

FINAL REPORT

ANALYSIS OF COHORTS OF BUSINESSES Women Entrepreneur

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Generative AI tools were utilized in the preparation of this report to assist with code debugging and language refinement. While AI helped streamline technical elements and enhance clarity of expression, all research methodology, data analysis, findings, and strategic recommendations represent the original work of the researcher.

Executive Summary

Since 2020, women-led ventures have grown significantly, reflecting shifting workplace priorities and a growing desire for autonomy. GoDaddy, as a primary enabler of digital entrepreneurship, has a vested interest in understanding the patterns, challenges, and opportunities facing women business owners.

We methodically analyzed GoDaddy's survey data from February 2023, August 2023, and February 2024, calculating business age by subtracting launch year from survey year to enable meaningful segmentation. Our analysis revealed the following key insights:

9667 Entreprenuers	Top startup capital range \$1001 - \$5,000
Most female entrepreneurs fall under the	Top Hours Worked Range
35-44 age category	1-10 hrs/week
Average Female Stress Levet	Top Marital Status
4.28	Married
(on a scale of 1–7) Gender Split 48% 52% ♂ Males vs. Females ♀	7.82 years
Majority female entrepreneurs are	
Graduates	

- Gender Representation Shift: Women now outnumber men in newer businesses (2-3 years: 950 women vs. 644 men), yet remain underrepresented in established ventures (10+ years: 971 women vs. 1,403 men).
- **Financial Stress Dominance:** Nearly 30% of women entrepreneurs cite financial strain as their primary stressor, followed by work-life balance challenges.
- Work-Hour Patterns: Most women entrepreneurs work 1-10 hours weekly, with significant variations across racial groups and marital statuses.
- Entrepreneurial Personas: Our analysis identified eight distinct segments, six financially stable (87%) and two financially stressed (13%)—with "The Full-Timer," "The Expert," "The Veteran," and "The Part-Timer" representing the majority.

Based on these findings, we recommend:

- Develop tailored financial empowerment solutions including tiered pricing models and micro-lending partnerships.
- Create digital presence optimization tools with industry-specific templates for women-dominated sectors.
- Implement operational efficiency tools with stress-sensitive interfaces and service pause options.
- Establish community and mentorship ecosystems connecting veteran entrepreneurs with newcomers.
- Design personalized growth pathways based on business maturity and entrepreneur education level.

Business Problem & Objective

Women entrepreneurs are shaping the landscape of microbusiness in the U.S., with a notable surge in new business formation between 2020 and 2024. As evidenced in our preliminary cohort analysis, women now outnumber men in new business ownership within the 2–3 year range (950 women vs. 644 men), signaling a shift driven by the pandemic, flexible work trends, and a growing desire for autonomy. However, this growth masks significant underlying challenges, particularly in terms of financial stress, time constraints, and business scalability.

GoDaddy survey data shows that women entrepreneurs are underrepresented in older, established businesses (971 vs. 1,403 men in 10+ year businesses), often juggle part-time work models, and face inconsistent revenue patterns. These signals point to higher exposure to financial precarity. Additionally, our early-stage analysis suggests that marital status intersects with gender to amplify work-hour volatility, a proxy for time poverty and operational strain. These findings align with broader literature that shows women entrepreneurs tend to be overburdened with unpaid labor and disproportionately impacted by market shocks.

This project aims to conduct a deep, data-driven cohort analysis of women entrepreneurs, with an explicit focus on financial stressors. Our objectives are to:

- Segment women entrepreneurs by business age, revenue, work hours, and financial pressure indicators.
- Quantify differences in financial stress patterns between women and other gender groups using GoDaddy's February 2023, August 2023, and February 2024 survey data.
- Surface actionable personas that represent key subgroups of women entrepreneurs.
- Recommend specific service innovations for GoDaddy tailored to women entrepreneurs navigating capital and time scarcity and stress.

By aligning GoDaddy's offerings with the lived realities of women founders, we aim to help reduce financial stress, improve business resilience, and foster inclusive entrepreneurial growth.

Data Sources & Preparation

For our analysis, we selected three survey datasets that were most relevant to our cohort-based research questions: **February 2024**, **August 2023**, and **February 2023**. These surveys provided the most consistent and comparable variables needed to explore patterns across time.

We merged key columns from each dataset, including:

Business characteristics: First investment source, total number of employees, first sale location, business launch year, startup capital, and business age – that we calculated by subtracting the launch year from the survey year

Demographics: Gender, race, Hispanic origin, marital status, education level, household income, and owner's age range.

Work and stress indicators: Hours worked per week, stress level (on a scale of 1–7), and a binary variable indicating whether financial stress was selected as the top stressor (1 for yes, 0 for no).

Location data: State and zip code.

Survey year for reference and cohort grouping.

We created a classification for business type: solo entrepreneurs (if just one employee) and entrepreneurs with employees (more than one employee), based on the total number of employees reported.

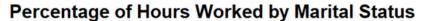
For handling missing data, we followed the coding convention provided in the datasets: (-7) for missing, (-8) for "Don't know" and (-9) for "Prefer not to answer."

Additionally, since we merged multiple surveys, not all questions appeared in every survey. In such cases, if a variable was present in one but absent in another, the missing values were marked as "Unknown."

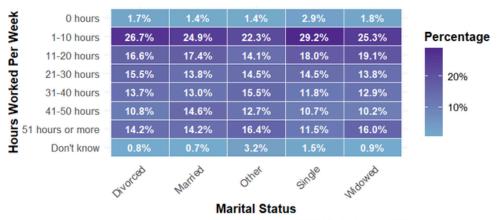
This structured approach ensured consistency and completeness across the merged dataset while preserving the integrity of the original responses.

Exploratory Data Analysis

Our analysis began with a comprehensive EDA. We first examined various cohorts defined by both demographic and non-demographic variables to understand patterns in entrepreneurial behavior. From this broad investigation, we identified hours worked per week and business age as **key segmentation variables** due to their strong association with stress levels.



Proportion of weekly working hours within each marital status category



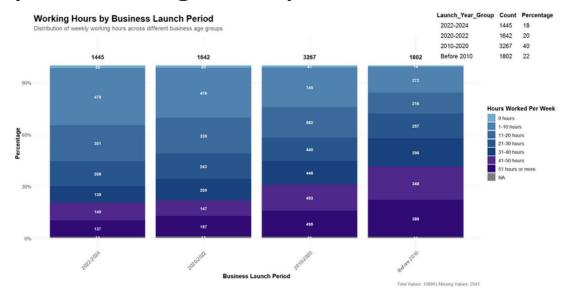
Total Values: 10699 | Missing Values: 1048

Across all categories, the 1-10 hours range shows the highest concentration, particularly among Singles (29.2%), Divorced (26.7%), and Widowed (25.3%) individuals. This suggests significant participation in part-time work, possibly representing side jobs, gig economy participation, or semi-retirement arrangements depending on life stage.

In contrast, extensive working hours (51+) are most prevalent among those in the "Other" marital status category (16.4%), followed by Married and Divorced individuals (both at 14.2%). This pattern may indicate greater financial responsibilities or career demands among these groups. The standard work week ranges (21-40 hours) demonstrate more uniform distribution across all marital statuses, suggesting that conventional employment patterns transcend relationship status.

At the extremes, Singles report the highest percentage of zero working hours (2.9%), while Widowed and Married individuals show slightly elevated percentages in both the zero hours and "Don't Know" categories. These variations likely reflect different life stages—with Singles possibly including students or job-seekers and Widowed individuals including more retirees.

Analysis of Working Hours by Business Launch Period



Businesses established during the 2010-2020 period represent the largest segment (40% of the sample), indicating a significant entrepreneurial surge during this decade.

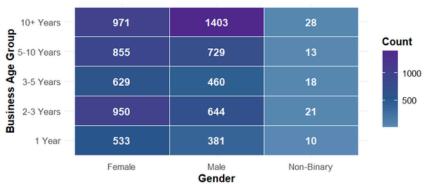
Most notably, newer businesses (2022-2024) show a greater concentration of hours in the 1-10 hour range (478 businesses), suggesting a predominance of side hustles or part-time ventures. In contrast, businesses established before 2010 demonstrate the highest proportion of entrepreneurs working 41-50 hours and 51+ hours, indicating more traditional full-time entrepreneurship approaches. An interesting progression where businesses from 2010-2020 show increasingly balanced distributions across hour categories, with substantial representation in both the 1-10 hour range (745) and higher-intensity categories. This suggests a transition period where both traditional and emerging business models coexisted.

Cohort Formation

Building upon our initial cohort analysis, we extended our exploration by intersecting business age with gender, aiming to uncover structural patterns in entrepreneurial commitment and potential stress exposure.

Business Age Distribution by Gender

Heatmap showing the count of businesses by age group and owner gender

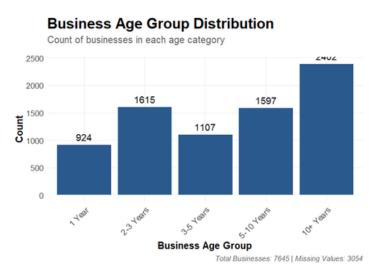


Total Values: 10699 | Missing Values: 3054

We identified hours worked per week and business age as key segmentation variables due to their strong association with business effort and potentially with stress or success levels.

Distribution of Business Age by Gender:

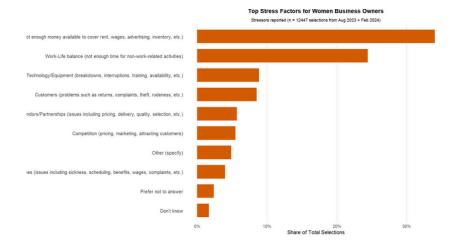
• Younger businesses (1–3 years) show a notably high representation of female owners.



- This gender skew reverses in older business segments: for ventures older than 10 years, males significantly outnumber females (1403 vs. 971).
- The non-binary category, while smaller in absolute count, appears consistently across age groups.

STRESS FACTORS AMONG FEMALE OWNERS

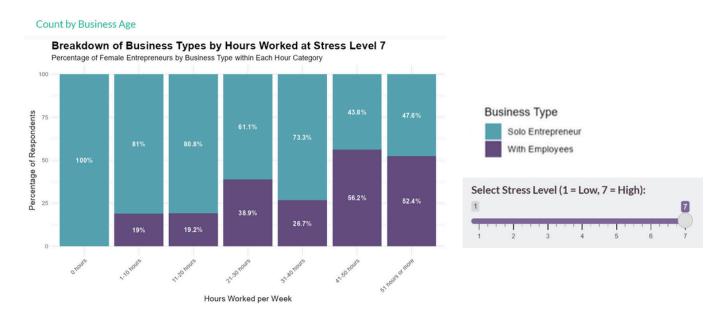
Following the identification of a surge in female-led new businesses, our next step was to understand the **specific stressors** impacting this growing cohort. We analyzed stress factor responses specifically reported by **women business owners from the August 2023 and February 2024 GoDaddy surveys.**



The top stressor by far is financial strain, cited in nearly 30% of all responses. This includes issues like covering rent,

- · wages, and inventory areas pressing for early-stage businesses with limited capital reserves.
- Work-life balance emerges as the second-largest challenge, reported by a significant portion of
 respondents. This highlights the dual burden many women face—juggling entrepreneurial duties
 with caregiving and personal responsibilities.

From Solo to Team: What Stress Levels Reveal About Women's Entrepreneurial Journeys



This bar charts explores how female entrepreneurs (specifically those under 25) distribute between being solo entrepreneurs versus managing employees, depending on how many hours they work per week and how stressed they feel (on a scale from 1 to 7). The idea is to see if stress levels relate to whether women are running their businesses alone or with a team, and how that changes as their work hours increase.

At stress level 1, most women are solo entrepreneurs—even those working long hours. This suggests that being solo might help keep stress low by giving them more control and flexibility.

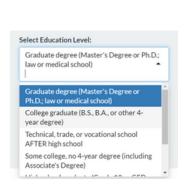
By stress level 4, there's a noticeable shift. As work hours increase, more women start hiring employees—especially beyond 30 hours a week. For example, in the 41–50 hour range, around 62% have teams, which might be linked to rising stress.

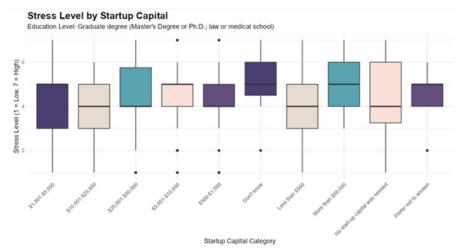
At stress level 7, the highest one, the majority of women working over 40 hours have employees. Managing others while running a growing business likely adds pressure.

To support them, things like leadership training, mentorship, and tips on delegation and work-life balance could go a long way in helping reduce stress without slowing their growth.

8

How Education and Capital Shape Entrepreneurial Stress Among Women





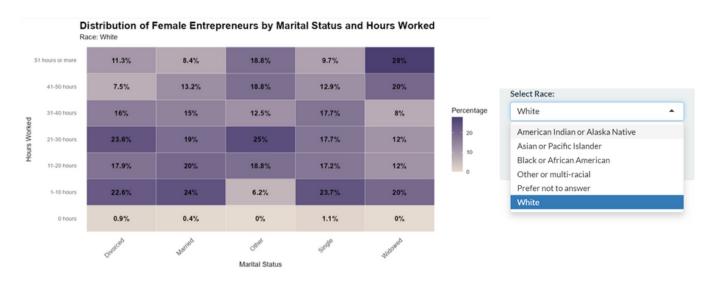
This boxplot explores how startup capital levels relate to stress among female entrepreneurs, with the results filtered by education level. Each box represents the spread of stress responses within a capital range, helping us see not just the average, but also how variable or concentrated stress levels are. The graph changes based on the education filter, offering a nuanced view of how financial inputs and education intersect with entrepreneurial stress.

For graduate degree holders, stress remains moderately high across all capital levels, but those with no capital or who didn't know their needs showed the widest range and highest median stress. This might reflect the pressure of high expectations despite unclear funding plans. For bachelor's degree holders, stress peaks around \$25,000 and above, suggesting that larger investments might bring more pressure to succeed. Associate degree holders display consistent, moderate stress across capital brackets, which might point to more cautious or steady business approaches. Those with some college but no degree show spikes in stress with larger capital amounts and uncertainty, highlighting that high investments without strong planning could amplify pressure. Lastly, for those with a high school diploma or less, stress is highest when startup capital is minimal or not needed, pointing toward survival stress over growth-related stress.

Recommendation: Financial stress seems tied to both capital amount and clarity. Support programs should offer capital planning workshops and tailored mentorship, especially for women without a formal financial background. Empowering them to structure their capital strategies can reduce uncertainty and boost confidence, no matter their education level.

9

How do race and marital status intersect to influence the working hours of female entrepreneurs?

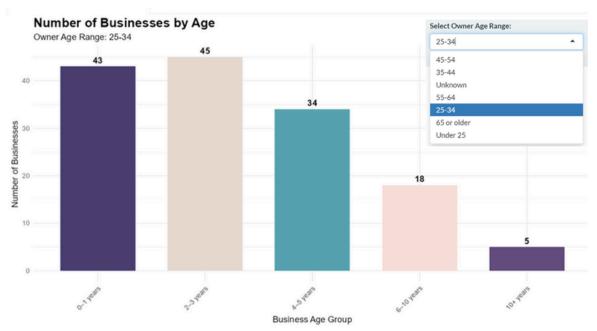


This heatmap highlights how female entrepreneurs' weekly work hours differ across marital statuses within each racial group. Darker cells indicate a higher percentage of women working that number of hours. The dropdown lets users switch between racial groups to explore how time spent on business activities varies by both race and marital status.

Some patterns stand out. Among Black or African American women, many—especially those who are single, divorced, or in the "other" category—are working just 1–10 hours a week, suggesting they may be balancing other responsibilities or facing barriers to full-time work. White women show a broader spread, with divorced and married women commonly working 21–40 hours, and nearly 28% of widowed women working 51+ hours, possibly relying on their business for income or purpose. For Asian or Pacific Islander women, there's a clear divide—some work very few hours, while others (especially divorced women) work 50+ hours, with fewer in the middle.

These differences show that a one-size-fits-all approach won't work. Black women entrepreneurs may need more flexible resources, like childcare support or time-management tools. White widowed women might benefit from financial planning programs, and Asian women could use support balancing extreme workloads or transitioning into full-time entrepreneurship. Understanding these intersectional patterns is key to building more inclusive and effective support systems.

How do personal demographics influence women's entrepreneurial patterns?



This bar chart from the Female Entrepreneurs Dashboard visualizes the number of businesses by business age group, filtered by the owner's age range. Each bar represents how many businesses fall within a specific age category (e.g., 0–1 years, 2–3 years, 10+ years, etc.), and it dynamically changes when different owner age ranges are selected using the sidebar. The graph helps us understand whether younger or older entrepreneurs tend to run newer or more established businesses.

Among women aged 25–34, most businesses fall within the 0–3 year range, showing slightly more experience but still limited long-term establishment. They are likely navigating early growth stages, so resources that focus on scaling operations, managing teams, and solidifying market presence could be especially helpful.

In the 45–54 age range, the business age distribution is more balanced, with significant representation in both newer ventures and those older than 10 years. This suggests a mix of both late-career starters and long-time female business owners. For this group, tailored programs that support either scaling up or transitioning their businesses—like succession planning or tech adoption—could be beneficial.

For women aged 55–64, the trend is clearly skewed toward long-established ventures, with most businesses over 10 years old. This likely reflects entrepreneurs who have sustained their businesses over time and may now be considering legacy building or retirement. Programs aimed at succession, exit strategies, or mentoring younger entrepreneurs can add real value here, while also retaining their expertise in the entrepreneurial ecosystem.

Segmenting Financial Stress Among Women Entrepreneurs

Our research has identified eight distinct female entrepreneur personas based on CART analysis. Each persona represents a unique segment of the entrepreneurial landscape, with clear demographic and business characteristics that influence their financial stress levels and potential support needs. Our analysis reveals two primary segments:

- Financially Stable (87%): Six personas showing resilience despite varying business conditions
- Financially Stressed (13%): Two vulnerable personas requiring targeted intervention



Financially Stable Personas:

The Full-Timer: Younger than 55, running businesses less than 9 years old. Despite limited starting capital (less than \$500), they work full-time hours (31-50+ hours weekly) and maintain financial stability. This resilient group represents a significant opportunity for growth-oriented support programs that could help transform promising businesses into sustainable ventures.

The Expert: These highly educated, older entrepreneurs (55+ years) are running relatively young businesses (less than 8 years old). Their ability to remain financially stable despite being in early business stages likely stems from leveraging their advanced education, professional experience, and possibly retirement savings or other financial resources. This group may benefit from networking opportunities and industry-specific mentorship.

The Veteran: Mid-aged founders (55-64 years) with mature businesses demonstrate financial stability that comes with business longevity. These entrepreneurs have navigated the critical startup phase and established sustainable operations. They represent potential mentors for younger entrepreneurs and may be interested in legacy planning or strategic growth.

The Part-Timer: Entrepreneurs (under 55) with early-stage businesses working part-time hours (1-30 weekly) with moderate initial investment (\$1,001-\$5,000). Their financial stability despite limited time commitment suggests effective business models, possibly as side hustles or transition businesses. This group shows potential for scaling with the right support systems.

The Starter: Young entrepreneurs (under 55) with high school education running businesses less than 8 years old with minimal capital (under \$500). Despite resource constraints, they maintain financial stability, possibly through low overhead, family support, or complementary income sources. This group represents prime candidates for micro-grant programs and basic business education.

The Senior: Senior entrepreneurs (65+ years) managing mature businesses (8+ years or more). This financially stable group likely represents semi-retired business owners who have achieved operational sustainability and may be focused on succession planning or maintaining business legacy rather than aggressive growth.

Financially Stressed Personas

The Struggler: Younger entrepreneurs (under 55) with limited education (less than high school) who either work minimal hours (under 30) or excessive hours (over 50) weekly with very limited capital (under \$500). This vulnerable segment shows financial stress that likely stems from inadequate business fundamentals and resource access. They represent a priority group for financial literacy training, mentorship programs, and access to capital initiatives.

The Hard Worker: Age under 55 with limited education (less than high school) working standard full-time hours (31-50 weekly) with moderate investment (\$1,001-\$10,000). Despite their commitment and capital investment, they experience financial stress, suggesting potential issues with business model viability or management practices. This group would benefit from targeted business coaching, financial planning assistance, and potentially business pivoting guidance.

Strategic Recommendations for Supporting Women Entrepreneurs

Based on our analysis of GoDaddy's survey data on women micro-entrepreneurs, we recommend implementing the following targeted strategies to address their unique challenges and opportunities:

Financial Empowerment Solutions

- Develop tiered pricing models with entry-level packages specifically designed for resourceconstrained entrepreneurs.
- Create partnerships with micro-lending institutions to provide integrated financing options.
- Implement AI-powered cash flow forecasting and budget management tools within the platform.
- Offer "growth milestone" discounts that reward business longevity and platform loyalty.

Digital Presence Optimization

- Launch simplified website builders with industry-specific templates for women-dominated sectors.
- Provide SEO toolkits with automated keyword research and implementation.
- Develop mobile-first commerce solutions with streamlined inventory management.
- Create adaptive content calendars that adjust to entrepreneurs' actual working patterns.

Operational Efficiency Tools

- Implement one-click automation for repetitive business tasks across multiple platforms.
- Design stress-sensitive dashboards with customizable interfaces based on time availability.
- Offer service pause options with automatic customer communication for work-life balance.
- Develop smart scheduling tools that integrate with personal calendars.

Community & Mentorship Ecosystem

- Establish a dedicated women entrepreneurs' forum within GoDaddy's platform.
- Create an algorithmic mentorship matching program connecting veterans with newcomers.
- Host regular virtual roundtables organized by industry, business stage, and demographic factors.
- Develop a knowledge base of success stories and case studies featuring diverse business models.

Personalized Growth Pathways

- Implement diagnostic tools that assess business maturity and recommend next-step resources.
- Create simplified market analysis tools identifying expansion opportunities.
- Develop customized learning paths based on entrepreneur education level and experience.
- Offer virtual "office hours" with industry specialists for targeted consulting.

Conclusion

Our analysis reveals a transformative shift in microbusiness ownership, with women entrepreneurs increasingly launching businesses, particularly in the wake of the pandemic. However, this growth comes with significant challenges that demand attention and targeted solutions.

Key Findings Summary

- 1. Women entrepreneurs face distinct stress patterns, with financial pressure emerging as the most critical factor
- 2. Business age and work hours significantly impact stress levels and business sustainability
- 3. Four distinct personas represent over 50% of women-led businesses, each requiring unique support strategies
- 4. The gender gap reverses with business age while women dominate new businesses, they are underrepresented in established ventures

Strategic Implications

For GoDaddy to effectively serve women entrepreneurs, the company must move beyond one-size-fits-all solutions. The identified personas require targeted approaches that address both common challenges (financial stress, work-life balance) and persona-specific needs (scaling tools for established businesses, simplified interfaces for older entrepreneurs).

The Path Forward

By implementing our recommendations, GoDaddy can:

- Reduce financial stress for women entrepreneurs through smart pricing and bundling
- Improve business resilience with tools designed for specific stages of growth
- Create pathways for more women-led businesses to reach the 10+ year mark

By addressing the unique challenges revealed in our analysis, GoDaddy can help transform the high numbers of new women-led businesses into long-term success stories, ultimately reshaping the landscape of American entrepreneurship.