The "Great Reshuffling" and Entrepreneurship*

Matthew Denes†
Spyridon Lagaras‡
Margarita Tsoutsoura§

January 15, 2026

Abstract

The recent pandemic induced a large reallocation in labor markets that coincided with a surge in entrepreneurial entry. Using the universe of U.S. administrative tax records, we study how the "Great Reshuffling" reshaped transitions into entrepreneurship, entrant characteristics, and subsequent individual and firm outcomes. We document a persistent increase in entry, with larger gains among women with children. These entrants experience higher average income but greater income volatility. Firms founded during this period exhibit higher survival and profitability though are less likely to employ workers. Our evidence points to a persistent reallocation toward smaller, owner-operated businesses rather than short-lived experimentation.

JEL Classification: G30, J22, J24, L26

Keywords: Entrepreneurship, Firm Dynamics, Income Risk, Labor Market Reallocation, Female Labor Supply, Flexibility

†Carnegie Mellon University. Email: denesm@andrew.cmu.edu.
‡University of Illinois, Urbana-Champaign. Email: lagaras2@illinois.edu.
§Washington University in St. Louis, CEPR, ECGI, and NBER. Email: tsoutsoura@wustl.edu.

*We thank Mike Ewens, Kristoph Kleiner, Maddalena Ronchi, Valentina Rutigliano, Sophie Shive, Melanie Wallskog, and Jiajie Xu and conference participants at AFA, CMU-Pitt-Penn State, Columbia Finance Alumni, EFA, FRA, Labor and Finance Group, NFA, Rome Junior Finance, UGA Fall Finance, UIC Finance, and Wabash River Conferences, and seminar participants at BI Norwegian Business School, Stockholm School of Economics, University of Glasgow, University of Illinois Urbana-Champaign, U.S. Department of the Treasury Office of Tax Analysis, and Vancouver School of Economics for helpful comments. We gratefully acknowledge funding support from the Ewing Marion Kauffman Foundation. This research is conducted through the Joint Statistical Research Program of the Statistics of Income Division of the IRS. Sreeta Basu, Terry Cheng, Mariko Grim, Caitlin Hartley, Casey Li, Jacob Triplett, and Collin Zoeller provided excellent research assistance. We thank many people at the IRS for their assistance with and support of our research, including Anne Herlache, Courtney Marsden, Alicia Miller, Daniel Rodriguez, and Tomas Wind. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors and do not necessarily reflect the views or the official positions of the U.S. Department of the Treasury or the Internal Revenue Service. All results have been reviewed to ensure that no confidential information is disclosed.

1 Introduction

The COVID-19 pandemic triggered one of the largest reallocations of labor in recent history, often described as the "Great Reshuffling." In the wake of widespread disruptions to work arrangements, childcare, and employment relationships, millions of workers reevaluated how and where they work, instigating a long-lasting period of staggering reallocation in labor markets (Barrero et al. (2021)). The dramatic post-pandemic shifts in employment patterns coincided with an unprecedented rise in new business applications and entrepreneurial entry. Between 2020 and 2021, measures of entrepreneurial entry increased sharply, reversing a decades-long decline in U.S. business dynamism (Fazio et al. (2021); Decker and Haltiwanger (2023)). Whether this surge reflects temporary experimentation or a more fundamental reallocation of workers toward entrepreneurship remains an open question, with first-order implications for labor markets, productivity, and economic growth.

In this paper, we study how the "Great Reshuffling" reshaped entrepreneurial entry and the characteristics and performance of newly created firms. We focus on a central feature of the pandemic shock: its asymmetric impact on workers facing constraints to traditional employment arrangements, particularly those related to flexibility and caregiving responsibilities. For these workers, entrepreneurship may serve as an alternative margin of labor supply that offers greater control over hours, location, and job structure. Nevertheless, entrepreneurship also involves higher risk. Understanding whether and for whom entrepreneurship functions as a persistent substitute for wage employment is essential for interpreting the long-run consequences of post-pandemic labor market adjustments. Key to understanding the economic effects and persistence of the surge in business creation is being able to track those businesses and examine their subsequent survival, profitability, and growth.

We assemble novel, systematic, large-scale evidence from the universe of U.S. administrative tax records to examine entrepreneurial entry, founder characteristics, income trajec-

tories, and firm outcomes before, during, and after the "Great Reshuffling." Using Schedule C filings linked to individual tax returns, we observe the creation of sole proprietorships at the individual level and follow both founders and firms over time. Our administrative data set allows us to overcome important measurement limitations in the entrepreneurship literature. First, we are able to observe the full population of potential entrepreneurs and identify first-time entry into entrepreneurship. Second, we can link founders to their prior labor market status and household characteristics. Finally, we are able to measure firm survival, profitability, and employment in the years following entry.

Our analysis delivers four primary findings. First, entrepreneurial entry rises sharply during the "Great Reshuffling" and remains elevated beyond the initial shock. Between 2019 and 2021, both the number of newly created firms and the share of individuals starting a business increased by nearly 50%, indicating that the surge in business applications previously documented in the literature reflects realized entry rather than changes in reporting or application behavior.

Second, the rise in entrepreneurial activity is highly heterogeneous across individuals. Entry into entrepreneurship increases disproportionately among women with children, which is a group that is underrepresented in terms of entrepreneurial entry in normal times. The effects are strongest in locations that experienced more severe school closures and childcare disruptions, consistent with entrepreneurship serving as a flexible response to constraints imposed by the disruption in traditional work arrangements. We further assess alternative explanations by examining forced entrepreneurship from unemployment, substitution toward remote work, and shifts in risk preferences, none of which explains our baseline heterogeneous entry response.

Third, transitions into entrepreneurship by women with children during the "Great Reshuffling" are not merely short-lived. Individuals who enter entrepreneurship experience higher income growth and exhibit a higher likelihood of continued business ownership one and two years after entry, indicating that these transitions reflect persistent changes in labor sup-

ply rather than temporary stopgaps. However, higher average income among pandemic-era entrants is accompanied by greater income volatility, suggesting that entrepreneurs exchange flexibility and higher earnings with a lower degree of income insurance.

Fourth, firms created during the "Great Reshuffling" differ in meaningful ways from pre-pandemic entrants. New firms formed in 2020 and 2021 are more concentrated in trade and personal services and less in professional services and manufacturing. Firms founded by women with children during this period exhibit higher survival rates and profitability, but grow more leanly in terms of employment. These patterns suggest that the surge in entrepreneurship is not driven by low-quality or rapidly failing firms, but instead reflects a reallocation toward business models compatible with flexibility and individual-scale production.

Finally, we complement our administrative-data evidence by conducting a large-scale survey to study recent entrepreneurial activity and the changing motivations for individuals to start firms. The survey results align closely with the patterns documented in the data: women with children report a higher propensity to engage in entrepreneurial activity and disproportionately emphasize flexibility-related considerations as primary motivations for entry. While suggestive, our survey-based evidence provides an important perspective on how individuals frame their own occupational choices and helps contextualize the childcare- and flexibility-related entry patterns documented throughout the paper.

Taken together, our findings suggest that the pandemic accelerated a reallocation toward forms of work that offer greater flexibility, with entrepreneurship playing a central role in this process. Rather than a temporary spike, the surge in entrepreneurial entry during the "Great Reshuffling" appears to reflect a lasting change in how workers—particularly those facing binding constraint—organize production and participate in the labor market. Our findings can be interpreted through a simple selection framework. Individuals face a choice between salaried employment and entrepreneurship, weighing pecuniary returns against non-monetary costs such as flexibility, time, and caregiving responsibilities. The pandemic acted

as a "preference shock," raising the cost of inflexible work (through childcare disruptions and commuting constraints) and lowering the cost of entrepreneurship (through remote and digital opportunities). In a Roy-type model, these shifts alter the relative attractiveness of entrepreneurship, drawing in individuals, especially women with children, for whom flexibility exhibits higher value. The resulting reallocation suggests a structural rather than transitory change in labor supply behavior.

The paper contributes to several strands of the literature. First, we complement the literature examining entrepreneurship during periods of economic distress. Prior papers highlight that labor market downturns and firm-level shocks are critical in inducing transitions into entrepreneurship (e.g., Babina (2020); Hacamo and Kleiner (2022)) and that firms founded during recessions can benefit from improved access to and retention of talent (Bias and Ljungqvist (2024)).

Our paper also contributes to the growing literature documenting extensive reallocation in labor markets and a surge in business applications following the pandemic (Albanesi and Kim (2021); Barrero et al. (2021); Fazio et al. (2021); Decker and Haltiwanger (2023)), and highlighting that the pandemic disproportionately affected women due to childcare responsibilities (Alon et al. (2022); Goldin (2022)). The literature emphasizes elevated job switching, employment disruptions, and reallocation towards remote work arrangements, with particularly strong effects in sectors and occupations with high female employment and childcare demands. Specific to entrepreneurial activity, Barrios, Hochberg, and Yi (2024) document that access to work-from-home opportunities is associated with lower entrepreneurial entry, consistent with substitution between flexibility in salaried employment and new business formation. By contrast, Kwan et al. (2025) document that employees in firms adopting remote work exhibit higher subsequent rates of entrepreneurial entry.

A related strand of literature emphasizes the role of caregiving constraints and career risk in shaping labor market allocation and entrepreneurial entry. Simintzi, Xu, and Xu (2025) provide evidence from Canada that expanding access to childcare increases mothers'

employment and earnings and induces reallocation across firms, with measurable effects on firm performance. Gottlieb, Townsend, and Xu (2022) show that expanding job-protected leave increases entrepreneurial entry among mothers, consistent with reductions in career risk facilitating entry.

Our paper adds to and complements the literature along three distinct dimensions. First, we provide large-scale individual-level evidence that the surge in entrepreneurial entry during the "Great Reshuffling" is highly heterogeneous and disproportionately amplified within a specific demographic group, particularly in settings with greater childcare disruptions, highlighting entrepreneurship as an important margin of labor supply adjustment for constrained workers. Unlike prior literature, we can observe realized entrepreneurial entry, link founders to their pre-entry employment and household characteristics, and quantify income trajectories and firm outcomes over time for the universe of tax filers in the U.S. This allows us to move beyond aggregate counts of entry and to assess the composition, persistence, and performance of newly created firms during the "Great Reshuffling."

Second, we provide evidence that entrepreneurial transitions during the "Great Reshuffling" are persistent and are associated with higher average income. However, this comes at the cost of greater income volatility, distinguishing pandemic-era entry from entrepreneurial transitions in normal times and clarifying the economic tradeoff faced by entrants.

Third, we document that firms founded during this period exhibit higher survival and profitability but grow at a slower pace in terms of employment, indicating a reallocation toward smaller, owner-operated businesses rather than a deterioration in firm quality due to the entry of marginal entrepreneurs. Overall, our findings demonstrate that the Great Reshuffling reshaped not only the scale of entrepreneurship but also its composition and economic consequences.

.

2 Data from U.S. Tax Returns

This section explains how we use U.S. tax returns to study the impact of the "Great Reshuffling" on entrepreneurship. Section 2.1 describes how we measure entrepreneurship. Section 2.2 provides information on additional data incorporated into the analyses.

2.1 Measuring Entrepreneurship

We seek to understand changes in entrepreneurial entry and the subsequent performance of newly created firms in the U.S. following the large reallocation and shifts to the labor markets driven by the "Great Reshuffling." Our data allow us to overcome a number of challenges associated with measuring entrepreneurial activity in the U.S. First, comprehensive data on every newly created firm in the economy and every individual in the labor force are typically unavailable in publicly available datasets. Second, it is generally not possible to observe the characteristics of founders, their income trajectory, and employees at their firms. Third, it can be difficult to observe the performance of new firms at and following their creation. To overcome these challenges, we use the universe of U.S. tax returns to determine when individuals start new firms.[1] To measure entrepreneurial activity across a wide swath of potential entrepreneurs, we focus on sole proprietorships. This is motivated by several considerations. Sole proprietorships are the most common type of firm in U.S. tax returns.[2] Additionally, focusing on one firm type allows us to construct standardized measures of firm outcomes. We also observe ownership of sole proprietorships and these types of firms are wholly owned by one individual. That said, in our robustness analyses, we include S corporations and LLCs that are founded by a single individual.

In U.S. tax returns, sole proprietorships file Schedule C, which is part of a household's Form 1040. This schedule identifies the specific entrepreneur owning and operating the

[1] We received access to the universe of U.S. tax returns through the Joint Statistical Research Program of the Statistics of Income Division of the IRS.

[2] The other firm types in U.S. tax returns are broadly partnerships and corporations. Partnerships file Form 1065, S corporations file Form 1120-S, and C corporations file Form 1120.

firm within a household. To construct a dataset on firms for our analyses, we start with the universe of Schedule C filings, which are available from 1997 to 2023.[3] We restrict our attention to Schedule C filings that include an employer identification number (EIN) to focus on firms that are separate entities.[4] If a particular tax return is amended, we use the most recent filing available.[5]

2.2 Other Data

We incorporate additional data from U.S. tax returns for individuals and entrepreneurs. We use adjusted gross income and dependent status from Form 1040. We add data on age and gender using information from the Social Security Administration.

We use data from Schedule C to construct firm outcomes at founding and subsequent performance. Since we focus on sole proprietorships with an EIN, we use this unique identifier to track firms over time. We construct variables to measure firm survival, profitability, and employment.

[Insert Table 1 Here]

Table 1 provides summary statistics for variables used in our analyses. Panel A shows variables for individual analyses, which include the universe of individuals in the U.S. from 2016 to 2021 and aged 25 to 65 in the year of filing a tax return.[6] There are more than half a billion individual-years in the main sample. About 0.6% of individuals start a new firm in a particular year. Approximately 21.6% of individuals are women with children. Panel

[3]The sample for our analyses is from 2016 to 2023. Using data back to 1997 allows us to identify when individuals are first-time entrepreneurs.

[4]The main requirement for firms to have an EIN is if they file employment returns or have a qualified retirement plan. Additional details about requirements for having an EIN are available on the IRS website at: https://www.irs.gov/instructions/i1040sc.

[5]We also apply the following filters to construct the dataset. First, we only use Schedule C filings with valid zip codes. Second, we remove filings where the same EIN appears on a Schedule C for a different Form 1040 in the same year. Third, we drop filings where the EIN is the same as a social security number (SSN) or the SSN is used as an EIN.

[6]We split tax returns filed by a household with more than one person to separately include an observation for the primary filer and spouse.

B includes variables for the cross-section of entrepreneurs and about 10.1% of founders are women with children. Panel C reports variables related to firm outcomes. Just over half of firms survive two years after founding. Approximately 18% of firms report employment one year after their founding.

3 Entry into Entrepreneurship

This section studies the evolution of entry into entrepreneurship following the pandemic in 2020 and 2021. Section 3.1 provides aggregate evidence on changes in entrepreneurial entry. Section 3.2 examines the role of individual characteristics in response to the pandemic by focusing on firm creation. Section 3.3 investigates the role of flexibility in entrepreneurial entry. Section 3.4 explores the importance of prior work arrangements. Lastly, Section 3.5 considers alternative explanations.

3.1 Aggregate Evidence on Entrepreneurial Entry

We start our analysis by evaluating the aggregate evolution of entrepreneurial entry around the "Great Reshuffling." Although previous studies provide important insights into the evolution of entrepreneurial activity in the aftermath of the pandemic (Decker and Haltiwanger (2023)), limitations with respect to measurement and data availability render drawing broader conclusions from existing evidence challenging. First, prior analysis is restricted to aggregate evidence on business applications or registrations. While business applications are informative of businesses' intent to engage in future economic activity, only a fraction corresponds to a subsequent business formation that reports economic activity or employment creation (Bayard et al. (2018)). Likewise, while business registrations to a larger extent are able to capture entrepreneurial entry, there is no information on firms' subsequent survival, profitability, and growth, thus preventing researchers from evaluating the economic effects and persistence of business creation.

[Insert Figure 1 Here]

Figure 1 shows entry into entrepreneurship in the United States from 2016 to 2021. In Panel A, we plot the number of new firms created (in millions) during a particular year. There is a striking increase in the number of new firms, rising from about 900,000 newly created firms in 2016 to more than 1.3 million firms started in 2021. This represents an increase of nearly 45% over six years. The rise in new firm creation is especially noticeable in 2020 and 2021.

Panel B examines the share of U.S. individuals aged 25 to 65 creating new firms in a particular year. The pattern is similar with about 0.6% of individuals starting a new firm in 2016 and rising to almost 0.9% in 2021. The increase began in 2020 and remained elevated through 2021. The magnitude of the growth is comparable to Panel A, representing an almost 50% accumulated rise in entrepreneurial entry during this period. This evidence mirrors patterns documented using business applications (Haltiwanger (2022)), highlighting that individuals also subsequently established new entities. Importantly, the increase, which is reflected both in the number of new firms and the share of founders, persists beyond the initial year of the pandemic, suggesting that the rise in entrepreneurship reflects more than a short-lived response to temporary labor market disruptions.

The evidence presented in this section indicates that there has been a broad expansion in entrepreneurship during the pandemic. What are the characteristics of individuals creating new firms? We continue the analysis by leveraging granular microdata to understand who enters into entrepreneurship. These findings aim to shed light on possible shifts in the distribution of individuals who start new firms. We also seek to understand the drivers explaining these patterns.

3.2 Who Starts New Firms?

We next study the characteristics of individuals starting new firms. The expansion of new firms could be uniform relative to individual characteristics. In particular, the pandemic had broad effects on the economy and might be borne similarly by individuals. Alternatively, prior research provides evidence that childcare responsibilities substantially increased in 2020 and 2021, and disproportionately impacted women with children (Alon et al. (2022); Goldin (2022)). The opportunity cost of transitioning to entrepreneurship potentially decreased during the pandemic period for those who became constrained by childcare responsibilities. Consequently, entry into entrepreneurship might be amplified for women with children.

To examine the likelihood of an individual entering into entrepreneurship, we estimate the following specification at the individual-year level:

$$\begin{aligned} Y_{i(CZ),t} = \alpha_{CZ\times t} + \beta \cdot \text{Post}_{20-21} \cdot \text{Women with Children}_{i,t-1} \\ + \gamma \cdot \text{Women with Children}_{i,t-1} + \varepsilon_{i(CZ),t}, \end{aligned} \tag{1}$$

where $Y_{i(CZ),t}$ measures the likelihood of new firm creation by individual i in year t located in commuting zone CZ. We define $Post_{20-21}$ as an indicator variable equaling one if the year is 2020 or 2021. We define $Women\ with\ Children_{i,t-1}$ as an indicator variable equaling one if individual i is a woman and has any children in year t-1.[7] We include commuting zone $\times$ year fixed effects ($\alpha_{CZ\times t}$) to absorb unobserved time-varying differences across commuting zones. These fixed effects allow us to account for time-varying local economic shocks, the pandemic severity, and policy responses within labor markets. They also absorb the term for the direct effect of the post period ($Post_{20-21}$). Standard errors are clustered at the commuting-zone level. The coefficient of interest is β, which estimates the marginal effect of women with children on entrepreneurial entry in 2020 and 2021.

[Insert Table 2 Here]

[7] We define children as dependents on a tax filer's return who are aged 18 or younger.

Table 2 presents the estimates about who starts new firms during the pandemic. Column (1) focuses on the cohort sample, which includes individuals who are salaried workers in 2019. We find that women with children are significantly more likely to start firms in 2020 and 2021. The increase is 5.4 basis points, which is a 9% increase relative to the sample mean. Furthermore, consistent with our prior evidence on the representation of women in entrepreneurship, we report that women with children are less likely, on average, to engage in firm creation.

A key question is whether the increased entry into entrepreneurship persists in the longer run. We expand the sample period to end in 2023 and continue to focus on the cohort sample. We start by defining $Post_{20-23}$ as an indicator variable equaling one if the year is between 2020 and 2023. Column (2) provides the estimates and shows that the response by women with children is persistent. We find that there is a 3.6 basis point increase in the likelihood of women with children starting a new firm, representing a 5.1% rise relative to the sample mean.[8] Column (3) examines the effect in the immediate two years after the pandemic compared to the longer run. We define $Post_{22-23}$ as an indicator variable equaling one if the year is 2022 or 2023. We continue to find that women with children are 5.4 basis points more likely to create a firm in 2020 and 2021. The effect remains significantly elevated in 2022 and 2023, though the magnitude is comparatively smaller.

A potential concern is related to the representativeness of the cohort sample. Since this sample is constructed to include individuals who are salaried workers in 2019, the estimates might differ for the full sample of individuals. To address this concern, column (4) includes all individuals in the United States aged 25 to 65.[9] We find that the likelihood of women with children starting a new firm remains 5.4 basis points in the full sample. This suggests that the results broadly hold throughout the economy.

In the last two columns, we explore heterogeneity in terms of occupational skill. We

[8]The sample mean of *Founder* is 0.7% in cohort sample that is extended to 2023.

[9]A possible issue with this broader sample is that individuals may enter or exit during the sample period. For this reason, we focus on the cohort sample for most analyses.

follow Belo et al. (2017) for constructing a measure of occupational skill. For each occupation, we use the U.S. Department of Labor's Specific Vocational Preparation (SVP) index and define values of seven or greater as high skill. This value is selected by Belo et al. (2017) as representing substantial occupational preparation of at least two years. Then, we define skill as the share of high-skilled occupations in an industry at the four-digit North American Industry Classification System (NAICS) level. We split the sample at the median and separately estimate equation (1). Column (5) provides the estimates for the below median ("low skill") subsample, and column (6) reports the findings for the above median ("high skill") subsample. We find that the likelihood of women with children starting a new firm in 2020 and 2021 is substantially higher for individuals with higher occupational skills. There is a 3.3 basis point increase in the "low skill" sample, which rises to 8.4 basis points in the "high skill" sample. Further, these estimates are significantly different at the 1% level.

[Insert Table 3 Here]

To conclude this section, we evaluate the robustness of the baseline estimates along several dimensions. Table 3 provides the results. In studying the reallocation of labor market activity, it is particularly important to evaluate the extent to which individuals start new firms for the first time. We define *First-time Founder* as an indicator variable equaling one if an individual starts their first Schedule C firm in that particular year. In column (1), we find that women with children are 5.3 basis points more likely to start new firms. Compared to the baseline estimate of 5.4 basis points in Table 2, column (1), this estimate is quite close and suggests that the vast majority of new firm creation is by first-time entrepreneurs. Since we primarily focus on sole proprietorships, we next ask whether the newly created firms tend to support employees beyond the founder. We construct *Founder with Employees* as an indicator variable equaling one if an individual starts a firm in that particular year and has at least one employee in a two-year period after founding. In column (2), we show that women with children are significantly more likely to start firms with employees. The estimate

is more than a doubling compared to the sample mean.[10] For the last robustness test, we expand the measurement of entrepreneurship to include single-owner S corporations and LLCs, in addition to sole proprietorships. *Founder Broad* is an indicator variable equaling one if an individual starts a firm in that particular year based on Schedule C, single-owner S corporations, and LLCs. Column (3) reports the estimates and shows that there is a significant increase in the probability of starting a firm by women with children in 2020 and 2021, with an increase of 6.5 basis points. Overall, these results provide evidence consistent with the baseline results of a shift in the composition of entrepreneurial activity.

Taken together, we leverage detailed individual-level data from tax returns to evaluate the effect of the "Great Reshuffling" on entrepreneurial activity. Women with children are strikingly more likely to start new firms. The effect is amplified at the onset of the pandemic and remains elevated, albeit the estimates are comparatively smaller more recently. The findings indicate that labor market activity to some extent reallocated towards new firm creation and the growth was partially explained by the entry of women with children. In the following sections, we examine possible explanations for these results.

3.3 Flexibility

Our previous findings suggest that flexibility might play a role in the rising entrepreneurial entry by women with children. In this section, we examine the role of flexibility along two dimensions. First, we determine the importance of children's age in the decision to start a new firm. Second, we leverage geographic variation in terms of childcare responsibilities.

Children's age might impact the extent to which individuals' demand flexibility. We focus on three age ranges for children: 0 to 4 years old, 5 to 11 years old, and 12 to 18 years old. We define *Women with Children Aged* 0 *to* 4 as an indicator variable equaling one if an individual is a woman and has any children aged 0 to 4. We similarly construct the variables for women with children aged 5 to 11 and aged 12 to 18. Table 4, column (1),

[10]The sample mean of *Founder with Employees* is 0.1% in the cohort sample.

provides the results. We continue to focus on the cohort sample and estimate the specification using equation (1). We find that women with children aged 0 to 4 are 6.1 basis points more likely to start a firm in 2020 and 2021. Similarly, the effect for women with children aged 5 to 11 is 6.9 basis points. Interestingly, the estimate for women with older children aged 12 to 18 years old is economically negligible and statistically insignificant. Combined, the estimates indicate that women with comparatively younger children tended to create new firms during the "Great Reshuffling." This is consistent with increased demand for flexibility during this period and with the pandemic's asymmetric impact on workers facing constraints to traditional employment arrangements, particularly those related to caregiving responsibilities.

[Insert Table 4 Here]

Next, we turn to examining geographic variation in flexibility during the labor market disruption occurring in 2020 and 2021. We proxy for differences in flexibility using the variation in childcare responsibilities. We use district-level data on school closures from the COVID-19 School Data Hub.[11] We determine the share of days closed in 2020 and 2021 using the location reported in Form 1040. We split the sample for our individual-level analyses into low and high school closures based on the median value across commuting zones. For each subsample, we estimate equation (1). Columns (2) and (3) report the results. We find that, in areas with relatively low school closures, there is a 3.9 basis point increase in the likelihood for women with children to create a new firm. The effect is substantially higher for women with children in areas with high school closures, rising to 7.6 basis points. These estimates are significantly different at the 1% level.

Overall, our findings suggest that flexibility plays a key role in the response by women with children to enter into entrepreneurship. The effects are amplified in areas with severe school closures and substantial childcare disruptions. Women with comparatively younger

[11] See "District-Monthly Percentage In-Person, Hybrid, or Virtual" available at https://www.covidschooldatahub.com/data-resources.

children are particularly exposed to these disruptions. These results highlight that entrepreneurship can provide flexibility in response to constraints imposed by traditional work arrangements. This interpretation is consistent with evidence that workers, and particularly women, place substantial value on flexible work arrangements and are willing to trade off wages for flexibility, yet such arrangements are limited in standard employment contracts (Mas and Pallais (2017)). We further examine income growth and risk for entrants in Section 4.

3.4 Prior Work Arrangements

The previous findings in this section suggest that women with children enter into entrepreneurship following the "Great Reshuffling." A natural question is whether the transitions are driven by prior work arrangements. Given the widespread disruptions during this period paired with previous studies on forced entry into entrepreneurship (Hacamo and Kleiner (2022)), we focus on variation in unemployment at both the industry and individual levels.

[Insert Figure 2 Here]

Figure 2 explores the association between labor market disruptions and gender. We define *Share of Women* as the share of women employed in a particular industry in 2019.[12] We also construct *Percent Change in Unemployment* as the percent change in the number of unemployed individuals from 2019 to 2020 in a particular industry. The plot shows that there is a positive relationship between the change in unemployment around the pandemic and the share of female employees working in a particular industry. For example, healthcare and personal services experienced substantial increases in unemployment of 9% and 7%, respectively, and employed a majority of women. Comparatively, manufacturing and

[12]We aggregate each two-digit NAICS sector in parentheses to nine broad industries using the following classification: Arts and Media (51, 71), Finance and Real Estate (52, 53, 55), Healthcare (62), Manufacturing (23, 31, 32, 33), Personal Services (61, 72, 81), Professional Services (54, 56), Resource Extraction (11, 21, 22), Trade (42, 44, 45), and Transportation (48, 49). We exclude firms with no industry reported and those in Public Administration (92).

transportation experienced only minor increases in unemployment, and employment changes mostly affected men.

[Insert Table 5 Here]

We begin the analyses by investigating variation in unemployment rates across industries. Motivated by the variation in the intensity of labor market disruptions across industries, we define two measures of unemployment using monthly unemployment data from the U.S. Bureau of Labor Statistics. First, we construct the three-month change in unemployment in April, May, and June of 2020 relative to the same months in 2019. This captures the severity of the disruptions to labor markets at the onset of the pandemic and compares the same months across years to account for seasonal trends. Second, we form a similar measure using a wider range of months. In this second approach, we expand the range to start at the beginning of the pandemic in April and continue until the end of the year in December.

Table 5 reports our results. In columns (1) and (2), we provide the results by splitting the sample at the median value of the 3-month unemployment rate and estimating equation (1) for each subsample. We find that the likelihood for women with children to become entrepreneurs is relatively similar across industries. There is a 6.3 basis point increase in the industries with low unemployment rates and a 4.3 basis point increase in those with high unemployment rates. Additionally, the estimates are not statistically different from each other. Columns (3) and (4) show the findings splitting the sample using the 8-month unemployment rate, which uses a larger window to account for industries that might not respond immediately at the onset of the pandemic. We find that the results are similar using the broader estimates of unemployment rates. Combined, these results indicate that the propensity for women with children to start new firms in 2020 and 2021 does not vary by industry-wide unemployment rates.

Individuals might vary in the extent to which they were directly impacted by the labor market disruptions. Related to this notion, Hacamo and Kleiner (2022) study en-

trepreneurship during downturns and find that college graduates are more likely to become entrepreneurs in recessions. We use Form 1099-G, which indicates unemployment compensation in a particular year. Using the cohort sample, we split it based on those who were employed throughout 2020 and did not receive unemployment income, and those who were unemployed at some point in 2020 and received unemployment compensation. Columns (5) and (6) report the estimates and continue to use equation (1) to estimate each subsample. An important caveat with splitting the sample by employment status is possible selection concerns. We find that both employed and unemployed women with children are about equally likely to start new firms. While the unemployment results are consistent with forced entrepreneurship, the similar estimates for employed transitions indicate that unemployed individuals do not solely drive the results.

In sum, the findings in this section demonstrate that the response by women with children entering into entrepreneurship was widespread. The increase in entry occurs across industries with high and low unemployment rates, in addition to those who were employed and unemployed. This paints a nuanced picture of the increased entry into entrepreneurship, highlighting that it is not solely concentrated in industries or individuals forced to search for new income opportunities. The results are also consistent with the heightened importance of flexibility.

3.5 Alternative Explanations

We conclude this section by evaluating alternative explanations for the increase in entrepreneurship by women with children during the "Great Reshuffling." The first alternative explanation that we consider is remote work. A set of papers studies how the dramatic switch to remote work during the pandemic is connected to entrepreneurial entry (Barrios, Hochberg, and Yi (2024) and Kwan et al. (2025)). Women with children demanding increased flexibility might shift into remote work opportunities rather than starting new firms. To construct a proxy for remote work, we use data on teleworkability provided in Dingel

and Neiman (2020). The data provide a measure of the share of jobs that can be performed remotely at the two-digit NAICS level. We match these data to our cohort sample based on the industry of an individual's primary employer in 2019.

[Insert Table 6 Here]

Table 6 provides the results. We separately estimate equation (1) for individuals working in low (column (1)) and high (column (2)) remote work industries. We find that there is a 3.1 basis point increase in likelihood for women with children in low remote work industries to start new firms in 2020 and 2021. This rises to 7.8 basis points for women with children who worked in industries with high remote work availability. The estimates are significantly different at the 1% level. These results suggest that remote work complements entrepreneurial activity, rather than substituting for it.

The next alternative explanation is that there was a disproportionate shift in risk preferences for women with children in a way that increased appetite for entrepreneurship. To evaluate this explanation, we construct a measure of cash-flow volatility at the industry level and separate the main outcome variable into two categories. We define cash-flow volatility of profits for sole proprietorships in a three-year window after a firm is started using as a sample the universe of sole proprietorships established in the period from 2000 to 2015.[13] We aggregate cash-flow volatility to the two-digit NAICS level. Then, we define $Founder_{low\ CF\ vol.}$ as an indicator variable equaling one if an individual starts a firm in a low-cash flow volatility industry in that particular year. We similarly construct $Founder_{high\ CF\ vol.}$ as an indicator variable equaling one if an individual starts a firm in a high-cash flow volatility industry in that particular year.

Columns (3) and (4) report the findings. We focus on the cohort sample for these analyses. We find that newly created firms are started by women with children in low cash-flow volatility sectors in 2020 and 2021. There is a 5.1 basis point increase in entry

[13]We require a firm to have data available for each year in the three years following founding.

into entrepreneurship for low cash-flow volatility firms by women with children during this period. The estimate for starting high cash-flow volatility firms is economically small and statistically insignificant. These results suggest that women with children respond during the "Great Reshuffling" by starting firms in sectors that tend to be less risky, implying that shifts in risk preferences are unlikely to be a critical determinant of the observed entry patterns.

[Insert Table 7 Here]

We complement the results on cash-flow volatility by estimating equation (1) across the cohort individuals' pre-pandemic sector of employment. The analysis is guided by the concern that supply-side labor market disruptions that vary across industries are potentially a critical contributing factor in explaining the observed heterogeneous response. Following Figure 2, we group each two-digit NAICS sector into nine broad industries. Table 7 reports the estimates. We broadly find that the increase into entrepreneurship by women with children in 2020 and 2021 occurs across most sectors. The largest estimates are in finance and real estate, and transportation, and professional services. The only estimates that differ are manufacturing and resource extraction. Combined, these estimates suggest that sector-specific conditions alone are unable to account for the observed heterogeneity in entrepreneurial entry.

4 Broader Effects of Transitions into Entrepreneurship

4.1 Income

Our results establish a large, heterogeneous shift into entrepreneurship during 2020 and 2021, that remains elevated beyond the "Great Reshuffling" and suggests an asymmetric impact on salaried employees facing constraints to traditional employment arrangements. To the extent that female employees with caregiving responsibilities transition to entrepreneurship

primarily for non-pecuniary purposes to accommodate disruptions necessitating flexibility, a natural concern is that these transitions come at the expense of monetary benefits. There is a long literature documenting that entrepreneurship typically entails substantial income risk and, on average, lower earnings than wage employment, reflecting both selection and the residual-claim nature of entrepreneurial compensation (Hamilton (2000); Moskowitz and Vissing-Jørgensen (2002)). However, recent evidence documents that large labor-market disruptions alter the composition of entrepreneurial entry, inducing transitions by individuals whose entrepreneurial earnings potential was previously unrealized and whose post-entry outcomes need not be inferior ex post (Babina (2020); Hacamo and Kleiner (2022)). We proceed by evaluating the earnings trajectory among pandemic-era entrants, focusing on both the level and the volatility of reported income.

For our analysis, we rely on a cohort-based estimation where we restrict our sample to women with children who received a Form W-2 as the primary source of income in 2019. Restricting our sample only to women with children actively involved in wage employment prior to the pandemic ensures comparable pre-pandemic labor market attachment and rules out mechanical differences driven by prior exposure to entrepreneurship. Our sample only includes observations for the period from 2020 and onward by estimating changes in adjusted gross income relative to the income reported in 2019 both in the short run, during 2020 and 2021, and in the long run from 2020 to 2023. We construct a balanced panel and assume that an individual's income is zero if the individual files no tax return in a particular year. We estimate the effect of transitioning into entrepreneurship in 2020 or 2021 on income using the following specification at the individual-year level:

$$Y_{i(CZ),t} = \alpha_{CZ\times t} + \alpha_s + \beta \cdot \text{Founder in 2020-2021}_i + \varepsilon_{i(CZ),t}, \tag{2}$$

where Y_{it} is an income measure for individual i in tax year t. *Founder* 2020-2021$_i$ is an indicator variable equaling one if individual i transitions to entrepreneurship at any point in

the period during 2020 and 2021. We include commuting-zone-by-year ($\alpha_{CZ\times t}$) fixed effects to absorb time-varying local labor market conditions and pandemic severity, as well as sector (α_s) fixed effects based on an individual's pre-pandemic industry affiliation. Essentially, our fixed effects allow us to compare women with children who transition into entrepreneurship to those who remain in wage employment within the same local labor market and year, while additionally holding constant the pre-pandemic sector of employment. Standard errors are clustered at the commuting-zone level. The coefficient of interest, β, estimates the marginal effect on income for individuals who transition to entrepreneurship in 2020 or 2021.

[Insert Table 8 Here]

Table 8 reports the results of our analysis. In columns (1) to (3), our primary income measure is *AGI Ratio*, which is equal to the ratio of an individual's adjusted gross income in a particular year relative to the income reported in 2019. The normalization allows income changes to be interpreted relative to an individual's pre-pandemic earnings capacity and mitigates concerns about cross-sectional heterogeneity in income levels driven by individuals' permanent characteristics. Our estimates in columns (1) and (2) indicate large and persistent differences in the income trajectory between women with children who transition into entrepreneurship during the pandemic and those who remain in wage employment. In the short run, entrepreneurial entrants earn approximately 11.8% higher income relative to the baseline income in 2019. The estimate is statistically significant and economically large. Extending the outcome window through 2023 yields a nearly identical coefficient of 11.1, indicating that the income gap does not reverse as the economy reopens and labor market conditions normalize.

Notably, the magnitude and sign of our earnings estimates in the post-pandemic period contrast sharply with income changes associated with entrepreneurial entry prior to the pandemic. Specifically, we benchmark the pandemic estimates against entrepreneurial entry in normal times by implementing a placebo exercise using an identical specification for

the period from 2016 to 2018. Our sample consists of women with children whose primary income source is wage employment in 2016, and the treatment indicator identifies transitions into entrepreneurship in 2017 or 2018. Consequently, our placebo comparison isolates income changes associated with entrepreneurial entry absent the pandemic-era disruptions documented earlier in the paper. In column (3), our estimate yields a negative coefficient of -4.1%, indicating that, absent the pandemic, transitions into entrepreneurship within this cohort are associated with lower income relative to baseline, consistent with the view that entrepreneurship does not generally deliver higher realized earnings in normal times. The reversal in sign between the pandemic and pre-pandemic cohorts highlights that the positive income effects observed in 2020 and 2021 are not a mechanical consequence of switching into entrepreneurship.

Finally, we assess income risk in column (4) by focusing on changes in income dispersion in the post-pandemic period among entrepreneurial entrants. In particular, we re-estimate our specification using as the outcome variable the ratio of an individual's adjusted gross income volatility in the post-pandemic period from 2020 to 2023 relative to the respective volatility in pre-pandemic period from 2016 to 2019. Our results demonstrate that higher average income among pandemic-era entrants is accompanied by greater income volatility. The estimated coefficient for individuals who enter entrepreneurship in 2020–2021 is 4.2%, indicating a statistically significant increase in income dispersion relative to non-entrants.

Overall, our income results document that women with children who enter entrepreneurship during the pandemic experience higher average income than comparable wage employees, however at the cost of experiencing significantly greater income volatility, with both effects persisting over multiple years. The contrast with the pre-pandemic placebo cohort rules out an interpretation based on a generic entrepreneurship premium or mechanical income growth following entry. Instead, the evidence aligns with the long-standing characterization of entrepreneurial income as both higher-risk and potentially higher-return than salaried employment. Importantly, the increase in average income is accompanied by greater

exposure to idiosyncratic risk (Moskowitz and Vissing-Jørgensen (2002)), indicating that pandemic-era entrants exchange higher earnings with a lower degree of income insurance. Combined with our finding that women entrepreneurs with children originate from higher-skilled sectors, our evidence on income is consistent with the broader literature emphasizing the riskiness of entrepreneurship, while pointing to recent evidence that large-scale labor-market shifts are followed by entry from individuals with stronger entrepreneurial earning potential rather than predominantly generating low-return necessity entry (Babina (2020); Hacamo and Kleiner (2022); Denes, Lagaras, and Tsoutsoura (2025)).

4.2 Persistence

The income results indicate that transitions into entrepreneurship during the pandemic are associated with higher income, albeit at the cost of greater income volatility. A remaining question is whether these transitions reflect short-lived responses to temporary disruptions or represent persistent shifts to labor supply. If entrepreneurship primarily serves as a transitory accommodation to stabilize income, one would expect high rates of reversion to wage employment once labor market conditions improve. By contrast, sustained entrepreneurial attachment would indicate that the pandemic cohort potentially permanently transitioned into a different occupational path rather than engaging in brief experimentation.

To examine persistence, we restrict our analysis to individuals who create new firms from 2016 to 2021 and estimate the following specification at the founder level:

$$\begin{aligned} \textit{Business Owner}_{i(CZ),t+k} = \alpha_{CZ\times s} + \alpha_t + \beta \cdot \text{Post}_{20-21} \cdot \text{Women with Children}_{i,t-1} \\ + \gamma \cdot \text{Women with Children}_{i,t-1} + \varepsilon_{i(CZ),t+k}, \end{aligned} \tag{3}$$

where $\textit{Business Owner}_{i(CZ),t+k}$ is an indicator equal to one if an individual i, who founded a firm in year t, located in commuting zone CZ and operating in industry s, owns any Schedule C business in a given year k after founding, regardless of whether the original firm survives.

Notice that our definition captures continued participation in entrepreneurship rather than firm-level survival. We examine business ownership in years one and two after a firm is founded. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. We define $Women\ with\ Children_{i,t-1}$ as an indicator variable equaling one if individual i is a woman and has any children in year t-1. We include commuting zone $\times$ sector fixed effects ($\alpha_{CZ\times s}$) to absorb unobserved time-invariant heterogeneity within local economy and industry pairs, as well as founding-year (α_t) fixed effects to absorb time trends in firm creation. Standard errors are clustered at the commuting-zone level. The coefficient of interest is β, which estimates the marginal effect of women with children on business ownership in 2020 and 2021. Our analysis essentially follows individuals who start a business within a labor market and industry over time and examines subsequent involvement in entrepreneurship in subsequent years, regardless of the outcome of the focal firm.

[Insert Table 9 Here]

Table 9 provides the results. Our coefficient estimates in columns (1) and (2) indicate that women with children who enter entrepreneurship during 2020–2021 are significantly more likely to remain entrepreneurs after entry. One year after founding, the probability of being a business owner is higher by 2.4 percentage points for the pandemic cohort relative to pre-pandemic entrants, whereas two years after founding, the increase is 2.1 percentage points. These effects are economically meaningful, reflecting 2.8% to 4% increases in business ownership relative to the average rates of subsequent business ownership one and two years after founding. Notice that the level coefficient for women with children is negative, indicating that in normal times women with children are less likely to remain entrepreneurs after entry. The interaction therefore reflects a distinct shift for the pandemic cohort rather than a general tendency for women with children to persist longer in self-employment.

Taken together, the persistence results complement our income findings, suggesting that transitions into entrepreneurship largely represent persistent shifts in the occupational

trajectory of the pandemic cohort. Our findings are aligned with broader recent evidence that the pandemic generated persistent reallocation across jobs and employment arrangements rather than short-lived adjustment (Barrero et al. (2021); Goldin (2022)).

5 Characteristics of Newly Created Firms

This section studies characteristics of newly created firms. In Section 5.1, we examine the industry composition of newly created firms following the recent labor market disruption compared to the prior period. Section 5.2 evaluates subsequent firm survival and performance.

5.1 Industry Composition

A large literature emphasizes that the sectoral allocation of entry is central for understanding aggregate reallocation, productivity dynamics, and subsequent labor demand, particularly following large shocks (Davis and Haltiwanger (1999)). A critical question raised by the surge in entrepreneurial entry during the "Great Reshuffling" is whether the increase in the number of firms is accompanied by a reallocation in the nature and types of firms being created, reflecting a broader reshaping of production across sectors. This margin is particularly relevant given that women entrepreneurs are underrepresented in normal times, implying that a disproportionate increase in entry by women with children is potentially by itself sufficient to mechanically alter the sectoral footprint of firm creation, even absent changes in average firm outcomes.

Consequently, we start by examining the industry composition of newly created firms at founding. We use the universe of newly created firms in the United States described in Section 2.1 from 2016 to 2021. We extract information on the industry classification of newly created firms from the two-digit NAICS code reported in firms' tax returns and estimate the

share of newly created firms in a particular industry in our sample.[14] We compare the industry composition prior to labor market disruptions in 2016 to 2019, which is defined as *Pre*, to the period of 2020 and 2021 (*Post*).

[Insert Figure 3 Here]

Figure 3 reports the industry composition for the universe of U.S. firms. The lighter blue bars represent the proportion of firms in a particular industry from 2016 to 2019. The darker blue bars display the share of firms formed in a particular industry in 2020 and 2021. Overall, personal and professional services along with trade account for a large part of economic activity in sole prioprietorships. Having said that, there is a substantial post-pandemic increase of newly created firms in personal services, trade, and transportation relative to the pre-period, accompanied by a decline in professional services, healthcare and manufacturing. The results suggest that shifts in labor markets in 2020 and 2021 potentially support entry into entrepreneurship through online platforms that facilitate the digital provision of personal services and retail trade.

Panels B and C repeat the analysis on the industry distribution for the universe of U.S. sole proprietorships by comparing differential shifts for women entrepreneurs with children and the rest of entrepreneurs. We find that the observed shifts in the composition of newly created firms in 2020 and 2021 are sharper for women entrepreneurs with children, further highlighting the effect of the heterogeneous surge in entrepreneurial entry on the evolving nature of entrepreneurship. For example, there is a substantial shift to creating firms in trade and professional services, which is particularly pronounced for women founders with children. In sum, our evidence indicates that the pandemic substantially changed the profiles of firms formed in 2020 and 2021.

[14]We aggregate each two-digit NAICS sector in parentheses into nine broad industries using the following classification: Arts and Media (51, 71), Finance and Real Estate (52, 53, 55), Healthcare (62), Manufacturing (23, 31, 32, 33), Personal Services (61, 72, 81), Professional Services (54, 56), Resource Extraction (11, 21, 22), Trade (42, 44, 45), and Transportation (48, 49). We exclude firms with no industry reported and those in Public Administration (92).

5.2 Firm Survival and Performance

Our previous findings highlight that there was a large increase in entrepreneurial entry in 2020 and 2021, with flexibility increasingly developing into a critical differentiating factor. The macroeconomic significance of the "Great Reshuffling"-era surge in entrepreneurial entry hinges on the performance of the firms that are created, especially those founded by the groups driving the increase in entry. We analyze the performance of newly created firms during this period relative to the pre-period. If entrepreneurial talent is homogeneous, then there could be no effect on firm outcomes during a period of labor market disruptions. Alternatively, if entrepreneurial entry is only transitory until labor market conditions improve, transitions to entrepreneurship in the post period are expected to be followed by an increase in firm exits and a low rate of high-growth firms. Prior literature emphasizes the role of aggregate conditions at the time of entry as an important factor in explaining subsequent firm dynamics and growth (Sedláček and Sterk (2017)). By contrast, Hacamo and Kleiner (2022) provide evidence that labor market downturns allow individuals with untapped entrepreneurial potential to transition to entrepreneurship and subsequently create high-growth firms.

We estimate the following specification at the firm level:

$$\begin{aligned} Y_{f(CZ),t+k} = \alpha_{CZ\times s} + \alpha_t + \beta \cdot \text{Post}_{20-21} \cdot \text{Women with Children}_{f,t-1} \\ + \gamma \cdot \text{Women with Children}_{f,t-1} + \varepsilon_{f(CZ),t+k}, \end{aligned} \tag{4}$$

where $Y_{f(CZ),t+k}$ is an outcome for firm f founded in year t located in commuting zone CZ and operating in industry s. We examine performance in years one and two after a firm is started. While our firm outcomes are measured over the first two years after founding, this window captures the period with the highest exit rates and is informative about early viability. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. $Women\ with\ Children_{f,t-1}$ is an indicator variable equaling one if the founder is a woman

and reports having any children in the year prior to founding. We include commuting-zone-by-sector fixed effects ($\alpha_{CZ\times s}$) to capture time-invariant heterogeneity in the local economy and industry, as well as founding-year (α_t) fixed effects to absorb time trends in firm creation. Standard errors are clustered at the commuting-zone level. The coefficient of interest, β, captures the differential change in firm outcomes for women entrepreneurs with children among firms founded during 2020–2021, relative to pre-pandemic cohorts within the same local industry environment.

[Insert Table 10 Here]

Table 10 reports the estimated coefficients for our different firm outcomes. In columns (1) and (2), the first firm outcome that we evaluate is a firm's survival. We define *Survival* as an indicator variable equaling one if a firm files taxes in a particular year after founding.[15] We find that firms established by female entrepreneurs with children in 2020 and 2021 exhibit a significantly higher likelihood of survival. In particular, we find that these firms are 1.7 and 1.6 percentage points more likely to survive both in the first and the second year following founding, respectively. The estimates are statistically significant and economically meaningful. For example, relative to the average survival rate of 56% two years after founding, firms created by women with children during the "Great Reshuffling" are 3% more likely to survive.

Columns (3) and (4) examine firms' profitability. We define $Profitability$ as the inverse hyperbolic sine of a firm's gross profits as reported in a firm's Schedule C for a particular year after a firm is started. We find that firms started by women entrepreneurs with children have higher profitability in the post period. Our coefficient estimates suggest that the profitability of firms started by women entrepreneurs with children in 2020 and 2021 is 25.2% and 10.2% higher in the first and the second year following founding, respectively.[16]

[15]Specifically, a firm is observed in a particular year if a Schedule C with the same EIN is filed by a tax filer with the same SSN as at the firm's founding.

[16]For the profitability specifications, we report the percentage change coefficient in the text after the transformation. The tables contain the raw coefficients.

We conclude by evaluating the propensity of firms to employ individuals at founding and the year after founding. We define *Has Employees* as an indicator variable equaling one if a firm has any employees in a particular year. Contrary to our findings for survival and profitability, we mostly find that firms started by women entrepreneurs with children are less likely to employ workers, which is larger in magnitude during the post period–albeit limited in magnitude. Notice that across our firm outcomes estimates, the level coefficient indicates that firms founded by women with children are, on average, less likely to survive, be profitable, and employ workers in normal times. Consistent with prior evidence, the positive interaction with the pandemic period therefore reflects a differential shift in outcomes for the 2020 and 2021 cohort rather than a general advantage of women founders with children.

Putting it all together, the firm outcomes sharpen the interpretation of the earlier evidence. The surge in entry among women with children is not associated with weaker survival or profitability; on the margins observed in administrative data, "Great Reshuffling"-era firms founded by this group appear to perform better in their first two years. At the same time, these firms are less likely to hire workers, indicating that the post-period shift is disproportionately toward owner-operated businesses rather than immediate employer formation. This combination aligns naturally with the individual-level income findings: higher average income accompanied by higher volatility is consistent with reallocation toward business models compatible with flexibility and individual-scale production, even when firms remain small in employment terms. The results also speak to the competing perspectives on shock-induced entrepreneurship. They are hard to reconcile with a view in which the pandemic wave is dominated by low-quality, short-lived entry, and instead are consistent with evidence that disruptions can induce entry by individuals with stronger entrepreneurial potential (Hacamo and Kleiner (2022)), while remaining consistent with broader evidence that the timing of entry can shape subsequent cohort outcomes (Sedláček and Sterk (2017)).

6 Survey

Our administrative data allow us to provide large-scale evidence on entrepreneurial entry, persistence, income, and firm outcomes, however we are unable to directly reveal individuals' stated motivations for pursuing entrepreneurship or conclusively document shifts in preferences towards non-pecuniary benefits of entrepreneurship. To complement our primary analysis, we conducted a large-scale survey of a representative sample of U.S. participants to collect self-reported information on recent entrepreneurial activity in the aftermath of the "Great Reshuffling," and potential motivations behind the decision to pursue entrepreneurship. The purpose of our survey is not to establish causal mechanisms, but rather it is to provide suggestive evidence on whether the revealed-preference patterns documented in the administrative data align with how individuals describe their own decisions to create a firm.

Specifically, the objective of our survey is twofold. First, we aim to identify the relative propensity of different groups of individuals to pursue entrepreneurship in the recent period after the "Great Reshuffling." Examining the demographic characteristics of the groups that exhibit a higher likelihood to enter entrepreneurship is critical in validating persistent shifts in preferences among demographic groups toward a particular occupational path. Second, we aim to quantify the relative importance of various factors in explaining entrepreneurial entry among different groups of entrepreneurs. For example, the survey allows us to provide suggestive evidence on the relative importance of non-pecuniary preferences with preferences for financial value in deciding potential entry to entrepreneurship. A representative sample of U.S. participants (N=1,001) was recruited on Prolific and received approximately $16 per hour for their participation in the survey. The survey was conducted from November 19, 2025 to November 21, 2025. The median response time was 2 minutes and 5 seconds. The participants were recruited to be representative for age groups, gender, and ethnicity groups. Prolific sent likely participants an email containing a personalized survey link, and only those who enter the survey are recorded. In total, we obtained 1,035 responses, out of

which 1,001 were complete. The survey questions are provided in Appendix B.

The survey yields three central insights that complement our administrative evidence. First, women with children report a higher propensity to engage in recent entrepreneurial activity. Panel A of Figure 4 shows that a larger share of women with children report having taken actions to start a business in the past 12 months relative to the rest of the respondents. The difference is particularly pronounced among women with younger children, as women respondents with children aged 0 to 4 report the highest propensity to start a business. While the survey is not designed to estimate population entry rates, the direction of the difference mirrors the core pattern documented in the administrative data, where entrepreneurial entry rises disproportionately among women with children during and after the "Great Reshuffling."

Second, stated motivations for entrepreneurship differ sharply by caregiving status. Panel B of Figure 4 reports the share of respondents who list each motivation among their top three reasons for starting a business. Among women with children, flexibility-related motivations–such as 'flexibility" and "work from home / stay home with children"–feature prominently among the most frequently selected reasons. In contrast, the rest of the respondents exhibit a more balanced distribution of motivations, with relatively greater emphasis on income, skill use, and personal or social fulfillment. This contrast is consistent with the interpretation that entrepreneurship functions as a flexibility-oriented adjustment margin for women with caregiving responsibilities, as suggested by our baseline findings.

Third, Panel C of Figure 4 sharpens this comparison by focusing on respondents' most important motivation. While income-related motives play a comparatively larger role for both groups, among women with children, flexibility-related reasons are the second most important factor: nearly 28% identify flexibility as their primary motivation for starting a business, substantially exceeding the share among the rest of the respondents without children. This contrast reinforces the view that entrepreneurship serves different roles across groups, functioning more as a flexibility-oriented adjustment margin for women with care-

giving responsibilities.

Overall, the survey evidence aligns closely with the administrative results. Women with children are more likely to report recent entrepreneurial activity, and they disproportionately emphasize flexibility-related motivations when describing why they pursue entrepreneurship. Importantly, these stated motivations are consistent with the interpretation advanced in the main analysis: that childcare constraints and disruptions to traditional employment arrangements played a central role in driving entrepreneurial entry among women with children during the "Great Reshuffling," potentially shifting preferences towards the specific occupational path for those who value flexibility. At the same time, the survey evidence complements the income and firm-level results by underscoring that flexibility-oriented entry does not preclude meaningful economic outcomes, but it instead coincides with the higher-income, higher-risk evidence documented in the previous section.

7 Conclusion

The pandemic triggered one of the largest reallocations of labor in recent history. Our paper studies how that reallocation reshaped entrepreneurial entry, who entered, and what followed in terms of subsequent firm performance. Using the universe of U.S. administrative tax records, we document a large and persistent increase in entrepreneurship during 2020 and 2021 that remains elevated beyond the initial shock. The increase is highly heterogeneous and concentrated among women with children—a group that is less likely to enter entrepreneurship in normal times and was disproportionately affected by disruptions to traditional employment arrangements.

A central feature of this reallocation is its close link to flexibility and caregiving constraints. We show that the increase in entrepreneurial entry among women with children is stronger for women with younger children and in locations experiencing more severe school closures and childcare disruptions. By contrast, we find no evidence of differential response

when considering the role of forced entrepreneurship due to unemployment risk. Likewise, we consider the role of remote work or the possibility of shifts in risk preferences and find no evidence in line with our observed heterogeneous response. These patterns indicate that entrepreneurship functioned as an important margin of labor supply adjustment when standard work arrangements became difficult to sustain, rather than as a uniform response to aggregate conditions. In fact, our survey results align closely with the stronger entry into entrepreneurship by women with children, highlighting the importance of flexibility-related considerations as primary motivations for entrepreneurship.

Following entrants over time, we show that these transitions are not short-lived. Women with children who enter entrepreneurship during the pandemic are more likely to remain entrepreneurs in subsequent years than comparable pre-pandemic entrants, indicating persistent shifts in labor supply rather than temporary adjustment. Examining income trajectories, we find that "Great Reshuffling"-era entrants experience higher average income relative to comparable wage workers, but also face significantly greater income volatility. This combination clarifies that entrepreneurship during the pandemic did not provide a costless improvement in pecuniary outcomes; instead, entrants moved into a higher-mean, higher-risk income environment characteristic of self-employment.

We further show that the surge in entrepreneurship was accompanied by systematic changes in the types of firms being created. New firms formed during the pandemic are more concentrated in trade and personal services, with these shifts driven disproportionately by women with children. Importantly, firm outcomes do not suggest a decline in quality. Firms founded by women with children during the "Great Reshuffling" exhibit higher early survival and profitability, though they are less likely to employ workers, pointing to a reallocation toward smaller, owner-operated businesses rather than employer firms.

In total, our evidence indicates that the "Great Reshuffling" reshaped entrepreneurship along both extensive and intensive margins. Rather than reflecting widespread necessity entry or short-lived experimentation, the surge in entrepreneurship during the "Great Reshuf-

fling" appears to involve persistent reallocation into entrepreneurship among a group previously underrepresented, closely tied to constraints on traditional employment arrangements. These findings complement broader evidence that the pandemic induced lasting changes in occupational choice and work arrangements, and they highlight entrepreneurship as a central margin through which workers—particularly those facing caregiving constraints—responded to disrupted labor markets.

The results also raise questions for future research. While our paper focuses on realized income, persistence, and firm outcomes within the two-year period following founding, understanding the longer-run implications of the extensive reallocation that occured—for wealth accumulation, inequality, and aggregate productivity—remains an open question. More broadly, the "Great Reshuffling" episode illustrates the role of large-scale labor market shocks that interact with household constraints and job structures in reshaping occupational sorting in persistent ways, with entrepreneurship playing a key role in that adjustment.

References

Albanesi, Stefania and Jiyeon Kim, 2021, Effects of the COVID-19 Recession on the US Labor Market: Occupation, Family, and Gender, *Journal of Economic Perspectives*, 35(3), 3–24.

Alon, Titan, Sena Coskun, Matthias Doepke, David Koll, and Michèle Tertilt, 2022, From Mancession to Shecession: Women's Employment in Regular and Pandemic Recessions, *NBER Macroeconomics Annual*, 36(1), 83–151.

Babina, Tania, 2020, Destructive Creation at Work: How Financial Distress Spurs Entrepreneurship, *Review of Financial Studies*, 33(9), 4061–4101.

Barrero, Jose Maria, Nicholas Bloom, Steven J. Davis, and Brent H. Meyer, 2021, COVID-19 is a Persistent Reallocation Shock, *AEA Papers and Proceedings*, 111, 287–291.

Barrios, John Manuel, Yael V. Hochberg, and Hanyi (Livia) Yi, 2024, Hustling from Home? Work from Home Flexibility and Entrepreneurial Entry, *Working Paper*.

Bayard, Kimberly, Emin Dinlersoz, Timothy Dunne, John Haltiwanger, Javier Miranda, and John Stevens, 2018, Early-Stage Business Formation: An Analysis of Applications for Employer Identification Numbers, *Working Paper*.

Belo, Frederico, Jun Li, Xiaoji Lin, and Xiaofei Zhao, 2017, Labor-force Heterogeneity and Asset Prices: The Importance of Skilled Labor, *Review of Financial Studies*, 30(10), 3669–3709.

Bias, Daniel and Alexander Ljungqvist, 2024, Great Recession Babies: How Are Startups Shaped by Macro Conditions at Birth?, *Working Paper*.

Davis, Steven J. and John Haltiwanger, 1999, On the Driving Forces behind Cyclical Movements in Employment and Job Reallocation, *American Economic Review*, 89(5), 1234–1258.

Decker, Ryan and John Haltiwanger, 2023, Surging Business Formation in the Pandemic: Causes and Consequences, *Brookings Papers on Economic Activity*, 3–24.

Denes, Matthew, Spyridon Lagaras, and Margarita Tsoutsoura, 2025, Entrepreneurship and the gig economy: Evidence from US tax returns, *Journal of Financial Economics*, 173, 104156.

Dingel, Jonathan I. and Brent Neiman, 2020, How Many Jobs can be Done at Home?, *Journal of Public Economics*, 189, 104235.

Fazio, Catherine E, Jorge Guzman, Yupeng Liu, and Scott Stern, 2021, How is COVID Changing the Geography of Entrepreneurship? Evidence from the Startup Cartography Project, *Working Paper*.

Goldin, Claudia, 2022, Understanding the Economic Impact of COVID-19 on Women, *Working Paper*.

Gottlieb, Joshua D., Richard Townsend, and Ting Xu, 2022, Does Career Risk Deter Potential Entrepreneurs?, *Review of Financial Studies*, 35(9), 3973–4015.

Hacamo, Isaac and Kristof Kleiner, 2022, Forced Entrepreneurs, *Journal of Finance*, 77(1), 49–83.

Haltiwanger, John C., 2022, Entrepreneurship during the COVID-19 Pandemic: Evidence from the Business Formation Statistics, *Entrepreneurship and Innovation Policy and the Economy*, 1(1), 9–42.

Hamilton, Barton H., 2000, Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment, *Journal of Political Economy*, 108(3), 604–631.

Kwan, Alan, Ben Matthies, Richard Townsend, and Ting Xu, 2025, Entrepreneurial Spawning from Remote Work, *Working Paper*.

Mas, Alexandre and Amanda Pallais, 2017, Valuing Alternative Work Arrangements, *American Economic Review*, 107(12), 3722–59.

Moskowitz, Tobias J. and Annette Vissing-Jørgensen, 2002, The Returns to Entrepreneurial Investment: A Private Equity Premium Puzzle?, *American Economic Review*, 92(4), 745–778.

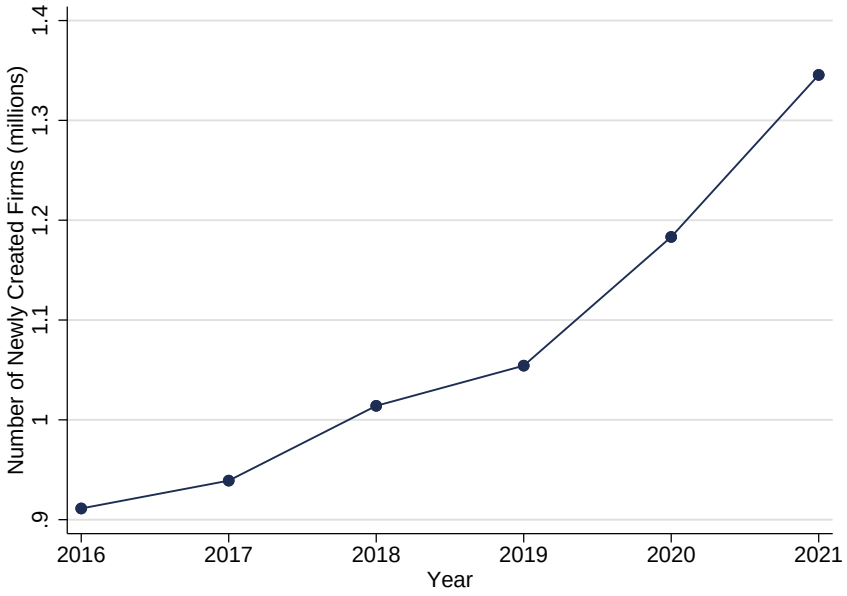
Sedláček, Petr and Vincent Sterk, 2017, The Growth Potential of Startups over the Business Cycle, *American Economic Review*, 107(10), 3182–3210.

Simintzi, Elena, Sheng-Jun Xu, and Ting Xu, 2025, The Effect of Childcare Access on Women's Careers and Firm Performance, *Working Paper*.

Figure 1: Entry into Entrepreneurship

The figure shows entry into entrepreneurship in the United States from 2016 to 2021. Panel A plots the number of new firms created (in millions) during a particular year. Panel B provides the share of U.S. individuals aged 25 to 65 creating new firms in a particular year. Section 2.1 explains how entrepreneurship is measured using data from U.S. federal tax returns.

Panel A: Number of New Firms



Panel B: Share of Founders

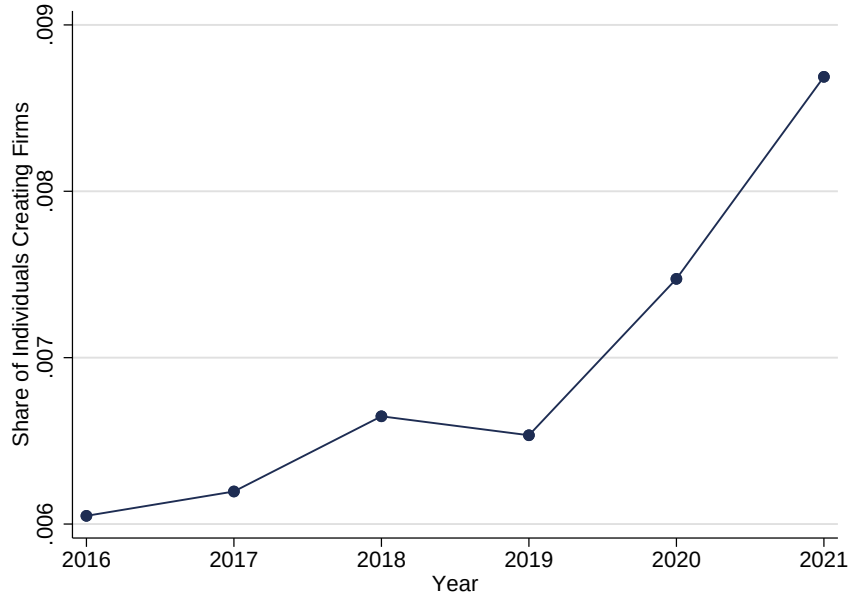


Figure 2: Sectoral Labor Market Disruptions

This figure examines the role of gender in labor market disruptions by industry. *Share of Women* is the share of women employed in a particular industry in 2019. *Percent Change in Unemployment* is the percent change in the number of unemployed individuals from 2019 to 2020 in a particular industry.

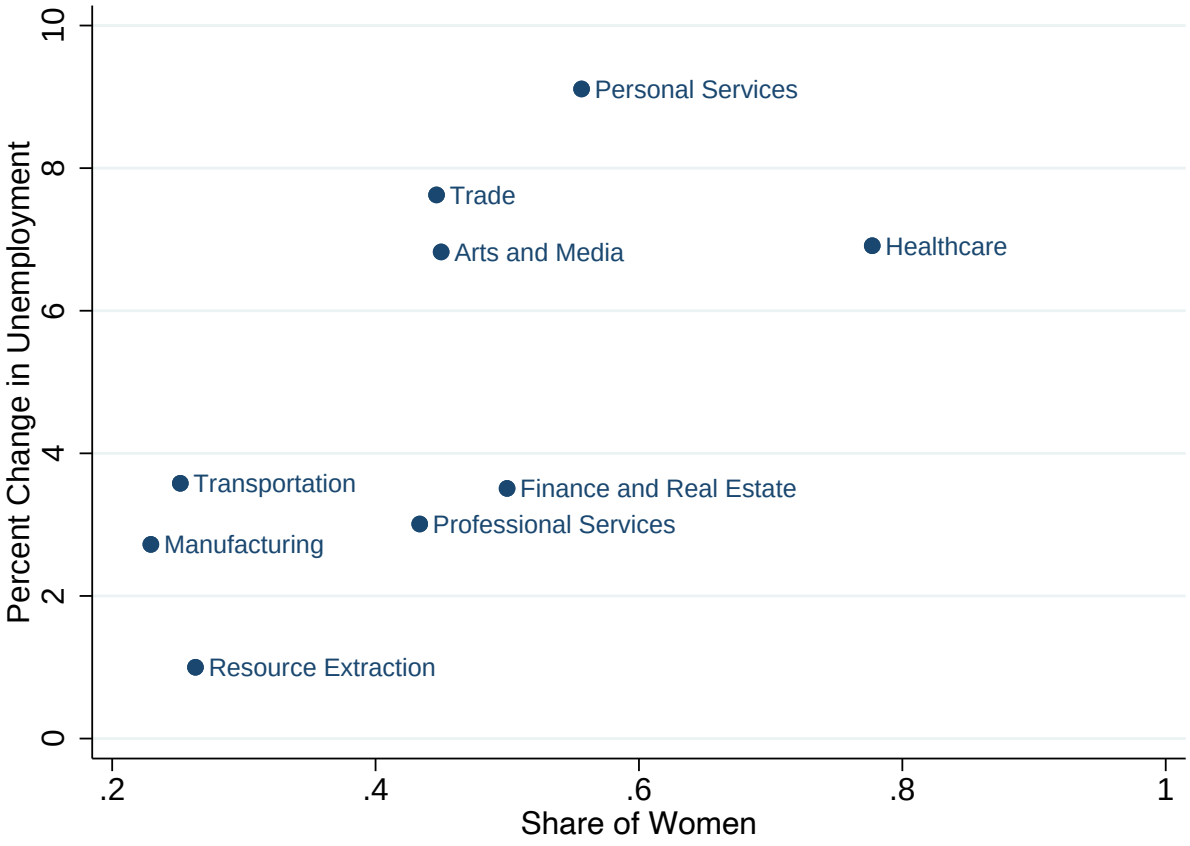
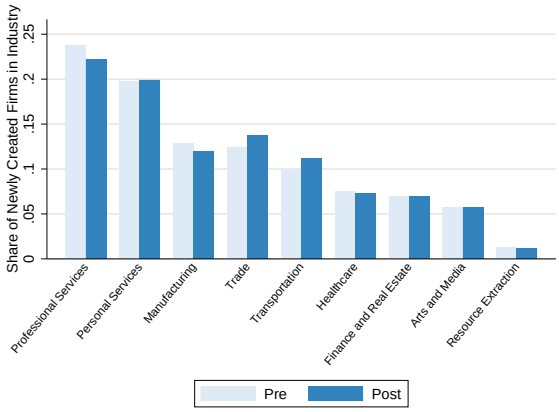


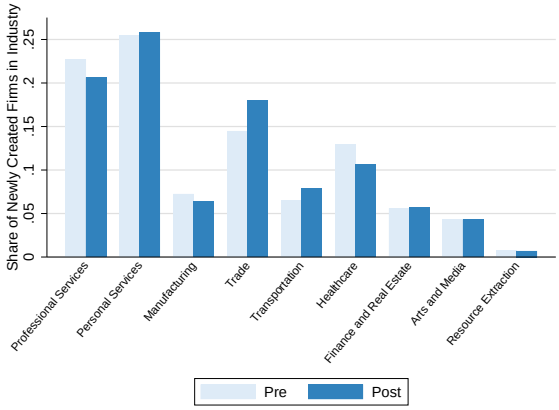
Figure 3: Industry Composition of Newly Created Firms

This figure provides the industry composition of new firms created in 2016 to 2021. *Pre* includes firms created in 2016 to 2019. *Post* captures new firms in 2020 and 2021. Panel A provides industry shares of newly created firms. Panel B displays the industry distribution for firms started by women entrepreneurs. Panel C shows the industry composition for firms started by individuals who are not women with children.

Panel A: All Firms



Panel B: Firms Started by Women with Children



Panel C: Firms Started by Not Women with Children

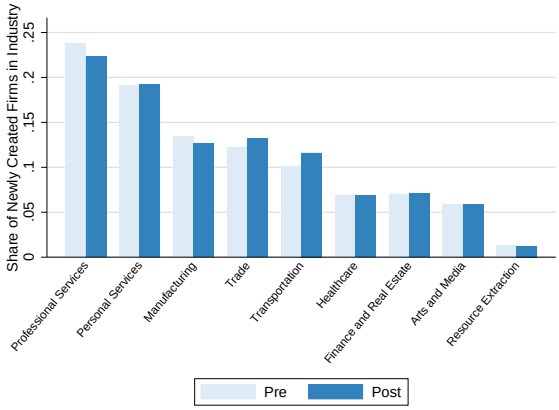
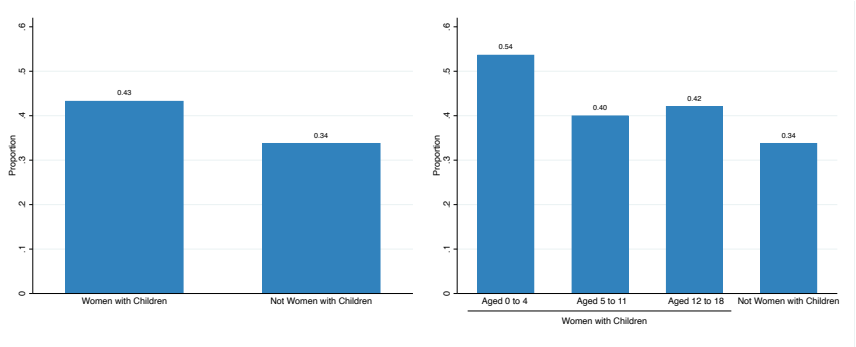


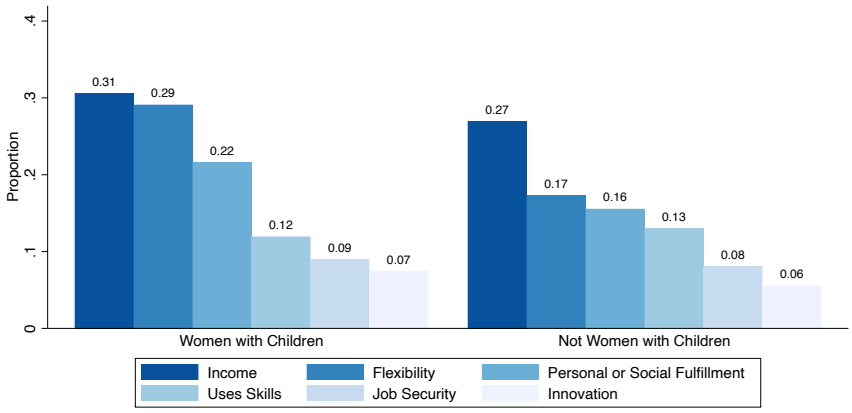
Figure 4: Survey Responses

This figure provides the distribution of responses to survey questions. Panel A provides the distribution of responses to Question 1 in the survey for women with children and the rest of the respondents, capturing the propensity of respondents to start a business. Panel B displays the share of motivations listed among the respondents' top three reasons for starting a business, separately for women with children and the rest of the respondents. Panel C reports the share of the respondents' most important motivation for starting a business, separately for women with children and the rest of the respondents. N = 1,001.

Panel A: Propensity to Start a Business



Panel B: Top Three Most Important Motivations for Starting a Business



Panel C: Most Important Motivation for Starting a Business

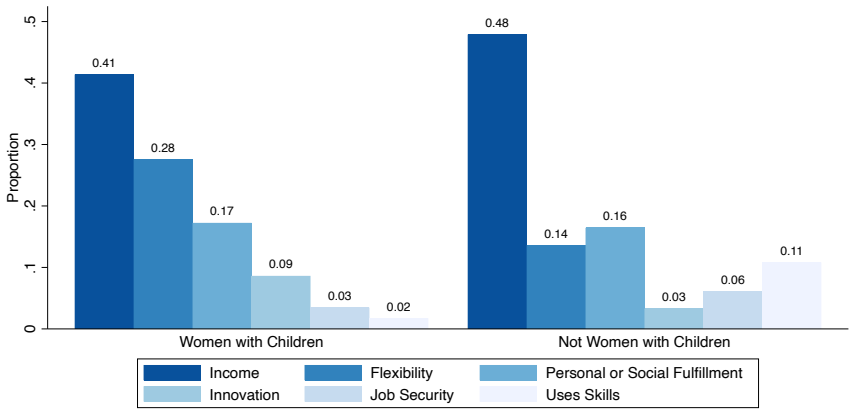


Table 1: Summary Statistics

This table provides summary statistics for variables used in our analyses. Panel A includes variables at the individual-year level, Panel B contains variables for the cross-section of entrepreneurs, and Panel C has firm outcomes. All variables are defined in Appendix A.

Panel A: Individual Variables

Variable	Number of Observations	Mean	Median	Standard Deviation
Founder	583,065,526	0.006	0.000	0.080
First-Time Founder	583,065,526	0.006	0.000	0.075
Founder with Employees	583,065,526	0.001	0.000	0.031
Founder Any	583,065,526	0.008	0.000	0.091
Women with Children	583,065,526	0.216	0.000	0.412
Women with Children Aged 0 to 4	583,065,526	0.067	0.000	0.250
Women with Children Aged 5 to 11	583,065,526	0.107	0.000	0.309
Women with Children Aged 12 to 18	583,065,526	0.111	0.000	0.314

Panel B: Entrepreneur Variables

Variable	Number of Observations	Mean	Median	Standard Deviation
AGI Ratio 2020-2021	51,375,424	1.066	1.045	0.834
AGI Ratio 2020-2023	102,750,848	1.093	1.065	0.948
AGI Ratio 2017-2018	41,151,716	1.163	1.070	0.626
AGI Volatility Difference	25,686,484	2.556	1.275	3.780
Founder 2020-2021	51,375,424	0.011	0.000	0.105
Founder 2017-2018	41,151,716	0.007	0.000	0.084
Business Owner in One Year	6,377,034	0.720	1.000	0.449
Business Owner in Two Years	6,376,201	0.577	1.000	0.494
Women with Children	6,377,034	0.101	0.000	0.301

Panel C: Firm Variables

Variable	Number of Observations	Mean	Median	Standard Deviation
Survival One Year After Founding	6,416,428	0.717	1.000	0.451
Survival Two Years After Founding	6,416,428	0.561	1.000	0.496
Profitability One Year After Founding	4,167,900	8.775	10.307	4.722
Profitability Two Years After Founding	3,257,296	9.109	10.487	4.546
Has Employees at Founding	6,416,428	0.158	0.000	0.365
Has Employees in One Year	4,594,243	0.175	0.000	0.380
Women with Children	6,416,428	0.101	0.000	0.301

Table 2: Entry into Entrepreneurship

The table examines entry into entrepreneurship by estimating equation (1). *Founder* is an indicator variable equaling one if an individual starts a firm in that particular year. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. $Post_{20-23}$ is an indicator variable equaling one if the year is between 2020 and 2023. $Post_{22-23}$ is an indicator variable equaling one if the year is 2022 or 2023. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone × year fixed effects. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting-zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Founder					
	(1)	(2)	(3)	(4)	(5)	(6)
$Post_{20-21}$ × Women with Children	0.054***		0.054***	0.054***	0.033***	0.084***
	(0.009)		(0.009)	(0.006)	(0.009)	(0.012)
$Post_{20-23}$× Women with Children		0.036***				
		(0.008)				
$Post_{22-23}$× Women with Children			0.017**			
			(0.007)			
Women with Children	-0.208***	-0.208***	-0.208***	-0.297***	-0.155***	-0.235***
	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)	(0.009)
Sample	Cohort	Cohort	Cohort	Full	Low Skill	High Skill
CZ × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.001	0.001	0.001	0.001	0.001	0.001
Observations	583,065,526	762,151,376	762,151,37	914,996,613	205,910,680	199,210,349

Table 3: Robustness

This table examines robustness of the baseline findings on who enters into entrepreneurship by estimating equation (1). *First-Time Founder* is an indicator variable equaling one if an individual starts their first Schedule C firm in a particular year. *Founder with Employees* is an indicator variable equaling one if an individual starts a firm in a particular year and has at least one employee in the two-year period after founding. *Founder Broad* is an indicator variable equaling one if an individual starts a firm in a particular year based on Schedule C, single-owner S corporation, and LLCs. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone × year fixed effects. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting-zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	First-Time Founder	Founder with Employees	Founder Broad
	(1)	(2)	(3)
$Post_{20-21}$ × Women with Children	0.053***	0.002**	0.065***
	(0.007)	(0.001)	(0.009)
Women with Children	-0.165***	-0.044***	-0.282***
	(0.006)	(0.001)	(0.010)
Commuter Zone × Year FE	Yes	Yes	Yes
R^2	0.001	0.000	0.001
Observations	583,065,526	583,065,526	583,065,526

Table 4: Flexibility

The table evaluates the role of flexibility in entrepreneurial entry by estimating equation (1). *Founder* is an indicator variable equaling one if an individual starts a firm in a particular year. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. *Women with Children Aged* 0 *to* 4 is an indicator variable equaling one if an individual is a woman and has any children aged 0 to 4. *Women with Children Aged* 5 *to* 11 is an indicator variable equaling one if an individual is a woman and has any children aged 5 to 11. *Women with Children Aged* 12 *to* 18 is an indicator variable equaling one if an individual is a woman and has any children aged 12 to 18. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone × year fixed effects. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting-zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Founder		
	(1)	(2)	(3)
$Post_{20-21}$	0.061***		
× Women with Children Aged 0 to 4	(0.004)		
$Post_{20-21}$	0.069***		
× Women with Children Aged 5 to 11	(0.008)		
$Post_{20-21}$	-0.003		
× Women with Children Aged 12 to 18	(0.006)		
$Post_{20-21}$ × Women with Children		0.039***	0.076***
		(0.007)	(0.017)
Women with Children Aged 0 to 4	-0.100***		
	(0.005)		
Women with Children Aged 5 to 11	-0.104***		
	(0.005)		
Women with Children Aged 12 to 18	-0.183***		
	(0.006)		
Women with Children		-0.204***	-0.208***
		(0.009)	(0.011)
Sample	Cohort	Low School Closures	High School Closures
Commuting Zone × Year FE	Yes	Yes	Yes
R^2	0.001	0.001	0.001
Observations	583,065,526	281,757,729	281,977,300

Table 5: Prior Work Arrangements

The table investigates the response in entrepreneurial entry based on prior work arrangements by estimating equation (1). *Founder* is an indicator variable equaling one if an individual starts a firm in a particular year. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone × year fixed effects. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting-zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Founder					
	(1)	(2)	(3)	(4)	(5)	(6)
$Post_{20-21}$ × Women with Children	0.063***	0.043***	0.064***	0.045***	0.056***	0.061***
	(0.011)	(0.008)	(0.011)	(0.008)	(0.007)	(0.016)
Women with Children	-0.228***	-0.184***	-0.219***	-0.192***	-0.245***	-0.155***
	(0.009)	(0.006)	(0.009)	(0.006)	(0.006)	(0.012)
Sample	Low 3-month Unemp.	High 3-month Unemp.	Low 8-month Unemp.	High 8-month Unemp.	Employed	Unemployed
Commuter Zone × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.001	0.001	0.001	0.001	0.001	0.002
Observations	281,213,682	276,648,377	283,515,742	274,346,317	428,651,410	133,206,527

Table 6: Entry into Entrepreneurship: Alternative Explanations

The table evaluates alternative explanations for the baseline results by estimating equation (1). $Founder$ is an indicator variable equaling one if an individual starts a firm in that particular year. $Founder_{low\ CF\ vol.}$ is an indicator variable equaling one if an individual starts a firm in a low-cash flow volatility industry in that particular year. $Founder_{high\ CF\ vol.}$ is an indicator variable equaling one if an individual starts a firm in a high-cash flow volatility industry in that particular year. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. $Women\ with\ Children$ is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone × year fixed effects. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting-zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Founder		$Founder_{low\ CF\ vol.}$	$Founder_{high\ CF\ vol.}$
	(1)	(2)	(3)	(4)
$Post_{20-21}$	0.031***	0.078***	0.051***	0.003
× Women with Children	(0.008)	(0.011)	(0.007)	(0.003)
Women with Children	-0.182***	-0.239***	-0.076***	-0.132***
	(0.005)	(0.009)	(0.004)	(0.004)
Sample	Low Remote Work	High Remote Work		
Commuting Zone × Year FE	Yes	Yes	Yes	Yes
R^2	0.001	0.001	0.001	0.001
Observations	293,826,250	269,071,836	583,065,526	583,065,526

Table 7: Entrepreneurial Entry by Sector

This table examines the role of characteristics in entry into entrepreneurship for each sector by estimating equation (1). *Founder* is an indicator variable equaling one if an individual starts a firm in that particular year. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuter zone (CZ) × year fixed effects. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuter-zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Founder								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$Post_{20-21}$	0.019***	0.020**	0.072***	0.109***	0.098***	0.066***	0.065***	-0.005	-0.025*
× Women with Children	(0.006)	(0.009)	(0.022)	(0.015)	(0.014)	(0.010)	(0.021)	(0.007)	(0.014)
Women with Children	-0.183***	-0.159***	-0.185***	-0.202***	-0.221***	-0.120***	-0.285***	-0.209***	-0.222***
	(0.006)	(0.006)	(0.009)	(0.009)	(0.011)	(0.006)	(0.014)	(0.007)	(0.016)
Sector	Personal Services	Trade	Transportation	Finance and Real Estate	Professional Services	Healthcare	Arts and Media	Manufacturing	Resource Extraction
CZ × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.002
Observations	80,105,599	72,407,990	20,341,060	49,945,905	106,011,518	70,976,302	20,270,322	97,120,224	10,879,051

Table 8: Income

The table evaluates how income changes for entrepreneurs by estimating equation (2). *AGI Ratio* is the ratio of AGI in a particular post-period year relative to a baseline year in the pre-period. In columns (1) and (4), the ratio is estimated as income in the post-period years 2020 and 2021 relative to the income in 2019, whereas in column (2) the ratio is based on income in the post-period years 2020 to 2023 relative to the income in 2019. In column (3), the dependent variable is the ratio of income in years 2017 or 2018 relative to the income in 2016. *Founder* is an indicator variable equaling one if an individual starts a firm in a particular year. The specifications include commuting zone × year and sector fixed effects. The sample includes all U.S. tax filers in 2019 aged 25 to 65 who are women with children and received a W2 as the primary source of income. The unit of observation is an individual-year. Appendix A provides additional details on variable definitions. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	AGI Ratio			AGI Volatility Ratio
	(1)	(2)	(3)	(4)
Founder in 2020-2021	11.786***	11.057***		4.265***
	(0.318)	(0.322)		(1.045)
Founder in 2017-2018			-4.135***	
			(0.364)	
CZ × Year FE	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes
R^2	0.003	0.008	0.008	0.001
Observations	51,275,322	102,750,848	41,151,716	25,686,484

Table 9: Persistence

The table examines the persistence of firm ownership by estimating equation (3). *Business Owner* is an indicator variable equaling one if the founder owns a firm in a particular year after founding. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone × sector and founding-year fixed effects. Sectors are defined at the four-digit NAICS code level. The sample includes entrepreneurs from 2016 to 2021 aged 25 to 65. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Business Owner	
	One Year	Two Years
	(1)	(2)
$Post_{20-21}$ × Women with Children	2.348***	2.074***
	(0.172)	(0.194)
Women with Children	-2.259***	-2.405***
	(0.223)	(0.270)
Commuting Zone × Industry FE	Yes	Yes
Founding Year FE	Yes	Yes
R^2	0.044	0.047
Observations	6,377,034	6,376,201

Table 10: Firm Outcomes

The table studies firm outcomes by estimating equation (4). *Survival* is an indicator variable equaling one if a firm files taxes in a particular year after founding. *Profitability* is the inverse hyperbolic sine of a firm's gross profits in a particular year. *Has Employees* is an indicator variable equaling one if a firm has any employees in a particular year. $Post_{20-21}$ is an indicator variable equaling one if the year is 2020 or 2021. *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children. The specifications include commuting zone (CZ) × sector and founding-year fixed effects. Sectors are defined at the four-digit NAICS code level. The sample includes newly created sole proprietorships from 2016 to 2021 as described in Section 2. For ease of interpretation, the coefficients and standard errors are multiplied by 100. Standard errors are reported in parentheses and clustered at the commuting zone level. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Survival		Profitability		Has Employees	
	One Year	Two Years	One Year	Two Years	At Founding	One Year
	(1)	(2)	(3)	(4)	(5)	(6)
$Post_{20-21}$	1.659***	1.545***	24.909***	10.217***	-0.376***	-0.547***
× Women with Children	(0.168)	(0.165)	(2.198)	(2.394)	(0.143)	(0.121)
Women with Children	-1.884***	-1.921***	-48.267***	-35.051***	-2.284***	-2.834***
	(0.196)	(0.216)	(1.772)	(1.762)	(0.150)	(0.166)
CZ × Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Founding Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.049	0.056	0.105	0.101	0.056	0.068
Observations	6,416,428	6,416,428	4,167,900	3,257,296	6,416,428	4,594,243

Appendix A Variable Definitions

This appendix provides variable definitions.

- *AGI Ratio* is the ratio of AGI in a particular post-period year relative to a baseline year in the pre-period.
- *Business Owner* is a variable equaling one if the founder owns a Schedule C firm in a particular year after founding.
- *First-Time Founder* is an indicator variable equaling one if an individual starts their first Schedule C firm in that particular year.
- *Founder* is an indicator variable equaling one if an individual starts a Schedule C firm in that particular year.
- $Founder_{high\ CF\ vol.}$ is an indicator variable equaling one if an individual starts a Schedule C firm in a high cash-flow volatility industry in that particular year.
- $Founder_{low\ CF\ vol.}$ is an indicator variable equaling one if an individual starts a Schedule C firm in a low cash-flow volatility industry in that particular year.
- *Founder with Employees* is an indicator variable equaling one if an individual starts a Schedule C firm in that particular year that had employment in the first or second year.
- *Founder Broad* is an indicator variable equaling one if an individual starts a Schedule C firm, or a single-owner S Corporation or LLC in that particular year.
- *Has Employees* is an indicator variable equaling one if the firm employed a W2 or 1099 worker in a particular year.
- *Post* is an indicator variable equaling one if the observation is from 2020 or later.

- *Profitability* is a variable equaling the inverse hyperbolic sine of a firm's gross profits in a particular year.
- *Survival* is an indicator variable equaling one if a firm files taxes in a particular year after founding.
- *Women with Children* is an indicator variable equaling one if an individual is a woman and has any children based on Form 1040.

Appendix B Survey Questions

1. **In the past 12 months, have you taken actions to help start a new business that you will own all or part of?**

    1. Yes
    2. No

2. **Why do you want to start this new business? Please select up to three reasons. If there is more than one reason, please rank them starting with the most important reason.**

    1. Be a boss
    2. Flexibility
    3. Work from home / stay home with children
    4. Uses hobby
    5. Job security
    6. Enjoyment
    7. Unlimited income potential
    8. Additional income
    9. Idea for new product or service
    10. Uses work experience, education, or talent
    11. Lost job
    12. Help others or community
    13. Other (please fill in)

3. **What is the primary industry of this new business?**

1. Arts
2. Finance
3. Healthcare
4. Manufacturing
5. Personal services
6. Professional services
7. Resource extraction
8. Trade
9. Transportation
10. Other (please fill-in)

4. How many employees currently work 35 hours or more per week for this new business, not counting the owners?

Survey will include field to fill-in number of employees below.

5. Which of the following best describes your current employment status?

1. Full-time job
2. Part-time job
3. Student
4. Unemployed
5. Retired

6. For which of the following industries do you have the most experience?

1. Arts
2. Finance

3. Healthcare
4. Manufacturing
5. Personal services
6. Professional services
7. Resource extraction
8. Trade
9. Transportation
10. Other (please fill-in)

7. What is the last grade in school you completed?

1. Up to 8th grade
2. Some high school
3. High school
4. Technical or vocational degree
5. Some college
6. Community college
7. Bachelor's degree
8. Some graduate school
9. Master's degree
10. Law, Medical, PhD, or EdD degree

8. What is the zip code of your primary residence?

Survey will include field to fill-in zip code.

9. What is your gender?

1. Woman
2. Man
3. Non-binary

10. What is your current martial status?

1. Married
2. Living with a partner
3. Separated
4. Divorced
5. Widowed
6. Never married

Next question is asked if participant is married or living with a partner:

11. What is your spouse or partner's current primary employment status?

1. Full-time job
2. Part-time job
3. Full-time or part-time student
4. Unemployed
5. Retired

12. How many children live in your household in the following age ranges?

Survey will include field to fill-in number for each category below.

- 4 years or younger
- 5 to 11 years

- 12 to 17 years
- 18 years or older

13. What is your combined household income before taxes from all sources? Please include income from work, government benefits, pensions, and all other sources for all members of your household.

1. Less than $25,000
2. Between $25,000 and $49,999
3. Between $50,000 and $74,999
4. Between $75,000 and $99,999
5. Between $100,000 and $249,999
6. Between $250,000 and $500,000
7. Greater than $500,000