cleaning, and truck transportation. This illustrates the definition where high growth industries are those where both the number of firms and the employment of existing firms are growing. This contrasts with the definition of "high tech" in the literature.

Figure 4-13

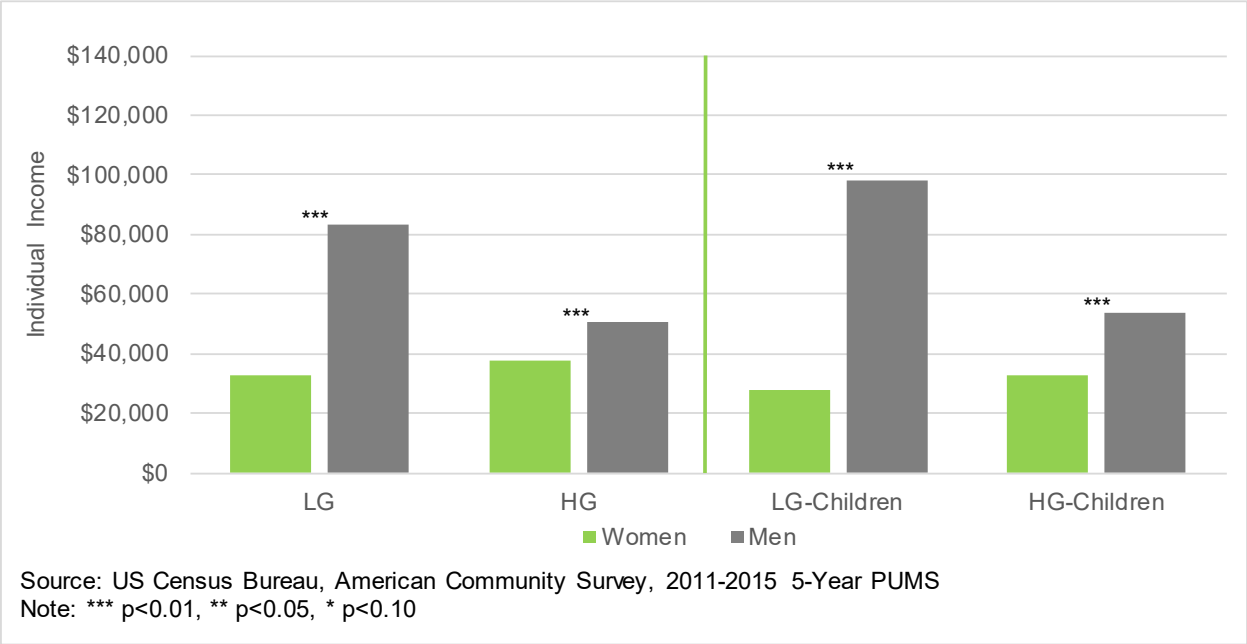
Average Business Income by Gender and Industry Category (Grouping A)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Figure 4-14

Average Business Income by Gender and Industry Category (Grouping B)



Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS
Note: *** p<0.01, ** p<0.05, * p<0.10

One factor that influences the differences in income observed among women and men across industry categories is the occupation category associated with the work performed at the businesses owned by the individuals. Appendix B contains the top 15 occupations within each industry Grouping and individual Category for men and women, separately. Within industries, functions performed and risks assumed may differ greatly. For example, within construction, men constitute a greater share of construction managers (4.27 percent of women concentration Category 1) compared to women (1.92 percent of women concentration Category 1). While income disparities exist associated with gender across the workforce, including among non-business owners, occupational differences within industries contribute to the income disparities observed for men and women business owners.

Multivariate Results

Hypothesis 1

Hypothesis 1 examines the potential relationship of family life and dynamics on operating a business in gender concentrated industries. It asks the question, *does having children have an impact women's decision to start businesses in certain historically women-concentrated or woman-friendly industries?* Tables 4-5 and 4-6 contain results from an ordered logistic regression of the factors that contribute to business ownership in gender concentrated industries.[14] In these regressions, the dependent variable is the industry gender concentration category, 1 through 5, where 5 includes the most women-concentrated industries. The results show that that for women business owners, having children is a positive predictor for operating in a women-concentrated industry and that the age of those children matters as well. The model demonstrates the opposite effect for men business owners, revealing a gender gap. That is, having children is negatively related to the propensity to operate in a women-concentrated industry for men. Additionally, having more individuals living in the home (such as children) is positively associated with the propensity to operate in a women-concentrated industry for women. The effect is negative or negligible for men. There are multiple hypotheses to explain these results, including the outsized role that women continue to play in American family life. It is possible that women with children have fewer choices because of practical constraints levied by their large involvement in childrearing.

Hypothesis 1 also postulated that being unpartnered would be related to women starting businesses in women-concentrated industries. The model confirms this piece of Hypothesis 1. The negative and statistically significant coefficient on the "Household Status" variable shows that across geographies, for women, being a single head of household is positively linked with the propensity to operate a business in women-concentrated industries. As discussed in the univariate results, multiple differences in terms of resources required and time commitment exist across the gender concentration industry spectrum. It is possible that single women heads of household, particularly those with children, lack the time required to start a business in a male dominated industry,

[14] Because the dependent variable is ordered and five categories, four constants are reported.

which tends to have higher average business earnings. For men, household status had no influence on industry, however, in more urban settings, the coefficient on the “Divorced or Separated” indicator was negative and statistically significant, indicating that divorce is negatively associated with the propensity to operate in women-concentrated industries for men in certain geographies.

While the model supports acceptance of Hypothesis 2, there are additional items of note in control variables. Past research indicates that education influences access to capital and business survival. The coefficients on the education variables for women were negative and statistically significant, indicating that across the country, more highly educated women were less likely to operate in women-concentrated industries. Interestingly, the opposite is true for men business owners. As discussed earlier, the type of business within a particular industry is an important consideration. It is possible that men and women in women-concentrated industries start different businesses leading to this disparity, although additional research on the topic is required. Also of note is the negative and statistically significant coefficient on the “Science Degree” variable for both men and women across geographies. This indicates that possessing a degree in a STEM field negatively influences operation of a business in a women-concentrated industry among both men and women. One potential explanation is that the gender gap in STEM degrees influences this trend and that policies designed to promote STEM among women may reduce gendered industry clustering among women in the future.

For both women and men business owners, home ownership is a negative predictor for operating a business in a women-concentrated industry, consistent with past research examining the capital intensity required to start and operate businesses in lower growth, women-concentrated sectors. Income presents gender effects as well. For men, the negative and statistically significant coefficients on the “Income Above $50,000” variable indicate that having a total household income above $50,000 per year was negatively associated with operating a business in a women-concentrated industry. The opposite effect is observed for women business owners, where income above $50,000 is positively associated with operating a business in a women-concentrated industry.

Business owner earnings are a component of total household income and as such, this phenomenon may be the result of operation in a women-concentrated industry. Nonetheless, the finding presents further evidence of gender pay differences and the effect that industry has on business owner earnings.

Table 4-5
Hypothesis 1 Results – Women Business Owners

	Urban					Rural
Rural Category	1	2	3	4	5	6
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Women Business Owners						
Has Children	0.0599 *	0.1245 ***	0.1760 ***	0.5297 ***	0.3178 ***	0.4027 ***
Number of Children Under Age 6	0.0385	0.0752 *	0.0612	-0.0407	0.0698	0.0768
Number of Children Age 6 to 17	-0.1067 ***	-0.0786 **	-0.0632	-0.3081 ***	-0.1895 ***	-0.2788 ***
Divorced or Separated	-0.0005	-0.0881 **	0.0268	-0.0497	-0.0571	0.0302
Household Status (partnered)	-0.2071 ***	-0.3234 ***	-0.2354 ***	-0.3246 ***	-0.3093 ***	-0.2477 ***
Minority Race	0.2369 ***	0.2765 ***	0.0282	-0.0479	0.0025	0.1277
Black	0.4216 ***	0.4790 ***	0.6233 ***	0.7327 ***	0.7738 ***	0.6569 ***
Asian	-0.3979 ***	-0.5565 ***	-0.3265 ***	-0.0221	-0.1909	-0.3546 **
Hispanic	0.3305 ***	0.2562 ***	0.2978 ***	0.0777	0.2596 ***	0.0450
Home-Based	-0.1093 ***	0.0052	0.0058	0.1395 ***	-0.0190	0.0650
Immigrant	0.0324	0.1428 ***	0.0125	-0.0031	-0.0597	0.0530
Citizen	-0.2734 ***	-0.2688 ***	-0.1709 ***	0.0156	0.0488	0.0210
Disabled	0.0058	-0.0335	0.0003	-0.0591	-0.0033	-0.0635
English Proficiency	-0.2701 ***	-0.2176 ***	-0.0831	-0.2446	-0.1157	-0.5047 **
Multi-Generational Household	0.0377	-0.0885 **	-0.0910 *	-0.1864 **	0.0123	-0.0334
Number of Non-Child People in Household	0.0879 ***	0.0802 ***	0.0885 ***	0.0505 ***	0.0720 ***	0.0446 *
Education - High School Diploma	-0.3630 ***	-0.2658 ***	-0.3621 ***	-0.3544 ***	-0.2049 **	-0.2679 ***
Education - Associate's/Bachelor's Degree	-0.4004 ***	-0.3849 ***	-0.3599 ***	-0.2876 ***	-0.3234 ***	-0.2878 ***
Education - Master's Degree or Higher	-0.1112 ***	-0.1358 ***	-0.1301 ***	-0.1348 ***	-0.1783 ***	-0.1122 **
Health Coverage	0.0100	0.0909 ***	0.0946 ***	0.1200 **	0.1332 ***	0.0896
Owns Home	-0.3055 ***	-0.3268 ***	-0.2577 ***	-0.2569 ***	-0.2345 ***	-0.2277 ***
Income Above $50,000	0.2371 ***	0.2393 ***	0.1929 ***	0.1832 ***	0.1848 ***	0.1795 ***
Science Degree	-0.2251 ***	-0.2521 ***	-0.2424 ***	-0.2964 ***	-0.1777 ***	-0.2232 ***
Two Worker Household	-0.0395 *	0.0059	0.0196	0.0448	0.0235	-0.0571
Constant 1	-3.5428 ***	-3.3042 ***	-2.9183 ***	-2.6792 ***	-2.4036 ***	-2.8455 ***
Constant 2	-2.1685 ***	-2.0220 ***	-1.6738 ***	-1.5848 ***	-1.3256 ***	-1.7542 ***
Constant 3	-0.6909 ***	-0.6458 ***	-0.3397 ***	-0.3841 *	-0.0397	-0.5512 **
Constant 4	0.2172 ***	0.2104	0.5632 ***	0.3926 *	0.7408 ***	0.2058
Count	*79,698*	*77,233*	*49,171*	*27,690*	*26,380*	*16,513*

Source: US Census Bureau, American Community Survey 2011-2015 PUMS

Note: ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

Table 4-6
Hypothesis 1 Results – Men Business Owners

	Urban										Rural	
Rural Category	1		2		3		4		5		6	
	Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient	
Men Business Owners												
Has Children	-0.1215	***	-0.1463	***	-0.1122	***	-0.1443	**	-0.2154	***	-0.2762	***
Number of Children Under Age 6	0.1340	***	0.0704	*	0.0560		0.0467		0.1157		0.0581	
Number of Children Age 6 to 17	0.0456		0.0769	**	0.1002	**	0.0129		0.0936		0.1738	**
Divorced or Separated	-0.0992	***	-0.1703	***	-0.2519	***	-0.0865		-0.1045		-0.1228	
Household Status (partnered)	0.0434		-0.0660	*	0.0276		0.0820		-0.0126		0.0849	
Minority Race	0.0010		0.0955	**	0.1384	**	0.0665		-0.1273	*	-0.0474	
Black	0.0881	*	-0.0106		0.1115		0.0709		0.2668	***	-0.1023	
Asian	0.5349	***	0.6962	***	0.7494	***	1.1674	***	1.3699	***	1.5450	***
Hispanic	-0.1767	***	-0.1954	***	-0.0733		-0.0617		-0.0997		-0.1274	
Home-Based	0.2585	***	0.2652	***	0.3423	***	0.3695	***	0.2891	***	0.4238	***
Immigrant	0.1021	***	0.0607	**	0.1350	***	0.1167		0.5025	***	0.2469	**
Citizen	0.2316	***	0.3504	***	0.1724	***	0.1943		0.4558	***	0.1220	
Disabled	0.0331		0.0590	**	0.0217		0.0107		0.0362		-0.0078	
English Proficiency	0.0864	**	-0.1083	**	-0.3749	***	-0.5394	***	-0.2709	*	-0.3751	*
Multi-Generational Household	-0.0448		-0.0176		0.0893	*	0.0345		-0.0860		0.0703	
Number of Non-Child People in Hhold	-0.0315	***	-0.0146	*	-0.0452	***	-0.0014		0.0029		0.0055	
Education - High School Diploma	0.4552	***	0.5008	***	0.4687	***	0.0380	***	0.6332	***	0.5747	***
Education – Assoc./Bachelor's Degree	0.7472	***	0.8401	***	0.9204	***	0.9133	***	0.8689	***	0.8478	***
Education - Master's Degree or Higher	0.2420	***	0.3539	***	0.4217	***	0.5900	***	0.6037	***	0.5574	***
Health Coverage	0.1749	***	0.2926	***	0.2181	***	0.2150	***	0.2876	***	0.3386	***
Owns Home	-0.0991	***	-0.1582	***	-0.0922	***	-0.0402		0.0462		-0.0385	
Income Above $50,000	-0.1593	***	-0.2075	***	-0.1624	***	-0.0611	**	-0.1667	***	-0.1708	***
Science Degree	-0.1801	***	-0.1516	***	-0.1698	***	-0.0862	**	-0.0860	***	-0.0060	
Two Worker Household	-0.0770	***	-0.0773	***	-0.0852	***	0.0185		-0.0114		-0.0286	
Constant 1	0.8590	***	1.0354	***	0.7123	***	0.9354	***	1.7192	***	1.2636	***
Constant 2	2.0088	***	2.2400	***	1.9610	***	2.2628	***	2.9729	***	2.5916	***
Constant 3	3.7923	***	3.9231	***	3.6797	***	3.9315	***	4.7304	***	4.2787	***
Constant 4	5.4866	***	5.6536	***	5.3525	***	5.6955	***	6.4843	***	5.8937	***
Count	*125,976*		*128,235*		*82,189*		*53,740*		*48,187*		*31,464*	

Source: US Census Bureau, American Community Survey 2011-2015 PUMS

Note: ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

Hypothesis 2

Hypothesis 2 examines the relationship of family dynamic variables, such as the presence of children and partnered status, and operating a business in a high or low growth industry. Tables 4-7 and 4-8 present results from the logistic regression model that explains the relationship that factors have with a business owner's propensity to operate in a high or low growth industry. The dependent variable is binary where high growth corresponds to a 1 and low growth corresponds to a 0.

The coefficients on the "Has Children" variable demonstrate that having children in the home is negatively linked with the probability of operating a business in a high growth industry for women but has no effect for men. This finding was consistent across urban and rural states but appeared to have a weaker effect on women in the most urban areas. The fact that the coefficients on the "Has Children" variable in the men-specific model are positive and significant, or not significant, highlights a key gender difference influencing why women are less likely to own businesses in high growth industries. Also central to Hypothesis 2 was examination of the household status through a single/coupled lens. The results of the model indicate that marriage is positively related to the propensity of women in non-rural areas to operate businesses in high growth industries. There was no significant effect in rural areas. For men, household status had a similar effect. In urban areas, divorced or separated men were more likely to own businesses in high growth industries, illustrating a gender difference. Divorced or separated had no effect for women. As such, it is appropriate to reject the null hypothesis and accept hypothesis 1.

The model results demonstrate the relationshp of variables beyond those specified in the hypothesis. Among women business owners, the negative and statistically significant coefficients on the "Minority Race", "Black", and "Asian" variables indicate that being non-white is negatively associated with the propensity to operate a business in a high growth industry. This is consistent with the large body of literature examining

minority business owners. Among men, the "Asian" variable had a negative and statistically significant relationship to operating a business in a high growth industry.[15]

The model demonstrates that education level is associated with the growth status of the industries in which both women and men start their businesses. For women, the positive and statistically significant coefficient on the "Education – Associate's/Bachelor's Degree" variable indicates that having an Associate's or Bachelor's degree is positively related to women business owners' tendency to operate in high growth industries. Interestingly, the opposite is true of men. As shown by the "Education" coefficients for men in all regions, educational status negatively predicts the propensity to operate in high growth industries among men. While surprising at first glance, it is important to consider the definition used for industry growth and differentiate between high growth *businesses* and high growth *industries*. As shown in Table 3-4, several of the largest industries in the high growth industry category are male concentrated including Construction, Landscaping, and Truck Transportation. The education required to start these businesses differs from the high growth *firm* paradigm, which includes STEM-related, technology-based firms. Nonetheless, the opposite gender effect of education on the industry classification for women and men hints at a gender split across industries and demonstrates a differential effect for women related to educational requirements.

[15] As discussed throughout the report, it is important to distinguish between a business operating in a high growth industry and a high growth business. The growth distinction in this work applies specifically to the industry and not necessarily all the individual businesses that comprise the industry.

Table 4-7
Hypothesis 2 Results – Women Business Owners

	Urban					Rural
Rural Category	1	2	3	4	5	6
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Has Children	-0.0481	-0.1046 ***	-0.2011 ***	-0.3480 ***	-0.1859 ***	-0.3170 ***
Number of Children	-0.0720 *	0.0462	-0.0141	-0.0951	-0.0107	-0.1374
Household Status (partnered)	0.2380 ***	0.2465 ***	0.2137 ***	0.2821 ***	0.1306	0.1289
Divorced or Separated	0.0611	0.0723	0.0759	0.1535	0.0685	-0.0435
Minority Race	-0.1542 ***	-0.1970 ***	-0.0952	-0.0034	-0.0707	0.0599
Black	-0.3517 ***	-0.4179 ***	-0.3858 ***	-0.6850 ***	-0.4970 ***	-0.5471 ***
Asian	-0.2671 ***	-0.2406 ***	-0.3504 ***	-0.5731 **	-0.9482 ***	-1.2084 ***
Hispanic	-0.2468 ***	-0.2198 ***	-0.0788	0.0328	-0.2156 *	-0.0745
Home-Based	0.2949 ***	0.1450 ***	0.1904 ***	-0.0035	0.0947 *	0.0413
Immigrant	-0.1391 ***	-0.1926 ***	0.0034	-0.0950	0.1887	0.0376
Citizen	-0.0582	-0.1470 ***	-0.0447	-0.1502	-0.0372	-0.1809
Disabled	0.0366	0.0575	0.0305	0.0690	0.0847	0.1399 *
English Proficiency	0.2896 ***	0.2366 ***	0.3383 ***	0.3108	0.2483	0.9750 ***
Multi-Generational Household	-0.0184	0.0843	0.0658	0.2327 **	0.1226	-0.0372
Number of Non-Child People in Hhold	-0.0442 ***	-0.0468 ***	-0.0394 **	0.0252	-0.0372	0.0407
Education - High School Diploma	0.0736 *	0.0395	0.1046 *	0.1127	-0.0588	0.0831
Education - Assoc./Bachelor's Degree	0.4892 ***	0.5870 ***	0.5385 ***	0.4736 ***	0.5499 ***	0.4768 ***
Education - Master's Degree or Higher	0.0274	0.0154	0.1558 ***	0.1536 **	0.1276 *	0.0789
Health Coverage	-0.0516	-0.1010 ***	-0.1662 ***	-0.2033 ***	-0.2256 ***	-0.1866 ***
Owns Home	0.1156 ***	0.1997 ***	-0.0062	-0.0235	0.0723	-0.0916
Income Above $50,000	-0.0074	-0.0973 ***	-0.0793 **	-0.0885 *	-0.0691	-0.0759
Two Worker Household	-0.0289	-0.0357	-0.0792 *	-0.1584 ***	-0.0203	-0.0668
Constant	-0.8581 ***	-0.7801 ***	-0.7513 ***	-0.7732 ***	-0.5623 **	-1.2537 ***
Count	*55,924*	*54,797*	*34,553*	*19,432*	*18,964*	*11,845*

Source: US Census Bureau, American Community Survey 2011-2015 PUMS

Note: ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

Table 4-8

Hypothesis 2 Results – Men Business Owners

	Urban										Rural	
Rural Category	1		2		3		4		5		6	
	Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient	
Has Children	0.0486	*	0.0507	*	0.0880	**	0.1259	**	0.1154	**	-0.0130	
Number of Children	0.0515		0.0696	*	-0.0083		0.0103		0.1498	*	0.1063	
Household Status (partnered)	0.1196	***	0.1353	***	0.2053	***	0.0689		-0.0489		0.0602	
Divorced or Separated	0.1571	***	0.1095	**	0.2089	***	0.0507		0.0862		0.1743	
Minority Race	0.0671		-0.0681		-0.1313		-0.2215		-0.1574		-0.0273	
Black	-0.2261	***	-0.1514	**	-0.0643		0.0716		-0.0366		-0.0749	
Asian	-0.7849	***	-0.9895	***	-0.8984	***	-1.4896	***	-1.3884	***	-1.5843	***
Hispanic	0.1178	***	0.1460	***	0.0993		0.1389		0.3333	**	0.3987	
Home-Based	0.2009	***	0.1449	***	0.2289	***	0.0646		0.1383	**	-0.0191	
Immigrant	-0.1012	***	-0.0008		0.0472		0.0694		-0.0642		-0.3187	
Citizen	-0.3799	***	-0.4024	***	-0.2299	***	-0.3861	*	-0.3428	**	-0.5925	**
Disabled	-0.0178		-0.0404		-0.0635		-0.1647	***	0.0044		-0.2047	***
English Proficiency	0.0342		0.2225	***	0.5495	***	0.3209	*	0.3848	**	1.0061	***
Multi-Generational Household	-0.0079		-0.0004		-0.0880		-0.0435		0.1167		-0.0053	
Number of Non-Child People in Hhold	0.0182	*	0.0054		0.0466	***	0.0405	*	0.0149		0.0640	**
Education - High School Diploma	-0.2171	***	-0.2966	***	-0.3363	***	-0.1528	**	-0.3975	***	-0.3677	***
Education - Assoc./Bachelor's Degree	-0.4138	***	-0.5227	***	-0.5453	***	-0.6778	***	-0.5956	***	-0.6199	***
Education - Master's Degree or Higher	-1.1686	***	-1.1747	***	-1.2398	***	-1.2823	***	-1.2587	***	-1.4238	***
Health Coverage	-0.2372	***	-0.3338	***	-0.2926	***	-0.2378	***	-0.3317	***	-0.3595	***
Owns Home	-0.0507	*	0.0080		-0.0695		-0.0790		-0.0705		-0.0315	
Income Above $50,000	0.1089	***	0.1532	***	0.1575	***	0.1155	***	0.1392	***	0.1830	***
Two Worker Household	-0.0975	***	-0.1422	***	-0.1798	***	-0.2287	***	-0.0839		-0.1146	*
Constant	1.7388	***	0.0878	***	1.2832	***	1.6781	***	1.9260	***	1.2954	***
Count	88,024		87,482		55,889		32,411		32,429		20,723	

Source: US Census Bureau, American Community Survey 2011-2015 PUMS

Note: ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

5. Conclusions

A large body of work exists discussing the different industries in which women and men business owners start and operate their businesses. While businesses owned by women and men operate in all industries, generally, women-owned businesses are more likely to operate in the retail and service industries than men-owned businesses as well as less likely to operate technology-based or high growth businesses. Despite past research examining the dynamics of the gender divide in business ownership industry, little work has focused on the relationship of industry choice and gender for business owners with regard to family status.

This research utilizes American Community Survey (ACS) data to examine the dynamics of women business owners with a focus on personal and family characteristics. The hypothesis that women's outsized roles in family life and childcare is associated with the industries in which they start and operate businesses is tested. Built upon the quantitative profile presented is econometric work examining the factors associated with industry choice and gender for business owners.

Using descriptive statistics, cross tabulation analyses, and statistical difference in means testing (t-test), this research provides a profile of women business owners in two industry groupings. Industries were categorized in industries by the concentration level of women business owners in the industry. And they were also categorized by the growth of the industry as a whole, considering both total growth in businesses as well as growth in employment among businesses within the industry.

Key findings include:

- *Trends in marital status.* For both women and men business owners, those operating in women-concentrated industries (where 80 to 100 percent of owners are women) are less likely to be married than those operating in other categories. Similar results exist for industry growth categories (the number of businesses

decreasing, employment per firm decreasing), where women are less likely to be married in low growth industries.

- *Differences in single household status.* Women business owners in women-concentrated industries are much more likely than women in men-concentrated industries (where 0 to 20 percent of owners are women), as well as men in all industry groups, to be single heads of household. In both industry growth categories, women business owners are five times as likely as men to be single heads of household.

- *Findings related to the presence of children.* Women in women-concentrated and low growth industries are more likely to have children and have more children than women business owners in other industry grouping categories. For men, there is little difference across industry categories in the presence and number of children. The presence of children affects the type of business that women choose but does not affect men's choice.

- *Differences in home-based businesses.* Despite prior findings that home-based businesses are generally lower growth in terms of revenue and employees, industries in the low growth category were the least likely to be home-based. In considering this finding, it is important to note that high growth businesses are defined differently by different researchers. In all categories in both industry groupings, women were more likely than men to work at home. The share of women business owners operating their firms out of their homes increases when the business owner has children. The reverse is true for men business owners.

- *Trends in time spent working on the business.* As the industry categories become more women-concentrated, the number of weeks per year that women business owners work declines among women with children. In addition, in both industry growth categories, women with children work fewer weeks per year than women without children, a trend that is reversed for men. Differences exist in hours worked

per week as well. Women with children work statistically significantly fewer hours than women without children in all industry categories. The exact opposite is true of men (except in the most women-concentrated industries), where men with children work more hours per week than men without children. The results hint that women with children may face challenges related to starting businesses in growth-oriented or time-intensive industries due to timing requirements, both weeks per year and hours per week.

Many of the demographic and personal characteristic findings raise, rather than answer, questions germane to supporting women business owners and developing an understanding of why gender-based industrial clustering exists. To develop further insights related to the observed gender industry clustering, this research tested two sets of hypotheses examining the role that personal and family structure and characteristics play in women business owners' propensity to operate in certain industries, including those that are lower growth.

Hypothesis 1a: The presence of children is positively related to the propensity of women business owners to cluster in certain industries.

Hypothesis 1b: Unpartnered status is positively correlated to the propensity of women to cluster in certain industries.

Hypothesis 2a: The presence of children is negatively related to the propensity of women business owners to operate in high growth industries. The presence of children has an opposite effect for men business owners.

Hypothesis 2b: Unpartnered status is negatively related to the propensity of women to operate in high growth industries. Unpartnered status does not influence the propensity of men to operate in high growth industries.

The hypotheses were tested using multivariate regression models. Key findings from the econometric analyses include:

- *Hypothesis 1*

    - For women business owners, having children is positively related to operating in a women-concentrated industry. The model demonstrates the opposite effect for men business owners, revealing a gender gap. That is, having children is negatively associated with the propensity of men to operate in a women-concentrated industries. There are multiple hypotheses to explain this effect, including the outsized role that women continue to play in American family life. It is possible that women with children have fewer choices because of practical constraints levied by their large involvement in childrearing.

    - Across geographies, for women, being a single head of household is positively associated with the propensity to operate a business in women-concentrated industries. For men, household status had no influence on industry, however, in more urban settings, the coefficient on the “Divorced or Separated” indicator was negative and statistically significant, indicating that divorce is negatively related to the propensity to operate in women-concentrated industries for men in certain geographies.

- *Hypothesis 2*

    - The presence of children in the home is negatively associated with the probability of operating a business in a high growth industry for women but has no effect for men. This finding was consistent across urban and rural states but appeared to have a weaker effect on women in the most urban areas.

- Marriage is positively related to the propensity of women in non-rural areas to operate businesses in high growth industries. There was no significant effect in rural areas. For men, household status had no influence on the growth status of the industry business. In urban areas, divorced or separated men were more likely to own businesses in high growth industries, illustrating a further gender difference.

Policymakers, women business owners, and stakeholders require an understanding that some women's roles in childrearing and home management can have an impact on the industries in which women start and operate businesses. As women continue to grow as business owners, additional work to understand the complex, competing demands that American women face is necessary. And the results infer that policymakers looking to enhance women's entrepreneurship could address issues such as childcare, as younger children affect entrepreneurial decisions.

Much past research has focused on the influence of capital, gender, and race/ethnicity in entrepreneurial decision-making and growth without consideration of family structure. The analysis here builds upon the quantitative profile of industry-based differences by gender to examine an often-overlooked dimension of women business owners' motivational and practical considerations, household dynamics. This provides policymakers and resource partners with information necessary to identify action items to encourage women to start and grow businesses.

Appendix A – Works Cited

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Appendix B – Occupation Detail Among Industries

Gender Concentration Category 1 Occupations

Women			Men		
5700	Secretaries And Administrative Assistants	12.66%	6230	Carpenters	8.91%
0205	Farmers, Ranchers, And Other Agricultural Managers	7.92%	6260	Construction Laborers	8.91%
5120	Bookkeeping, Accounting, And Auditing Clerks	6.81%	4250	Grounds Maintenance Workers	7.75%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	6.71%	0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	6.80%
4250	Grounds Maintenance Workers	5.17%	9130	Driver/Sales Workers And Truck Drivers	6.38%
6420	Painters, Construction And Maintenance	3.76%	0205	Farmers, Ranchers, And Other Agricultural Managers	5.89%
9130	Driver/Sales Workers And Truck Drivers	3.44%	0220	Construction Managers	4.27%
0010	Chief Executives And Legislators	2.99%	6420	Painters, Construction And Maintenance	4.00%
5860	Office Clerks, General	2.56%	6200	First-Line Supervisors Of Construction Trades And Extraction Workers	3.72%
6260	Construction Laborers	2.48%	7200	Automotive Service Technicians And Mechanics	3.21%
0800	Accountants And Auditors	2.06%	0010	Chief Executives And Legislators	2.17%
1300	Architects, Except Naval	2.01%	4710	First-Line Supervisors Of Non-Retail Workers	2.06%
4710	First-Line Supervisors Of Non-Retail Workers	1.93%	9140	Taxi Drivers And Chauffeurs	1.93%
0220	Construction Managers	1.92%	6355	Electricians	1.70%
5000	First-Line Supervisors Of Office And Administrative Support Workers	1.81%	6440	Pipelayers, Plumbers, Pipefitters, And Steamfitters	1.62%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Gender Concentration Category 2 Occupations					
Women			Men		
0710	Management Analysts	8.76%	2100	Lawyers, And Judges, Magistrates, And Other Judicial Workers	10.61%
2100	Lawyers, And Judges, Magistrates, And Other Judicial Workers	7.93%	0205	Farmers, Ranchers, And Other Agricultural Managers	7.70%
4700	First-Line Supervisors Of Retail Sales Workers	5.65%	0710	Management Analysts	7.43%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	4.94%	4700	First-Line Supervisors Of Retail Sales Workers	6.22%
0205	Farmers, Ranchers, And Other Agricultural Managers	4.28%	0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	5.65%
3060	Physicians And Surgeons	4.13%	3060	Physicians And Surgeons	5.57%
4810	Insurance Sales Agents	3.94%	4810	Insurance Sales Agents	4.62%
5700	Secretaries And Administrative Assistants	3.78%	4710	First-Line Supervisors Of Non-Retail Workers	4.07%
4710	First-Line Supervisors Of Non-Retail Workers	2.71%	0010	Chief Executives And Legislators	3.85%
4850	Sales Representatives, Wholesale And Manufacturing	2.59%	4850	Sales Representatives, Wholesale And Manufacturing	3.69%
5120	Bookkeeping, Accounting, And Auditing Clerks	2.41%	3010	Dentists	3.39%
0010	Chief Executives And Legislators	2.31%	4760	Retail Salespersons	1.71%
8350	Tailors, Dressmakers, And Sewers	2.15%	1020	Software Developers, Applications And Systems Software	1.36%
3010	Dentists	2.08%	1006	Computer Systems Analysts	1.20%
4760	Retail Salespersons	1.75%	3000	Chiropractors	1.17%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Gender Concentration Category 3 Occupations					
Women			Men		
4920	Real Estate Brokers And Sales Agents	13.84%	4920	Real Estate Brokers And Sales Agents	10.68%
4230	Maids And Housekeeping Cleaners	6.37%	0310	Food Service Managers	6.65%
2630	Designers	5.74%	4700	First-Line Supervisors Of Retail Sales Workers	5.16%
4700	First-Line Supervisors Of Retail Sales Workers	4.96%	0410	Property, Real Estate, And Community Association Managers	4.99%
4220	Janitors And Building Cleaners	4.69%	0800	Accountants And Auditors	4.74%
0310	Food Service Managers	4.46%	0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	4.18%
4760	Retail Salespersons	4.24%	4220	Janitors And Building Cleaners	4.12%
0800	Accountants And Auditors	3.46%	2750	Musicians, Singers, And Related Workers	4.10%
2600	Artists And Related Workers	3.37%	4760	Retail Salespersons	3.99%
2850	Writers And Authors	3.13%	2630	Designers	3.28%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	3.03%	2600	Artists And Related Workers	2.83%
5120	Bookkeeping, Accounting, And Auditing Clerks	2.91%	2910	Photographers	2.83%
2910	Photographers	2.81%	0010	Chief Executives And Legislators	2.75%
0410	Property, Real Estate, And Community Association Managers	2.77%	2850	Writers And Authors	2.01%
4620	Recreation And Fitness Workers	1.72%	4200	First-Line Supervisors Of Housekeeping And Janitorial Workers	2.00%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Gender Concentration Category 4 Occupations					
Women			Men		
2340	Other Teachers And Instructors	11.95%	2340	Other Teachers And Instructors	11.61%
3630	Massage Therapists	5.90%	0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	6.09%
4950	Door-To-Door Sales Workers, News And Street Vendors, And Related Workers	5.51%	4700	First-Line Supervisors Of Retail Sales Workers	5.79%
4520	Miscellaneous Personal Appearance Workers	4.83%	4950	Door-To-Door Sales Workers, News And Street Vendors, And Related Workers	4.63%
4700	First-Line Supervisors Of Retail Sales Workers	4.74%	1820	Psychologists	4.32%
1820	Psychologists	4.50%	4650	Personal Care And Service Workers, All Other	3.77%
4610	Personal Care Aides	3.78%	0010	Chief Executives And Legislators	3.19%
2000	Counselors	3.64%	3060	Physicians And Surgeons	2.88%
4350	Nonfarm Animal Caretakers	3.64%	2000	Counselors	2.83%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	2.69%	2720	Athletes, Coaches, Umpires, And Related Workers	2.76%
3255	Registered Nurses	2.04%	4520	Miscellaneous Personal Appearance Workers	2.73%
3245	Other Therapists, Including Exercise Physiologists	1.87%	3630	Massage Therapists	2.54%
4760	Retail Salespersons	1.85%	4760	Retail Salespersons	2.43%
2310	Elementary And Middle School Teachers	1.75%	3160	Physical Therapists	1.72%
3600	Nursing, Psychiatric, And Home Health Aides	1.61%	2310	Elementary And Middle School Teachers	1.70%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Gender Concentration Category 5 Occupations					
Women			**Men**		
4600	Childcare Workers	36.93%	4510	Hairdressers, Hairstylists, And Cosmetologists	29.65%
4510	Hairdressers, Hairstylists, And Cosmetologists	23.52%	4600	Childcare Workers	14.48%
4230	Maids And Housekeeping Cleaners	23.00%	4230	Maids And Housekeeping Cleaners	12.69%
4610	Personal Care Aides	6.05%	4610	Personal Care Aides	10.55%
3600	Nursing, Psychiatric, And Home Health Aides	3.49%	9620	Laborers And Freight, Stock, And Material Movers, Hand	5.36%
4520	Miscellaneous Personal Appearance Workers	1.39%	3600	Nursing, Psychiatric, And Home Health Aides	5.14%
4320	First-Line Supervisors Of Personal Service Workers	1.06%	4320	First-Line Supervisors Of Personal Service Workers	3.46%
2300	Preschool And Kindergarten Teachers	0.92%	0350	Medical And Health Services Managers	1.98%
0230	Education Administrators	0.82%	4220	Janitors And Building Cleaners	1.79%
4220	Janitors And Building Cleaners	0.25%	4500	Barbers	1.77%
0350	Medical And Health Services Managers	0.23%	4520	Miscellaneous Personal Appearance Workers	1.33%
3255	Registered Nurses	0.17%	0010	Chief Executives And Legislators	1.13%
4020	Cooks	0.17%	0230	Education Administrators	1.07%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	0.16%	4250	Grounds Maintenance Workers	0.91%
3500	Licensed Practical And Licensed Vocational Nurses	0.16%	4650	Personal Care And Service Workers, All Other	0.72%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Low Growth Category Occupations					
Women			**Men**		
4600	Childcare Workers	21.30%	2100	Lawyers, And Judges, Magistrates, And Other Judicial Workers	12.02%
4510	Hairdressers, Hairstylists, And Cosmetologists	13.74%	4700	First-Line Supervisors Of Retail Sales Workers	7.01%
4230	Maids And Housekeeping Cleaners	13.41%	0310	Food Service Managers	6.08%
4700	First-Line Supervisors Of Retail Sales Workers	3.67%	4810	Insurance Sales Agents	5.26%
0310	Food Service Managers	3.05%	0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	4.87%
2100	Lawyers, And Judges, Magistrates, And Other Judicial Workers	2.99%	3010	Dentists	3.85%
4520	Miscellaneous Personal Appearance Workers	2.86%	4760	Retail Salespersons	3.09%
4610	Personal Care Aides	2.78%	0010	Chief Executives And Legislators	3.03%
3630	Massage Therapists	2.49%	4710	First-Line Supervisors Of Non-Retail Workers	2.54%
4760	Retail Salespersons	2.12%	4500	Barbers	2.49%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	1.70%	0850	Personal Financial Advisors	2.43%
4810	Insurance Sales Agents	1.50%	4510	Hairdressers, Hairstylists, And Cosmetologists	1.76%
4620	Recreation And Fitness Workers	1.19%	6100	Fishing And Hunting Workers	1.55%
5700	Secretaries And Administrative Assistants	1.18%	4020	Cooks	1.48%
4320	First-Line Supervisors Of Personal Service Workers	1.07%	4820	Securities, Commodities, And Financial Services Sales Agents	1.19%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

High Growth Category Occupations					
Women			**Men**		
2340	Other Teachers And Instructors	7.77%	6230	Carpenters	9.34%
4230	Maids And Housekeeping Cleaners	6.99%	6260	Construction Laborers	9.33%
2630	Designers	6.18%	4250	Grounds Maintenance Workers	8.11%
4700	First-Line Supervisors Of Retail Sales Workers	5.19%	0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	6.98%
4220	Janitors And Building Cleaners	5.16%	9130	Driver/Sales Workers And Truck Drivers	6.74%
5120	Bookkeeping, Accounting, And Auditing Clerks	4.37%	0220	Construction Managers	4.47%
5700	Secretaries And Administrative Assistants	4.20%	6420	Painters, Construction And Maintenance	4.19%
0430	Miscellaneous Managers, Including Funeral Service Managers And Postmasters And Mail Superintendents	4.17%	6200	First-Line Supervisors Of Construction Trades And Extraction Workers	3.88%
0800	Accountants And Auditors	4.17%	4700	First-Line Supervisors Of Retail Sales Workers	3.05%
4760	Retail Salespersons	2.66%	0010	Chief Executives And Legislators	2.62%
4350	Nonfarm Animal Caretakers	2.40%	0800	Accountants And Auditors	1.85%
2000	Counselors	2.09%	6355	Electricians	1.78%
4610	Personal Care Aides	1.85%	6440	Pipelayers, Plumbers, Pipefitters, And Steamfitters	1.69%
4250	Grounds Maintenance Workers	1.80%	4760	Retail Salespersons	1.54%
0010	Chief Executives And Legislators	1.79%	4220	Janitors And Building Cleaners	1.51%

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS

Appendix C – Industry Gender Distribution

(Note: A mapping table for ACS to NAICS industry codes follows the table.)

Industry	Description	Men	Women	Count	LG/HG
9470	Justice, Public Order, And Safety Activities	100.0%	0.0%	5	LG
2990	Not Specified Metal Industries	95.9%	4.1%	28	
2970	Ordnance	95.9%	4.1%	45	HG
6080	Rail Transportation	94.0%	6.1%	40	HG
0270	Logging	93.9%	6.1%	2,717	
2380	Tires	93.9%	6.2%	53	LG
0770	Construction, Incl Cleaning During And Imm After	93.4%	6.6%	143,287	HG
8870	Commercial And Industrial Machinery And Equipment Repair and Maintenance	93.2%	6.8%	4,352	LG
8770	Automotive Repair And Maintenance	92.1%	7.9%	18,698	
8790	Electronic And Precision Equipment Repair And Maintenance	92.0%	8.0%	2,303	LG
6190	Taxi And Limousine Service	91.7%	8.3%	5,196	
2690	Nonferrous Metal, Except Aluminum, Production And Processing	91.7%	8.3%	56	LG
0280	Fishing, Hunting, And Trapping	91.6%	8.5%	2,663	LG
7770	Landscaping Services	91.3%	8.7%	28,699	HG
6170	Truck Transportation	90.8%	9.2%	20,365	HG
0190	Forestry Except Logging	89.8%	10.2%	185	LG
3180	Engine, Turbine, And Power Transmission Equipment	89.3%	10.7%	57	LG
8780	Car Washes	88.8%	11.2%	1,840	
3895	Furniture And Related Product	88.7%	11.3%	2,706	HG
2770	Foundries	88.4%	11.6%	113	LG
3680	Ship And Boat Building	88.4%	11.7%	247	HG
6590	Sound Recording Industries	88.3%	11.7%	763	
0380	Coal Mining	88.0%	12.0%	78	LG
3875	Miscellaneous Wood Products	87.7%	12.3%	1,557	HG
6090	Water Transportation	87.6%	12.4%	236	LG
2090	Miscellaneous Petroleum And Coal Products	87.4%	12.6%	21	
4070	Motor Vehicles And Motor Vehicle Parts And Supplies Merchant Wholesalers	87.4%	12.6%	1,456	HG
3770	Sawmills And Wood Preservation	87.3%	12.7%	631	HG
4670	Automobile Dealers	87.2%	12.8%	4,650	HG
2670	Iron And Steel Mills And Steel Products	87.0%	13.0%	258	
2790	Cutlery And Hand Tools	86.9%	13.1%	138	
2070	Petroleum Refining	86.8%	13.2%	130	
3690	Other Transportation Equipment	86.7%	13.3%	104	LG
2780	Metal Forgings And Stampings	86.2%	13.8%	117	
3170	Metalworking Machinery	86.1%	13.9%	531	LG
3570	Motor Vehicles And Motor Vehicle Equipment	85.7%	14.3%	883	LG
4280	Recyclable Material Merchant Wholesalers	85.2%	14.8%	1,697	LG
2590	Miscellaneous Nonmetallic Mineral Products	84.9%	15.1%	290	HG
1870	Pulp, Paper, And Paperboard Mills	84.7%	15.3%	108	
0490	Support Activities For Mining	84.7%	15.3%	1,906	HG
2880	Machine Shops; Turned Products; Screws, Nuts And Bolts	84.6%	15.4%	1,806	LG

Industry	Description	Men	Women	Count	LG/HG
0170	Crop Production	84.4%	15.6%	32,425	
3070	Agricultural Implements	84.3%	15.7%	161	
0390	Metal Ore Mining	83.9%	16.1%	55	LG
4690	Automotive Parts, Accessories, And Tire Stores	83.9%	16.1%	2,026	LG
3790	Prefabricated Wood Buildings And Mobile Homes	83.8%	16.2%	101	HG
2980	Miscellaneous Fabricated Metal Products	83.7%	16.3%	779	HG
6070	Air Transportation	83.6%	16.4%	540	HG
0370	Oil And Gas Extraction	83.5%	16.5%	373	
5680	Fuel Dealers	83.5%	16.5%	572	
7290	Architectural, Engineering, And Related Services	83.4%	16.6%	12,143	
0670	Water, Steam, Air Conditioning, And Irrigation Systems	83.4%	16.6%	171	
0590	Electric And Gas, And Other Combinations	83.2%	16.8%	18	LG
7680	Investigation And Security Services	83.2%	16.8%	3,118	HG
7790	Waste Management And Remediation Services	82.8%	17.2%	2,139	
0470	Nonmetallic Mineral Mining And Quarrying	82.7%	17.3%	288	
3580	Aircraft And Parts	82.6%	17.4%	225	HG
0570	Electric Power Generation, Transmission And Distribution	82.5%	17.5%	182	LG
3190	Machinery, N.E.C. Or Not Specified	82.5%	17.5%	1,065	HG
2870	Structural Metals, And Boiler, Tank, And Shipping Containers	82.1%	17.9%	870	HG
4480	Farm Product Raw Material Merchant Wholesalers	82.1%	18.0%	333	HG
3670	Railroad Rolling Stock	82.0%	18.0%	18	
6380	Couriers And Messengers	82.0%	18.0%	2,724	HG
6680	Wired Telecommunications Carriers	81.9%	18.2%	312	LG
8970	Barber Shops	81.7%	18.3%	3,607	LG
6290	Services Incidental To Transportation	81.7%	18.3%	4,362	HG
4795	Electronics Stores	81.4%	18.6%	2,172	LG
2680	Aluminum Production And Processing	81.3%	18.7%	71	
2890	Coating, Engraving, Heat Treating And Allied Activities	81.1%	18.9%	282	
4490	Petroleum And Petroleum Products Merchant Wholesalers	80.7%	19.3%	413	
3095	Commercial And Service Industry Machinery	80.6%	19.4%	123	LG
3590	Aerospace Products And Parts	80.6%	19.4%	190	
4680	Other Motor Vehicle Dealers	80.6%	19.4%	1,111	HG
3780	Veneer, Plywood, And Engineered Wood Products	80.6%	19.5%	69	HG
4265	Hardware, And Plumbing And Heating Equipment, And Supplies Merchant Wholesalers	80.5%	19.5%	655	HG
6970	Securities, Commodities, Funds, Trusts, And Other Financial Investments	80.4%	19.6%	8,518	LG
3390	Electronic Components And Products, N.E.C	80.4%	19.6%	717	
3380	Navigational, Measuring, Electromedical, And Control Instruments	80.4%	19.6%	300	LG
3370	Communications, And Audio And Video Equipment	80.3%	19.7%	183	LG
4090	Lumber And Other Construction Materials Merchant Wholesalers	80.3%	19.7%	748	HG
4570	Farm Supplies Merchant Wholesalers	80.2%	19.9%	226	HG
4880	Hardware Stores	79.6%	20.4%	1,199	LG
0680	Sewage Treatment Facilities	79.5%	20.5%	39	
4180	Metals And Minerals, Except Petroleum, Merchant Wholesalers	79.3%	20.7%	299	HG

Industry	Description	Men	Women	Count	LG/HG
2570	Cement, Concrete, Lime, And Gypsum Products	79.1%	20.9%	323	HG
4195	Household Appliances And Electrical And Electronic Goods Merchant Wholesalers	79.0%	21.0%	984	HG
7080	Automotive Equipment Rental And Leasing	78.9%	21.2%	265	HG
0180	Animal Production And Aquaculture	78.8%	21.2%	20,856	
0580	Natural Gas Distribution	78.7%	21.3%	41	
4270	Machinery, Equipment, And Supplies Merchant Wholesalers	78.7%	21.3%	2,025	HG
7380	Computer Systems Design And Related Services	78.6%	21.4%	13,060	HG
2290	Industrial And Miscellaneous Chemicals	78.5%	21.5%	333	
6490	Software Publishers	78.4%	21.6%	127	HG
3490	Electric Lighting And Electrical Equipment Manufacturing, And Other Electrical Component Manufacturing, N.E.C.	78.4%	21.6%	477	HG
3470	Household Appliances	78.0%	22.0%	35	LG
4470	Grocery And Related Product Merchant Wholesalers	77.8%	22.2%	2,746	HG
4170	Professional And Commercial Equipment And Supplies Merchant Wholesalers	77.6%	22.5%	1,379	
5295	Musical Instrument And Supplies Stores	77.4%	22.6%	444	LG
1880	Paperboard Container	77.3%	22.7%	102	
2170	Resin, Synthetic Rubber, And Fibers And Filaments	77.0%	23.0%	198	HG
6670	Broadcasting, Except Internet	76.9%	23.1%	1,117	LG
6280	Scenic And Sightseeing Transportation	76.7%	23.3%	455	HG
2180	Agricultural Chemicals	76.6%	23.4%	58	
5670	Vending Machine Operators	76.6%	23.5%	679	LG
4585	Electronic Markets And Agents And Brokers	76.5%	23.5%	1,585	
4870	Building Material And Supplies Dealers	76.3%	23.7%	2,674	HG
7190	Commercial, Industrial, And Other Intangible Assets Rental and Leasing	75.7%	24.3%	492	HG
3365	Computer And Peripheral Equipment	75.7%	24.3%	140	HG
4780	Household Appliance Stores	75.6%	24.4%	615	LG
6570	Motion Picture And Video Industries	74.9%	25.1%	5,024	HG
9180	Labor Unions	74.8%	25.2%	21	LG
2480	Clay Building Material And Refractories	74.7%	25.3%	36	
1370	Beverage	74.6%	25.4%	409	HG
1390	Tobacco	74.5%	25.5%	8	LG
3080	Construction, And Mining And Oil And Gas Field Machinery	74.3%	25.7%	170	
3960	Medical Equipment And Supplies	74.1%	25.9%	1,303	LG
3990	Not Specified Manufacturing Industries	74.1%	26.0%	1,103	LG
4080	Furniture And Home Furnishing Merchant Wholesalers	74.1%	26.0%	755	HG
4560	Alcoholic Beverages Merchant Wholesalers	74.1%	26.0%	268	HG
1570	Carpet And Rug Mills	73.7%	26.3%	41	
1180	Animal Slaughtering And Processing	73.7%	26.3%	473	LG
9080	Funeral Homes, Cemeteries And Crematories	73.7%	26.3%	1,160	LG
5090	Gasoline Stations	73.7%	26.3%	1,746	
7980	Offices Of Dentists	72.5%	27.5%	7,215	LG
1170	Dairy Products	72.3%	27.7%	178	HG
2390	Rubber Products, Except Tires	72.2%	27.9%	97	LG

Industry	Description	Men	Women	Count	LG/HG
6890	Nondepository Credit And Related Activities	72.0%	28.0%	2,733	
6690	Telecommunications, Except Wired Telecommunications Carriers	71.9%	28.1%	468	LG
6390	Warehousing And Storage	71.6%	28.4%	567	
4590	Not Specified Wholesale Trade	71.4%	28.6%	1,213	HG
6990	Insurance Carriers And Related Activities	71.4%	28.6%	14,145	LG
2490	Glass And Glass Products	71.2%	28.8%	359	LG
7270	Legal Services	71.0%	29.0%	23,397	LG
2370	Plastics Products	70.5%	29.6%	434	HG
6270	Pipeline Transportation	70.4%	29.6%	85	
4290	Miscellaneous Durable Goods Merchant Wholesalers	70.0%	30.0%	1,429	LG
1990	Printing And Related Support Activities	69.7%	30.3%	2,923	LG
1890	Miscellaneous Paper And Pulp Products	69.1%	30.9%	81	
7970	Offices Of Physicians	69.0%	31.0%	12,227	
1280	Seafood And Other Miscellaneous Foods, N.E.C.	69.0%	31.0%	276	
2270	Paint, Coating, And Adhesives	68.6%	31.4%	75	HG
0290	Support Activities For Agriculture And Forestry	68.4%	31.6%	2,766	
6180	Bus Service And Urban Transit	68.2%	31.8%	809	LG
4580	Miscellaneous Nondurable Goods Merchant Wholesalers	68.0%	32.0%	2,175	HG
7180	Other Consumer Goods Rental	67.9%	32.1%	653	HG
1490	Textile And Fabric Finishing And Fabric Coating Mills	67.9%	32.1%	92	LG
4890	Lawn And Garden Equipment And Supplies Stores	67.4%	32.6%	1,900	LG
8880	Personal And Household Goods Repair And Maintenance	67.3%	32.7%	6,746	
7990	Offices Of Chiropractors	67.2%	32.8%	2,686	
4370	Paper And Paper Products Merchant Wholesalers	67.0%	33.1%	278	
9160	Religious Organizations	66.8%	33.2%	1,553	LG
7570	Management Of Companies And Enterprises	66.8%	33.3%	243	
8070	Offices Of Optometrists	66.1%	33.9%	1,291	
4990	Beer, Wine, And Liquor Stores	66.0%	34.0%	1,257	LG
6780	Other Information Services, Exc. Library And Archives, And Internet Publishing And Broadcasting And Web Search Portals	65.4%	34.6%	111	HG
1770	Footwear	65.3%	34.7%	53	LG
1790	Leather Tanning And Finishing And Other Allied Products Manufacturing	65.2%	34.8%	209	LG
8580	Bowling Centers	64.4%	35.6%	184	LG
3980	Miscellaneous Manufacturing, N.E.C	63.6%	36.4%	2,953	
2190	Pharmaceuticals And Medicines	63.3%	36.7%	305	HG
4390	Apparel, Piece Goods, And Notions Merchant Wholesalers	63.2%	36.8%	1,062	
7390	Management, Scientific, And Technical Consulting Services	63.2%	36.9%	31,006	
8670	Recreational Vehicle Parks And Camps, And Rooming And Boarding Houses	63.0%	37.0%	772	
1070	Animal Food, Grain And Oilseed Milling	62.5%	37.5%	195	HG
4970	Grocery Stores	62.2%	37.8%	5,478	HG
5275	Sporting Goods, And Hobby And Toy Stores	62.0%	38.1%	2,934	LG
4380	Drugs, Sundries, And Chemical And Allied Products Merchant Wholesalers	61.8%	38.2%	752	
5480	Office Supplies And Stationery Stores	61.3%	38.7%	538	LG

Industry	Description	Men	Women	Count	LG/HG
5070	Pharmacies And Drug Stores	61.1%	38.9%	1,435	LG
4770	Furniture And Home Furnishings Stores	60.7%	39.3%	4,037	LG
6870	Banking And Related Activities	60.6%	39.4%	664	
8190	Hospitals	58.7%	41.3%	2,328	LG
5790	Not Specified Retail Trade	58.5%	41.5%	4,465	
8560	Performing Arts, Spectator Sports, And Related Industries	57.9%	42.1%	23,281	
7470	Advertising, Public Relations, And Related Services	57.7%	42.4%	4,898	LG
7780	Other Administrative, And Other Support Services	57.3%	42.7%	2,923	
7460	Scientific Research And Development Services	57.2%	42.8%	1,598	
8680	Restaurants And Other Food Services	57.0%	43.0%	22,847	LG
0690	Not Specified Utilities	56.6%	43.4%	7	LG
7480	Veterinary Services	56.6%	43.4%	2,203	
4980	Specialty Food Stores	55.9%	44.2%	2,156	
5180	Shoe Stores	55.8%	44.2%	388	HG
8380	Community Food And Housing, And Emergency Services	54.8%	45.2%	119	HG
8690	Drinking Places, Alcoholic Beverages	54.8%	45.2%	1,680	LG
5580	Miscellaneous Retail Stores	54.3%	45.7%	5,549	HG
9070	Dry cleaning And Laundry Services	54.2%	45.8%	2,260	LG
1270	Bakeries And Tortilla, Except Retail Bakeries	54.1%	45.9%	547	HG
8570	Museums, Art Galleries, Historical Sites, And Similar Institutions	54.1%	45.9%	450	HG
6470	Newspaper Publishers	54.1%	45.9%	1,645	LG
5592	Mail-Order Houses	53.9%	46.1%	638	HG
1480	Fabric Mills, Except Knitting Mills	53.8%	46.2%	288	LG
1090	Fruit And Vegetable Preserving And Specialty Foods	53.7%	46.3%	181	
7870	Colleges, Universities, And Professional Schools, Including Junior Colleges	53.7%	46.3%	954	LG
9190	Business, Professional, Political And Similar Organizations	53.7%	46.3%	154	LG
1470	Fiber, Yarn, And Thread Mills	53.5%	46.5%	15	LG
6672	Internet Publishing And Broadcasting And Web Search Portals	53.3%	46.7%	587	HG
5590	Electronic Shopping	53.2%	46.8%	2,501	HG
5390	Miscellaneous General Merchandise Stores	53.1%	46.9%	777	HG
6880	Savings Institutions, Including Credit Unions	52.6%	47.4%	58	LG
7070	Real Estate	52.3%	47.8%	42,978	
3970	Sporting And Athletic Goods, And Doll, Toy, And Game Manufacturing	52.0%	48.0%	762	
8660	Traveler Accommodation	51.8%	48.2%	2,242	LG
6695	Data Processing, Hosting, And Related Services	51.5%	48.5%	498	
5591	Electronic Auctions	51.3%	48.7%	620	HG
5380	Department And Discount Stores	51.3%	48.8%	607	
8590	Other Amusement, Gambling, And Recreation Industries	50.6%	49.4%	8,325	LG
5370	Book Stores And News Dealers	50.4%	49.6%	785	HG
7280	Accounting, Tax Preparation, Bookkeeping And Payroll Services	49.1%	50.9%	15,806	HG
7170	Video Tape And Disk Rental	48.9%	51.1%	135	HG
1080	Sugar And Confectionery Products	48.8%	51.2%	141	HG
6370	Postal Service	48.1%	51.9%	275	HG

Industry	Description	Men	Women	Count	LG/HG
7490	Other Professional, Scientific, And Technical Services	47.9%	52.1%	9,190	
1290	Not Specified Food Industries	47.7%	52.3%	69	
6480	Periodical, Book, And Directory Publishers	47.0%	53.0%	2,639	LG
8390	Vocational Rehabilitation Services	46.5%	53.5%	165	LG
2280	Soap, Cleaning Compound, And Cosmetics	45.4%	54.6%	279	HG
7880	Business, Technical, And Trade Schools And Training	44.1%	55.9%	604	LG
9570	Administration Of Economic Programs And Space Research	43.8%	56.3%	2	
7690	Services To Buildings And Dwellings, Ex Constr Cln	42.8%	57.2%	20,903	HG
5190	Jewelry, Luggage, And Leather Goods Stores	42.4%	57.6%	2,553	LG
5490	Used Merchandise Stores	42.2%	57.8%	3,854	HG
5080	Health And Personal Care, Except Drug, Stores	41.9%	58.1%	2,156	LG
7370	Specialized Design Services	40.6%	59.5%	11,025	HG
7670	Travel Arrangements And Reservation Services	40.0%	60.0%	2,380	LG
9170	Civic, Social, Advocacy Organizations, And Grantmaking and Giving Services	39.0%	61.0%	451	
8090	Outpatient Care Centers	38.6%	61.4%	4,198	HG
2470	Pottery, Ceramics, And Plumbing Fixture Manufacturing	38.5%	61.5%	323	
1690	Apparel Accessories And Other Apparel	37.7%	62.3%	52	
6770	Libraries And Archives	37.6%	62.4%	115	HG
1590	Textile Product Mills, Except Carpet And Rug	37.5%	62.5%	709	LG
1680	Cut And Sew Apparel	37.5%	62.5%	1,244	LG
1190	Retail Bakeries	37.5%	62.5%	1,379	HG
5170	Clothing Stores	36.2%	63.8%	3,562	LG
8180	Other Health Care Services	36.2%	63.8%	3,430	LG
5280	Sewing, Needlework And Piece Goods Stores	35.9%	64.1%	934	LG
7580	Employment Services	34.7%	65.3%	3,929	HG
7890	Other Schools And Instruction, And Educational Support Services	34.0%	66.0%	14,413	HG
5570	Gift, Novelty, And Souvenir Shops	33.2%	66.8%	1,717	LG
7860	Elementary And Secondary Schools	33.2%	66.8%	3,824	HG
8290	Residential Care Facilities, Except Skilled Nursing Facilities	32.4%	67.6%	1,499	
7590	Business Support Services	29.8%	70.2%	6,461	
8080	Offices Of Other Health Practitioners	28.2%	71.8%	8,123	
8270	Nursing Care Facilities (Skilled Nursing Facilities)	27.9%	72.1%	859	LG
9090	Other Personal Services	27.8%	72.2%	6,257	HG
5470	Florists	27.8%	72.3%	1,870	LG
5690	Other Direct Selling Establishments	26.6%	73.4%	5,548	
8990	Nail Salons And Other Personal Care Services	25.7%	74.3%	9,139	LG
8370	Individual And Family Services	21.6%	78.4%	6,599	HG
8170	Home Health Care Services	14.0%	86.0%	5,631	
1670	Knitting Fabric Mills, And Apparel Knitting Mills	12.6%	87.4%	208	
8980	Beauty Salons	10.0%	90.0%	25,481	LG
9290	Private Households	7.0%	93.0%	32,102	LG
8470	Child Day Care Services	3.5%	96.5%	25,157	LG

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS.

ACS Industry Codes Mapped to NAICS

IND	NAICS	IND	NAICS	IND	NAICS	IND	NAICS	IND	NAICS
170	111	1280	311M2	2290	325M	3180	3336	4090	4233
180	112	1290	311S	2370	3261	3190	333MS	4170	4234
190	113M	1370	3121	2380	32621	3365	3341	4180	4235
270	1133	1390	3112	2390	3262M	3370	334M1	4195	4236
280	114	1470	3131	2470	32711	3380	3345	4265	4237
290	115	1480	3132Z	2480	327120	3390	334M2	4270	4238
370	211	1490	3133	2490	3272	3470	3352	4280	42393
380	2121	1570	31411	2570	327M	3490	335M	4290	4239z
390	2122	1590	314Z	2590	3279	3570	336M	4370	4241
470	2123	1670	31M	2670	311M	3580	33641M1	4380	424M
490	213	1680	3152	2680	3313	3590	33641M2	4390	4243
570	2211P	1690	3159	2690	3314	3670	3365	4470	4244
580	2212P	1770	3162	2770	3315	3680	3366	4480	4245
590	221MP	1790	316M	2780	3321	3690	3369	4490	4247
670	2213M	1870	3221	2790	3322	3770	3211	4560	4248
680	22132	1880	32221	2870	332M	3780	3212	4570	42491
690	22s	1890	3222M	2880	3327	3790	32199M	4580	4249Z
770	23	1990	3231	2890	3328	3875	3219ZM	4585	4251
1070	311M1	2070	32411	2970	33299M	3895	337	4590	42S
1080	3113	2090	3241M	2980	332MZ	3960	3391	4670	4411
1090	3114	2170	3252	2990	33MS	3970	3399M	4680	4412
1170	3115	2180	3253	3070	33311	3980	3399ZM	4690	4413
1180	3116	2190	3254	3080	3331M	3990	3MS	4770	442
1190	311811	2270	3255	3095	3333	4070	4231	4780	443141
1270	3118Z	2280	3256	3170	3335	4080	4232	4795	443142

IND	NAICS	IND	NAICS	IND	NAICS	IND	NAICS	IND	NAICS
4870	4441Z	5592	454113	6690	517z	7580	5613	8470	6244
4880	44413	5670	4542	6695	5182	7590	5614	8560	711
4890	4442	5680	454310	6770	51912	7680	5616	8570	712
4970	4451	5690	45439	6780	5191ZM	7690	5617Z	8580	71395
4980	4452	5790	4MS	6870	52M1	7770	56173	8590	713Z
4990	4453	6070	481	6880	5221M	7780	561M	8660	7211
5070	44611	6080	482	6890	522M	7790	562	8670	721M
5080	446Z	6090	483	6970	52M2	7860	6111	8680	722Z
5090	447	6170	484	6990	524	7870	611M1	8690	7224
5170	4481	6180	485M	7070	531	7880	611M2	8770	8111Z
5180	44821	6190	4853	7080	5321	7890	611M3	8780	811192
5190	4483	6270	486	7170	53223	7970	6211	8790	8112
5275	4511M	6280	485M	7180	532M	7980	6212	8870	8113
5280	45113	6290	488	7190	53M	7990	62131	8880	8114
5295	45114	6370	491	7270	5411	8070	62132	8970	812111
5370	45121	6380	492	7280	5412	8080	6213ZM	8980	812112
5380	45211	6390	493	7290	5413	8090	6214	8990	8121M
5390	4529	6470	51111	7370	5414	8170	6216	9070	8123
5470	4531	6480	5111z	7380	5415	8180	621M	9080	8122
5480	45321	6490	5112	7390	5416	8190	622	9090	8129

5490	4533	6570	5121	7460	5417	8270	6231	9160	8131
5570	45322	6590	5122	7470	5418	8290	623M	9170	813M
5580	4539	6670	515	7480	54194	8370	6241	9180	81393
5590	454111	6672	51913	7490	5419Z	8380	6242	9190	8139Z
5591	454112	6680	5171	7570	55	8390	6243	9290	814
								9470	92MP
								9570	92M2

Appendix D – Additional Analyses

Table D-1

Geographic Distribution by Industry Grouping and Gender

Women Business Owners									
Region	Women Concentration Category					Growth Category			
	1	2	3	4	5	1	2	3	4
Northeast	13.1%	17.7%	17.2%	17.9%	16.5%	16.8%	17.8%	15.6%	16.2%
Midwest	22.4%	18.7%	17.3%	18.2%	20.4%	19.6%	18.8%	17.6%	18.3%
South	38.2%	34.7%	35.8%	33.7%	36.1%	35.6%	34.1%	34.5%	37.0%
West	26.4%	28.9%	29.7%	30.2%	27.0%	28.0%	29.4%	32.3%	28.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Count	*35,405*	*61,820*	*104,856*	*62,494*	*82,340*	*148,764*	*92,648*	*10,941*	*94,562*

Men Business Owners									
Region	Women Concentration Category					Growth Category			
	1	2	3	4	5	1	2	3	4
Northeast	16.3%	18.7%	19.2%	19.9%	16.9%	19.5%	17.1%	18.6%	17.0%
Midwest	22.0%	20.5%	17.0%	16.9%	17.1%	19.4%	23.5%	18.3%	19.5%
South	38.6%	34.6%	33.7%	33.5%	35.0%	35.2%	33.6%	35.4%	38.6%
West	23.0%	26.0%	30.2%	29.7%	30.9%	26.0%	25.9%	27.8%	24.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Count	*299,995*	*146,483*	*107,254*	*26,521*	*6,239*	*121,447*	*162,077*	*27,094*	*275,874*

Source: US Census Bureau, American Community Survey, 2011-2015 5-Year PUMS