

COMPTROLLER GENERAL'S

FORUM



HIGHLIGHTS OF A GAO FORUM

Global
Competitiveness:
Implications for
the Nation's
Higher Education
System

January 2007



Highlights of [GAO-07-135SP](#).

Why GAO Convened This Forum

The United States has long been one of the most desired higher education destinations for international students. Students from other countries bring needed skills to the increasingly knowledge-based U.S. economy, build bridges between the United States and their own countries, and make other valuable contributions. Yet recent trends and changes after September 11, 2001, have raised concerns about whether the United States will continue to attract an appropriate share of talented international students to its universities and to its workforce after they graduate.

In order to better understand issues related to global competitiveness and international students, the Comptroller General convened selected national leaders and experts in September 2006 to discuss current trends in international student enrollment in the United States and abroad. Participants were asked to explore (1) what is known about the potential impact of these trends, (2) challenges the United States faces in attracting international students, and (3) policies and strategies the country can pursue to compete for international students while also maintaining the nation's security. Invitees to the forum included experts from government, universities, research institutions, higher education organizations, and industry.

www.gao.gov/cgi-bin/getrpt?GAO-07-135SP.

To view the full product click on the link above. For more information, contact Cornelia Ashby at 202-512-7215 or ashbyc@gao.gov.

HIGHLIGHTS OF A GAO FORUM

Global Competitiveness: Implications for the Nation's Higher Education System

What Participants Said

Despite concerns about slowing international student enrollment after September 11, participants generally said enrollments appeared to be rebounding, and the United States remains a highly desirable destination for higher education. However, the U.S. share of international students worldwide has declined, partly because of expanding higher education options abroad and growing competition from countries with coordinated recruiting strategies. Participants expressed concern that the country may face increased challenges attracting international students in the future.

Participants said that in addition to facing challenges from abroad, the United States faces a number of internal issues that could pose challenges in recruiting talented students. They noted that the United States is disadvantaged because it lacks an integrated, strategic approach to recruiting and retaining international students. They also said high tuition costs and growing costs for universities related to recruiting international students may make it more difficult to attract students. In addition, they identified real and perceived barriers created by U.S. immigration policy, saying that neither the nonimmigrant visa process nor the permanent immigration system adequately serves U.S. efforts to attract international students and high-skill workers.

Participants stated that the country needs to take the following steps to ensure that U.S. higher education continues to attract talented international students:

- *Develop a national strategic plan:* They generally agreed that the United States should work to develop a national strategic plan for recruiting international students and should improve coordination and communication among the federal government and other organizations as well as with international students.
- *Consider changes to the U.S. immigration system:* Many recommended a reevaluation of the U.S. immigration system to remove barriers for talented international students, for example, by reconsidering the requirement that student visa applicants indicate an intent to return to their home countries after completing their studies.
- *Explore new sources of international students:* A number of participants suggested that the United States explore new sources of international students, such as in developing countries.

Participants also said the country should cultivate its domestic capacity to strengthen its global competitiveness. For example, it could improve access to higher education for U.S. students, promote studying abroad, and encourage U.S. students to study in science and technology fields.

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United States Government Accountability Office
Washington, DC 20548

Introduction from the Comptroller General of the United States

Over 2 million students worldwide study outside of their country of origin and make economic and foreign policy contributions to their host countries. The United States has long been a global leader in higher education and one of the most desired destinations for students from other countries. However, several trends have raised concerns about the extent to which we will be able to continue to attract an appropriate share of the most talented international students to our universities and colleges, and to our workforce after they graduate. International student enrollment in the United States has slowed in recent years in comparison to that in other countries. In addition, when the United States tightened nonimmigrant visa¹ policies and procedures in an effort to protect our nation's security after the tragic events of September 11, 2001, some students may have been discouraged from coming here to study. Moreover, the global landscape of higher education is changing and providing more alternatives for students, as other countries and for-profit universities expand their educational capacity, universities on different continents form alliances, and technology-based distance learning opportunities increase.

Increased global competition makes it particularly important that the federal government strike the proper balance among protecting our national security interests, ensuring our long-term competitiveness, encouraging growth in the developing world, and building bridges with other nations and their people. The United States has relied on undergraduate and graduate students from other countries to support both economic and foreign policy interests. International students have been important sources of innovation and productivity in our increasingly knowledge-based economy and have brought needed research and workforce skills and strengthened our labor force. In some math and science fields, more than one-third of the advanced degrees in the United States are awarded to international students. Even if students return home after their studies, such exchanges support federal public diplomacy efforts and can improve understanding among nations.

¹The United States also issues visas to those who intend to immigrate to the United States. Unless otherwise stated, we use the term "visa" in this report to refer to nonimmigrant visas only.

GAO convened this forum to bring together leaders from government, universities, research institutions, higher education organizations, and industry to discuss the impact of emerging trends in higher education on U.S. global competitiveness and to examine how the United States can best ensure that it continues to attract people with needed skills and to build bridges with other nations. This forum was designed for the participants to discuss these issues openly, and without individual attribution. Participants were selected for their subject matter expertise, but also to represent a variety of perspectives. The format was chosen in order to maximize the opportunity for a rich, interactive dialogue.

This report summarizes the ideas and themes that emerged at the forum, the collective discussion of participants, and comments received from participants based on a draft of this report. As such, this report is not intended to reflect the views of GAO.

I want to thank all of the forum participants for taking the time to share their knowledge, insights, and perspectives. These will be of value to the American people and to their representatives in Congress as they face the challenge of charting a course to maintain global competitiveness through the nation's higher education system. They also provide insight for future work at GAO. I look forward to working with the forum's participants on important issues in the future.

A handwritten signature in black ink, appearing to read "D. M. Walker", with a long horizontal line extending to the right.

David M. Walker
Comptroller General
of the United States

January 23, 2007

Background

The United States has historically promoted efforts to attract international students to its higher education institutions. Several federal agencies help support these efforts. For example, the Department of State manages the student visa application process, administers some student exchange programs, offers grants to facilitate international exchanges, and provides information to potential and current international students on its Web site and through advising centers located around the world. The Department of Homeland Security enforces immigration laws and oversees applications for changes in immigration status. It also administers the Student and Exchange Visitor Information System (SEVIS), an Internet-based system that collects information on nonimmigrants that enter the United States with student and exchange visitor visas, as well as their dependents. In addition, the Department of Education sponsors initiatives to encourage academic exchanges between the United States and other countries, and the Department of Commerce offers various activities to help U.S. educational institutions market their programs abroad.

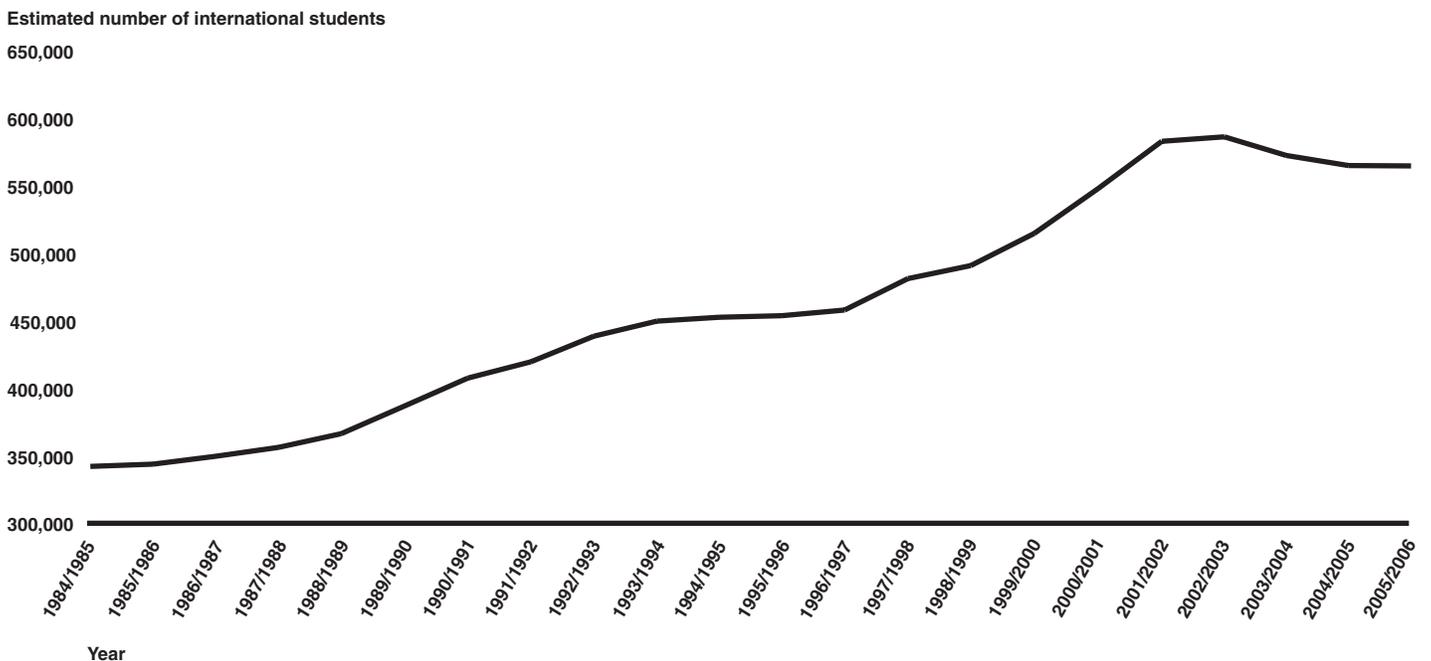
International students who wish to study in the United States must apply for visas, and additional steps are necessary if they remain in the country to work after their studies are completed. Most full-time students enter the United States under temporary visas, which usually permit them to stay for the duration of their studies but may require renewals if they return home before their studies are complete. Among the long-standing requirements for students applying for a visa is that they demonstrate an “intent to return” to their country of origin after they complete their studies. Graduates who wish to stay and work in the United States beyond the time allowed by their student visas generally need to receive approval for a change in status, for example, through a temporary work visa such as an H-1B visa for high-skill workers or through permanent residency. The number of H-1B visas that are available each year is restricted by law, although there are exemptions for certain individuals, including those who hold a master’s degree or higher from a U.S. institution.

Following September 11, the United States made some changes that made it more difficult for foreign nationals, including international students, to apply for a visa. For example, face-to-face interviews were mandated for most applicants, and the number of security reviews for students and scholars in certain science and technology fields increased. In addition, many students must pay an additional fee to fund SEVIS. These changes, made to help protect our nation’s security interests, may have fueled perceptions that some foreign groups are unwelcome here. The Departments of State and Homeland Security have made some adjustments to try to help ease the burden, such as expediting interviews

for students, allowing visas to be issued to students longer in advance of their school start date, and extending the length of time that some visa clearances are valid.

Although the United States continues to have more international students than any other country, recent trends point to some important changes in enrollment patterns. Figure 1 shows that after several decades of fairly steady increase, the number of international students enrolled in U.S. higher education institutions leveled off and even dropped slightly after 2001. In addition, as shown in figure 2, the U.S. share of international students worldwide decreased between 2000 and 2004. During the same time period, the share of international students studying in other countries such as Japan and Australia increased. Though subtle, these trends have raised questions about the United States' ability to continue attracting the most talented international students, and about the types of adjustments that may be necessary to remain competitive in the future.

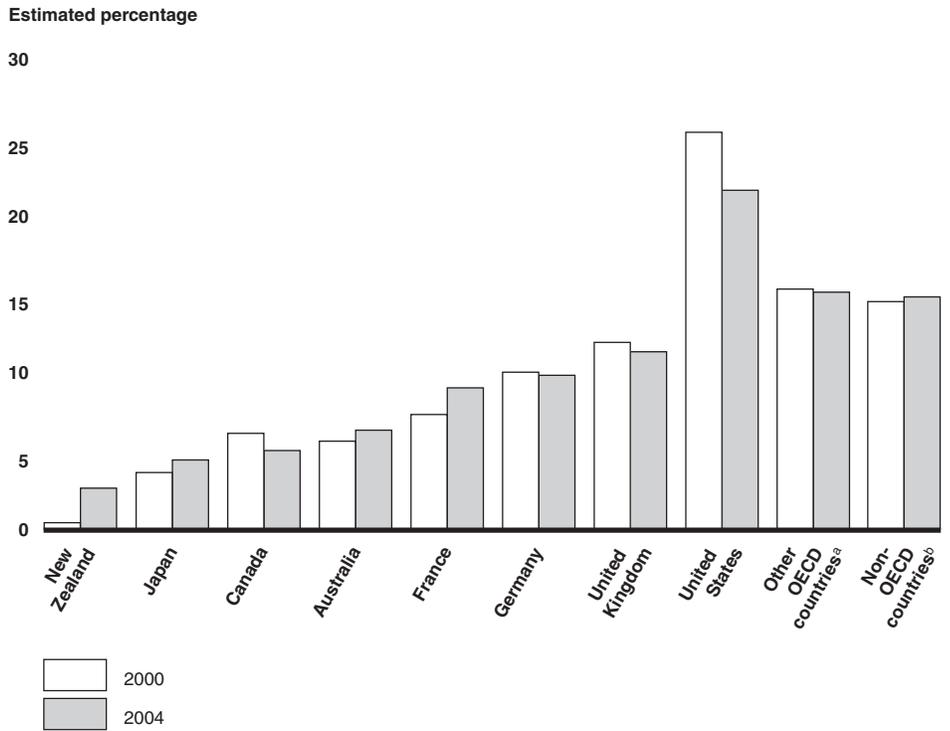
Figure 1: Estimated Number of International Students Enrolled in U.S. Higher Education, 1984/1985 to 2005/2006



Source: Institute of International Education (IIE) data.

Note: The most recent year for which data are available is 2005/2006.

Figure 2: Estimated Percentage of All International Higher Education Students Enrolled in a Selection of Countries by Destination, 2000 and 2004



Source: Organisation for Economic Co-operation and Development (OECD) data.

Note: Information in this graph includes only those countries for which both 2000 and 2004 data were available, except for Canada, for which the year of reference is 2002. GAO did not assess the reliability of the data for the percentage of students enrolled in schools outside the United States. Also, the definition of international students is not uniform across countries.

^aOther OECD countries include Austria, Belgium, Denmark, Finland, Greece, Hungary, Iceland, Ireland, Italy, Korea, Luxembourg, Mexico, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, and Turkey.

^bNon-OECD countries include Brazil, Chile, India, Malaysia, the Russian Federation, South Africa, and others.

Participants Said International Student Enrollment in the United States Shows Signs of Rebounding, but Increasing Global Competition Poses Significant Future Challenges

Despite concerns about slowing international student enrollment after September 11, participants said U.S. international student enrollments appeared to be rebounding, and the country remains a highly desirable destination for higher education. However, the U.S. share of international students worldwide has declined, partly because of growing competition, and participants expressed concern that the United States may face increased challenges attracting international students in the future.

Enrollment Numbers Appear to Be Rebounding to Pre-September 11 Levels

Some participants said enrollments of international students studying in U.S. higher education institutions appear to be rebounding nationwide, meeting or exceeding pre-September 11 levels. Despite concerns about the impact of September 11 security and visa restrictions, one participant said international graduate student numbers seem to be returning to their historical levels at both the master's and PhD levels. Another reported that student exchange and visitor visas and visa renewal applications have met or exceeded 2001 levels, and increases appear to have been particularly strong among certain groups of students. For example, the numbers of U.S. visas issued to students from the Middle East nearly doubled between fiscal years 2005 and 2006. Participants said some individual universities also have had increases in international student enrollments, particularly among students from developing countries.

However, a few participants were less optimistic about these trends and questioned whether enrollment had increased in all U.S. colleges and universities. One predicted that international student enrollments would remain flat. In addition, a couple of participants said that recent enrollment increases have been less pronounced at lesser-known institutions, possibly because of the high cost of recruiting international students.

Regardless of the direction of the enrollment trends, participants noted that little is known about the quality of international students the United States is attracting. It is possible the country could maintain overall international student enrollment but attract fewer of the best and brightest students worldwide. However, data on the quality of current international students are limited.

Many participants focused on maintaining or increasing the numbers of international students in the United States, and some noted that in the past, international students and scholars have made substantial contributions to certain fields of research, such as biology. However, one participant noted that over a decade ago, some thought the country had more than a sufficient share of international students.

The United States Is Still Regarded as a Highly Desirable Destination for Higher Education and Has Distinct Advantages in Attracting International Students

Participants said U.S. higher education is still regarded as the most desired study destination for many students. They identified four key competitive advantages the United States has in attracting international students and remaining a prime destination for students:

- *Educational quality:* Participants said international students are attracted to U.S. higher education in large part because of its high quality, and its graduate programs in particular are seen as among the best in the world. Some said the U.S. merit-based system and strong research funding also attract international students. Others said the diversity of foreign-born faculty in U.S. universities was a strength of the system.
- *Job opportunities:* Participants said international students are often drawn to the United States because of possible job opportunities in the country after graduation, providing a chance to enhance their skills and obtain an economic return on their educational investment.
- *English language:* Some noted that many international students come to the United States to learn English, which is used internationally in science and other fields.
- *Democracy:* They also said many international students are attracted to the U.S. environment of democracy and open debate.

However, Other Countries Are Capturing an Increasing Share of International Students, Signaling the Possibility of Challenges Ahead

Participants noted that the number of international students worldwide has expanded and is expected to continue expanding in the future, but the U.S. share of the pie has declined since the late 1990s. Because of growing competition and other changes, participants expressed concern that the United States may face increased challenges attracting international students in the future.

Participants generally agreed that the United States' declining share is largely explained by several factors, including increasing global competition for students:

- *More higher education options worldwide:* Participants said worldwide educational capacity is growing quickly, providing students more higher education options in more countries. One participant noted that China now has hundreds of thousands of PhD students enrolled in its own universities. And international students seeking degree programs in English have more options, as universities in non-English-speaking countries, particularly in Europe, increasingly offer courses and even entire degree programs in English. In addition, international students often have the option of obtaining a U.S. education through branches of U.S. universities in their own countries, and participants said there is demand for U.S. universities to establish additional overseas programs. They noted that as students have greater options worldwide, it may be harder to attract talented international students to study in the United States.
- *Additional recruiting strategies abroad:* Participants said some other countries appear more committed to attracting international students than the United States and have developed coordinated strategies to recruit them. In addition, some countries are specifically recruiting and providing scholarships to international students with fewer resources who may not be able to afford U.S. higher education. However, one participant said the United States' advantages have kept it more attractive to international students than countries with more comprehensive recruitment strategies.
- *Expanding job opportunities abroad:* While participants agreed job opportunities remain a strong incentive for international students to choose the United States, they said expanding job and financial opportunities in other countries may be eroding this advantage, making international students less likely to come to the United States and less likely to stay and work after they graduate. One participant provided an example of the impact of expanding opportunities abroad, noting that U.S. students from Korea and Japan increasingly return to job opportunities in their own countries. He speculated that students from China and India might similarly be more likely to return home in the future, given expanding opportunities in those countries.
- *Increasing institutional partnerships:* One participant said the establishment of new institutional partnerships and government arrangements may have changed the way students make decisions

about international study, possibly hurting U.S. market share. Instead of individual students choosing where to study, students now often move in large numbers to particular programs based on established university and governmental relationships. For example, the participant said a reciprocal agreement on international education between China and France could encourage students in each country to study in the other, rather than in the United States or elsewhere.

The United States Also Faces Challenges in Attracting Talented International Students Because of Internal Factors

In addition to the challenges posed by expanding higher education options in other countries, the United States has a number of its own issues that could pose challenges in recruiting talented international students, including lack of an integrated national approach to recruitment, high tuition costs, growing costs for universities related to recruiting students, and real and perceived barriers created by U.S. immigration policy.

U.S. Higher Education Institutions Face Issues That Could Present Challenges in Recruiting International Students

Participants noted that the United States is disadvantaged because, unlike some other countries, it lacks an integrated, strategic approach to recruiting and retaining international students. Currently, responsibility for different policies related to international students is shared across federal agencies, including the Department of State and the Department of Homeland Security. One participant said that without an approach that integrates immigration, student recruitment, and other related policies, the United States may run the risk of losing its appeal to international students and weakening its global competitiveness. Participants also said that advising centers run by the Department of State that are intended to aid and attract international students have fewer resources than those in some other countries.

Participants also said high tuition costs may discourage some international students from coming to U.S. higher education institutions.² Several said higher costs in the United States make it more difficult to compete with other countries for students, particularly for low-income students who may be unable to afford tuition. In addition, one participant said the costs of entrance testing, such as the Graduate Record Examinations (GRE) and Test of English as a Foreign Language (TOEFL), may also be a barrier for some international students. High costs may lead students to explore ways of entering the country that do not require them to enroll in regular degree programs—one participant said some students come only for summer study and job programs.

In addition, universities face costs in recruiting and enrolling highly qualified international students, including the costs of reaching out to potential students, entering information in SEVIS, and assisting students in obtaining visas. Some participants said university costs, including the costs of assisting with visas, have grown. Such costs may be difficult for some universities—particularly smaller schools—to support, and one participant noted that university counseling and recruitment activities tend to receive insufficient funding.

U.S. Immigration and Visa Policies Create Real and Perceived Barriers for International Students and High-Skill Workers

Several participants said the overall immigration system for both nonimmigrants and immigrants does not adequately serve U.S. efforts to attract international students and high-skill workers.

The nonimmigrant visa system has problems that hinder international students' enrollment in U.S. higher education institutions and efforts to later work in the United States, according to participants. While several said that obtaining visas was not a major barrier for international students

²The Educational Policy Institute (EPI) reported in 2005 that U.S. higher education was one of the least affordable of 16 higher education systems studied. EPI noted that U.S. higher education costs tend to be offset by higher incomes and by financial assistance that is more generous than in some other countries. However, international students generally do not rely on U.S. federal funding to study in the United States. According to the Institute of International Education's Open Doors 2004/2005 report, which provides data on international student mobility patterns from U.S. universities, an estimated 72 percent of all international students reported their primary source of funding coming from personal and family sources or other sources outside of the United States. See Usher, A., and A. Cervenan, *Global Higher Education Rankings 2005: Affordability and Accessibility in Comparative Perspective*. Toronto, Ontario: Educational Policy Institute (2005). Also see Institute of International Education, *Open Doors Report 2005: Report on International Educational Exchange*. New York (2005).

and that post-September 11 issues had eased somewhat, others said there are perceptions that the U.S. student visa process is difficult and less transparent than in other countries. Participants identified the following problems:

- *Difficulty obtaining visas in some regions:* Some participants noted that obtaining a student visa is particularly difficult in specific parts of the world, partly because of security concerns.
- *Perceptions of visa refusal rates:* If international students have the impression that they may not receive a visa, some may think that applying is not worth the cost. However, one participant noted that fewer student visa applications are being refused than before September 11.
- *Burdensome visa renewal process:* Participants said the visa renewal process can be burdensome, requiring many students to reapply for entry to the United States if they return home before their studies are complete.
- *Intent-to-return requirement:* They questioned the requirement that student visa applicants prove their intent to return home after completing their studies, and one said it was not realistic for visa officers or students to know with certainty students' future plans to stay in the United States or return home.
- *H-1B visa cap:* Because of the limited availability of H-1B visas and other work visas, international students who want to work in the United States after graduating may have difficulty staying.

Furthermore, participants said some international students feel they are not welcome in the United States, and one said perceptions may be stronger deterrents than actual barriers for international students. One participant said that when the country communicates it is welcoming, international students have been much more interested in coming to study.

While the participants mainly focused on international students, they also discussed attracting high-skill workers from around the world as part of overall U.S. global competitiveness. In particular, participants said the permanent immigration system does not facilitate high-skill workers coming to the United States. U.S. citizens' family members applying for permanent residency, who account for many of the high-skill foreigners entering the country, could make valuable contributions as part of the U.S.

workforce yet may face long delays. For example, siblings have long average waits to enter the country and often are not permitted to immigrate until they are older and no longer able to contribute.

Finally, a few participants were critical of the way in which decisions about the numbers of immigrants and visitors admitted to the United States are made. They said policy changes often have been based on data from the past rather than on demographic projections about the future, and some said piecemeal attempts to fix the immigration system are not sufficient. For example, one participant said that an attempt to increase the number of visas available in a particular year would not adequately address the need for more comprehensive policy changes.

Participants Said the United States Should Take Action to Continue Attracting International Students and to Strengthen U.S. Competitiveness

Participants stated that the country needs to take steps to ensure that U.S. higher education continues to attract talented international students. They generally agreed that the United States should work to develop a national strategic plan for recruiting international students and should improve coordination and communication among the federal government and other organizations, as well as with international students. Many also recommended a reevaluation of the U.S. immigration system, while a number of participants suggested that the United States should both explore new sources of international students and cultivate its domestic capacity.

The United States Should Develop a National Strategic Plan for Recruiting International Students to Improve Overall Coordination and Communication, According to Participants

Participants said the United States should improve coordination and communication about international students and global competitiveness among key players, including federal agencies, universities, nonprofit organizations, and the private sector. Although participants noted that certain federal agencies already have internal, agency-level plans related to international students and global competitiveness, many participants agreed that a national strategic plan for recruiting and retaining international students is needed. This strategy should encompass relevant federal agencies such as the Departments of State, Education, Homeland Security, and Commerce. The plan should also establish a coherent set of policies to address issues related to international students.

Some participants indicated it was important to develop policies that were realistic and could be implemented fully and quickly, while another suggested that any strategy needs strong presidential leadership behind it. Participants also said that international student recruitment by both federal agencies and universities needs to be more proactive, rather than

universities simply “opening the mail,” and that existing federal advising centers and other tools could be better leveraged to attract international students. Fostering collaborations and alliances among different types of higher education institutions, including research universities and community colleges, was suggested to establish a more coordinated, effective approach for recruiting international students. Several participants also agreed that it is crucial to create a “national sense of urgency”—such as that inspired by Sputnik—around the concept of competitiveness.

Participants also said federal agencies may need to improve communication with international students to ensure students are aware of available federal resources. For example, the Department of Homeland Security has a Web site that provides information on visa and immigration issues to international students and to schools, but one individual felt that greater effort may be needed to ensure users are aware of the information available. Another participant said it was sometimes difficult for students to obtain information on policies such as immigration rules.

Participants said that in addition to developing a strategic plan, the United States should take additional steps to improve federal coordination and communication about international students and global competitiveness. In particular, some indicated that it would be useful to clearly define the people, roles, and issues relevant to the global competitiveness of higher education in order to promote broader discourse on the topic. Participants noted that federal agencies already have some efforts in place to foster coordination and communication. For example, the Departments of Education and State held a joint summit on international education with college and university presidents that included a discussion of international education goals.

Efforts to improve coordination and communication rely heavily on obtaining and sharing information, and many of the participants agreed that the federal government should collect more and better information on international students to strengthen decision making. Participants noted that data tend not to be timely, making it difficult to evaluate policy proposals. Moreover, while statistical databases like SEVIS, maintained by the Department of Homeland Security, provide useful information on

international students studying in the United States,³ more key people need to be made aware of its capabilities and encouraged to use it.

In this respect, participants recommended a number of improvements to current data collection and analysis, including the following:

- Disaggregating data to analyze where students come from, how long they stay, and for what purpose they are here. Doing so could help in making more informed decisions.
- Collecting qualitative data that could provide valuable context for quantitative data.
- Developing uniform, consensus-based social and economic indicators of U.S. higher education's competitiveness.
- Filling gaps in a number of nationally conducted surveys. Such gaps include the absence of information on foreign-born graduate students in the National Science Foundation's Survey of Doctorate Recipients.

Participants Suggested the United States' Immigration System Should Be Reevaluated in order to Remove Barriers for Talented Foreigners

Several agreed that immigration reform is necessary for ensuring the United States retains access to the most talented individuals, including by addressing the concerns described earlier regarding the visa renewal process and the intent-to-return requirement. At the same time, participants acknowledged that efforts to strengthen competitiveness through immigration reforms need to strike a balance between economic gains and national security.

Several options were raised for reforming the student visa process, including the following:

- Extending the periods during which visas are valid so that students who want to travel outside the country do not have to return home and reapply for entry back into the United States.⁴

³Information collected in SEVIS includes the number of students coming to the United States from different countries, the geographic distribution of international student populations in the United States, the number of schools registered in SEVIS, and other data.

⁴Changes to the periods during which nonimmigrant visas are valid may be limited by existing reciprocity agreements between the United States and a student's home country.

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- Reconsidering the requirement that student visa applicants prove their intent to return to their home countries.
 - Expanding work opportunities for international students and their spouses.⁵

A number of participants also recommended system changes to facilitate permanent residency and citizenship for talented international students:

- Creating a transitional visa that bridges the gap between the current temporary and permanent ones.
- Giving international students studying at American universities partial credit toward their permanent residency time requirement for obtaining citizenship. Currently, the time that an international student spends studying in the United States does not count toward the 5-year permanent residency requirement for citizenship.

In addition, participants said the country should reconsider current policies that keep high-skill workers, including highly skilled siblings, from promptly entering the United States.

The United States Should Explore New Sources of International Students as well as Cultivate Both Domestic and International Talent, Participants Said

Participants stated that the United States needs to look at new markets around the world as sources of future undergraduate and graduate students, while noting the need to continue embracing students from traditional markets like India and China. For example, one participant recommended that the United States consider following other countries' lead in recruiting students from developing nations, notably those in Africa. Another suggested establishing public-private partnerships to assist low-income students from abroad in accessing U.S. higher education. A third participant suggested that such efforts build upon existing federal activities, such as the Departments of State and Education's participation at international forums. Moreover, two individuals advocated for a stronger U.S. presence in higher education institutions around the world, including greater "forward deployment" of U.S. universities in other countries.

⁵Work authorization for most international students and their spouses is limited, and many spouses are not permitted to work under any circumstances.

Several of the participants pointed out that while recruiting and retaining international talent is important, so too is fostering domestic capacity to ensure that the United States' economy remains globally competitive. While it was noted that several federal agencies, such as the Departments of Education and Labor, have developed initiatives to enhance U.S. competitiveness, participants stressed that more could be done. One participant noted the need to improve access to higher education, particularly for families in poverty. Another suggested that the federal government should continue encouraging U.S. students to study critical foreign languages and that more students ought to be encouraged to study abroad. Several others suggested that in light of the challenges, the United States should do more to encourage U.S. students to study science fields. One participant presented figures indicating that the share of PhDs in science and technology in the United States held by Americans has dropped substantially over the past 25 years, and that in engineering the figure may now be as low as 40 percent. However, another participant questioned whether students would actually be drawn to these sectors, given their current pay structures, and observed that undergraduate students in engineering are increasingly taking up graduate study in law and business, fields in which the pay is more attractive.

Appendix I: List of Participants

Moderator

David M. Walker Comptroller General of the United States
U.S. Government Accountability Office

Participants

William T. Archey President and Chief Executive Officer
AeA (formerly the American Electronics Association)

Anne Campbell Senior Adviser
Office of Postsecondary Education
U.S. Department of Education

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Allan E. Goodman President and Chief Executive Officer
Institute of International Education

Peter Henderson Director, Board on Higher Education and Workforce
National Research Council, the National Academies

Shirley Ann Jackson	President Rensselaer Polytechnic Institute
Marlene M. Johnson	Executive Director and Chief Executive Officer NAFSA: Association of International Educators
Theodore H. Kattouf	President and Chief Executive Officer America-Mideast Educational and Training Services, Inc.
Peter Lee	Vice Provost for Research Carnegie Mellon University
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Jennifer McNelly	Director, Business Relations Group U.S. Department of Labor
Demetrios G. Papademetriou	President Migration Policy Institute
Mark Regets	Senior Analyst National Science Foundation
Debra W. Stewart	President Council of Graduate Schools
Rosalind Swenson	Director, Office of Academic Exchanges Bureau of Educational and Cultural Affairs U.S. Department of State
Brad Thomas	Professional Staff Member Committee on Education and the Workforce U.S. House of Representatives
David Ward	President American Council on Education

Appendix II: Contact and Staff Acknowledgments

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Related GAO Products

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Border Security: Stronger Actions Needed to Assess and Mitigate Risks of the Visa Waiver Program. [GAO-06-854](#). Washington, D.C.: July 28, 2006.

Process for Admitting Additional Countries into the Visa Waiver Program. [GAO-06-835R](#). Washington, D.C.: July 28, 2006.

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H-1B Visa Program: More Oversight by Labor Can Improve Compliance with Program Requirements. [GAO-06-901T](#). Washington, D.C.: June 22, 2006.

Homeland Security: Contract Management and Oversight for Visitor and Immigrant Status Program Need to Be Strengthened. [GAO-06-404](#). Washington, D.C.: June 9, 2006.

Foreign Physicians: Preliminary Findings on the Use of J-1 Visa Waivers to Practice in Underserved Areas. [GAO-06-773T](#). Washington, D.C.: May 18, 2006.

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Border Security: Reassessment of Consular Resource Requirements Could Help Address Visa Delays. [GAO-06-542T](#). Washington, D.C.: April 4, 2006.

Homeland Security: Visitor and Immigrant Status Program Operating, but Management Improvements Are Still Needed. [GAO-06-318T](#). Washington, D.C.: January 25, 2006.

Offshoring of Services: An Overview of the Issues. [GAO-06-5](#). Washington, D.C.: November 28, 2005.

State Department: Stronger Action Needed to Improve Oversight and Assess Risks of the Summer Work Travel and Trainee Categories of the Exchange Visitor Program. [GAO-06-106](#). Washington, D.C.: October 14, 2005.

Higher Education: Federal Science, Technology, Engineering, and Mathematics Programs and Related Trends. [GAO-06-114](#). Washington, D.C.: October 12, 2005.

Border Security: Strengthened Visa Process Would Benefit from Improvements in Staffing and Information Sharing. [GAO-05-859](#). Washington, D.C.: September 13, 2005.

Border Security: Actions Needed to Strengthen Management of Department of Homeland Security's Visa Security Program. [GAO-05-801](#). Washington, D.C.: July 29, 2005.

U.S. Public Diplomacy: Interagency Coordination Efforts Hampered by the Lack of a National Communication Strategy. [GAO-05-323](#). Washington, D.C.: April 4, 2005.

Homeland Security: Performance of Foreign Student and Exchange Visitor Information System Continues to Improve, but Issues Remain. [GAO-05-440T](#). Washington, D.C.: March 17, 2005.

Border Security: Streamlined Visas Mantis Program Has Lowered Burden on Foreign Science Students and Scholars, but Further Refinements Needed. [GAO-05-198](#). Washington, D.C.: February 18, 2005.

U.S. Public Diplomacy: State Department and Broadcasting Board of Governors Expand Post-9/11 Efforts, but Challenges Remain. [GAO-04-1061T](#). August 23, 2004.

Homeland Security: Performance of Information System to Monitor Foreign Students and Exchange Visitors Has Improved, but Issues Remain. [GAO-04-690](#). Washington, D.C.: June 18, 2004.

Highlights of a GAO Forum: Workforce Challenges and Opportunities for the 21st Century: Changing Labor Force Dynamics and the Role of Government Policies. [GAO-04-845SP](#). Washington, D.C.: June 2004.

Overstay Tracking: A Key Component of Homeland Security and a Layered Defense. [GAO-04-82](#). Washington, D.C.: May 21, 2004.

Visa Operations at U.S. Posts in Canada. [GAO-04-708R](#). Washington, D.C.: May 18, 2004.

Homeland Security: First Phase of Visitor and Immigration Status Program Operating, but Improvements Needed. [GAO-04-586](#). Washington, D.C.: May 11, 2004.

U.S. International Broadcasting: Challenges Facing the Broadcasting Board of Governors. [GAO-04-711T](#). Washington, D.C.: April 29, 2004.

Border Security: Improvements Needed to Reduce Time Taken to Adjudicate Visas for Science Students and Scholars. [GAO-04-371](#). Washington, D.C.: February 25, 2004.

U.S. Public Diplomacy: State Department and the Broadcasting Board of Governors Expand Efforts in the Middle East but Face Significant Challenges. [GAO-04-435T](#). Washington, D.C.: February 10, 2004.

H-1B Foreign Workers: Better Tracking Needed to Help Determine H-1B Program's Effects on U.S. Workforce. [GAO-03-883](#). Washington, D.C.: September 10, 2003.

U.S. Public Diplomacy: State Department Expands Efforts but Faces Significant Challenges. [GAO-03-951](#). September 4, 2003.

Student Loans and Foreign Schools: Assessing Risks Could Help Education Reduce Program Vulnerability. [GAO-03-647](#). Washington, D.C.: July 25, 2003.

U.S. International Broadcasting: New Strategic Approach Focuses on Reaching Large Audiences but Lacks Measurable Program Objectives. [GAO-03-772](#). Washington, D.C.: July 15, 2003.

Border Security: Implications of Eliminating the Visa Waiver Program. [GAO-03-38](#). Washington, D.C.: November 22, 2002.

H-1B Foreign Workers: Better Controls Needed to Help Employers and Protect Workers. HEHS-00-157. Washington, D.C.: September 7, 2000.

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