The Mark of Unemployment, and Racial and Gender Disparity on Entrepreneurial Returns

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Abstract

Necessity entrepreneurship can be a pathway to financial stability for those unable to secure full-time employment in the labor market. However, studies show these businesses may not consistently convert into profitable enterprises. We investigate why these businesses do not prosper by examining earnings differentials between founders who start businesses when unemployed and those who transition into entrepreneurship from paid employment. Drawing on longitudinal data from the Survey of Income and Program Participation, we find evidence of an earning penalty associated with starting a venture while unemployed compared to transitioning into entrepreneurship from a paid position. For instance, entrepreneurs who start their ventures when unemployed earn $5,121 less than their counterparts who start their businesses while working for an employer. While the earning penalty associated with unemployment is lower for women and non-white entrepreneurs compared to men and white entrepreneurs, women and non-white entrepreneurs have overall lower earnings than men and white entrepreneurs. Women owners experience a $8,176 unemployment penalty compared to $4,909 for male owners. These findings suggest that while entrepreneurship can be a pathway to financial stability, this pathway is imbued with structural constraints when it occurs through unemployment.

Introduction

Thousands of Americans embark on new venture creation every year (United States Bureau of Labor Statistics, 2024). Yet while many of these ventures are motivated by new ideas for creating new products or services and pursuing new economic opportunities unavailable in individuals' organizations (Sørensen and Sharkey 2014), a large portion of them are driven by necessity (Dencker et al. 2021). Necessity entrepreneurship is often undertaken by people with limited labor market mobility (Dencker et al. 2021). However, the extent to which founders persist in entrepreneurship, and the rewards they gain from their entrepreneurial efforts have fueled discussions among scholars about the importance of understanding the nature and motivation underlying these entrepreneurial activities (Hamilton 2000; Manso 2016). Emerging from this debate is a "conventional entrepreneurship" narrative describing non-necessity entrepreneurs as founders with the potential to create profitable, innovative, and growth-oriented ventures (Bakker and McMullen 2023).

In parallel, scholars have argued that necessity entrepreneurship constitutes a pathway to economic stability for those unable to secure full-time employment in the formal labor market (Hwang and Phillips 2024; Kautonen et al. 2010; Renko and Freeman 2018). For instance, some have concluded that necessity entrepreneurship can help immigrants (Butler and Kozmetsky 2004), people with various forms of disabilities (Renko and Freeman 2018), the elderly populations (Kautonen, Kibler, and Minniti 2017), formerly incarcerated individuals (Hwang and Phillips 2024; Patzelt, Williams, and Shepherd 2014), and people with refugee status (Bizri 2017), who often face barriers to employment opportunity in the formal labor market, to ameliorate their economic situation. However, others have asserted that necessity entrepreneurship is more than a subsistence economic activity as many necessity-driven ventures

survive beyond four years and create employment for other people in addition to the entrepreneur (Dencker et al. 2021; Dencker, Gruber, and Shah 2009). Supporting this view, some studies have shown that necessity entrepreneurship not only provides formerly incarcerated individuals with an alternative way to earn a living (Hwang and Phillips 2024; Irankunda et al. 2020; Patzelt et al. 2014) but also allows them to achieve income mobility compared to their formerly incarcerated counterparts who work for an employer (Hwang and Phillips 2024).

Still, a sizable body of empirical research has found that (compared to non-necessity-motivated businesses) necessity-driven ventures more often struggle to evolve into sustainable and highly profitable organizations (Dencker et al. 2009; Renko, Parker Harris, and Caldwell 2016), limiting the extent to which necessity entrepreneurship can contribute to economic growth (Estrin et al. 2019; Estrin, Guerrero, and Mickiewicz 2024; Fredström, Peltonen, and Wincent 2021). Though the necessity entrepreneurship literature appears inconclusive about the subsistence and economic value-creation nature of necessity entrepreneurship (Bakker and McMullen 2023; Dencker et al. 2021), the literature seems to suggest that necessity entrepreneurs are more likely to gain lower economic rewards from their entrepreneurial efforts compared to their non-necessity counterparts. Yet, despite growing interest and research on the understanding of factors (both individual and structural forces) shaping differential entrepreneurial motivations and outcomes among necessity and non-necessity founders (Dencker et al. 2021), there is a surprising gap in the literature on whether necessity entrepreneurship is potentially associated with an economic penalty when compared to non-necessity motivated entrepreneurship. Our study fills this gap in the necessity entrepreneurship literature.

More specifically, examining entrepreneurial earnings and the labor market standing of founders when starting their ventures, we investigate why necessity-based entrepreneurial efforts are overall less likely to transform into viable businesses. We argue that founders who start businesses when unemployed are likely to earn less than those who transition from paid employment. While maintaining the conclusion that entrepreneurship helps people overcome blocked labor market opportunities by allowing them to earn an income (Hwang and Phillips 2024), we broaden this narrative by showing that necessity entrepreneurs may suffer an earning penalty compared to their counterparts who start businesses while working for an employer. Building on research linking the entrepreneurial outcomes of individuals to their labor market experience (Rider 2012; Sørensen and Sharkey 2014), we attribute this earning difference to a lack of industry experience, practice knowledge, and access to resources and networks that people gain in traditional employment arrangements. Indeed, scholars have established that work experience and labor market mobility are key predictors of a successful transition into entrepreneurship (Rider et al. 2019; Sørensen and Sharkey 2014). In this respect, it is reasonable to expect those transitioning from unemployment to lack the resources necessary to grow their ventures, thereby constraining the extent of the economic return they can generate from their ventures.

Drawing on data from the Survey of Income and Program Participation, we find evidence of an earning penalty associated with starting a venture while unemployed compared to transitioning into entrepreneurship from a paid position. For instance, we find that entrepreneurs who start their ventures when unemployed earn on average $5,121 less than their counterparts who start their businesses while working for an employer. The results also show that while the earning penalty associated with unemployment is lower for women and non-white entrepreneurs

compared to men and white entrepreneurs, women and non-white entrepreneurs have overall lower earnings than men and white entrepreneurs. Specifically, women owners experience a $8,176 unemployment penalty compared to $4,909 for male owners. However, white owners suffer a $5,121 unemployment earning penalty compared to a penalty of $3,485 for non-white owners. These findings suggest that while entrepreneurship can be a pathway to financial stability, this pathway is imbued with structural constraints when it occurs through unemployment.

Necessity-Entrepreneurship and Economic Stability

The traditional necessity entrepreneurship research has differentiated between entrepreneurs driven into entrepreneurship by push factors and those motivated by pull factors (Dencker et al. 2021; Shapero 1975, 1984). Push factors are used to refer to entrepreneurs who are forced into entrepreneurship due to negative factors (Shapero 1984). In contrast, pull factors describe entrepreneurial activities motivated by economic opportunities (Shapero 1984). Recent necessity entrepreneurship studies have broadened the conceptualization of necessity entrepreneurship beyond the push and push factors dichotomy by incorporating a basic needs framework to differentiate between necessity entrepreneurs. Specifically, building on Maslow's (1943, 1954) hierarchy of needs framework, Dencker and colleagues (2021) described necessity entrepreneurs as people who engage in the business creation process to satisfy their "basic physiological and safety needs" (Dencker et al. 2021). Based on this conceptualization, Dencker and colleagues (2021) differentiate between necessity entrepreneurs who undertake venture creation activities to fulfill basic needs and others who engage in the new business founding process to meet higher-level needs.

Considering basic needs as drivers of necessity entrepreneurship, it would be reasonable to expect necessity entrepreneurship to be particularly prevalent in contexts characterized by low economic opportunities (Dencker et al. 2021). Yet, it is well documented that necessity entrepreneurship is common in resource-rich environments (Estrin et al. 2024). One reason may be because unemployment is a key factor pushing people into necessity entrepreneurship (Binder and Coad 2013; Block and Wagner 2010; Ritsilä and Tervo 2002), and that unemployment is a defining characteristic of labor markets in resource-rich contexts–albeit unemployment rates are generally lower in resource-rich environment compared to resource-poor contexts. Thus, necessity entrepreneurship research has concluded that necessity entrepreneurship is a heterogeneous phenomenon that varies by the personal characteristics of entrepreneurs and the environment in which they are embedded (Dencker et al. 2021). In this paper, our description of necessity entrepreneurship focuses on the labor market environment and individuals' employment opportunities. This focus enables us to examine the extent of the economic rewards associated with necessity entrepreneurship–that is when entrepreneurs are pushed into entrepreneurship by lack of employment opportunities–compared to non-necessity entrepreneurship–that is when individuals start their ventures while working for an employer (O'Donnell et al. 2024). We ground our theoretical framework in the understanding of the labor market stratification process, where some individuals are positioned in high-earnings and high occupational mobility segments of the market (Kalleberg and Mouw 2018). In contrast, others are situated in labor market strata with few opportunities for earnings growth and occupational advancement (Kalleberg and Mouw 2018). We argue that differential access to unemployment and earning mobility, not only, shapes individual entrepreneurial entry (Binder and Coad 2013; Block and Wagner 2010), but also the extent of the economic returns they can generate from

their ventures. In the following section, we establish the link between prior employment status and entrepreneurship earnings.

Linking Prior Labor Market Standing and Earning from Entrepreneurship

The structure of choices and opportunities in the labor market, not only influences the decision to enter entrepreneurship (Aldrich and Ruef 2006; Sørensen and Sharkey 2014), but it is reasonable to say it also shapes the returns that people can generate after entry into entrepreneurship. Our assumption is consistent with the reality that when deciding whether to undertake entrepreneurship, people often consider their labor market options. In this regard, studies have found that people with few and less rewarding employment opportunities are more likely to undertake entrepreneurship than those with access to labor market opportunities and mobility (Yang and Kacperczyk 2018). A growing body of research has examined how work experience (Rider et al. 2019), the structure of opportunity within an organization (Sørensen and Sharkey 2014), and a lack of employment opportunities (Binder and Coad 2013; Block and Wagner 2010; Hwang and Phillips 2024) influence individuals' decisions to start new venture creation activities. Yet, the literature is virtually silent about the extent of the economic return that people who start their ventures as an alternative to unemployment gain from their entrepreneurial activities compared to those who found their businesses while working for an employer. We speak to these omissions in this paper. To this end, we make a reasonable assumption: the extent of the economic returns entrepreneurs can generate from their ventures is influenced by their prior standing in the labor market, thereby shaping earnings differentials among entrepreneurs. In this way, our theorizing treats entrepreneurship as a career stage—meaning that prior position in the labor market is consequential for how people experience the entrepreneurial process (Burton, Sørensen, and Dobrev 2016). This assumption is

reasonable because a career connects people to social institutions—private and government organizations, as well as informal social networks (Burton et al. 2016)—that provide access to the necessary resources for business development and success.

Our premise is also sound considering that a successful transition into entrepreneurship is largely contingent on access to financial capital, social networks, and advanced skills in the industry in which entrepreneurs launch their ventures (Nanda and Sørensen 2010). In addition, at the early stages of the venture creation process, individuals have generally acquired these necessary entrepreneurship resources–including personal resources (e.g., financial capital) and networks built prior to engaging in venture creation activities–throughout their careers(Burton et al. 2016). Indeed, it has been shown that most entrepreneurs have had experience working in other organizations before transitioning into entrepreneurship (Beckman and Burton 2008; Dobrev and Barnett 2005; Sørensen and Fassiotto 2011), are more likely to start businesses in industries of their previous employment (Klepper and Sleeper 2005; Sorenson and Audia 2000), and that industry-specific skills are positively associated with entrepreneurship success (Delmar and Shane 2006; Eesley and Roberts 2012). It has also been shown that ideas for new ventures often emerge from prior work experiences and the information obtained from social networks built during one's employment career (Elfenbein, Hamilton, and Zenger 2010; Nanda and Sørensen 2010). Employment equips people with the skills, resources, and confidence necessary for a successful transition into entrepreneurship (Iversen, Malchow-Møller, and Sørensen 2016). People develop the necessary habits and entrepreneurial skills through their employers and co-workers, and on-the-job learning and training (Aldrich and Yang 2014). Research has found that knowledge learned from prior work experience improves entrepreneurial performance (Wiklund and Shepherd 2003). In addition, regarding building the necessary habits and routines

to successfully transition into entrepreneurship, research has shown time spent as an employee to be more valuable than time spent with family and in other non-economic activities (Miner et al. 2012).

Given that a career allows people to build the skills, and networks, as well as access the financial and institutional resources necessary for successful business launches, it is fair to expect entrepreneurship returns to differ by people's labor market status when they start their ventures. Considering that entrepreneurial success is contingent on the extent of the resources available to founders for launching and growing their ventures (Shane and Venkataraman 2000), one can predict that individuals who transition into entrepreneurship from unemployment are likely to experience an earning penalty compared to those who transition from paid employment. In addition, people who engage in new business creation as an alternative to unemployment are likely to show a strong sense of urgency and, thereby would tend to pursue entrepreneurial activities that provide immediate economic returns ignoring opportunities with long reward timelines (Dencker et al. 2021). Considering that high-growth and profitable ventures are often characterized by long periods of investments and often with no immediate returns, necessity-driven venture creation activities are likely to generate lower returns compared to those founded while the founders were employed.

Hypothesis 1: Earnings will be lower among entrepreneurs who transition into entrepreneurship from unemployment compared to their counterparts who transition from traditional wage-and-salary employment.

Accounting for Gender, Race-based Labor Market Inequality, and Economic Returns from Entrepreneurship

Labor market stratification studies have established that gender, race, and ethnicity are key factors shaping access to labor market opportunities—such as access to jobs and occupational and earning mobility (Pedulla and Pager 2019; Smith 2005). For instance, scholars have shown that (compared to their white counterparts) racial and ethnic minority populations tend to have little access to job referral networks, and those with job referral networks tend to gain little economic returns from their networks compared to their white counterparts (Mouw 2002; Pedulla and Pager 2019; Royster 2003; Smith 2005, 2007). Research on the importance of education for social mobility has suggested that human capital accumulation has done little to redress observed racial-ethnic disparity in labor market opportunity(Black et al. 2006; Zhou 2019). Utilizing data from a computerized audit study, research shows that among job seekers from the same elite universities, white applicants are more likely to receive a call back from potential employers than their black counterparts (Gaddis 2015). Findings demonstrate that black applicants from elite universities perform just as well as their white counterparts from less selective universities (Gaddis 2015). Race-based labor market disparity is also reproduced beyond the job recruitment stage and at the organizational level as organizational actors sometimes resist efforts to address racial and ethnic disparity in the workplace. For instance, examining an organization's efforts to address workplace race and ethnic-based disparity, Summer Jackson (2023) found that existing employees resisted organizational initiatives aimed at hiring racial minorities for high-growth, and high-wage technical jobs.

Research has also shown that regardless of the level of human capital accumulation, employers than to favor male job applicants over their female counterparts (Rivera 2017). In the same vein, gender-based studies have found that women earn less and are less likely to be promoted than men, given the same level of experience, education, and position in their

organizations (Castilla and Benard 2010; Cha and Weeden 2014; Weisshaar 2017). Considering the importance of career experience for entrepreneurship development and success (Rider et al. 2019; Sørensen and Sharkey 2014), it is reasonable to expect gender, racial, and ethnic disparity in access to employment opportunities and occupational mobility to generate gender, racial, and ethnic differences in entrepreneurial returns. That is, we can presume that given the fact that women (compared to men) (Castilla and Benard 2010; Cha and Weeden 2014; Weisshaar 2017) and racial minority individuals (compared to their non-minority counterparts) are more likely to be positioned in the lower mobility segments of the labor market (Mouw 2002; Pedulla and Pager 2019; Royster 2003; Smith 2005, 2007), they will have a greater risk of entering entrepreneurship due to necessity or from unemployment. In this way, women-owned and racial minority-owned ventures would underperform men-owned and white-owned due to more limited access to financial resources, social networks, and entrepreneurship-relevant skills built throughout an individual's career. Supporting this argument, research has shown that women (compared to men) (Thébaud 2015), and racial-ethnic minority (compared to White) entrepreneurs tend to create less profitable ventures (Fairlie and Woodruff 2010; Shapiro, Meschede, and Osoro 2013). Thus, it is sensible to presume that while necessity entrepreneurship may help people experiencing blocked labor market opportunities earn an income, women and racial minority individuals will generate lower earnings than their male and white counterparts. We formulate the following hypotheses about gender and racial-ethnic differences in earnings and potential earning penalties associated with starting a business while unemployed.

Hypothesis 2. Women (compared to men), and racial-ethnic minorities (compared to Whites) are more likely to transition into entrepreneurship from unemployment (i.e., by necessity).

Therefore, overall earnings will be lower among women and racial-ethnic minority entrepreneurs than men and white entrepreneurs.

Hypothesis 3. Given Hypothesis 2, women and racial-ethnic minority owners will have a lower earning ceiling than men and white owners. Consequently, the earning penalty associated with starting a business while unemployed will be lower among women (compared to men) and racial-ethnic minority (compared to white) owners.

DATA, MEASUREMENT AND METHOD

We evaluate our hypotheses using data from the Survey of Income and Program Participation (SIPP). SIPP is a longitudinal survey designed to assess the economic well-being of American households by following individuals and households for four years, where each set of four years constitutes a panel. For this analysis, we draw on the most recent and completed panels, the 2014, 2018, and 2020 panels. SIPP collects monthly individual-level employment data, which we use to construct our analytic sample of 4,402 self-employed individuals, aged 18 to 64.

Measuring Prior Employment Status

The crux of our theoretical framework is that people are located in different opportunity segments of the labor market (Kalleberg and Mouw 2018) and that a career equips people with the resources (financial, institutional, and knowledge resources) necessary for a successful transition into entrepreneurship (Burton et al. 2016). As a result, an individual's prior standing in the labor market is likely to shape the extent of the returns they can generate from their ventures. For our analysis, we identify two measures of prior employment status (paid employee and unemployed), using individuals' employment information during the first twelve months we observe them in the data. We create a binary variable capturing whether an individual was

unemployed (coded 1) or employed in a traditional paid position (coded 0) during the first twelve months we observe them in the data. An individual's prior employment status is treated as unemployed if the individual was unemployed for at least six consecutive months during the first twelve months in the data. To this end, we exclude respondents who are in the data for only twelve months as these people will not have any employment data for the period after the initial twelve-month window that we use to identify their prior employment status. In this analysis, an individual is considered unemployed in a given month if they were missing a value for the employment type indicator and were reported as having a no-job spell during that month.

Constructing the Wage-and-Salary Employee and Self-employed Subsamples

Research has shown that analyses based on cross-sectional data overemphasized entrepreneurs who have remained longer in entrepreneurship, as well as failed to account for the fact that unsuccessful entrepreneurs would likely return to paid employment or experiment with new business ideas (Manso 2016). In addition, previous analyses have overrepresented the number of self-employed by treating an individual as self-employed if the individual reported self-employment being their primary job for at least three months in a given 12-month period (Hamilton 2000:609). Considering that about 52% of self-employment spells last less than two years (Manso 2016), this measurement of self-employment is likely to overcount the number of self-employed individuals in the sample. That is individuals would tend to switch between wage-and-salary employment and self-employment after the three-month cut-off used in this previous research (Hamilton 2000). Together, these would have likely caused survivor and experimentation biases in the estimates of earnings differentials among the self-employed.

We address these biases by restricting our analytic sample to individuals who have remained self-employed for the duration of the survey. We do so by restricting the self-employed

subsample to respondents who indicated that they were self-employed every month after the first twelve months in the data (i.e., the 13th month onwards). These restrictions mean that, from their 13th month in the data onwards, individuals in our analytic sample have never experienced unemployment or switched from self-employment to wage-and-salary employment or vice versa. In doing so, we ensure that estimates of earnings differences are not due to differences in the duration of self-employment. Accounting for the above restrictions, our analytic sample is reduced to 4,402 self-employed individuals (Table 2).

Measuring Earnings

We measure earnings as individual annual earnings in U.S. dollars. Based on the information that respondents report on their race and ethnicity, and the small sample size for some racial and ethnic groups, we group respondents into two racial groups: (1) White and Non-white. White respondents represent 68.6% (3,158), whereas non-white individuals make up 31.4% (1,444) of the self-employed. Men represent 61.4% (2,827), while women account for 38.6% (1,775) of the self-employed people (Table 2). We also account for various factors that are crucial for entrepreneurship participation and success: (1) educational attainment, (2) industry, (3) age, age-squared, and (4) parental status, and (5) immigration status (Table 2).

Estimation Techniques

Our key objective in this study is to examine the role that the prior labor market standing of individuals plays in shaping the returns that they gain upon transition into entrepreneurship, and how these returns differ by race and ethnicity. Given this focus, our key independent variable (prior employment status) does not change over time, whereas the dependent variables, earnings, vary over time. Thus, we evaluate our framework using both random effects modeling (REM) with robust standard errors, and mixed-effects modeling. Given that the results are virtually

identical for both estimation techniques, we discuss the findings from the RM with robust standard errors for simplicity. The results from the mixed-effects regressions are available upon request. We estimated the following formal REMs.

$$Y_{it} = \gamma_0 PriorEmp_i + \gamma_1 RaceEth_i + \gamma_2 Fem_i + \boldsymbol{X}_{it}\boldsymbol{\delta} + \alpha_i + \mu_{it}$$

In the model, logged earnings. The parameters are estimated differences in logged earnings between individuals who transitioned into entrepreneurship from unemployment and those entering from a traditional wage or salary employment, and between racial-ethnic minorities and non-racial-ethnic minorities, respectively. Subscripts i and t denote individuals and survey years, respectively. Variable *Race* stands for Whites (coded 1), and Non-whites (coded 2), and *Fem* indicates Male (coded 0) and Female (coded 1). X is a vector of the individual demographic (such as age, immigrant, parental and marital status, and education) industry, and year variables described above. Further, α_i and μ_{it} are, respectively, individual random effects and clustered robust standard errors.

RESULTS

Descriptive Findings

In Table 1 both median and average earnings are lower among entrepreneurs who started their businesses while unemployed compared to those who worked for an employer. Mean and median earnings are respectively, $25,974 and 8,990.50 among those who were unemployed while starting their businesses compared to $62,796 and $30,374.667 among those who worked in a paid position. Table 2 shows entrepreneurial earnings by race, gender, and initial employment status of founders. Among entrepreneurs who start their ventures while employed, Non-whites earn $49,057 less compared to their white counterparts. Racial differences among

founders whose initial employment status was self-employment and unemployment are, respectively, $44,933, and $15,793 lower among Non-whites founders than White founders. Women owners who started their ventures when employed, and those who were unemployed have, respectively, $25,991, and $14,402 less in earnings than their men-owners. In the multivariate analysis, we account for an array of relevant controls to evaluate the robustness of these descriptive results.

Multivariate analysis

Accounting for competing explanatory factors, we find evidence of an earning penalty associated with starting a venture while unemployed compared to transitioning into entrepreneurship from a paid position. Models 1 and 2 in Table 3 show the coefficients for the unemployed variable are negative and significant, indicating that entrepreneurs who start their ventures while unemployed experience an earning penalty of 7.19% (Figure 1)--that is $5,121 (Figure 2)--compared to those who do so while employed. These findings corroborate the descriptive results, thereby supporting our argument that starting a business while unemployed is associated with an earnings penalty.

In Model 2, non-white and female owners earn respectively 3.25% ($2,346) and 8.11% ($5,778) less than their white and male counterparts (see Figures 1 and 2). Models 3 and 4 show that the coefficients for the interaction term between unemployment and non-whites and that for the interaction term between the unemployed and female variables are positive and significant. This indicates that the penalty associated with starting a business while unemployed is lower for non-whites and women. This result supports our theorizing that given racial minority individuals and women are positioned in lower mobility segments of the labor market, they are likely to have a lower earning mobility ceiling than men and whites. As a result, the size of the penalty

associated with unemployment is expected to be smaller among women and non-whites than among their white and male counterparts. However, Figures 1 and 2 show that when accounting for the base effect of both being female and starting a venture while unemployed, female owners have a combined earning penalty of 11.48% (Figure 1) or $8,176 compared to their male counterparts.

DISCUSSION AND CONCLUSION

Necessity entrepreneurship scholars have now well-established that necessity entrepreneurs are not a homogeneous group of people who start subsistence-driven and precarious entrepreneurial activities with little prospect for economic mobility (Dencker et al. 2021). In fact, recent empirical research has demonstrated that necessity entrepreneurship helps people who lack access to employment in the formal labor market achieve financial stability (Hwang and Phillips 2024). For instance, examining entrepreneurial entry among formerly incarcerated individuals, scholars show the necessity of entrepreneurship leads to greater income mobility among formerly incarcerated founders compared to their counterparts who worked for an employer (Hwang and Phillips 2024). However, we have limited empirical evidence about the extent of the economic returns that founders who start their ventures as an alternative to unemployment generate compared to those who start their businesses while working for an employer. Our study fills this gap in the literature by examining earning differentials between founders who started their ventures while unemployed and those who did so while employed. Drawing on a sample of 4,402 self-employed individuals from the Survey of Income and Program Participation, we find that starting a business as an alternative to unemployment is associated with an earning penalty compared to starting a venture while working in a paid position. Founders who built their businesses when unemployed experienced a $5,121 earning

penalty compared to their counterparts who started their businesses when employed. The results also show that women and minority owners earn less than men and non-minority owners. Yet, partly because women and minority individuals have a lower earning ceiling (which is since they are positioned in the lower-earning mobility segments of the labor market), the unemployment penalty is lower for women and racial minority owners than their non-racial minority counterparts.

Specifically, our analysis advances research showing that necessity entrepreneurship serves as a pathway to economic security for those unable to secure employment in the formal labor market. We improve on this literature by showing that while necessity entrepreneurship can be a pathway to financial stability, this pathway is imbued with structural constraints when it occurs through unemployment. Unemployment is imbued with structural constraints because entrepreneurs often learn the necessary skills and acquire the necessary resources for a successful transition into entrepreneurship throughout their careers. Though previous research has examined the income mobility dimension of entrepreneurship for those experiencing few opportunities in paid employment (Hwang and Phillips 2024), scholars have not considered the potential earning disadvantage associated with using entrepreneurship as an alternative to unemployment compared to transitioning into entrepreneurship from a paid position. Our finding that founders who start their venture as an alternative to unemployment suffer an earning penalty suggests that necessity entrepreneurship may not be a solution to economic disparity caused by labor market discrimination. The results imply that to fully understand whether necessity entrepreneurship can help reduce economic inequality in the United States, scholars need to compare the outcomes of necessity-motivated businesses with those of non-necessity-driven ventures. Our findings of substantial gender and racial differences in earnings, and earning penalty from unemployment

also suggest that necessity entrepreneurship may not help close the gender and racial economic inequality in the United States.

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Table 1. Descriptive Statistics for Self-Employed Sample by Initial Employment Status

	Wage & Salary (N=692)	Self-Employed (N=3,493)	Unemployed (N=417)	Full Sample (N=4,602)
Mean Annual Earnings	62,796 (110594)	71,232 (171015)	25,974 (57965)	65,863 (156541)
Median Annual Earnings	30,374.667	30,075.500	8,990.500	27,038.500
Sex				
Male	416 (60.1%)	2,207 (63.2%)	204 (48.9%)	2,827 (61.4%)
Female	276 (39.9%)	1,286 (36.8%)	213 (51.1%)	1,775 (38.6%)
Race/Ethnicity				
White	426 (61.6%)	2,487 (71.2%)	245 (58.8%)	3,158 (68.6%)
Non-White	266 (38.4%)	1,006 (28.8%)	172 (41.2%)	1,444 (31.4%)
Education				
HS or Less	245 (35.4%)	1,208 (34.6%)	183 (43.9%)	1,636 (35.5%)
Some College or Assoc.	179 (25.9%)	948 (27.1%)	116 (27.8%)	1,243 (27.0%)
4-year Degree or more	268 (38.7%)	1,337 (38.3%)	118 (28.3%)	1,723 (37.4%)
Immigrant				
Native Born	510 (73.7%)	2,744 (78.6%)	325 (77.9%)	3,579 (77.8%)
Immigrant	182 (26.3%)	749 (21.4%)	92 (22.1%)	1,023 (22.2%)
Parent				
Not Parent	206 (29.8%)	752 (21.5%)	123 (29.5%)	1,081 (23.5%)
Parent	486 (70.2%)	2,741 (78.5%)	294 (70.5%)	3,521 (76.5%)
Industry				
Forestry, Farming, Fishing, and Mining	27 (3.9%)	200 (5.7%)	19 (4.6%)	246 (5.3%)
Construction	99 (14.3%)	566 (16.2%)	58 (13.9%)	723 (15.7%)
Manufacturing	53 (7.7%)	157 (4.5%)	17 (4.1%)	227 (4.9%)
Wholesale Trade	18 (2.6%)	78 (2.2%)	10 (2.4%)	106 (2.3%)
Retail Trade	61 (8.8%)	239 (6.8%)	39 (9.4%)	339 (7.4%)
Transportation and Utilities	45 (6.5%)	156 (4.5%)	19 (4.6%)	220 (4.8%)
Information	13 (1.9%)	77 (2.2%)	6 (1.4%)	96 (2.1%)
Finance and Real Estate	64 (9.2%)	271 (7.8%)	22 (5.3%)	357 (7.8%)
Professional Services	121 (17.5%)	790 (22.6%)	81 (19.4%)	992 (21.6%)
Educational Health and Social Service	83 (12.0%)	329 (9.4%)	53 (12.7%)	465 (10.1%)
Arts, Entertainment, and Recreation	44 (6.4%)	230 (6.6%)	34 (8.2%)	308 (6.7%)
Other Services	58 (8.4%)	400 (11.5%)	59 (14.1%)	517 (11.2%)
Public Administration	6 (0.9%)	0 (0.0%)	0 (0.0%)	6 (0.1%)

Table 2. Annual Earnings Comparisons by Race, Gender, and Initial Employment Status

	Wage & Salary			Self-Employed			Unemployed		
Racial Dif	Mean	Difference	Std. Error	Mean	Difference	Std. Error	Mean	Difference	Std. Error
White	95249			97061			39664		
Non-White	46193	-49057	13630	52128	-44933	9321	23870	-15793	8161
	Wage & Salary			Self-Employed			Unemployed		
Gender Dif	Mean	Difference	Std. Error	Mean	Difference	Std. Error	Mean	Difference	Std. Error
Male	86857			99899			40496		
Female	60866	-25991	13783	58665	-41234	8435	26094	-14402	8002

Table 3: Relationship between Unemployment and Log Annual Earnings of Self-Employed Individuals (Randon-effect Reg. with Robust Standard errors)

Prior Employment Status	**1**	**2**	**3**	**4**
Unemployed (Ref.= Paid Employment)	-0.0550***	-0.0527***	-0.0746***	-0.0714***
	(-6.95)	(-6.62)	(-7.00)	(-5.51)
Unemployed*Non-White (ref.= Whites)			0.0544***	
			-3.42	
Unemployed*Female (Ref.=Male)				0.0352*
				-2.17
Non-White		-0.0293***	-0.0335***	-0.0291***
		(-4.16)	(-4.54)	(-4.13)
Female	-0.0827***	-0.0821***	-0.0820***	-0.0846***
	(-13.02)	(-12.97)	(-12.94)	(-12.70)
Some College or Assoc.	0.0275***	0.0255***	0.0252***	0.0253***
	-4.47	-4.08	-4.04	-4.06
4-year Degree or more	0.118***	0.114***	0.114***	0.114***
	-13.73	-13.14	-13.16	-13.14
Age	0.00552*	0.00569*	0.00565*	0.00566*
	-2.18	-2.24	-2.23	-2.23
Age squared	).0000574*	).0000607*	-0.0000603*	-0.0000603*
	(-2.09)	(-2.21)	(-2.20)	(-2.19)
Immigrant	-0.0265***	-0.00922	-0.00868	-0.00944
	(-4.07)	(-1.24)	(-1.16)	(-1.27)
Parent	0.0423***	0.0429***	0.0427***	0.0425***
	-4.14	-4.2	-4.18	-4.15
Industry	0.00165	0.00193	0.00191	0.00195
	-1.51	-1.76	-1.74	-1.79
Year	0.00634***	0.00643***	0.00645***	0.00644***
	-4.92	-5	-5.01	-5.01
Constant	-0.136	-0.314	-0.348	-0.338
	(-0.05)	(-0.12)	(-0.13)	(-0.13)
Observations	8701	8701	8701	8701

t statistics in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

Figure 1: Entrepreneurial Earnings Penalty of Unemployment, Percentage Differences

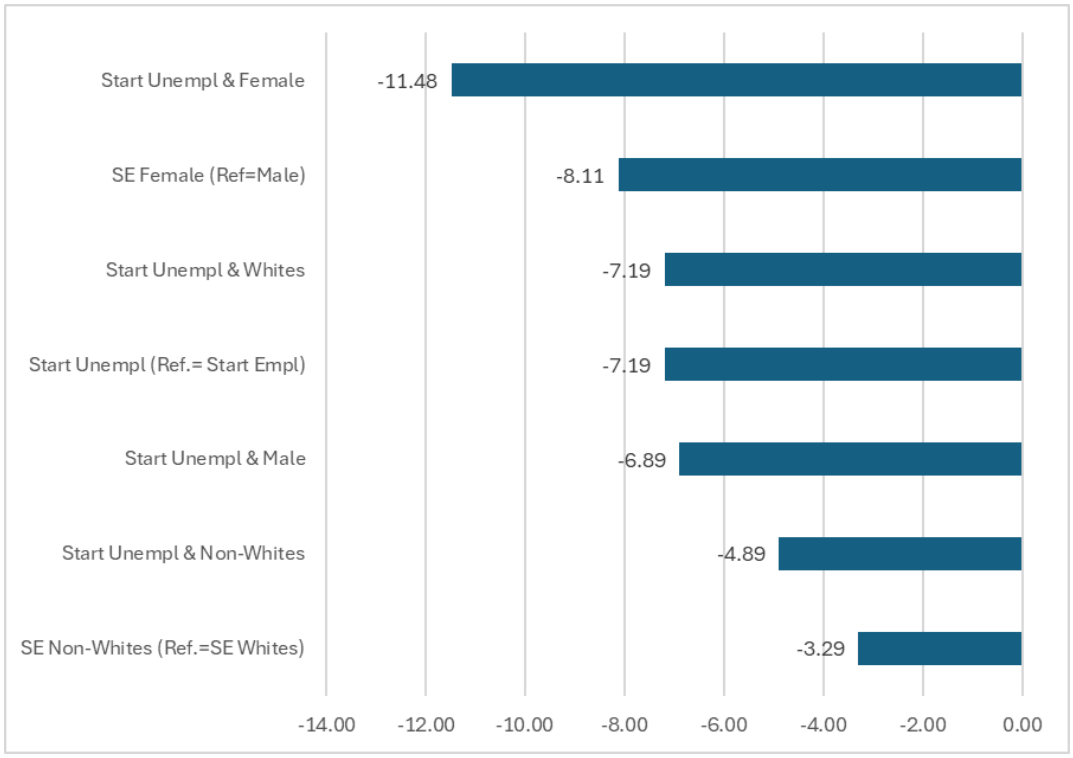

Figure 2: Entrepreneurial Earnings Penalty of Unemployment, in US $