

# Council of Graduate Schools

# RESEARCH REPORT

# FINDINGS FROM THE 2008 CGS INTERNATIONAL GRADUATE ADMISSIONS SURVEY

# PHASE II: FINAL APPLICATIONS AND INITIAL OFFERS OF ADMISSION

August 2008



#### **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 non-U.S. citizens who seek to attend American graduate schools.

The core of this examination is a three-phase survey of CGS member institutions that collects and analyzes data on annual changes in international graduate school applications for admissions, offers of admission, and first-time and total enrollments. The survey collects an initial snapshot of graduate school applications for admissions received from prospective international students (*Phase I*, conducted in February of each year), final international admissions applications and an initial picture of admissions offers (*Phase II*, June), and final offers of admission, first-time international graduate student enrollments, and total international graduate student enrollments (*Phase III*, October). The 2004 *Phase II* report found a 28% decrease in international applications and an 18% decline in initial admissions offers. In 2005, applications fell by 5%, but admissions offers grew 3%. The 2006 *Phase II* report revealed a 12% increase in both final applications and initial offers of admission, and last year's report showed a 9% increase in applications and an 8% rise in admissions offers.

CGS survey data for 2008 suggest that the rates of increase in both applications and offers of admission to prospective international graduate students slowed considerably between 2007 and 2008. Moreover, recent increases in international applications still have not been large enough to reverse the declines that were reported in the initial *Phase II* studies. This survey report also updates information collected last year concerning the percentage of American graduate schools that have established graduate degree, certificate, and other "collaborative" programs with international colleges and universities.

This report first describes the survey methodology used to collect and calculate the changes in applications and admissions data for 2008, and then compares changes in applications and admissions from 2008 to 2007. The third section examines the prevalence of collaborative degree other arrangements between American graduate schools and international universities.

#### SURVEY METHODOLOGY AND RESPONSE RATE

The 2008 CGS International Graduate Admissions Survey Phase II: Final Applications and Initial Offers of Admission survey was sent to 484 American colleges and universities that were members

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<sup>&</sup>lt;sup>1</sup> Brown, H. & P. Syverson. 2004. *Findings from U.S. Graduate Schools on International Graduate Student Admissions Trends*. Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>2</sup> Brown, H. 2005. Findings from the 2005 CGS International Graduate Student Admissions Survey II: Final Applications and Admission. Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>3</sup> Brown, H. & Neubig, E. 2006. Findings from the 2006 CGS International Graduate Admissions Survey Phase II: Final Applications and Offers of Admission. Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>4</sup> Redd, K.E., Mahler, Neubig, E.H., and Mahler, J.D. 2007. *Findings from the 2007 CGS International Graduate Admissions Survey Phase II: Final Applications and Offers of Admission*. Washington, DC: Council of Graduate Schools.

of CGS as of June 2008.<sup>5</sup> The survey asked these institutions to report the total number of prospective international students who applied for and were offered admission to graduate programs, the number of applications and admissions offers to prospective students who originate from four key international countries or regions, and the number of applications and admissions offers in seven key 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.<sup>6</sup>

Roughly 37% (177) of the survey population provided usable responses. The response rates among certain types of institutions were even higher: all ten of the institutions with the largest international graduate student enrollments, 84% of the largest 25, and 74% of the largest 50 provided usable survey responses. The high participation rate among the campuses with the largest international enrollments 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 closely reflect the recent trends in international applications and admissions offers in U.S. graduate schools.

The *Phase II* survey asked institutions to provide their final number of applications received for admission to graduate programs for fall 2007 and fall 2008, and the estimated number of applications accepted for admission in the same period. For some campuses, the CGS survey was administered before the final total number of admissions offers to prospective international graduate students was known. For that reason, the survey results for admissions offers should be considered an initial snapshot. The *Phase III* survey will provide an update of the admissions offers, as well as changes in first-time and total enrollments of international graduate students.

### **SURVEY RESULTS**

# **Total Number of Applications and Offers of Admission**

### **Overall Applications**

After a 9% increase in 2007, the total number of prospective international student applications for admission to CGS-member institutions rose 6% in 2008, as Table 1 on the next page shows. The *Phase I* survey results, published by CGS in March, showed an initial increase in total international graduate student applications of 3%. (Three institutions with very large numbers of international graduate students substantially revised their initial estimates of applications that they reported in

Survey Phase I: Applications. Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>5</sup> CGS also has member institutions in Canada and overseas affiliate members. These institutions were not included in the survey.

<sup>&</sup>lt;sup>6</sup>Brown, H.A. 2005. *Graduate and Enrollment Degrees: 1986 to 2005.* Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>7</sup> The most recent total international graduate enrollment data come from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) Enrollment Survey.

<sup>&</sup>lt;sup>8</sup> Total enrollment figures are based on enrollment as of fall 2006. For more information, see National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Dataset. Online. Available: http://nces.ed.gov/ipeds/.

<sup>&</sup>lt;sup>9</sup> The results for Table 1 are based on 159 survey respondents who provided applications data for both 2007 and 2008. <sup>10</sup> Redd, K.E., Neubig, E.N. & Mahler, J.D. 2007. *Findings from the 2008 CGS International Graduate Admissions* 

*Phase I.* These revisions likely account for the larger-than-expected difference in the total change in applications between the *Phase I* and *Phase II* surveys.)

There was a great deal of variation around the overall rate of increase in final applications. Approximately 30% of institutions reported declines in applications between 2007 and 2008; total applications at these institutions dropped 8%. About 70% of respondents reported increases in applications; collectively, applications at these institutions rose 9%.

The 6% gain in final applications is the lowest rate of increase reported by CGS since 2006, when the declines of the previous two years were reversed. Further, despite the increases in applications reported in the two most recent surveys, international applications are still below their 2003 levels at many schools. About 60% of the institutions that responded to the *Phase II* survey in both 2004 and 2008 still have *fewer* international graduate applicants this year than they did in 2003. Collectively, the number of international graduate applications for admissions received by these institutions in 2008 is 21% lower than it was in 2003, and the total number of applications received by all "consistent" survey respondents in 2008 is 10% below those received five years earlier.

Table 1. Percentage Changes in International Graduate Student Applications for Admissions and Offers of Admission, 2006 to 2007 & 2007 to 2008

	Phase II Survey: Final Change in Applications 2006 to 2007	Phase II Survey: Final Change in Applications 2007 to 2008	Phase II Survey: Initial Change in Offers of Admission 2006 to 2007	Phase II Survey: Initial Change in Offers of Admission 2007 to 2008
<b>Total International</b>	9%	6%	8%	4%
Country/Region of Origin				
China	19%	11%	24%	16%
India	12%	2%	17%	2%
South Korea	0%	2%	-2%	-3%
Middle East*	17%	14%	12%	17%
Field of Study				
Business	15%	10%	10%	2%
Education	12%	-1%	11%	-13%
Engineering	13%	4%	16%	4%
Humanities & Arts	8%	7%	10%	4%
Life Sciences	18%	3%	11%	-1%
Physical Sciences	12%	7%	8%	13%
Social Sciences	0%	9%	4%	4%

Source: 2008 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August, 2008.

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

These findings strongly imply that international students' interest in U.S. graduate schools still has not returned to the levels that were experienced prior to 2004. And, with the declining rate of increase in applications this year compared with last year, it appears unlikely that total application figures will return to their pre-2004 levels in the near future.

# Overall Offers of Admission

International admissions offers for 2008 rose 4%, just half the rate of growth reported in 2007. About 41% of the respondents reported declines in their numbers of "admits" between 2007 and 2008; at these schools, admissions offers were down by 11%. In contrast, the 59% of respondents that had increases collectively had a 14% rise in admits.

Similar to applications, the recent growth in admits has not made up for earlier declines seen by many schools; at 47% of the institutions that responded to the *Phase II* survey in 2004 and 2008, offers of admission to prospective international students are 15% below the number received in 2003.

# Applications and Admissions Offers by Country of Origin

India, China, and South Korea rank as the top three countries of origin for international students in the United States. Students from these three nations accounted for about one-half of all non-U.S. citizens attending American graduate schools, according to the Institute of International Education's 2007 *Open Doors* report. Thus, examining student flows from these three countries provides a good indicator of overall international student trends. Applications from and admissions offers to prospective students from countries in the Middle East have also been included in the CGS surveys because of the geopolitical importance of this region; graduate students from this region account for about 6% of total international graduate enrollment, according to *Open Doors*.

Much of the slowdown in both applications and admissions offers can be attributed to the sharp decelerations from India. In 2007, the total number of international graduate applications from India increased by 12% and admissions offers rose 17%, but in 2008 applications and admits each grew only 2%. Further, admits from South Korea fell 3% in 2008 after a 2% decline last year. The one area of growth was the Middle East; admissions offers to prospective students from this region jumped 17% in 2008 after a 12% rise last year. However, even with this sharp rise, the number of admits from the Middle East accounted for only 4% of the total number of admissions offers to international applicants in 2008, and their increase was not enough to offset the overall slower rate of growth.

The recent slowdown in the growth of applications and admissions offers from prospective international students, particularly those from Asia, has occurred primarily because U.S. graduate schools face increasingly fierce competition for these students from Europe and other nations. Additionally, China, Japan, India, and South Korea are making greater efforts to motivate more of

<sup>&</sup>lt;sup>11</sup> Institute of International Education (IIE). 2007. *Open Doors: Report on International Educational Exchange*. New York, NY: IIE.

<sup>&</sup>lt;sup>12</sup> 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.

their graduate students to remain at home and to recruit more international students. <sup>13</sup> South Korea, for instance, recently announced plans to double their universities' numbers of international students by 2010. <sup>14</sup> The Japanese government recently announced its plans to double the number of international students attending its universities by 2020, <sup>15</sup> and the Chinese Scholarship Council plans to offer 20,000 scholarships to overseas students by 2010 and to increase the number of international students attending Chinese universities to 500,000 by 2020. <sup>16</sup>

As a result of the increasing competition from foreign countries, the United States' share of total international student enrollment (undergraduate and graduate students combined) fell from 26% in 2000 to 22% in 2005, according to the Organisation of Educational Co-operation and Development (OECD). In roughly the same period, England, Germany, France, Australia, and Japan have seen increases in their total international enrollments. International graduate students now have more choices when deciding which colleges and universities to attend, and many more appear to be choosing to attend institutions outside the U.S.

# Applications and Admissions Offers by Fields of Study

The fields of business, engineering, social sciences, physical sciences, and life sciences account for 77% of international students engaged in graduate education in the United States, according to the most recent CGS *Graduate Enrollment and Degrees* survey report. Several of these fields of study had pronounced reductions in their rates of growth in applications and admission offers between 2007 and 2008, as Table 1 demonstrates. In engineering, growth in applications decreased from 13% last year to just 4% this year, and admissions offers slowed from a 16% increase to just a 4% rise. Life sciences saw an especially noticeable reversal, with offers of admission *falling* by 1% in 2008 after an 11% increase the previous year. Business, which experienced a 15% increase in applications and a 10% gain in offers of admissions in 2007, saw its growth slow to 10% and 2% in applications and admissions, respectively, in 2008. One area of increasing growth in admissions offers was in the physical sciences, which had a 13% increase in admits in 2008 after an 8% gain last year. However, the rate of growth in applications for this field declined from 12% to 7%.

<sup>&</sup>lt;sup>13</sup> American Council on Education, 2006. *Students on the Move: The Future of International Students in the United States*. Washington, DC; National Knowledge Commission. 2008. *Note on Higher Education*. On-line. Available: http://knowledgecommission.gov.in/downloads/recommendations/HigherEducationNote.pdf

<sup>&</sup>lt;sup>14</sup> McNeil, D. August 7, 2008. "S. Korea Plans to Double Intake of Foreign Students Within 2 Years." *Chronicle of Higher Education*. On-line. Available:

http://chronicle.com/news/index.php?id=4952&utm\_source=pm&utm\_medium=en. Retrieved August 7, 2008.

<sup>&</sup>lt;sup>15</sup> The Associated Press. July 29, 2008. "Japan Aims to More Than Double Number of Foreign Students to 300,000 by 2020. International Herald Tribune. On-line. Available: http://www.iht.com/articles/ap/2008/07/29/asia/AS-Japan-Education.php. Retrieved August 8, 2008.

<sup>&</sup>lt;sup>16</sup> China Daily. July 29, 2008. "Foreign Student Quota to Expand." China Daily. On-line. Available: http://www.chinadaily.com.cn/china/2008-07/29/content 6884445.htm. Retrieved August 8, 2008.

<sup>&</sup>lt;sup>17</sup> Organisation for Economic Co-operation and Development (OECD). 2007. *Education At A Glance*, 2007. Paris, France: OECD.

<sup>&</sup>lt;sup>18</sup> Labi, A. September 22, 2006. "Foreign Students Increase in Britain." *Chronicle of Higher Education*, p. A44.; American Council on Education, 2006.

<sup>&</sup>lt;sup>19</sup> Council of Graduate Schools. 2007. *Graduate Enrollment and Degrees: 1996 to 2006.* Washington, DC: Author.

Education, a relatively small field for enrollments of international students, saw a 1% decline in applications and a 13% decrease in admissions offers in 2008. These declines can be attributed to steep drops in admissions offers from four institutions. Other fields had relatively slower growth in applications or admissions in 2008 compared with 2007, with the exception of social sciences, which saw a 4% gain in admits in 2007 and 2008.

# Applications and Admissions Offers by International Graduate Enrollment Size

The overall changes in the number of international graduate applications and admissions offers potentially mask substantial differences between small and large institutions. To show the wide variation in these trends, Table 2 reports the changes in international graduate applications and admissions by size of total international graduate student enrollment. The table displays the changes in applications and admissions offers from 2007 to 2008 for the colleges and universities with the ten, 25, and 50 largest enrollments of international graduate students. Enrollment size is based on data collected by the U.S. Department of Education. <sup>20</sup>

Table 2. Percentage Change in International Graduate Student Applications for Admissions and Initial Offers of Admission, 2007 to 2008, by International Graduate Student Enrollment Size<sup>21</sup>

	Largest 10	Institutions	Largest 25	Institutions	Largest 50	Institutions	All Other I	Institutions
Total	Applications 6%	Admissions 8%	Applications 4%	Admissions 8%	Applications 5%	Admissions 7%	Applications 8%	Admissions 1%
Country/Region	of Origin							
China	11%	16%	8%	19%	7%	19%	19%	11%
India	3%	<b>7%</b>	1%	4%	3%	6%	1%	-2%
South Korea	-1%	-3%	0%	-2%	1%	-1%	3%	-8%
Middle East*	11%	14%	10%	18%	13%	20%	15%	13%
Field of Study								
Business	13%	2%	7%	6%	9%	5%	12%	-2%
Education	10%	5%	4%	-5%	4%	-2%	-7%	-22%
Engineering	6%	8%	3%	7%	3%	<b>7%</b>	6%	-1%
Humanities**	13%	5%	9%	9%	9%	10%	5%	-1%
Life Sciences	-4%	0%	0%	6%	1%	2%	5%	-4%
Physical Sciences	12%	19%	9%	17%	7%	15%	6%	12%
Social Sciences	13%	<b>7%</b>	9%	10%	9%	<b>7%</b>	9%	1%

Source: 2008 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August 2008.
\*Middle East: Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.

\*\*Includes Arts.

<sup>&</sup>lt;sup>20</sup>See footnotes 7 and 8 for more information.

<sup>&</sup>lt;sup>21</sup> See footnotes 7 and 8 for more information.

As Table 2 illustrates, percentage changes in applications by country/region of origin were fairly similar at the largest and smallest institutions, but much of the slowdown in graduate admissions offers can be attributed to the steep declines that occurred at institutions with the smallest international graduate enrollments. Admits from India, for example, increased by 7% at the largest ten universities but fell 2% at those outside the largest 50. Admissions offers to prospective students from South Korea fell 8% at the smallest institutions, compared with a 3% decline at the largest ten and a 2% decrease at the largest 25.

The results by field of study show a similar pattern. At the largest 10 universities, admissions offers increased in all fields except life sciences. But at the smallest institutions admits fell in five of the seven fields, led by a 22% decrease in education. In each of the other fields except physical sciences and social sciences, admits at the smallest institutions fell by 1% or more.

# UPDATED INFORMATION ON INTERNATIONAL COLLABORATIVE GRADUATE PROGRAMS

Last year, CGS collected baseline data on the use of collaborative degree, certificate, and other programs established between U.S. graduate schools and international universities. The 2007 *Phase II* survey asked graduate deans to report on the types of collaborative programs their institutions have developed, the definitions used for these programs, the countries with which these programs have been developed, and their plans for establishing new programs within the next two years. Due to the continuing need for more information about the use and expansion of collaborative degree and non-degree activities between U.S. graduate schools and non-U.S. universities, this year's *Phase II* survey also focused on collecting and updating information on these programs. As this section of the report illustrates, the establishment of international collaborative graduate programs appears to have increased substantially over the past year.

Before describing these results, it is necessary to describe and define collaborative programs and provide reasons for their expanded use by American graduate schools and their international partners. Collaborative programs are just one example of the developing partnerships on various academic and exchange programs that have occurred at many universities from around the globe for many years.<sup>22</sup> Collaborative programs go by a variety of names, and it is important to note that there is no single, standard definition for them. However, they do share some common characteristics, such as:

- they are developed by two or more institutions in each of the participating countries;
- the curricula are developed and approved by faculty and administrators at each participating higher education institution; and,
- the participating institutions collaborate on student admissions and selection criteria. <sup>23</sup>

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<sup>&</sup>lt;sup>22</sup> Montoto, L. 2007. *Public Service or Profit Center? A Survey of U.S. Higher Education Operations in Latin America and the National Policies Preventing or Persuading U.S. Publics, Privates and For-profit Ventures.* Athens, GA: University of Georgia (Draft report).

<sup>&</sup>lt;sup>23</sup> O'Brien, C. & Proctor, D. 2007. *Challenging Innovation: A Consideration of International Joint Degree Programs for Australia*. On-line. Available: http://www.idp.com/aiec/program/O'Brien%20&%20Proctor.pdf

There are also some *general* definitions for the types of degrees and certificates that graduating students receive for participating in international collaborative programs. The two most common types are dual (also referred to as double) degrees and joint degrees. Generally, under dual/double degree programs, students take courses and receive a degree or diploma from each participating college or university. For joint degree programs, students take courses at each of the participating college or university, but commonly they receive only one degree or diploma. The student's award may contain the names and official seals of each participating institution (a double-seal or doublebadge diploma), or the student's transcript or other document may indicate that he or she participated in a collaborative program, or the student may receive a certificate of participation from the second or other partnering university.<sup>24</sup> There are a wide variety of other collaborative arrangements as well that may award graduate certificates or other types of awards.

The Phase II survey collects information on international graduate degree and non-degree collaborative arrangements, but it does not include data about other international education-related partnerships, such as faculty or student exchanges, research collaborations, and other programs for which there is no curricular-related activity. All the data presented in this report include only those educational collaborations for which participating students from each of the partner universities is eligible to receive academic credit toward a formal degree, certificate, or other document of participation. As such, the survey results may underestimate the activities American graduate schools may undertake with non-U.S. universities.

Two recent developments have triggered the need to collect information about the establishment of dual, joint, and other collaborative arrangements between American graduate schools and international colleges and universities. First, increased competition for international students, both among American institutions and between American and international universities, may be giving U.S. graduate school deans an incentive to design collaborative programs that will attract students both from America and abroad. Second, improvements in technology and communications may be making it easier for institutions to share resources that make collaborative programs possible; improvements in Web-based teaching technology, for instance, may make it feasible for faculty to develop and teach courses to students far beyond their countries' borders.

# Prevalence of International Collaborative Graduate Programs—2007 & 2008

In both the 2007 and 2008 surveys, CGS asked institutions to indicate which types of collaborative graduate degree, certificate, or other programs they have established with international higher education institutions. As Table 3 on the next page indicates, the share of American graduate schools with at least one graduate degree, certificate, or other collaborative program with one or more international universities grew from about 29% last year to 38% this year. (The results of last year's survey were adjusted as best as possible to be comparable with the 2007 survey. The 2008 survey provided improved standardized definitions of collaborative degree and certificate programs. Because these improved definitions and degree/certificate types were not included with last year's Phase II survey, the results for 2007 and 2008 may not be completely comparable). The rate of growth in collaborative programs varied by international graduate student enrollment size. The share of the largest 25 institutions with one or more collaborative arrangements increased the fastest

<sup>&</sup>lt;sup>24</sup> Ibid.

(rising from 48% in 2007 to 62% in 2008), followed by institutions with enrollments outside the largest 50 (from 22% to 33%).

Dual/double degree programs have accounted for the majority of the growth in collaborative arrangements, especially at larger universities. The share of the largest 25 institutions with at least one dual or double program increased from 38% to 48%; and grew from 41% to 51% at the largest 50 schools. The establishment of certificate or other programs also appears to have grown at larger institutions; the percentage of respondents at the largest 25 schools with at least one certificate or other collaborative program increased from just 5% in 2007 to 19% in 2008. Overall, the share of institutions with one or more certificate or other program remained at around 8% both years.

Overall, the share of respondents with a joint degree program remained at around 10% in both survey years, with a small amount of growth at larger-sized institutions. Of the institutions with joint degree programs in 2008, 33% awarded a "double-badge" or "double-seal" diploma and 50% awarded a diploma with only the seal of the recipient's home university. The remaining respondents with joint degree programs did not indicate which types of degrees or diplomas they awarded to their graduates (The 2007 survey did not ask questions regarding the use of "double-badge" diplomas.)

Table 3. Percentage of U.S. Graduate Schools That Have Established International Collaborative Graduate Programs With Non-U.S. Universities, 2007 and 2008, by International Graduate Student Enrollment Size<sup>25</sup>

	Dual/Dou	ble Degree	Joint l	Degree	Certificat	e or Other	One or Mor	re Programs
	2007	2008	2007	2008	2007	2008	2007	2008
Total	14%	21%	10%	10%	8%	8%	29%	38%
International C	Graduate Stude	ent Enrollmen	nt Size					
Largest 10	44%	60%	0%	10%	11%	20%	56%	60%
Largest 25	38%	48%	10%	14%	5%	19%	48%	62%
Largest 50	41%	51%	12%	14%	12%	17%	56%	60%
All Others	7%	14%	9%	9%	7%	7%	22%	33%

Sources: 2007 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August 2007; and 2008 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August 2008.

Institutional Locations at Which U.S. Graduate Schools Have Established International Collaborative Graduate Programs

In 2008, American graduate schools were more likely to have established international collaborative degree programs with higher education institutions in Europe than with any other country or region (see Table 4 on the next page). Roughly 36% of the institutions with collaborative programs had

<sup>&</sup>lt;sup>25</sup> See footnotes 7 and 8 for more information.

<sup>&</sup>lt;sup>26</sup> Due to substantial differences between the survey questions of 2007 and 2008, comparisons of the results between the locations of collaborative programs were not possible.

master's degree programs with universities in Europe (including the United Kingdom), while 17% had started doctoral programs with European higher education institutions. These responses include only those institutions that identified the countries/regions and degree or certificate levels for which they have established collaborative programs. (These results are not mutually exclusive; some institutions may have established master's, doctoral, or other collaborative programs with universities from more than one country or region.) In addition, nearly one-fifth of CGS survey respondents with collaborative degree programs said they have master's programs with Chinese colleges and universities, and 14% have master's programs with institutions in India.

Fewer survey respondents with collaborative graduate programs said they had begun such programs with institutions outside of Europe, China, and South Korea. About 26% of the institutions with collaborative master's programs, and 8% of those with collaborative doctoral programs, had established such programs with institutions in countries or regions not specifically listed in Table 4; these include Latin America, Singapore, Turkey, Russia, and several others.

Table 4. Country/Regional Locations at Which U.S. Graduate Schools Have Established International Collaborative Graduate Degree, Certificate, or Other Programs in 2008

	Master's	Doctoral	Certificate or Other
Europe (including the U.K.)	36%	17%	0%
China (People's Republic)	18%	3%	0%
India	14%	0%	0%
South Korea	12%	5%	0%
Taiwan	8%	0%	0%
Middle East*	5%	0%	2%
Australia	3%	0%	0%
Other	26%	8%	2%

Source: 2008 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August 2008.

Note: Percentages are based on respondents who indicated that they had established one or more graduate dual/double, joint, certificate, or other graduate programs with an international (non-U.S.) college or university. The responses are not mutually exclusive (respondents may have had collaborative programs with universities in more than one country or region.)

## Fields of Study for International Collaborative Graduate Programs

Table 5 on the next page shows the fields of study in which survey respondents said they offer international graduate dual/double, joint, or other degrees or certificate programs with international universities in 2008. (The responses include only those institutions that identified the fields of study and degree levels for which they have established collaborative programs.) The majority of these collaborative programs award master's degrees, and most master's programs are offered in the fields with the largest international graduate student enrollments. Among master's degree programs, the most common field is business (39% of survey respondents with collaborative programs), followed by engineering (26%), and physical and social sciences (15% each). These responses are not

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

mutually exclusive, as some respondents may have offered collaborative programs in more than one field of study. Among the respondents that have established collaborative doctoral degree programs, the most common fields are physical sciences (19%), engineering (11%), and humanities & arts and life sciences (8% each).

Table 5. Fields of Study in Which U.S. Graduate Schools Offered Collaborative Degree, Certificate, or Other Programs With International Higher Education Institutions in 2008

	Master's	Doctoral	Certificate or Other
Business	39%	0%	3%
Engineering	26%	11%	3%
Physical Sciences	15%	19%	0%
Social Sciences	15%	5%	0%
Humanities & Arts	8%	8%	0%
Life Sciences	8%	8%	0%
Education	6%	0%	0%
Other	9%	5%	3%

Source: 2008 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August 2008.

Note: Percentages are based on respondents who indicated that their institutions had established at least one dual, double, joint, or other collaborative degree program with an international (non-U.S.) college or university. Responses are not mutually exclusive (some graduate schools may have established more than one collaborative program.)

## Prospects for Future Growth

To get an idea of the type of growth that might occur in the near future, the CGS survey asked respondents to indicate what types of new graduate collaborative arrangements, if any, their institutions plan to establish with international colleges or universities over the next two years. Table 6 on the next page displays these results.

In total, about 31% of all survey respondents said they plan to establish new collaborative graduate degree, certificate, or other arrangements with non-U.S. universities within the next two years. In 2007, about 24% of survey respondents expected to establish new programs. Dual/double degree programs at larger American universities will account for much of this growth; roughly one-third of the 50 largest institutions plan to begin such programs. On the other hand, only about 10% of the largest 10 and 25 institutions plan to begin new joint degree programs, and none are planning to establish new certificate or other types of programs.

While institutions with larger enrollments are more likely to have reported plans to begin new international collaborative arrangements, some smaller-sized institutions said they do plan to initiate these programs. About 19% of the institutions outside the largest 50 plan to launch dual/double degree programs, 14% plan new joint degree programs, and 11% plan to institute new certificate or other programs.

Table 6. Percentage of U.S. Graduate Schools That Plan to Establish New Collaborative Graduate Programs With International Universities Within the Next Two Years, by International Graduate Student Enrollment Size<sup>27</sup>

	Dual/Double Degree	Joint Degree	Certificate or Other	One or More Programs
Total (All Respondents)	22%	13%	9%	31%
I-4	. J 4 To 11 4	n•		
International Graduate Stu	dent Enrollment	Size		
International Graduate Stu Largest 10	ident Enrollment 3	Size 10%	0%	40%
			0% 0%	40% 33%
Largest 10	30%	10%		

Source: 2008 CGS International Graduate Admissions Survey II: Final Applications and Initial Offers of Admission, August 2008.

Note: Responses are not mutually exclusive (some graduate schools may plan to offer more than one collaborative program.)

#### SUMMARY AND IMPLICATIONS

While historically the United States has been the destination of first choice for many prospective international graduate students, the results of CGS' 2008 Phase II: Final Applications and Initial Offers of Admission survey show that the U.S. can no longer take for granted its historic leadership in attracting talented students from abroad.<sup>28</sup> Applications for admission to U.S. graduate schools from prospective international students slowed to 6% in 2008, after increases of 9% last year and 12% in 2006. Further, total applications from institutions that have participated in the survey since its inception in 2004 are still 10% lower than they were in 2003. Additionally, admissions offers to prospective international graduate students grew only 4% in 2008 after rising 8% last year. Current year admits for nearly half the consistent survey respondents are still below their numbers from five years earlier. Admits from Korea in 2008 actually fell by 3%, and those from India increased just 2%. The slowdowns in both applications and admissions were particularly dramatic in several key fields, such as engineering and life sciences. These results suggest that many more students, particularly those from Korea and India, who in the past would have considered the United States are now more willing to enroll at universities in other countries, or to remain in their home countries. These trends mean that many American graduate schools will need to make even greater efforts if they are to increase their numbers of international applications and admits.

The *Phase II* survey also updates CGS members' establishment of collaborative graduate degree, certificate, and other programs with international universities. These results provide evidence of international cooperation and collaboration among U.S. and international universities. The share of graduate schools with at least one dual/double, joint, or other collaborative graduate program with one or more international universities appears to have risen from 29% to 38%. These gains appear to be widespread, with respondents from both large and small-enrollment institutions reporting gains in

<sup>&</sup>lt;sup>27</sup> See footnotes 7 and 8 for more information.

<sup>&</sup>lt;sup>28</sup> Labi, A., 2007.

international collaborative arrangements. Dual/double degrees, especially master's programs in business and engineering, appear to be the most frequently used collaborative arrangements. While the plurality of these arrangements have been established with European colleges and universities, institutions in China, India, and South Korea also appear to have participated in collaborative arrangements with a fairly large share of American graduate schools.

The results also suggests that collaborative programs will continue to grow, as roughly 31% of the survey respondents plan to institute new dual/double or other programs with international universities within the next two years. Last year, just 24% of *Phase II* respondents said they planned to begin new collaborative graduate programs with international universities. While most the growth over the next two years will occur at the 25 and 50 largest universities, about 28% of those with enrollments outside the 50 largest said they also plan to begin new programs.

The results on the establishment of collaborative programs with international universities do provide a hopeful sign that American graduate schools will continue make efforts to attract the best and brightest graduate students both from the U.S. and internationally during the years ahead. However, competition for these students will remain stiff. Future *Phase II* surveys may be used to document the important trends in the development of dual, joint, and other collaborative programs between American graduate schools and international colleges and universities, and how these programs might help to reverse any further slowdowns in numbers of non U.S. applications and admissions offers.

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The Council of Graduate Schools (CGS) is an organization of 500 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 94% of the doctoral degrees and 80% 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.

<sup>\*</sup> Graduate Enrollment and Degrees: 1996-2006 (Council of Graduate Schools, 2007.