



Immigration Reform and the Contentious Issue of Extra Visas for Science and Technology Workers

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As Congress considers comprehensive immigration reform, one key issue centers on whether to offer more visas and legal residency to highly skilled foreigners in science, technology, engineering and math fields. High tech employers argue that lawmakers should expand such visas. But organizations representing American workers claim there are plenty of natives who can fill tech jobs, if only U.S. employers would offer better wages and benefits, rather than running to Congress to admit foreigners who work for less in hope of gaining legal residency. I lay out both sides of this vital argument and suggest what balanced reforms might look like.

Demand for High Tech Workers and the Global “Battle for the Brains”

American tech companies are hardly alone in their demand for skilled immigrants. Some observers say the U.S. is involved in a global “battle for the brains” with other advanced nations that have adjusted their immigration rules. Canada, Australia, Japan, the European Union, and various individual countries within Europe have changed or are considering changing their immigration systems in ways to attract scientists, engineers and information technology workers.

U.S. tech companies claim they have literally tens of thousands of tech jobs they cannot fill with American workers. Some corporations such as Microsoft have set up shop north of the border, because company leaders say they have an easier time getting Canadian visas for the immigrants they need and want to hire. When this sort of move occurs, American profits and jobs dwindle.

Tech companies are not going it alone in political battles for more visas. They have formed lobbying and advocacy groups such as *FWD.us*, whose website urges Americans to “Join the tech community in passing immigration reform” that attracts “the world’s best and brightest workers” and encourages “this talent to permanently reside in the U.S.” Market-oriented think tanks such as the American Enterprise Institute support the cause with a stream of reports and seminars. And celebrity executives like Microsoft’s Bill Gates and Google’s Eric Schmidt led the charge for specific new policies such as:

- An immediate *increase* in so-called “H-1B visas” that allow companies to pay a fee and hire foreign workers for a few years, if they can convince the Labor Department that they cannot fill positions with appropriate American workers. At the end of the visa period, companies can sponsor such workers for green cards that allow permanent residence.
- The “STAPLE Act,” which would metaphorically “staple” a green card to each U.S. college diploma earned by a foreign student in a high priority field.

Given the powerful backers of such short-cuts to legal status, it is no surprise that the immigration reform currently being negotiated in Congress would increase the number of H-1B visas from the current limit of 65,000 annually to 110,000 – and allow a future jump to 180,000 annually if there are indicators of increased demand.

The Counterargument: Why Undercut American Science and Tech Workers?

Skeptical labor-market researchers and groups speaking for native tech workers generate less media attention, but are still putting up a spirited fight in Washington D.C. They argue there is little evidence of a shortage of skilled native U.S. workers. Upwards of three times as many Americans have degrees in the relevant fields as are found in relevant tech jobs. Every year about half of U.S. computer science and

engineering graduates divert to pursue careers in other fields.

Why would this happen? According to data assembled by critics of increasing foreign visas, U.S. employers seeking to fill science and technology-based jobs are not offering the rising wages and benefits usually found in sectors that need to attract more applicants. U.S. science and technology-based jobs provide a solid income, to be sure, but jobs in other areas of business and finance consistently offer richer rewards. More than half of the computer graduates leaving the IT sector do so because, they report, they found better jobs outside of IT. If Google, Intel and countless smaller companies really want to attract more of the available Americans with science and technology degrees and skills, they should engage in a bidding war for their services, say advocates.

People on this side of the debate believe that U.S. tech companies prefer foreign workers on temporary visas because they can easily exploit them. Tied to a particular company and hopeful for a green card, temporary foreign skilled employees keep their heads down, work assiduously, and are reluctant to complain about underpayment or overwork.

Finding a Balanced Solution

The United States undoubtedly wins when it attracts the world's most talented scientists and engineers. Advocates for skilled immigrants also make a compelling point when they note that it makes little sense to send talented foreign graduates of U.S. universities back to their homelands, especially when these innovators want to start innovative new companies.

Yet effective U.S. policies also need to foster long-term answers to labor-force problems, not just encourage companies to use short-term immigrant solutions. Although tech company executives may feel the understandable need to show increasing profits in every quarterly report, wise public policies – as management scholars Michael Porter and Jan Rivkin have argued – should encourage investment in human capital development. To build the labor force of the future, U.S. companies should aim to train the young and re-train older workers; they can do this in part by supporting new programs and adequate funding for science and technology programs at community colleges and universities in their home regions. In the current immigration debate and beyond, U.S.-based companies and citizens alike have an interest in combining insights from both sides in the ongoing debate about where to find the science and tech workers so vital to future innovation and growth. America needs to grow talent at home, as well as import it.

This brief draws upon research from Philip Martin, “High-Skilled Migrants: S&E Workers in the United States.” *American Behavioral Scientist* 56 (2012): 1058-1079; Michael E. Porter and Jan W. Rivkin, “The Looming Challenge to U.S. Competitiveness.” *Harvard Business Review* (March 2012): 54-62; and Hal Salzman, Daniel Kuehn, and B. Lindsay Lowell, “Guestworkers in the High-Skilled U.S. Labor Market: An Analysis of Supply, Employment and Wage Trends,” Economic Policy Briefing Paper #359, April 2013.