Immigrants Fuel Tech Boom

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By Deborah Perelman

It has long been recognized that immigrants with technology and engineering skills have played a critical role in the emergence of some of the best-known U.S. entrepreneurial companies. Less is known about the educational backgrounds of these immigrations and what drove them to leave their homes.

A report released June 11 by the Ewing Marion Kauffman Foundation, based in Kansas City, Mo., tracks the educational background of immigrant entrepreneurs who were key founders of companies in 11 different geographical centers of technology and engineering between 1995 and 2005. The report found a strong correlation between educational attainment in STEM (science, technology, engineering and math) fields and entrepreneurship.

Those surveyed were by and large highly educated. Ninety-six percent of immigrant founders of technology and engineering companies surveyed held bachelor's degrees and 74 percent held graduate or post-graduate degrees. Seventy-five percent were in STEM fields, and 53 percent completed their highest degrees in U.S. universities.

Of those who had come to the United States to study, very few said they had come with the notion of starting a company, the report said. Nearly 40 percent of immigrant founders entered the county because of a job opportunity, and only 1.6 percent entered with the idea that they would start a business. Typically, they founded companies after working and residing in the United States for an average of 13 years.

The study said it hopes to serve as a wake-up call to leaders concerned about the United States losing its competitive advantage by evidencing the significant driving force immigrants have become in the fueling of the U.S. tech boom. It argues that the nation could benefit from more "enlightened" immigration policies designed to attract and

retain highly skilled foreign workers who would be potential entrepreneurs.

"Our research confirms that advanced education in science, technology, engineering and math is correlated with high rates of entrepreneurship and innovation," said lead researcher Vivek Wadhwa, executive in residence at the Pratt School of Engineering aster of Engineering Management Program at Duke University, in Durham, N.C.

"The U.S. economy depends on these high rates of entrepreneurship and innovation to maintain its global edge. Our higher education system has historically attracted talented immigrants from around the world to the United States to study. We now face a choice—to encourage more Americans to complete higher degrees in these fields, or to encourage foreign students to stay in the United States after completing their degrees. We need to do both."

Another finding in the study was that no single U.S. institution stood out as a primary source of immigrant founders, nor did a single undergraduate institution in India or China. Even the famed Indian Institutes of Technology educated only 15 percent of Indian technology and engineering company founders.

Because immigrant entrepreneurs tended to move to cosmopolitan technology centers, the regions with the largest immigrant population tended to have the greatest number of technology startups. On average, 31 percent of the technology and engineering companies that were founded between 1995 and 2005 in the 11 technology centers surveyed had an immigrant as a key founder. This stood in contrast to the national average of 25.3 percent.

Technology centers with a greater concentration of immigrant entrepreneurs during that time period included Silicon Valley (52.4 percent), New York City (43.8 percent) and Chicago (35.8 percent).

Conducted by researchers at Duke University and the University of California at Berkeley, the study was a follow-up to a report released in January that showed that for 25.3 percent of technology and engineering companies started in the United States from 1995 to 2005, at least one key founder was foreign-born. Nationwide, these immigrant-founded companies produced $52 billion in sales and employed 450,000 workers in 2005. The majority of these immigrant entrepreneurs came from India, United Kingdom, China, Taiwan, Japan and Germany.

"The responses paint an interesting portrait of America's immigrant entrepreneurs," said Robert Litan, vice president of Research and Policy at the Kauffman Foundation. "These are individuals who initially entered the United States either as students or as employees of corporations that sponsored their visas, but who eventually created new businesses. These startup founders are very well educated, particularly in STEM disciplines, suggesting that research, technical education and thought leadership are drivers of new business generation."

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