

Council of Graduate Schools

RESEARCH REPORT

FINDINGS FROM THE 2007 CGS INTERNATIONAL GRADUATE ADMISSIONS SURVEY

PHASE III: FINAL OFFERS OF ADMISSION AND ENROLLMENT

November 2007



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 continuing changes in the enrollment of students from abroad seeking master's and doctoral degrees from American colleges and universities.

The core of this examination is a three-phase survey of CGS member institutions. The survey collects an initial snapshot of graduate school applications (*Phase I*, conducted in February of each year), final applications and an initial picture of admissions offers (*Phase II*, June), and final offers of admission, first-time enrollments, and total enrollments (*Phase III*, October).

The 2004 *Phase III* report found a 6% decrease in first-time international graduate enrollments from 2003 to 2004. The 2005 report revealed that first-time enrollments increased by 1% from 2004 to 2005, but total enrollments fell 3% during the same period. Last year's *Phase III* survey discovered a 12% increase in first-time enrollments and a 1% gain in total enrollment from 2005 to 2006. ³

CGS survey data for 2007 suggest that American graduate schools have continued to attract an increasing number of international students, as both first-time and total enrollments continue to rise. But the rates of increase in enrollments slowed between 2006 and 2007. Moreover, the rebound in international enrollments still has not been large enough to reverse the declines that many institutions reported in 2004.

This survey report also, for the first time, reports information on the systems and processes graduate schools use to coordinate recruitment of international students, as well as graduate deans' involvement in international outreach activities. These results provide vital data on international outreach efforts by American graduate schools and deans.

This report first describes the survey methodology used to collect and calculate the changes in enrollment and admissions data for 2007, and then compares the one-year changes to those in prior years. The third section examines international recruitment and outreach activities of U.S. graduate programs.

SURVEY METHODOLOGY AND RESPONSE RATE

The 2007 International Graduate Admissions Phase III: Final Offers of Admission and Enrollment survey was sent to 473 American colleges and universities that were members of CGS as of October 2007.⁴ The survey asked these institutions to report their final number of prospective international students who were offered admission to master's and doctoral degree programs, the number of new

¹ Brown, H., Syverson, P., & Doulis, M. 2004. "Assessing a Year of International Graduate Admissions: Trends and Findings from the CGS International Graduate Admissions Survey." *CGS Communicator* 38,10: 1-3.

² Brown, H. 2005. Findings from 2005 CGS International Graduate Student Admissions Survey III: Admissions and Enrollment. Washington, DC: Council of Graduate Schools.

³ Redd, K.E. & Neubig, E.H. 2006. Findings from the 2006 CGS International Graduate Admissions Survey Phase III: Admissions and Enrollment. Washington, DC: Council of Graduate Schools.

⁴ CGS also has member institutions in Canada and overseas affiliate members. These institutions were not included in the survey.

international graduate students (first-time enrollment), and the total number of international graduate students (first-time plus continuing students). Institutions also were asked to provide admissions and enrollment data for students who originate from four key international countries or regions, and admissions and enrollment numbers for seven broad fields of study. CGS defines an international student as a person who is not a citizen, national, or permanent resident of the United States and is in this country on a student visa, or on a temporary basis, and does not have the legal right to remain indefinitely.⁵

Roughly 36% (172) of the survey population responded to the survey. The response rates among certain types of institutions were even higher: nine of the ten institutions with the largest international graduate student enrollment, 76% of the largest 25, and 68% of the largest 50 participated in the survey. The high participation rate among the campuses with the largest international enrollment is important because collectively the 50 largest institutions enroll more than 41% of the total international graduate student population. The high response rate among these institutions suggests that the survey results accurately depict recent trends in admissions and enrollments at U.S. graduate schools.

The *Phase III* survey asked institutions to provide the number of admissions offers, first-time enrollments, and total enrollments for fall 2006 and fall 2007. For some campuses, the CGS survey was administered before their final 2007 enrollment numbers were known. For that reason, the survey results for enrollment (described in the next section of this report) should be considered an initial snapshot.

SURVEY RESULTS

First-time Enrollment

First-time enrollment is often an indicator of future trends in total graduate students. The survey results show that first-time enrollments of international students at U.S. graduate institutions continue to improve, but not as strongly as seen last year. Between 2006 and 2007, the number of first-time international graduate students grew 4%, far below the 12% increase reported in 2006 (see Table 1).

⁷ Ibid.

⁵Brown, H.A. 2005. *Graduate and Enrollment Degrees: 1986 to 2005.* Washington, DC: Council of Graduate Schools.

⁶ 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. For more information, see National Center for Education Statistics. 2006. Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Dataset. On-line. Available: nces.ed.gov/ipeds/.

Table 1. Change in International Graduate First-time Enrollment, Total Enrollment, and Admissions Offers, 2005 to 2006 and 2006 to 2007

	First-Time Enrollment, 2005 to 2006	First-Time Enrollment, 2006 to 2007	Total Enrollment, 2005 to 2006	Total Enrollment, 2006 to 2007	Admissions, 2005 to 2006	Admissions, 2006 to 2007
International Total	12%	4%	1%	7%	14%	7%
Country of Origin						
China	20%	19%	-2%	15%	24%	24%
India	32%	8%	8%	14%	26%	9%
South Korea	5%	3%	-3%	2%	4%	-3%
Middle East*	-1%	12%	1%	5%	6%	4%
Field of Study						
Business	10%	12%	1%	10%	15%	4%
Education	8%	-6%	-9%	-2%	9%	-8%
Engineering	22%	8%	3%	8%	27%	5%
Humanities & Arts	-6%	4%	-7%	1%	-6%	3%
Life Sciences	2%	6%	-1%	3%	4%	4%
Physical Sciences	5%	2%	-4%	0%	7%	-10%
Social Sciences	3%	-1%	-2%	1%	3%	-1%

Sources: 2006 & 2007 CGS International Graduate Admissions Survey III: Final Admissions and Enrollment, September 2006 and October 2007.

First-time Enrollment by Country/Region of Origin

India, China, and South Korea rank as the top three countries of origin for international graduate students in the United States. Collectively, students from these three nations accounted for about one-half of all non-U.S. students attending American graduate schools in 2006, according to research from both CGS and the Institute of International Education. Thus, examining student flows from these three countries provides a good indicator of overall international student trends. Enrollment of students from countries in the Middle East have also been included in the CGS surveys because of

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

⁸ 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; Institute of International Education. 2006. Open Doors: Report on International Educational Exchange. New York, NY: Author.

⁹ 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 geopolitical importance of this region; graduate students from the Middle East account for about 5% of total international enrollment.

The survey results reveal that the number of first-time students from India slowed from an increase of 32% in 2006 to just 8% in 2007. There were smaller declines in the rates of increase in students from China and South Korea, while enrollment of students from the Middle East improved by 12% in 2007 after a 1% decline last year.

First-time Enrollments by Field of Study

The fields of business, engineering, social sciences, physical sciences, and life sciences account for about 76% of international students engaged in graduate education in the United States, based on previous CGS survey research. Many of these important fields incurred declining rates of growth in 2007. The number of first-time international graduate students in engineering rose just 8% in 2007 after a 22% increase last year. The rate of increase in physical science students also slowed between last year and this year, while the number of first-time attendees in social sciences *fell* 1% in 2007 after an increase of 3% in 2006. Life sciences and business experienced increasing rates of growth in their numbers of first-time students.

Total Enrollment

Changes in total enrollment are important, but they often differ from the trends in first-time enrollment because graduate programs vary considerably in length, and students may take several years to complete their degrees. The total number of graduate students also usually reflects changes in first-time enrollment that occur in prior years.

Total international graduate enrollment rose by a very strong 7% in 2007, compared with only a 1% increase in 2006. This growth is partly a function of the 12% gain in first-time students that was reported last year. It is likely that many of the first-time graduate students in 2006 were continuing their studies in 2007, thus contributing to the large total enrollment increase this year.

Despite the increases in the two most recent surveys, however, total enrollments of international students are still below their 2003 levels at a number of institutions. About 47% of graduate schools that responded to the *Phase III* survey in both 2004 and 2007 still have fewer international students this year than they did in 2003. Collectively, the number of students from abroad at these institutions is 7% below what it was in 2003.

Total enrollment increased by higher rates in 2007 than 2006 in China, India, and the Middle East, while enrollment of South Korean students increased 2% in both years. Enrollments by field of study also improved in nearly every field, led by increases of 10% in business and 8% in engineering. The number of students in education did fall by 2%, but this decline was less severe than the 9% drop recorded in 2006.

¹⁰ Brown, H.A. 2006. *Graduate Enrollment and Degrees, 1986 to 2005.* Washington, DC: Council of Graduate Schools.

Admissions Offers

The annual change in offers of admission to prospective students is another indicator of the future direction of international student enrollments. The survey thus asked respondents to report the final changes in offers of admission to international students seeking to participate in American graduate-level studies. In August, CGS's *Phase II* survey reported a 9% increase in international applications and an initial 8% increase in total admissions offers (also referred to as "admits.")¹¹ Because there are usually some minor adjustments in numbers of admissions offers between the summer and fall, the *Phase III* survey allows respondents to update their initial admit numbers.

Like first-time enrollments, the rate of increase in admissions offers to potential international students slowed between 2006 and 2007. In 2007, the total number of graduate school admissions offers to non-U.S. citizens grew 7%, compared with a 14% gain last year. Admits from India grew just 9% this year, compared with a 26% jump in 2006. Perhaps even more troubling is the fact that admits from South Korea *fell* 3% in 2007 after gaining 4% last year. Admissions offers to prospective Chinese students, on the other hand, rose 24% in both 2006 and 2007.

Admissions trends by field of study follow similar patterns as those shown for the countries/regions of origin. Business and engineering incurred steep declines in their rates of growth in admits, while admissions offers in physical sciences, education, and social sciences fell in 2007 after gains in 2006.

Trends by Institutional Enrollment Size

The overall changes in the number of international graduate admissions offers, first-time enrollment, and total enrollment potentially mask substantial differences between small and large institutions. To show the wide variation in trends, this year CGS, for the first time, is reporting changes in international graduate admits, first-time enrollment, and total enrollment by size of total international graduate student enrollment. Enrollment size is based on data collected by the U.S. Department of Education.¹²

Table 2 on the next page displays the changes in admissions offers, first-time enrollment, and total enrollment from 2006 to 2007 for the colleges and universities with the 25 and 50 largest enrollments of international graduate students. In general, the smaller institutions had the largest gains in admissions and enrollments. Admissions offers at the largest 25 institutions increased 5% from 2006 to 2007, compared with a 9% gain at the institutions outside the largest 50. Similarly, first-time enrollment at the smallest graduate institutions increased at four times the rate of the largest 25. It is possible that the largest institutions are already at or near capacity in their populations of international students, which makes large-scale growth at the smallest institutions more likely.

The same general pattern holds for admits and enrollments by country/region of origin. The one notable exception is total enrollments from South Korea, which declined by 1% at the smallest

¹¹ Redd, K.E., Neubig, E.H., and Mahler, J.D. 2007. *Findings from the 2007 CGS International Graduate Admissions Survey Phase II: Final Applications and Initial Offers of Admission*. Washington, DC: Council of Graduate Schools. ¹²See footnote 6 for more information.

institutions but rose 4% at the largest 25. Among the fields of study, admissions offers and total enrollments in business and engineering increased by the fastest rates at the smallest institutions, but the largest institutions had the greatest gains in admissions offers in humanities & arts and physical sciences.

Table 2. Change in Admissions and Enrollment, 2006 to 2007, by Institutional Size¹³

Largest 25 Institutions		ions	Largest 50 Institutions			All Other Institutions			
Total International	Admits 5%	First-time Enrollment 1%	Total Enrollment 3%	Admits 5%	First-time Enrollment 4%	Total Enrollment 8%	Admits 9%	First-time Enrollment 4%	Total Enrollment 6%
Country of Origin									
China	9%	15%	12%	19%	19%	12%	30%	19%	20%
India	7%	7%	9%	6%	10%	11%	11%	6%	18%
South Korea	-7%	0%	4%	-6%	0%	3%	5%	13%	-1%
Middle East*	-2%	15%	4%	2%	14%	4%	8%	9%	7%
Field of Study									
Business	-10%	4%	4%	-2%	9%	9%	11%	19%	12%
Education	-15%	-9%	-3%	-11%	-9%	-1%	-5%	-2%	-3%
Engineering	0%	3%	4%	2%	7%	6%	9%	9%	13%
Humanities & Arts	8%	-2%	0%	4%	4%	1%	2%	7%	1%
Life Sciences	5%	-7%	-2%	9%	3%	1%	0%	11%	7%
Physical Sciences	5%	1%	-1%	3%	1%	0%	-20%	3%	-1%
Social Sciences	1%	2%	-1%	4%	5%	3%	-6%	-8%	-1%

Sources: 2006 & 2007 CGS International Graduate Admissions Survey III: Final Admissions and Enrollment, September 2006 and October 2007.

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

INTERNATIONAL RECRUITMENT AND OUTREACH ACTIVITIES

At each point in the international survey cycle, CGS asks its member graduate school deans to respond to a set of questions regarding crucial issues in international education. This year, deans were asked to report on their processes for recruiting international students, sources of funding for recruiting students from abroad, and strategies used to establish cooperative agreements and other joint ventures with international universities.

¹³ See footnote 6 for more information.

Coordination of International Student Recruitment

Graduate deans use a variety of systems and processes to coordinate the recruitment of international students. In order to get a sense of the types of processes used by CGS members, the survey asked graduate deans to indicate whether or not their institutions use a centralized process for recruiting students from overseas. These responses provide CGS with a sense of whether or not the procedures used by graduate schools are controlled by a centralized organization within their institutions, or are decentralized (done by academic departments or decentralized units).

The results (shown on Table 3) suggest that most graduate schools, particularly those with the largest international graduate student populations, do *not* use a centralized system or process to recruit students from overseas. Less than one quarter of the largest ten institutions, and just 29% of the largest 50, use a centrally controlled recruitment process. In total, only 37% of all respondents said they use such a process. But as later sections of this report will show, the vast majority of graduate schools remain active in the student recruitment process in other ways.

Table 3. Percentage of Graduate Institutions That Use a Centralized Process for Recruiting International Graduate Students, by Institutional Enrollment Size¹⁴

	Percentage
Largest 10	22%
Largest 25	32%
Largest 50	29%
All Other Institutions	39%
All Respondents	37%

Source: 2007 CGS International Graduate Admissions Survey III: Final Admissions and Enrollment, October 2007.

These results suggest that institutions may be using a variety of strategies or procedures for recruiting students from overseas, and many of these strategies may be used on a decentralized basis. This decentralized approach may give graduate schools opportunities to be innovative in their approaches to reaching prospective students from abroad.

Sources of Funding for Recruiting International Students

As the above discussion suggests, the sources of funding used by graduate schools and deans to conduct their international student recruitment efforts also vary by student enrollment size. Other campus units (including academic departments) at 44% of the largest ten graduate universities provide their own funding for recruitment efforts; only 22% receive funds from their campus international department or office (see Table 4 on the next page). Conversely, a plurality (43%) of institutions outside the 50 largest said they receive funding from their graduate schools, while 27% received funds from their central university administrations.

¹⁴ See footnote 6 for more information.

Table 4. Sources of Funding Used by Graduate Schools to Recruit International Students in 2007, by International Graduate Student Enrollment Size

International Graduate Enrollment Size¹⁵

	Largest 10	Largest 25	Largest 50	All Other Institutions	Total (All Respondents)
Graduate School	22%	37%	41%	43%	43%
Campus International Office	22%	37%	35%	38%	38%
Central University Administration Other (including Academic	33%	47%	44%	27%	30%
Departments)	44%	37%	41%	35%	36%
Unknown	11%	5%	3%	3%	3%
Missing/No Response*	0%	5%	6%	1%	2%

Source: 2007 CGS International Graduate Admissions Survey III: Final Admissions and Enrollment, October 2007. Responses are not mutually exclusive (respondents may have indicated more than one source of funding. *Includes institutions that did not provide funding for their international student recruitment efforts.

Generally, the largest ten institutions are somewhat more likely to fund their recruitment efforts on a department-by-department basis, while smaller institutions are more likely to receive funding from their graduate schools and from their central administrations. This once again reflects the less centralized approach to international recruitment efforts the larger institutions undertake.

International Outreach Activities

In addition to student recruitment, many graduate schools often become engaged with other international outreach activities. The most common of these activities, establishment of dual, joint, and other collaborative degree programs, was discussed in the most recent *Phase II* survey report. But there are a number of other outreach and recruitment activities, such as establishment of faculty exchange programs, that are extremely important to both American and international universities. In this year's *Phase III* survey, CGS asked graduate deans to provide information about the types of international outreach activities they have undertaken within the past two years. Table 5 displays these results.

Nearly all graduate school deans, regardless of the size of the international student bodies at their colleges and universities, participate in some type of international outreach—only 13% of all respondents said they do *not* participate in *any* outreach activities. However, the types of outreach activities undertake by deans do vary substantially by enrollment size. For example, 68% the respondents from the largest 50 institutions said they evaluate *existing* joint and dual degree programs, compared with only 46% of the institutions with enrollments below the largest 50.

¹⁵ See footnote 6 for more information.

¹⁶ For more information, see Redd, K.E., Neubig, E.H., & Mahler, J.D. 2007.

Table 5. International Outreach Activities Undertaken by Graduate Deans During the Past Two Years, By Size of Institution's International Graduate Student Enrollment

	International Graduate Enrollment Size ¹⁷					
	Largest 10	Largest 25	Largest 50	All Other Institutions	Total (All Respondents)	
Evaluating Existing Joint/Dual Degree Programs	67%	68%	68%	46%	51%	
Attending International Student Recruitment Fairs	67%	58%	50%	33%	36%	
Establishing Graduate Student and/or Faculty Exchanges	44%	53%	65%	51%	53%	
Meeting with International Alumni	56%	58%	59%	33%	38%	
Negotiating or Establishing Joint/Dual Degree Programs	44%	53%	59%	40%	44%	
Participating in Targeted Recruitment at Select Universities	44%	53%	53%	31%	35%	
Visiting Foreign Universities for Building Program Partnerships	56%	63%	65%	44%	48%	
Other	11%	10%	12%	17%	16%	
None	11%	10%	8%	14%	13%	

Source: 2007 CGS International Graduate Admissions Survey III: Final Admissions and Enrollment, October 2007. Responses are not mutually exclusive (respondents may have engaged in more than one of these outreach activities.

Financial considerations may influence the types of activities graduate deans from various institutional types undertake. Two-thirds of the respondents from the largest ten institutions said they attend international student recruitment fairs, compared with only 33% of those from the smallest institutions. About 53% of the respondents from the 50 largest institutions said they participate in targeted recruitment at selected institutions, compared with only 31% of those at institutions with enrollments below the largest 50. And 65% of respondents from the 50 largest institution visit foreign universities to build program partnerships. Only 44% of those from the smallest institutions participate in this activity. One possible reason for these differences is that the largest colleges and universities are more likely to have the funding needed to undertake such activities.

Negotiating or establishing *new* dual and joint degree programs was the one activity in which a nearly equal proportion of participants from the largest and smallest graduate schools have participated. As the *Phase II* report suggested, dual/joint degree programs are fairly wide spread

¹⁷ See footnote 6 for more information.

among graduate schools of all types and sizes. 18 These results provide more evidence of the use of these programs among graduate schools and deans.

SUMMARY AND CONCLUSIONS

The results of CGS's 2007 International Graduate Admissions Phase III: Final Offers of Admission and Enrollment survey suggest that while U.S. graduate programs continue to improve their admission and enrollment of international graduate students, the rate of progress they have made has slowed. The survey data show that first-time enrollment of international students in American graduate schools, a key measure of future trends, rose 4% from 2006 to 2007, which stands as a sharp contrast to the 6% decline that occurred in the 2003 to 2004 period, but much slower than the 12% rise reported from 2005 to 2006. The number of admissions offers to prospective international graduate students, a second indicator of future enrollment activity, also saw slower growth in 2007 when compared with last year. The decelerating rate of growth in international first-time enrollments and admits suggests that overall increases in the number of students from abroad seeking master's and doctoral degrees in the U.S. may slow in the future.

Total enrollment, however, increased at a faster rate in 2007 than it did last year. The *Phase III* results show that the total number of international graduate students grew 7% from 2006 to 2007, the highest one-year gain in total overseas student enrollment in the CGS international survey series. However, while this improvement is a hopeful sign, it must be noted that total international graduate student enrollment is still down at nearly half the institutions that have responded to the International III survey since its inception in 2004.

This year's gain in *total* enrollment results is due primarily to the 15% and 14% increases in the number of students from China and India, respectively. But a potentially troubling sign is that firsttime enrollment of students from India grew only 8% this year after a gain of 32% in 2006, and the number of first-time students from South Korea increased only 3%. Engineering, physical sciences, and social sciences incurred sharply declining rates of growth or declines in first-time students. Further, the total number of admits from India also experienced substantially slower growth in 2007 when compared with 2006, providing further evidence of future slower increases in overall enrollment.

The survey results also show that the vast majority of American graduate school dean at both the largest and the smallest institutions participate in some type of international outreach. The types of outreach they engage in do vary, with those from the largest 50 institutions being more likely than their colleagues from smaller ones to participate in international recruitment fairs and meetings with international alumni.

Deans from campuses with the largest enrollments were also more likely to say they fund student recruitment activities on a departmental basis, and to use decentralized approaches to their international student recruitment efforts. However, nearly identical shares of deans at both largest and smallest graduate programs said they have at least discussed the establishment of dual or joint degree partnerships with international universities.

¹⁸ Redd, Neubig, & Mahler.

The overall results from this year's *Phase III* survey tell us that international graduate enrollment continues to rise, and that graduate deans have become increasingly involved with their institutions' overseas recruitment and outreach efforts. But these efforts continue to have to be closely monitored in case a sudden slowdown in international enrollments occurs.

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The Council of Graduate Schools (CGS) is an organization of 485 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.