

AMERICAN MADE



The Impact of Immigrant Entrepreneurs
and Professionals on U.S. Competitiveness

by

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ABOUT THE STUDY

This study, commissioned by the National Venture Capital Association, was prepared by Stuart Anderson, executive director, National Foundation for American Policy, a non-profit, non-partisan public policy research organization, and Michaela Platzer, president, Content First, a full-service public policy research services firm. The purpose of the study is to provide an objective overview of the impact of immigrant entrepreneurs and professionals on the U.S. economy.

This study is part of NVCA's Maximizing America's Growth for the Nation's Entrepreneurs and Technologists (MAGNET USA) innovative leadership initiative aimed at strengthening America's competitive position in an increasingly global economy.



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EXECUTIVE SUMMARY

Immigrant entrepreneurs and professionals contribute significantly to job creation and innovation in the United States. This analysis shows the striking propensity of immigrants to start and grow successful American companies, particularly in the technology field. The study's findings reflect the benefits of an open policy toward legal immigration. However, it also reveals that current restrictions on skilled immigrants are likely to result in less job creation and innovation for America.

This first of its kind study utilized the Thomson Financial database to examine the nativity of the founders of all U.S. venture-backed publicly traded companies. Separately, the authors surveyed over 340 privately held venture-backed companies to discern their views on U.S. immigration policy and obtain demographic data on their founders. The result is a portrait of the positive impact immigrants have in starting and working for America's leading edge companies.

American Made: The Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness, commissioned by the National Venture Capital Association (NVCA), is part of NVCA's MAG-NET USA initiative. The report consists of three main sections. The first section provides data

on publicly traded and privately held venture-backed companies. The second section provides the results of a recent NVCA survey on immigrant entrepreneurs and H-1B professionals. The third part presents U.S. government data highlighting the importance of foreign-born scientists and engineers in the United States. The study also showcases the extraordinary contributions of five immigrant founders of venture-backed companies from China, India, Israel, Lebanon, and Taiwan.



KEY FINDINGS

IMMIGRANT-FOUNDED PUBLIC AND PRIVATE VENTURE-BACKED COMPANIES

Immigrant-Founded Public Venture-Backed Companies

- Over the past 15 years, immigrants have started 25 percent of U.S. public companies that were venture-backed, a high percentage of the most innovative companies in America.
- The current market capitalization of publicly traded immigrant-founded venture-backed companies in the United States exceeds \$500 billion, adding significant value to the American economy. This is an example of the enormous wealth-creating abilities of immigrant entrepreneurs.
- Immigrant-founded venture-backed companies are concentrated in cutting edge sectors: high-technology manufacturing; information technology (IT); and life sciences.
- As evidence of how important immigrant entrepreneurs have been to the U.S. technology base, the study found 40 percent of U.S. publicly traded venture-backed companies operating in high-technology manufacturing today were started by immigrants. Moreover, more than half of the employment generated by U.S. public venture-backed high-tech manufacturers has come from immigrant-founded companies.
- The largest U.S. venture-backed public companies started by immigrants include Intel, Solelectron, Sanmina-SCI, Sun Microsystems, eBay, Yahoo!, and Google.
- The data show immigrants possess great entrepreneurial capacity, particularly in technical fields. The proportion of immigrant entrepreneurs among publicly traded venture-backed companies is particularly impressive when compared to the relatively small share of legal immigrants in the U.S. population. Today, legal immigrants encompass approximately 8.7 percent of the U.S. population and represented only 6.7 percent of the population in 1990.
- Most venture-backed companies started by immigrant entrepreneurs are technology-related companies that pay high salaries for white collar professional positions but employ fewer people than, for example, venture-backed retail stores such as The Home Depot or Starbucks.

- Immigrant-founded venture-backed public companies today employ an estimated 220,000 people in the United States and over 400,000 people globally.
- While immigrant founders in venture-backed public companies come from across the globe, the leading countries of origin are India, Israel, and Taiwan.
- California is the leading state by headquarters for immigrant-founded venture-backed public companies, followed by Massachusetts, New Jersey, Washington, and Texas.
- A key lesson of the study is the importance of maintaining an open legal immigration system. Few of the immigrant entrepreneurs identified came to America ready to start a company capable of attracting venture capital. As the data, profiles, and interviews revealed, most entered the country either as children, teenagers, or graduate students, or were hired on H-1B visas to begin a first job while in their mid-twenties.
- Private immigrant-founded venture-backed companies mirror public companies in their location and industry concentration, with 56 percent of the emerging companies headquartered in California.
- The top industry sectors for private immigrant-founded venture-backed companies were software, semiconductors, and biotechnology.
- India was the most common place of birth for foreign-born founders in the survey, followed by the United Kingdom, China, Iran, and France.
- Nearly all the immigrant founders in private companies (95 percent) would still start their companies in the United States if given the choice today.

COMPANY PERSPECTIVES ON H-1B PROFESSIONALS AND U.S. IMMIGRATION POLICY

Immigrant-Founded Private Venture-Backed Companies

NVCA conducted a survey, with 342 respondents, to gather data on immigrant entrepreneurs at today's smaller, private venture-backed companies and to gain a wider perspective on company viewpoints on immigration.

- Looking to the future, among today's cutting edge privately held venture-backed companies, the percentage of immigrant founders remains as high, if not higher than their public counterparts. Of those responding to the NVCA survey, nearly half (47 percent) of the founders of private companies were immigrants.
- In one important indicator of the job creation abilities of immigrants, the NVCA survey found that almost two-thirds (66 percent) of the immigrant founders of privately held venture-backed companies have started or intend to start more companies in the United States.
- Immigrant-founded privately held companies in the survey held an average of 14.5 patents, with a median of four. This was slightly higher than the number of patents held by companies responding with exclusively U.S.-born founders.
- One-third of the privately held venture-backed companies responding to the NVCA survey said the lack of H-1B visas had influenced their firm's decision to place more personnel in facilities abroad. This may understate the phenomenon, since smaller companies with no overseas operations may not possess the option of placing personnel abroad.
- Nearly two-thirds of respondents (66 percent) who use H-1B visas said, "current U.S. immigration laws affecting skilled professionals harm American competitiveness."
- Among companies who use H-1B visas, nearly 40 percent said the lack of H-1B visas – caused by Congress' not raising the H-1B cap – has "negatively impacted [their] company when competing against other firms globally."
- The type of H-1B personnel hired by survey respondents is primarily technology related, with 76 percent hiring in engineering, 35 percent in IT development and programming, 17 percent for executive positions, and 13 percent in marketing and sales. Others cited scientific positions. This differs from the use of H-1B visas by all U.S. employers.

FOREIGN-BORN SCIENTISTS AND ENGINEERS

- First-time science and engineering graduate enrollment for international students declined for the third year in a row in 2004, according to the most recent report by the National Science Foundation.
- First-time enrollment for international graduate students in engineering declined by 21 percent between 2000 and 2004.
- The National Science Foundation noted, “The growth rate of the science and engineering (S&E) labor force would also be significantly reduced if the United States becomes less successful in the increasing international competition for immigrant and temporary nonimmigrant scientists and engineers.”

CONCLUSION

While the debate in Congress has focused on illegal immigration, American companies have identified significant problems with our current system for admitting skilled foreign-born professionals on temporary visas and green cards. In this regard, understanding the significant contribution of immigrant entrepreneurs and professionals to job creation and innovation should be an important element of improving America’s legal immigration system.

PROFILE

Nancy Chang, Taiwanese-Born Co-Founder of Tanox (Houston, TX)



"If you really believe in something, the best approach is to invest yourself in that idea," said Dr. Nancy Chang, co-founder of Tanox, a biotechnology company based in Houston, Texas, with almost 200 employees and nearly \$45 million in revenue last year.

Not many people take undergraduate classes from one professor who is a future Nobel

Prize winner (Yuan T. Lee) and another who would go on to become the nation's prime minister. Nancy says her good fortune to learn under these inspiring teachers gave her the courage to leave Taiwan and study at Brown in 1974, barely able to speak English. On the plane ride to America she read James Watson's book on the discovery of the double helix, which led to changing her academic focus to biology, even though she had never taken a course on the subject.

The following year, Nancy became one of the first international students to attend Harvard Medical School and later, she was told, became the medical school's first major entrepreneur. After Harvard, she was hired at Hoffman-La Roche on a work visa and later became director of the molecular biology group for Centocor. She also has taught at the Baylor College of Medicine and holds seven patents.

In 1986, she co-founded Tanox and served as CEO from 1990 to 2006. Starting Tanox was "part passion and dream and went against the textbook" by developing an asthma drug that focused on the allergy-related basis of asthma. At the time, this ran counter to the central belief in how asthma operated. The perseverance paid off when in June 2003, the Food and Drug Administration (FDA) approved Xolair, the first biotech product cleared for

treating those with asthma related to allergies. Xolair was developed under an agreement among Tanox, Inc., Genentech, Inc., and Novartis Pharma AG.

When Tanox went public in April 2000 on the NASDAQ, it raised \$244 million, which at the time was the largest biotech initial public offering.

"I came to the United States frightened and scared. But I found if you do well and if you have a dream you will find people in America willing to help and give you an opportunity. Life is very rich. I just love this country."

Dr. Nancy Chang
Co-Founder, Tanox

Currently, Tanox is developing TNX-355, an antibody for the treatment of HIV/AIDS. The company is in discussions with the FDA regarding clinical trials.

Dr. Chang, who is now Chairman of Tanox's Board of Directors, said she is passionate about AIDS, since as a young researcher she worked in one of the first laboratories to confront the disease.

"I came to the United States frightened and scared. But I found if you do well and if you have a dream you will find people in America willing to help and give you an opportunity," said Dr. Chang. "Life is very rich. I just love this country."



SECTION I: Immigrant-Founded Public and Private Venture-Backed Companies

Asked by a student what it meant to be an American, President Ronald Reagan responded: “You can go live in Japan, but you cannot become Japanese. You can go to France, but you don’t become a Frenchman . . . But anyone from any corner of the world can come to America and be an American.” Being open to legal immigration provides an opportunity for individuals to obtain a better life and to become Americans. However, research shows immigrants, particularly those who are highly skilled, also help America maintain its competitive edge, shape new industries, and create new jobs, technologies, and innovation for our nation.

IMMIGRANT-FOUNDED PUBLIC VENTURE-BACKED COMPANIES

Over the past 15 years, immigrants have started 25 percent of U.S. venture-backed companies that went public, a high percentage of the most innovative companies in America.

The current market capitalization of publicly traded immigrant-founded ventured-backed companies in the United States exceeds \$500 billion, adding significant value to the American economy.¹ This is an example of the enormous wealth-creating abilities of immigrant entrepreneurs.

Immigrant-founded venture-backed companies are concentrated in cutting edge fields: high-technology manufacturing; information technology; and life sciences. As evidence of how important immigrant entrepreneurs have been to the U.S. technology base, the study found 40 percent of U.S. publicly traded venture-backed companies

operating in high-technology manufacturing today were started by immigrants. Moreover, more than half of the employment generated by U.S. venture-backed high-tech manufacturers has come from immigrant-founded companies.

Collectively examining this slice of immigrant-created companies finds immigrant-founded venture-backed companies that have become public companies today employ an estimated 220,000 people in the United States and over 400,000 people globally.² The type of venture-backed companies started by immigrant entrepreneurs are mostly technology-related companies that typically employ fewer people than, for example, retail stores, but pay high salaries for white collar professional positions. Venture-backed retail companies started by U.S.-born entrepreneurs include such large employers as The Home Depot, Starbucks, H&R Block, and Staples.

A key lesson of the study is the importance of maintaining an open legal immigration system. Few of the immigrant entrepreneurs identified came to America ready to start a company capable of attracting venture capital. As the data, profiles, and interviews revealed, most entered the country either as children, teenagers, or graduate students, or were hired on H-1B visas to begin a first job while in their mid-twenties. These entrepreneurs first gained experience in the workforce before launching a company promising enough to attract investors and successful enough to launch an initial public offering.

The data show immigrants possess great entrepreneurial capacity, particularly in technical fields. The proportion of immigrant entrepreneurs among publicly traded venture-backed companies is particularly impressive when compared to the relatively small share of legal immigrants in the U.S. population. Today, legal immigrants encompass approximately 8.7 percent of the U.S. population and represented only 6.7 percent of the population in 1990 (and only 5 percent in 1980).³

"It's a filter system: First, ambitious people come. Second, an environment for growth exists that encourages and accelerates ambition, which doesn't exist in other parts of the world."

Ronnie Vasishta
CEO, eASIC

To conduct the research, we examined the Thomson Financial database of all publicly traded venture-backed companies founded since 1970. After eliminating those that had merged, been acquired, or were otherwise no longer publicly

traded (or in business), we used public records, Internet research, e-mails, and phone calls to identify the nativity of the founders for the nearly 900 remaining companies.⁴ The companies on our final list of immigrant-founded U.S. publicly traded venture-backed companies had at least one immigrant founder.

The high rate of immigrant entrepreneurship in venture-backed companies can be explained by a number of factors. First, immigrants to the United States are generally "self-selected," meaning they are often the most enterprising members of the society from which they came. In an historical look at immigration, economist Thomas Sowell concluded that immigrants bring "some advantage in terms of human capital, that migration is a selective process, bringing the more ambitious or venturesome or able elements of a population."⁵

Asa Kalavade, co-founder of Tatara Systems, came to the United States 17 years ago as an international student from India. She said back then nearly all the top students in her undergraduate classes came to America. "A lot of these people came here for the opportunity," said Kalavade. She is concerned that may change with more options now available in other countries and current U.S. restrictions on hiring skilled foreign nationals, such as the low quotas on H-1B visas and employment-based green cards.

"Once you're in America, the environment, particularly with the venture capital community and network that exists in Silicon Valley, encourages ambitious people," says U.K.-born Ronnie Vasishta, CEO of eASIC. "It's a filter system: First, ambitious people come. Second, an environment for growth exists that encourages and accelerates ambition, which doesn't exist in other parts of the world."

Two important pieces of legislation opened the door of opportunity to immigrants. Recall that not until the passage of the 1965 Immigration Act did Congress lift restrictions on immigrants from Asia. Moreover, the 1990 Immigration Act increased the number of legal immigrants, including employment-based immigrants, admitted to the United States. These two pieces of legislation encouraged international students, particularly from China and India, along with others seeking increased opportunity, to come to America.

PERCENTAGE OF IMMIGRANT-FOUNDED VENTURE-BACKED PUBLIC COMPANIES BY YEAR ESTABLISHED

YEAR FOUNDED	IMMIGRANT-FOUNDED	NATIVE-FOUNDED	TOTAL	IMMIGRANT-FOUNDED % OF ALL U.S. VENTURE-BACKED PUBLIC COMPANIES
Prior to 1980	8	115	123	7%
1980-1989	48	198	246	20%
1990-2005	88	268	356	25%

Source: Analysis of publicly traded companies from Thomson Financial database

The research shows that the closer one gets to the present, the higher the proportion of immigrant-founded venture-backed companies. Reflecting the impact of prior immigration restrictions, particularly on immigrants from Asia, we found relatively few immigrant-founded venture-backed companies in the 1970s. We identified only eight publicly traded venture-backed companies founded by immigrants prior to 1980 (two prior to 1970). And between 1990 and 2005, immigrants founded 88 companies, representing 25 percent of all venture-backed publicly traded companies in the United States started in the past 15 years. Since 1980, immigrants have started 23 percent of U.S. publicly traded venture-backed companies.

“Imagine innovation in America without Andy Grove, without Jerry Yang, without Sergey Brin — Hungarian, Chinese, and Russian. These immigrants have contributed enormously to innovation and our well-being.”

John Doerr
Kleiner Perkins Caufield & Byers

Immigrant-Founded Companies by Employment

Immigrant-founded publicly traded U.S. venture-backed companies employed an estimated 220,000 U.S. workers in 2005 and more than 400,000 people worldwide.

Smaller dynamic venture-backed companies established by immigrants that employ 500 or fewer people comprise more than half of the total employment generated by immigrant-founded companies in publicly traded venture-backed companies. Overall, the data show U.S. publicly traded venture-backed companies established by immigrants generated more than \$130 billion in revenue in 2005.

Intel, the largest immigrant-founded company, employs nearly 100,000 workers worldwide, with more than half of its employees located in the United States, according to its most recent 10-K filing. Hungarian-born entrepreneur Andy Grove co-founded Intel along with two American-born co-founders, Robert Noyce and Gordon Moore. Other large companies founded or co-founded by immigrants include Solectron, Sanmina-SCI, Sun Microsystems, eBay, Yahoo!, and Google. It is worth noting that the immigrant founders of eBay and Google came to America as children, and Jerry Yang, the co-founder of Yahoo!, came to America as a teenager.

**LEADING IMMIGRANT-FOUNDED VENTURE-BACKED
PUBLIC COMPANIES RANKED BY EMPLOYMENT**

COMPANY	IMMIGRANT-BORN FOUNDER OR CO-FOUNDER	COUNTRY OF BIRTH	EMPLOYEES (FY 2005)	INDUSTRY
Intel Corporation	Andy Grove	Hungary	99,900	Semiconductor and Related Device Manufacturing
Solectron Corporation	Winston Chen	Taiwan	53,000	Bare Printed Circuit Board Manufacturing
Sanmina-SCI Corporation	Jure Sola Milan Mandaric	Bosnia Croatia	48,621	Bare Printed Circuit Board Manufacturing
Sun Microsystems, Inc.	Andreas Bechtolsheim Vinod Khosla	Germany India	31,000	Electronic Computer Manufacturing
eBay Inc.	Pierre Omidyar	France	12,600	Electronic Auctions
Yahoo! Inc.	Jerry Yang	Taiwan	9,800	Web Search Portals
Life Time Fitness, Inc.	Bahram Akradi	Iran	9,500	Fitness and Recreational Sports Centers
Tetra Tech, Inc.	Henri Hodara	France	7,200	Engineering Services
UTStarcom, Inc.	Ying Wu	China	6,300	Telephone Apparatus Manufacturing
Google Inc.	Sergey Brin	Russia	5,680	Web Search Portals
Kanbay International, Inc.	Raymond J. Spencer Dileep Nath John Patterson	Australia India Canada	5,242	Computer Systems Design Services
Cadence Design Systems, Inc.	Alberto Sangiovanni-Vincentelli	Italy	5,000	Software Publishers
Juniper Networks, Inc.	Pradeep Sindhu	India	4,145	Telephone Apparatus Manufacturing
Watson Pharmaceuticals, Inc.	Allen Chao	Taiwan	3,844	Pharmaceutical Preparation Manufacturing
Parametric Technology Corporation	Samuel Geisberg	Russia	3,751	Software Publishers
Pediatrix Medical Group, Inc.	Roger Medel	Cuba	3,013	Offices of Physicians (except Mental Health Specialists)
NVIDIA Corporation	Jen-Hsun Huang	Taiwan	2,737	Semiconductor and Related Device Manufacturing
Salton, Inc.	Lewis Salton	Poland	2,466	Electric Housewares and Household Fan Manufacturing
Lam Research Corporation	David Lam	China	2,200	Semiconductor Machinery Manufacturing
WebEx Communications, Inc.	Subrah S. Iyar	India	2,091	Software Publishers

*Employment reflects 2005 worldwide total
Sources: Company 10-K filings and Hoover's*

Immigrant-Founded Public Companies by Industry

Immigrant-founded venture-backed public companies are concentrated in key technology and scientific industries, with more than 85 percent clustered in three large industry sectors: high-tech manufacturing; information technology; and life sciences.⁶

Of the more than 400,000 jobs created by immigrant-founded ventured-backed public companies in 2005, 70 percent were in the high-technology manufacturing sector, accounting for more than 280,000 jobs. Nearly 50,000 jobs were in information technology, particularly in the software publishing industry, and almost 19,000 jobs were in life sciences companies.

Immigrant-Founded Companies by Place of Birth

India, with 32 companies (22 percent), ranks first as the country of origin for immigrant-founded venture-backed public companies, followed by Israel with 17 companies (12 percent), and Taiwan with 16 companies (11 percent). Canada, France, the United Kingdom, Germany, Australia, China, Iran, and two dozen other countries are also represented.

Immigrant company founders who came to America as adults often possessed strong backgrounds in fields such as science, engineering, mathematics, and life sciences. The data show many were educated at the top universities in their home country, such as the Indian Institute of Technology (IIT), but also graduated from America's leading universities, including the Massachusetts Institute of Technology (MIT), Stanford, Harvard, and Cornell.⁷

IMMIGRANT-FOUNDED VENTURE-BACKED U.S. PUBLIC COMPANIES BY INDUSTRY

INDUSTRY	NUMBER OF COMPANIES	EMPLOYMENT	% OF IMMIGRANT-FOUNDED FIRMS BY INDUSTRY
High-Tech Manufacturing	60	282,442	42%
Information Technology	34	48,794	24%
Life Sciences	30	18,660	21%
Professional, Scientific, and Technical Services	6	17,317	4%
Other Services	5	14,919	3%
Other Manufacturing	5	13,177	3%
Finance and Insurance	2	8,872	1%
E-Commerce	2	234	1%
Total	144	404,415	100%

*Employment reflects 2005 worldwide total
Sources: Company 10-K filings and Hoover's*

When aggregating the statistics by region, immigrants from Europe represented more than a quarter of all venture-backed companies founded by immigrants. European-born founders of venture-backed companies founded or co-founded 41 of the 144 immigrant-founded companies, or 30 percent of all venture-backed public companies founded by an immigrant.⁸ Some of the nation's most well-known companies such as eBay, Intel, Google, and Sun Microsystems are among the companies founded by European immigrants. Total employment of venture-backed public companies founded by immigrants from Europe reached more than 245,000 in 2005, representing more than 60 percent of the worldwide employment of this group of immigrant-founded companies.

Immigrant-Founded Companies by State

Immigrant-founded companies are located throughout the United States. However, immigrant-founded venture-backed publicly traded companies' headquarters are located primarily in five states – California, Massachusetts, New Jersey, Washington, and Texas.

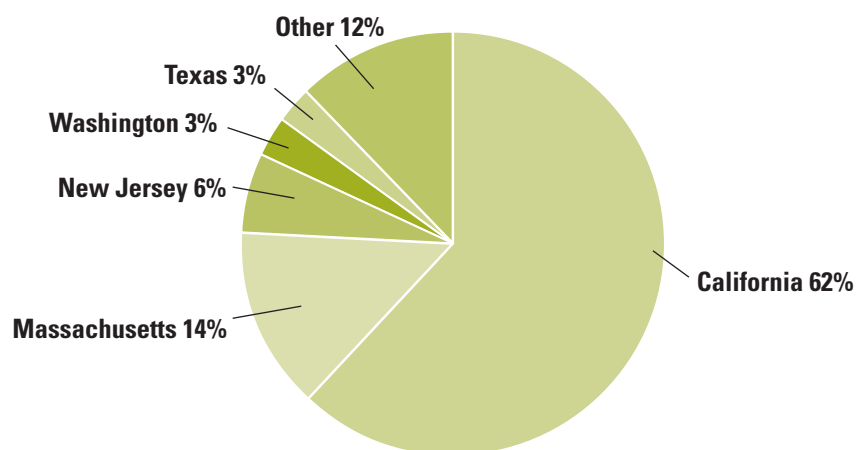
More than 60 percent of the immigrant-founded public venture-backed companies' headquarters are located in California. Over half the companies founded by Indian-born entrepreneurs in the analysis located their headquarters in California.

LEADING COUNTRIES OF BIRTH FOR IMMIGRANT-FOUNDED VENTURE-BACKED U.S. PUBLIC COMPANIES

COUNTRY OF BIRTH	NUMBER OF COMPANIES
India	32
Israel	17
Taiwan	16
Canada	7
France	7
United Kingdom	7
Germany	6
Australia	5
China	5
Iran	5
Italy	4
Korea	3
Switzerland	3
Belgium	2
Hungary	2
All Other Countries	23

Sources: Company 10-K filings and Hoover's

IMMIGRANT-FOUNDED VENTURE-BACKED FIRMS BY STATE



Source: Analysis of publicly traded companies from Thomson Financial database

IMMIGRANT-FOUNDED PRIVATE VENTURE-BACKED COMPANIES

Immigrant entrepreneurs in public companies tell only part of this story of success and innovation in America.

Since information on privately held venture-backed companies is not as readily available as for public companies, we conducted a survey through NVCA to gather data on immigrant entrepreneurs at today's private venture-backed companies. Many of these companies will become the successful publicly traded companies of tomorrow.

We asked NVCA to send surveys on immigrant entrepreneurs and H-1B visas to its venture capital member firms and requested these firms to forward the surveys to privately held companies in which they currently invest. In addition, we sent the survey to companies in the American Entrepreneurs for Economic Growth database. Altogether, NVCA received 342 responses.⁹

There are indications in the survey that the current crop of small, privately held venture-backed companies may produce an even

higher proportion of immigrant-founded companies that go public in the future. Nearly half (47 percent) of the venture-backed company respondents were founded by one or more foreign-born individuals. This compares with 25 percent of venture-backed companies that went public between 1990 and 2005.

The high total among survey respondents can be explained by a number of factors. First, the companies surveyed tended to be newer companies than those in the venture-backed public company analysis. As we saw with the public companies, more recent companies are more likely to be started by an immigrant founder than older businesses. It is also possible, as alluded to earlier, that companies with foreign-born founders were more inclined to respond to the survey. However, venture capitalists told NVCA they were not surprised by the high percentage of immigrant-founded companies.

Illustrating the importance of international students, the survey found nearly half (46 percent) of the immigrant founders arrived as students. India (28 percent) was the most common place of birth for foreign-born founders in the survey, followed

by the United Kingdom (11 percent), China (5 percent), Iran (4 percent), and France (4 percent), with others spread throughout more than two dozen countries. This is similar to the results among publicly traded venture-backed companies.

Of the immigrant founders responding, more than half (57 percent) have headquartered their companies in California, followed distantly by Massachusetts (10 percent) and New York (5 percent). The high prevalence in California is likely correlated to the industries in which these founders operate. Twenty-nine percent of the companies were in the software sector, followed by the semiconductor and biotechnology sectors, at 22 percent and 11 percent, respectively.

In an important indicator of the job creation abilities of these individuals, the survey found nearly two-thirds (66 percent) of the immigrant founders have started or intend to start more companies in the United States.

Over half of the immigrant founders started their company within 12 years of entering the United States, with 19 percent doing so within 5 years. Sixty-nine percent have become U.S. citizens. Approximately half of the foreign-born founders in the survey have lived in the United States more than 20 years and nearly a quarter have been here 13 to 20 years.

Immigrant-founded companies in the survey held an average of 14.5 patents, with a median of four. This was slightly higher than the number of patents held by companies responding with exclusively U.S.-born founders.

Nearly all the immigrant founders (95 percent) would still start their companies in the United States if given the choice today. This confirms the results of a recent survey released by the National Venture Capital Association and Deloitte & Touche, which found the United States still boasts the world's best climate for venture capital investment and start-up companies.¹⁰ However, one respondent said, "This is a borderline 'yes'; starting a two-nation company (United States and India) is probably better." Citing immigration restrictions, other respondents said they would simultaneously start operations both inside and outside the United States to gain faster access to talent.

In response to the question, "Which statement best describes your perception of U.S. immigration policy for entrepreneurs?" more than two-thirds agreed with the statement, "It has become more difficult to enter the United States and start a company than when I started my company."

Immigrant-founded venture-backed companies responding to the survey had an average of 123 employees, with a median of 30 employees. Over 40 percent had annual revenues of less than \$1 million, but a third had between \$1 million and \$10 million in annual revenues, 20 percent had between \$10 million and \$100 million, and 4 percent reported annual revenues of more than \$100 million.

PROFILE

Said Hilal, Lebanese-Born Founder of Applied Medical Resources (Rancho Santa Margarita, CA)

Said Hilal came to America from Lebanon as a teenager to study at California State, Long Beach, where he received a B.S. and M.S. in mechanical engineering, and later an M.B.A. from the University of Southern California. With school ending and the situation in Lebanon worsening, Said chose to stay in America. Most importantly, while in college he married a native Californian. "I was deeply in love with both my new wife and my new country."

He started out working for a company developing scuba diving and commercial diving equipment. With the late Jacques Cousteau as chairman and the North Sea opening for exploration, research and development were booming and exciting, recalled Said. But the business took a downturn, particularly after the release of "Jaws," the blockbuster film. "People were afraid to go in the water," according to Said.

Said considers himself a "reluctant" entrepreneur. He decided to start a new company only after Baxter bought Edwards Laboratory, a place where he had risen quickly through the ranks. With his mentors gone or leaving, and the culture changing, Said decided it was time to move on.

In 1988, he secured venture capital from Institutional Venture Partners (and later 3i and Security Pacific/Bank of America) to start Applied Vascular and Applied Urology, the predecessors to Applied Medical Resources. Said believes he gained funding more for the concept of his new company than from the more traditional approach of having developed a specific technology that needed financial backing. The new company's model was to listen closely to the customer and produce medical devices that married improved clinical outcomes with better value. Within three years the company had turned a profit.

The privately held Applied Medical Resources, based in Rancho Santa Margarita, California, must contend with being a relatively small company in a field dominated by large players. In 2002, *Inc.* Magazine named the company one of the top 50 innovative companies in America with revenues below \$100 million.

Applied Medical Resources has 600 pending or issued patents spanning 25 technologies and over 700 products for cardiac and vascular surgery, general surgery, urology, colorectal surgery, and OB/GYN surgery. The company employs 1,000 people, including 400 employees added in the past year, and continues to manufacture all of its devices in Orange County, California. There are plans to take the company public.

"Lebanon was a wonderful country for a curious kid and its educational system prepared me well for my college years. Unfortunately, the whole region is still tied to past and present conflicts," said Mr. Hilal. "We're very blessed in the United States to be a people focused on the future."

"We're very blessed in the United States to be a people focused on the future."

Said Hilal
Founder, Applied Medical Resources



SECTION II: Company Perspectives on H-1B Visas and U.S. Immigration Policy

As part of the NVCA survey to gain information on immigrant entrepreneurs, we surveyed privately held venture-backed companies to seek their use and opinions of H-1B visas and U.S. immigration policy.

USE OF H-1B VISAS

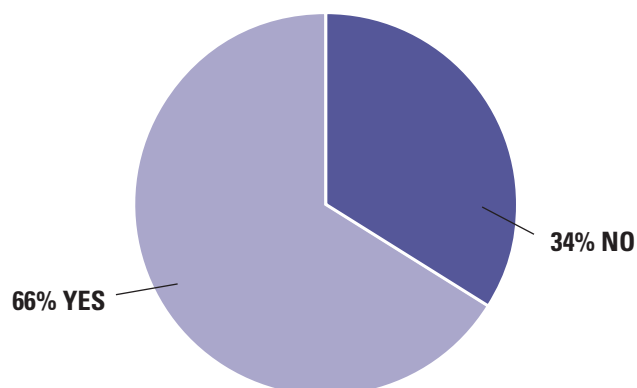
H-1B visas are temporary visas used to hire skilled foreign nationals for up to six years. The visas are important for U.S. employers, since it is not practical to hire someone directly on a green card (permanent residence), given the wait of five years or more in the skilled green card categories due to inadequate legal immigration quotas. Additionally, Congress has not allocated a sufficient number of H-1B visas.

“In 9 of the past 11 years, employers have used up the entire quota of H-1B visas prior to the end of the fiscal year. In the past three years, the quota was used up prior to the start of the fiscal year.”

In 9 of the past 11 years, employers have used up the entire quota of H-1B visas prior to the end of the fiscal year. In the past three years, the quota was used up prior to the start of the fiscal year. Congress placed no numerical limitation on the number of skilled foreign nationals employers could hire in H-1 temporary status prior to 1990. In the Immigration Act of 1990, Congress selected an annual cap of 65,000 and established new requirements in a new H-1B category. Even the recently added 20,000 exemptions from the H-1B cap for those who graduated with an advanced degree from a U.S. university were exhausted before the start of fiscal year 2007.¹¹

Of the survey respondents, 65 percent were users of H-1B visas. Almost two-thirds of respondents (66 percent) who use H-1B visas said, “Current U.S. immigration laws on skilled professionals harm American competitiveness.” Dozens of respondents declared that current U.S. government-imposed restrictive policies on high skill immigration are self-defeating and harmful, resulting in less entrepreneurship, innovation, and job creation in the United States. “Brains are the ultimate competitive weapon,” said one

**DO THE CURRENT U.S. IMMIGRANT LAWS ON
SKILLED PROFESSIONALS HARM AMERICAN COMPETITIVENESS?**



Source: NVCA Survey

respondent. "The U.S. government should enable U.S. companies to attract the best brains from around the world if we are to be the most competitive in an increasingly competitive environment." Another explained how "the laws stifle entrepreneurship... skilled professionals are also high income earners and job-generators, ultimately greatly contributing to the economic well-being of the country."

Thirty-seven percent of companies said the lack of H-1B visas had delayed projects at their corporations.

Among companies who used H-1B visas, nearly 40 percent said the lack of H-1B visas has negatively impacted their companies when competing against other firms globally. This is because Congress has not increased the annual limit in recent years.

The volunteered responses of survey respondents often were scathing. One company said, "We have been severely limited in attracting talent we have identified overseas or here on campuses around the country. The delays cascade to product launches, automation, product availability, and capacity. In certain situations, we hired team members who were deemed key to our expansion overseas but we could not even get them here to train them. Cross training of our own team members who are a part of our overseas operations has been hampered repeatedly."

Another typical comment, "The brightest minds worldwide are willing to neither wait nor put up with the uncertainty. They are going to other places, including Australia, Canada, and Europe." Many respondents were well-informed that current waits for green cards (permanent residence) exceed five years for many professionals, harming morale, and driving individuals to make their careers in other countries.

"Among companies who used H-1B visas, nearly 40 percent said the lack of H-1B visas has negatively impacted their companies when competing against other firms globally."

PROFILE

Patrick Lo, Chinese-Born Founder of Netgear (Santa Clara, CA)



Sometimes one must take chances to secure a better life for your family. That is a lesson Patrick Lo learned when his parents decided to escape China and Mao's Cultural Revolution in the 1960s. Separating to increase their odds of success, Patrick made it out with an aunt to Macao. However, his parents were captured and sent to a

re-education camp until Mao died in 1975.

Living with his grandparents in Hong Kong, Patrick managed to win a full scholarship, reserved for students from developing nations, to attend Brown University. To secure the \$400 needed for the plane ticket to America he held a fundraiser, which he describes as his first experience in raising capital. After paying for the cab ride, he had only \$170 to his name upon arriving in America.

He received a B.S. in electrical engineering from Brown University, but later returned to Hong Kong to seek employment. Hewlett-Packard hired him in its Asia office and eventually transferred him to Silicon Valley. He later started working for Bay Networks, which allowed him to establish Netgear as an "independent company-within-a-company, with separate budgets and personnel." Netgear's focus was computer networking for homes and small and medium-sized businesses. When Nortel purchased Bay Networks, it expressed little interest in Netgear. Patrick raised sufficient funds to purchase Netgear.

By 2003, the company had shown a sufficient enough track record of profitability that Patrick could take the company public. Today, the company, based in Santa Clara, California, employs over 300 people. One of Netgear's home networking devices, which can be plugged into any home wall socket, has been favorably reviewed in the *Wall Street Journal* and other publications.

"If I stayed in Hong Kong I would have ended up fixing radios," said Patrick Lo. "It was America's culture that encouraged me to be ambitious."

"If I stayed in Hong Kong I would have ended up fixing radios. It was America's culture that encouraged me to be ambitious."

Patrick Lo
Founder, Netgear

One-third of companies said the lack of H-1B visas had influenced their company's decision to place more personnel in facilities abroad. This may understate the phenomenon, since smaller businesses with no overseas operations do not possess the option of placing personnel abroad.

Several respondents commented on the practical impact of H-1B visas becoming unavailable for long periods of time, with one noting, "Our inability to hire foreign nationals forces outsourcing functions to other locations."

"Thirty-seven percent of companies said the lack of H-1B visas had delayed projects at their corporations."

"We would prefer to hire in the U.S., but H-1B restrictions forced us to go offshore to compete against global companies," said another respondent. "Limited access to foreign talent results in longer and more expensive product development cycles," responded one venture-backed company. Another pointed out, "Unable to secure an H-1B for our engineering (team) leader... contributed to us hiring 25 engineers outside the U.S., where the team leader resides."

Approximately two-thirds of companies responding to the survey used H-1B visas to hire skilled foreign nationals. Among the companies surveyed that use H-1B visas, U.S. workers made up the majority of their workforce in all but 17 percent of the companies.

It is clear that foreign-born individuals play key roles in the success of venture-backed companies, which often are among the fastest growing businesses in America. Fifty-seven percent of survey respondents said members of their senior management team are foreign-born, including CEOs, CFOs, CIOs, and heads of sales.

While the impression many people have that H-1B visas are used only when a "shortage" exists, in fact, companies in the survey listed other reasons as well. The primary reason cited by 64 percent of companies for hiring individuals on H-1B visas is "target hiring: identification of specific individuals." This can be explained by a simple fact: all employers seek out employees to meet specific needs, such as background in a unique technology. It's not always possible to find such people exclusively within the U.S. workforce.

The type of H-1B personnel hired by survey respondents are primarily technology-related, with 76 percent hiring in engineering, 35 percent in IT development and programming, 17 percent for executive positions, and 13 percent in marketing and sales. Others cited scientific positions. This differs from the use of H-1B visas by all U.S. employers. In fiscal year 2003, 24 percent of new H-1B petitions were for systems analyst and programming positions, 6 percent for electrical engineering, 3 percent for other computer-related occupations, and 2 percent or less in most other occupational categories, according to the most recent statistics from the Department of Homeland Security.¹²

PROFILE

Zvi Or-Bach, Israeli-Born Founder of eASIC (Santa Clara, CA)



Israeli-born Zvi Or-Bach came to America in 1981 on an H-1 visa, the precursor to the H-1B visa. After working at Honeywell for two years, he returned to Israel. His brief work experience in the United States convinced him that some day he could return and find niches in the U.S. marketplace. And that was what Zvi did.

In 1990, he started Chip Express, an 80-person company with a patented laser technology useful in producing prototypes of chips within 24 hours. Like many other immigrant entrepreneurs (see NVCA survey), Zvi went on to start another company, eASIC, based in Santa Clara, California. The privately held company, founded in 1999, uses a combination of chips and software to enable end customers, such as providers of consumer electronics, to introduce custom products into the marketplace quickly and cheaply.

The company's CEO Ronnie Vasishta, born in England, came to America to work at LSI Logic. After several years, venture capitalist Vinod Khosla of Kleiner Perkins Caulfield & Byers, a key investor in eASIC, recruited Ronnie to run eASIC. "I came to America as a single guy and it's very daunting," said Ronnie. "It's a very daunting prospect to come to a different country and start from scratch. But one thing it really does for you – it's invigorating. Because you really feel like you have no safety net." Ronnie says at some point it was inevitable he would come to America. "Do I stagnate in another part of the world or do I come here? The United States does that. The ambitious people are drawn here."

Zvi Or-Bach who holds over 30 patents, primarily in the field of semi-custom chip architectures, helped eASIC survive its start-up phase by spreading its workforce among the United States, Malaysia, and Romania. The core of the company resides in the United States but his experience and contacts from Chip Express helped establish eASIC's multinational design and production capabilities.

Zvi is concerned that current immigration policies are harming his adopted country. "It's painful to see. Because of immigration restrictions, such as on H-1B visas, we're losing many great minds," said Zvi. "Having worked in the United States for the last 20 years, it's clear that immigration is vital to the growth of the U.S. and being competitive internationally. There's no question immigration is America's secret weapon."

"Because of immigration restrictions, such as on H-1B visas, we're losing many great minds. Having worked in the United States for the last 20 years, it's clear that immigration is vital to the growth of the U.S. and being competitive internationally. There's no question immigration is America's secret weapon."

Zvi Or-Bach
Founder, eASIC



SECTION III: Foreign-Born Scientists and Engineers

While immigrant entrepreneurs are an important source of job creation and innovation in America, foreign-born scientists and engineers also play a key role in the U.S. economy. In 2005, U.S. universities awarded 55 percent of Master's degrees and 67 percent of Ph.D.s in electrical engineering to foreign nationals, according to the American Association of Engineering Societies.¹³ In electrical engineering, computer science, and other fields, foreign nationals make up one-half to two-thirds of graduate students at U.S. colleges. This begs an obvious question: Is it better to educate these individuals and send them out of the country to compete against U.S. companies or to assimilate this talent and allow them to create jobs and innovations here in America?

"The growth rate of the S&E labor force would also be significantly reduced if the United States becomes less successful in the increasing international competition for immigrant and temporary nonimmigrant scientists and engineers."

National Science Foundation

Not all is well in science and engineering in the United States. Noting that the number of scientists and engineers approaching retirement age is expected to triple, the National Science Foundation recently wrote, "If this slowdown occurs, the rapid growth in R&D [research and development] employment and spending that the United States has experienced since World War II may not be sustainable."¹⁴

The National Science Foundation noted, "The growth rate of the S&E labor force would also be significantly reduced if the United States becomes less successful in the increasing international competition for immigrant and temporary nonimmigrant scientists and engineers. Many countries are actively reducing barriers to high-skilled immigrants entering their labor markets at the same time that entry into the United States is becoming somewhat more difficult."¹⁵

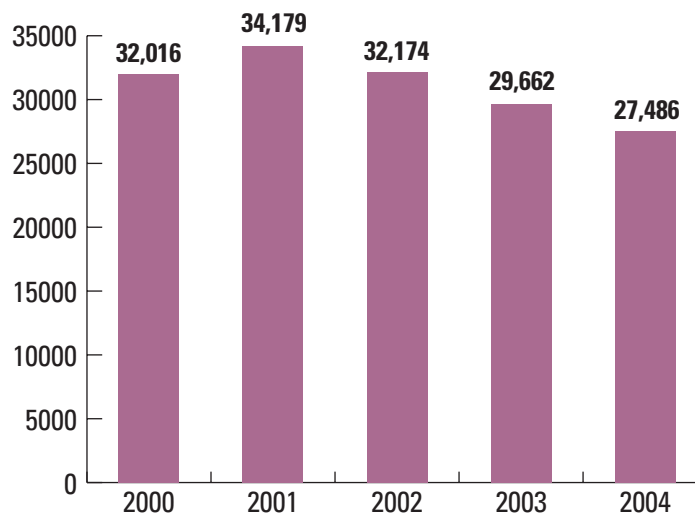
Data support the National Science Foundation's conclusion about the importance of foreign nationals to both the size and quality of the U.S. science and engineering labor force.

A review of key data on science and engineering reveals:

- Sixty-one percent of 1998 U.S. doctoral degree recipients in science and engineering with temporary visas remained in the United States in 2003, a small increase from 1996-2001, according to research by Michael Finn of the Oak Ridge Institute for Science and Education. In 2003, five-year stay rates for international students reached 70 percent in computer and electrical engineering, compared to 36 percent in economics. These stay rates imply that about 4,500 to 5,000 international students remain from each annual cohort of new Ph.D. recipients.¹⁶
- The five-year stay rate in 2003 for Chinese students receiving U.S. Ph.D.s in science and engineering was 90 percent, which was actually a small decline from 96 percent in 2001.¹⁷
- First-time science and engineering graduate enrollment for international students declined for the third year in a row in 2004, according to the National Science Foundation.¹⁸
- First-time enrollment for international graduate students in engineering declined by 21 percent between 2000 and 2004.¹⁹
- At the 2004 Intel Science Talent Search, the nation's premier science competition for top high school students, two-thirds of the finalists were the children of immigrants, according to a report by the National Foundation for American Policy. Even though new H-1B visa holders each year represent only 0.03 percent of the U.S. population, more of the Intel Science Talent Search finalists had parents who entered the country on H-1B visas than had parents born in the United States.²⁰

"Slowing of the S&E labor force growth would be a fundamental change for the U.S. economy, possibly affecting both technological change and economic growth," according to the National

**FIRST-TIME ENROLLMENT OF INTERNATIONAL GRADUATE STUDENTS
IN SCIENCE AND ENGINEERING, 2000-2004**



*These statistics represent full-time enrollment
2004 data are the most recent available
Source: National Science Foundation*

Science Foundation. “Some researchers have raised concerns that other factors may even accentuate the trend. Any sustained drop in S&E degree production would produce not only a slowing of labor force growth, but also a long-term decline in the S&E labor force.”²¹

The context of the National Science Foundation’s concerns is that U.S. immigration policy has failed to keep pace with global trends in science, engineering, and business. Today, as discussed in the

previous section, U.S. companies often must wait more than a year to hire skilled foreign nationals, while skilled immigrants wait five years or more for employment-based green cards.

**FIRST-TIME ENROLLMENT OF INTERNATIONAL GRADUATE STUDENTS
IN ENGINEERING, 2000-2004**

YEAR	ENGINEERING
2000	13,573
2001	14,617
2002	13,834
2003	12,150
2004	10,756
% change 2000-2004	-21%

*These statistics represent full-time enrollment
2004 data are the most recent available
Source: National Science Foundation*

CONCLUSION

This study illustrates the significant contribution to the U.S. economy made by immigrant entrepreneurs and foreign-born professionals, scientists, and engineers. This research, the first of its kind to examine entrepreneurship in cutting edge venture-backed companies, reveals that since 1990, immigrants have started 1 in 4 (25 percent) U.S. venture-backed public companies. This impressive proportion helps demonstrate the significant advantage the United States gains in maintaining an open legal immigration system.

The current market capitalization of publicly traded immigrant-founded venture-backed companies in the United States exceeds \$500 billion, adding significant value to the American economy. This is an example of the enormous wealth-creating abilities of immigrant entrepreneurs. Today, immigrant-founded U.S. publicly traded companies employ approximately 220,000 people in the United States and over 400,000 worldwide. Immigrants started over 40 percent of the venture-backed U.S. public companies in technology manufacturing today.

While public companies represent one aspect of the success of immigrant entrepreneurs, the coming generation can be seen in cutting edge privately held venture-backed companies, where the percentage of immigrant founders appears to be at least as high as, if not higher than, their public counterparts. In an important indicator of the job creating abilities of immigrant founders, the NVCA survey found nearly two-thirds

(66 percent) of the immigrant founders of privately held venture-backed companies have started or intend to start more companies in the United States. Immigrant-founded privately held companies in the survey held an average of 14.5 patents.

However, all is not well. These outstanding contributions from immigrant entrepreneurs and professionals are not inevitable. The United States must have laws that keep pace with the demands of global competition.

One-third of companies responding to the survey said the lack of H-1B visas had influenced their company's decision to place more personnel in facilities abroad. Almost two-thirds of respondents (66 percent) who use H-1B visas said, "Current U.S. immigration laws on skilled professionals harm American competitiveness." More than two-thirds of immigrant entrepreneurs agreed that U.S. immigration policy has made it more difficult than in the past to start a business in America.

PROFILE

Asa Kalavade, Indian-Born Co-Founder of Tata Systems (Acton, MA)



Seventeen years ago, it would be considered improbable for a young woman to found her own technology business in India. “Even when I just started studying engineering people came to my parents to talk them out of it, never mind starting my own company,” said Asa Kalavade. Asa came to America as an international student and received a

Master’s and Ph.D. in Electrical Engineering and Computer Science from the University of California at Berkeley.

While most people think of wireless networks and streaming as brand new technologies, Asa has worked on these technologies for more than 10 years. Early in her career at Bell Labs, Asa invented patent-pending technologies for wireless multimedia streaming, network interfaces, and real-time multiprocessor DSP (digital signal processing) systems. She holds multiple patents.

After serving as vice president of Technology at Savos, she founded Tata Systems along with an immigrant from China, Hong Jiang. Based in Acton, Massachusetts,

the privately held Tata Systems employs 60 people. It develops and deploys solutions for communication service providers, helping them to provide converged mobile services to their subscribers. Among Tata’s customers are Vodafone, Telus Mobility, and O2 UK.

“[In India] even when I just started studying engineering people came to my parents to talk them out of it, never mind starting my own company.”

Asa Kalavade
Co-Founder, Tata Systems

Technology and entrepreneurship run in Asa’s family. Her two siblings are both in the United States working as electrical engineers. Her Indian-born husband has started his second company, Tizor Systems, a venture-backed company that provides data security for businesses. “We’re serial entrepreneurs,” said Asa.

Among companies who use H-1B visas, nearly 40 percent said the lack of H-1B visas – caused by Congress’ not raising the H-1B cap – has “negatively impacted [their] company when competing against other firms globally.”

According to the National Science Foundation, first-time science and engineering graduate enrollment for international students declined for the third year in a row in 2004. Moreover, the National Science Foundation noted, “The growth rate of the S&E labor force would also be significantly

reduced if the United States becomes less successful in the increasing international competition for immigrant and temporary nonimmigrant scientists and engineers.”

While we have much to celebrate in the achievements of immigrant entrepreneurs and professionals, good policies and laws do not enact themselves. It is said that “Eternal vigilance is the price of liberty.” So too, it seems, vigilance is needed to establish sound policies on immigration and American competitiveness. ■

APPENDIX

SELECT IMMIGRANT-FOUNDED VENTURE-BACKED PUBLIC COMPANIES RANKED BY EMPLOYMENT

COMPANY	COMPANY DESCRIPTION	IMMIGRANT-BORN FOUNDER OR CO-FOUNDER	COUNTRY OF BIRTH	EMPLOYEES (FY 2005)	SALES (FY 2005)	YEAR FOUNDED	STATE	INDUSTRY
Intel Corporation	Intel is the world's largest semiconductor chip maker, developing advanced integrated digital technology platforms for the computing and communications industries.	Andy Grove	Hungary	99,900	\$38.8 Billion	1968	CA	Semiconductor and Related Device Manufacturing
Sollectron Corporation	Sollectron provides electronics manufacturing and supply chain services to original equipment manufacturers around the world.	Winston Chen	Taiwan	53,000	\$10.4 Billion	1977	CA	Bare Printed Circuit Board Manufacturing
Sanmina-SCI Corporation	Sanmina-SCI Corporation is a leading independent global provider of customized, integrated electronics manufacturing services.	Jure Sola Milan Mandaric	Bosnia Croatia	48,621	\$11.7 Billion	1980	CA	Bare Printed Circuit Board Manufacturing
Sun Microsystems, Inc.	Sun's business is singularly focused on providing network computing products and services.	Andreas Bechtolsheim Vinod Khosla	Germany India	31,000	\$11.1 Billion	1982	CA	Electronic Computer Manufacturing
eBay Inc.	eBay's purpose is to pioneer new communities around the world built on commerce, sustained by trust, and inspired by opportunity.	Pierre Omidyar	France	12,600	\$4.6 Billion	1995	CA	Electronic Auctions
Yahoo! Inc.	Yahoo! Inc. is a leading global Internet brand and one of the most trafficked Internet destinations worldwide.	Jerry Yang	Taiwan	9,800	\$5.3 Billion	1995	CA	Web Search Portals
Life Time Fitness, Inc.	Life Time Fitness operates distinctive and large sports and athletic, professional fitness, family recreation, and resort/spa centers.	Bahram Akradi	Iran	9,500	\$390.1 Million	1990	MN	Fitness and Recreational Sports Centers
Tetra Tech, Inc.	Tetra Tech is a leading provider of consulting, engineering, and technical services in the areas of resource management and infrastructure.	Henri Hodara	France	7,200	\$1.3 Billion	1982	CA	Engineering Services
UTStarcom, Inc.	UTStarcom designs, manufactures, and sells telecommunications infrastructure, handsets, and customer premise equipment and provides services associated with their installation, operation, and maintenance.	Ying Wu	China	6,300	\$3 Billion	1991	CA	Telephone Apparatus Manufacturing
Google Inc.	Google is a global technology leader focused on improving the ways people connect with information.	Sergey Brin	Russia	5,680	\$6.1 Billion	1998	CA	Web Search Portals
Kanbay International, Inc.	Kanbay International is a global provider of information technology services and solutions focused on the financial services industry.	Raymond J. Spencer Dileep Nath John Patterson	Australia India Canada	5,242	\$230.5 Million	1989	IL	Computer Systems Design Services
Cadence Design Systems, Inc.	Cadence Design Systems licenses electronic design automation software (EDA), sells or leases EDA hardware technology and intellectual property and provides design, and methodology services throughout the world to help manage and accelerate electronic product development processes.	Alberto Sangiovanni-Vincentelli	Italy	5,000	\$1.3 Billion	1982	CA	Software Publishers

COMPANY	COMPANY DESCRIPTION	IMMIGRANT-BORN FOUNDER OR CO-FOUNDER	COUNTRY OF BIRTH	EMPLOYEES (FY 2005)	SALES (FY 2005)	YEAR FOUNDED	STATE	INDUSTRY
Juniper Networks, Inc.	Juniper designs and sells products and services that together provide customers with secure and assured Internet Protocol networking solutions.	Pradeep Sindhu	India	4,145	\$2.1 Billion	1996	CA	Telephone Apparatus Manufacturing
Watson Pharmaceuticals, Inc.	Watson Pharmaceuticals, Inc. is engaged in the development, manufacture, marketing, sale, and distribution of brand and off-patent (generic) pharmaceutical products.	Allen Chao	Taiwan	3,844	\$1.6 Billion	1983	CA	Pharmaceutical Preparation Manufacturing
Parametric Technology Corporation	Parametric Technology Corporation develops, markets and supports product lifecycle management and enterprise content management software solutions and related services that help companies improve their processes for developing physical and information products.	Samuel Geisberg	Russia	3,751	\$720.7 Million	1985	MA	Software Publishers
Pediatrix Medical Group, Inc.	Pediatrix is the nation's largest health care services company focused on physician services for newborn, maternal-fetal, and other pediatric subspecialty care.	Roger Medel	Cuba	3,013	\$693.7 Million	1979	FL	Offices of Physicians (except Mental Health Specialists)
NVIDIA Corporation	NVIDIA Corporation is the world-wide leader in programmable graphics processor technologies. Its products enhance the end-user experience on consumer and professional computing devices.	Jen-Hsun Huang	Taiwan	2,737	\$2.4 Billion	1993	CA	Semiconductor and Related Device Manufacturing
Salton, Inc.	Salton, Inc. is a leading designer, marketer and distributor of branded, high quality small appliances, home decor and personal care products.	Lewis Salton	Poland	2,466	\$1.1 Billion	1947	IL	Electric Housewares and Household Fan Manufacturing
Lam Research Corporation	Lam Research designs, manufactures, markets, and services semiconductor processing equipment used in the fabrication of integrated circuits and is recognized as a major supplier of such equipment to the worldwide semiconductor industry.	David Lam	China	2,200	\$1.5 Billion	1980	CA	Semiconductor Machinery Manufacturing
WebEx Communications, Inc.	WebEx Communications offers several on-demand web collaboration services.	Subrah S. Iyar	India	2,091	\$308.4 Million	1995	CA	Software Publishers
Marvell Technology Group Ltd	Marvell Technology is a leading global semiconductor provider of high-performance analog, mixed-signal, digital signal processing, and embedded microprocessor integrated circuits.	Sehat Sutardja Weili Dai	Indonesia	1,917	\$1.2 Billion	1995	CA	Semiconductor and Related Device Manufacturing
TIBCO Software Inc.	TIBCO Software provides a suite of business integration, process management, and business optimization software solutions to make it a leading enabler of real-time business.	Vivek Ranadivé	India	1,505	\$445.9 Million	1996	CA	Software Publishers

APPENDIX (CONTINUED...)
SELECT IMMIGRANT-FOUNDED VENTURE-BACKED PUBLIC COMPANIES
RANKED BY EMPLOYMENT

COMPANY	COMPANY DESCRIPTION	IMMIGRANT-BORN FOUNDER OR CO-FOUNDER	COUNTRY OF BIRTH	EMPLOYEES (FY 2005)	SALES (FY 2005)	YEAR FOUNDED	STATE	INDUSTRY
Intermagnetics General Corporation	Intermagnetics has evolved into a successful developer, manufacturer, and marketer of high-field MRI magnets, radio frequency coils used with MRI systems, patient monitors, and other diagnostic subsystems and components.	Carl H. Rosner	Germany	1,070	\$264.8 Million	1971	NY	All Other Industrial Machinery Manufacturing
QLogic Corp.	QLogic Corp. designs and develops storage network infrastructure components sold to original equipment manufacturers and distributors.	H.K. Desai	India	847	\$571.9 Million	1992	CA	Computer Storage Device Manufacturing
Avanex Corporation	Avanex Corp is a global provider of cost-effective, high-performance photonic solutions that enable optical communications networks to achieve next-generation performance.	Xiaofan (Simon) Cao	China	792	\$160.7 Million	1997	CA	Semiconductor and Related Device Manufacturing
Interwoven, Inc.	Interwoven, Inc. provides enterprise content management software and services that enable businesses to create, review, manage, distribute, and archive critical business content.	Peng T. Ong	Singapore	744	\$175 Million	1995	CA	Software Publishers
FormFactor, Inc.	FormFactor designs, develops, manufactures, sells, and supports precision, high performance advanced semiconductor wafer probe cards.	Igor Y. Khandros	Ukraine	653	\$237.5 Million	1993	CA	Semiconductor Machinery Manufacturing
InfoSpace, Inc.	InfoSpace, Inc. is a provider and publisher of mobile content, products, and services that enhance the wireless experience, assisting consumers with finding information, personalization and entertainment on the mobile phone.	Naveen Jain	India	620	\$340 Million	1996	WA	Web Search Portals
Cirrus Logic, Inc.	Cirrus Logic, Inc. develops high-precision, analog, and mixed-signal integrated circuits for a broad range of consumer and industrial markets.	Suhas Patil	India	603	\$194.9 Million	1984	TX	Semiconductor and Related Device Manufacturing
Zones, Inc.	Zones, Inc. is a single-source direct marketing reseller of name-brand information technology products to the small- to medium-sized business market, large, and public sector accounts.	Firoz H. Lalji	Uganda	577	\$566.5 Million	1988	WA	Mail-Order Houses
SonicWALL, Inc.	SonicWALL designs, develops, manufactures, and sells integrated network security, mobility, and productivity solutions for small to medium sized networks used in enterprises, e-commerce, education, healthcare, retail point-of-sale, and government markets.	Sreekanth Ravi	India	404	\$135.3 Million	1991	CA	Other Computer Peripheral Equipment Manufacturing

COMPANY	COMPANY DESCRIPTION	IMMIGRANT-BORN FOUNDER OR CO-FOUNDER	COUNTRY OF BIRTH	EMPLOYEES (FY 2005)	SALES (FY 2005)	YEAR FOUNDED	STATE	INDUSTRY
Saba Software, Inc.	Saba Software is a leading provider of human capital management solutions, which are designed to increase organizational performance through the implementation of a management system for aligning goals, developing and motivating people, and measuring results.	Bobby Yazdani	Iran	334	\$42.2 Million	1997	CA	Software Publishers
Art Technology Group, Inc.	Art Technology Group develops and markets an integrated suite of Internet commerce, service and marketing solutions, as well as related services, including support and maintenance, education, application hosting, and professional services.	Jeet Singh	India	309	\$90.7 Million	1991	MA	Software Publishers
NetGear, Inc.	NetGear designs, develops, and markets networking products for home users and small businesses.	Patrick Lo	China	307	\$449.6 Million	1996	CA	Other Communications Equipment Manufacturing
j2 Global Communications, Inc.	j2 Global Communications provides outsourced, value-added messaging, and communications services to individuals and businesses throughout the world.	Jaye Muller	Germany	288	\$143.9 Million	1995	CA	Other Telecommunications
Centillum Communications Inc.	Centillum Communications, Inc. designs, develops, and supplies highly-integrated programmable system-on-a-chip solutions that enable high-speed broadband access.	Faraj Aalaei	Iran	286	\$76.1 Million	1997	CA	Semiconductor and Related Device Manufacturing
PortalPlayer, Inc.	PortalPlayer is a fabless semiconductor company that designs, develops, and markets comprehensive platform solutions for manufacturers of feature-rich personal media players and notebook computers with secondary displays.	Sanjeev Kumar	India	284	\$225.2 Million	1999	CA	Semiconductor and Related Device Manufacturing
Sycamore Networks, Inc.	Sycamore develops and markets optical networking products for telecommunications service providers worldwide.	Gururaj "Desh" Deshpande	India	276	\$65.4 Million	1998	MA	Telephone Apparatus Manufacturing
IntraLase Corporation	IntraLase Corp. designs, develops, and manufactures an ultra-fast laser that is revolutionizing refractive and corneal surgery by creating safe and more precise corneal incisions.	Tibor Juhasz	Hungary	267	\$94.4 Million	1997	CA	Electromedical and Electrotherapeutic Apparatus Manufacturing
Aspect Medical Systems, Inc.	Aspect Medical Systems develops, manufactures, and markets an anesthesia monitoring system.	Nassib G. Chamoun	Lebanon	258	\$77 Million	1987	MA	Surgical and Medical Instrument Manufacturing
NetManage, Inc.	NetManage develops, markets, and sells software and service solutions that allow customers to access and leverage their considerable investment in host and non-host based business applications, processes, and data.	Zvi Alon	Israel	204	\$43.4 Million	1990	CA	Software Publishers

APPENDIX (CONTINUED...)
SELECT IMMIGRANT-FOUNDED VENTURE-BACKED PUBLIC COMPANIES
RANKED BY EMPLOYMENT

COMPANY	COMPANY DESCRIPTION	IMMIGRANT-BORN FOUNDER OR CO-FOUNDER	COUNTRY OF BIRTH	EMPLOYEES (FY 2005)	SALES (FY 2005)	YEAR FOUNDED	STATE	INDUSTRY
TranSwitch Corporation	TranSwitch Corporation designs, develops, and markets highly integrated semiconductor devices, also referred to as very large scale integration (VLSI) devices, that provide core functionality in voice, data, and video communications network equipment deployed in the global communications network infrastructure.	Santanu Das	India	198	\$32.9 Million	1988	CT	Semiconductor and Related Device Manufacturing
Tanox, Inc.	Tanox discovers and develops therapeutic monoclonal antibodies to address significant unmet medical needs in the areas of immune-mediated diseases, infectious disease, inflammation and cancer. Its products are genetically engineered antibodies that target specific molecules or antigens.	Nancy Chang	Taiwan	182	\$44.7 Million	1986	TX	Pharmaceutical Preparation Manufacturing
BroadVision, Inc.	BroadVision develops, markets, and supports a suite of personalized self-service web applications that enable organizations to unify their e-business infrastructure and conduct both interactions and transactions with employees, partners, and customers.	Pehong Chen	Taiwan	181	\$60.1 Million	1993	CA	Software Publishers
Novatel Wireless Inc.	Novatel Wireless is a provider of wireless broadband access solutions for the worldwide mobile communications market.	Horst J. Pudwill	Germany	172	\$161.7 Million	1996	CA	Other Communications Equipment Manufacturing
QuickLogic Corporation	QuickLogic Corporation operates in a single industry segment where it designs and sells field programmable gate arrays, Embedded Standard Products, associated design software, and programming hardware.	H.T. Chua	Malaysia	146	\$48.3 Million	1988	CA	Semiconductor and Related Device Manufacturing
NeoMagic Corporation	NeoMagic delivers semiconductor chips and software that provide solutions to enable new multimedia applications for hand-held devices.	Kamran Elahian	Iran	117	\$2.5 Million	1993	CA	Semiconductor and Related Device Manufacturing
Genelabs Technologies, Inc.	Genelabs Technologies is a biopharmaceutical company engaged in the discovery and development of pharmaceutical products to improve human health.	Frank Kung	Taiwan	66	\$6.8 Million	1983	CA	Pharmaceutical Preparation Manufacturing
Cardica, Inc.	Cardica makes products, including the C-Port and PAS-Port systems, that are used in coronary artery bypass surgery.	Bernard A. Hausen	Germany	37	\$2.1 Million	1997	CA	Surgical and Medical Instrument Manufacturing
VCampus Corporation	VCampus Corporation is a provider of comprehensive outsourced e-Learning services.	Narasimhan Kannan	India	31	\$4.6 Million	1985	VA	Computer Training

*Employment reflects 2005 worldwide total
Sources: Company 10-K filings and Hoover's*

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NATIONAL VENTURE CAPITAL ASSOCIATION

The National Venture Capital Association represents approximately 480 venture capital and private equity firms. NVCA's mission is to foster greater understanding of the importance of venture capital to the U.S. economy, and support entrepreneurial activity and innovation. According to a 2004 Global Insight study, venture-backed companies accounted for 10.1 million jobs and \$1.8 trillion in revenue in the United States in 2003. NVCA represents the public policy interests of the venture capital community, strives to maintain high professional standards, provides reliable industry data, sponsors professional development, and facilitates interaction among its members. For more information about NVCA, please visit www.nvca.org.

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ENDNOTES

- 1 The current market capitalization of publicly traded immigrant-founded venture-backed companies is based on data collected on October 6, 2006.
- 2 The U.S.-based employment total is an estimate based on the best available public data. For one-third of the immigrant-founded venture-backed firms we were able to identify U.S./North American employment totals from 10-K filings or other public sources. Where we could not identify U.S.-based employment we reduced the worldwide employment total by one-third to reflect employment at each firm's overseas operations.
- 3 U.S. Census Bureau, Pew Hispanic Center, Department of Homeland Security. The percentage of legal immigrants (both lawful permanent residents and naturalized U.S. citizens) in the U.S. population (the latest figures available are 2005) are derived for 2005, 1990, and 1980 by taking U.S. Census figures on the total U.S. population and number of foreign-born and subtracting the estimated number of undocumented immigrants for each year and then determining the percentage of legal immigrants among the U.S. population.
- 4 Of the 890 remaining companies, we eliminated 160 companies for which we could not identify the founder's place of birth and conducted additional research on employment, revenue, and other information for the remaining 730 companies using Securities and Exchange Commission (SEC) reports (annual 10-K filings), Hoover's company database, and company annual reports.
- 5 Thomas Sowell, *Ethnic America: A History*, Basic Books, 1981, p. 283.
- 6 We use the term information technology, although it is listed under simply "Information" in the U.S. government's North American Industry Classification System (NAICS). For the industry groupings, using the NAICS codes, *Life Sciences* includes: 334516 Analytical Laboratory Instrument Manufacturing; 325414 Biological Product (except Diagnostic) Manufacturing; 621991 Blood and Organ Banks; 621512 Diagnostic Imaging Centers; 334510 Electromedical and Electrotherapeutic Apparatus Manufacturing; 325413 In-Vitro Diagnostic Substance Manufacturing; 334517 Irradiation Apparatus Manufacturing; 621111 Offices of Physicians (except Mental Health Specialists); 32541 Pharmaceutical and Medicine Manufacturing; 325412 Pharmaceutical Preparation Manufacturing; 541710 Research and Development in the Physical, Engineering, and Life Sciences; 339112 Surgical and Medical Instrument Manufacturing; and, 339113 Surgical Appliance and Supplies Manufacturing. *Information* includes: 511210 Software Publishers; 518112 Web Search Portals; 51721 Wireless Telecommunications Carriers (except Satellite); 517110 Wired Telecommunications Carriers; 517212 Cellular and Other Wireless Telecommunications; and, 517910 Other Telecommunications. *High-Tech Manufacturing* includes: 334210 Telephone Apparatus Manufacturing; 334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; 334290 Other Communications Equipment Manufacturing; 333295 Semiconductor Machinery Manufacturing; 333298 All Other Industrial Machinery Manufacturing; 334412 Bare Printed Circuit Board Manufacturing; 334413 Semiconductor and Related Device Manufacturing; 334416 Electronic Coil, Transformer and Other Inductor Manufacturing; 334419 Other Electronic Component Manufacturing; 33411 Computer and Peripheral Equipment Manufacturing; 334111 Electronic Computer Manufacturing; 334112 Computer Storage Device Manufacturing; and, 334119 Other Computer Peripheral Equipment Manufacturing.
- 7 An interesting finding in the analysis was that, on average, the time between the founding of the company and the IPO date is shorter for immigrant-founded companies at 6.8 years, compared to 9.3 years for those companies founded by U.S.-born entrepreneurs. The median for immigrant-founded companies is five years, compared to a median of six years for U.S.-born founded companies.
- 8 European-born immigrants are from Belgium, Bosnia, Croatia, France, Germany, Hungary, Italy, Netherlands, Poland, Russia, Switzerland, Turkey, Ukraine, and the United Kingdom.

- 9 The respondents were not randomly selected, so it is possible that some response bias could have entered into the results, meaning non-respondents to the survey could hold different opinions or characteristics from those responding to the survey. The survey was conducted between June 16, 2006 and July 12, 2006.
- 10 National Venture Capital Association and Deloitte & Touche, 2006.
- 11 Data compiled by the National Foundation for American Policy based on statistics from the U.S. Department of Homeland Security, Office of Immigration Statistics.
- 12 *Characteristics of Specialty Occupational Workers (H-1B): Fiscal Year 2003*, Department of Homeland Security, November 2004.
- 13 American Association of Engineering Societies.
- 14 *Science and Engineering Indicators 2006*, Volume 1, National Science Board, National Science Foundation, 2006, p. 3-39.
- 15 Ibid., p. 3-39.
- 16 *Science and Engineering Indicators 2006*, p. 3-38.
- 17 Ibid.
- 18 National Science Foundation, "Full-Time S&E Graduate Enrollment of Foreign Students Drops for the Third Straight Year," InfoBrief, July 2006
- 19 Ibid.
- 20 Stuart Anderson, "The Multiplier Effect," International Educator, Summer 2004. Available at www.nfap.com.
- 21 *Science and Engineering Indicators 2006*, p. 3-39.1.

