



Keep Them Here

BY DIANA FURCHTGOTT-ROTH

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Edina Rosta, a brilliant Hungarian chemist doing path-breaking research as a post-doctoral student at the National Institutes of Health, is just the kind of young scientist America needs.

With a PhD from the University of Southern California, a sheaf of international awards, and a dozen publications to her name, she should have no trouble getting a visa or "green card" that would let her work or study in America indefinitely.

So one would think. But Edina's F1 Optional Practical Training visa, like all such visas, is good for only one year. Her application for a "national interest waiver-based permanent residency visa" took an entire month to complete last summer and cost her the standard \$6,000 in legal fees and \$1,000 in application fees. She still does not know whether or not she will receive permanent residency and where she will be this time next year.

Her colleague, Andrei, a Russian physicist with a wife and child to support, can't afford the \$7,000 visa application and legal fees. So he's considering applying to go to Canada, where it's easier for highly-skilled persons to be admitted to work.

Edina and Andrei are real-life examples of a recent study by the Kauffman Foundation, a non-profit foundation focusing on entrepreneurship. Entitled "Intellectual Property, the Immigration Backlog, and a Reverse Brain-Drain," the study concludes that one million skilled workers are competing for 120,000 permanent residency visas, causing talented workers to choose to live elsewhere.

According to Harvard Law School fellow Vivek Wadhwa, an author of the study, the visa backlog hurts America. "The United States benefits from having foreign-born innovators create their ideas in this country. Their departures would be detrimental to U.S. economic well-being," he said. Further, "when foreigners come to the United States, collaborate with Americans in developing and patenting new ideas, and employ those ideas in business in ways they could not readily do in their home countries, the world benefits."

By making it difficult for Edina, Andrei, and countless other scientists to stay in America, Congress is dissipating the value America receives from taxpayers' investments in research.

In 2005, the most recent data available, the federal government spent more than \$28 billion on science and engineering research at American universities and research institutions. This funding helps finance PhD programs, which are heavily populated with foreign students.

More than \$17 billion of this research spending is health related, like Edina's work at NIH. Other funders include the Defense Department, \$2.7 billion, and the Department of Energy, \$900 million.

In New York State alone, the federal government spent more than \$2.3 billion.

Of that, Columbia University received \$440 million; Cornell University, \$360 million; the University Of Rochester, \$260 million; New York University, \$190 million; Mt. Sinai Medical School, \$190 million; Yeshiva University, \$160 million; SUNY Stony Brook, \$100 million; and Rockefeller University received \$80 million.

Those and other universities rely on graduate students for research assistance and technical expertise. Government research trains graduate students in the latest technologies. Most research does not require security clearances, and little if any research is restricted to American students.

American universities are among the world's leading research institutions, attracting the top minds, not only those from America but also from many other countries. The National Science Foundation data show that 127,000 foreign graduate students studied in American universities in 2005, down from a peak of 132,000 in 2003.

The number and percentage of PhDs in science and engineering awarded to Americans and permanent residents have declined dramatically over the past decade. Fewer Americans, and more foreigners, are being awarded PhDs in scientific and engineering fields, even as the total number of new doctorates has increased.

In computer science, mathematics, physics, and engineering, more than half of PhDs are awarded to foreigners. In 1995, 72% of PhDs in physics were awarded to Americans. In 2005, the latest data available, it had fallen to 42%. In 1995, 62% of PhDs in computer sciences went to Americans — in 2005, this had declined to 42%. There's a similar decline in Edina Rosta's field, chemistry. In 1995, 75% of PhDs went to Americans, compared to 57% in 2005.

The bottom line is that America attracts the best and brightest researchers from around the world, trains them at great expense to American taxpayers, and then asks them to leave. In their home countries or in other countries that are willing to give them visas, these young scientists work for businesses and government research groups, often in competition with America — and sometimes in conflict.

Compare our science education with military education. Congress finances military academies for each of the armed services at great expense. Entering students must promise to serve in the military for several years after graduation, because it is only fair that taxpayers should get some return on the substantial investment in training.

Similarly, university graduate departments enroll students from around the world, and offer them an education subsidized by the federal government. However, instead of requiring these students to remain in America so that their education can benefit us, Congress requires them to leave.

Rather than simply funding an expensive job-training program for foreign graduate students, Congress should allow them — or even require them — to stay. It should expand the number of permanent resident visas and simplify the application process.

America would be far richer if the Edina Rostas of the world worked here, instead of leaving to compete against us.

Ms. Furchtgott-Roth, dfr@hudson.org, is a senior fellow at the Hudson Institute and former chief economist at the U.S. Department of Labor.