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Profitable entrepreneurship or marginal self-employment? The bimodality of Latina self-employment in the United States

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ABSTRACT

We consider the economic development potential of recent dramatic growth in Latina business ownership. Regression modeling with American Community Survey data reveals (a) compared with salaried workers, the entrepreneurial (incorporated business) and other self-employed (unincorporated business) have, respectively, higher and lower rates of English proficiency, college completion, and homeownership; (b) the median Latina entrepreneur earns more than the median unincorporated self-employed but less than a comparable salaried worker; and (c) type of work matters less to Latina's earnings than having a college degree and working full-time. Working Latinas can benefit from educational opportunities, family-friendly work arrangements, and business incorporation.

Introduction

Entrepreneurship plays a vital role in economic development worldwide (Ribeiro-Soriano, 2017), and women are increasingly represented among the world's entrepreneurs. According to the latest Women's Report by the Global entrepreneurship Monitor (Kelley et al., 2017), there are 274 million women-owned businesses in 74 economies. In the United States, the rise of women entrepreneurs is most evident among Hispanics. Data from the Census Bureau's Survey of Business Owners reveal that female Hispanic-owned businesses grew by 87 percent between 2007 and 2012. Business ownership growth rates over the same period for various demographic groups are shown in Figure 1.

The dramatic growth in Latina business ownership may hold the potential for increasing their earnings and well-being. This is of considerable policy interest, given that poverty is far higher among Hispanics than the general population: 21.4 percent versus 14.8 percent in 2014 (de Navas-Walt & Proctor, 2015; Krogstad & Flores, 2016). However, before policies are designed and implemented to support Latina entrepreneurship growth, there is a need to generate further

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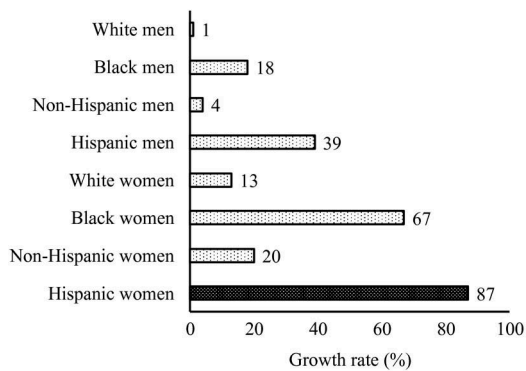


Figure 1. Business ownership growth rate of Hispanic women versus other demographic groups, 2007–2012.

evidence on the labor market outcomes of Latina business owners. The literature on self-employment participation generally focuses on men only or the comparison of women to men, overlooking substantial heterogeneity in employment decisions and outcomes across women (Patrick, Stephens, & Weinstein, 2016). Furthermore, research on Latina entrepreneurship is scant and not optimistic regarding labor market outcomes. For example, Lofstrom and Bates (2009) using the Survey of Income and Program Participation (SIPP) data found Latina entrepreneurs earned, on average, U.S. \$2,828 or 13 percent less than their wage/salary cohorts with similar traits.

Given this entrepreneurial earnings puzzle, one research question addressed in this paper is: What are some main explanations for Latina workers' decisions to engage in self-employment rather than work for wages? A review of studies by Robles and Cordero-Guzman (2007) indicated that low educational attainment and limited labor market opportunities among Hispanics push them into self-employment and contribute to the marginal existence of many Hispanic small businesses. This paper examines a range of factors that push or pull Latinas into self-employment.

The phenomenon described above, in which individuals choose self-employment although they on average earn less than employees, is not unique to Hispanic women. There is a substantial body of research that has found such an entrepreneurial earnings puzzle. In these studies, the regression estimated differences in the earnings of the self-employed versus salaried workers have typically ranged between -4 and -15 percent (Åstebro & Chen, 2014). The -13 percent estimate of Lofstrom and Bates (2009) for the difference in the earnings of Latina entrepreneurs versus salaried workers falls within the range of estimates from the broader literature.

Studies that observed the entrepreneurial earnings puzzle generally compared all self-employed with all salaried workers. However, self-employment is not a useful proxy for entrepreneurship, because it lumps together vastly different

activities and individuals (Glaeser, 2007). Self-employment may not capture the size of the enterprise (Glaeser, Rosenthal, & Strange, 2010), the difference in risk aversion between men and women (Fossen, 2012; Sapienza, Zingales, & Maestripieri, 2009), and the importance of nonpecuniary benefits, which could be different for women and men (Hamilton, 2000; Hundley, 2000).

Two recent papers that disaggregated the self-employed provide new insights. Using German Census data, Sorgner, Fritsch, and Kritikos (2017) showed that the type of self-employment matters for the direction and size of the earnings gap. It was found that the solo self-employed (those without employees) earned less on average than their salaried counterparts, except at the upper part of the earnings distribution, consistent with previous research. However, the self-employed with at least 10 employees had higher expected hourly earnings than comparable salaried workers from the 10th percentile of the earnings distribution up.

Levine and Rubinstein (2017) disaggregated the self-employed into incorporated and unincorporated to distinguish between entrepreneurs and other self-employed persons. Their analyses with National Longitudinal study of Youth (NLSY) data found the two groups differ in personal characteristics (e.g., age, gender, family background) as well as business activities, whereas incorporated businesses engaged in activities that demand comparatively strong nonroutine cognitive abilities, unincorporated businesses were involved mostly in tasks that require strong manual skills. The incorporated self-employed had earnings that exceeded those of comparable salaried workers above the 10th percentile of the earnings distribution. By contrast, the profits of the unincorporated self-employed were lower than those of similar wage/salary workers until the 60th percentile, where the earnings gap reversed. Given these results, another research question we ask is: How do the earnings of Latina workers compare across salaried work, unincorporated self-employment, and incorporated self-employment?

We follow Levine and Rubinstein (2017) and Özcan (2011) to distinguish entrepreneurial self-employment (incorporated) from unincorporated self-employment. Levine and Rubinstein (2013, 2017) argue convincingly that incorporated self-employment is a better proxy for entrepreneurship than all self-employment. The incorporated business structure has two key characteristics that can foster entrepreneurial activity: a separate legal identity and limited liability. However, business incorporation also entails additional costs, both direct (e.g., charter costs, annual fees, and organizing board meetings) and indirect (e.g., organizational complexities). If an individual after weighing the benefits and costs of incorporation chooses to incorporate her business, this can be taken as signaling, albeit imperfectly, that the person is undertaking entrepreneurial activities. On the other hand, the choice to forgo incorporation of one's business signals, to some degree, the undertaking of nonentrepreneurial self-employment. This leads to another research question addressed herein: Why do some Latina workers engage in unincorporated self-employment, whereas others have incorporated businesses?

In summary, this paper assesses the entrepreneurial earnings puzzle among self-employed Hispanic women and answers the following research questions:

RQ1: What are some main explanations for Latina workers' decisions to engage in self-employment rather than work for wages?

RQ2: Why do some Latina workers engage in unincorporated self-employment while others have incorporated businesses?

RQ3: How do the earnings of Latina workers compare across salaried work, unincorporated self-employment, and incorporated self-employment?

To gain insights into the three research questions, we develop a theoretical model in which a worker first chooses between operating a risky business or working for a riskless wage; if business operation is selected, the self-employed individual then decides between an incorporated or unincorporated business based on a mental calculation of the costs and benefits of business incorporation (Levine and Rubinstein 2013, 2017). The theoretical model generates five testable hypotheses, which are detailed in later sections. We test the study hypotheses using a five-year (2011–2015) dataset from the U.S. Census Bureau's American Community Survey (ACS), which has sufficient numbers of self-employed Hispanic women for in-depth analysis of heterogeneity in self-employment determinants and earnings. The study's empirical analyses use a two-stage model to assess earnings differences between workers engaged in different types of work, accounting for the sorting of workers into employment type.

This study contributes to the literatures on women's entrepreneurship (Hechavarria, Bullough, Brush, & Edelman, 2019; Patrick et al., 2016) and minority entrepreneurship (Bates, Bradford, & Seamans, 2018; Fairlie & Woodruff, 2010) by examining how the intersection of race/ethnicity and gender influence the entrepreneurial experience. By addressing *RQ1*, we add to a very small literature examining the key factors that push or pull Hispanic workers into self-employment (Fisher & Lewin, 2018) and, to our knowledge, are the first study to investigate this issue with a focus on Latinas. Furthermore, in addressing *RQ2* and *RQ3*, we contribute by distinguishing entrepreneurial self-employment (incorporated) from unincorporated self-employment for the case of Hispanic women. The few empirical studies on the entrepreneurial earnings puzzle that differentiate the self-employed by business characteristics (Levine & Rubinstein, 2017; Sorgner et al., 2017) do not disaggregate by gender or ethnicity. However, research has shown that the determinants and outcomes of self-employment differ substantially between women and men (Carr, 1996; Patrick et al., 2016) and among Hispanics and non-Hispanics (Fairlie & Woodruff, 2010; Lofstrom & Bates, 2009). It is therefore not possible to extrapolate results from previous studies to the case of Latinas and doing so may lead to the design of policies and practices

that are not appropriate for Latina entrepreneurs. This study reveals bimodality in the circumstances and outcomes of Hispanic women engaged in entrepreneurial versus other self-employment. Research findings speak to the merits of policies that support Latina business ownership for purposes of broadening their labor market alternatives and increasing their earnings and economic well-being.

The data

This study uses a five-year (2011–2015) data set from the U.S. Census Bureau's American Community Survey (ACS), which documents 5 percent of the U.S. population. Data were obtained from IPUMS-USA (Ruggles et al., 2018). A key advantage of the ACS is the large sample size. Our sample of Hispanic working women aged 25–64 years is very large ($n = 236,396$) compared to the sample sizes for other nationally representative U.S. data sets. For example, the SIPP sample of Lofstrom and Bates (2009) had only 3,612 Hispanic working women. The ACS contains data on variables found to influence self-employment participation and earnings of Hispanics, including those related to ethnicity, immigration status, educational attainment, family structure, wealth, and industry. One drawback of the ACS is that self-employment earnings last year is the only variable for measuring business performance. For example, information is not available to measure the firm's return on investment. And since the data set is cross-sectional, it is not possible to track business survival or firm growth or assess whether self-employment is associated with upward mobility among Latinas.

We restrict our analysis to Hispanic women aged 25–64 years who were either a household head, spouse, or unmarried partner; working and not attending school at the time of the ACS interview; and part of the civilian, noninstitutionalized population. The analysis is further restricted to Latina workers with “serious labor force attachment” (Lofstrom & Bates, 2009), defined here as those working more than 26 weeks last year, with usual work hours of at least 20 hours per week.

Before turning to the empirical analyses, we provide details on how some key variables are measured and present some descriptive statistics. The ACS collects information on self-employment participation by asking for the person's chief job or business activity during the week prior to the interview. If the person had no job or business in the week before the interview, information for the last job or business was reported. The class-of-work variable identifies salaried workers and the self-employed and distinguishes between entrepreneurs (incorporated business owners) and other self-employed persons (unincorporated business owners).

The ACS includes recall questions for income during the past year from eight sources, including wage income and business income. Wage income is each respondent's total pretax wage and salary income received as an employee. Business income is net preincome tax income from a business, professional practice, or farm. Since 1967, U.S. government surveys have treated the

incorporated self-employed as salaried workers (employees of their own businesses) (Hipple, 2010). Since the incorporated self-employed may also report business income, we calculate their earnings as the sum of wage and business income. For the unincorporated self-employed, the relevant earnings variable is the ACS business income variable.

Table 1 presents descriptive statistics for all variables included in the empirical analyses, where we distinguish between salaried workers (92 percent of the sample), all self-employed (8 percent), the unincorporated self-employed (6 percent), and incorporated self-employed (2 percent). The table makes clear that a simple comparison of the salaried and the self-employed hides considerable variation across employment types. For example, as a group, the self-employed are less educated than salaried workers. This reflects low educational attainment among the unincorporated self-employed and their large numbers relative to the incorporated self-employed. On average, Latinas with incorporated businesses have higher educational attainment than salaried workers. The share of salaried workers and self-employed that are homeowners is roughly the same, but the average for the self-employed hides sizable variation within this group of workers, with homeownership much higher among the incorporated than unincorporated. Immigrants are far more likely to be self-employed than wage workers, and they are more likely to have unincorporated than incorporated businesses. There are also considerable differences in the industry of work across employment types. Entrepreneurs appear to have a similar level of attachment to the labor market as salaried workers and greater attachment than the unincorporated self-employed, as measured by weeks worked and usual hours worked last year.

Figure 2 presents kernel density graphs of annual earnings of Hispanic women engaged in salaried work, unincorporated self-employment, and incorporated self-employment across the earnings distributions. We exclude earnings above \$150,000 (99th percentile) to improve data visualization, given the positive skew of earnings, especially self-employment earnings. The figure shows that the incorporated self-employed and salaried workers earned more than the unincorporated self-employed across the earnings distribution. A second pattern is the greater variation in earnings of entrepreneurs than wage workers. Third, wage workers have higher annual earnings than entrepreneurs at the lower end of the distribution, but the earnings gap is reversed at the upper end of the earnings distribution, they had higher average annual earnings (\$48,282) than wage/salary workers (\$34,698), over the study period. The corresponding figure for Latinas in unincorporated self-employment is \$23,315.¹

¹Earnings figures in the multiyear ACS are standardized to dollars as valued in the final year of data included; in this case earnings figures are in 2015 dollars.

Table 1. Descriptive statistics for variables included in the multinomial logit and quantile regression models.

	Salaried workers			All self-employed			Unincorporated self-employed			Incorporated self-employed		
	Mean or proportion	Std. error	Std. error	Mean or proportion	Std. error	Std. error	Mean or proportion	Std. error	Std. error	Mean or proportion	Std. error	Std. error
Age	41.6744	0.0262	0.0896	44.6609	0.0896	0.0896	44.5777	0.1050	0.1050	44.9258	0.1700	0.1700
White	0.6675	0.0013	0.0045	0.6692	0.0045	0.0045	0.6485	0.0053	0.0053	0.7352	0.0083	0.0083
Head	0.5719	0.0013	0.0047	0.5998	0.0047	0.0047	0.6098	0.0054	0.0054	0.5680	0.0093	0.0093
Married	0.5652	0.0014	0.0047	0.5806	0.0047	0.0047	0.5508	0.0055	0.0055	0.6756	0.0088	0.0088
Number children	1.4632	0.0034	0.0120	1.4611	0.0120	0.0120	1.4883	0.0140	0.0140	1.3745	0.0231	0.0231
Number jobholders	1.0693	0.0028	0.0090	0.8582	0.0090	0.0090	0.8938	0.0106	0.0106	0.7450	0.0164	0.0164
Number other Self-employed	0.0764	0.0008	0.0054	0.3089	0.0054	0.0054	0.2766	0.0063	0.0063	0.4118	0.0103	0.0103
Immigrant	0.4891	0.0013	0.0043	0.6982	0.0043	0.0043	0.7384	0.0048	0.0048	0.5700	0.0093	0.0093
Mexico	0.5885	0.0012	0.0047	0.5257	0.0047	0.0047	0.5497	0.0055	0.0055	0.4494	0.0093	0.0093
Puerto Rico	0.1078	0.0008	0.0020	0.0503	0.0020	0.0020	0.0417	0.0021	0.0021	0.0778	0.0050	0.0050
Cuba	0.0444	0.0005	0.0021	0.0536	0.0021	0.0021	0.0373	0.0022	0.0022	0.1054	0.0057	0.0057
Other Hispanic	0.2594	0.0011	0.0046	0.3704	0.0046	0.0046	0.3713	0.0054	0.0054	0.3675	0.0091	0.0091
English proficiency	0.7948	0.0011	0.0045	0.6696	0.0045	0.0045	0.6232	0.0054	0.0054	0.8174	0.0073	0.0073
No degree	0.2306	0.0011	0.0044	0.3184	0.0044	0.0044	0.3610	0.0053	0.0053	0.1829	0.0076	0.0076
High school degree	0.2645	0.0012	0.0043	0.2632	0.0043	0.0043	0.2744	0.0050	0.0050	0.2276	0.0082	0.0082
Associate's degree	0.0814	0.0007	0.0023	0.0603	0.0023	0.0023	0.0570	0.0027	0.0027	0.0706	0.0046	0.0046
Some college	0.2920	0.0012	0.0040	0.2312	0.0040	0.0040	0.2207	0.0046	0.0046	0.2647	0.0081	0.0081
Bachelor's degree	0.1420	0.0009	0.0032	0.1243	0.0032	0.0032	0.1047	0.0035	0.0035	0.1867	0.0072	0.0072
Advanced degree	0.0709	0.0006	0.0021	0.0629	0.0021	0.0021	0.0392	0.0019	0.0019	0.1381	0.0062	0.0062
Homeownership	0.5291	0.0014	0.0048	0.5278	0.0048	0.0048	0.4774	0.0055	0.0055	0.6880	0.0089	0.0089
Investment Income (\$1,000)	0.7421	0.0224	0.1397	1.9496	0.1397	0.1397	1.3423	0.1437	0.1437	3.8831	0.3618	0.3618
Worked 27–39 weeks	0.0431	0.0006	0.0021	0.0535	0.0021	0.0021	0.0590	0.0026	0.0026	0.0359	0.0034	0.0034
Worked 40–47 weeks	0.0442	0.0005	0.0021	0.0567	0.0021	0.0021	0.0600	0.0026	0.0026	0.0464	0.0037	0.0037
Worked 48–49 weeks	0.0167	0.0003	0.0014	0.0245	0.0014	0.0014	0.0250	0.0016	0.0016	0.0231	0.0025	0.0025
Worked 50–52 weeks	0.8961	0.0008	0.0032	0.8652	0.0032	0.0032	0.8560	0.0038	0.0038	0.8947	0.0054	0.0054
Usual hours per week	38.9793	0.0210	0.1180	37.7160	0.1180	0.1180	36.7037	0.1332	0.1332	40.9389	0.2422	0.2422
Worked in AMC	0.0268	0.0005	0.0017	0.0312	0.0017	0.0017	0.0217	0.0016	0.0016	0.0615	0.0048	0.0048
Worked in TCU	0.1443	0.0010	0.0018	0.0399	0.0018	0.0018	0.0278	0.0017	0.0017	0.0783	0.0049	0.0049
Worked in Trade	0.1276	0.0009	0.0027	0.0959	0.0027	0.0027	0.0802	0.0029	0.0029	0.1459	0.0065	0.0065
Worked in Fire	0.0722	0.0007	0.0021	0.0510	0.0021	0.0021	0.0401	0.0022	0.0022	0.0857	0.0054	0.0054
Worked in PROF	0.1448	0.0010	0.0038	0.1905	0.0038	0.0038	0.1812	0.0044	0.0044	0.2202	0.0078	0.0078

(Continued)

Table 1. (Continued).

	Salaried workers		All self-employed		Unincorporated self-employed		Incorporated self-employed	
	Mean or proportion	Std. error	Mean or proportion	Std. error	Mean or proportion	Std. error	Mean or proportion	Std. error
Worked in EDUCHS	0.3189	0.0013	0.1889	0.0037	0.1912	0.0043	0.1816	0.0071
Worked in AFS	0.1209	0.0009	0.0594	0.0023	0.0512	0.0025	0.0854	0.0053
Worked in Other Services	0.0445	0.0006	0.3432	0.0046	0.4066	0.0055	0.1415	0.0068
Urban residence (PUMA)	0.9593	0.0004	0.9698	0.0017	0.9689	0.0019	0.9727	0.0033
Unemployment (PUMA)	8.8223	0.0075	8.7018	0.0335	8.8964	0.0394	8.8821	0.0629
Ethnic enclave (PUMA)	7.2647	0.0308	8.3006	0.1538	7.9446	0.1714	9.4341	0.3503
LQ AMC (PUMA)	0.9644	0.0011	0.9228	0.0048	0.9424	0.0057	0.8604	0.0092
LQ TCU (PUMA)	0.9214	0.0005	0.8928	0.0024	0.8988	0.0028	0.8739	0.0047
LQ Trade (PUMA)	1.0235	0.0004	1.0134	0.0019	1.0124	0.0022	1.0165	0.0036
LQ FIRE (PUMA)	1.0107	0.0008	1.0531	0.0040	1.0277	0.0046	1.1342	0.0079
LQ PROF (PUMA)	1.0331	0.0005	1.0560	0.0025	1.0489	0.0030	1.0787	0.0048
LQ EDUCHS (PUMA)	0.9569	0.0004	0.9418	0.0019	0.9395	0.0023	0.9493	0.0036
LQ AFS (PUMA)	1.0853	0.0007	1.0992	0.0036	1.1089	0.0041	1.0686	0.0073
LQ Other Svcs. (PUMA)	1.0615	0.0006	1.1097	0.0027	1.1280	0.0032	1.0513	0.0051
Northeast	0.1577	0.0006	0.1495	0.0035	0.1484	0.0041	0.1530	0.0071
Midwest	0.0902	0.0005	0.0477	0.0021	0.0428	0.0024	0.0631	0.0049
South	0.3638	0.0009	0.4047	0.0046	0.3854	0.0053	0.4659	0.0093
West	0.3883	0.0008	0.3981	0.0045	0.4233	0.0053	0.3180	0.0085
Year 2011	0.1905	0.0009	0.1799	0.0037	0.1855	0.0044	0.1618	0.0067
Year 2012	0.1911	0.0011	0.1952	0.0038	0.1970	0.0044	0.1894	0.0074
Year 2013	0.1975	0.0011	0.1961	0.0038	0.1992	0.0045	0.1863	0.0075
Year 2014	0.2058	0.0011	0.2067	0.0039	0.2028	0.0044	0.2193	0.0078
Year 2015	0.2151	0.0011	0.2222	0.0040	0.2155	0.0046	0.2432	0.0081

Descriptive statistics reported account for the stratified and clustered sampling design of the American Community survey using stata's svy commands. industries are agriculture, Forestry, Fishing, Mining, and Construction (AMC); Transportation, Communication, and Utilities (TCU); wholesale and retail Trade (TRADE); Finance, insurance, and real estate (FIRE); Professional, scientific, and Technical services (PROF); educational services, and health Care and social assistance (EDUCHS); arts, entertainment, recreation, accommodation, and Food services (AFS); and Other services

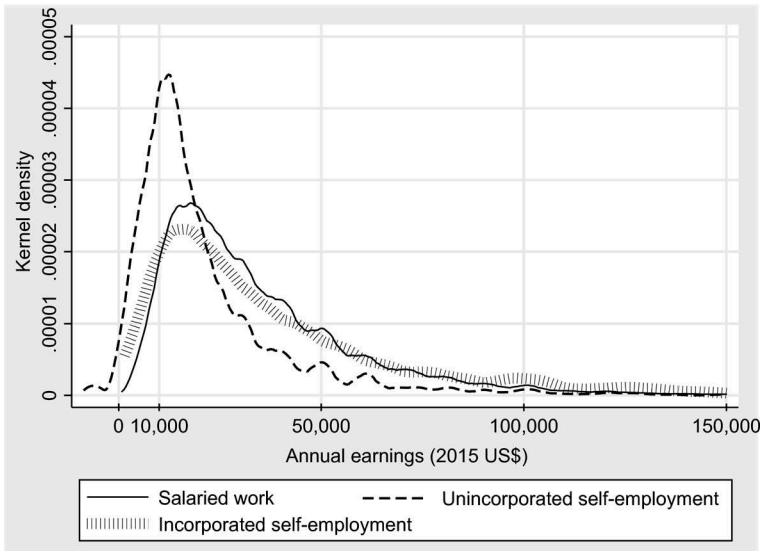


Figure 2. Kernel density estimates of annual earnings of Hispanic women 2011–2015.

Theoretical model

We develop a model in the spirit of de Wit (1993) where workers choose among employment alternatives with different degrees of risk. In the model, a worker decides between operating a risky business or working for a riskless wage. If the worker chooses to run a business, she decides between an unincorporated or an incorporated business, based on a mental calculation of the benefits from limited liability and independent legal identity relative to the costs of business incorporation (Levine & Rubinstein, 2013, 2017).

The model assumes workers have the following utility function

$$u = u(y, \rho), \tag{1}$$

where y is the income earned and ρ is a measure of risk aversion. Earned income could come from wages (w) in the case of salaried workers or from profits (π) in the case of the self-employed. The higher the value of ρ , the higher the worker’s level of risk aversion. In addition, the model assumes all workers are risk averse or risk neutral, i.e., $u_{yy} \leq 0$ (de Wit, 1993).

Self-employed workers maximize expected utility as follows:

$$\max Eu(\pi, \rho) = \max Eu(x[v, l] - wl, \rho), \tag{2}$$

where $x(v, l)$ is a production function of labor input (l) and a stochastic variable (v), which has a known distribution. The stochastic variable represents uncertainties inherent to production, such as unforeseen shocks to markets and labor productivity, as well as uncertainties about the person’s

entrepreneurial ability. Expected utility is a decreasing function of the market wage and the level of risk aversion, i.e., $Eu_w < 0$ and $Eu_p < 0$.²

In equilibrium, there will be a marginal worker, characterized by certain risk aversion ρ^* , who expects to obtain the same utility from self-employment as working for wages, i.e., $Eu(\pi, \rho^*) = Eu(w)$. Individuals with lower risk aversion enter self-employment, whereas those with higher risk aversion choose salaried work. The latter proposition alongside evidence on the correlates of risk aversion lead to three hypotheses related to *RQ1*.

H1: Latina immigrants have higher self-employment propensity than U.S.-born Latinas.

H2: Self-employment is higher among older (vs. younger) Latina workers.

H3: Self-employment is higher among Latina workers with self-employed family members.

Several empirical studies confirm the theory that individuals who are less risk averse are more likely to be self-employed (Ahn, 2010; Ekelund, Johansson, Järvelin, & Lichtermann, 2005). Regarding *H1*, empirical work on the demography of risk aversion indicates that immigrants have lower risk aversion, which is entirely intuitive, given these individuals have already shown a willingness to engage in risk-taking by migrating across national borders (Halek & Eisenhauer, 2001). Furthermore, immigrants may be pushed into self-employment due to higher labor market discrimination and lower wages as employees (Clark & Drinkwater, 2000; Fisher & Lewin, 2018; Light, 1979).

As for *H2*, research suggests that people generally become less risk averse as they age, until they reach retirement age when risk aversion increases (Halek & Eisenhauer, 2001; Riley & Chow, 1992). Concerning *H3*, Latinas with family members having self-employment expertise (e) may have lower risk aversion and thereby be more likely to be self-employed, i.e., $Eu(\pi, \rho_e^*) < Eu(\pi, \rho^*)$. In other words, when one family member is in a business, there is the possibility of joining that business, and entry and operating costs, as well as risk level, would be lower than a situation of solo business entry (Lin, Picot, & Compton, 2000).

To generate hypotheses related to *RQ2* and *RQ3*, suppose now that workers can mitigate some of the risks of the business operation by choosing to incorporate their business. Incorporation offers limited liability and a separate legal identity, which means the business owner cannot be held personally liable for business liability and the company can own property independently of its owner(s). Of course, incorporation also comes with costs, “such as charting, annual fees and the preparation of more elaborate

²if $x_v > 0$, $x_l > 0$, and $x_{lv} > 0$ then $l_w < 0$ and $l_p < 0$ this means that $Eu_w < 0$ and $Eu_p < 0$.

financial and disclosure statements” (Levine & Rubinstein, 2013, p. 2). These observations lead to our fourth hypothesis, which concerns RQ2:

H4: Compared with Latinas in unincorporated self-employment, Latinas with incorporated businesses have higher levels of wealth and human capital.

We expect that business incorporation increases with wealth because a wealthier person can better afford the costs of incorporation and has more to lose from business failure. Business incorporation should also be higher among those with higher human capital (e.g., education and English proficiency) since these individuals would be better able to manage the complexity of the incorporated business form. On the other hand, workers are more likely to choose an unincorporated business structure when they benefit little from limited liability and separate legal identity; i.e., they do not have much to lose from business failure, in terms of financial capital, and the additional cost and management efforts of business incorporation are therefore excessive.

Finally, a fifth hypothesis relates to RQ3 on the relative earnings of Latina workers in the two types of self-employment.

H5: The incorporated self-employed have higher earnings than the unincorporated self-employed.

We expect earnings will be higher in incorporated versus unincorporated self-employment due to differences in risk aversion. Workers who choose the incorporated business form are willing to pay the costs of incorporation to avoid risk, signaling a higher level of risk aversion compared to the self-employed who decide to forgo business incorporation. From the model, it can be shown that if $\rho_i^* > \rho_u^*$ then $Eu(\pi, \rho_i^*) = u(w_i) = Eu(\pi, \rho_u^*) = u(w_u)$ i.e., there should be higher earnings for incorporated (*i*) versus unincorporated (*u*) self-employment. Furthermore, positive selection into incorporated self-employment (on the basis of wealth and human capital) and negative selection into unincorporated self-employment suggests higher earnings for incorporated versus unincorporated self-employment.

Estimation strategy

To address the three research questions and test the five hypotheses, we use a two-stage model that accounts for the selection of individuals into employment type. The theoretical model suggests the importance of self-selection for generating earnings differences across unincorporated and incorporated self-employment, and this is supported by empirical work. A recent study of the earnings of women and immigrant entrepreneurs in Germany found that the

sorting of workers into self-employment based on their personal characteristics partly explains why some entrepreneurs earn more/less than salaried workers, highlighting the importance of controlling for such selection to avoid biased parameter estimates (Hopp & Martin, 2017). In the approach taken here, the first stage involves estimating a multinomial logit (MNL) model of participation in wage work, entrepreneurial self-employment (incorporated business), and other self-employment (unincorporated business). In the second stage, we estimate a Mincer earnings model as a function of the type of self-employment (unincorporated versus incorporated), a comprehensive set of control variables, and selection terms derived from the estimation of the MNL model in the first stage. This approach to addressing potential selection bias is the Dubin and McFadden (1984) generalization of the Heckman model to situations where the selection is over more than two mutually exclusive choices.³

The MNL model of choice of employment type can be expressed as

$$\log \frac{P_{ij}}{P_{is}} = \beta_0 + \beta' X_i + \mu' Z_i + \epsilon_i \quad (3)$$

In Equation (3), the dependent variable is the log-odds ratio of being self-employed rather than a salaried worker, where P_{ij} denotes the probability that worker i has an incorporated ($j = 1$) or unincorporated ($j = 2$) business, and P_{is} is the probability of wage/salary work. Vector X is a set of control variables, whereas vector Z includes variables to identify the earnings equation. Selection of the variables that are part of X and Z is guided by a comprehensive review of theoretical and empirical studies on the determinants of self-employment recently undertaken by Simoes, Crespo, and Moreira (2016). Variables commonly posited to influence self-employment participation in the literature are age, marital status, family composition, education, ethnicity, race, and financial resources; these variables are included in the MNL model. Characteristics of the local area have also been shown to matter to the self-employment decision, generating locational differences in self-employment rates (Liu, 2012; Wang, 2015). Thus, we include variables for urbanity, area unemployment rate, ethnic enclaves, industrial specialization, and region. Following other studies (Toussaint-Comeau (2008), we measure an ethnic enclave as the concentration within a defined geographical area of people originating from the same country or region.⁴ Industrial specialization is here proxied with variables measuring the concentration within a defined geographical area of people employed in eight different industry categories, i.e., industry location quotients (LQ).

³We use the Dubin and McFadden (1984) method of selection correction because a recent review of the literature on selection bias (Bourguignon, Fournier, & Gurgand, 2007) found it to perform better than other selection methods in Monte Carlo experiments.

⁴For each person, the relevant ethnic concentration is that for her/his specific origin. The ethnic enclave variable varies by the individual's area of current residence and country of origin.

$$LQ_{kl} = \frac{\text{Percentage of jobs in industry } k \text{ in area } l}{\text{Percentage of jobs in industry } k \text{ in U.S.A.}} \quad (4)$$

Identification of Equation (3) depends on both the existence of identifying instruments and the nonlinearity of the MNL model. In selecting identifying instruments, we follow Lokshin and Sajaia (2004) and include in vector Z marital status, number of own children in the household, number of the Latina’s family members with a salaried job, and number of other self-employed in the family. We expect these variables affect the self-employment decision but do not directly affect earnings, i.e., they are uncorrelated with the error term in the earnings equation.

Stage two of the analysis involves estimating the following equation to identify the determinants of earnings E for worker i :

$$E_i = \alpha_0 + \alpha_1 I_i + \alpha_2 U_i + \alpha' Y_i + \alpha_{\lambda_I} \lambda_{I,i} + \alpha_{\lambda_U} \lambda_{U,i} + \varepsilon_i, \quad (5)$$

Like Levine and Rubinstein (2017), we examine earnings rather than the log of earnings as this allows for nonpositive self-employment earnings. In Equation (5), I and U are binary variables for incorporated and unincorporated self-employment (wage employment is the reference group); Y is a vector of control variables that includes the controls from the MNL model (X) plus a few additional variables (usual hours worked per week, number of weeks worked last year, and industry of work); and λ_I and λ_U are selection correction terms that account for nonrandom selection into incorporated and unincorporated self-employment. Our main interest is α_1 and α_2 , which provide estimates of the gains (or losses) in earnings associated with incorporated and unincorporated self-employment relative to wage/salary employment. The α_{λ} parameters allow for testing of selection into entrepreneurial and other self-employment.

The two selection terms, λ_I and λ_U , are calculated using predicted probabilities from the MNL model with the formula derived by Dubin and McFadden (1984):

$$\lambda_j = \ln \hat{P}_j + \sum_{k \neq j} \frac{\hat{P}_k \ln \hat{P}_k}{(1 - \hat{P}_k)}, \quad (6)$$

In Equation (6), \hat{P}_j is the predicted probability that choice j (incorporated or unincorporated self-employment) is the selected type of work and k indexes the three employment types, including both types of self-employment and salaried work.

To estimate Equation (6), we apply a quantile regression (QR) model at the 5th, 25th, 50th, 75th, and 95th percentiles of the earnings distributions. QR provides information about the relationship between the dependent variable and the regressors at different points in the

conditional distribution of the dependent variable, enabling a richer understanding of the data. QR is more robust to outliers than ordinary least squares and is semi-parametric and therefore avoids assumptions about the parametric distribution of regression errors (Cameron & Trivedi, 2010).

Results

The MNL model

Table 2 reports the MNL model results: relative risk ratios (RRR) and z-statistics for the probability of incorporated and unincorporated businesses, where the reference employment type is salaried work. Findings reveal both similarities and differences in the determinants of incorporated and unincorporated self-employment. As far as similarities, compared to salaried Latina workers, the Latina self-employed are older, have more children, have more family members who are selfemployed, are more likely to be immigrants, and have higher investment income. The findings for immigration, age, and self-employed family members are in support of the first, second, and third study hypotheses (*H1*, *H2*, and *H3*) described earlier. Similarities across incorporated and unincorporated self-employment for locational variables are that the area unemployment rate has a slightly dampening effect on self-employment participation, whereas living in an urban area (versus a rural area) and in the south (versus the northeast) increases self-employment probability. For both incorporated and unincorporated self-employment, the ethnic enclave variable has essentially no association with self-employment probability. Living in a PUMA with a higher than average concentration of workers in Other Services (e.g., beauty salons, private households) is associated with higher unincorporated self-employment propensity, whereas the probability of incorporated self-employment is higher in PUMAs with a higher than average concentration of workers in Finance, insurance, and Real Estate (FIRE); Trade; and Professional, Scientific, and Technical Services (PROF).

Results in Table 2 reveal some critical differences in the determinants of incorporated and unincorporated self-employment among Hispanic women. Marriage positively correlates to incorporated self-employment and negatively correlates to unincorporated self-employment. While Latinas in incorporated self-employment have higher educational attainment and English proficiency than their salaried counterparts, these measures of human capital are negatively associated with unincorporated self-employment. Latinas who own their home are more likely to engage in incorporated self-employment and less likely to participate in unincorporated selfemployment (versus

Table 2. Multinomial logit model results for self-employment participation of Hispanic women, by incorporation Status, 2011–2015.

	Unincorporated self-employment		Incorporated self-employment	
	RRR	z-statistic	RRR	z-statistic
Constant	0.0184***	-12.98	0.000693***	-14.84
Age	1.028***	25.82	1.025***	14.26
White	1.000	-0.01	1.098*	2.46
Head	1.172***	7.16	1.195***	5.12
Married	0.933**	-3.04	1.213***	5.04
Children	1.054***	5.75	1.087***	5.45
Jobholders	0.831***	-15.13	0.739***	-12.86
Other self-employed	3.029***	50.02	4.130***	47.95
Immigrant	1.850***	23.26	1.268***	5.87
Puerto Rico	0.835***	-3.49	0.984	-0.23
Cuba	0.806***	-3.43	1.658***	7.09
Other Hispanic	1.297***	10.00	1.440***	8.62
English proficiency	0.751***	-11.00	0.996	-0.09
High school degree	0.881***	-4.64	1.059	1.05
Associate's degree	0.838***	-3.82	0.859*	-2.26
Some college	0.760***	-8.41	1.188**	2.96
Bachelor's degree	0.625***	-11.97	1.267***	3.87
Advanced degree	0.524***	-12.70	1.630***	7.37
Homeownership	0.881***	-5.85	1.502***	10.49
Investment Income	1.004***	5.57	1.005***	8.67
Urban Residence	0.984	-0.28	1.069	0.65
Unemployment rate	0.996	-0.90	0.979**	-2.70
Ethnic enclave	0.996***	-4.76	1.000	-0.39
LQ AMC	0.916**	-2.90	0.971	-0.55
LQ TCU	0.736***	-4.02	1.009	0.07
LQ Trade	0.700***	-5.23	1.378**	2.92
LQ FIRE	1.205***	5.46	1.541***	8.53
LQ PEOF	0.866*	-2.24	1.287*	2.49
LQ EDUCHs	0.970	-0.39	1.111	0.81
LQ AFS	0.902**	-2.87	1.143*	2.27
LQ Other Svcs.	1.708***	13.90	1.054	0.78
Midwest	0.803***	-3.71	0.984	-0.19
South	1.271***	6.28	1.226***	3.38
West	1.419***	8.79	1.087	1.32
Year 2011	1.030	0.83	0.865*	-2.53
Year 2012	1.068*	1.99	0.891*	-2.15
Year 2013	1.006	0.19	0.843***	-3.30
Year 2014	1.009	0.29	0.965	-0.75
N	219,638			
Pseudo-R2	0.091			

The reference categories for the groups of dummy variables are no degree (high school degree, some college, and college), speaks English well or very well or only English (does not speak English and speaks English, but poorly), Mexico (country-of-origin variables), and Northeast region.

* $p < .05$; ** $p < .01$; *** $p < .001$.

salaried work). The latter two findings support the fourth study hypothesis (*H4*). we also find a couple of differences across Hispanic origin groups. Latinas in unincorporated self-employment are less likely to have Puerto Rican or Cuban ancestry (versus Mexican ancestry), whereas those in incorporated self-employment are more likely to report Cuban than Mexican ancestry.

The QR model

QR results for the earnings of nonprofessional and professional Latina businesswomen at the 5th, 25th, 50th (median), 75th, and 95th percentiles of the earnings distributions are presented in [Table 3](#). For comparison, we present ordinary least squares (OLS) results. We start with a discussion of the control variables, then turn to the findings for the unincorporated/incorporated binary variables. Age is positively associated with annual earnings, across the earnings distribution. Latina businesswomen who are immigrants make less than nonimmigrants, and the immigrant versus nonimmigrant earnings gap is largest at higher percentiles. Hispanic women whose reported ancestry is “other Hispanic” (Central America, South America, the Dominican Republic, or Spain) generally have higher annual earnings than Mexican-origin workers. The ethnic enclave coefficient suggests that Latina workers fare slightly worse in terms of annual earnings inside enclaves than outside. As expected, variables reflecting human capital are highly influential. Latinas with English proficiency had higher annual earnings than Latinas who cannot speak English, across the earnings distribution. We find significant positive returns to education for Hispanic women, with the highest returns to education being for advanced degree holders at the upper end of the earnings distribution. Financial capital, as measured by homeownership and investment income, has a positive association with annual earnings.

Work effort, as measured by the usual number of weekly hours and number of weeks worked last year, positively correlates to earnings for Hispanic women. The magnitude of the usual hours worked coefficient is larger at higher earnings percentiles. The industry of work clearly matters to the earnings of Latina workers. Results indicate that arts, entertainment, recreation, accommodation, and Food services (AFS) and Other services are generally the least rewarded industry groups.

As for the locational variables, earnings are higher in urban than rural PUMAS, while there is a positive association between earnings and the PUMA unemployment rate. Living in a PUMA with a higher-than-average concentration of workers in FIRE and Other services is associated with higher earnings across the earnings distribution. Finally, results suggest that Latinas in the western region of the United States generally have higher earnings than in other areas.

Turning now to the [Table 3](#) results of primary interest, those that relate to *RQ3* and *H5*, the OLS results indicate that, compared to their salaried counterparts, unincorporated self-employed Latinas earn \$5,333 (15 percent) less, whereas incorporated self-employed Latinas earn \$6,245 (17 percent) more. The QR results show that Latinas who have unincorporated businesses earn less than similar salaried workers except at the 95th percentile of the earnings distribution, where they receive \$3,002 more per year. At the lower end of the distribution, earnings from unincorporated self-employment are

Table 3. OLS and quantile regression results for annual earnings (2015 U.S. \$) of Hispanic Women, 2011–2015.

	OLS	5th percentile	25th percentile	50th percentile	75th percentile	95th percentile
Constant	-4747.41*	-9002.55***	-8880.48***	-4786.22***	-2250.69	5479.21
Unincorporated	-5410.71***	-7907.91***	-6586.84***	-4890.11***	-2645.82***	3002.37***
Incorporated	6245.07***	-5049.04***	-4492.80***	-2390.42***	2000.92**	42,745.04***
Age	304.71***	22.76***	82.79***	161.73***	279.25***	460.68***
White	200.65	392.75***	200.92***	126.19	2.75	-116.53
Head	2693.33***	662.10***	1346.23***	1753.37***	2325.99***	1704.00***
Immigrant	-407.14	-699.52***	-1240.73***	-1455.12***	-1271.79***	-1538.27*
Puerto Rico	-1084.08***	5.65	-412.39***	-562.27***	-481.57	-816.30
Cuba	-1274.73*	56.75	-496.08*	-504.38	128.65	2145.42
Other Hispanic	804.75***	187.09**	420.10***	441.85**	684.96***	1846.22***
English proficiency	2303.49***	911.74***	1674.58***	2386.99***	2872.41***	3065.80***
High school degree	315.84	494.54***	700.70***	1263.19***	1828.80***	2004.81***
Associate's degree	3927.97***	745.56***	1697.71***	2976.87***	6277.43***	12,214.53***
Some college	2023.87***	1309.07***	2214.92***	3670.77***	5252.05***	7024.57***
Bachelor's degree	13,972.69***	3986.64***	8381.03***	14,047.17***	21,789.55***	35,811.29***
Advanced degree	27,821.99***	7707.98***	18,648.47***	26,983.42***	38,301.35***	68,685.34***
Homeownership	1665.70***	1601.48***	2019.24***	2172.14***	2259.85***	1757.09**
Investment income	111.11***	4.45*	9.94*	42.90***	163.15***	787.00***
Worked 40–47 weeks	4249.75***	3332.70***	3803.47***	3633.74***	2617.56***	1314.36
Worked 48–49 weeks	6985.04**	4750.96***	5653.28***	5609.18***	4892.81***	4437.11***
Worked 50–52 weeks	10,630.00***	6559.60***	8220.26***	8372.54***	8151.98***	7969.88***
Usual hours per Week	824.71***	266.64***	514.09***	666.35***	840.09***	1269.61***
Worked in AMC	5378.99***	329.99	1195.38***	2473.90***	3961.45***	7763.39***
Worked in TCU	6425.03***	2071.33***	2406.11***	3131.01***	4633.11***	8397.46***
Worked in Trade	2214.93***	491.96***	166.68	468.85**	1063.57***	3665.10***
Worked in FIRE	9558.43***	3113.01***	5478.64***	6670.44***	8217.75***	16,620.62***
Worked in PROF	7458.70***	1790.48***	3363.93***	4573.03***	6651.92***	11,125.73***
Worked in EDUCHS	1161.63***	1157.33***	1142.22	734.41**	-51.26	681.69
Worked in AFS	749.76**	-174.46*	-406.94***	-297.10*	120.21	1794.29***
Urban residence	1910.52***	594.81***	1125.24***	1454.02***	1409.58***	884.93
Unemployment rate	103.98***	-20.16	42.33***	60.96***	53.80*	8.07
Ethnic enclave	-78.30***	-9.53***	-24.72***	-37.62***	-60.41***	-110.06***

(Continued)



Table 3. (Continued).

	OLS	5th percentile	25th percentile	50th percentile	75th percentile	95th percentile
LQ AMC	-2838.45***	-714.48***	-1510.41***	-2020.69***	-2653.75***	-2807.50***
LQ TCU	-3698.33***	-465.94**	-1553.11***	-2552.13***	-3269.17***	-2716.02*
LQ Trade	-14,062.49***	-825.70***	-4375.37***	-6982.26***	-10,217.24***	-16,472.41***
LQ FIRE	1252.13***	447.61***	714.72***	647.80***	888.77***	2069.82***
LQ PROF	-1411.49**	471.48*	-575.35***	-1133.79***	-802.30*	1182.85
LQ EDUCHS	-5853.43***	-1318.74***	-2790.83***	-4025.21***	-5464.25***	-4682.21***
LQ AFS	-4530.41***	-302.98**	-1549.73***	-2479.50***	-3669.21***	-4785.50***
LQ Other Svcs.	4264.15***	286.72	1185.48***	2032.43***	3230.91***	5411.34***
Midwest	-7093.38***	-585.15***	-2411.60***	-4307.78***	-6803.68***	-10,918.99***
South	-5613.58***	-1009.83***	-2330.19***	-4058.68***	-6178.37***	-9785.99***
West	2118.70***	361.12**	1138.34***	1182.77***	1320.25***	373.48
Year 2011	2069.86***	543.33***	951.79***	1380.38***	1953.51***	1717.26***
Year 2012	1759.64***	224.72**	638.63***	1129.75***	1550.78***	1739.78***
Year 2013	1749.03***	39.90	528.18***	866.25***	1192.72***	1820.29***
Year 2014	129.69	-26.57	39.87	72.34	5.55	-437.36
λU	-9489.62***	-659.68**	-2966.77***	-4643.73***	-6959.63***	-10,615.16***
λI	7773.23***	248.91	2000.90***	3638.01***	5504.41***	10,041.11***
N	219,638	219,638	219,638	219,638	219,638	219,638
Pseudo-R2	0.311	0.102	0.1939	0.256	0.295	0.307

The reference categories for the groups of dummy variables are no degree (high school degree, Associate degree, some college, Bachelor's degree, and advanced degree), speaks English well or very well or only English (does not speak English and speaks English, but poorly), Mexico (country-of-origin variables), worked 27–39 weeks (weeks of work variables), worked in Other services (variables for industry of work), and Northeast region.

* $p < .05$; ** $p < .01$; *** $p < .001$

meager. For example, at the 5th percentile, earnings of the unincorporated self-employed are \$7,896 below the earnings of similar salaried workers. This finding agrees with the usual result in the literature that the self-employed earn less than wage workers. A somewhat different story is told for the case of entrepreneurial self-employment. Comparing the earnings of entrepreneurs and salaried workers, there is a negative earnings gap at the 5th, 25th, and 50th percentiles and a positive earnings gap at the 75th and 95th percentiles. At the 95th percentile, Latinas engaged in incorporated self-employment made \$42,745 more than similar salaried workers.

Figure 3 illustrates how QR coefficients for incorporated and unincorporated self-employment vary over quantiles and shows they differ significantly from OLS coefficients. The bands around the estimates are 95 percent confidence intervals. Holding model variables constant, Latinas have higher annual earnings in salaried work than incorporated self-employment until about the 65th percentile, where the earnings gap reverses. Latinas in unincorporated self-employment make less than similar wage workers until about the 90th percentile.

The selection terms at the bottom of Table 3 are both statistically significant: the unincorporated self-employment selection term is negative, whereas the opposite is the case for incorporated self-employment. These results suggest negative selection into unincorporated self-employment and positive selection into incorporated self-employment, based on unobservables. It appears Latinas

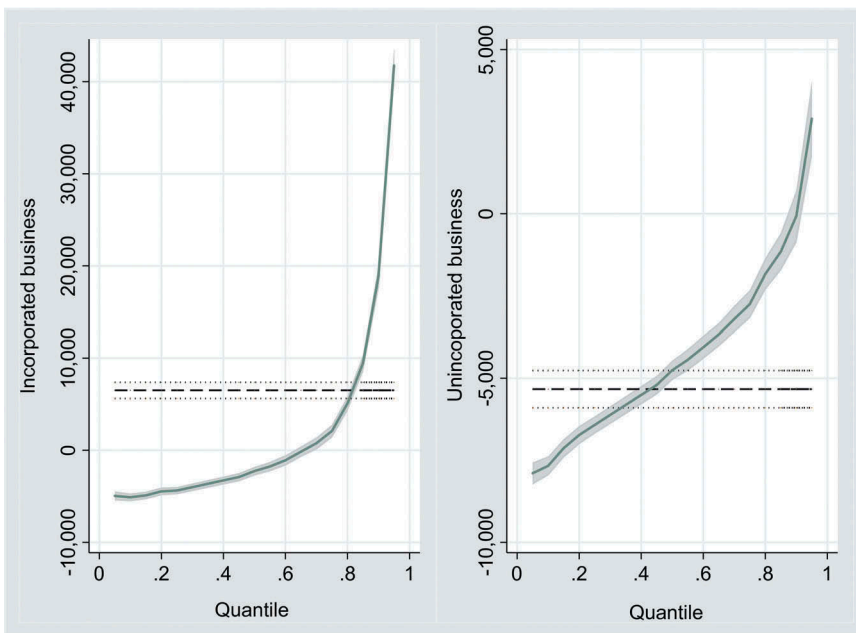


Figure 3. OLS and QR coefficient estimates for incorporated and unincorporated self-employment.

with unmeasured characteristics associated with higher (lower) earnings sort themselves into incorporated (unincorporated) self-employment, such that without the correction there would have been an upward bias (downward bias) on the incorporated (unincorporated) self-employment binary variable. These findings complement the MNL model results indicating the sorting of workers based on observed levels of human and financial capital.

Discussion and implications

This paper is motivated by the recent, rapid growth in entrepreneurship among Hispanic women in the United States (Figure 1). Using a two-stage model that accounts for selection into self-employment, three research questions are addressed: What are some main explanations for Latina workers' decisions to engage in selfemployment rather than work for wages (*RQ1*)? Why do some Latina workers engage in unincorporated self-employment, whereas others have incorporated businesses (*RQ2*)? How do the earnings of Latina workers compare across salaried work, unincorporated self-employment, and incorporated self-employment (*RQ3*)?

We extend research on Hispanic entrepreneurship by examining the heterogeneity of self-employment based on business incorporation, categorizing the self-employed into entrepreneurial (incorporated) and other selfemployed (unincorporated), following recent studies (Levine & Rubinstein, 2017; Özcan, 2011). As pointed out by Özcan (2011), most previous work either mixed together these two very heterogeneous groups of selfemployed or focused solely on the incorporated self-employed. We develop a theoretical model that leads us to hypothesize a positive association between Latina self-employment and immigrant status (*H1*), age (*H2*), and having self-employed family members (*H3*). The theoretical model also leads to the propositions that Latinas engaged in incorporated self-employment activities have higher levels of financial and human capital (*H4*) and earn more than Latinas engaged in unincorporated self-employment activities (*H5*). Empirical model results support these five hypotheses.

A first-stage MNL model addresses the first two research questions (*RQ1* and *RQ2*). We find the following factors increase the probability of self-employment, incorporated and unincorporated alike: age, being an immigrant, having self-employed family members, family headship, the presence of children, having higher investment income, urban residence, and living in the south. Most of these findings are not new. For example, a substantial body of research has found immigrants to be overrepresented among the self-employed (Borjas, 1986; Fairlie & Meyer, 1996). And empirical studies have often found the presence of children positively associates to self-employment participation among women (Carr, 1996; Özcan, 2011). However, these

findings are new for the case of Latinas, as limited previous research has studied self-employment determinants of this demographic group.

The most salient result is how human and financial capital differentially influence participation in the two types of self-employment. In terms of human capital, MNL results suggest that Latinas who are proficient in English and have pursued or attained a bachelor's or advanced degree are more likely to engage in entrepreneurial self-employment than salaried work. By contrast, those same human capital characteristics reduce the probability of unincorporated self-employment relative to salaried work. The magnitudes of these effects are quite large. For example, the relative probability of engaging in incorporated self-employment rather than salaried work is 63 percent higher for Latinas with an advanced degree than their counterparts with less than a high school degree. By contrast, the relative probability of unincorporated self-employment (versus salaried work) is 48 percent lower for Latinas with an advanced degree than those with less than a high school degree. These results may reflect that individuals with high human capital are better able to manage the complexity of the incorporated business form.

Several variables shed light on the financial capital constraints associated with self-employment types. MNL results indicate that homeownership increases by 50 percent the relative probability of engaging in incorporated self-employment versus salaried work, but it reduces by 12 percent the relative probability of engaging in unincorporated self-employment. The investment income variable has a small, positive association with both types of self-employment but is more influential to participation in incorporated self-employment. Previous research found marriage is supportive of business ownership because it can make available the financial and knowledge resources required to start and operate an enterprise (Özcan, 2011; Parker, 2008). We find a positive association between marriage and incorporated self-employment, and a negative association between marriage and unincorporated self-employment. Together these findings may suggest that financial resources are more important for entrepreneurial self-employment than other self-employment, perhaps reflecting differences in the level of initial investment from own financial capital or the importance of collateral for obtaining external financing.

Among the regional variables assessed in this study, industry concentration is found most influential to the self-employment decisions of Latinas. Our results show that unincorporated self-employment is higher in PUMAS with a higher than average concentration of workers in Other services. Incorporated self-employment is higher in PUMAS with a higher than average concentration of workers in Finance, Insurance, and Real Estate (FIRE); Trade; and Professional, Scientific, and Technical Services (PROF). The high concentration of these industries in an area indicates an abundance of critical resources like customers, labor, and suppliers, which may make it

easier to establish businesses in these or related industries and be successful. Indeed, Latinas with unincorporated businesses were found mainly in Other Services industries, as shown in Table 1. The major industries of Latinas with incorporated businesses were PROF and Trade. The finding of a positive association between the Other Services LQ and propensity for unincorporated self-employment is consistent with Liu (2012), who hypothesized that areas with dense service industries, due to their relatively low economies of scale and entry barriers, are likely to have high rates of ethnic minority self-employment.

OLS and QR models were used to examine how the annual earnings of Hispanic women compare across different types of work (RQ3). The OLS model finds that Latinas in unincorporated businesses earned 15 percent less and those in incorporated businesses earned 17 percent more than their salaried counterparts. Levine and Rubinstein (2017) also found such an earnings pattern for their sample of non-Hispanic men. The QR results herein, however, differ both with our OLS results and the findings of Levine and Rubinstein (2017). For Hispanic women, the incorporated self-employed have annual earnings below their salaried counterparts until about the 65th percentile of the earnings distribution where the earnings gap reverses, whereas the unincorporated self-employed have lower earnings (versus wage workers) until about the 90th percentile. Thus, for Hispanic women, the median self-employed person, whether incorporated or unincorporated, earns less than the median salaried worker. Levine and Rubinstein (2017), however, found for non-Hispanic men that the median incorporated business person earned more than the median salaried worker. Future research should try to understand why Hispanic women choose self-employment despite lower earnings relative to salaried work. It is possible that Hispanic women are primarily pulled into self-employment due to nonpecuniary benefits. However, it is also plausible that the biased expectations explanation carries greater weight or that there is considerable mis-measurement error of self-employment earnings in the ACS. A recent study of German workers found that “self-employment pays a premium for males, but not for females” (Hopp & Martin, 2017, p. 530). The authors hypothesized this reflects restraints that women place on themselves (e.g., prioritizing family over career) or that others place on them (e.g., gender-based work discrimination, social norms about gender roles). Unfortunately, there is currently no nationally representative dataset with sufficient numbers of Hispanic women to uncover the mechanism(s) that explain the Latina entrepreneurial earnings gap.

What stands out from the QR results is that, while the type of work matters, by far the strongest predictors of Hispanic women’s earnings are having a college degree or higher and the number of weeks worked in the past year. At the median of the earnings distribution, having a bachelor’s or advanced degree is associated,

respectively, with a \$14,047 and \$26,983 increase in earnings. At the median, Hispanic women who worked 48–49 weeks (versus 27–39 weeks) and 50–52 weeks (versus 27–39 weeks) had higher earnings of \$5,609 and \$8,373, respectively. By contrast, compared with salaried work, annual earnings were \$4,890 and \$2,390 lower for Hispanic women in unincorporated and incorporated self-employment.

Study findings suggest that working Hispanic women can benefit greatly from educational programs, particularly those that increase the percentages of Latinas who have bachelor's and advanced degrees. The earnings of Hispanic women can also be supported by programs that enable women to work full time, such as increased access to affordable, high-quality child, and senior care. Finally, our results suggest merit to programs that assist Latina businesswomen with the process of business incorporation.

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