Economists agree that entrepreneurs play a central role in a market economy. "The entrepreneur and entrepreneurial activity not only spur society to continually become aware of better ways of utilizing existing resources; it is entrepreneurial alertness that generates and harnesses new technological knowledge, and discovers entirely new bodies of resources that had hitherto been overlooked," noted economist Israel M. Kirzner. Is there a set of policies that would increase entrepreneurship in the United States? In addition to the obvious policies economists recommend—maintaining the rule of law, secure property rights, and reasonable tax policies—there is another policy prescription that would add to the base of entrepreneurs in the United States: liberalized rules on immigrants and international students.

Since 1990, 25 percent of publicly traded companies started with venture capital had one or more immigrant founders based on research reported in American Made: Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness. These companies represented a market capitalization (stock market value) of more than $500 billion. While immigrant founders come from across the globe, the most common countries of origin are India, China, Israel, and Taiwan. The study also found that immigrant founders are responsible for building a high percentage of most innovative companies in the United States, with 87 percent operating in sectors such as high-tech manufacturing, information technology, and life sciences. These companies are headquartered across the country but they are concentrated in California, Massachusetts, New Jersey, Washington, and Texas.

The National Venture Capital Association (NVCA) commissioned this study, which was spurred by anecdotal information the association received from its venture capital firm members about the prevalence of immigrants in startup companies. "Immigrant entrepreneurs have contributed significantly to our economy and our global leadership in innovation. It’s time that we recognize their achievements," asserted Mark Heesen, president of the National Venture Capital Association.

International Students Turned Entrepreneurs

Part of the research for the NVCA report surveyed immigrant entrepreneurs in privately held venture-backed companies. The survey found 46 percent of the immigrant founders had come to the United States as international students, a previously unrecognized benefit of admitting international students to the United States. This raises a question: Can universities teach entrepreneurship? The answer is that universities can provide individuals with the tools and the network to help them succeed in business.

"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

From International Students to Entrepreneurs

Immigrants who were once international students demonstrate the need for an open immigration policy that benefits the U.S. economy
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 the United States 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 at-
tend Harvard Medical School and later, she
became the medical school's first major en-
trepreneur. 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. Start-
ing Tanox was "part passion and dream and
went against the textbook" by developing an
asthma drug that focused on the allergy-re-
lated 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 Administra-
tion (FDA) approved Xolair, the first biotech
product cleared for treating those with asth-
ma related to allergies. Xolair was developed
under an agreement among Tanox, Inc.,
Genentech, Inc., and Novartis Pharma AG.
Currently, Tanox is developing TNX-355, an
antibody for the treatment of HIV/AIDS.

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.

Said Hilal tread a different path and
came to the United States 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 situ-
ation in Lebanon worsening, Said chose to
stay in the United States. Most importantly,
while in college he married a native Califor-
nian. “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 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, has 600 pending or issued patents spanning 25 technologies and over 700 products for cardiac and vascular surgery, general surgery, 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.

“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.”
Opening Doors

U.S. universities have played an important role in opening the door to opportunity for women from more traditional cultures. 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.

After serving as vice president of Technology at Savos, she founded Tatara Systems, along with an immigrant from China, Hong Jiang. Based in Acton, Massachusetts, the privately held Tatara Systems employs 60 people. It develops and deploys solutions for communication service providers, such as Vodafone and Telus Mobility, helping them to provide (converged) mobile services to their subscribers.

Asa first came to the United States 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. Early in her career at Bell Labs, Asa invented patent-pending technologies for wireless multimedia streaming, network interfaces, and real-time multi-processor DSP (digital signal processing) systems. She holds multiple patents. Her two siblings are both in the United States working as electrical engineers. Her Indian-born husband has started his second company, Ti- zor Systems, a venture-backed company that provides data security for businesses. "We're serial entrepreneurs," said Asa.

Policy Implications

U.S. immigration policy is jeopardizing our ability to attract and retain critical talent from across the globe—and the NVCA study verifies this. In a survey produced for the study, 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 company in the United States. The current quota on H-1B visas of 65,000 has not been sufficient to meet the demand for highly skilled professionals and researchers. In 9 of the past 11 years, employers have used up the entire quota of H-1B’s prior to the end of the fiscal year. In the past three years, the quota was exhausted prior to the start of the fiscal year. Perhaps equally troubling, the wait in skilled green card (permanent residence) categories is five years or more.

According to the NVCA survey, two-thirds of the private companies who use H-1B visas (temporary visa to hire skilled foreign nationals) say that current immigration laws harm U.S. competitiveness. Forty percent stated that current immigration policies have negatively impacted their companies when competing against other firms globally. One-third of the private companies said that the lack of visas had influenced their company’s decision to place more personnel in facilities abroad.

Simply put, it is not inevitable that the United States will continue to harness the skills and innovations of immigrant entrepreneurs or other skilled professionals. The difficulty of obtaining employment or staying here as a permanent resident, combined with increased opportunities elsewhere in the world, make it more likely that outstanding international students and other highly skilled individuals will decide this is not the best place to launch a career or raise a family.

On the other hand, this is not an intractable problem. Congress can solve the problem by raising immigration quotas and liberalizing certain rules on international students, as it did in a bill that passed the U.S. Senate last year. That bill failed to become law because of disagreement between the House and Senate over provisions related to illegal immigration. However, there may be an improved chance of passing immigration legislation this Congressional session.

A key lesson of the research on immigrant entrepreneurs is the importance of maintaining a more open, legal immigration system. Few of the immigrant entrepreneurs identified in the research could have started a company immediately upon arriving in the United States—many were children, international students, or H-1B professionals. But it’s clear that the United States helped shape them into entrepreneurs, just as they have helped to shape the nation.

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