NATIONAL WOMEN'S BUSINESS COUNCIL

ADVISORS TO THE PRESIDENT, CONGRESS, AND THE SBA

RURAL WOMEN ENTREPRENEURS:

Challenges and Opportunities

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Executive Summary

The goal of this research is to inform and establish a baseline understanding of the dynamics of rural women entrepreneurs, comparing them to rural men entrepreneurs and non-rural women entrepreneurs. We begin with an examination of the literature and a timeseries analysis of both federal and local legislation and policies designed to spur rural entrepreneurship. Building upon this foundation and using representative data from the U.S. Census Bureau, we analyze multiple definitions of rural to refine the definition as well as provide comparative analyses. We then perform a descriptive analysis of rural women entrepreneurs to develop critical areas for further inquiry and policy examination with the ultimate goal of utilizing entrepreneurship as a vehicle for economic empowerment for rural women in the United States.

This research employs univariate descriptive statistics to develop an understanding of *what* is happening among rural women entrepreneurs. The results presented herein act as a springboard for additional work to investigate *how* and *why* questions related to rural women's entrepreneurship. The quantitative data analyses yield several key findings and areas for additional analysis:

- ***Personal Dynamics.*** A high proportion, almost 75 percent, of rural women entrepreneurs are married. In comparison, using the same data, only about 55 percent of the population is married. As such, marriage may be an important factor in understanding the businesses started by rural women entrepreneurs as well as their priorities, motivations, and support networks.

- ***Entrepreneurial Industry and Occupation.*** Women entrepreneurs tend to concentrate in certain industries regardless of geography. These include child care, beauty salons, services to buildings and dwellings, real estate, and restaurants and food services. In rural areas, animal production and crop production are the second and fourth most common industries, respectively, but are not in the top ten industries for non-rural women entrepreneurs. Related to industry, occupations can differ considerably within a particular industry. Some of the top occupations for rural women entrepreneurs include farmers, ranchers, and other agricultural managers, child care workers, managers, maids and housekeeping cleaners, counselors, and other teachers and instructors.

- ***Internet Access and Use.*** Among women entrepreneurs, rural women are the least likely group to have internet access at home. However, nearly 80 percent of rural women entrepreneurs do have internet access. Among those rural women entrepreneurs without internet access, the most common reason cited by rural women entrepreneurs was "don't want it." While "not available" was a choice for why the entrepreneur had no internet access, the incidence of rural women entrepreneurs facing this challenge is small, at less than 5 percent of those without access.

- ***Income and Family.*** As states become more rural, the average total income for women entrepreneurs declines from nearly $40,000 per year in more urban areas to just over $30,000 per year in rural areas. There are gender differences as well with men entrepreneurs earning more than women entrepreneurs across geographies, even when controlling for time spent working. In addition, the earnings difference between women and men entrepreneurs is greater in more rural areas, a finding specific to entrepreneurship and not to workers overall. Finally, women entrepreneurs without children in the home earn more than women entrepreneurs with children in the home while the opposite is true of men. In rural areas, women entrepreneurs with children earn approximately 25 percent less than women entrepreneurs without children, a difference that is smaller in suburban and urban areas.

- ***Poverty and SNAP Usage.*** Poverty is prevalent in rural areas. However, rural women entrepreneurs are less likely to be classified as low income than rural women who are not entrepreneurs. Closely related to income and poverty is usage and qualification for the Supplemental Nutrition Assistance Program (SNAP). Across geographies, men entrepreneurs are much less likely than women non-entrepreneurs to report relying on SNAP assistance, a gap that is particularly large in the most rural areas where approximately 12 percent of women entrepreneurs meet the basic income threshold to qualify for SNAP, compared to over 21 percent of women non-entrepreneurs.

This work begins an important discussion about the role of entrepreneurship among women in rural communities. Prior work on the subject is limited and lacks a gender focus. Policymakers, researchers, and key stakeholders should consider additional research to develop evidence to support specific initiatives as a means of driving new venture creation, innovation, employment growth, and economic self-sufficiency in rural communities.

Table of Contents

List of Figures

List of Tables

1. Introduction and Research Goals

Research indicates that rural entrepreneurs, particularly women, may face geographic and socio-cultural challenges associated with launching and growing businesses. Further, entrepreneurship is central to economic and job growth in rural areas. As such, identifying relevant trends and crafting policy and action items designed to alleviate those challenges is an economic imperative. While rural entrepreneurship is a well-studied phenomenon in the literature, little work focuses on the gender differences that arise among rural entrepreneurs. The body of literature demonstrates differences among women and men entrepreneurs in general, as well as rural and non-rural entrepreneurs in general. What is missing is an examination of the role of gender and socio-cultural norms in the context of rural entrepreneurship.

Using nationally representative government data, this report posits and compares multiple definitions of "rural," introduces the reader to the rural woman entrepreneur, and poses meaningful areas for further inquiry. The goal of the research presented herein is to inform and establish a baseline understanding of the dynamics of rural women entrepreneurs, comparing them to rural men entrepreneurs and non-rural women entrepreneurs. Through this descriptive analysis, we develop critical areas for further inquiry and policy examination with the ultimate goal of utilizing entrepreneurship as a vehicle for economic empowerment for women in the rural United States. Follow on work should explore the relationships between trends, seeking to answer the research questions and areas for further inquiry identified throughout the report. Further, additional work should include an evidence-based examination of what policy interventions may prove most fruitful in realizing the economic potential of rural women entrepreneurs.

This report is organized as follows: Chapter 2 provides background information including selected past research and policy initiatives. Chapter 3 outlines the data sources used in this research as well as the definitions of rural being tested. Chapter 4 presents the results, segmented by topic. Finally, Chapter 5 discusses broader conclusions drawn from the research as well as recommended next steps for further inquiry.

2. Background and Policy Review

There is a large body of work within the private and public sectors examining the role of rural entrepreneurship in economies across the globe. However, research examining gender differences in rural entrepreneurship remains emergent. This section briefly synthesizes relevant background information and demonstrates the limited research specifically addressing the experiences and needs of women business owners in rural areas. The section ends with a timeline of relevant legislation and policy geared towards rural and women entrepreneurs.

Trends in Rural Entrepreneurship

In 2017, Daniel Wilmoth of the Small Business Administration (SBA) Office of Advocacy released a report entitled The Retreat of the Rural Entrepreneur.[1] While not gender specific, the report notes that from 1988 to 2016, the rural small business owner rate decreased by more than 20 percent. Wilmoth utilized Current Population Survey data from the U.S. Census Bureau to examine trends in rural entrepreneurship. Defining rural as areas outside of Metropolitan Statistical Areas (MSAs), the report cites the general population shift from rural to urban areas as a reason for the decline in rural entrepreneurship. The share of business owners residing in rural areas declined by 46 percent, compared to a decline of 38 percent for the general population over the same time period. This raises several questions about the reasons underling the decline and what policy or programmatic support and action rural entrepreneurs may require, as well as what gender differences exist among these identified trends.

In its 2017 State of Entrepreneurship report,[2] the Ewing Marion Kauffman Foundation (Kauffman) highlights the changing geographic landscape of entrepreneurship as a key issue towards creating "entrepreneurship with zero barriers." The report describes the "rise of the rest," the expansion of entrepreneurial activity beyond the traditional entrepreneurial hubs, such as Boston and Silicon Valley, and the value that these potential entrepreneurs have to the economy. Despite the growth of entrepreneurship in non-traditional geographies, it remains a primarily urban phenomenon. In fact, the Kauffman report notes the share of new startups forming in rural areas has declined since the 1980s from approximately 20 percent to 12 percent in 2017. The researchers postulate that the continued movement of the U.S. population towards urban areas contributes to the decline but noted that additional research is required to fully understand the phenomenon. Given the importance of entrepreneurship to employment and economic growth, understanding what factors contribute to the decline in rural entrepreneurship in the United States is germane.

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[1] Wilmoth, Daniel. 2017. "The Retreat of the Rural Entrepreneur." Small Business Administration, Office of Advocacy. September 29, 2017. https://www.sba.gov/sites/default/files/advocacy/Retreat-Rural-Entrepreneur.pdf

[2] Morelix, Arnobio, Victor Hwang, Inara S. Tareque. 2017. "Zero Barriers: Three Mega Trends Shaping the Future of Entrepreneurship." Ewing Marion Kauffman Foundation. https://www.kauffman.org/~/media/kauffman_org/resources/2017/state_of_entrepreneurship_address_report_2017.pdf

In a recently released report, Small Business Majority examined the opportunities and challenges facing rural small businesses.[3] Although the research does not differentiate by gender, it offers salient points through a mixed-methods research study incorporating both qualitative and quantitative data. The top 3 challenges faced by rural entrepreneurs in the study were:

Top Challenges Faced by Rural Entrepreneurs

1. Limited access to capital and business support services
2. Limited access to skilled workforce
3. Limited access to broadband, goods and services, and healthcare

Source: Examining the Unique Opportunities and Challenges Facing Rural Small Businesses." Small Business Majority. February 12, 2019.

Further, small business owners indicated that they were unaware of existing resources. To improve the entrepreneurial landscape for rural Americans, the study made several recommendations including increasing small business assistance in rural areas, increasing small business lending and investment options for rural entrepreneurs, improving healthcare access and affordability, and investing in rural infrastructure and broadband.

The U.S. House of Representatives Small Business Committee continues to reiterate the importance of understanding the challenges facing rural entrepreneurs and developing policies to alleviate them. According to the Committee,[4] approximately two-thirds of new jobs in rural areas arise from entrepreneurship. However, concerns remain, including deficiencies in access to technology, transportation, and business services, all of which can undermine business competitiveness. While technology has improved rural isolation and dissemination of resources, rural entrepreneurs encounter multiple unique challenges including:

Challenges Unique to Rural Entrepreneurs

1. Low population density/remoteness
2. Depressed access to markets, capital, and labor
3. Lack of necessary infrastructure
4. Geographic isolation from support networks
5. Infrastructure gaps, including reliable internet and telephone service

Source: U.S. House of Representatives, Small Business Committee

[3] "Examining the Unique Opportunities and Challenges Facing Rural Small Businesses." Small Business Majority. February 12, 2019. https://smallbusinessmajority.org/sites/default/files/research-reports/Opportunities_and_Challenges_Facing_Rural_Small_Businesses.pdf

[4] For more information, please see https://smallbusiness.house.gov/issues/issue/?IssueID=5966

Shields (2005)[5] performed an investigation of the effects of rural geo-demographic and socio-cultural features on 76 small businesses. While not focused exclusively on women, the study reveals that in the United States, a rural geographic location "adversely affects marketability of products and services" but may not negatively influence the ability of small businesses to obtain necessary resources and employees. The study found that among respondents, rural values, such as strong social ties, promote the business, including word of mouth marketing. Further, the researchers found that gender stereotypes did not negatively influence small business operations, although gendered effects may still exist.

While rural areas in the U.S. face economic challenges including a higher incidence of poverty and unemployment relative to non-rural areas, the entrepreneurial spirit is alive and well. Research by Weiler (2017)[6] indicates that nonmetropolitan (rural) counties have higher rates of self-employment and entrepreneurship than metropolitan counties. Further, the level of entrepreneurship increases with increasing rurality. While farming, a principally rural activity, may account for part of the observed trend, farmers represent less than one sixth of business owners in nonmetro areas. The rural environment has additional effects on business success. Isolated rural businesses are more resilient on average than those in metropolitan areas, with higher five-year business survival rates,[7] a trend unchanged over time. Together, these findings underscore the importance of entrepreneurship in rural communities, despite the challenges presented by rural geographies.

Access to capital is a challenge for all entrepreneurs that may be compounded in rural areas. Contreras and Rupasingha (2018)[8] reinforced the concern that rural entrepreneurs experience restricted access to capital with an examination of the Community Reinvestment Act's (CRA) relationship to rural business growth. Between 2000 and 2015, rural counties received fewer loan dollars per capita than urban counties for small business loans recorded under CRA regulations. This is important because data from 1996-2000 shows that receiving higher CRA loan amounts had a statistically significant positive effect on small business startups for both urban and rural counties. Additionally, Rupasingha's analysis revealed that small CRA loans (less than $100,000) were the most impactful when administered in rural areas. Specifically, holding other factors constant, doubling the number of small CRA loans was associated with a 26% increase in startup growth in rural counties compared to just 7% in urban counties. This provides evidence of the impact that capital can have on rural entrepreneurs and by

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[5] Shields, Jeffrey F. "Does Rural Location Matter? The Significance of a Rural Setting for Small Businesses." *Journal of Developmental Entrepreneurship*. Volume 10, 1. 2005.

[6] Weiler, Stephan. 2017. "Six Charts that Illustrate the Divide Between Rural and Urban America." Colorado State University. March 17, 2017. https://source.colostate.edu/six-charts-illustrate-divide-rural-urban-america/

[7] Hammock, Rex. 2017. "This Report Claims Rural Entrepreneurs Have Retreated (And Why It's Wrong)." *SmallBusiness.com*. October 6, 2017. https://smallbusiness.com/trends/rate-of-rural-entrepreneurship/

[8] Contreras, Sergio, and Anil Rupasingha. 2010. "Factors Affecting Spatial Variations of Microenterprises in the Rural U.S." Accessed September 17, 2018. https://www.kansascityfed.org/eventinfo/community/rupasingha-paper.pdf.

extension, rural economies, highlighting the extent to which rural entrepreneurs need capital and are impeded from starting businesses without it.

Technology and infrastructure are important concerns for rural communities across the United States. While urban areas provide entrepreneurs with easy physical access to resources and broadband, infrastructure in rural areas has not yet caught up. A 2018 report[9] on the impact of technology on small businesses highlights the benefit of broadband access to small businesses in the United States. The report indicates that reducing regulatory barriers improves access to broadband internet in rural, tribal, and other underserved areas. While broadband internet is important for nearly all entrepreneurs in an increasingly web-based economy, the internet is also important for rural entrepreneurs in particular due to the rise of platform-enabled entrepreneurship and the geographic distances over which they conduct business.[10] Platform-enabled entrepreneurship includes individual entrepreneurs selling products on digital platforms, such as eBay and Etsy. New eBay sellers who started operations between 2010 and 2014 were much less geographically concentrated than the physical businesses opened over the same period, and 28 percent of Etsy sellers live in rural areas despite only 18 percent of the total population living in a rural location.

Prieger (2018)[11] assessed the importance of broadband deployment and usage as a driver of new business creation in the U.S., finding that it, and all types of infrastructure, are important to facilitating entrepreneurship. He also investigated the effects of transportation infrastructure and human capital, finding that both increase the marginal effect of broadband. These findings, and testimony from rural entrepreneurs about the importance of infrastructure to increase connectivity and therefore enhance business success, highlight the importance of developing access to infrastructure such as internet and transportation for rural residents.

More recently, Rural Rise, an organization dedicated to rural entrepreneurial development, issued a report[12] titled "The Rise of Rural Entrepreneurship" based on insights from participants' small group discussions at their 2018 summit, a three-day meeting of community leaders and ecosystem builders seeking to answer the question, "How do we empower the leaders, doers, and innovators in rural communities?" Key takeaways from the report include:

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[9] Lettieri, John W. 2017. "U.S. Senate Committee on Small Business and Entrepreneurship Hearing on the Challenges and Opportunities of Running a Small Business in Rural America." *Economic Innovation Group*. April 26, 2017. https://www.uschamber.com/sites/default/files/ctec_sme-rpt_v3.pdf

[10] C_TEC, Morning Consult, and Facebook. 2018. "Examining the Impact of Technology on Small Business." January 18, 2018. https://eig.org/news/u-s-senate-committee-small-business-entrepreneurship-hearing-challenges-opportunities-running-small-business-rural-america-2

[11] Prieger, James E. 2018. "The Importance of Broadband and Other Infrastructure for Entrepreneurship." *Pepperdine University School of Public Policy*.

[12] Rural RISE. 2018. "The Rise of Rural Entrepreneurship, Insights from the 2018 Rural RISE Summit." Accessed September 19, 2018. https://costarters.co/wp-content/uploads/2018/07/RuralRISE-Insights-Report-2018.pdf

- The need to establish clear connections between national and regional leadership and those working on the ground in local communities
- The need for a framework approach to ecosystem building to avoid "noise" such as duplication efforts and overlapping supports
- The need for sustainable funding sources for ecosystem building work.

The rural entrepreneurship stakeholders also called for new ways to gauge success to complement new ways of viewing entrepreneurship, such as measuring changes in entrepreneur mindsets and measuring the number of individuals who decide not to start a business after receiving help. The participants point to policy to address issues of infrastructure such as reliable broadband, water, sewer, roads, and electricity that businesses need to thrive. The report ends by demonstrating that rural communities present unique opportunities due to the affordable cost of living, deep sense of community, relative ease of cultivating real relationships and identifying potential collaborators, access to insider information, and their ability to serve as laboratories for new ideas because of their scale, their leanness, and the resourcefulness of locals. These insights come from the voices of those most passionate about, and involved in, rural entrepreneurship, and they highlight how exciting the future of rural entrepreneurship can be with the right support.

Gender Differences in Rural Entrepreneurship

Limited past research addresses the challenges and opportunities encountered by rural women entrepreneurs vis-à-vis their male counterparts. Rural women represent a unique segment of the United States population from a personal capital and socio-cultural perspective and may face a different set of challenges than urban women, partially due to disparities in education and cultural norms in the areas in which they reside. As an example, rural women tend to marry and have children at a younger age than urban women with higher levels of educational attainment.[13] Early marriage and lower education levels influence the propensity of these women to start businesses. Many individuals in rural America face a different daily reality than those in urban areas:

> *What makes life hard for rural women and young families in rural America is the stress of poverty, which is directly related to the loss of high-paying manufacturing jobs with benefits… and the costs of reliable transportation and health care.*
>
> Quinlan, Casey. "The Particular Struggles of Rural Women." *The Atlantic.* June 12, 2013. https://www.theatlantic.com/sexes/archive/2013/06/the-particular-struggles-ofrural-women/276803/

Poverty is a significant concern in rural areas, and one that presents both challenges and opportunities when considering entrepreneurship. Gail Bundy of the Cortland County

[13] For more information, please see https://www.pewresearch.org/fact-tank/2018/06/19/family-life-is-changing-in-different-ways-across-urban-suburban-and-rural-communities-in-the-u-s/

Community Action Program[14], a non-profit organization, noted that in rural areas, women tend to manage family, children, and finances, often putting themselves last. Additional research is required to investigate the policies and actions needed to develop entrepreneurship as an economic empowerment tool for rural women in the United States.

Many researchers in the United States focus on specific states or rural areas when analyzing rural women's entrepreneurship. Meeder & Cumber (2007)[15] performed a case study of women entrepreneurs in rural South Dakota. Referencing challenges with infrastructure development as well as employment growth, the authors built upon their theory that rural women find it harder to identify suitable employment than urban women. They also cite challenges in rural areas including lower overall education levels, low income, and high costs of transportation. Using a survey of rural South Dakota women entrepreneurs with 110 respondents, the researchers found that despite preconceived notions, the women felt that the rural setting benefitted women entrepreneurs. The respondents noted a perceived positive effect of the rural location but noted that several needs and challenges remain. As far as resources, the respondents cited challenges with training programs, personal support systems, identifying financing, and finding qualified employees as most important.

Eschker, Gold, and Lane (2017)[16] examined newly started rural small businesses and the factors that contribute to their success and failure using survey data. Similar to other findings in the literature, the study found that that prior business ownership experience positively influenced rural firm survival. From a demographic perspective, female or Hispanic ownership and family help with a business had negative relationships with profit, indicating both a gender and ethnic divide in rural business success. Rather than family help being detrimental to business success, relying on family, as many rural women entrepreneurs do, may reflect the absence of, and need for, professional assistance. The authors also discovered that having a business plan did not make a business more likely to succeed, a finding unique to rural areas.

Davis (2011)[17] completed an exploratory comparative study of urban and rural women entrepreneurs in Canada. The study focused on the relative needs of women entrepreneurs in varying geographies but found that needs varied little by location. That is, rural women and urban women required similar services when launching and growing their businesses. The study explores the following research questions with respect to the Canadian population of study:

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[14] For more information, please see https://www.capco.org/

[15] Meeder, Abbigail. Carol J. Cumber. "Entrepreneurial Activity by Women in Rural South Dakota." Western Economics Forum. Fall 2007.

[16] Eschker, Eric, Gregg Gold, and Michelle D. Lane. 2017. "Rural entrepreneurs: what are the best indicators of their success?" *Journal of Small Business and Enterprise Developmen*t 24, no. 2 (January): 278-296.

[17] Davis, Angela. Rural and Urban Women Entrepreneurs: A Comparison of Service Needs and Delivery Methods Priorities. International Journal of Business Science and Applied Management, Volume 6, Issue 2. 2011.

- Are there different service needs and priorities for rural women entrepreneurs?
- Are there any additional service needs to be considered based on the challenges faced by rural entrepreneurs?
- What are the best mechanisms to deliver the supports required?

Using a novel survey, Davis found that rural and urban women entrepreneurs in Canada experience similar challenges and successes when operating their businesses. Further, the most desired services related to identifying new customers, tax assistance and financial management. The research identified differentials in service needs by years in business and prior experience. While not a statistically representative sample in the United States, the research demonstrates the importance of understanding the needs and dynamics of rural women entrepreneurs.

Studying a subset of rural entrepreneurs in the United States, Aspaas (2004)[18] analyzed rural women's businesses and decision-making strategies, particularly focusing on Hispanic, Native American, and African American women in rural areas of the southwestern U.S. and central Virginia. Qualitative analysis of interviews and surveys presents an image of rural minority business women operating their businesses at the nexus of family obligations, economic necessities, cultural ties, and a commitment for serving their communities. Their strategies for operating their businesses are highly integrative because their business decisions cannot be separated from the other aspects of their lives, particularly their dedication to their families and communities. New businesses focused on the service sector and the interviews indicated that the types of businesses started related to the women's family obligations and requirements to have sufficient time to devote to family management. The research highlights the influence of women's traditional caregiving roles and their desire to positively influence the human capital of their communities.

The Center for Women in Business' report[19] on women-owned businesses determined that technological advancement has alleviated some of the geographic isolation that rural Americans face. Nonetheless, rural business owners continue to experience the challenges of isolation from markets, capital, labor, peers, and infrastructure, as well as low population density, remoteness, and local cultural norms that are skeptical of the risks associated with entrepreneurship. The research found that one area of progress and success for rural women entrepreneurs has been in agriculture, a traditionally male-dominated field. Over the past three decades, the share of U.S. farms operated by women nearly tripled to comprise 14% of all U.S. farms. Though not specific to rural entrepreneurs, the report also examined age as a factor influencing women business-owners, finding that more than half of women aged 55 to 64 feel that they have the capability for entrepreneurship. These responses represent a pool of experienced,

[18] Aspaas, Helen Ruth. 2004. "Minority women's microenterprises in rural areas of the United States of America: African American, Hispanic American, and Native American case studies". *Geo Journal* 61: 281-289.

[19] Center for Women in Business. n.d. "Women-Owned Businesses." Accessed September 17, 2018. https://www.uschamberfoundation.org/sites/default/files/Women-Owned%20Businesses%20Carving%20a%20New%20American%20Business%20Landscape.pdf

late-career female professionals who have the potential to start a business if provided with the right opportunity and support and could be a promising focus for entrepreneurial development programs. The cultivation of these women into business-owners could present a valuable addition to entrepreneurship and economic growth.

Policy and Legislation

State and Local Initiatives

Local government and non-government organizations develop and deploy programs and policies designed to bolster rural entrepreneurship. Figueroa-Armijos and Johnson's (2016)[20] research of the Kansas Economic Growth Act, also suggests that entrepreneurship is more likely to sustain and persist in the long run in regions that develop an entrepreneurial culture. They found that the program, which provided funds for entrepreneurship organizations who would use them to support their local entrepreneurs, had no conclusive effects on five of their indicators of local economic and entrepreneurial activity, and that only the effect on personal income growth per capita was significant, with the largest effect seen at initiation and diminishing over time. They found that tax incentives become more effective when paired with additional economic development strategies such as technical assistance or location/site analysis, indicating that it can be beneficial to consider policies holistically in order to maximize their success. Capital is an extremely important factor impacting rates of entrepreneurship and business success, but this research suggests that policies and programs involving capital, such as grants, loans, and incentives, must be paired with other strategies to allow the investments to work most effectively.

McCullough (2012)[21] used a novel survey and publicly available data to identify county and municipal policy actions associated with entrepreneurial development in 16 North Carolina counties. The researcher analyzed identifiable policies to understand how local public policy is used to support the creation of entrepreneurship development systems in rural communities and how local characteristics shape entrepreneurship policy formation. The author also selects two of those counties as case studies to examine factors influencing entrepreneurial development policy formation with data from interviews, observations, and additional documents gathered during site visits to the counties. Relying on grounded theory, the community capital framework, and the multiple streams model, the study confirms that county and municipal government play an active role in encouraging and supporting entrepreneurial development. Further, that local context leads to vastly different approaches and results even when counties and municipalities pursue, what appear to be, similar strategies. Key strategies include:

[20] Figueroa-Armijos, Maria, and Thomas G. Johnson. 2016. "Entrepreneurship policy and economic growth: Solution or delusion? Evidence from a state initiative." *Small Business Economics* 47, no. 4 (December): 1033-1047.

[21] McCullough, Stacey W. 2012. "Identifying Local Entrepreneurship Development System Policy in Rural Areas and How Local Context Shapes Entrepreneurship Policy Formation." *Theses and Dissertations* 642.

Key Proposed Strategies

- Authorization for the county/municipality to participate in existing initiatives
- Financial support of participation in existing initiatives
- Creation of a community culture friendly to entrepreneurship
- Grant support for local businesses via financial match or official support
- Direct or indirect support for business training
- Solicitation and engagement of the business community and public to support entrepreneurship
- Direct financial support via grants or incentives
- Providing facilities for new or existing businesses
- Infrastructure improvements

McCullough, Stacey W. 2012. "Identifying Local Entrepreneurship Development System Policy in Rural Areas and How Local Context Shapes Entrepreneurship Policy Formation." *Theses and Dissertations* 642.

The author found that each local government employed between 6 and 7 strategies on average to encourage entrepreneurial development, indicative of a multi-strategy approach. Finding that no two ecosystems examined employed the same mix of programs and strategies to spur entrepreneurial development, the authors conclude that the local economy and human capital base of the community influence the types of programs that may be effective in a particular region.

In Ohio, an initiative to provide rural technology startups with public venture capital attracted additional venture capital to the region, improving access to capital overall. Glazer, Jolley, and Uzuegbunam (2017)[22] determined that the program, TechGROWTH Ohio (TGO), was successful in developing $350 million of non-state follow-on resources for client companies, and the creation of over 575 direct jobs in the region with an average salary almost $20,000 higher than the median household income. The program integrated deal flow, entrepreneurial support, and capital to assist technology-based businesses in growing and scaling by employing the following strategies:

- Establishment of an equity-based entrepreneurial support network in the region
- Application of venture capital practices and Lean Startup principles to provide early company validation, test business models, and optimize capital acquisition strategies
- Progressive and constant assessment and revision of procedures to develop client companies
- Development of an experienced and qualified Entrepreneur in Residence team
- Organization of private investment funds and credibility building with investor networks

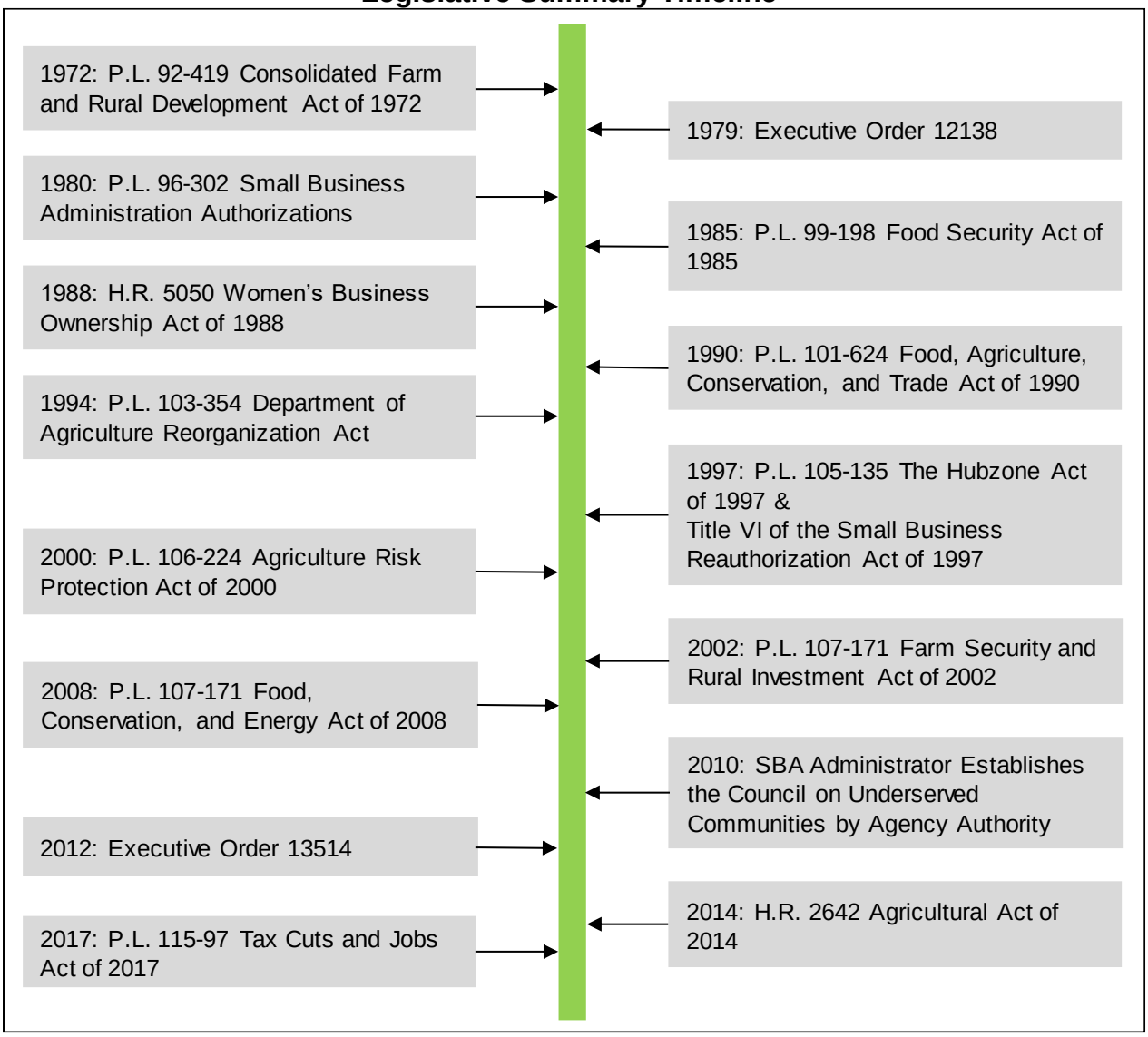
[22] Glazer, John, Jason G. Jolley, and Ikenna Uzuegbunam. 2017. "TechGROWTH Ohio: Public Venture Capital and Rural Entrepreneurship." *Journal of Regional Analysis & Policy* 48, no. 2: 14-22.

This research demonstrates the success of the initiative in meeting the demand for venture capital and seed investments in a rural region. Private venture capital is concentrated geographically in urban coastal areas. Because private venture capital is so concentrated, TGO is providing funding to regions that would likely receive very little, if any, private venture capital. This process may also help certify ventures and provide market validation to attract additional private venture capital and other funding sources. In addition to the venture capital fund, TGO organized three successful angel funds in rural Ohio, further facilitating private investment rather than crowding out private VC. This initiative is an example of how public policies can both aid entrepreneurs and correct market failure preventing entrepreneurs from accessing adequate funding in rural areas.

Federal-Level Legislation

The Federal-level legislative history related to rural women's business enterprises shows a pattern of initiatives focused either on women's businesses or rural businesses, with only very occasional actions having some overlap. Figure 1-1 contains a timeline of selected pertinent legislation. A discussion follows of select legislation by category.

Figure 1-1
Legislative Summary Timeline



In 1979, Executive Order 12138 established the Office of Women's Business Ownership, the Interagency Committee on Women's Business Enterprise, and created the National Women's Business Enterprise Policy. With the Women's Business Ownership Act of 1988, The National Women's Business Council (NWBC) was established to advise the Committee on Women's Business Enterprise, the Office of Women's Business Ownership, Congress, and the President on issues of impact and importance to women entrepreneurs and business owners. The Act also established the Women's Business Center (WBC) program, a network of over 100 educational centers throughout the United States and its territories, including rural areas. In many rural areas, WBCs are the primary programs available to current and prospective women business owners.

The U.S. Department of Agriculture (USDA) oversees many of the federal programs for rural entrepreneurs. The 1990 Farm Bill established the USDA Rural Development Administration, which was later replaced by the Office of Rural Development under the reorganization of the Department of Agriculture in 1994. The agency now oversees programs for rural entrepreneurs. Among the first programs were the Business and Industry Guaranteed Loans program established by the Consolidated Farm and Rural Development Act of 1972 and the Intermediary Relending Program established by the Food Security Act of 1985. Both of these programs serve rural business owners, specifically those operating in agricultural industries. **Programs available to rural entrepreneurs since the creation of the Office of Rural Development include:**[23]

Value Added Producer Grants: These grants were authorized by the Agriculture Risk Protection Act of 2000 and expanded in the 2002, 2008, and 2012 Farm Bills. The Value Added Producer Grants are designed to spur agricultural innovation. As of 2018, total program funding was $18 million.

Rural Business Investment Program: Established by the Food, Conservation, and Energy Act of 2008, the Rural Business Investment Program provides Rural Business Investment Company (RBIC) licenses to newly-formed venture capital organizations to meet the capital needs of rural communities.

Rural Microentrepreneur Assistance Program: The Program was established by the 2008 continuation of the Consolidated Farm and Rural Development Act and provides loans and grants to Microenterprise Development Organizations to encourage startup growth and support microentrepreneurs in rural areas.

Rural Business Development Grants: The Agricultural Act of 2014 established the Rural Business Development Grant program. The program provides competitive grants to organizations that support technical assistance, training, and other business services to small and emerging businesses in rural areas.

The Small Business Administration Authorizations of 1980 provided for the creation of Small Business Development Centers to assist clients in gaining access to SBA loan programs and private capital, with specialized programs for women and

[23] USDA. n.d. "Value Added Producer Grants." Accessed September 13, 2018. https://www.rd.usda.gov/programs-services/value-added-producer-grants
USDA. n.d. "Rural Business Investment Program." Accessed September 13, 2018. https://www.rd.usda.gov/programs-services/rural-business-investment-program
USDA. n.d. "Rural Microentrepreneur Assistance Program." Accessed September 13, 2018. https://www.rd.usda.gov/programs-services/rural-microentrepreneur-assistance-program
USDA. n.d. "Rural Business Development Grants." Accessed September 13, 2018. https://www.rd.usda.gov/programs-services/rural-business-development-grants

individuals in low- and moderate-income rural areas. In another effort to promote rural economic development, The BioPreferred program was established by the 2002 Farm Bill and strengthened by the 2008 Farm Bill, with the intention of increasing Federal procurement of bio-based products, many of which originate in rural areas. Further, Executive Order 13514 included the Presidential Memorandum on Driving Innovation and Creating Jobs in Rural America through Biobased and Sustainable Product Procurement with the goal of ensuring that executive departments and agencies effectively execute the Federal procurement outlined in the BioPreferred program. In 2010, the SBA Administrator established the National Advisory Council on Innovation and Entrepreneurship. The Council advises the SBA on issues relevant to small and rural businesses including policies related to commercialization of business innovations.

Federal efforts exist to enhance economic development in locations designated as economically distressed, a designation to which many rural areas belong. The HUBZone Empowerment Act of 1997 created the HUBZone program to promote job growth, capital investment, and economic development to historically underutilized business zones by providing contracting assistance to small businesses located in these communities. Similarly, the Tax Cuts and Jobs Act of 2017 established the Opportunity Zones program to encourage private investment in low-income regions across the country by creating tax incentives for investment in those areas. While the Tax Cuts and Jobs Act of 2017 is not specifically focused on rural entrepreneurship, nearly 40% of Opportunity Zones are in low density, rural areas.

3. Defining the Data Sets

The research design for developing a profile of rural women entrepreneurs utilizing publicly available data includes univariate, cross-tabulation, and difference in means analyses. These analyses provide insight into critical issues related to rural women's entrepreneurship and lay the foundation for developing evidence-based policy and action items. This section discusses the two data sets used in this research and their applicability to understand the dynamics of rural women entrepreneurs. Appendix A includes the technical definitions for each rural category and entrepreneurship.

The American Community Survey (ACS)

The American Community Survey (ACS) is an annual survey of the American workforce sponsored by the U.S. Census Bureau. The ACS is representative at both the national and state levels and offers reliable and generalizable data on labor force dynamics, including the prevalence of business ownership and self-employment activity.[24] The ACS analyses in this report utilize the Public Use Microdata Sample (PUMS) data files aggregated for the 2012 through 2016 period.[25] The ACS PUMS data permit analysis at the individual and household levels and include important demographic and labor dynamics variables such as age, gender, relationship status, employment status, and educational attainment, among others. A key feature of the ACS is the inclusion of both entrepreneurs and non-entrepreneurs, which allows for valuable comparisons regarding career paths.

For this research, the ACS was used to explore the definition of rurality that considers rural business owners to be those residing in a largely rural state. We recognize the imperfect nature of this definition but consider it alongside additional definitions to provide a proxy for proximity in the rural context. For example, an entrepreneur in an urban area in a very rural state may face different challenges or opportunities than an entrepreneur in an urban area in a more urban state. This definition required the creation of a variable to represent the rurality of the state each respondent resides in based on the percentage of each state's population living in rural areas. The categories for this definition are as follows:[26]

- 0-10% of the population of the state live in rural areas
- 10-20% of the population of the state live in rural areas
- 20-30% of the population of the state live in rural areas
- 30-40% of the population of the state live in rural areas
- Over 40% of the population of the state live in rural areas

[24] For more information about the ACS and the survey instrument, please see http://www.census.gov/programs-surveys/acs/technical-documentation.html

[25] The ACS PUMS data are available for download at http://www.census.gov/programs-surveys/acs/technical-documentation/pums.html

[26] The categories used to define state rurality are not a proxy for the geography of each respondent. For example, an entrepreneur living in Birmingham, Alabama would be in the "over 40%" category, because 40.6% of Alabama's population lives in rural areas, despite living in an urban area herself.

Analyses based on state rurality are interesting in the context of examining the effects of high or low rates of rurality on the culture of the state as a whole, and by extension, women entrepreneurs in those states. While not a perfect definition (i.e. a woman in a metropolitan area in a largely rural state is technically classified as "rural"), this definition permits exploration of the overall level of state resources available, understanding that urban areas in states with many urban areas may differ from urban areas in primarily rural states.

The Current Population Survey (CPS)[27]

The Current Population Survey (CPS) is a monthly household survey sponsored jointly by the U.S. Census Bureau and the U.S. Bureau of Labor Statistics. It is the primary source of labor force statistics for the population of the United States and is useful for investigating social and economic trends in the U.S. since the 1940s. A collection of labor force and demographic questions, known as the "basic monthly survey," is asked every month, but over time, supplemental inquiries on special topics[28] have been added for particular months. The CPS analyses in this section utilize IPUMS-CPS datafiles, which are harmonized and customizable.[29] The majority of the analyses come from the IPUMS-CPS Annual Social and Economic Supplement (ASEC) files aggregated for the 2013 through 2017 period. Other analyses utilize the 2013 and 2015 aggregated IPUMS-CPS July basic monthly files which include the Computer and Internet Use Supplement,[30] and others utilize the IPUMS-CPS 2013-2017 ASEC files merged with the 2012-2016 December basic monthly files which include the Food Security Supplement.

One benefit of utilizing both ACS and CPS data is the ability to explore multiple definitions of rurality in the context of women's entrepreneurship. This research defines rurality in the following ways using the CPS:

1. **Urban/Suburban/Rural –** splits entrepreneurs into three categories where urban refers to respondents who live in a central city, suburban refers to respondents who live in an overall metropolitan area, and rural refers to respondents who live in a non-metropolitan area.
2. **Area Population Size –** splits entrepreneurs into eight categories based on the size of the population in their area ranging from non-metropolitan (most rural) to a population of 5 million or more.
3. **Rural vs. Non-Rural –** splits entrepreneurs into two categories, urban (including suburban) and rural.

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[27] Steven Ruggles, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas, and Matthew Sobek. IPUMS USA: Version 9.0 [dataset]. Minneapolis, MN: IPUMS, 2019. https://doi.org/10.18128/D010.V9.0

[28] For a full list of topics, please see https://www.census.gov/programs-surveys/cps/about/supplemental-surveys.html

[29] For more information about the CPS, IPUMS-CPS, or to create a data extract, please see https://cps.ipums.org/cps/

[30] The Computer and Internet Use supplement is included only every other year.

Definition 1 allows for the exploration of differences and trends in areas categorized as rural, suburban, and urban regardless of the population size of their location. Definition 2 makes it possible to explore how variables of interest are specifically related to population size.[31] Though it provides less information and nuance than definition 2, definition 3 is helpful for understanding contrast between rural and non-rural residents.

[31] Population size is important because the small populations of rural areas is one of the factors potentially making entrepreneurship more challenging for rural residents. Deller et al. (2010) note that large populations facilitate access to thick input markets and knowledge spillovers, creating agglomeration economies which are important for the success of entrepreneurship in a region. With low populations in rural areas, it is difficult for agglomeration economies to form. Deller, Steven C., David A. Fleming, Stephen J. Goetz, and Mark Partridge. 2010. "Evaluating U.S. Rural Entrepreneurship Policy." *The Journal of Regional Analysis & Policy* 40, no. 1: 20-33.

4. New Findings and Analysis

This section presents data utilizing multiple definitions of rural within the context of women's entrepreneurship using both the ACS and the CPS. Split into several groupings, the analyses presented herein offer comparisons along multiple lines including rural definition, gender, and entrepreneurship status. This section answers questions about the dynamics of rural women's entrepreneurship and poses questions about *why* the observed trends may occur.

Defining Rural

We examined several rural definitions as part of this research. Table 4-1 shows the percentage of entrepreneurs who are women by rural definition as well as the percentage of women who are entrepreneurs by rural definition. For example, the table indicates that in areas with a population between 500,000 and 999,999, 36.01 percent of entrepreneurs are women. Additionally, in that same area, 3.97 percent of all women are entrepreneurs. Overall, the data presented indicate that the rate of entrepreneurship for rural women is not vastly different from that of non-rural women.

Table 4-1
Gender Distribution of Entrepreneurs with Three Rural Definitions[32]

Percentage of Entrepreneurs who are Women

	Over 40%	**30-40%**	**20-30%**	**10-20%**	**0-10%**		
Rural State	34.92%	36.29%	36.19%	38.48%	38.72%		
	Non-metropolitan	**100,000-249,999**	**250,000-499,999**	**500,000-999,999**	**1,000,000-2,499,999**	**2,500,000-4,999,999**	**5,000,000 or More**
Area Population Size	34.63%	36.54%	37.56%	36.01%	34.80%	36.70%	32.65%
	Rural	**Non-Rural**					
Rural vs. Non-Rural	34.63%	35.14%					
	Rural	**Suburban**	**Urban**				
Urban/Suburban/Rural	34.37%	34.00%	36.77%				

Percentage of Women who are Entrepreneurs

	Over 40%	**30-40%**	**20-30%**	**10-20%**	**0-10%**		
Rural State	6.65%	6.96%	6.32%	7.41%	8.57%		
	Non-metropolitan	**100,000-249,999**	**250,000-499,999**	**500,000-999,999**	**1,000,000-2,499,999**	**2,500,000-4,999,999**	**5,000,000 or More**
Area Population Size	4.54%	4.02%	4.43%	3.97%	4.08%	4.63%	4.30%
	Rural	**Non-Rural**					
Rural vs. Non-Rural	4.54%	4.27%					
	Rural	**Suburban**	**Urban**				
Urban/Suburban/Rural	4.55%	4.31%	4.29%				

Source: American Community Survey 2013-2017 PUMS; Current Population Survey 2013-2017 IPUMS ASEC

[32] Differences in the "rural state" definition and the other definitions likely relate to measurement and definitional differences in the ACS and CPS.

Personal Dynamics

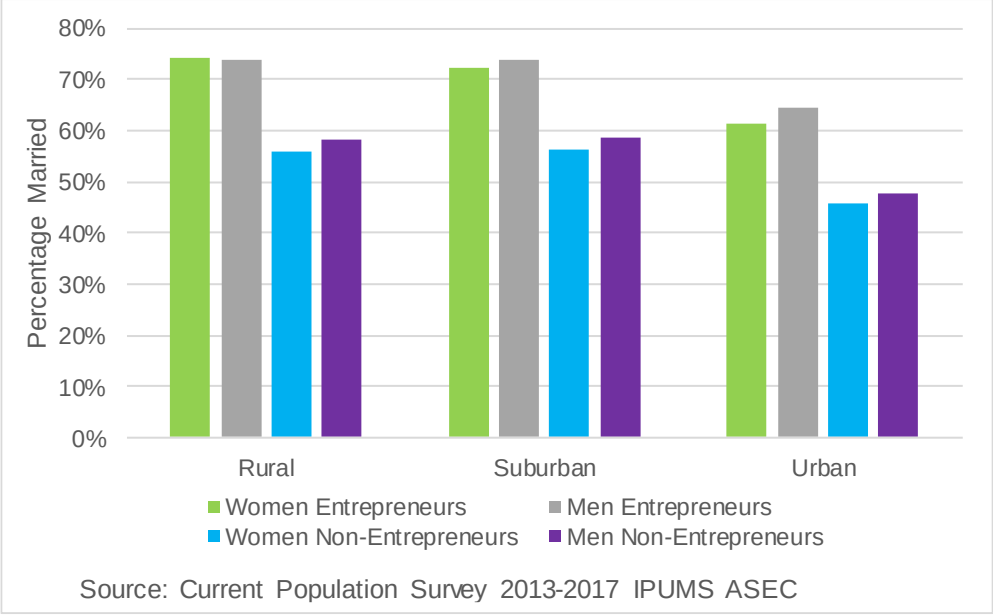
Marital status can influence the work-life balance of an entrepreneur, woman or man. Figure 4-1 contains the percentage of women and men, entrepreneurs and non-entrepreneurs, who are married based on rural, suburban, or urban location. As shown:

- There are similar marriage rates for rural and suburban residents, but they are both significantly higher than those of urban residents.

- There are slight gender differences in marriage rates, but overall, the more substantial difference is related to entrepreneurship status, where entrepreneurs have higher marriage rates than non-entrepreneurs.

A high proportion, almost 75%, of rural women entrepreneurs are married. In comparison, using the same data, only about 55% of the population is married. These results are corroborated by the other definitions, which also show higher rates of marriage correlated with rurality and entrepreneurship. As such, marriage may be an important factor in understanding the businesses started by rural women entrepreneurs as well as their priorities, motivations, and support networks. While valuable, the data used herein are limited in that they do not provide a timeseries of when the marriage occurred relative the start of the business. More research is required to understand this trend, including examination of the role of differences in socio-cultural norms and family dynamics across regions of the United States.

Figure 4-1
Percentage of Respondents who are Married, Age 18+



The share of entrepreneurs with children younger than 18 years living in their household is greater than non-entrepreneurs, and, as Figure 4-2 demonstrates, a higher proportion of women entrepreneurs have children than men entrepreneurs. This indicates

that even though rural women entrepreneurs have the lowest frequency of motherhood across all three geographies, they are still more likely to have children than other rural residents. When interpreting these results, it is important to remember that the CPS and ACS capture a "snapshot" in time, so it is difficult to know if the children preceded the business or vice versa. However, past work demonstrates the balancing act that women face, including balancing their business responsibilities with their family commitments, and the role of entrepreneurship in alleviating this balance.[33] The results shown in Figure 4-2 are similar to those when performing the same analysis using the other definitions within the CPS. The ACS rural state definition, however, shows that there are only small differences in the rates of children based on levels of state rurality.

Figure 4-2
Percentage of Respondents with Children

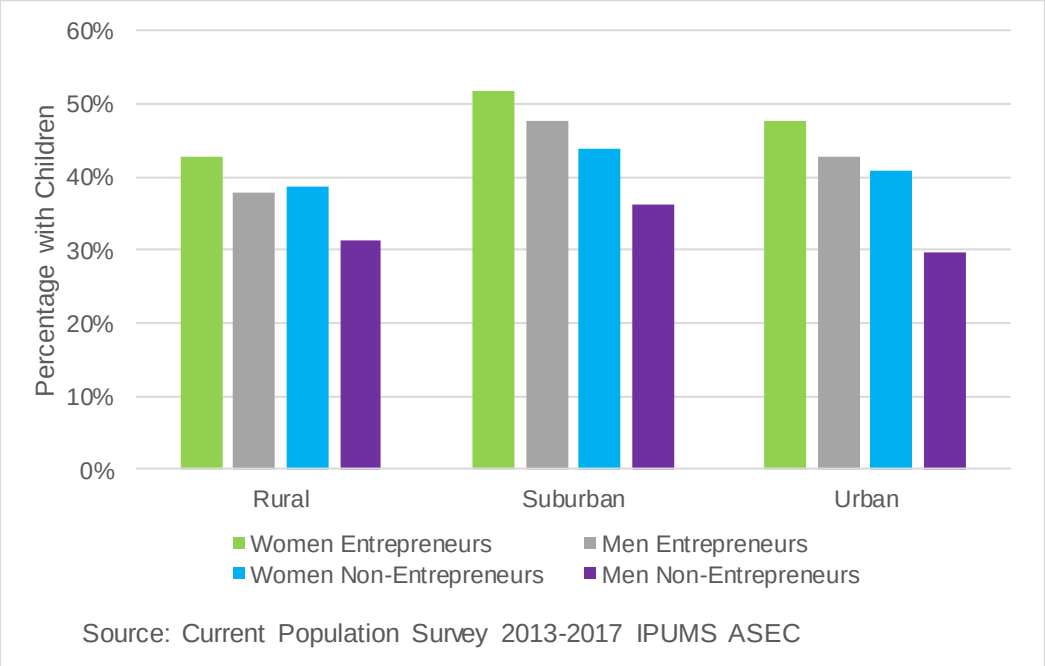


Figure 4-3 shows the percentage of rural women with children by age and entrepreneurship status. This figure represents only women who have children living in their household, rather than women who have ever had children. As such, it provides information about the role of children in the home, as opposed to adult children. The figure reveals that:

- As expected, more women aged 30-40 have children in the home than women in other categories, for both entrepreneurs and non-entrepreneurs.

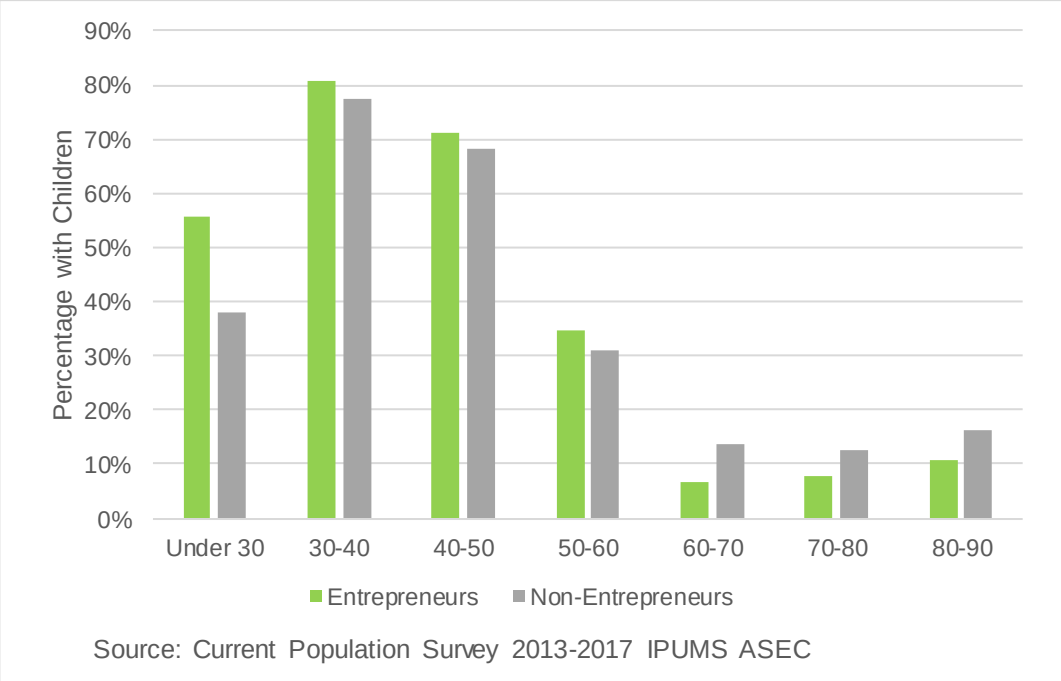
- For rural women under age 30, a higher share of entrepreneurs have children in the household than non-entrepreneurs.

[33] Premier Quantitative Consulting, Inc. 2017. "Necessity as a Driver of Women's Entrepreneurship." *National Women's Business Council.* https://www.nwbc.gov/2017/10/11/necessity-as-a-driver-of-womens-entrepreneurship-her-stories/

- The differences in the presence of children based on entrepreneurship status are relatively small beyond age 30, although more entrepreneurs continue to have children in the household until the age 60-70 category.

These results do not specify whether women with children are more likely to pursue entrepreneurship, or women entrepreneurs are more likely to have children, or both. It is possible that for women under 30 with young children, entrepreneurship enables the flexibility to manage work and childcare that traditional employment may not, particularly early in a career.[34] On the other hand, women under 30 without children may associate their child-free status as lower risk when starting a business because they do not have child-related obligations.

Figure 4-3
Rural Women with Children in the Home by Age and Entrepreneurship Status



Past work has shown that rural populations tend to have lower overall educational attainment levels than urban populations. Analysis of data using all four definitions shows this trend, although the analysis using the ACS rural state definition indicates that the most rural states have a lower share of the population that didn't complete high school than less rural states do. Figure 4-4 below displays the relationship between education and population size, where the share of the population with a bachelor's degree or higher increases as population size increases. Findings of note include:

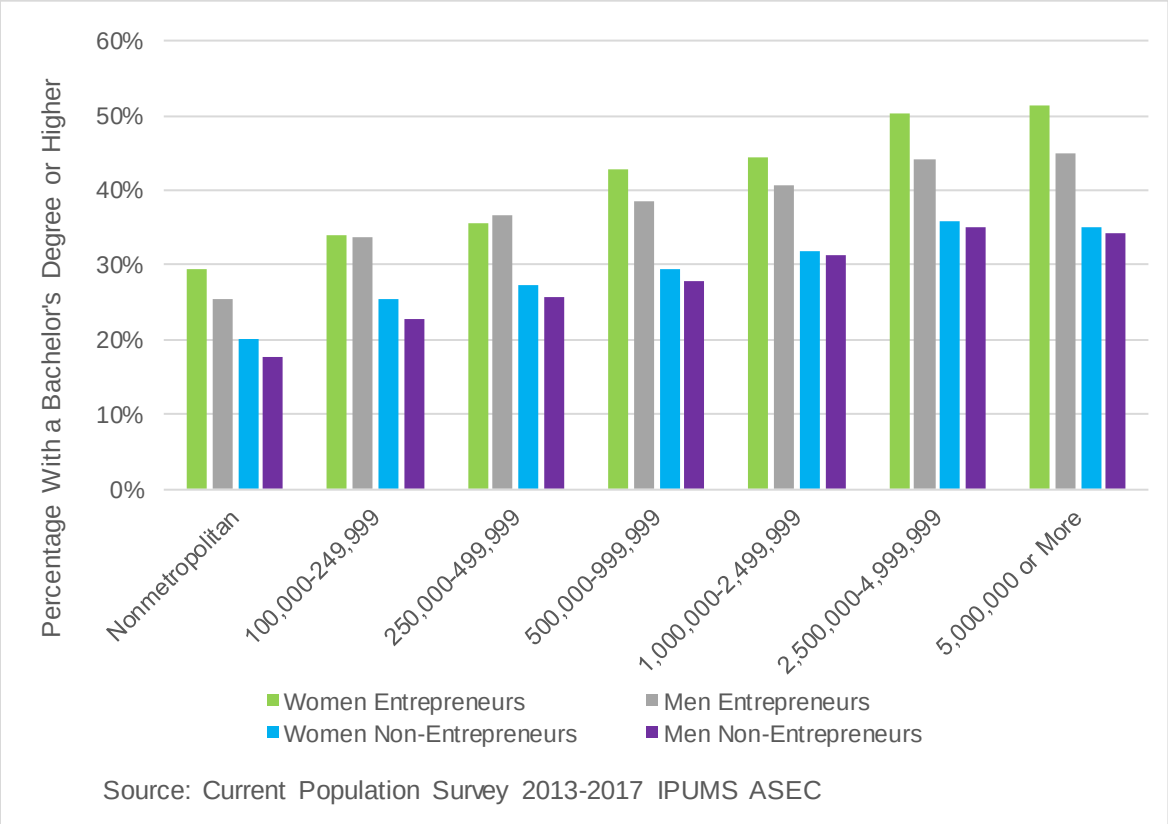
[34] Premier Quantitative Consulting, Inc. 2017. "Necessity as a Driver of Women's Entrepreneurship." *National Women's Business Council.* https://www.nwbc.gov/2017/10/11/necessity-as-a-driver-of-womens-entrepreneurship-her-stories/

- Entrepreneurs, both women and men, are more likely to have a bachelor's degree than non-entrepreneurs, regardless of population size.

- Women, both entrepreneurs and non-entrepreneurs, are more likely to have bachelor's degrees than men.

In almost every population category, including rural, women entrepreneurs are more likely to have bachelor's degrees than any other demographic compared. Education can influence many aspects of an individual's career including income, industry, and occupation. These findings have potential implications for policymakers, including the tailoring of resources provided at organizations such as women's business centers. As an example, these organizations may offer startup classes to assist prospective women entrepreneurs in filling educational gaps as business preparation. This may enhance the businesses started, which in turn, may influence the financial rewards associated with entrepreneurship for that woman.

Figure 4-4
Percentage of Respondents with a Bachelor's Degree or Higher



Industry and Occupation

Table 4-2 below includes the top ten industries for women entrepreneurs in rural and non-rural locations. The table reveals that women entrepreneurs tend to concentrate in certain industries regardless of geography. These include child care, beauty salons,

services to buildings and dwellings, real estate, and restaurants and food services. Other industries, however, are unique to certain geographies. Unsurprisingly, in rural areas, animal production and crop production are the second and fourth most common industries, respectively, but are not in the top ten for non-rural women entrepreneurs. These results make sense in the context of the educational attainment results from the previous figure, as the industries specific to suburban and urban women entrepreneurs are more likely to require a bachelor's degree or higher than some of the rural-specific industries or those that appear in all categories.

Table 4-2
Top 10 Industries for Women Entrepreneurs by Rurality

Women Entrepreneurs

	Percentage
Rural	
Child day care service	9.22%
Animal Production	8.45%
Beauty salons	7.25%
Crop production	6.15%
Services to buildings and dwellings	5.08%
Real estate	3.96%
Construction	3.52%
Restaurants and other food services	2.84%
Nail salons and other personal care services	2.17%
Independent and Performing Arts, Spectator Sports and Related	2.13%
Non-Rural	
Child day care service	7.31%
Real estate	5.96%
Beauty salons	5.79%
Services to buildings and dwellings	5.59%
Management, scientific, and technical consulting services	4.33%
Independent and Performing Arts, Spectator Sports and Related	3.72%
Construction	3.47%
Other schools, instruction, and educational services	3.34%
Restaurants and other food services	3.01%
Nail salons and other personal care services	2.87%

Source: Current Population Survey 2013-2017 IPUMS ASEC

Occupations can differ considerably within a particular industry. Analysis of rural entrepreneurs' top occupations by gender for those who did not complete high school and those with a bachelor's degree or higher indicates that education may influence the occupations of rural entrepreneurs, although the impact does not appear to be the same for women and men. Table 4-3 shows the top ten occupations for rural women and men

entrepreneurs separated by highest education level attained. As shown, five of the top ten occupations for rural women entrepreneurs are the same regardless of education level. This contrasts the trend for rural men entrepreneurs, where just two of the top ten occupations for rural men entrepreneurs are the same across education levels.

Table 4-3
Top 10 Occupations for Rural Women and Men Entrepreneurs by Education Level

Women Rural Entrepreneurs	Men Rural Entrepreneurs
No High School Diploma	
Farmers, ranchers, and other agricultural managers	Farmers, ranchers, and other agricultural managers
First-line supervisors/managers of retail sales workers	Drivers/sales workers and truck drivers
Maids and housekeeping cleaners	Managers, all other
Child care workers	Carpenters
Nursking, psychiatric, and home health aides	Grounds maintenance workers
Managers, all other	Construction laborers
Door-to-door sales workers, street vendors, and related	Automotive service technicians and mechanics
Bookkeeping, accounting, and auditing clerks	Construction managers
Shipping, receiving, and traffic clerks	Food service managers
Food preparation workers	First-line supervisors/managers of construction/extraction
Bachelors Degree	
Farmers, ranchers, and other agricultural managers	Farmers, ranchers, and other agricultural managers
Managers, all other	Managers, all other
First-line supervisors/managers of retail sales workers	First-line supervisors/managers of retail sales workers
Child care workers	Lawyers, judges, magistrates, and other judicial workers
Bookkeeping, accounting, and auditing clerks	Physicians and surgeons
Other teachers and instructors	Construction managers
Counselors	Management analysts
Lawyers, judges, magistrates, and other judicial workers	Chief executives
Writers and authors	Insurance sales agents
Property, real estate, and community association managers	First-line supervisors/managers of non-retail sales workers

Source: Current Population Survey 2013-2017 IPUMS ASEC

Multiple potential reasons for this gender difference exist, including the field of study associated with women's and men's bachelor's degrees, as well as time constraints and cultural norms. Historically, certain occupations were considered appropriate for men or women exclusively, such as construction laborers and child care workers, respectively. While today's labor force is more diverse in terms of gender than those of the past, socio-cultural norms and women's continued prominent role in childrearing can and do influence the types of businesses that women and men start.[35]

Additionally, the top occupations for women and men entrepreneurs with bachelor's degrees exhibit greater similarities across gender compared to the

[35] Premier Quantitative Consulting, Inc. 2019. "An Investigation of Women Business Owners, Industry Concentration, and Family Composition." *Small Business Administration Office of Advocacy.* Forthcoming.

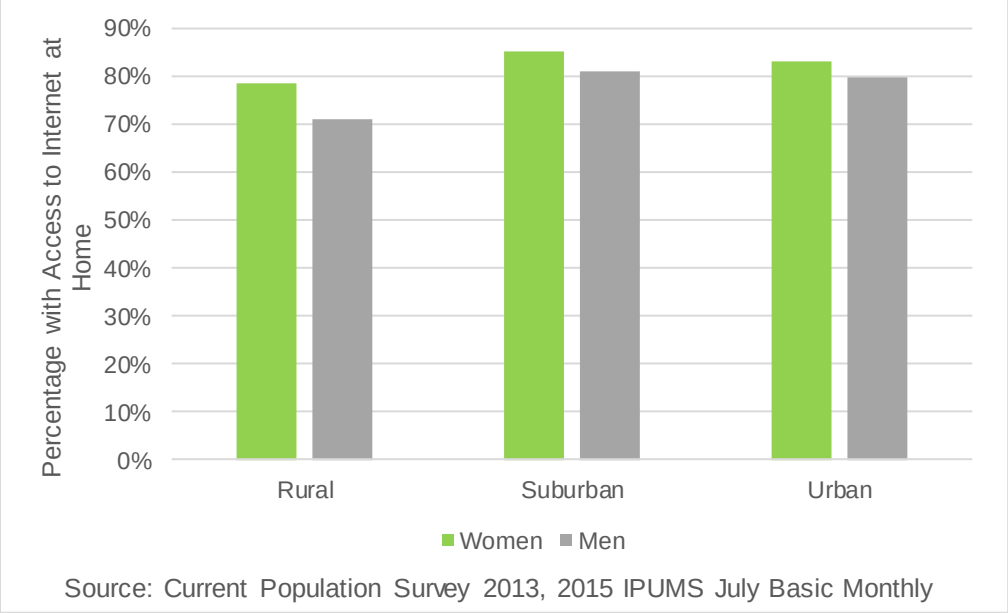
occupations of women and men entrepreneurs with lower levels of educational attainment. Even among women and men in occupations requiring bachelor's degrees, men's occupations tend to be higher-earning than women's. However, despite the similarities in top occupations, rural women entrepreneurs with bachelor's degrees are much less concentrated within those occupations. While 66% of rural women entrepreneurs without a high school diploma work in one of the top ten occupations, only 44% of those with bachelor's degrees do. Work to understand *why* occupational concentration differs by education and geography may provide policymakers with important information about the needs of rural women entrepreneurs.

Resources and Technology

The Computer and Internet Use Supplement to the CPS contains information about access to technology for entrepreneurs. Businesses increasingly employ both telephone and broadband internet in their regular operations. In the last two decades, new completely internet-based industries have emerged. The background section indicates that rural areas may suffer from lack of reliable broadband internet access. This, in turn, may negatively influence the success of rural-owned businesses as well as limit the industries in which entrepreneurs may participate. Figure 4-5 shows the percentage of women and men entrepreneurs with internet access in their homes. As shown, at just over 70 percent, rural men entrepreneurs are the least likely group to have internet access at home. Among women entrepreneurs, rural women are the least likely to have internet access using the rural/suburban/urban definition. Suburban women entrepreneurs are the most likely population to have internet access. Internet access can be an important conduit to entrepreneurship and job creation. As an example of internet access as a catalyst for economic growth, businesses selling on Etsy, an online user sales platform that is approximately 87 percent women-owned businesses, generated over $5 billion in total economic output in 2018.[36] With this platform, geography and rurality are no longer challenges to sales for creative micro-entrepreneurs.

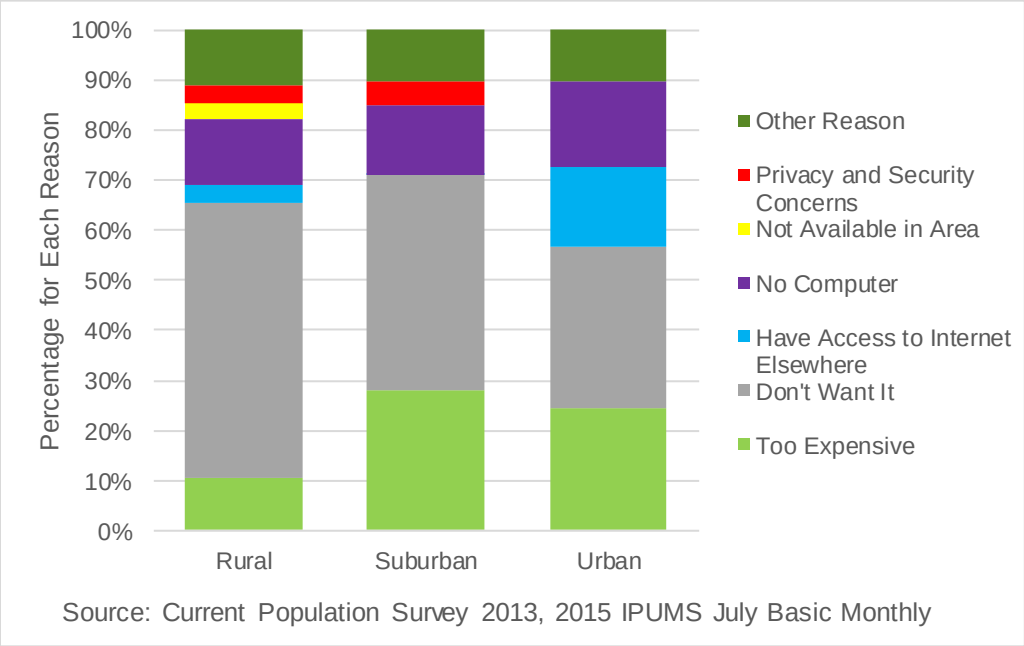
[36] "Economic Impact of U.S. Etsy Sellers." Etsy. February 27, 2019 update. https://dashboards.mysidewalk.com/etsy-economic-impact-1532038450/home

Figure 4-5
Percentage of Entrepreneurs with Internet Access by Gender and Rurality



The CPS asks respondents *why* they do not have internet access at home. Figure 4-6 presents the reasons for lack of broadband internet access for women entrepreneurs by rurality. As shown, cost is less of an issue in rural communities than suburban and urban ones. However, rural areas are the only regions where "not available in area" was selected. Surprising is the number of rural women entrepreneurs without a computer, approximately 13 percent. Also interesting is that the most common reason cited by rural women entrepreneurs was "don't want it." While this was the most common reason across geographies, the percentage of rural entrepreneurs who did not want internet access was higher than both suburban and urban entrepreneurs. Although "not available" was a choice for why the entrepreneur had no internet access, the incidence of rural women entrepreneurs facing this challenge is small. While multiple factors influence the decision to utilize the internet in a business setting, the role of internet use in business earnings and success requires additional research.

Figure 4-6
Reasons for No Internet Access



Source: Current Population Survey 2013, 2015 IPUMS July Basic Monthly

Income and Poverty

One potential challenge facing rural women entrepreneurs is poverty and low-income status. In fact, data from the USDA indicate that poverty is more prevalent in non-metro areas.[37] Figure 4-7 shows the average total income for entrepreneurs by gender and state rurality.[38] As shown, as states exhibit a higher percentage of rurality based on our definition, the average total income for women entrepreneurs declines from nearly $40,000 per year in more urban areas to just over $30,000 per year in rural areas. This trend also exists for women non-entrepreneurs, reflecting lower earnings in rural states overall. Cost of living is an important consideration in this analysis as lower wages in rural areas are partially offset by lower cost of living.[39] Further, women entrepreneurs earn less than men entrepreneurs across rural definitions. While women non-entrepreneurs earn less than men non-entrepreneurs across the board, the earnings difference between women entrepreneurs and men entrepreneurs is greater in more rural areas. Additionally, this finding appears to be entrepreneurship-specific as the earnings difference for men and women non-entrepreneurs is significantly less than that for entrepreneurs. Analyses using the population size and rural/suburban/urban definition confirm these findings. This raises important questions about the *types* of businesses

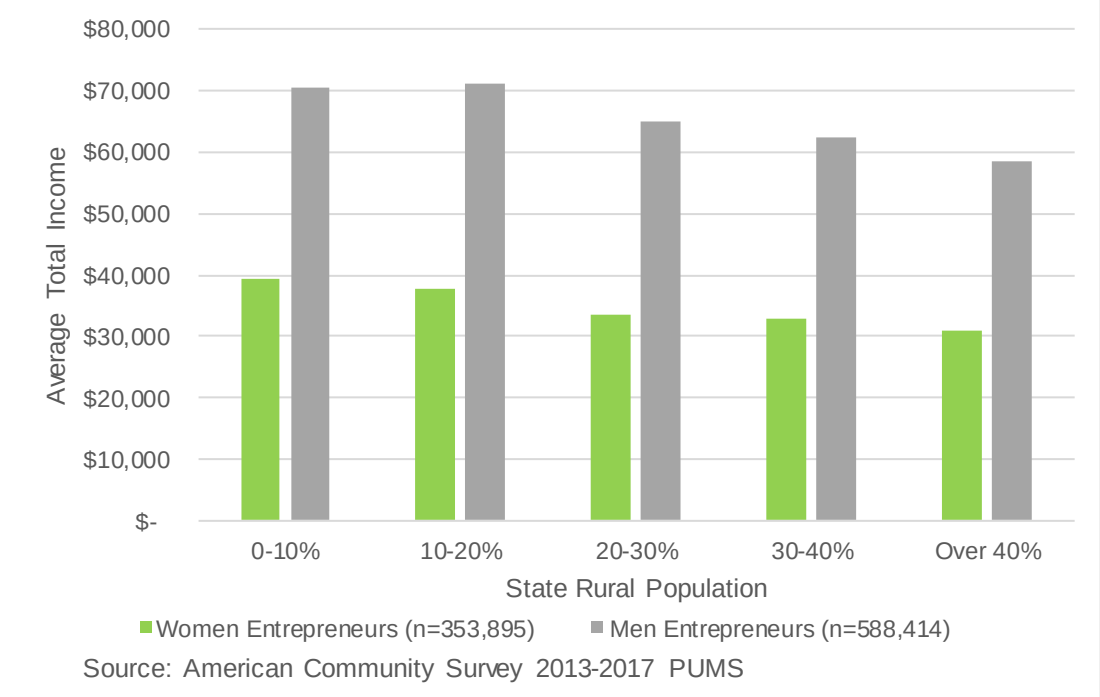
[37] For more information, please see https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/#historic

[38] It is important to note that entrepreneurship and income are related, as entrepreneurship is an income-generating activity.

[39] For more information about cost of living and rural and urban differences, please see https://www.pewresearch.org/fact-tank/2016/04/07/cost-of-living-disparities-within-states-complicate-minimum-wage-debate/

that rural women operate, as well as what policies and resources may enhance their economic power.

Figure 4-7
Average Total Income of Entrepreneurs by Gender and State Rurality



To probe this relationship further, Table 4-4 contains the average income for women and men entrepreneurs using the rural/non-rural definition, controlling for time worked.[40] The analysis separates entrepreneurs by both the number of weeks worked per year as well as the number of hours worked per week. This provides a more reliable comparison, understanding that women are more likely to engage in part-time employment.[41] We also examined the earnings differential for women and men rural entrepreneurs in various industry categories. Items of note include:

- Even controlling for the number of weeks worked per year and hours worked per week, women entrepreneurs earn less than men entrepreneurs in rural and non-rural locations.

- Women entrepreneurs in rural areas earn less than those in both suburban and urban areas, controlling for weeks and hours worked per year.

- Among rural entrepreneurs who work full time (40+ weeks per year and 30+ hours per year), men earn more than women in almost all industry categories. However, the gender differential in income varies considerably by industry category. For

[40] All differences in Table 4-3 are statistically significant at the 1 percent level.
[41] For more information, please see https://www.pewsocialtrends.org/2013/12/11/on-pay-gap-millennial-women-near-parity-for-now/sdt-gender-and-work-12-2013-1-05/

example, men earn more than 50 percent more than women in the "education, training, and library" industry category but less than 5 percent more in the "arts, design, entertainment, sports, and media" industry category.

Table 4-4
Average Income for Entrepreneurs by Gender, Rurality, and Time Worked

Weeks Worked/Year

	Rural	Non-Rural
40+ Weeks/Year		
Women	$ 39,082.22	$ 50,326.99
Men	$ 65,383.47	$ 85,552.26
Difference	$ 26,301.25	$ 35,225.27
Sample Size	11,054	29,004

Hours Worked/Week

	Rural	Non-Rural
30+ Hours/Week		
Women	$ 36,963.13	$ 49,580.85
Men	$ 60,987.61	$ 80,552.35
Difference	$ 24,024.48	$ 30,971.50
Sample Size	11,085	28,574

Source: Current Population Survey 2013-2017 IPUMS ASEC

Multiple factors may influence the income generated by a particular entrepreneur, including education, industry, and socio-cultural variables, such as marriage and children. While causal information cannot be gleaned from the present analysis, the results presented highlight several questions to explore via additional research. This includes:

- What is the effect of child-rearing and having children in the home on women entrepreneurs' businesses? How is this different for rural and non-rural women?

- How does use of technology influence entrepreneurial earnings among women? Is the effect different for rural and non-rural women?

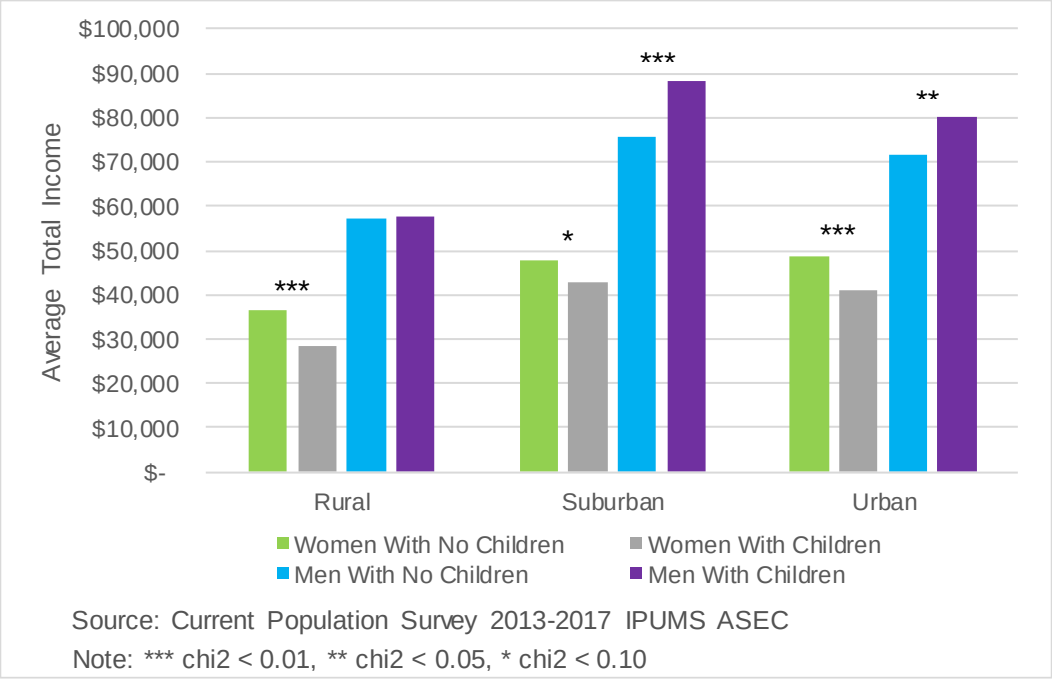
Additional research is necessary to develop a greater understanding of *why* income differentials exist for women and men entrepreneurs.

Figure 4-8[42] presents the average total income for entrepreneurs by gender and child status using the rural/suburban/urban definition. As shown, women entrepreneurs without children earn more than women entrepreneurs with children. The opposite is true

[42] Asterisks indicate statistically significant differences at the 1% level (***), 5% level (**), and 10% level (*).

of men. That is, men entrepreneurs with children earn more than men entrepreneurs without children. Further, among rural women, the difference in income for children/no children is larger. In rural areas, women entrepreneurs with children earn approximately 25 percent less than women entrepreneurs without children. In suburban and urban areas, this difference is much less.[43] While the analysis presented here establishes that differences exist, it does not examine *why* we observe such differences. Future study should examine the disproportionate role that women play in childcare and childrearing as a potential explanatory factor, particularly given the differences observed in rural areas.

Figure 4-8
Average Total Income for Entrepreneurs by Gender, Child Status in the Home, and Rurality

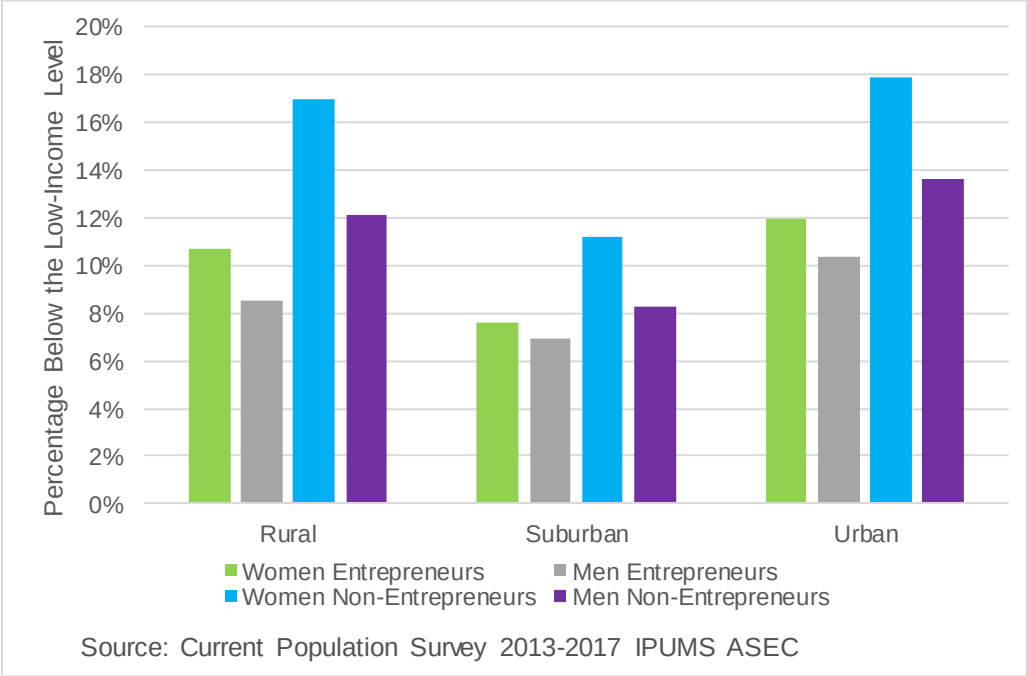


Source: Current Population Survey 2013-2017 IPUMS ASEC
Note: *** chi2 < 0.01, ** chi2 < 0.05, * chi2 < 0.10

Figure 4-9 contains the distribution of women and men by entrepreneur status, rurality and whether these individuals were below an income threshold. As shown, the lowest incidence of low-income status occurs in suburban areas. Both urban and rural areas show larger shares of individuals classified as low income. Interestingly, women entrepreneurs in rural areas are less likely to be low income than women non-entrepreneurs in rural areas.[44]

[43] To ascertain the influence of age, we calculated the average age for each entrepreneurship and child in home status category for rural, suburban, and urban areas. Women entrepreneurs with no children in the home tended to be older than women entrepreneurs with children in the home. The same was true of men entrepreneurs. However, there was no significant difference in age across women and men entrepreneurs without children in the home. For gender and child status categories, age did not vary significantly across rural, suburban, or urban categories.
[44] This analysis utilizes the individual as the point of analysis.

Figure 4-9
Low-Income Distribution by Gender and Rurality



Closely related to low income status is usage of the Supplemental Nutrition Assistance Program (SNAP) and other government assistance programs.[45] SNAP usage and eligibility are additional measures of financial income and wellbeing. The SNAP program, formerly known as “food stamps," is administered jointly by the U.S. Department of Agriculture (USDA) and state agencies.[46] SNAP is a component of the U.S. social safety net and has multiple policy angles relevant to entrepreneurship. Prior research has examined the effect of the SNAP program on entrepreneurship rates, finding that increased SNAP eligibility in the 2000s spurred new business formation and increased labor supply.[47] For the purposes of this research, we examine the prevalence of SNAP recipiency and eligibility among women entrepreneurs and non-entrepreneurs in varying levels of rurality.

The CPS provides information on SNAP usage by respondents. However, research by the U.S. Census Bureau and others indicates that SNAP recipients underreport receiving SNAP when responding to the CPS.[48] Within the CPS, on average, up to 51 percent of actual SNAP recipients do not report receiving assistance.[49] For this

[45] For the definitions used in this report, we focus on those individuals that actually report receiving SNAP benefits and those that may be eligible based on the federal income guidelines.
[46] We recognize that SNAP is a federal program administered at the state level and as such, requirements may vary by state.
[47] Olds, Gareth. “Food Stamp Entrepreneurs.” Harvard Business School. Working Paper 16-143. May 2016.
[48] Fox, Liana, Misty L. Heggeness, Jose Pacas, Kathryn Stevens. “Precision in Measurement: Using SNAP Administrative Records to Evaluate Poverty Measurement.” U.S. Census Bureau. October 13, 2017. file:///C:/Users/ejbro/Desktop/appam2017_snap_v9.pdf
[49] Ibid

reason, we include two definitions and analyses to explore the relationship between SNAP recipiency or potential eligibility and entrepreneurship among women. The first analysis presents the share of women entrepreneurs and non-entrepreneurs who report receiving SNAP assistance within the CPS, understanding that this result may include non-reporting bias. To control for the non-reporting bias, the second analysis presents a proxy for the share of women entrepreneurs who are SNAP eligible within the CPS. To proxy the pool of women entrepreneurs that are eligible for SNAP, we utilized the gross income test as outlined by the USDA[50] to classify household incomes as well as those receiving Supplemental Security Income[51] (SSI) as potentially "SNAP eligible" or not.[52] This represents a "but for" analysis, where we identify the largest potential pool of SNAP eligible respondents and compare it to those that actually did report using SNAP.

Figure 4-10 below shows the share of women entrepreneurs and non-entrepreneurs that reported receiving SNAP within the CPS. Research shows that on average, rural communities rely on government benefits such as SNAP more than suburban/urban families.[53] The results in Figure 4-10 indicate that across geographies, women entrepreneurs are much less likely than women non-entrepreneurs to report relying on food stamps. The gap is particularly large in the least populated areas, where approximately 7 percent of women entrepreneurs report receiving SNAP compared to approximately 15 percent of women non-entrepreneurs.[54] While the finding is not unique to rural areas, the "food stamp entrepreneurship gap" increases as rurality increases.

[50] For more information, please see https://www.fns.usda.gov/snap/eligibility
[51] For more information, please see https://www.ssa.gov/ssi/text-other-ussi.htm
[52] While other requirements for SNAP exist, as well as those that vary by state, the aim of this analysis is to develop a basic SNAP "screening" gross income proxy within the CPS.
[53] For an example using American Community Survey data, please see https://www.ruralhealthweb.org/NRHA/media/Emerge_NRHA/PDFs/snap-and-rural-households.pdf
[54] To test the influence of unemployment on SNAP recipiency, we found that only 7.6 percent of SNAP recipients that reported to the CPS are unemployed.

Figure 4-10
Reported SNAP Usage by Women and Population Size

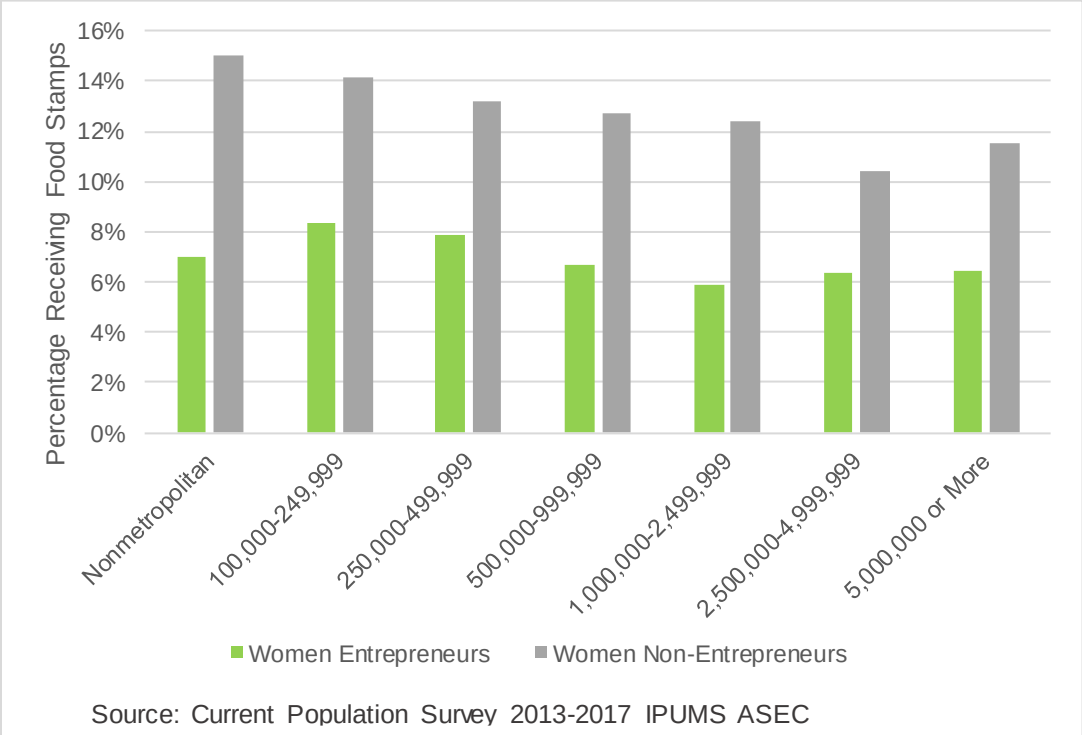
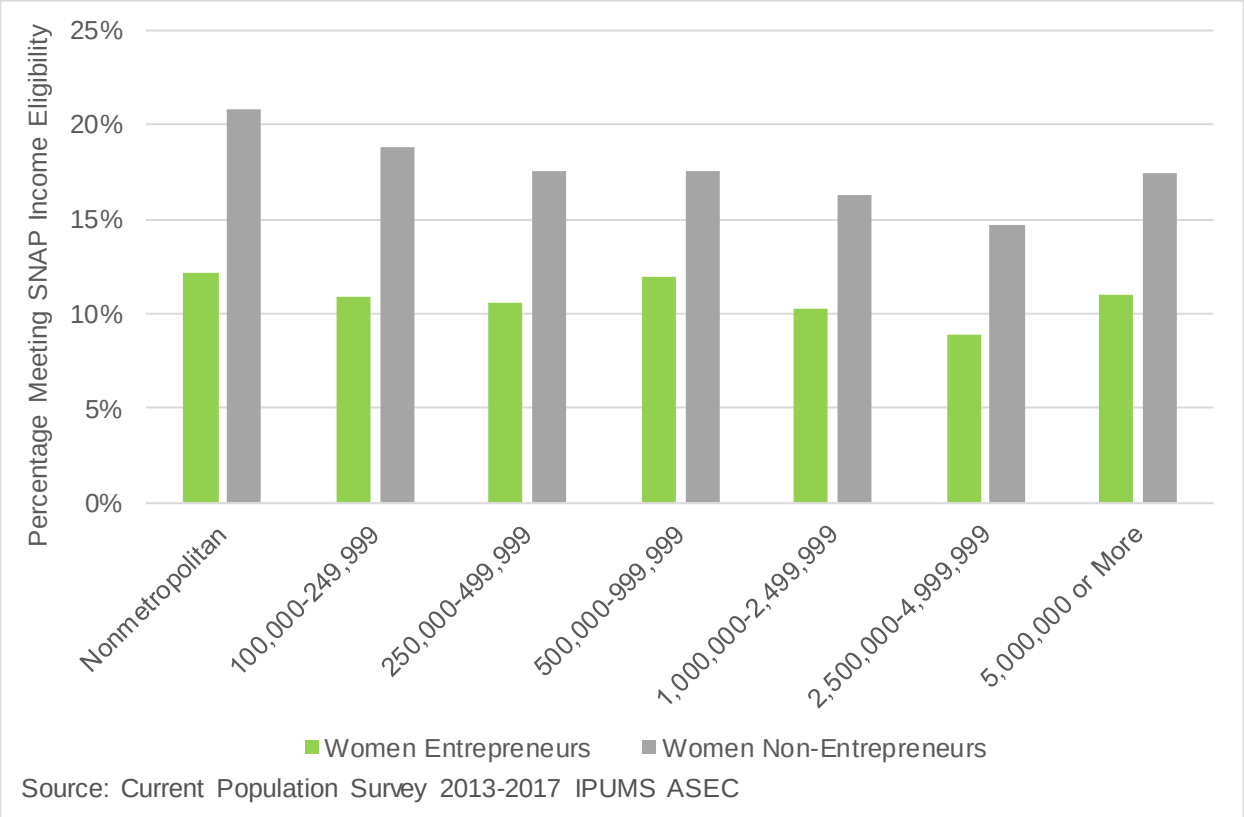


Figure 4-11 presents similar information to that in Figure 4-10, but instead proxies basic eligibility for SNAP assistance based on household income, instead of self-reported program use. In this way, it controls for reporting bias. The results in Figure 4-11 corroborate the general conclusions discussed above. First, the across geographies, women entrepreneurs are less likely than non-entrepreneurs to meet the basic income requirements for SNAP assistance. Second, the gap between entrepreneurs and non-entrepreneurs is greatest in nonmetropolitan, rural areas, substantiating the results above. The results from the two alternative views of low-income entrepreneurship as measured by SNAP recipiency or eligibility corroborate one another, as evidenced by similar gaps and trends. As such, the results in Figure 4-11 act as an important check on the reported SNAP recipiency rates examined in Figure 4-10, which are subject to CPS SNAP underreporting bias.

Figure 4-11
Proxy for SNAP Eligibility for Women by Population Size



Source: Current Population Survey 2013-2017 IPUMS ASEC

This section continues a discussion about entrepreneurship as an economic empowerment tool for women and what resources or assistance rural women may require to start businesses and develop associated financial independence. Prior work by Olds (2016) demonstrates that programs such as SNAP provide prospective business owners with little financial means the security necessary to start a business and assume the associated risk.[55] However, the study did not follow the entrepreneurs post-startup to ascertain the effect of entrepreneurship on their economic self-sufficiency long-term and need for benefit recipiency. Additional research is necessary to evaluate the relationship between entrepreneurship and SNAP assistance, including the potential government interventions that would promote sustainable entrepreneurship among women, increase economic agency, and simultaneously decrease reliance on government programs.

[55] Olds, Gareth. 2016. "Food Stamp Entrepreneurs." Working Paper 16-143, *Harvard Business School.*

5. Conclusions and Next Steps

The findings presented herein point to multiple avenues for further research as well as areas for policy and programmatic support exploration. Because entrepreneurship is central to rural economies, policies and programs designed to bolster economic power among women via entrepreneurship may be precursors to economic growth. However, many unknowns remain, including causal relationships between rural status and variables such as income, industry, resource access, and use of government programs. Key results of note include:

- ***Personal Dynamics.*** A high proportion, almost 75 percent, of rural women entrepreneurs are married. In comparison, using the same data, only about 55 percent of the population is married. As such, marriage may be an important factor in understanding the businesses started by rural women entrepreneurs as well as their priorities, motivations, and support networks.

- ***Entrepreneurial Industry and Occupation.*** Women entrepreneurs tend to concentrate in certain industries regardless of geography. These include child care, beauty salons, services to buildings and dwellings, real estate, and restaurants and food services. In rural areas, animal production and crop production are the second and fourth most common industries, respectively, but are not in the top ten industries for non-rural women entrepreneurs. Related to industry, occupations can differ considerably within a particular industry. Some of the top occupations for rural women entrepreneurs include farmers, ranchers, and other agricultural managers, child care workers, managers, maids and housekeeping cleaners, counselors, and other teachers and instructors.

- ***Internet Access and Use.*** Among women entrepreneurs, rural women are the least likely group to have internet access at home. However, nearly 80 percent of rural women entrepreneurs do have internet access. Among those rural women entrepreneurs without internet access, the most common reason cited by rural women entrepreneurs was “don’t want it.” While “not available” was a choice for why the entrepreneur had no internet access, the incidence of rural women entrepreneurs facing this challenge is small, at less than 5 percent of those without access.

- ***Income and Family.*** As states become more rural, the average total income for women entrepreneurs declines from nearly $40,000 per year in more urban areas to just over $30,000 per year in rural areas. There are gender differences as well with men entrepreneurs earning more than women entrepreneurs across geographies, even when controlling for time spent working. In addition, the earnings difference between women and men entrepreneurs is greater in more rural areas, a finding specific to entrepreneurship and not to workers overall. Finally, women entrepreneurs without children in the home earn more than women entrepreneurs with children in the home while the opposite is true of men. In rural areas, women entrepreneurs with children earn approximately 25 percent less than

women entrepreneurs without children, a difference that is smaller in suburban and urban areas.

- ***Poverty and SNAP Usage.*** Poverty is prevalent in rural areas. However, rural women entrepreneurs are less likely to be classified as low income than rural women who are not entrepreneurs. Closely related to income and poverty is usage and qualification for the Supplemental Nutrition Assistance Program (SNAP). Across geographies, wen entrepreneurs are much less likely than women non-entrepreneurs to report relying on SNAP assistance, a gap that is particularly large in the most rural areas where approximately 12 percent of women entrepreneurs meet the basic income threshold to qualify for SNAP, compared to over 21 percent of women non-entrepreneurs.

Examining the gender dynamics of rural entrepreneurship, this research serves as a springboard for the work and policy considerations of the National Women's Business Council. The research contributes to the exploration of differences among rural women and men entrepreneurs and rural women entrepreneurs and non-rural entrepreneurs. Using a univariate approach with two high-quality, survey-weighted datasets, this work contributes to further refining the definition of "rural" within the entrepreneurial context, as well as what additional work is necessary to develop policy and programmatic items that may spur economic growth. Encouraging and supporting women's entrepreneurship in rural areas may result in new venture creation, innovation, employment growth in rural areas, and an increase in economic self-sufficiency among rural populations.

Appendix A – Technical Definitions

Defining an entrepreneur is central to this research. The ACS PUMS data include information on the "Class of Worker" variable, which can provide information on entrepreneurial activity. Using this variable, entrepreneurs are individuals who identify one of the following categories 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

There are important differences between incorporated and unincorporated businesses, largely related to liability and structure. In incorporated businesses, the business is legally separate from the business owner. This contrasts unincorporated businesses, where the owner is personally responsible for the business results. Unincorporated businesses are typically organized as sole proprietorships or partnerships, versus S corporations, C corporations, or Limited Liability Companies (LLC), which typify incorporated businesses. While self-employment is not a perfect proxy for entrepreneurial activity, it is suitable to gather information about the demographic and personal characteristics of the business owners and is used by other researchers as a proxy for entrepreneurship.[56]

Table A-1 contains the breakdown of rurality for each state.

Table A-1
State Rurality Breakdown

State	Rural Percentage	State	Rural Percentage	State	Rural Percentage
DC	0.00%	Washington	15.60%	Tennessee	33.10%
California	4.90%	Delaware	17.10%	North Carolina	33.40%
New Jersey	5.30%	Oregon	18.60%	Oklahoma	33.40%
Nevada	5.30%	Pennsylvania	21.20%	Alaska	34.00%
Hawaii	7.50%	New Mexico	21.90%	Wyoming	35.10%
Massachusetts	8.00%	Ohio	21.90%	Iowa	35.70%
Florida	8.70%	Virginia	24.10%	North Dakota	39.40%
Rhode Island	9.30%	Georgia	24.40%	New Hampshire	39.90%
Utah	9.40%	Kansas	25.60%	Alabama	40.60%
Arizona	10.10%	Minnesota	26.30%	Kentucky	41.00%
Illinois	11.30%	Nebraska	26.30%	South Dakota	42.90%
Connecticut	11.90%	Louisiana	26.60%	Arkansas	43.40%
New York	11.90%	Indiana	27.30%	Montana	43.60%
Maryland	12.60%	Idaho	28.80%	Mississippi	50.30%
Michigan	12.80%	Missouri	29.30%	West Virginia	50.90%
Colorado	13.60%	Wisconsin	29.90%	Vermont	61.30%
Texas	15.00%	South Carolina	33.00%	Maine	61.60%

Source: US Census Bureau, American Community Survey. PQC Analysis.

[56] See Wilmoth, Daniel. "The Missing Millennial Entrepreneurs." *Small Business Administration, Office of Advocacy, Economic Research Services.* February 4, 2016. https://www.sba.gov/sites/default/files/advocacy/Millenial_IB.pdf

Like the ACS, the CPS contains information on “Class of Worker”. We define entrepreneurs as individuals within the CPS who identify one of the following as their primary employment activity:

- Self-employed, incorporated
- Self-employed, not incorporated

We created the three definitions of rurality from the CPS using the following methods:

- **Definition 1: Urban/Suburban/Rural.** This definition uses the CPS variable *METRO,* which indicates whether a survey respondent resided within a metropolitan or non-metropolitan area. For those that reside within a metropolitan area, the variable specifies whether the survey responded resided within the central city (urban) or elsewhere within the overall metropolitan area (suburban).
- **Definition 2: Area Population Size.** This definition uses the CPS variable *CBSASZ,* which includes multiple categories for the population size of the area in which a survey respondent resides. The categories are based on a “core-based statistical area” of metropolitan areas to include multiple levels of rurality. The categories include:
    - Population of 5,000,000 or more
    - Population of 2,500,000 to 4,999,999
    - Population of 1,000,000 to 2,499,999
    - Population of 500,000 to 999,999
    - Population of 250,000 to 499,999
    - Population of 100,000 to 249,999
    - Population of 99,999 or less
    - Nonmetropolitan (Rural)
- **Definition 3: Rural vs Non-Rural.** This definition uses a dichotomous variable created from the same CPS variable, CBSASZ, as above. This definition categorizes “nonmetropolitan” responses as rural and all others as non-rural.