

High-tech Immigrant Entrepreneurship in the United States

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Purpose and Scope

The new products, services, and business models that the high-tech sector generates differentiate this nation's output from that of the rest of the world and enable capital accumulation, wage gains, and productivity growth. A high level of entrepreneurship makes the high-tech sector vigorous. Immigration policy, as it affects highly educated and highly experienced foreign-born individuals who might be drawn into high-tech entrepreneurship, is an important element in promoting high-impact, high-tech company formation and growth.

This paper quantifies the role of immigrants in high-tech entrepreneurship using the High-impact, High-tech Company Survey database. The authors also examine U.S. immigration policies and processes (especially the H-1B visa) relevant to high-tech immigrant entrepreneurship.

Overall Findings

Analysis of the survey data indicate that immigrants play an important role in founding high-impact, high-tech companies in the United States. About 16 percent of the companies in the nationally representative sample have at least one immigrant among their founders.

High-impact, high-tech companies founded by immigrant entrepreneurs and those founded by native-born entrepreneurs are similar in many ways. One important difference is their location. Immigrant-founded companies (IFCs), as expected, tend to be located in states that have large immigrant populations. IFCs are about twice as likely as their

native-founded company (NFC) counterparts to have a strategic relationship with a foreign firm.

Highlights

The authors' results offer substantial evidence that immigrant entrepreneurs play a significant role in founding and sustaining high-impact, high-tech companies and that the profiles of immigrant and native founders differ along several dimensions.

Companies:

- About 16 percent of the companies in the nationally representative sample report at least one of their founders is foreign born. This estimate is lower than the rate reported in most prior studies of high-tech immigrant entrepreneurship. However, it is very close to the rate found by the Kauffman Firm Survey, although the populations sampled were quite different.
- Of the 205 IFCs in the sample, more than half were founded only by foreign-born entrepreneurs (85 by a single individual, 30 by a team of two, and five by teams of three or more).
- IFCs are similar to NFCs in many ways—they operate in the same industries and are about the same size. A major difference is company location. As expected, IFCs are more likely than NFCs to be located in states with large immigrant populations such as California and Texas.
- IFCs are about twice as likely as NFCs to have a strategic relationship with a company outside the United States, such as a major supplier, key partner or major customer (almost 42 percent, compared with 23 percent, respectively).

- IFCs and NFCs are similar in economic performance (measured by company employment) and technological performance (measured by R&D and patent-holding), controlling for key factors such as company age and founder's education.

Founders:

- Of the 2,034 founders in the sample, 261 or about 12.8 percent are foreign born.
- Most foreign-born founders report they have lived in the United States for decades—the average duration is 25.9 years; 77 percent of the foreign-born high-impact, high-tech entrepreneurs are U.S. citizens.
- Foreign-born founders are highly educated—they are more than twice as likely as native-born founders to hold a doctorate degree. Two-thirds of foreign-born founders received their highest level of education in the United States.
- India is the most cited founder birthplace; it accounts for about 16 percent of foreign-born founders. The United Kingdom accounts for 10 percent, followed by Canada and Japan, each of which constitutes 6 percent.
- The founding teams of IFCs are significantly more likely to include at least one woman; about 30 percent, compared with about 20 percent of NFCs. About 15 percent of all founders of high-impact, high-tech companies in the sample are women. Women constitute about the same share of U.S.-born founders as of foreign-born founders.
- Male foreign-born founders are more likely to team with a female founder, regardless of nativity, than male native-born founders.
- U.S. minorities represent about 15 percent of the native-born founders of IFCs, compared with about 5 percent of the founders of NFCs.

Scope and Methodology

The research examines the relationship between high-impact, high-tech companies and immigrant entrepreneurship using data drawn from the OMB-approved High-impact, High-tech Company Survey. The survey was conducted by the George Mason University Center for Social Science Research between October 2008 and January 2009 based on a nationally representative sample of rapidly growing high-impact, high-tech companies. Data from the 1,415 completed surveys constitute the company database. These data are used to create a second

database of 2,034 company founders. An IFC is a company with at least one foreign-born founder. A high-impact company is a firm with sales that have at least doubled over the 2002-2006 period and which has an employment growth quantifier of 2 or greater over the same period. A high-tech industry is defined in terms of its 3-digit SIC codes using R&D employment as a share of total employment as the key criterion. There are 49 such industries—44 in manufacturing and 5 in the services sector.

Pearson's chi-square test is used to assess the strength of association between cross-tabulated variables. A variety of multivariate tests (ordinary least-squares linear and logistic regressions) explore how closely indicators of technological and economic performance are associated with founder nativity. The tests indicate that the relationship between founder nativity and technological performance is stronger than that between founder nativity and economic performance. However, this relationship is not statistically significant when company age, company employment, and other factors are controlled.

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