

The Visa Shortage: Big Problem, Easy Fix

A broken system is driving our best-educated foreign workers—talent desperately needed by U.S. companies—to Europe, India, and China

by [Vivek Wadhwa](#)

Signs with the words "U.S. citizens and permanents only" greeted students at employers' booths at a recent career fair at Duke University, where I teach. In previous years only government jobs requiring security clearances were labeled off-limits to international students. Foreign-born engineering graduates told me they were disappointed that employers like General Electric ([GE](#)), IBM ([IBM](#)), and Carmax ([KMX](#)) as well as smaller companies would not even interview them. Recruiters told me they were frustrated that they could not fill critical positions. They have few options because the visas they need to hire foreign nationals simply aren't available.

This visa shortage is a problem for U.S. companies that depend on engineers because significantly more foreign-born students than Americans are completing higher degrees in engineering. According to the American Society of Engineering Education ([asee.org](#)), foreigners account for nearly 45% of masters-level engineering students and 60% of PhDs. The result? Multinationals have little choice but to expand their engineering operations abroad, and smaller businesses that can't afford to expand overseas are unable to hire the talent they need.

Aaron McQuaid, a customer-support engineer at Cisco's ([CSCO](#)) Research Triangle Park (N.C.) group, has been helping the tech giant recruit from Duke. He says Cisco currently has more than 1,300 openings. His team alone, he says, has been looking for two engineers for more than three months. McQuaid says barely 10% of the applicants from Duke were U.S. citizens, none had the skill set he needed, and his group couldn't find a way to hire highly qualified foreign nationals.

The visa system isn't working. Right now, when international students complete their degrees in the U.S., they are allowed to work for up to one year on a practical-training visa. After that they must obtain a temporary work visa called an H-1B, which is valid for up to six years. Yes, companies are allowed to hire foreign students during the one-year practical training period. But those I spoke with worry that they won't be able to keep their recruits beyond this period because H-1B visas are in short supply. (This year there were 65,000 H-1Bs available for any foreign-born worker who holds an undergraduate degree and an additional 20,000 for those with a master's degree. But U.S. Citizenship & Immigration Services reported there were twice as many applications received by its April deadline for the undergraduate-degree H1-Bs for 2008 than the allotted number, and those were distributed via a lottery.)

Bad for Everybody

The problem with H-1Bs, which were originally intended to let U.S. companies recruit highly skilled workers, is that [they can be misused](#) (BusinessWeek, 10/10/07). John Miano, of the anti-outsourcing advocacy group Programmers Guild (programmersguild.org). says these visas are frequently used to import low-level computer programmers who work at below-market salaries. Miano estimates that 56% of computer workers, who make up 45% of the H-1B pool, are in this low-skill category. Yet these visas are also used to hire highly skilled engineers, scientists, doctors, and computer-information architects.

With the number of available visas drying up, there's no easy way for the current batch of international students to stay. This means they need to find jobs back home or in other countries. Additionally, there is already a backlog of more than a million skilled immigrants working in the U.S., mostly on H-1B visas, who are waiting for a yearly allocation of 120,000 permanent-resident visas. So we are headed for a [massive reverse brain drain](#) (BusinessWeek, 8/22/07) of skilled workers and students.

Our loss is likely to be the gain of countries like India and China.

On Oct. 5, Wim Elfrink, chief globalization officer for Cisco, paid a visit to Duke. He talked about the opportunities his company was seeing in international markets and innovative new technologies being developed for them. Elfrink said he expects to hire 7,000 engineers over the next five years and to have 20% of Cisco's top talent located in India. He encouraged Duke students to apply for jobs in Bangalore.

What Undergrads Say

Will our current crop of foreign-born graduates end up in India or China? I asked my students about their plans.

Baris Guzel, 23, says he has a job offer in Germany and knows of opportunities back home in Turkey. But he wants to stay in the U.S. and join a financial-services or consulting firm. What deters him are ads like those posted by Accenture ([ACN](#)) on Duke's recruiting site that read: "Applicants for employment in the U.S. must possess work authorization which does not require sponsorship by the employer for a visa." How can he get a visa if employers won't sponsor him, Guzel asks.

Gauravjit Singh, 24, and his team won a \$100,000 prize last September from [Duke's CURE business plan competition](#) (BusinessWeek, 10/11/05). He then co-founded a medical-device company to equip clinicians in the developing world with an affordable and effective technology in the fight against cervical cancer. They outsourced the technology development to a Cary (N.C.) design firm. Given how hard it is to get a visa, Gauravjit sees no choice but to return home and run his venture from Bangalore.

Jaineel Aga, 23, says he may have made the wrong decision about studying in the U.S. instead of Europe. The reason he picked the U.S. was because he believed it was more open and welcoming

to international students. He wants to become a management consultant and is keen to stay in the U.S. He considers it a travesty that his career may ultimately be decided by a visa lottery.

Tanya Srivastava, 24, says she never planned to stay permanently in the U.S. but did want to work for a few years to get some global experience and pay off the loans she took to complete her U.S. education. But she believes she can easily get a job back home in India if things don't work out here.

All these students said they would discourage their friends from coming to the U.S.

Unlike many of the problems facing the U.S., this one isn't hard to fix. All we need to do is increase the number of visas that are available for international students who get job offers from U.S. companies. An even better solution is to offer these students permanent-resident visas rather than H-1Bs. In the new global landscape, we need the world's best talent on our side.

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