Alena Shkumatava leads a research group at the Curie Institute in Paris studying how an unusual class of genetic material called noncoding RNA affects embryonic development, using zebrafish as a model system. She began this promising line of research as a postdoctoral fellow at the Massachusetts Institute of Technology’s Whitehead Institute. She might still be pursuing it there or at another institution in the United States had it not been for her desire to visit her family in Belarus in late 2008. What should have been a short and routine trip “turned into a three-month nightmare of bureaucratic snafus, lost documents and frustrating encounters with embassy employees,” she told the New York Times. Discouraged by the difficulties she encountered in leaving and reentering the United States, she left MIT at the end of her appointment to take a position at the Curie Institute.

Streamlining the Visa and Immigration Systems for Scientists and Engineers

ALBERT H. TEICH

Current visa policies and regulations pose hurdles for the nation’s scientific and education enterprise. This set of proposals may offer an effective, achievable, and secure way forward.
It is easy to blame the problems of foreign science, engineering, and STEM (science, technology, engineering, and mathematics) students encountering the U.S. visa and immigration system or the more intense scrutiny imposed on visitors and immigrants in the aftermath of 9/11. Indeed, there is no question that the reaction to the attacks of 9/11 caused serious problems for foreign students and scientific visitors and major disruptions to many universities and other scientific institutions. But many of the security-related issues have not made much sense to the research community, as illustrated by the following examples.

A young German researcher, having earned a Ph.D. in civil and environmental engineering in his home country, accepted an invitation to spend 17 months in the United States as a postdoctoral associate in J-1 Research Scholar status at a prestigious U.S. research university. He subsequently returned to Germany. A year later, he applied for and was awarded a two-year fellowship from the German government to further his research. Although he had a U.S. university eager to host him for the postdoctoral fellowship, a stipulation in the J-1 exchange visitor regulations that disallows returns within 24 months prevented the university from bringing him back. This case was raised from a previous administration.

There was no other visa for such a stay, and the researcher ultimately took his talent and his fellowship elsewhere. A tenure-track professor in an Asian country was granted a nine-month sabbatical, which he spent at a U.S. university, facilitated by a J-1 visa in the Professor category. He subsequently returned to his country of residence, his family, and his position. An outstanding scholar, described by a colleague as a future Nobel laureate, he was appointed a visiting professor at a U.S. university in 1989 for a period of one year. Following that appointment, he was returned to his country for a sabbatical, which he spent at a U.S. university, and returned to Germany. A year later, he again returned to the United States for another period of research. Although he had a fellowship from the German government to conduct research in the United States, his return trips were limited by the regulations governing the J-1 exchange visitor visa for research scholars and professors, which disallowed returns within 24 months. Although he had repeatedly attempted to bring back his family, the researcher was not permitted to do so. He subsequently retired after spending the majority of his career at the U.S. university.
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Ph.D. D. in civil and environmental engineering in his home country, accepted an invitation to spend 17 months in postdoctoral associate in J-1 Research Scholar status at a prestigious U.S. research university. He subsequently returned to Germany. A year later, he applied for and was awarded a two-year fellowship from the German government to further his research. Although he had a U.S. university eager to host him for the postdoctoral fellowship, a stipulation in the J-1 exchange visitor regulations that disallows returns within 24 months prevented the university from bringing him. There was no other visa for such a stay, and the researcher ultimately took his talent and his fellowship elsewhere. A tenured professor in an Asian country was granted a nine-month sabbatical, which he spent at a U.S. university, facilitated by a J-1 visa in the Professor category. He subsequently returned to his country of residence, his family, and his position. An outstanding scholar, described by a colleague as a future Nobel laureate, he was appointed a visiting professor in the United States to conduct research or teach at U.S. institutions. But many of the security-related issues have remained, derived from a more fundamental structural mismatch between current visa and immigration policies and procedures and today’s global patterns of science and engineering education, research, and collaboration. If the United States is going to fix the visa and immigration system for scientists, engineers, and STEM students, it must address these underlying issues as well as those left over from the enhanced security regime of the post-9/11 era. Many elements of the system need attention. Some of them involve a visa category that was added five years ago that do not apply easily to today’s researchers. Others derive from obscurantist immigration policies and procedures. To implement these principles, which bureaucracies and legislative bodies adapt to changing circumstances. Here I offer a set of proposals to address these issues. Implementing some of the proposals would necessitate legislative action. Others could be implemented administratively. Most would not require additional resources. All are achievable in a time frame that is consistent with U.S. security.

Major components of these proposals include:

1. Simplify complex J-1 exchange visitor visa regulations and remove impediments to bona fide exchange. The J-1 visa is the most widely used type for visitors coming temporarily to the United States to conduct research or teach at U.S. institutions. Their stays may be as brief as a few weeks or as long as five years. The regulations governing the J-1 visa and its various subcategories, however, are costly and often pose significant impediments to U.S. universities, research laboratories, and the scientific community, as illustrated by the following examples. A young German researcher, having earned a research system and from increased international collaboration in cutting-edge research efforts.
The concept of ‘exchange,’ born in the shadow of the Cold War, must be expanded to include the contemporary realities of worldwide collaboration.

the five-year maximum in the aggregate. However, as written, the current regulations have had the effect of imposing the 24-month bar on visitors in the Professor and Researcher categories who have spent any period of time (one month, seven months, or two years), most far shorter than the five-year maximum. Unless such a visitor is brought in under the Short-Term Scholar category (the category exempt from the bars) for six months or less, the 24-month bar applies. Simultaneously, spouses of former J-1 exchange visitors in the Professor or Researcher categories who are also residing in their own right and have spent any period as a J-2 ‘dependent’ while accompanying a J-1 spouse are also barred from returning to the United States to engage in their own J-1 program as a Professor or Researcher until 24 months have passed. This applies whether or not that person worked while in the United States as a J-2. In addition, spouses subject to the two-year home residency requirement (a different statutory bar based on a reciprocal agreement between the United States and foreign governments) cannot enter the United States or seek a future J-1 program on their own.

U.S. universities are increasingly engaging in longer-term international research projects with dedicated resources from foreign governments, private industry, and international consortia, and are helping to build capacity at foreign universities, innovation centers, and tech hubs around the world. Internationally educated students may be invited to do graduate or postdoctoral research projects with dedicated resources from foreign governments, private industry, and international consortia, and are helping to build capacity at foreign universities, innovation centers, and tech hubs around the world. Internationally educated students may be invited to conduct research or observe in a university setting. The idea is to provide a window into American academic life for these students, which may help them decide whether they wish to return home or stay in the United States to work. To encourage the return of these students, some universities offer programs that provide financial support for internships or fellowships in the United States. These programs are intended to help international students develop skills that are valued by employers in the United States and to strengthen ties between international students and U.S. universities.

The National Science Foundation (NSF) reports that about 34% of all Ph.D. degrees granted in the United States were awarded to international students in 2010. Of those degrees, approximately 10% were in the STEM fields. The NSF also notes that international students are more likely to pursue careers in research and development than non-U.S. citizens. In addition, many international students choose to stay in the United States after completing their studies, with about 40% of students in STEM fields remaining in the country for at least five years after graduation.

The U.S. Department of State released a draft of revised regulations governing the J-1 program as a Professor or Researcher until 24 months have passed. This applies whether or not that person worked while in the United States as a J-2. In addition, spouses subject to the two-year home residency requirement (a different statutory bar based on a reciprocal agreement between the United States and foreign governments) cannot enter the United States or seek a future J-1 program on their own.

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The J-1 program was established in 1961 to promote international cultural exchange. Today, it is primarily used to bring foreign students and scholars to the United States to engage in programs of higher education and professional training. The program is intended to foster mutual understanding between the United States and other countries by providing opportunities for international students and scholars to study, conduct research, or engage in professional activities in the United States. The J-1 program is administered by the U.S. Department of State and the U.S. Department of Homeland Security.

The J-1 program is divided into two categories: the Academic Cultural Exchange Visitor Program and the Business/Training Program. The Academic Cultural Exchange Visitor Program allows foreign students and scholars to come to the United States to study, conduct research, or participate in professional activities. The Business/Training Program allows foreign workers to come to the United States to work in an area of shortage.

The J-1 program is governed by the Immigration and Nationality Act (INA) and the regulations issued by the U.S. Department of State. The regulations are enforced by the U.S. Department of Homeland Security.

The J-1 program has been criticized for its complexity and bureaucratic nature. Some critics argue that the program is too difficult to navigate and that it discriminates against certain groups of applicants. Others argue that the program is too lenient and that it allows too many people to enter the United States.

The J-1 program has also been the subject of proposals to reform the program. Some proposals have called for changes to the regulations governing the J-1 program, while others have called for changes to the INA or the regulations issued by the U.S. Department of State. Some proposals have called for changes to the regulations governing the J-1 program, while others have called for changes to the INA or the regulations issued by the U.S. Department of State.
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In practice, this means rationalizing and simplifying J-1 exchange visitor regulations. Although an immigration reform bill developed in the Senate (S.744) makes several changes in the J-1 program that are primarily aimed at reducing administrative burdens, it does not address needed changes by administrative means. In December 2008, the Department of State released a draft of revised regulations governing the J-1 exchange visitor visa with a request for comment. Included in the draft rules were changes to program administration, immigration requirements, SEVIS reporting requirements, and other proposed modifications. Although many comments were submitted, until recently there did not appear to be any movement on the provisions of most concern to the research community. However, the department is reported to have taken up the issue again, and a new version of the regulations is anticipated. This may prove to be a particularly opportune time to craft a regulatory fix to the impediments inherent in the 12- and 24-month bars.

Consider the requirement that STEM students demonstrate intent to return home. Under current immigration law, all persons applying for a U.S. visa are presumed to be intending to immigrate. Section 214(b) of the Immigration and Naturalization Act, which has survived unchanged as the act was passed in 1952, states, ‘Every alien shall be presumed to be an immigrant until he establishes to the satisfaction of the consular officer, at the time of application for admission, that he is entitled to a nonimmigrant status.’

In practice, this provision means that a person being interviewed for a nonimmigrant visa, such as a student (F-1) visa, must persuade the consular officer that he does not intend to permanently stay in the United States. Simply stating the intent to return home after completion of one’s educational program is not enough. The student must present evidence to support that assertion, generally by showing strong ties to the home country. Such evidence may include connections to the home country, such as family or friends there, a bank account, a job or other steady source of income, or a house or other property. For students, especially those from developing nations, this can be an especially onerous standard.

Although consular officers are instructed to take a realistic view of these young people’s future plans and demonstrate intent to return home, particularly for students from developing nations, who could become valuable assets for the United States or their home countries, the result is often a straightforward matter of showing ties to the home country. What is needed is a more flexible policy that permits the intent to remain after graduation to be shown in a variety of ways.

The Immigration and Naturalization Act was written in an era when foreign students in the United States were relatively rare. In 1954–1956, for example, according to the Institute for International Education, there were about 34,000 foreign students in degree-granting programs in the United States. In contrast, in 2012–2013 there were more than 819,000 international students in U.S. higher education institutions, nearly two-thirds of them at doctorate-granting universities. In the early post–World War II years, the presence of foreign students was regarded as a symbol of international cultural exchange. Today, especially in STEM fields, foreign graduate students and postdocs are often the largest and increasingly essential element of U.S. higher education. According to recent (2010) data from the National Science Foundation, over 70% of full-time graduate students (master’s and Ph.D.) in electrical engineering and 63% in computer science in U.S. universities are international students. In addition, non-U.S. citizens (not including legal permanent residents) make up a majority of graduate students nationwide in chemical, materials, and mechanical engineering. In the sense that it prevents prospective immigrant students from using student visas as a ‘back door’ for entering the United States (that is, if permanent immigrant status is the main, but unstated, purpose of seeking a student visa), it might be argued that 214(b) is serving its intended purpose. The problem, however, is that dilemma it creates for legitimate students who must demonstrate the intent to return home despite a real and understandable uncertainty about their future plans.

Interestingly, despite the obstacles that the U.S. immigration system poses, many students, especially those who complete a Ph.D. in a STEM field, do manage to remain in the country legally after finishing their degree. This is possible because the employment-based visa categories are often available to them and permanent residence, if they qualify, is also a viable option. The regulations allow a two-year grace period after graduation. In addition, graduating students may receive a one-year extension for what is termed Optional Practical Training (OPT), so long as they obtain a job, which may be a paying position or an unpaid internship. Those who receive a bachelor’s, master’s, or doctoral degree in a STEM field at a U.S. institution are also granted a one-time 17-month extension of their OPT status if they remain employed. While on F-1 OPT status, an individual may change status to an H-1B (temporary worker) visa. Unlike the F-1 visa, the H-1B visa does allow for dual intent. This means that the holder of an H-1B visa may apply for permanent resident (green card) status—that is, a green card—if highly qualified. This path from student status to a green card, commonly called a path from F-1 to H-1B, is extremely rare even among those who receive doctorates, as is shown by the data on ‘stay rates’ for foreign doctorate recipients from U.S. universities.

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on the part of the consular officer without forcing the student visa applicant to make a choice that he or she is not really capable of making, is a more rational way to deal with this difficult problem.

Speed up the Visas Mantis clearance process and make it more transparent. A major irritant in the visa and immigration system for scientists, engineers, and STEM students over the past decade has been the delays in visa processing for some applicants. A key reason for these delays is the security review process known as Mantis Visas, which the federal government put in place in 1998 and which applies to all categories of non-immigrant visas. Although reforms over the past several years have eased the situation, additional reform is needed to further improve the process.

Initially intended to prevent transfers of sensitive technologies to hostile nations or groups, Visas Mantis was used at first in a relatively small number of cases. It gained new prominence, however, in the wake of 9/11 and the heightened concern over terrorism and homeland security that followed. The number of visa applicants in scientific and engineer- ing fields subject to Mantis reviews took a sudden jump in 2002 and 2003, causing a logjam of applications and no end of headaches for the science community and the other federal agencies involved. The result was a huge backlog of visa applications and lengthy delays for many foreign students and scientists and engineers seeking to come to the United States. The situation was exacerbated when, in the wake of 9/11, there have been occasional slowdowns, most likely resulting from variations in workload or staffing issues.

Visas Mantis is triggered when a consular officer believes that an applicant might not be eligible for a visa for reasons related to security. If the consular officer determines that security concerns exist, he or she then requests a “security advisory opinion” (SAO), a process coordinated through an office in the State Department in which a number of federal agencies review the application. (The federal government does not provide the names of the agencies involved in an SAO, but the MIT International Science and Technology Policy Fellows and Jefferson Science Fellows sponsored by the National Academies—as advisers to consular officers. Since 1980, AAS has placed over 250 Ph.D. scientists and engineers from a wide range of backgrounds in the State Department as S&T Policy Fellows. Over 100 are still working there. In the 2013–2014 fellowship year, there were 13 Jefferson Science Fellows—tenured senior faculty in science, engineering, or medicine—at the State Department. The program is designed to inform the applicant about the details of the review process. Nevertheless, since the vast majority of Mantis reviews result in clearing the applicant, it might be beneficial to both the applicant and the government to provide periodic updates on the status of the review without providing details, making the process at least seem a little less Kafkaesque.

Allow scientists and scholars to apply to renew their visas in the United States. Many students, scholars, and scientists are in the United States on long-term programs, many of which are temporary in nature, that may keep them in the country beyond the peri- od of validity of their visas. Although U.S. Citizen- ship and Immigration officials can find themselves in a bind if a student or scientist who extends their visa without authority has returned to their country of origin, the current system for visa renewal by mail. This program was discon- tinued in the wake of 9/11 because of a mixture of concerns over security, as well as the concern that it would be especially useful in countries that send large numbers of STEM students and visitors to the United States, such as China, India, and South Korea.

Measures that enhance the capacity of the State Department to make technical judgments could be implemented administratively, without the need for legislative action. A policy that would limit the time available for the agencies involved in an SAO to review an application could also be helpful. Improving the transparency of the Mantis process poses a dilemma. If a visa applicant poses a potential security risk, the requirement to provide periodic updates on the status of the review would be especially useful in countries that send large numbers of STEM students and visitors to the United States, such as China, India, and South Korea.

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Initially intended to prevent transfers of sensitive technologies to hostile nations or groups, Mantis Visas was used at first in a relatively small number of cases. It gained new prominence, however, in the wake of 9/11 and the heightened concern over terrorism and homeland security that followed. The number of visa applicants in scientific and engineer fields subject to Mantis reviews took a sudden jump in 2002 and 2003, causing a logjam of applications and no-end of headaches for the science community, scientists and other education communities. The number of Mantis reviews leapt from 1,000 cases per year in 2000 to 14,000 in 2002 and an estimated 20,000 in 2003. The State Department and the other federal agencies involved were generally unprepared for the increased workload and were slow to expand their staffs to handle the backlog of visa applications and lengthy delays for many foreign students and scientists and engineers seeking to come to the United States. The situation remains the same, although there have been occasional slowdowns, most likely resulting from variations in workload or staffing issues.

The major irritant is the student visa applicant to make a choice that he or she is not capable of making, is a more rational way to deal with this difficult problem.

**Consideration of the application is held up pending approval by all of the agencies. The applicant is not informed of the details of the process, only that the application is undergoing “administrative processing.”** In most cases, the decision to refer an application for an SOA is not mandatory but is a matter of judgment on the part of the consular officer. Because most consular officers do not have scientific or technical training, they generally refer the decision to the State Department’s Technology Alert List (TAL) to determine whether an application raises security concerns. The current TAL is classified, but the 2002 version is believed to be similar and is widely available on the Internet (for example, at http://www.jpc.edu/isso/forms/mantis.pdf). It contains an apparently sensitive areas as nuclear technology and ballistic missile systems, as well as “dual-use” areas such as fermentation technology and pharmacology, the applications of which are generally regarded as benign but can also raise security concerns. According to the department’s Foreign Affairs Manual, “Officers are not expected to be versed in all the fields on the list. Rather, they should shoot for familiarization and listen for key words or phrases from the list in applicants’ answers to interview questions.” It is also suggested that the officers consult with the Defense and Homeland Security attaches at their station. The manual notes that an SOA “is mandatory in all cases of applicants from countries whose ambassadors or by states designated as sponsors of terrorism” (currently Cuba, Iran, Sudan, and Syria) engaged in the national security or programs. The result was a huge backlog of visa applications and lengthy delays for many foreign students and scientists and engineers seeking to come to the United States. The situation remains the same, although there have been occasional slowdowns, most likely resulting from variations in workload or staffing issues.

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IMMIGRATION

What is needed is a more flexible policy that provides the opportunity for qualified international students to remain in the United States without allowing the student visa to become an easy way to subvert regulations on permanent immigration.

Electronic fingerprints collected as part of their visa record. Security screening measures have been greatly improved in the past decade. In addition, the Omnibus Spending Bill passed in early 2014 included language directing the State Department to implement a pilot program for the use of videoconferencing technology to conduct visa interviews. The time is right to not only reinstitute the practice of allowing applications for visa renewal inside the United States for those categories previously allowed, but also to expand the pool of those eligible for domestic renewal to include F-1 students and J-1 academic exchange visitors.

Reform the H-1B visa to distinguish R&D scientists and engineers from IT outsourcers. Discussion of scientists, engineers, and STEM students has received relatively little attention in the current debate on immigration policy, with one significant exception: the H-1B visa category. This category covers temporary workers in specialty occupations, including scientists and engineers in R&D as well as, interestingly enough, fashion models of “distinguished merit and ability.” An H-1B visa is valid for three years, extendable for another three. The program is capped at 65,000 each fiscal year, but an additional 20,000 foreign nationals with advanced degrees from U.S. universities are exempt from this ceiling, and all H-1B visa holders who work at universities and university- and government-affiliated nonprofits, including national laboratories, are also exempt. Controversy provided for the H-1B program for the past several years as advocates of the program, citing shortages of domestic talent in several sectors, especially in computer programming, software, and systems analysts. At least 21 of the top 50 job titles were in the fields of computer programming, software development, and related areas. The top three companies that issued visa recipients were IT firms (Infosys Limited, Wipro, and Tata Consultancy Services, all based in India) as were a majority of the top 25. Many of these firms provide outsourcing of IT capabilities to U.S. firms with foreign (mainly Indian) staff working under H-1Bs. This practice has come under increasing scrutiny recently as the largest H-1B sponsor, Infosys, paid a record $34 million to settle claims of visa abuse brought by the federal government. Visas are needed, it is difficult to see how these firms and the H-1B recipients they sponsor contribute to strengthening innovation in the United States.

Reform of the H-1B program has been proposed for years, and although little action has been taken so far, this may change soon as the program is under active discussion as part of the current immigration debate. Modifications included in the Senate bill (S.744) would affect several important provisions of the program. The annual cap on H-1B visas would be increased from 65,000 to a minimum of 115,000, which could be raised to 180,000. The exemption for advanced degree graduates would be increased from 20,000 to 25,000 and would be limited to modernizing the U.S. visa system. They note that travelers under the VWP are still subject to the Electronic System of Travel Authorization (ESTA), a security screening system that vets individuals from certain “countries of concerns”—namely, their contribution to strengthening R&D and innovation in the United States.

Expand the Visa Waiver Program to additional countries. The Visa Waiver Program (VWP) allows citizens of a limited number of countries (currently 37) to travel to the United States for certain purposes without visas. Although it does not apply to students and exchange visitors under F and J visas, it does include scientists and engineers attending conferences and conventions who would otherwise travel under a B visa, as well as individuals participating in short-term training (less than 90 days) and consulting with business associates. There is little doubt that the ability to travel without going through the visa process—application, interview, security check—greatly facilitates a visit to the United States for those eligible. The eligible countries include mainly the European Union nations plus Australia, New Zealand, South Korea, Singapore, and Taiwan. Advocates of reforming visa policy make a convincing argument that expanding the program to other countries would increase U.S. security. Edward Alden and Liam Schwartz of the Council on Foreign Relations suggest just that in a 2012 paper on modernizing the U.S. visa system. They note that travelers under the VWP are still subject to the Electronic System of Travel Authorization (ESTA), a security screening system that vets individuals from certain “countries of concern” (as were a majority of the top 25). Many of these firms provide outsourcing of IT capabilities to U.S. firms with foreign (mainly Indian) staff working under H-1Bs. This practice has come under increasing scrutiny recently as the largest H-1B sponsor, Infosys, paid a record $34 million to settle claims of visa abuse brought by the federal government. Visas are needed, it is difficult to see how these firms and the H-1B recipients they sponsor contribute to strengthening innovation in the United States.

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specifically aimed at scientists, and statistics regarding their participation in the program are not available, it seems likely that they were and will continue to be among the beneficiaries now that the program has been made permanent. The initiative employs a risk-based approach, focusing more attention on individuals who are judged to be high-risk travelers and less on low-risk persons. Since it allows for considerable discretion on the part of the consulate, its ultimate value to the scientific and educational communities will depend on how that discretion is used.

The government can also step up its efforts to increase visa-processing capacity. In response to the 2012 executive order, the State Department and DHS launched an initiative to increase visa-processing capacity in high-demand countries and reduce interview wait times. In a report issued in August 2012 on progress during the first 180 days of activity under the initiative, the two agencies projected that by the end of 2012, “State will have created 50 new visa adjudicator positions in China and 60 in Brazil.” Furthermore, the State Department deployed 220 consular officers to Brazil on temporary duty and 48 to China. The consulates also increased working hours, and in Brazil they remained open on occasional Saturdays and holidays. These moves resulted in sharp decreases in processing time.

These initiatives have been bright spots in an otherwise difficult budget environment for the State Department. That budget environment, exacerbated by sequestration, increases the difficulty of making these gains permanent and extending them to consular posts in other countries with high visa demand. This is a relatively easy area to neglect, but one in which modest investments, especially in personnel and training, could significantly improve the face that the United States presents to the world, including the global scientific, engineering, and educational communities.

Looking at U.S. universities and laboratories today, one might well ask whether there really is a problem with the nation’s visa and immigration policies. After all, the diversity of nationalities among scientists, engineers, and students in U.S. scientific institutions is striking. At the National Institutes of Health, over 60% of the approximately 4,000 postdocs are neither U.S. citizens nor permanent residents. They come from China, India, Korea, and Japan, as well as Europe and many other countries around the world. The Massachusetts Institute of Technology had over 3,100 international students in 2013, about 85% of them graduate students, representing some 90 countries. The numbers are similar at Stanford, Berkeley, and other top research universities.

So how serious are the obstacles for international scientists and students who really want to come to the United States? Does the system really need to be streamlined? How urgent are the fixes that I have proposed here?

The answers to these questions lie not in the present and within the United States, but in the future and in the initiatives of the nations with which we compete and cooperate. Whereas the U.S. system creates barriers, other countries, many with R&D expenditures rising much more rapidly than in the United States, are creating incentives to attract talented scientists to their universities and laboratories. China, India, Korea, and other countries with substantial scientific diasporas have developed programs to encourage engagement with their expatriate scientists and potentially draw them back home.

In the long run, the reputations of U.S. institutions alone will not be sufficient to maintain the nation’s current advantage. The decline in enrollments among international students after 9/11 shows how visa delays and immigration restrictions can affect students and researchers. As long as the United States continues to make international travel difficult for promising young scholars such as Alena Shkumataeva, it is handicapping the future of U.S. science and the participation of U.S. researchers in international collaborations. Streamlining visa and immigration policies can make a vital contribution to ensuring the continued preeminence of U.S. science and technology in a globalized world. We should not allow that preeminence to be held hostage to the nation’s inability to enact comprehensive immigration reform.

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