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# Entrepreneurship among California's Low-skilled Workers

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## Summary

Self-employment has grown significantly in California over the last three decades, giving rise to a general perception that self-employment and microenterprises are financially rewarding—and that they can be engines of economic growth. Low-skilled workers have been a significant part of this entrepreneurial rise: In 2007, there were about as many low-skilled business owners in the state (839,000) as there were entrepreneurs with a college degree (851,000). But low-skilled workers—those with a high-school diploma or less—do not fare well in today’s economy and their opportunities continue to shrink. This report provides a comprehensive analysis of the economic returns to business ownership among low-skilled workers and addresses the essential question of whether self-employment is a stable and financially rewarding option for them. Because low-skilled individuals are more likely to have unfavorable work experiences and incur greater public expense, it is particularly important for policymakers to understand whether they should actively encourage and promote more entrepreneurship.

Women and immigrants play important roles in self-employment growth but at different skill levels. While the self-employment rate of low-skilled U.S.-born individuals has also grown in the last three decades, all of the increase in California is due to immigrants. Among college graduates, U.S.-born women in California accounted for the greatest increase in the number of business owners, while among low-skilled entrepreneurs, immigrant men contributed the most. Although top earning low-skilled entrepreneurs earn more than do top earning wage and salary employees, most low-skilled business owners have lower annual earnings than low-skilled employees do. This is true despite entrepreneurs having more of the characteristics typically associated with higher earnings, such as being older and working more hours per week.

The long-run financial gains to low-skilled self-employment are relatively high for men, whom we found to have higher earnings growth than wage and salary earners. U.S.-born male entrepreneurs are predicted to have as high or higher earnings than male employees after 13 to 14 years in business—and for immigrant entrepreneurs, it takes somewhat less time. However, our business survival analysis indicates that many low-skilled entrepreneurs will not stay in business long enough to reach the point of wage earnings parity. On average, self-employed women are not expected to reach the earnings of women in wage or salary employment. Using poverty alleviation as an alternative way to evaluate the gains to low-skilled self-employment, we find that the earnings of low-skilled self-employed men rise above the relevant poverty levels after about 3 and 10 years in business for U.S.-born and immigrant men, respectively. Most female entrepreneurs, however, will not be able to reach the earnings needed to move above the poverty level for a family of three.

Overall, our results do not support the idea that further policies promoting self-employment among low-skilled individuals would lead to widespread improvements in their economic well-being. Although some low-skilled individuals are successful entrepreneurs, the vast majority are not. Earnings and success rates of low-skilled self-employed adults are far lower than among those with higher skills. Moreover, we do not observe strong barriers to start-up. Because economic outcomes, both in self-employment and in the wage and salary sector, are far better for more highly skilled workers, policies designed to promote skill development offer more hope in improving economic outcomes for most low-skill individuals.

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All technical appendices to this paper are available on the PPIC website:  
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# Introduction

The number of self-employed workers in California has steadily increased over the last three decades, from 1.17 million in 1980 to 2.37 million in 2007. This represents an annual average growth rate of 2.7 percent, significantly greater than the 1.5 percent annual growth in wage or salary employment. But low-skilled workers, those whose educational attainment is a high-school diploma or less, have not fared well in the labor market in recent years and their opportunities continue to diminish. In 1975, the annual income of college graduates was slightly more than four times the annual earnings of workers without a high-school diploma. By 2006, the college advantage had grown to 6.6 times the annual earnings. Among subgroups, the picture is equally grim: The employment rate of white male high-school dropouts in 1980 was 75 percent but by 2000, it had fallen to 61 percent (Raphael 2008). There were also large decreases in the employment rates of male minority dropouts. Although women without a high-school diploma did not experience a substantial drop in the employment rate, the employment rate difference between female college graduates and high-school dropouts did increase between 1980 and 2000.

Clearly, workers with low schooling levels face limited opportunities in today's skill-intensive economy. Beyond a concern for the economic well-being of less skilled workers and their families, policymakers and others worry about the costs to society: These workers earn less and are more likely to be unemployed and on welfare than are workers with at least some college education (Tyler and Lofstrom 2009).

An effort to increase skills (including formal schooling, vocational training, and English-language courses) is one option likely to improve the economic well being of low-skilled workers. However, it may be difficult to persuade some individuals to participate, particularly those many low-skilled adults who are also family breadwinners with less financial flexibility.

But even as wage-paying job prospects for low-skilled workers have diminished in recent years, the number of self-employed workers in California has doubled, from roughly 1.2 million in 1980 to about 2.4 million in 2007.<sup>1</sup> Such growth is partially responsible for new perceptions of self-employment. One is that self-employment and microenterprises (firms with no more than five employees) can be engines of economic growth. This view was encapsulated in a July 2008 policy brief from the state Senate Office of Research: "Microenterprises Give California's Economy a Boost." Second, self-employment is commonly viewed as a route to higher economic status, a goal particularly relevant to workers with low educational attainment.

As a result, an alternative to skill-building programs—the direct promotion of entrepreneurship—is one supported by state and federal policies and through the work of many nonprofit organizations. For example, the American Recovery and Reinvestment Act of 2009 (ARRA) (also known as the "stimulus bill"), included \$730 million for the Small Business Administration (SBA) to encourage business start-ups. One provision in the funding was an expanded microloan program targeting low-income individuals.

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<sup>1</sup>We use the terms self-employed, entrepreneur, and business owner synonymously.

However, we know very little about self-employment among low-skilled workers in general; it is this deficiency this paper seeks to correct. The task seems especially important given the increasing amount of attention being given to the beneficial effects of entrepreneurship in general. We seek to

- provide a comprehensive overview of low-skilled entrepreneurship and a brief overview of important trends and changes in self-employment in California;
- assess whether self-employment is an economically rewarding option for most low-skilled workers;
- investigate whether these low-skilled entrepreneurs are likely to generate adequate earnings over the long term so they will reach financial self-sufficiency;
- address the question of long-term stability of self-employment and examine potential barriers to low-skilled entrepreneurship and business survival through an analysis of business start-ups;
- address the question of whether self-employment assistance should be considered a policy tool to broaden the labor market alternatives of individuals with a high-school diploma or less.

## Self-Employment Assistance and Promotion

As mentioned, growth in the numbers of the self-employed has fueled a recognition by public and nonprofit policymakers that self-employment may provide a viable alternative to wage-paying jobs and can be a way to bring low-skilled workers up and out of the lower socioeconomic strata. Many federal, state, and local self-employment policies have aimed at disadvantaged groups, and have often targeted minorities and women. One set of such programs are set-asides, which give preference to minority- and women-owned businesses in the awarding of government contracts. These programs became popular among state and municipal governments in the mid-1970s and grew rapidly until the late 1980's when court challenges led to their being re-evaluated, modified, or in many cases, abandoned. These types of programs were eliminated in California because they violated the provisions of Proposition 209. Programs and policies aimed at low-skilled or low-income groups, however, have not faced such legal problems.

Perhaps the most visible of these are under the auspices of the SBA, which provides contract procurement and management assistance to small businesses owners and helps minority and women business owners gain access to federal contract opportunities, which were not affected by Proposition 209. Although the SBA itself does not grant loans, it acts as a guarantor for loans that have longer repayment periods and looser qualifying requirements than normal commercial loans. The \$730 million that SBA received from ARRA extended these services to include the expanded microloan program and the temporary elimination of borrower fees, to make more capital available to businesses at a lower cost.

Other federal policies aimed at increasing self-employment include ones targeted at the unemployed, including the Self-Employment Assistance (SEA) program of the Department of Labor. Although California does not participate in this program, several states do, including large and ethnically diverse ones such as New York and New Jersey. SEA is intended to encourage and enable unemployed workers to create their own jobs by starting their own businesses. Participants in the SEA program receive a self-employment allowance instead of unemployment insurance benefits, and are provided self-employment training and technical assistance. Based on field experiments in Washington state and Massachusetts in the 1990s, the department concluded that SEA was cost-effective for both participants and for the federal government (U.S. Department of Labor 1995). Its report recommended that the SEA program be made a permanent option for the unemployed, which it

eventually was. Many European countries have similar programs in place and research indicates they have been relatively successful (Baumgartner and Caliendo 2008, Caliendo 2008).

In the absence of similar state and local programs, nonprofit groups have increasingly taken on the task of encouraging small business development and minority entrepreneurship. The Aspen Institute's Self Employment Assistance Program (SELP) recorded a handful of such programs in 1987, but by 1998, 386 were listed across the country and by 2005 there were 517. In California, about 100 microenterprise organizations work on small business development in the state, most of them nonprofit; their services are free or at very low cost for entrepreneurs with low and moderate income. Legislation has been proposed to support these efforts through grants to local microenterprise development providers, in Senate Bill 446 and Assembly Bills 816 and 2998. However, there exists no thorough and objective evaluation of the success of these business development programs.

In contrast, the economic returns to self-employment in general have been examined extensively. Studies from the 1980s found that wages and the wage growth of entrepreneurs are higher or not significantly different from the wages and growth of paid employees (Brock and Evans 1986, Rees and Shah 1986, Evans and Leighton 1989). However, later research showed that these results were influenced by a handful of high-income entrepreneurial "superstars" (Hamilton 2000); most entrepreneurs have both lower initial earnings and lower earnings growth than if they were wage earners. Moreover, Hamilton stresses the importance of information on the length of time in business, which earlier research lacked.

Specific research on low-skilled self-employment and the performance of low-skilled entrepreneurs finds that:

- Low-skilled entrepreneurs have lower earnings than high-skilled business owners (van Praag et al, 2009);
- Among young, less-educated business owners, the average earnings for the self-employed grew faster over time than the average earnings for wage earners, after a few initial years of slower growth (Fairlie 2004);
- Young, disadvantaged male self-employed business owners earn more than wage-earning males from disadvantaged families (Fairlie 2005). Fairlie also finds that young self-employed women from disadvantaged families earn less than wage-earnings females;
- Low-income self-employed individuals moved ahead in the earnings distribution relative to those who remained in wage/salary work (Holtz-Eakin, Rosen, and Weathers 2000).

Our findings paint a less optimistic picture of self-employment. Using a more general sample than previous research, and recognizing potential differences between natives and immigrants, we find that economic outcomes for most low-skilled self-employed tend to be lower than for otherwise similar individuals in the wage and salary sector. This report contributes to and expands on the previous work in several ways:

- We include individuals of all working ages, defined to be between 18 to 64.
- We separately analyze earnings growth among foreign- and U.S.-born workers.
- We identify earnings growth effects, accounting for individual differences in important factors such as ability and motivation.
- We use longitudinal data to examine earnings differences between previously unemployed workers who entered self-employment and those who found employment in the wage/salary sector.
- To better understand the role of potential barriers to business start-ups and success, we also provide the first analysis of low-skilled self-employment entry and exit.

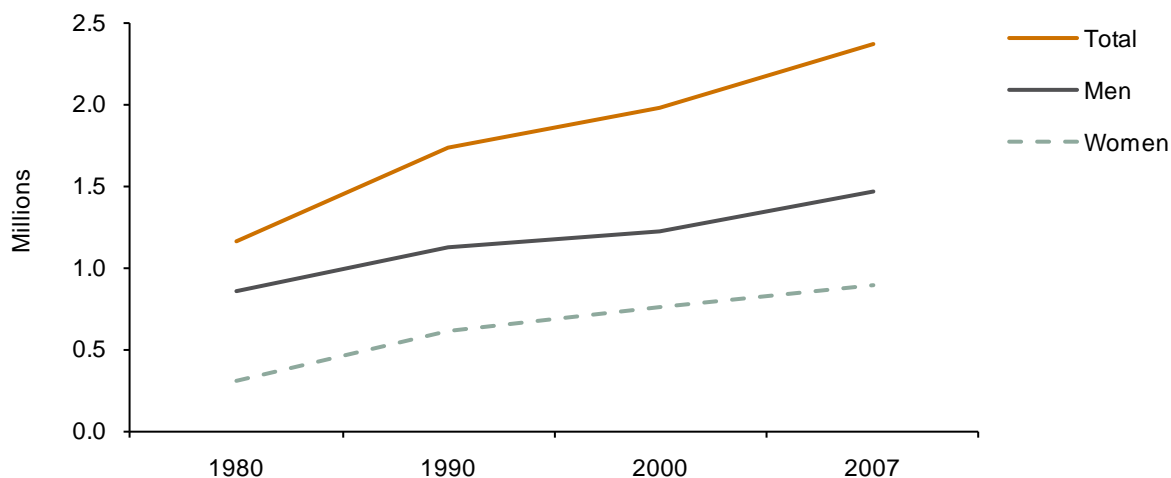


# Trends in California's Self-Employed Population

Not only has the number of self-employed in California increased sharply, from 1.17 million in 1980 to 2.37 million in 2007, the composition of this group has changed substantially and in a number of notable ways.

One is that female self-employment is a significant source of the growth in business ownership (Figure 1). Quite remarkably—given the traditionally lower female labor force participation rate—almost half of the increase in the number of self-employed from 1980 to 2007 consisted of women. On average, female self-employment grew by 4 percent per year over this period while annual average self-employment among men increased by 2 percent. As a result, although women represented slightly less than 27 percent of the total number of self-employed individuals in California in 1980, they now represent 38 percent. (In numerical terms, about 587,000 more women report being self-employed in California in 2007 compared to 1980, while the increase for men over the same period was 611,000.)

**FIGURE 1**  
Self-employed individuals in California, 1980–2007

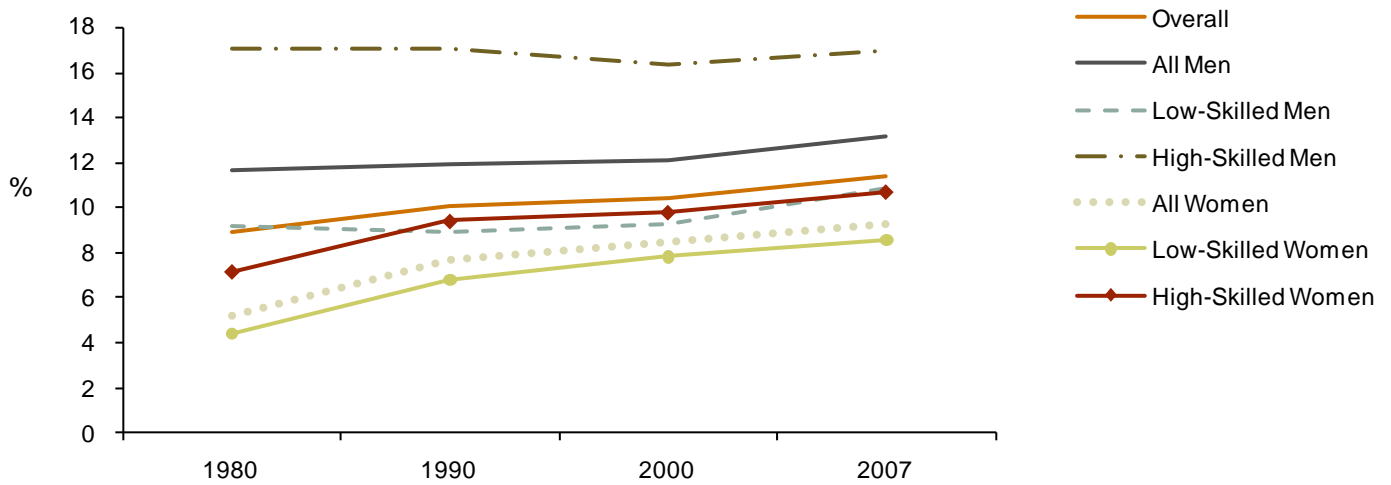


Source: 1980, 1990, and 2000 U.S. Census; 2007 American Community Survey.

The skill composition of California's business owners has also changed. In 1980, 45.1 percent of business owners had no more than a high-school diploma. Low-skilled entrepreneurs now represent 35.4 percent of self-employed Californians. This drop shows that the state's entrepreneurs are more skilled today; however, because of the increase in educational attainment in California overall, it hides the fact that low-skilled individuals are more likely to choose self-employment today than they were 25 years ago. This is particularly true for women. Figure 2 shows that the female low-skilled self-employment rate almost doubled from 1980 to 2007, from 4.4 percent to 8.6 percent. Among low-skilled men, the self-employment rate also increased over the same period, from 9.2 to 10.9 percent. Among California's female college graduates, the self-employment rate increased from 7.2 percent in 1980 to 10.7 percent in 2007, whereas the

rate for college-educated men remained constant at 17 percent. In all, the number of low-skilled self-employed workers increased from 1980 to 2007 by 312,000, representing roughly one quarter of the overall increase in self-employment over this period.

**FIGURE 2**  
Self-employment rates, California, 1980–2007



## Immigration and Self-employment

Foreign-born entrepreneurs are playing an increasingly important role in this growth as well. In 2007, slightly more than one out of three self-employed persons were born abroad, compared to about one of seven in 1980. As Table 1 shows, the number of U.S.-born self-employed individuals increased by 528,000 (222,000 men and 306,000 women) in the state over this period while the number of self-employed immigrants increased by 669,000 (388,000 men and 281,000 women). While the growth in U.S.-born self-employment during this period was exclusively among individuals with at least some college training, low-skilled self-employment dominates the increase in immigrant entrepreneurship. Slightly more than half of the increase in foreign-born self-employment derives from low-skilled self-employment.

One highly visible group of California’s workforce are day laborers. Although it is possible that these workers may be counted as self-employed immigrants in our survey data, and hence may contribute to the strong growth in low-skilled immigrant entrepreneurship, our data combined with information from earlier research suggest that if so, they constitute only a small share. Gonzalez (2007) reports that there are approximately 40,000 day laborers in California on any given day. This suggests that day laborers at most represent about 1 percent of California’s 400,000-plus immigrant low-skilled entrepreneurs and are not a key contributor to the immigrant self-employment trend.

**TABLE 1**  
**Self-employed individuals in California, 1980–2007, by skill level**

Year	Low-skilled	Some college	College graduate
<b>U.S.-born – Men</b>			
1980	305,880	187,920	237,300
1990	254,296	287,285	319,769
2000	220,279	283,673	336,262
2005	240,903	302,938	393,329
2006	266,324	305,008	386,511
2007	268,627	299,605	385,494
<b>U.S.-born – Women</b>			
1980	126,200	78,920	59,720
1990	146,424	189,098	134,701
2000	133,680	202,972	177,829
2005	140,198	205,034	228,456
2006	135,409	224,035	230,043
2007	122,365	217,256	231,173
<b>Immigrant – Men</b>			
1980	66,300	22,280	36,500
1990	126,668	59,093	77,339
2000	197,390	77,709	107,971
2005	239,309	91,585	149,837
2006	253,639	93,691	149,856
2007	270,819	94,533	148,132
<b>Immigrant – Women</b>			
1980	28,660	10,320	9,260
1990	79,067	34,951	30,263
2000	136,064	51,075	55,484
2005	169,637	64,956	86,133
2006	182,823	68,928	91,469
2007	177,142	65,565	86,636

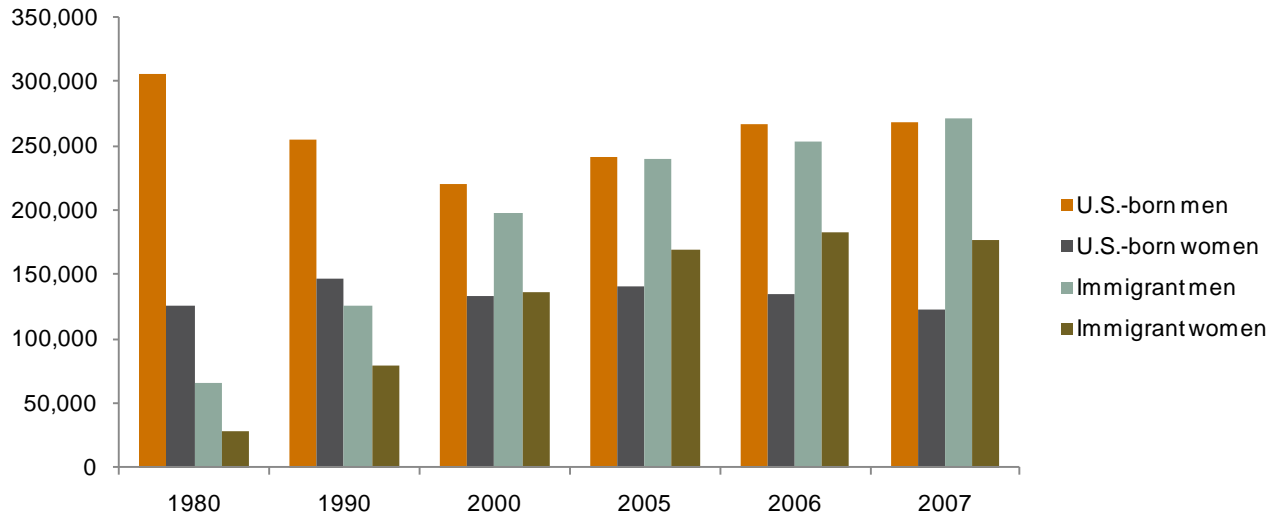
SOURCE: 1980, 1990, and 2000 U.S. Census; 2005–2007 American Community Survey.

Importantly, the data show that the growth in low-skilled self-employment in California consists entirely of immigrant entrepreneurs. In fact, there are fewer low-skilled U.S.-born entrepreneurs in the state today than there were in 1980 (Figure 3). This decline is attributable not to a decrease in the prevalence of self-employment among low-skilled workers but primarily to the overall increase in educational attainment in the state.<sup>2</sup> This finding is confirmed by the self-employment change from 1980 to 2007, in which the rate for U.S.-born low-skilled men rose from 9.6 to 10.6 percent and 4.4 to 6.1 percent for women (Figure 4). The self-employment rate among California’s low-skilled foreign-born population increased over the same period from 7.9 to 11.2 percent for

<sup>2</sup> The decrease in the low-skilled labor force participation rate may also contribute the decline in low-skilled U.S.-born entrepreneurs.

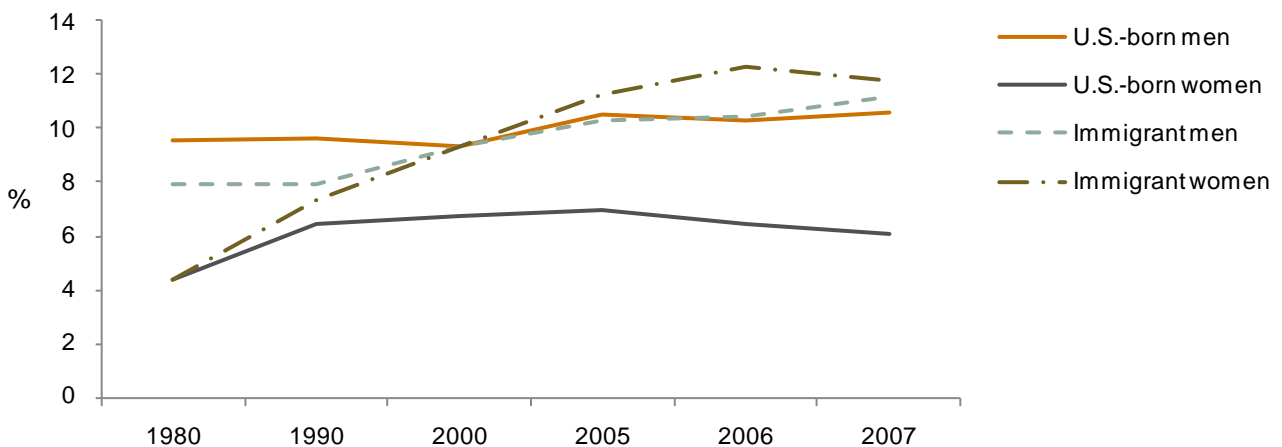
men and 4.4 to 11.7 percent for women. Clearly, self-employment now plays a particularly important role among low-skilled immigrant workers, and especially among immigrant women, who are now more likely to be self-employed than are both native and immigrant men.

**FIGURE 3**  
Low-skilled self-employed in California, 1980–2007



Source: 1980, 1990, and 2000 U.S. Census; 2005–2007 American Community Survey.

**FIGURE 4**  
Low-skilled self-employment rate, 1980–2007



Source: 1980, 1990, and 2000 U.S. Census; 2005–2007 American Community Survey.

However, these data reveal nothing about the important question of whether self-employment is an important source of job growth in the state. While the number of self-employed overall grew by more than a million from 1980 to 2007, the number of wage-earning workers grew by approximately 7.75 million, from 15.5 to 23.25 million. And although self-employment grew at a substantially faster rate than wage-earning

employment from 1980 to 2007 (2.7 vs. 1.5 percent per year), it is still relatively small compared to wage and salary employment. This suggests that self-employment is playing an increasingly important role in employment growth but also that most of the job creation is in the wage employment sector.<sup>3</sup>

In sum, low-skilled business owners and particularly women and immigrants are an important source of the growth in California's self-employment. In fact, the recent growth rate in low-skilled self-employment, 22 percent over the period from 2000 to 2007, is slightly higher than the overall growth rate in self-employment of 19.5 percent. Furthermore, California's low-skilled self-employed represent a sizeable share of the state's total population of entrepreneurs, about 839,000 in 2007, only slightly less than the number with at least a college degree, 851,000. There is also the possibility that self-employment leads to greater growth in wage-paying employment. The data in this report do not allow for a careful evaluation of this issue but previous research indicates that small businesses do create more jobs than larger firms do (Neumark, Wall, and Zhang 2008).

The trends indicate that low-skilled self-employment may be particularly important to immigrants and women. Focusing on low-skilled immigrants, both men and women, is also important in studying low-skilled self-employment because this is where the growth in the low-skilled business ownership is found. Also, immigrants represent a large share of low-skilled workers: 72 percent of individuals without a high-school diploma are immigrants (Johnson 2008).

The differences in low-skilled business ownership across groups may be due to disparities in labor market opportunities between immigrants and U.S.-born workers, and possibly between men and women. These disparities may be even more relevant in the increasingly skill-intensive economy. One argument regarding immigrant self-employment is that it may be a tool in the cultural and economic assimilation process and as such, is part of upward economic mobility (Cummins 1980). It is also possible that personal preferences differ across group. For example, women may value the autonomy and flexibility of self-employment more than men do.

The fact that growth in low-skilled self-employment stems from immigrants and that—as we shall see—the returns to low-skilled self-employment are greater to immigrants than they are to natives, suggest the possibility that immigration may have crowded out some low-skilled native entrepreneurs. Increased competition from low-skilled immigrants may be a factor accounting for the observed low-skilled native self-employment trend since this segment of the labor market has been found to be most sensitive to inflows of immigrant workers (Borjas 2003). Earlier research has also found that self-employed natives may have been crowded out by immigrant entrepreneurs, but not at the cost of lower native self-employment earnings (Fairlie and Meyer 2003). We note that our business start-up results do not support the notion that increased competition from immigrant workers is attributable to undocumented immigrants. Although there are no suitable data available for a direct investigation of this question, we find when comparing low-skilled non-naturalized immigrants (a group which includes some undocumented immigrants) and naturalized immigrants (who are all legal) that naturalized immigrants are more likely to enter self-employment than non-naturalized immigrants. This does not rule out the possibility that increased competition from immigrants may be partly responsible for the dearth of U.S.-born low-skilled entrepreneurs, but it suggests that if so, the competition comes primarily from legal low-skilled immigrants.

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<sup>3</sup> The latter is consistent with the reality that the average self-employed person employs fewer than two persons and most have none. (Fairlie and Robb 2008).

# Entrepreneurial Success and Wage-Earner Success

To evaluate entrepreneurial success, we measure the economic returns to entrepreneurship by comparing the annual earnings of the self-employed to those of wage and salary earners. We then consider other measures, including earnings growth, poverty alleviation, and finally, entrepreneurial business stability.

## Measuring Earnings

Self-employment earnings, unlike wage and salary earnings, represent not just returns to human capital expended in building a business; they also represent financial capital. We therefore measure earnings by two other methods. Our first alternative adds to annual earnings the annual asset income received from financial capital, including stocks, bonds, real estate, and other investments – which is observed for both the self-employed and for wage-earning employees. In this way, total annual earnings and capital income measure returns to physical and financial capital for the self-employed and for wage earners. A second approach entails subtracting a portion of the earnings of the self-employed that roughly represents owner returns to investments of resources in a business; this could include cash, inventory, equipment, and the like, accounting for debt. We use the dollar amount of business equity information available in the panels of the Census Bureau’s Survey of Income and Program Participation (SIPP), and subtract from annual earnings an amount equal to 5 percent of this business equity – representing an inflation-adjusted real return to a relatively risky investment.<sup>4</sup> Use of the 5-percent figure is a reflection of the opportunity cost of capital: We assume alternative investments that would be expected to earn a 5-percent real rate of return, roughly equivalent to a nominal return of 8 to 9 percent. Thus, a business owner reporting \$50,000 in business equity, along with annual earnings of \$40,000, would be assumed to have earned \$2,500 (50,000 multiplied by .05) as a return on business equity investment. The balance – earnings of \$37,500 – is attributed to the owner’s returns for time spent working in the small business. We refer to this measure as “business equity-adjusted” earnings, which we interpret as an income measure that reflects only returns to human capital for the self-employed. For employed workers, business equity-adjusted earnings are set equal to annual earnings.

Although a 5-percent real discount rate is reasonable in this setting, the specific choice of a return to business equity to be subtracted from the reported annual earnings is clearly ad hoc. A higher percentage leads to lower business equity-adjusted earnings while a lower rate leads to a more favorable comparison for the self-employed. (A zero discount rate generates a measure identical to our total annual earnings measure). Given the relatively low levels of business equity among low-skilled entrepreneurs, the results are not sensitive to minor changes in the assumed rate of return. Nor are they very sensitive to the earnings measure used.

Tables 2 and 3 show that low-skilled entrepreneurs have higher average annual earnings than low-skilled workers in wage employment; this holds among immigrant and U.S.-born men as well as foreign-born women. However, female U.S.-born business owners earn less on average than U.S.-born female wage earners. The magnitude of the differences in average annual earnings depends on the earnings measure. For example, among U.S.-born men, the self-employment advantage ranges between approximately 1 percent (business-

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<sup>4</sup> This approach is similar to Fairlie’s (2004).

equity-adjusted earnings) and 17 percent (total annual earnings including capital income), while for native women the self-employment earnings disadvantage ranges from about 3 percent (total annual earnings including capital income) and 22 percent (business-equity-adjusted earnings). Foreign-born male business owners earn on average between 13 and 27 percent more than their counterparts in wage and salary employment do. The average female self-employment advantage is somewhat lower, between 7 and 12 percent. Although immigrants earn less on average than their native counterparts do, these mean earnings differences indicate that self-employment is a more financially rewarding option for foreign-born entrepreneurs than for their U.S.-born counterparts.

**TABLE 2**  
Annual earnings of low-skilled men, 1996–2006

	Percentile					
	Mean	10	25	Median	75	90
<b>U.S.-born</b>						
<i>Annual total earnings</i>						
Self-employment	38,177	6,537	14,083	27,475	46,028	76,640
Wage/salary	32,825	9,768	18,175	28,941	42,524	58,127
Difference (\$)	5,352	-3,231	-4,092	-1,466	3,504	18,514
Difference (%)	16.3%	-3.1%	-2.5%	-5.1%	8.2%	31.9%
<i>Total annual earnings and capital income</i>						
Self-employment	38,768	6,781	14,527	27,948	46,702	79,358
Wage/salary	33,028	9,850	18,244	29,060	42,756	58,551
Difference (\$)	5,740	-3,069	-3,717	-1,112	3,946	20,807
Difference (%)	17.4%	-31.2%	-20.4%	-3.8%	9.2%	35.5%
<i>Total annual earnings, business equity adjusted</i>						
Self-employment	33,252	3,364	11,244	23,949	42,612	70,846
Wage/salary	32,825	9,768	18,175	28,941	42,524	58,127
Difference (\$)	427	-6,403	-6,930	-4,993	88	12,719
Difference (%)	1.3%	-65.6%	-38.1%	-17.3%	0.2%	21.9%
<b>Immigrant</b>						
<i>Annual total earnings</i>						
Self-employment	33,451	5,655	11,785	22,352	38,669	70,055
Wage/salary	26,452	10,292	16,174	23,163	32,416	46,038
Difference (\$)	6,999	-4,637	-4,389	-811	6,253	24,017
Difference (%)	26.5%	-45.1%	-27.1%	-3.5%	19.3%	52.2%
<i>Total annual earnings and capital income</i>						
Self-employment	33,451	5,655	11,785	22,352	38,669	70,055
Wage/salary	26,452	10,292	16,174	23,163	32,416	46,038
Difference (\$)	6,999	-4,637	-4,389	-811	6,253	24,017
Difference (%)	26.5%	-45.1%	-27.1%	-3.5%	19.3%	52.2%

**TABLE 2 (continued)**

	Percentile					
	Mean	10	25	Median	75	90
<i>Total annual earnings, business equity adjusted</i>						
Self-employment	30,010	3,949	10,823	20,568	36,949	63,932
Wage/salary	26,452	10,292	16,174	23,163	32,416	46,038
Difference (\$)	3,558	-6,343	-5,351	-2,596	4,533	17,894
Difference (%)	13.4%	-61.6%	-33.1%	-11.2%	14.0%	38.9%

SOURCE: 1996, 2001, and 2004 SIPP panels.

NOTE: Restricted to men with a high-school diploma or less education.



**TABLE 3**  
Annual earnings of low-skilled women, 1996–2006

	Percentile					
	Mean	10	25	Median	75	90
<b>U.S.-born</b>						
<i>Annual total earnings</i>						
Self-employment	21,092	2,897	6,574	13,824	26,146	45,298
Wage/salary	22,287	6,098	11,577	19,492	29,203	40,212
Difference (\$)	-1,195	-3,201	-5,003	-5,668	-3,057	5,086
Difference (%)	-5.4%	-52.5%	-43.2%	-29.1%	-10.5%	12.6%
<i>Total annual earnings and capital income</i>						
Self-employment	21,764	3,035	7,024	14,475	26,997	46,889
Wage/salary	22,509	6,217	11,677	19,678	29,530	40,552
Difference (\$)	-745	-3,183	-4,653	-5,203	-2,533	6,337
Difference (%)	-3.3%	-51.2%	-39.8%	-26.4%	-8.6%	15.6%
<i>Total annual earnings, business equity adjusted</i>						
Self-employment	17,437	1,264	4,925	11,961	22,735	39,535
Wage/salary	22,287	6,098	11,577	19,492	29,203	40,212
Difference (\$)	-4,850	-4,834	-6,653	-7,531	-6,468	-677
Difference (%)	-21.8%	-79.3%	-57.5%	-38.6%	-22.1%	-1.7%
<b>Immigrant</b>						
<i>Annual total earnings</i>						
Self-employment	21,400	3,226	6,912	13,584	23,734	41,136
Wage/salary	19,189	5,640	10,362	16,477	24,464	35,045
Difference (\$)	2,211	-2,414	-3,450	-2,892	-730	6,091
Difference (%)	11.5%	-42.8%	-33.3%	-17.6%	-3.0%	17.4%
<i>Total annual earnings and capital income</i>						
Self-employment	21,638	3,435	7,032	13,728	23,813	41,699
Wage/salary	19,343	5,722	10,384	16,555	24,641	35,528
Difference (\$)	2,295	-2,287	-3,352	-2,827	-828	6,171
Difference (%)	11.9%	-40.0%	-32.3%	-17.1%	-3.4%	17.4%
<i>Total annual earnings, business equity-adjusted</i>						
Self-employment	20,579	2,524	5,948	12,879	22,653	40,052
Wage/salary	19,189	5,640	10,362	16,477	24,464	35,045
Difference (\$)	1,390	-3,115	-4,414	-3,598	-1,812	5,007
Difference (%)	7.2%	-55.2%	-42.6%	-21.8%	-7.4%	14.3%

SOURCE: 1996, 2001, and 2004 SIPP.

NOTE: Restricted to women with a high-school diploma or less education.

If success among entrepreneurs stems from a few very successful business owners, as has been suggested, then a comparison of average earnings can be misleading. This is evident when comparing earnings by selected percentiles: The median annual earnings of low-skilled entrepreneurs, including native and immigrant men and women, are lower than those of equivalent low-skilled employees.<sup>5</sup> Although the size of the self-employment disadvantage differs across our three measures, there is no instance in which median earnings are higher for business owners. The comparison also indicates lower earnings among immigrants than among natives, but the self-employment disadvantage is smaller among immigrants; this indicates that self-employment is a relatively more rewarding pursuit for immigrants than for natives; a similar conclusion is reached when comparing average earnings.

The observation that average earnings are higher among low-skilled business owners while the opposite is true for median earnings shows that the most successful entrepreneurs have higher earnings than the most successful wage-earning employees. So, does this observation apply to a few very successful business owners or are there many entrepreneurs who outperform wage and salary earners?

The data show that the top 25 percent of low-skilled U.S.-born male entrepreneurs have higher earnings than the top 25 percent of U.S.-born wage-earning employees. Among immigrant men, the self-employment advantage stretches somewhat further down in the earnings distribution: The top half of business owners, approximately, do roughly as well as or outperform the top half of wage/salary earners. As expected, once self-employment earnings are adjusted for returns to capital invested in the business, self-employment is less rewarding compared to wage employment. Nonetheless, among both natives and immigrants, the top 25 percent of low-skilled business owners have higher earnings than the top 25 percent of wage earners.

Among U.S.-born women, we find that only the top 10 percent of entrepreneurs outperform the top 10 percent of wage and salary workers. U.S.-born self-employed women throughout the distribution have lower earnings than their employee counterparts when we adjust earnings for business equity. Low-skilled female immigrant entrepreneurs do somewhat better when compared to immigrant wage and salary workers. The top 25 percent have roughly the same or higher earnings than their foreign-born employee counterparts.

In short, economic returns to self-employment are lower for women than men and they are higher for immigrants than natives. The latter point is important because at least in California, all the growth in low-skilled self-employment is among immigrants; further, low-skilled immigrants have higher self-employment rates than low-skilled natives. The relative earnings attractiveness of self-employment is one plausible reason.

Some of the earnings differences between entrepreneurs and employees may not be attributable to self-employment but to differences in earnings-relevant demographic traits, such as education, age, family composition, ethnicity, or workforce characteristics—such as the number of hours worked, employment status in the previous period and workforce experience.

However, Tables 4 and 5 indicate that differences in these factors do not appear to account for the lower earnings among most low-skilled business owners: the self-employed are older on average and work more hours per week than wage employees do; on average they have been running their businesses longer than

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<sup>5</sup> The log transformation of total annual earnings reduces the influence of the highest earning individuals. The self-employment median earnings disadvantages shown in Tables 2 and 3 are very close to the mean earnings differences in the log of annual earnings, the measure used in our empirical approach below. In other words, the log transformation of annual earnings reduces the influence of the highest earning individuals and hence comparisons of mean log annual earnings are more in line with comparisons of median earnings.

wage earners have been at their current jobs. Among immigrants, the self-employed have been in the U.S. longer than wage earners have been. And economically disadvantaged minority groups such as Hispanics and African-Americans are underrepresented among entrepreneurs. All these factors are usually associated with higher earnings. A more thorough multivariate regression analysis confirms that differences in these characteristics do not explain lower relative earnings among most of the self-employed.<sup>6</sup> Entrepreneurs are more likely to possess characteristics, workforce background, and skills associated with higher earnings. In other words, the self-employment earnings disadvantages are greater once these factors are considered.<sup>7</sup>

**TABLE 4**  
Sample statistics, low-skilled men, 1996–2006

Variable	U.S.-born		Immigrant	
	Self-employed	Wage/salary	Self-employed	Wage/salary
Years of schooling	11.51	11.58	10.32	10.05
Less than high school	17.01%	16.01%	32.12%	38.74%
High school graduate	82.99%	83.99%	67.88%	61.26%
Age	44.04	38.17	42.54	36.68
Youngest child younger than 1	11.31%	10.82%	17.34%	18.52%
Youngest child aged 1	3.01%	3.06%	5.83%	5.38%
Youngest child between ages 2 and 3	4.39%	5.05%	7.79%	7.57%
Youngest child between ages 4 and 5	4.31%	3.96%	6.88%	5.91%
Youngest child between ages 6 and 12	15.24%	14.63%	13.36%	15.64%
Youngest child teenager	5.53%	6.06%	4.84%	4.60%
Single	31.04%	46.48%	28.69%	43.84%
Persons in household	3.18	3.23	3.95	4.04
Metropolitan resident	64.06%	71.96%	83.37%	86.11%
California resident	7.90%	7.37%	21.79%	26.14%
White	87.13%	74.81%	34.87%	25.96%
Hispanic	5.54%	10.37%	48.81%	59.63%
African-American	5.60%	12.70%	4.27%	6.74%
Asian	0.56%	0.42%	8.59%	5.16%
Other ethnic group	1.17%	1.71%	3.46%	2.51%
Not naturalized citizen	N/A	N/A	44.38%	51.00%
Years at job	11.02	7.75	7.64	5.43
Typical weekly hours worked	50.37	43.50	48.43	42.83

<sup>6</sup> To analyze more specifically how observable earnings-related factors affect earnings differences we estimate annual earnings regression models. The regression estimates can then be used in a decomposition analysis to determine how much each factor contributes to earnings differences. The results are presented in [Technical Appendix C](#), Tables C1–C3, with the empirical approach described in [Technical Appendix B](#).

<sup>7</sup> In this analysis, we use nationally representative data. Due to relatively small state sample sizes, the results refer to low-skilled individuals in the U.S. generally, not to California specifically. However, in the models estimated, we use specifications that allow us to examine whether there are any indications that the results are different for California. Overall, the results show consistently no substantive differences for California compared to other large states and/or other Western states. The longitudinal data, sample restrictions, and definitions are described in detail in [Technical Appendix A](#).

TABLE 4 (continued)

Variable	U.S.-born		Immigrant	
	Self-employed	Wage/salary	Self-employed	Wage/salary
<b>Previous year's labor force status</b>				
Wage/salary	9.12%	87.57%	14.51%	87.52%
Self-employed	83.31%	1.30%	75.99%	1.32%
Wage/salary, less than 15 hours/week	0.10%	0.83%	–	0.50%
Self-employed, less than 15 hours/week	3.26%	0.30%	1.88%	0.22%
Unemployed	1.17%	3.73%	1.63%	3.84%
Welfare	0.45%	1.08%	0.72%	1.29%
Not in the labor force	2.60%	5.18%	5.26%	5.31%
Previously observed self-employed at any time in sample	N/A	1.35%	N/A	1.38%
Number of observations	4,466	29,394	1,198	9,063

SOURCE: 1996, 2001, and 2004 SIPP panels.

**TABLE 5**  
**Sample statistics, low-skilled women, 1996–2006**

Variable	U.S.-born		Immigrant	
	Self-employed	Wage/salary	Self-employed	Wage/salary
Years of schooling	11.59	11.69	10.09	10.40
Less than high school	15.33%	13.30%	33.56%	32.39%
High school graduate	84.67%	86.70%	66.44%	67.61%
Age	44.77	40.10	43.45	39.32
Youngest child younger than 1	10.88%	10.05%	10.40%	13.74%
Youngest child aged 1	3.28%	3.80%	5.03%	5.56%
Youngest child between ages 2 and 3	4.56%	5.82%	9.31%	7.42%
Youngest child between ages 4 and 5	4.69%	5.24%	6.83%	6.99%
Youngest child between ages 6 and 12	18.15%	17.33%	19.03%	20.98%
Youngest child teenager	6.39%	6.59%	7.44%	5.83%
Single	28.64%	47.89%	36.57%	45.09%
Persons in household	3.15	3.17	3.83	3.88
Metropolitan resident	70.31%	73.92%	92.95%	87.23%
California resident	7.94%	6.77%	35.78%	23.62%
White	83.89%	73.13%	26.99%	28.89%
Hispanic	6.04%	8.78%	49.05%	48.57%
African-American	7.74%	15.74%	6.09%	9.55%
Asian	0.29%	0.44%	14.13%	9.52%
Other ethnic group	2.05%	1.91%	3.74%	3.47%
Not naturalized citizen	–	–	49.17%	45.43%
Years at job	8.06	6.85	6.49	4.89
Typical weekly hours worked	43.08	38.49	41.10	38.58
<b>Previous year's labor force status</b>				
Wage/salary	9.92%	85.14%	9.29%	80.02%
Self-employed	74.32%	0.69%	73.67%	0.87%
Wage/salary, less than 15 hours/week	0.52%	1.57%	0.33%	1.61%
Self-employed, less than 15 hours/week	5.57%	0.31%	2.79%	0.23%
Unemployed	1.82%	3.03%	2.32%	3.86%
Welfare	1.38%	2.77%	2.20%	3.25%
Not in the labor force	6.47%	6.48%	9.40%	10.16%
Previously observed self-employed at any time in sample	–	0.70%	–	0.71%
Number of observations	1,922	26,818	589	6,368

SOURCE: 1996, 2001, and 2004 SIPP panels

The regression estimates also indicate that the annual earnings of business owners and wage employees in California are about equal the earnings of their counterparts in other Western states, with one exception: self-employed immigrant men in California, who have higher earnings than their counterparts in other Western states and in most other large states. However, immigrant entrepreneurs in California have no higher earnings than similar self-employed immigrants in another large immigrant state, New York.<sup>8</sup>

## Earnings Growth

If low-skilled entrepreneurs typically have lower earnings than wage/salary earners, why do they choose self-employment? There are a number of plausible reasons: preferences for work autonomy and flexibility or the lure of high earnings. The latter motive appears valid because top entrepreneurs earn more than top wage employees. Another motivation may be that workers are attracted to what they see as the long-term benefits of business ownership. We therefore analyze earnings growth to test the strength of this factor.

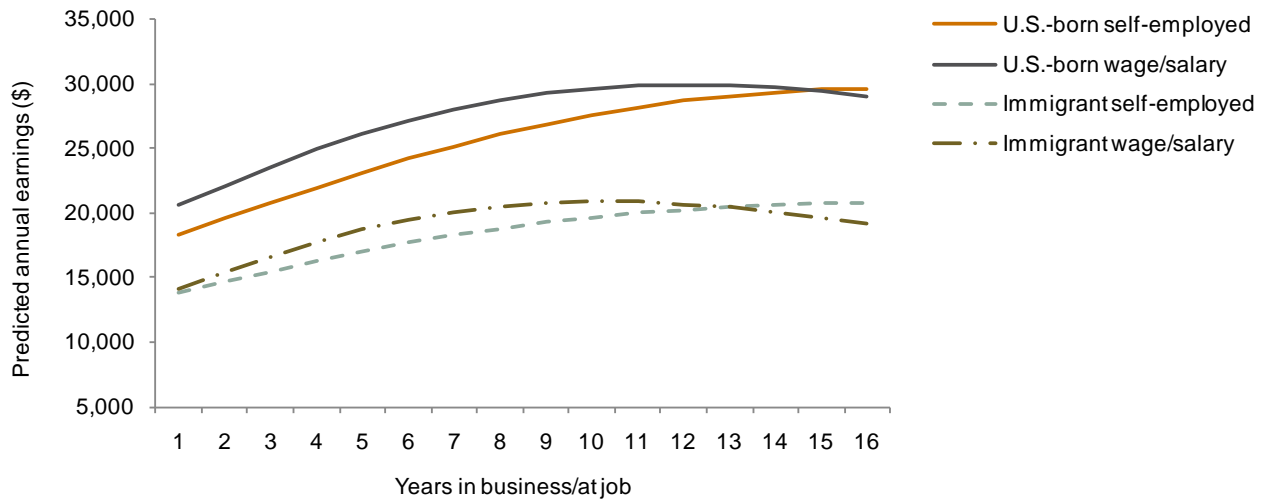
To do so, we account for differences in important but unobservable earnings-related factors that we assume do not change over time, such as ability and motivation: thus, any estimated earnings growth differences between low-skilled entrepreneurs and low-skilled wage employees are not because one group contains more motivated or more able individuals. We use these estimates (presented in detail in Tables A4 and A5) to explore two hypothetical workers: the one who just started a business and another who started a new wage-paying job.

The results, shown in Figures 5 and 6, provide evidence that low-skilled self-employed men (especially immigrant men) do roughly as well as low-skilled wage employees over the long run. This is not true for women, however. The earnings of men who recently started a business are lower than wage-earning workers who recently started a new job—approximately 8 percent and 2 percent lower for native and immigrant men, respectively. The earnings gap increases during the years immediately following and peaks after about five years, with the gap increasing to about 14 percent and 10 percent among native and immigrant men, respectively. However, the results also illustrate that earnings increase somewhat faster for self-employed men in the years after the peak and are roughly equal after about 10 years for immigrant men and after about 13 to 14 years for native men.

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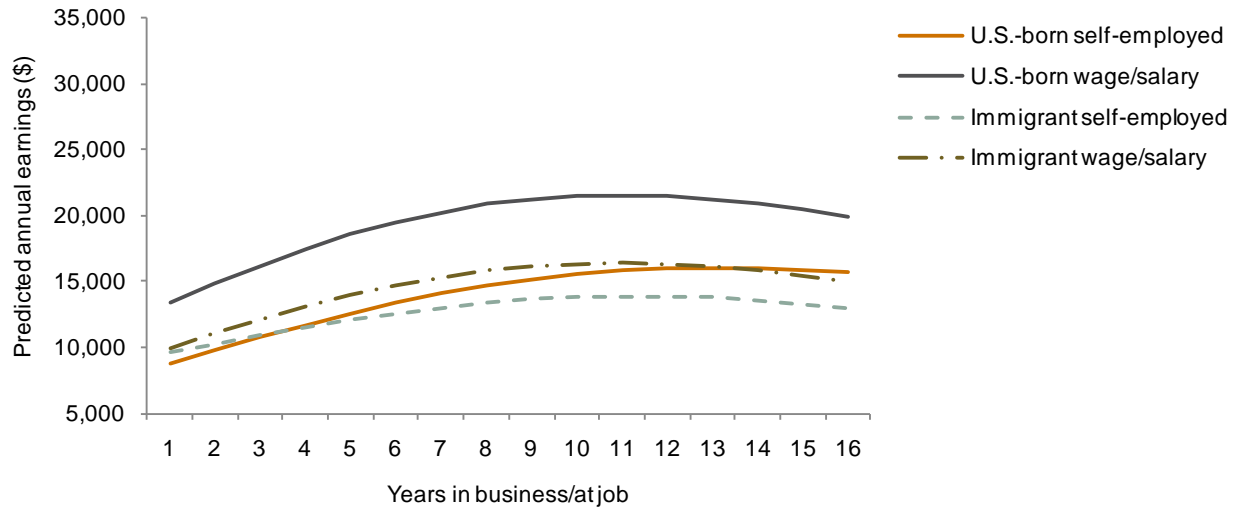
<sup>8</sup> This is based on a t-test of the null hypothesis of equal state indicator coefficients.

**FIGURE 5**  
**Predicted annual earnings by years in business/at job, low-skilled men**



NOTE: The predicted annual earnings are generated from the regression estimates presented in [Technical Appendix C, Table C4](#).

**FIGURE 6**  
**Predicted annual earnings by years in business/at job, low-skilled women**



NOTE: The predicted annual earnings are generated from the regression estimates presented in [Technical Appendix C, Table C5](#).

When estimating earnings growth for low-skilled females, we find that female entrepreneurs do not do as well as men over the long run. U.S.-born entrepreneurial women start out at lower earnings and even with substantial earnings growth there is no indication that their earnings will reach the levels of wage/salary earners. The differences are smaller among low-skilled immigrant women but the results are similar: female immigrant entrepreneurs continue to have lower earnings in the long run compared to employees.<sup>9</sup>

<sup>9</sup> The earnings growth analysis to some extent overstates the performance of business owners because we have not applied any discounting of the returns to financial capital. However, the typically low levels of business equity among low-skilled entrepreneurs suggest that the potential upward

Self-employment for unemployed workers is being promoted by policies in the U.S and in other countries, especially in Europe. Although our data limit a thorough evaluation of this option because no long-term analysis for the unemployed is possible, we can use the longitudinal data to compare the current earnings of previously unemployed workers who started their own business to those unemployed who found a job working for someone else.

The earnings of previously unemployed workers who chose to start their own business are lower than those who took a wage-paying job. Using regression estimates to compare individuals with similar characteristics, we find that the self-employment earnings disadvantage ranges between a statistically insignificant 11 percent (immigrant women) to about 46 percent (immigrant men).<sup>10</sup> (It is important to keep in mind that these are short-term differences; the comparisons are only for the first year following unemployment.) These findings may be especially relevant for self-employed immigrant men who have greater long-term earnings growth in self-employment than they do as wage and salary employees. Nonetheless, the results do not provide strong evidence that promoting self-employment among low-skilled unemployed workers generates strong individual economic returns compared to wage/salary work, at least in the short term.

## Entrepreneurship and Poverty

Another way to measure the success of self-employment is its ability to bring individuals out of poverty.<sup>11</sup> This can be particularly useful in the case of women, to whom several poverty-relief programs are targeted. To do so, we compare self-employment earnings to the federal poverty level, \$10,210 annually for an individual.<sup>12</sup> Here, at least in the first years of business ownership, immigrant women appear to be at an advantage over native women. It would take a U.S.-born female entrepreneur about two years in business to reach this earnings level, while immigrant women would reach it in about one year. To reach the poverty level for a two-person household, \$13,690, a U.S.-born female business owner would need about five years. Low-skilled immigrant female entrepreneurs, whose earnings growth is less than that of self-employed U.S.-born women, would surpass the two-person poverty line in seven to eight years. Neither native nor immigrant female business owners are ever likely to reach annual earnings of \$17,170, the poverty level for a three-person household.

U.S.-born men would see their earnings peak at slightly more than \$30,000 per year after about 15 years in business, surpassing the poverty level for a household of six, \$27,610. Immigrant self-employed men would reach earnings of close to \$21,000 per year after about 12 to 13 years in business, slightly above the four-person household poverty line of \$20,650.

The average U.S.-born household size is slightly above three and slightly under four among immigrants. In both immigrant and U.S.-born households, male entrepreneurs are on average predicted to reach earnings levels above the poverty lines for their average household sizes. Self-employed women, however, are on

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bias of their performance is likely to be minor. Our analysis using our business-equity-adjusted earnings measure supports the latter point, but also indicates a relatively less favorable comparison for the self-employed. The results are available upon request from the author.

<sup>10</sup> The regression results are presented in *Technical Appendix C*, Tables C6 and C7.

<sup>11</sup> Given the generally higher earnings among wage/salary workers, a similar poverty exercise for these workers would yield more favorable results for employees than business owners. That is, wage/salary employment is generally more likely to bring individuals out of poverty than self-employment would.

<sup>12</sup> Since our earnings data are in 2007 constant dollars, we use the 2007 Health and Human Services Federal Poverty Guidelines for the 48 contiguous states and the District of Columbia.



average not predicted to reach earnings levels for average household size even after 15 to 20 years in business. This is not to say that no women will reach these earnings levels; in Table 3 we saw that among self-employed women, both native and immigrant, the top 25 percent have annual earnings levels above the four-person household poverty line of \$20,650, irrespective of the measurement used.

In sum, low-skilled male business owners appear to be more successful at rising above poverty levels than their female counterparts.

## Entrepreneurial Stability

For self-employment to lead to stability for the low-skilled individual, an entrepreneur must obviously stay in business. However, not all exits from self-employment should be viewed as failures: leaving self-employment for a more rewarding wage-paying job can be considered a successful exit. But leaving business ownership for non-employment can in most cases (and arguably all cases, from a perspective of economic contributions) be deemed a failure, although non-employment may of course be temporary.

The vast majority of business owners in our dataset remain in business, as measured from one year to the next.<sup>13</sup> However, as Table 6 shows, low-skilled business survival is substantially higher among men than among women. U.S.-born men are almost 10 percent more likely to stay in business compared to women, 82.2 percent to 72.5 percent. Immigrant men are just slightly less likely to stay in business compared to U.S.-born men. Immigrant women are almost 3 percent more likely to remain in entrepreneurship than U.S.-born women.

**TABLE 6**  
Self-employment exit and transition probabilities

	Men		Women	
	U.S.-born	Immigrant	U.S.-born	Immigrant
Exit probability	17.8%	19.0%	27.5%	24.8%
Self-employment to:				
Stayed self-employed	82.2%	81.0%	72.5%	75.2%
Wage/salary	8.8%	10.1%	9.3%	9.2%
Part-time work	4.2%	2.1%	7.0%	4.9%
Non-employment	4.9%	6.8%	11.2%	10.7%
Number of observations	4,353	1,057	1,897	564

SOURCE: 1996, 2001, and 2004 SIPP panels.

Entrepreneurs who stay in business share certain characteristics. Tables 7 and 8 show that compared to those who exit, they are older, are slightly more likely to have graduated high school, have more business equity, and have been in business for more years. Multivariate regression models suggest not only that these factors are mostly associated with business survival but also that the role these factors play varies somewhat across

<sup>13</sup> The exit rates are for existing establishments and not restricted to newly established businesses. Not surprisingly, our estimates reveal that for all groups the probability of leaving self-employment is particularly high the first year in business and then decreases as years in business accumulate. See *Technical Appendix C*, Table C8.

groups.<sup>14</sup> For example, we find no relationship between business equity and business survival among immigrant men and women but business equity is positively associated among U.S.-born men and women. We also find that U.S.-born married men with young children are less likely to leave self-employment compared to single U.S.-born men with or without children, and to married men without children. We do not find strong support for this relationship among immigrant men, immigrant women, or U.S.-born women. However, the results do provide some relatively weak evidence that among low-skilled female entrepreneurs, mothers with very young children are more likely than other women to leave self-employment.

**TABLE 7**  
**Entrepreneur sustainability, low-skilled men, 1996–2006**

Variable	U.S.-born		Immigrant	
	Stayed in business	Left business	Stayed in business	Left business
High-school graduate	82.37%	79.08%	65.74%	64.85%
Age	45.18	42.60	43.52	40.45
Youngest child younger than 1	10.57%	9.28%	16.77%	21.43%
Youngest child aged 1	2.81%	2.78%	6.26%	4.89%
Youngest child between ages 2 and 3	4.21%	2.97%	8.18%	6.76%
Youngest child between ages 4 and 5	4.32%	3.97%	6.61%	6.46%
Youngest child between ages 6 and 12	15.41%	11.13%	14.19%	11.65%
Youngest child teenager	5.48%	5.65%	5.39%	5.42%
Single	28.24%	40.62%	23.05%	35.92%
Persons in household	3.13	3.02	3.97	3.97
Metropolitan resident	62.61%	66.29%	83.74%	86.60%
California resident	7.31%	6.27%	23.33%	19.20%
White	89.27%	80.52%	35.49%	34.32%
Hispanic	4.13%	7.72%	47.86%	51.13%
African-American	5.02%	9.51%	3.40%	4.69%
Asian	0.65%	0.26%	9.79%	7.99%
Other ethnic group	0.93%	1.98%	3.46%	1.86%
Not naturalized citizen	N/A	N/A	47.06%	41.37%
Years since migration	N/A	N/A	19.35	18.62
Business equity	84,358	45,099	60,454	39,576
Years in business	11.49	8.13	7.82	5.51
New business	5.97%	16.27%	9.10%	17.34%
Number of observations	3,585	768	852	205

SOURCE: 1996, 2001, and 2004 SIPP panels.

<sup>14</sup> Marginal effects from the estimated logit models of the self-employment exit probability are presented in [Technical Appendix C, Table C8](#), with the empirical approach discussed in [Technical Appendix B](#).

**TABLE 8**  
**Entrepreneur sustainability, low-skilled women, 1996–2006**

Variable	U.S.-born		Immigrant	
	Stayed in business	Left business	Stayed in business	Left business
High-school graduate	86.08%	81.23%	69.26%	60.46%
Age	46.17	42.49	44.34	40.22
Youngest child younger than 1	9.76%	15.26%	6.86%	18.85%
Youngest child aged 1	2.63%	4.52%	4.73%	4.76%
Youngest child between ages 2 and 3	4.48%	5.32%	7.23%	11.36%
Youngest child between ages 4 and 5	5.16%	5.84%	6.72%	3.88%
Youngest child between ages 6 and 12	15.93%	17.38%	19.55%	11.40%
Youngest child teenager	6.29%	5.15%	8.43%	6.99%
Single	25.98%	32.94%	34.52%	43.17%
Persons in household	3.03	3.33	3.67	3.68
Metropolitan resident	69.45%	70.57%	94.34%	85.92%
California resident	8.34%	7.13%	36.33%	32.03%
White	85.62%	79.49%	29.22%	29.65%
Hispanic	5.05%	8.26%	46.36%	55.66%
African-American	7.12%	10.71%	4.39%	2.47%
Asian	0.42%	N/A	15.57%	10.73%
Other ethnic group	1.78%	1.54%	4.46%	1.49%
Not naturalized citizen	N/A	N/A	47.87%	49.98%
Years since migration	N/A	N/A	19.48	18.92
Business equity	59,668	38,165	37,192	36,672
Years in business	8.59	5.38	6.38	4.32
New business	6.59%	23.97%	9.97%	24.96%
Number of observations	1,372	525	426	138

SOURCE: 1996, 2001, and 2004 SIPP panels.

That about one in four female entrepreneurs leave self-employment over a one-year period may be a reason for concern, but more than half of these exits are to full- or part-time wage employment or to part-time business ownership (Table 6). To gain a clearer picture, we also estimated multivariate regression models similar to those used in the exit analysis but with a new outcome variable labeled “success.”<sup>15</sup> We define this as staying in business, moving into paid employment, or moving to part-time work of any kind. Only individuals who moved from business ownership to non-employment were then treated as having “non-successful” transitions. This analysis reveals overall similar results but generally weaker associations between unsuccessful transitions and factors such as years in business and business equity.

<sup>15</sup> The results are shown in *Technical Appendix C*, Table C8.

# Gender Differences in Self-Employment

The analysis of self-employment earnings and business survival provides a clear picture of substantial differences between low-skilled men and women in entrepreneurial success. The economic returns of self-employment to women, especially to U.S.-born women, both short- and long-term, are considerably lower than those to men. The low return to business ownership for low-skilled women then raises the question of why low-skilled women enter self-employment at all. An analysis of business start-up rates and associated determinants can shed light on this question.

Low-skilled women are less likely to enter self-employment than low-skilled men and the gender difference is greater among the U.S.-born. The year-to-year native self-employment entry rates are 2.6 and 2.0 percent respectively for men and women while among immigrants, the business start-up rates are 3.1 and 2.7 percent for men and women, respectively. Among the native born, men are approximately 30 percent more likely to enter self-employment than women. The gender difference is about half, or 15 percent, among immigrants. The lower economic returns to self-employment among women, especially among U.S.-born women, is one plausible reason for the differences in business start-up rates between men and women but many other factors are likely to contribute.

Men and women who enter self-employment differ in several dimensions (Tables 9 and 10). For example, while more than half of male U.S.-born self-employment entrants come from wage employment, only slightly more than a third of women do. There is a higher proportion of women who enter from part-time work, and especially from non-employment (unemployment, welfare participation, or not in the labor force), compared to men. Close to 40 percent of U.S.-born women who enter self-employment do so from non-employment while only about 26 percent of U.S.-born men do. More than half of immigrant women who start a new business come from non-employment. The corresponding proportion among immigrant men is about 33 percent. Furthermore, among self-employment entrants there is a higher proportion of women with young children than among male entrants. The data indicate as well that self-employment entrants belong to households with greater net worth and are older than non-entrants.

**TABLE 9**  
Self-employment entry, low-skilled U.S.-born

Variable	Men		Women	
	Entrant	Non-Entrant	Entrant	Non-Entrant
High-school graduate	80.93%	83.70%	81.19%	86.46%
Age	39.15	38.65	41.98	40.71
Youngest child younger than 1	11.86%	10.83%	12.45%	10.02%
Youngest child aged 1	3.66%	3.14%	5.55%	3.83%
Youngest child between ages 2 and 3	5.22%	5.20%	6.44%	5.85%
Youngest child between ages 4 and 5	4.84%	4.01%	4.77%	5.47%
Youngest child between ages 6 and 12	13.40%	14.31%	18.55%	17.11%
Youngest child teenager	5.98%	5.83%	5.87%	6.55%
Single	41.79%	44.92%	32.87%	45.77%

TABLE 9 (continued)

Variable	Men		Women	
	Entrant	Non-Entrant	Entrant	Non-Entrant
Persons in household	3.25	3.21	3.36	3.14
Metropolitan resident	67.63%	71.88%	72.54%	73.93%
California resident	9.86%	7.18%	7.94%	6.51%
White	77.92%	75.31%	77.93%	73.74%
Hispanic	10.83%	9.93%	9.39%	8.31%
African-American	9.12%	12.86%	9.87%	15.84%
Asian	0.30%	0.35%	N/A	0.34%
Other ethnic group	1.84%	1.55%	2.81%	1.78%
Years at job	4.79	8.04	4.21	7.04
<b>Previous year's labor force status</b>				
Household net worth	122,801	102,834	148,320	115,408
Self-employed, less than 15 hours/week	18.57%	0.33%	21.43%	0.31%
Wage/salary	54.52%	89.60%	37.57%	86.59%
Wage/salary, less than 15 hours/week	0.51%	0.58%	1.96%	1.38%
Unemployed	7.47%	3.76%	6.35%	3.08%
Welfare	3.00%	1.03%	5.18%	2.61%
Not in the labor force	15.93%	4.71%	27.51%	6.03%
Number of observations	732	26,667	487	24,601

SOURCE: 1996, 2001, and 2004 SIPP panels.

TABLE 10  
Self-employment entry, low-skilled immigrants

Variable	Men		Women	
	Entrant	Non-Entrant	Entrant	Non-Entrant
High-school graduate	63.96%	58.91%	57.59%	65.94%
Age	39.29	36.90	41.75	39.83
Youngest child younger than 1	19.77%	18.46%	14.88%	13.57%
Youngest child aged 1	5.12%	5.64%	6.70%	5.74%
Youngest child between ages 2 and 3	8.43%	7.40%	15.38%	7.39%
Youngest child between ages 4 and 5	8.09%	6.37%	4.94%	7.06%
Youngest child between ages 6 and 12	12.73%	15.02%	21.47%	20.64%
Youngest child teenager	5.13%	4.94%	5.55%	6.32%
Single	36.37%	42.64%	33.55%	43.03%
Persons in household	3.97	4.05	4.21	3.86
Metropolitan resident	85.16%	87.14%	87.55%	88.28%
California resident	22.25%	27.16%	34.70%	23.65%
White	27.83%	25.63%	24.77%	27.77%
Hispanic	55.73%	59.81%	56.30%	49.22%
African-American	6.79%	6.79%	5.63%	9.52%

TABLE 10 (continued)

Variable	Men		Women	
	Entrant	Non-Entrant	Entrant	Non-Entrant
Asian	6.48%	5.17%	9.95%	9.80%
Other ethnic group	3.18%	2.59%	3.35%	3.69%
Not naturalized citizen	46.12%	52.26%	52.67%	47.14%
Years since migration	17.57	17.03	16.94	17.29
Years at job	4.56	5.50	3.35	5.04
<b>Previous year's labor force status</b>				
Household net worth	60,809	60,175	93,316	84,456
Self-employed, less than 15 hours/week	8.72%	0.17%	11.98%	0.16%
Wage/salary	57.72%	89.09%	33.96%	81.23%
Wage/salary, less than 15 hours/week	N/A	0.38%	1.31%	1.36%
Unemployed	8.65%	4.11%	7.03%	3.99%
Welfare	3.02%	1.16%	10.25%	3.27%
Not in the labor force	21.89%	5.09%	35.47%	9.98%
Number of observations	269	8,009	151	5,643

SOURCE: 1996, 2001, and 2004 SIPP panels.

The regression results show that factors such as age and previous labor market experience and, to some extent, family composition, are associated with the probability of self-employment entry.<sup>16</sup> We also find for U.S.-born women, but not for the other groups, that higher levels of household net worth are associated with a higher probability of entry into self-employment. Although the estimates are only just statistically significant, this finding is weakly consistent with the premise that some low-skilled women face limited access to business start-up capital.

The lack of strong and general evidence of a relationship between household wealth and low-skilled self-employment entry suggests that financial capital constraints are not an important factor limiting most businesses start-ups among potential low-skilled entrepreneurs. This is contrary to some previous research findings (Evans and Jovanovic 1989, Bates 1997). However, our results are in line with more recent research showing that the relationship between household wealth and self-employment entry is limited to so-called high-barrier industries, such as finance/insurance/real estate, manufacturing, and professional services, which require relatively more start-up capital (Lofstrom and Wang, 2009). These are industries which few low-skilled workers enter; low-barrier industries, such as gardening/landscaping, personal services, and repair services are the most relevant industries for these would-be business owners.

## Child Care

As noted earlier, non-monetary factors such as work autonomy and flexibility, can be strong entrepreneurial motivators. Mothers of young children may be particularly inclined to choose self-employment for these reasons. If true, that would help explain why women enter self-employment and continue to work at their own businesses in the face of low economic returns.

<sup>16</sup> The marginal effects from the logit probability models of self-employment entry are shown in [Technical Appendix C, Table C10](#).

There is some evidence to support this idea. We find that some self-employed women with young children have lower earnings than their counterparts without children.<sup>17</sup> The relationship is weaker among female workers in wage employment but it is stronger than among male business owners. Our business start-up analysis shows that among U.S.-born workers, women with young children are more likely to enter self-employment than men with young children, although the evidence supporting this is weaker for low-skilled immigrant women. These observations are consistent with the hypothesis that some women entrepreneurs may have made a trade-off—forsaking higher earnings for other, non-monetary benefits, such as additional child care options.

It is not conclusive evidence, however.<sup>18</sup> The data do not allow us to investigate directly whether women with children choose self-employment because limited child care options give them no choice, or if they simply want to spend more time with their children. However, it is also not clear that many low-skilled women living in households with incomes below or near poverty lines can afford to make such a conscious choice, one that is likely to lead to lower earnings.

## Wage Employment Opportunities

Of course, many low-skilled women who own businesses do not have children. Limited opportunities for them in the employment market may also be a motivator for self-employment, that is, a “push” factor: individuals decide to start businesses when no other attractive alternatives are available. (Higher economic returns and the non-monetary benefits of business ownership are considered “pull” factors.) Women may become self-employed due to push factors to a greater extent than men.

It is plausible that the strong gender differences in previous labor market experience are important factors contributing to lower female self-employment returns. In fact, the earnings results do provide evidence that these factors contribute to the gender earnings gap. Approximately a third of the gender self-employment earnings gap for immigrants can be explained by women’s less favorable workforce experience, while about a quarter of the gap among U.S.-born women can be.<sup>19</sup>

The substantial gender differences in employment background may also have direct consequences for gender differences in start-up rates. To explore this possibility, we again use multivariate regression analysis to look for factors associated with the probability of business start-up—such as family composition and previous labor market experience—and at how these factors may explain self-employment gender differences.<sup>20</sup>

Gender differences in factors such as these are generally of minor importance in explaining overall gender differences in business start-up rates. Women are more likely to be non-employed than men and given the positive association between non-employment and the probability of business start-up, this gender difference is not helpful in explaining why women are less likely to enter self-employment. Nor do we find evidence that gender differences in factors such as age, ethnicity, or job experience contribute.

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<sup>17</sup> The analysis here is based on the earnings regression estimates presented in [Technical Appendix C](#), Tables C1 and C2.

<sup>18</sup> The lack of conclusiveness is partly due to the relative imprecision of the regression estimates.

<sup>19</sup> We use the earnings regressions estimates in [Technical Appendix C](#), Tables C1 and C2 and the descriptive statistics in Tables 4 and 5 in this report to calculate the contribution of these factors on gender differences in the self-employment earnings.

<sup>20</sup> The empirical self-employment entry approach is discussed in [Technical Appendix B](#).

If push factors such as limited wage-paying job availability are important reasons for women choosing the less financially rewarding self-employment alternative, it is reasonable to expect women would be more likely to start a business while experiencing non-employment than similarly situated men. This may be particularly true for individuals who were unemployed the previous year because this status implies they are actively seeking employment. The estimates for entry from self-employment show that unemployment does increase the probability of a business start-up more among U.S.-born women than men. We do not find evidence that this holds among immigrants.

The results are consistent with the premise that lack of affordable child care options and limited labor market opportunities motivate U.S.-born women to enter self-employment, but we do not find evidence of similar constraints among immigrant women. If affordable child care—or lack of it—turns out to be a significant motivator for women to become entrepreneurs, policymakers should focus on child care solutions rather than on self-employment assistance.



# Conclusion

Women and immigrants have played important roles in the growth in entrepreneurship over the last two decades, but at different skill levels. Among college graduates, U.S.-born women accounted for the greatest increase in the overall number of business owners; among low-skilled entrepreneurs, immigrant men contributed the most. Although the self-employment rate of low-skilled U.S.-born men and women increased from 1980 to 2007, all of the net increase in low-skilled business owners is from immigrants. Low-skilled immigrants also have higher self-employment rates than those born in the U.S. Today there are about as many low-skilled business owners in the state as there are business owners with a college degree.

If self-employment brings earnings on par with earnings from wage and salary employment, or if there is evidence of barriers to self-employment entry, policymakers may want to consider encouraging self-employment as a tool to increase the economic well being of low-skilled workers. It is also possible that encouraging self-employment is desirable if there is evidence that low-skilled workers face difficulty in finding wage and salary employment and that such barriers are difficult to remove through existing policies.

The earnings of most low-skilled workers are higher in wage-paying jobs than in self-employment, but top-earning entrepreneurs have higher earnings than top-earning wage and salary employees. Our findings make clear that the economic returns to self-employment among low-skilled individuals are different for men and women. Among men, it is a relatively financially rewarding employment option in the long run, one that can lead to similar or higher earnings as those in wage employment, particularly for immigrants. This long-term economic return to self-employment is a plausible factor in attracting low-skilled men to business ownership. However, our business survival analysis indicate that many low-skilled entrepreneurs will not stay in business long enough to reach the point of earnings parity.

The economic rewards to self-employment among low-skilled women are lower than they are among low-skilled men. We find that wage employment is a substantially more financially rewarding option for most women. The lower returns to female business owners is partly due to their less favorable previous labor market experience; many enter from non-employment status. But even accounting for less favorable workforce experience, the economic gains to entrepreneurship remain low for women and this raises the question of why low-skilled women choose self-employment over wage employment.

Among U.S.-born workers, we find evidence that women with young children are more likely to enter self-employment than men with young children. The analysis also shows that unemployment increases the probability of a business start-up among U.S.-born women more than it does among U.S.-born men. Although not conclusive, these results suggest that lack of affordable child-care options and limited opportunities in wage employment motivate low-skilled women to enter self-employment. For low-skilled immigrant women, the evidence is weaker.

Encouraging self-employment among low-skilled women may not increase the economic well-being of most. If limited child-care options are a barrier to entry into wage employment, policies leading to an increase in affordable child care may have beneficial effects for low-skilled women. Policies that lead to greater work flexibility in wage employment could also improve the labor market outcomes of women with low schooling levels. Non-employment increases the probability of self-employment entry more among women than among men, a finding consistent with women facing more barriers to finding wage employment than men.

Our work does not provide answers to what those specific barriers are: Further research on employment-related constraints faced by low-skilled U.S.-born women is needed.

We find no convincing evidence that limited access to capital hampers low-skilled workers' efforts to start new businesses for most individuals; individuals from households with greater household wealth are not more likely to enter into self-employment than are similar individuals with lower household wealth. This is consistent with recent research and is likely attributable to the relatively low capital intensity levels of low-skilled businesses (Lofstrom and Wang, 2009). One implication is that increasing access to financial capital for low-skilled workers is not likely to increase business ownership rates significantly, although there is a positive association between wealth and self-employment entry among low-skilled U.S.-born women. It is possible that by increasing available capital, these low-skilled women would increase their business ownership rates. It is also possible that better funded women-owned business would lead to better economic performance, an issue not directly addressed here.

Research on self-employment assistance programs for the unemployed (although not the low-skilled) in other venues suggests that California policymakers should examine the feasibility of introducing similar programs here. Of course, it is also possible that with additional training and technical assistance, these formerly unemployed low-skilled entrepreneurs would be more successful. Although no objective evaluation research exists, such training and assistance, aimed at low-income and low-skilled individuals, is the objective of many of the state's 100-plus nonprofit microenterprise development organizations. An evaluation of these efforts is another important topic for future research.

Given the lack of strong evidence favoring additional self-employment assistance for low-skilled workers, what are alternative policies that can provide upward mobility for this economically vulnerable part of the workforce? No simple solution exists, but it is likely that efforts aimed at increasing their skills and educational levels are most likely to lead to lasting improved economic outcomes. Short-term training programs, including English language courses, might be most realistic given the competing time demands on low-skill workers. Relatively few adult workers who dropped out of high school are likely to return to complete their secondary education. This points to the importance of ensuring that our current and future students are provided with ample opportunities not only to complete their secondary education, but also to obtain post-secondary skills.

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