

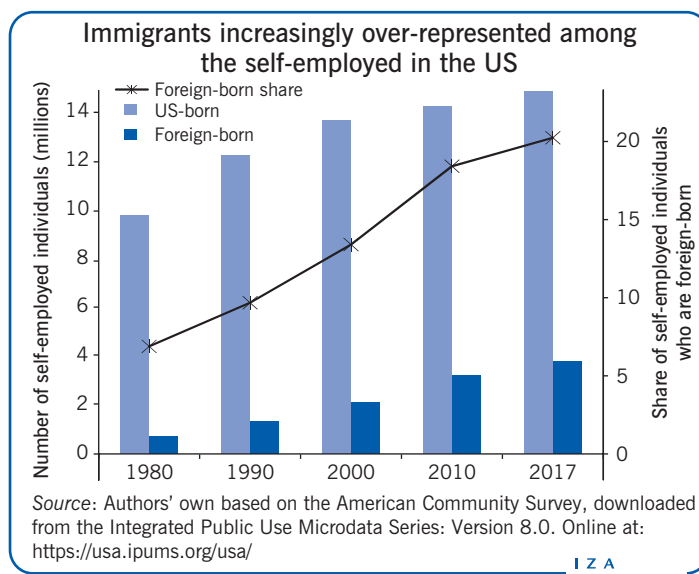
Immigrants and entrepreneurship

Business ownership is higher among immigrants, but promoting self-employment is unlikely to improve outcomes for the less skilled

Keywords: entrepreneurship, self-employment, innovation, immigrants, immigration

ELEVATOR PITCH

Immigrants are widely perceived to be highly entrepreneurial, contributing to economic growth and innovation, and self-employment is often viewed as a means of enhancing labor market integration and success among immigrants. Accordingly, many countries have established special visas and entry requirements to attract immigrant entrepreneurs. Research supports some of these stances, but expectations may be too high. There is no strong evidence that self-employment is an effective tool of upward economic mobility among low-skilled immigrants. More broadly prioritizing high-skilled immigrants may prove to be more successful than focusing on entrepreneurship.



KEY FINDINGS

Pros

- + Business ownership is higher among foreign-born than native-born workers.
- + Entrepreneurship positively affects labor market integration.
- + High-skilled immigrants contribute to innovation.

Cons

- Many immigrant business owners are low-skilled, with low income.
- Business ownership is not an effective tool for significantly improving the economic outcomes of low-skilled immigrants.
- The effectiveness of immigrant entrepreneurship visa programs is unknown.

AUTHOR'S MAIN MESSAGE

Research finds that immigrants are entrepreneurial, as measured by business ownership. There is little credible research showing much of a downside to such entrepreneurship and much research pointing to significant positive contributions. However, promoting self-employment has not been shown to lead to widespread improvements in economic outcomes for less-skilled immigrants. Until strong evidence emerges that special visa programs lead to the greatest economic gains from immigration, policymakers may want to focus on education and skills as entry criteria, consistently strong predictors of immigrant success.

MOTIVATION

Immigrants are widely perceived as being highly entrepreneurial and important for economic growth and innovation, a sentiment commonly shared by policymakers and reflected in immigration policies. Many developed countries have created special visas and entry programs to attract immigrant entrepreneurs. Because immigrant workers tend to have lower employment rates and earnings than native-born workers, self-employment is often viewed as a tool to enhance immigrants' labor market integration and economic success. However, does the research based on the experience of developed countries support this encouraging image of immigrant entrepreneurs?

DISCUSSION OF PROS AND CONS

Promoting entrepreneurship is a national priority in most developed countries. This strategy is motivated primarily by views that small businesses: create a disproportionate share of new jobs in the economy; represent an important source of innovation; boost national productivity; and alleviate poverty [1].

Immigrants are often viewed as playing a large role in the important small business sector of the economy. This perception is supported by a growing body of literature.

Special visas and entry programs

Many developed countries have created special visas and entry programs to attract more immigrant entrepreneurs, and immigrant entrepreneurship is becoming increasingly important in many countries. In Australia, Canada, the UK, the US, and some other developed countries, business ownership is higher and growing among the foreign-born population than among the native-born population [1], [2], [3].

This is partly because of growth in immigration and partly because immigrants turn more frequently to self-employment than native-born workers do. For example, in the US approximately 17% of the workforce was foreign-born in 2017, a proportion that is more than double the 7% share in 1980. Over the same period, self-employment grew strongly, and immigrants continued to increase as a share of business owners. The number of business owners rose by more than eight million from 1980 to 2017, and immigrants' share of self-employment rose from about 6.9% to 20.2%. The increase in the foreign-born self-employment share in the last decade was partially driven by the slowdown in native self-employment growth that began around the beginning of the Great Recession in 2007 and a continuous growth of immigrant self-employment during the Great Recession.

To attract foreign investors and entrepreneurs, many developing countries offer special visas for individuals willing to invest and start a new business. For example, Canada's federal and provincial governments have for some time managed popular special investor and entrepreneur visa programs, although they are currently being revised. The UK offers several Tier 1 entrepreneur and investor visas for "high-value migrants" meeting specific education, language, and asset requirements. And for entrepreneurs wishing to migrate to the US and who are willing to invest at least \$500,000 in a business that creates or preserves ten full-time jobs, the EB-5 visa provides a path to a green card for investors and their immediate family.

Beneficial effects of immigrant entrepreneurship

Although the effectiveness of these special visa programs is largely unknown, there are several reasons to view the increase in immigrant entrepreneurship with optimism, arguably most so with respect to high-skill industries. For example, immigrant entrepreneurs have been shown to contribute significantly to the technology and engineering sectors of the economy, especially in Silicon Valley in the US [1]. An important strand of the immigrant entrepreneurship literature does not limit its focus to business ownership but recognizes that immigrants' entrepreneurial contributions may be through other channels. The research that examines spillover effects from immigration into innovation, as measured by numbers of patents, licenses, and publications, points unambiguously to positive spillover effects of immigrant entrepreneurs.

These immigrant contributions can be seen, for example, in the over-representation of immigrants among US-based Nobel Prize winners, owners of high-impact companies, patent applicants, and members of the National Academy of Sciences and the National Academy of Engineering [1]. More directly related to business ownership, immigrants are also over-represented among founders of high-tech companies, biotech firms, and public venture-backed US companies [1]. The magnitude of immigrant contributions might, however, be less than is commonly claimed. A recent study suggests that although immigrants play an important role in the high-tech sector of the US economy, "most previous studies have overstated the role of immigrants in high-tech entrepreneurship" [4], p. 116.

There is also evidence of broader contributions of skilled immigrants to innovation [1]. For example, a recent study for the US finds that the increase in the share of the population of immigrants with at least a college degree was associated with a 21% increase in patenting per capita [5]. Moreover, that analysis does not suggest that immigrants are innately more able than natives but rather that the higher rate of patenting among college graduate immigrants is explained entirely by the greater share of immigrants with science and engineering education compared with the share in the native-born population.

A study assessing the impact of high-skilled immigrants on US technology formation (as measured by science and engineering employment and patenting) finds that high-skilled temporary workers from China and India on H-1B visas account for a significant share of the growth in US science and engineering employment among immigrants [6]. Importantly, the growth is accomplished without crowding out native scientists and engineers.

International trade is another area that may benefit from immigrant entrepreneurship. It is plausible that immigrant-owned firms could have higher levels of exports than other firms because they are tied into business networks in their home countries and share languages and other cultural ties with businesspeople there. Indeed, there is evidence of a positive effect of immigrant entrepreneurs on exports that shows that co-ethnic networks promote bilateral trade by providing market information as well as by supplying matching and referral services [1].

Immigrant-owned businesses are also found to contribute significantly to job creation. An estimate using data from 2007 and 2012 shows that immigrant-owned firms provide ongoing jobs to about 16 million workers. One caveat is that immigrant-owned businesses on average create fewer jobs than native-owned businesses, and these jobs tend to be

lower paid and offer fewer employee benefits. This is partly explained by the geographical and industry choices of immigrant businesses [7]. In addition, businesses started by immigrants are more likely to fail, but the surviving ones experience a faster employment growth in the first six-year period. The employment growth is the strongest among high-wage businesses and high-tech sectors [8].

Mixed impact of immigration on self-employment of native-born population

Not all of the evidence points to beneficial effects of immigrant entrepreneurship. Specifically, there is some evidence that immigrant entrepreneurs may crowd out native-born entrepreneurs [9]. This limited evidence is mixed, however. Even within the same study the findings also suggest that immigration increases native self-employment earnings. In light of the less than clear picture of the impact of immigration on native-born business owners, the study postulates that the results “may be due to immigrants primarily displacing marginal or low-income self-employed natives, but our analyses do not provide clear evidence supporting this hypothesis” [9], p. 647.

What factors contribute to differences in business ownership rates?

Human capital, measured by education and language proficiency, is a major determinant of differences in business ownership across groups [1]. Although it is widely accepted that education is important to the success of small businesses, its role in explaining entry into firm ownership is unclear. Because having a higher education increases individuals’ opportunities and compensation in wage and salary work, it increases the opportunity costs of entrepreneurship and, all else being equal, makes entry into self-employment less likely. However, education is also likely to generate skills that are associated with greater success, such as analytical capabilities, communication skills, and other skills needed to run a business successfully.

Imperfect international transferability of human capital may further complicate the predictions of the relationship between human capital and business ownership rates. Numerous studies covering many developed countries (including Canada, Germany, Israel, Spain, and the US) consistently find that educational attainment and experience obtained in the sending country generate lower returns than if obtained in the host country.

Overall, although much of the research points to a positive relationship between education and business ownership, the evidence is somewhat ambiguous [1]. That ambiguity may be due to sorting into industries based on entry barriers. Thus, for example, it is likely that the educational credentials of better-educated potential entrepreneurs are associated with a lower probability of small-firm ownership in less financially rewarding industries and a higher probability of entry into higher-barrier industries that also offer higher returns.

The role of human capital in explaining group differences in business ownership is clear. The low average level of human capital of some groups, such as Latinos in the US, contributes to their relatively low self-employment rates, while the high rate of business ownership by others, such as Asians, is in part due to their higher levels of education [1].

Differences in language proficiency also explain some of the differences in business ownership rates across groups. Limited proficiency in the host-country language makes it difficult to communicate with potential customers and suppliers and learn about regulations. Thus, it is not surprising to find a positive relationship between language fluency and self-employment rates. However, the positive relationship may be countered by blocked opportunities in the wage and salary sector because of language barriers, which theoretically would increase the likelihood of becoming self-employed. Overall, however, it appears that a better command of the local language is associated with higher business ownership rates.

Although human capital differences across groups appear to be the strongest contributor to differences in business ownership rates across groups, other factors also matter. For various reasons, wealth and access to capital differ between immigrants and native-born workers as well as between immigrants from different countries. These differences may be due, for example, to discrimination or differences in credit information or in time needed to accumulate wealth for loan collateral in obtaining loans. Indeed, research for the US suggests that lower levels of wealth among Latinos and higher levels among Asians explain some of the ethnic differences in rates of business ownership. Other factors possibly contributing to differences in business ownership rates include immigrants' experience with self-employment in their home country, living in an ethnic enclave, and their legal status [1].

Geographically, immigrant high-tech businesses are concentrated in locations that have a higher percentage of high-tech industries, higher ethnic diversity, and a larger share of the immigrant population. This suggests that creating high-tech clusters and providing an ethnically and culturally diverse environment will help attract immigrant high-tech businesses [10].

Are immigrant entrepreneurs successful?

Labor market outcomes, including earnings and employment, are often less favorable for immigrants than for the native-born population. The extent of the gap is a function of the composition of the immigrant population. Refugee immigrants, for example, often face difficulties in finding jobs and have lower earnings than native-born workers. This factor is particularly relevant in some European countries, where refugees represent a high share of the total immigrant population. However, even in countries that receive immigrants who are motivated mainly by labor market opportunities (including Australia, Canada, and the US), immigrants have lower average earnings.

In the context of this gap in labor market outcomes, immigrant entrepreneurship is promoted for its potential to improve immigrant labor market performance. Entrepreneurship has long been perceived to be an important stepping stone for economic assimilation and integration. In a number of countries, including Australia, Canada, Germany, and the US, evidence points to increasing success among immigrant entrepreneurs the longer they have lived in a country [2], [3].

For the three countries receiving the most immigrants—the US, Canada, and Australia—researchers have found that self-employed immigrants in the US outperform immigrants in the other two countries in terms of earnings outcomes relative to those of native-born

populations [3]. This is an interesting and policy relevant finding given that immigrants to the US are not as extensively selected and admitted based on skills as immigrants in Australia and Canada are. This may be due to the self-selection of immigrant entrepreneurs, with the most promising foreign-born entrepreneurs favoring the US because of potentially higher returns to their capital compared with countries with more equal income distributions.

The success of immigrant entrepreneurs differs along many dimensions. The factor that most consistently predicts immigrant entrepreneurial success is education. For example, research shows that the substantially higher than national average education levels among Asian immigrant business owners in the US contribute to their higher average earnings compared with the national US average but slightly lower earnings than the national Canadian average [11].

However, business success varies across Asian immigrants. For example, in the US, average business earnings are highest among immigrants from India, Pakistan, and the Philippines, and lowest among immigrants from Bangladesh and Vietnam. Again, differences in educational attainment play a key role. Indian business owners in the US are very highly educated: nearly 70% have at least a four-year college degree. These high levels of education are responsible for nearly half of their higher level of entrepreneurial earnings [11]. In Canada and the UK, however, the educational advantage of Indian immigrants is smaller and hence contributes less to their relative entrepreneurial success in those countries [11].

Not all immigrant entrepreneurs are successful. Not surprisingly, research generally finds that low schooling levels are a key explanation for lower success. Low educational attainment among immigrants of Mexican origin in the US has not only led to low levels of business income but also presents a significant hurdle to starting, and successfully running, a business [12]. Although low levels of wealth (a proxy for access to capital) also play a role, low levels of schooling impair the success of start-ups in particular and have resulted in a concentration of Mexican-American-owned businesses in low-entry-barrier industries [12]. This relationship with schooling is relevant from a policy perspective because these types of businesses are typically lower earning and have lower survival rates than businesses in high-skill industries. These findings may translate to immigrant groups in other countries who also have limited or less transferable human capital.

Self-employment as a labor market integration tool

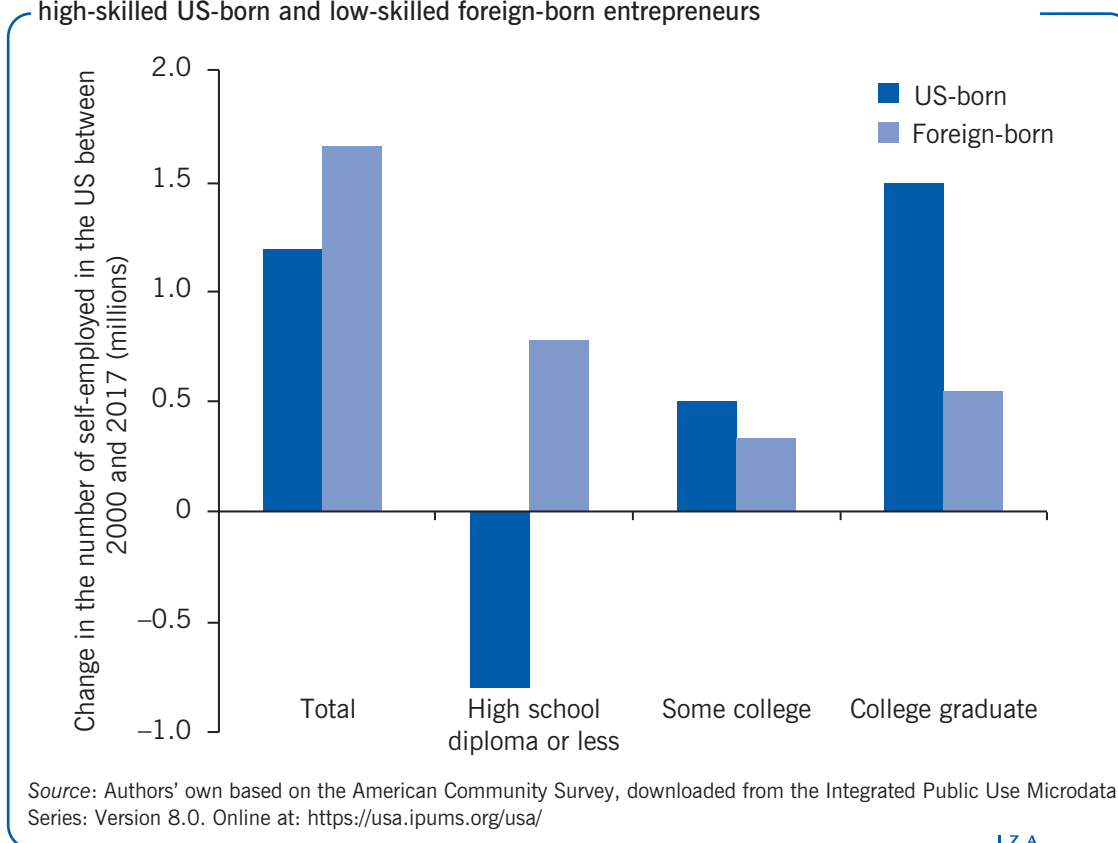
The notion of self-employment as a labor market stepping stone in the host country is arguably most relevant among lower-skilled immigrants. Trends over the last few decades in the US show a rising share of low-skilled workers (those with no more than a high school diploma) who are foreign-born. While the immigrant share of the college-educated workforce rose from 7.1% in 1980 to 15.2% in 2007, and the immigrant share of skilled workers remained roughly equal to the overall proportion of immigrants in the US workforce, the immigrant share of the low-skilled labor force more than tripled, from 6.7% to 20.4%. This makes low-skilled immigrants considerably over-represented among the least educated workers [13]. Today, roughly half the foreign-born workers in the US have no schooling beyond high school [13]. With an increasingly skill-intensive economy, it becomes ever more pressing to find ways to improve economic outcomes for low-skilled workers.

Immigrant entrepreneurs play an increasingly important role in many countries. In the US this is especially evident for low-skilled immigrants. US Census data show that the number of US-born self-employed people increased by about 1.19 million between 2000 and 2017, while the number of self-employed immigrants increased by about 1.66 million. While the growth in native-born self-employment occurred exclusively among people with at least some college training, the increase in immigrant entrepreneurship has been split between low-skilled and high-skilled self-employment, with the largest increase among immigrants with a high school diploma or less (Figure 1).

Especially important, immigrant entrepreneurs account for the entire recent growth in low-skilled self-employment. Indeed, there are fewer native-born low-skilled entrepreneurs today than in 1980 [13]. The decline is not due to fewer low-skilled natives choosing self-employment, as is evident by the fact that the self-employment rate for low-skilled native-born men and women increased over this period, from 10.1% in 1980 to 11% in 2007 for men and from 3.9% to 6.1% for women [13]. Instead, the decline has been driven by the overall trend of increased educational attainment.

In other words, although a higher share of individuals with less schooling chooses self-employment, there are simply fewer low-skilled US-born workers. The growth in immigrant self-employment, however, is due both to an increase in the number of low-skilled immigrants and higher self-employment rates among them. While the number of immigrants in the US roughly doubled between 1980 and 2007, the share of immigrants

Figure 1. Growth in self-employment in the US between 2000 and 2017 was driven by high-skilled US-born and low-skilled foreign-born entrepreneurs



in the low-skilled segment of the US labor force more than tripled, from 6.7% to 20.4% [13]. Over the same period, the self-employment rate among the low-skilled foreign-born population rose from 9.8% to 10.5% for men and from 4.2% to 10.6% for women [13]. It is obvious that self-employment now plays an important role among low-skilled immigrants, especially among low-skilled foreign-born women [14].

Research on the earnings of low-skilled immigrant entrepreneurs is somewhat encouraging but nonetheless calls into question the soundness of promoting self-employment among low-skilled immigrants. While top-earning low-skilled immigrant entrepreneurs earn more than top-earning immigrant employees, wage and salary employment is a more rewarding option for most low-skilled workers [13]. However, among the low-skilled immigrant population, earnings growth is higher among entrepreneurs, and after about 14–15 years in business their earnings are roughly equivalent to those of wage and salary workers. Furthermore, earnings catch-up is somewhat faster among immigrant men than among native-born male business owners.

The lack of compelling evidence of superior success among low-skilled immigrant entrepreneurs suggests the previous finding of greater labor market assimilation among self-employed immigrants is driven by the relative success of the comparatively higher-skilled immigrant entrepreneurs.

LIMITATIONS AND GAPS

Overall, much of the research points to positive net contributions by immigrant entrepreneurs, with the emerging literature on contributions to innovation representing the most convincing evidence so far. However, some fundamental issues have not yet been credibly addressed [1], and finding the data to fill these research gaps poses substantial challenges.

More research is clearly needed on the contribution of immigrant firms to international trade. Immigrant business owners are more likely to export, but little is known about how much they export, the total value of their exports, and how many jobs are created by these expanded markets for goods and services.

Another area of needed research is the contribution of immigrant businesses to diversity in merchandise and services. Although the contribution to diversity is apparent in a visit to any major city, there is little information on the contribution of immigrant businesses to diversity in manufacturing and innovative product design.

Especially important is the lack of evaluation of visa programs implemented by some countries to encourage more immigration by entrepreneurs.

SUMMARY AND POLICY ADVICE

Immigrant entrepreneurs make a significant positive contribution to their host country economy. Immigrants are more likely to own businesses than their native counterparts, and this business ownership contributes to economic integration. High-skilled immigrants have contributed to the high-tech sector and to innovation, as measured by growth in patenting and in science and engineering. However, there is no strong evidence that self-

employment is a very effective tool of upward economic mobility among those in greatest need of such assistance: low-skilled immigrants.

Until there is strong and reliable evidence of the success of visa programs designed to attract high-skilled entrepreneurs, and of the criteria that work best to achieve this goal, policymakers may want to pursue other strategies to realize the greatest economic gains from immigration. Since education is consistently found to be a strong predictor of immigrant success, among both business owners and wage earners, policies targeting high-skilled immigrants more broadly might prove more successful than policies with a narrow focus on entrepreneurship.

So what can policymakers do to attract high-skilled migrants? This is not an easy task as migration choices are partly determined by factors difficult to affect through immigration policy (factors such as income distribution, language, native sentiments toward immigrants, location characteristics, and choices of previous migrants, to name only a few). Nonetheless, policies that could increase the number and share of high-skilled immigrants include efforts to streamline pathways from non-immigrant status (such as student visas and employment-based temporary work visas, such as the H-1B program in the US) to permanent status.

Furthermore, since migration decisions often involve a family, making the move more attractive to spouses is another strategy that might entice high-skilled migrants. Since the spouses of many highly educated workers are also highly educated, extending the right to work to their spouses is also likely to encourage additional high-skilled migration.

More specifically, providing work permits with a pathway to citizenship to graduates with specific degrees and experience deemed particularly valuable to the host countries' economies is one possible policy strategy. In many developed countries, the opportunities to stay and work are quite limited for students who have just completed college degrees in the country. These graduates are not only, essentially by definition, high-skilled, but have also gained fluency in the local language and quite possibly generated valuable cultural and labor market insights. These are all factors associated with greater odds for successful integration and quite possibly for high-skilled business start-ups.

Successfully implementing such a strategy in the US, however, would necessitate addressing the numerical limits on employment-based green cards for each sending country, which currently prevents many immigrants from large source countries of students and H-1B workers such as China, India, Korea, and the Philippines from obtaining green cards. The uncertainty of obtaining permanent status may not only make the receiving country less attractive to some very productive would-be immigrants, it may also deter long-term investments, such as for business start-ups.

Acknowledgments

The authors thank the anonymous referees and the IZA World of Labor editors for many helpful suggestions on earlier drafts. Previous work of the authors contains a larger number of background references for the material presented here and has been used intensively in all major parts of this article [1], [2], [12], [13], [14]. The analysis and conclusions expressed in this article are those of the authors and not necessarily those

of the Public Policy Institute of California. Version 2 of the article includes evidence that immigrant-owned businesses contribute significantly to job creation, suggests methods to help attract immigrant high-tech businesses, updates the figures, and adds “Key references” [7], [8], [10].

Competing interests

The IZA World of Labor project is committed to the IZA Code of Conduct. The authors declare to have observed the principles outlined in the code.

© Magnus Lofstrom and Chunbei Wang

REFERENCES

Further reading

Fairlie, R. W. “Entrepreneurship among disadvantaged groups: An analysis of the dynamics of self-employment by gender, race and education.” In: Parker, S. C., Z. J. Acs, and D. R. Audretsch (eds). *Handbook of Entrepreneurship*. Dordrecht: Kluwer Academic Publishers, 2006.

OECD. *Open for Business: Migrant Entrepreneurship in OECD Countries*. Paris: OECD Publishing, 2010.

Key references

- [1] Fairlie, R. W., and M. Lofstrom. “Immigration and entrepreneurship.” In: Chiswick, B., and P. Miller (eds). *Handbook on the Economics of International Immigration*. Amsterdam: Elsevier, 2015.
- [2] Lofstrom, M. “Labor market assimilation and the self-employment decision of immigrant entrepreneurs.” *Journal of Population Economics* 15:1 (2002): 83–114.
- [3] Schuetze, H. J., and H. Antecol. “Immigration, entrepreneurship and the venture start-up process. The life cycle of entrepreneurial ventures.” In: Parker, S. (ed.). *International Handbook Series on Entrepreneurship Vol.3*. New York: Springer, 2007.
- [4] Hart, D. M., and Z. J. Acs. “High-tech immigrant entrepreneurship in the United States.” *Economic Development Quarterly* 25:2 (2011): 116–129.
- [5] Hunt, J., and M. Gauthier-Loiselle. “How much does immigration boost innovation?” *American Economic Journal: Macroeconomics* 2:2 (2010): 31–56.
- [6] Kerr, W. R., and W. F. Lincoln. “The supply side of innovation: H-1B visa reforms and U.S. ethnic invention.” *Journal of Labor Economics* 28:3 (2010): 473–508.
- [7] Kerr, S. P., and W. R. Kerr. *Immigrant Entrepreneurship in America: Evidence from the Survey of Business Owners 2007 & 2012*. NBER Working Paper No. 24494, 2018.
- [8] Kerr, S. P., and W. R. Kerr. *Immigrant Entrepreneurship*. NBER Working Paper No. 22385, 2016.
- [9] Fairlie, R. W., and B. D. Meyer. “The effect of immigration on native self-employment.” *Journal of Labor Economics* 21:3 (2003): 619–650.
- [10] Liu, C. Y., G. Painter, and Q. Wang. *Lessons for US Metro Areas: Characteristics and Clustering of High-Tech Immigrant Entrepreneurs*. Comprehensive White Paper, 2014.
- [11] Fairlie, R. W., J. Zissimopoulos, and H. A. Krashinsky. “The international Asian business success story: A comparison of Chinese, Indian, and other Asian businesses in the United States, Canada, and United Kingdom.” In: Lerner, J., and A. Shoar (eds). *International Differences in Entrepreneurship*. Chicago, IL: University of Chicago Press and NBER, 2010.
- [12] Lofstrom, M., and C. Wang. “Mexican-American self-employment: A dynamic analysis of business ownership.” In: Constant, A. F., K. Tatsiramos, and K. F. Zimmermann (eds). *Research in Labor Economics Volume 29*. Bingley: Emerald Publishing, 2009.
- [13] Lofstrom, M. “Low-skilled immigrant entrepreneurship.” *Review of Economics of the Household* 9:1 (2011): 25–44.
- [14] Lofstrom, M. “Does self-employment increase the economic well-being of low-skilled workers?” *Small Business Economics* 40:4 (2013): 933–952.

Online extras

The **full reference list** for this article is available from:

<https://wol.iza.org/articles/immigrants-and-entrepreneurship>

View the **evidence map** for this article:

<https://wol.iza.org/articles/immigrants-and-entrepreneurship/map>