



Council of Graduate Schools

RESEARCH REPORT

**FINDINGS FROM THE
2007 CGS INTERNATIONAL GRADUATE ADMISSIONS SURVEY
PHASE I: APPLICATIONS**

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Council of Graduate Schools

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OVERVIEW

In 2004, the Council of Graduate Schools (CGS) began an extensive, multi-year empirical examination of international graduate application, admission, and enrollment trends. This analysis responds to member institutions' concerns about the sharp decline in the enrollment of students from abroad seeking master's and doctoral degrees from American colleges and universities that occurred after September 11, 2001.

The key component of this examination has been a three-stage survey of CGS member institutions. The survey collects information on graduate school applications (conducted in February of each year), admissions (June), and enrollment (September). Previous surveys found a 28% decline in the number of applications from prospective international graduate students at American colleges and universities in 2004, a 5% decline in 2005, and 12% increase in applications in 2006.¹

CGS survey data for 2007 suggest that while American graduate schools have continued to attract an increasing number of applications from prospective international students, the rate of increase appears to be slowing. Furthermore, the growing number of graduate school applications from non-citizens still has not been large enough to reverse the declines that occurred after 2001.

This report first describes the survey methodology used to collect and calculate the changes in application data for 2007, and then compares changes in applications from 2006 to 2007 with earlier survey periods.

SURVEY METHODOLOGY AND RESPONSE RATE

The *2007 International Graduate Admissions Phase I: Applications* survey was sent to 468 American colleges and universities that were members of CGS as of February 2007.² The survey asked these institutions to report the number of applications for admission to master's and doctoral degree programs received from prospective international students, by country of origin and field of study. In the U.S., an international student is generally defined as "a person who is not a citizen, national, or permanent resident of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely."³

Roughly 31% (145) of the survey population provided usable responses as of April 6. The response rates among certain types of institutions were even higher. Eighty percent of the ten institutions with the largest international student enrollment⁴, 76% of the largest 25, and 68% of the largest 50 provided usable survey responses. The high participation rate among the campuses with the largest

¹ Brown, H. & Neubig, E. 2006. *Findings from 2006 CGS International Graduate Admissions Survey Phase II: Final Applications and Offers of Admission*. Washington, DC: Council of Graduate Schools.

² CGS also has member institutions in Canada and affiliate members from overseas universities. These institutions were not included in the survey population.

³ Brown, H.A. 2005. *Graduate and Enrollment Degrees: 1986 to 2005*. Washington, DC: Council of Graduate Schools.

⁴ The most recent total international graduate enrollment data are for fall 2004 and come from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) Enrollment Survey.

international graduate enrollment is important because collectively the 50 largest institutions enrolled more than 41% of the total international graduate student population.⁵

For some campuses, the timing of the CGS survey came at a very early point in their admissions application processing cycles, before final numbers were known. These institutions provided early estimates of their application figures. For that reason, the survey results (described in the next section of this report) should be considered preliminary. Nonetheless, the high response rate among the institutions with the largest numbers of international students suggests that the survey results accurately depict recent trends in international graduate applications in the United States.

SURVEY RESULTS

Total Number of Applicants

The total number of non-U.S. citizens who applied for admission to master's and doctoral programs at American colleges and universities rose 8% between 2006 and 2007. As Table 1 on the next page shows, this increase compares with an overall gain of 12% from 2005 to 2006 and a *decline* of 5% in the 2004-2005 period. While the continuing increase in international applications is encouraging, current international student application activity still has not returned to the levels seen prior to September 11, 2001.

Despite the increases in the past two years, more than 70% of the institutions that have participated in the CGS survey since its inception still have *fewer* international graduate applicants this year than they did in 2003. Among the colleges and universities that have participated in the CGS survey consistently, the number of international graduate admissions applications received in 2007 remains 27% below those received four years earlier.

In addition, the annual number of academic study (F-1) visas issued to current and prospective international students by the U.S. State Department, a key barometer of international student activity, fell nearly 10% between 2001 and 2005,⁶ and more recent data from Education Sector estimates that the number of new F-1 visas issued each year by U.S. consular officials remains about 20,000 below those issued prior to 2001.⁷ By contrast, in the five years before 2001, the number of visas issued for academic study increased an average of 11% annually.⁸

⁵ Total enrollment figures are based on enrollment as of fall 2004, the most recent year available. For more information, see National Center for Education Statistics. 2006. Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Dataset. On-line. Available: <http://nces.ed.gov/ipeds/>

⁶ U.S. Department of Homeland Security, Office of Immigration Statistics, 2006. *Yearbook of Immigration Statistics: 2005*.

⁷ Jaschik, S. 22 March 2007. "New Worries on Foreign Students." *Inside Higher Ed*. On-line. Available: <http://www.insidehighered.com/news/2007/03/22/visas>

⁸ U.S. Department of Homeland Security, Office of Immigration Statistics, 2006. *Yearbook of Immigration Statistics: 2005*. On-line. Available: <http://www.uscis.gov/graphics/shared/statistics/yearbook/YrBk05NI.htm>

Table 1. Percentage Change in International Graduate Applications, 2004 to 2007

	Final Number of Applications, 2003 to 2004	Final Number of Applications, 2004 to 2005	Final Number of Applications, 2005 to 2006	Preliminary Number of Applications, 2006 to 2007
International Total	-28%	-5%	12%	8%
Country of Origin				
China	-45%	-15%	19%	17%
India	-28%	-5%	26%	6%
Korea	-14%	1%	4%	-2%
Middle East*	4%	7%	10%	9%
Field of Study				
Business	-24%	0%	16%	7%
Education	-21%	3%	1%	8%
Engineering	-36%	-7%	19%	8%
Arts & Humanities	-17%	0%	5%	12%
Life Sciences & Agriculture	-24%	-2%	9%	13%
Physical & Earth Sciences	-22%	-2%	15%	8%
Social Sciences	-20%	-2%	6%	0%

Source: Council of Graduate Schools, International Graduate Admissions Survey, Phase I: Applications. Various Years.

*Middle East countries include: Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.

The survey results, combined with the trends in student visas, strongly imply that international student interest in graduate school attendance in the U.S. still has not returned to the pre-2001 levels. Moreover, with the increase in international applications appearing to slow between 2006 and 2007, it appears unlikely that total international graduate application figures will return to their pre-September 11 numbers in the near future.

Number of Applicants by Country of Origin

India, China, and Korea rank as the top three countries of origin for international students in the United States. Students from these three nations accounted for 53% of all non-U.S. citizen graduate students attending the American colleges and universities that responded to CGS' 2006 *Phase III: Admissions and Enrollment* survey.⁹ Much of the overall shift in total applications can thus be

⁹ Redd, K.E. & Neubig, E.H. 2006. *Findings for the 2006 CGS International Graduate Admissions Survey Phase III: Admissions and Enrollment*. Washington, DC: Council of Graduate Schools.

accounted for by changes among students from these three countries. Students from countries in the Middle East¹⁰ were also included in the survey; these students accounted for about 5% of total international graduate enrollment.

Between 2006 and 2007, the total number of graduate applicants from India was up just 6%, after a surge of 26% last year, while the number of applications from Korea *fell* 2% in 2007 after experiencing a 4% gain one year earlier. Applications from China, however, increased 17% this year, nearly matching last year's 19% gain. Applications from the Middle East grew 9% in 2007 after rising 10% in 2006.

Fields of Study

The fields of business, engineering, social sciences, physical sciences, and life sciences have attracted the majority of international students for a number of years. Collectively, about 73% of international graduate students enrolled at the institutions that participated in the 2006 CGS *Phase III* survey were engaged in studies in these fields.¹¹ A number of these large fields of study had declining rates of growth in applications between 2006 and 2007. Engineering had an 8% increase in international graduate admissions applications in 2007, which was well short of the 19% gain in 2006. Applications to business grew 7% in 2007, compared with an increase of 16% a year earlier. Physical & earth sciences grew 8% in 2007 after a 15% jump in 2006, and social sciences reported no growth in applications in 2007 after a gain of 6% a year earlier.

The fields with smaller enrollments of international students, however, experienced much greater growth in international applications between 2006 and 2007. The most surprising field was education, which saw 8% growth in 2007 applications, compared with only a 1% gain in 2006. This increase, while noticeable, is based on a fairly low number of international students (in 2006, only 8% of the total number of international students enrolled in American graduate schools were in education programs).¹² Arts & humanities applications grew 12% in 2007 after a 5% gain in 2006, and applications in life sciences & agriculture continued its very strong growth, reporting an increase in international applications of 13% in 2007 after a gain of 9% one year earlier.

Application Trends by Enrollment Size

While the overall changes in the number of international applications are important, they potentially mask even larger gains and losses by small and large institutions. To account for the wide variability in application trends, this year CGS, for the first time, is reporting the percentage changes in international graduate applications by total institutional international graduate student enrollment size.

¹⁰ Middle East countries include: Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.

¹¹ Redd, K.E. & Neubig, E. H. 2006.

¹² *Ibid.*

Table 2 displays the percentage changes in applications from 2006 to 2007 for the colleges and universities with the ten, 25, and 50 largest enrollments of international graduate students. The enrollment size levels are based on international enrollments for the most recent year of available data.¹³

Table 2. Percentage Change in International Graduate Student Applications, 2006 to 2007, by Total Institutional Graduate Student Enrollment Size*

	Largest 10 Institutions	Largest 25 Institutions	Largest 50 Institutions	All Other Institutions
International Total	13%	8%	10%	5%
Country of Origin				
China	18%	14%	17%	17%
India	22%	10%	13%	-8%
Korea	2%	-2%	-1%	-6%
Middle East**	18%	9%	10%	8%
Field of Study				
Business	21%	9%	11%	-8%
Education	5%	5%	15%	-8%
Engineering	13%	6%	9%	4%
Arts & Humanities	5%	1%	16%	3%
Life Sciences & Agriculture	17%	10%	18%	6%
Physical & Earth Sciences	17%	7%	7%	9%
Social Sciences	0%	1%	%	-3%

Source: Council of Graduate Schools, 2007 International Graduate Admissions Survey, Phase I: Applications.

*Enrollment size is based on fall 2004 enrollments of international graduate students at American colleges and universities. The data come from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) Enrollment Survey. See National Center for Education Statistics. 2006. Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Dataset. On-line. Available: <http://nces.ed.gov/ipeds/>

**Middle East countries include: Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.

¹³ The most recent year of data is fall 2004. These data come from the National Center for Education Statistics' 2006 Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Available on-line at: <http://nces.ed.gov/ipeds/>

Overall, the largest institutions in terms of international graduate student enrollment had the greatest gains in applications, while the smallest institutions had only small increases or in some instances declines. At the ten largest colleges and universities, total international graduate applications rose 13%, compared with gains of 8% for the largest 25, 10% for the largest 50, and just 5% for those institutions with international graduate enrollments below the largest 50.¹⁴ The country-of-origin and field-of-study differences are particularly striking. Applications from India, for instance, rose 22% at the ten largest universities, but fell by 8% at smallest colleges and universities. Applications from Korea fell 6% at the institutions outside the 50 largest in international enrollment, compared with gains of 2% at the ten largest. And in the fields of study, international applications to the institutions outside of the 50 largest fell 8% in business and education, versus increases of 21% and 5%, respectively, for the ten largest. These results suggest that international graduate student enrollment may become more concentrated at the largest universities in the near future.

CONCLUSIONS AND IMPLICATIONS

U.S. graduate schools continue to make progress in their efforts to increase their international graduate student enrollments. CGS' 2007 *International Graduate Admissions Phase I: Applications* survey results show that the total number of applications for admission to American graduate programs received from non-U.S. citizens rose 8% from 2006 to 2007. This gain is not as large as last year's 12% increase, but is a sharp contrast from the 5% decline that occurred from 2004 to 2005.

This year's smaller increase may indicate that the overall progress American graduate schools have been making has slowed at least temporarily. It is also very important to note that the overwhelming majority of institutions that have consistently responded to the CGS surveys are still down sharply in their international applications this year when compared with 2003. These two findings suggest strongly that American graduate schools still have not achieved the level of growth they were experiencing prior to 2001, despite recent gains.

Further, the overall gain in total international graduate applications appears to have come primarily from the institutions that enroll the largest number of international graduate students. The ten largest institutions, in terms of total international graduate enrollment, had a 13% increase in total international graduate applications. Most noticeable was a 22% jump in graduate applications from India for the ten largest institutions; institutions outside the 50 largest, on the other hand, experienced an 8% drop in applications from India. Smaller institutions also reported smaller gains in applications from most of the other countries of origin measured by the survey and in nearly all the fields of study.

But will the overall rising application activity lead to increases in international student enrollment? The results from the next phase of the CGS international survey series, *Phase II: International*

¹⁴ These results are based on the survey response rates by enrollment size. Eighty percent of the 10 institutions with the largest international student enrollment in fall 2004, 76% of the largest 25, and 68% of the largest 50 provided usable survey responses.

Graduate Admissions, scheduled to be launched this summer, may provide very important information concerning the future direction of international graduate student attendance in the United States.

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The Council of Graduate Schools (CGS) is an organization of over 480 institutions of higher education in the United States and Canada engaged in graduate education, research and the preparation of candidates for advanced degrees. CGS member institutions award more than 90% of the doctoral degrees and over 75% of the master's degrees in the U.S. The organization's mission is to improve and advance graduate education, which it accomplishes through advocacy in the federal policy arena, research, and the development and dissemination of best practices.