



Council of Graduate Schools

RESEARCH REPORT

Findings from the 2009 CGS International Graduate Admissions Survey Phase III: Final Offers of Admission and Enrollment

November 2009



Council of Graduate Schools

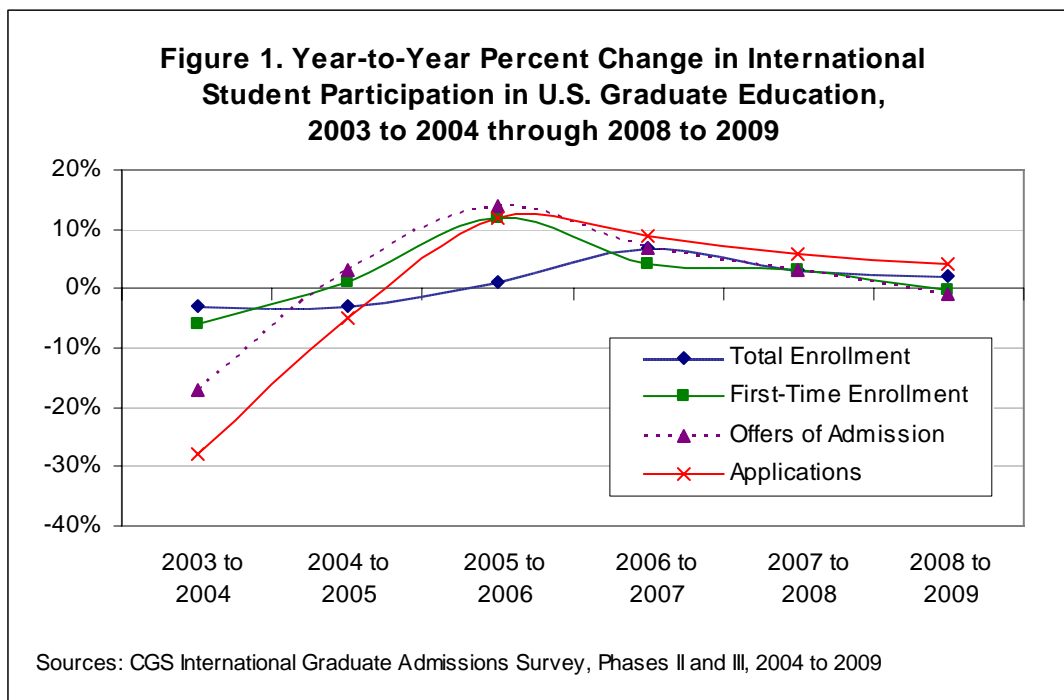
One Dupont Circle NW, Suite 230 • Washington, DC 20036
(202) 223-3791 • www.cgsnet.org

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 U.S. colleges and universities.

The core of this examination is a three-phase survey of CGS member institutions. The *CGS International Graduate Admissions Survey* collects an initial snapshot of applications to U.S. graduate schools from prospective international students (*Phase I*, conducted in February of each year), final applications and an initial picture of admissions offers to prospective international students (*Phase II*, June), and final offers of admission and first-time and total international graduate student enrollment (*Phase III*, October).

The *CGS International Graduate Admissions Survey* has now been conducted for six years. In three of those years, the results have been particularly striking. First, the 2004 surveys revealed precipitous declines in international applications and offers of admission between 2003 and 2004 as well as decreases in both first-time and total graduate enrollment for international students (see Figure 1). In contrast, the 2006 surveys showed strong gains in international applications, offers of admission, and first-time enrollment, and a slight gain in total enrollment. The third shift in trends occurred in 2009. This year's *Phase III* survey marks the first time since 2004 that international first-time graduate enrollment failed to increase as well as the first decline in international offers of admission since 2004.¹



This report first describes the survey methodology used to collect and calculate changes in offers of admission and enrollment from 2008 to 2009. The second section presents the current survey results on offers of admission to prospective international students by U.S. graduate schools and compares the one-year changes to those in prior years. The third and fourth sections present data on international first-time

¹ See <http://www.cgsnet.org/Default.aspx?tabid=172> for reports from the *CGS International Graduate Admissions Survey* from 2004 to present.

enrollment and international total enrollment, respectively, and compare the one-year changes to those in prior years. Section five examines changes from 2008 to 2009 in first-time graduate enrollment among U.S. citizens and permanent residents, and section six provides a summary and conclusions.

I. Survey Methodology and Response Rate

The survey population for the *2009 CGS International Graduate Admissions Survey, Phase III: Final Applications and Initial Offers of Admission* consisted of all 504 U.S. colleges and universities that were members of CGS as of August 2009.² The survey instrument was e-mailed to the graduate dean at each institution on September 3, 2009, and responses were collected electronically through October 23, 2009.

The survey asked institutions to report the final number of offers of admission granted to prospective international graduate students for fall 2008 and fall 2009, the number of new (first-time) international graduate students in fall 2008 and fall 2009, and the total number of international graduate students in fall 2008 and fall 2009. For some campuses, the *Phase III* survey was administered before final enrollment numbers were known, and these institutions provided preliminary figures as of the same date each year. Institutions were also asked to provide admissions and enrollment data for international students who originate from four key sending countries or regions and for eight broad fields of study. (See Appendix A for the survey taxonomy.) In the survey, an international student is defined 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.

In addition to the data collected on international students, institutions were asked to provide the number of U.S. citizen and permanent resident first-time enrollees in fall 2008 and fall 2009.

A total of 257 institutions responded to the survey, a record number of respondents, for a final response rate of 51%. The response rates among certain types of institutions were even higher: eight of the ten institutions with the largest international graduate enrollments (80%), 21 of the 25 largest (84%), 42 of the 50 largest (84%), and 83 of the 100 largest (83%) responded to the survey.³ The high response rate among the institutions with the largest international enrollments is important because collectively the 100 largest institutions enroll about 60% of the total international graduate student population in the United States.⁴ The high response rate among these institutions suggests that the survey results accurately depict recent trends in international offers of admission and enrollment at U.S. graduate schools. Overall, the 257 institutions responding to the *Phase III* survey enrolled about 65% of the 280,259 international graduate students in the United States in fall 2007.⁵

Institutions responding to the *Phase III* survey provided data for fall 2009 on a total of 127,836 offers of admission to prospective international students, 48,470 international first-time enrollees, 254,452 U.S. citizen and permanent resident first-time enrollees, and 170,972 international graduate students. In a few cases, institutions were unable to provide data for both 2008 and 2009 for either the totals or one of the subcategories. In those instances, these respondents were excluded from the appropriate analyses. Data were not imputed for non-responding institutions.

² CGS also has member institutions in Canada and overseas affiliate members. These institutions are not included in the *International Graduate Admissions Survey*.

³ These enrollment figures are based on enrollment in fall 2007. For more information, see National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Dataset. On-line. Available: <http://nces.ed.gov/ipeds/>.

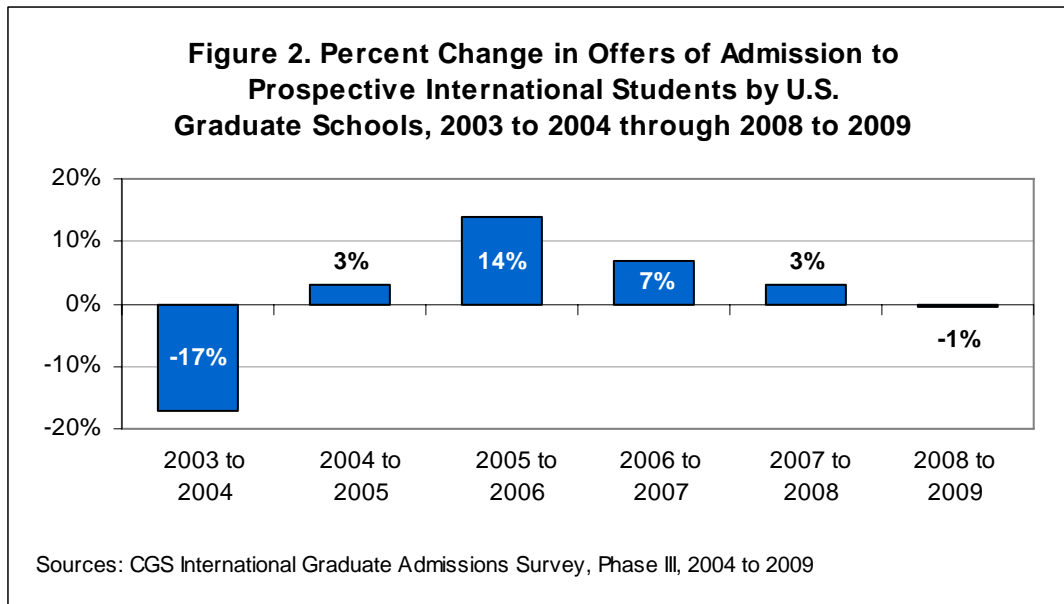
⁴ *Ibid.*

⁵ *Ibid.*

II. Offers of Admission to Prospective International Graduate Students

Total Number of Offers of Admission

For prospective international students, offers of admission to U.S. graduate schools decreased 1% between 2008 and 2009, the first decline in offers of admission since 2004.⁶ This year's slight decline in offers of admission to prospective international students follows gains of 3% in 2008, 7% in 2007, and 14% in 2006 (see Figure 2). The final 1% drop in international offers of admission is slightly smaller than the 3% decline reported for initial offers of admission in the *Phase II* survey results, released in August.



Of the 250 institutions that provided data on offers of admission for both 2008 and 2009 in this year's *Phase III* survey, 122 (49%) reported an increase in international offers of admission for fall 2009, with an average increase of 12% at these institutions. At the 123 institutions (49%) reporting a decrease, the average decline in international offers of admission was 14%. Five institutions (2%) reported no change in international offers of admission.

Offers of admission to international students remain below their 2003 levels at many institutions. About 41% (34) of the 83 institutions that responded to the *Phase III* survey in both 2004 and 2009 made fewer offers of admission to prospective international students this year than they did in 2003. Collectively, the number of students from abroad being offered admission to these 34 institutions is currently 30% below what it was in 2003. Despite this decline, the overall number of offers of admission to prospective international students by all 83 institutions that responded to the *Phase III* survey in both 2004 and 2009 is 5% higher this year than it was in 2003. This statistic should be interpreted cautiously though, since it is based on a smaller subset of institutions than the 2008 to 2009 comparisons.

Offers of Admission by Country/Region of Origin

The *CGS International Graduate Admissions Survey* collects data on four key sending countries or regions: India, China, South Korea, and the Middle East & Turkey. India, China, and South Korea are the

⁶ While figures in this report are all rounded to whole numbers, the unrounded change in international offers of admission was -0.51%.

top three countries of origin for international graduate students in the United States. Collectively, students from these three countries account for about one-half of all non-U.S. citizens on temporary visas attending U.S. graduate schools, according to research from both CGS and the Institute of International Education.⁷ Thus, examining student flows from these three countries provides a good indicator of overall international applications trends. Applications from students from countries in the Middle East & Turkey⁸ have also been included in the CGS surveys because of the geopolitical importance of this region; graduate students from the Middle East & Turkey currently account for about 5% of all international graduate students in the United States.

The *Phase III* survey results reveal that offers of admission to prospective graduate students from India fell 14% in 2009, following a 2% decline in 2008, and increases of 9% in 2007 and 26% in 2006 (see Table 1). Offers of admission to prospective graduate students from South Korea also fell 14% in 2009, following small decreases in each of the last two years.

Table 1. Change in International Offers of Admission, 2005 to 2006 through 2008 to 2009

| | Final Number of Offers of Admission, 2005 to 2006 | Final Number of Offers of Admission, 2006 to 2007 | Final Number of Offers of Admission, 2007 to 2008 | Final Number of Offers of Admission, 2008 to 2009 |
|---------------------------------|---|---|---|---|
| International Total | 14% | 7% | 3% | -1% |
| Country/Region of Origin | | | | |
| China | 24% | 24% | 15% | 17% |
| India | 26% | 9% | -2% | -14% |
| South Korea | 4% | -3% | -2% | -14% |
| Middle East & Turkey * | 6% | 4% | 13% | 14% |
| Field of Study | | | | |
| Arts & Humanities | -6% | 3% | 0% | 1% |
| Business | 15% | 4% | 2% | 4% |
| Education | 9% | -8% | -7% | 10% |
| Engineering | 27% | 5% | 0% | -3% |
| Life Sciences | 4% | 4% | -1% | 3% |
| Physical & Earth Sciences | 7% | -10% | 9% | -5% |
| Social Sciences & Psychology | 3% | -1% | 1% | -1% |
| Other Fields ** | -- | -- | -- | 11% |

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

** Prior to 2009, data for 'Other Fields' were not collected separately.

Note: Not all responding institutions provided data by country of origin and/or field of study.

Sources: CGS International Graduate Admissions Survey, Phase III, 2006 to 2009

⁷ Bell, N. 2009. *Findings from the 2009 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools; Bhandari, R. & Chow, P. 2008. *Open Doors 2008: Report on International Education Exchange*. New York, NY: Institute of International Education.

⁸ Middle East & Turkey includes: Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.

Offers of admission to prospective students from China continued to increase in 2009, with a 17% gain; this is the fourth consecutive year of double-digit growth. Offers of admission to prospective students from the Middle East & Turkey increased 14% in 2009, following a 13% gain in 2008.

Offers of Admission by Field of Study

The majority (62%) of all international graduate students at U.S. institutions are enrolled in one of three broad fields: engineering, physical & earth sciences (which includes mathematics and computer science), and business. Life sciences and social sciences & psychology also account for large numbers of international students at U.S. institutions. In fall 2008, 20% of international students were enrolled in these broad fields. Just 17% of all international graduate students at U.S. institutions are enrolled in the three remaining broad fields (education, arts & humanities, and 'other' fields).⁹

In 2009, international offers of admission declined in two of the three largest broad fields for international students (physical & earth sciences and engineering) and fell in social sciences & psychology as well (see Table 1). The largest decline (-5%) occurred in physical & earth sciences. This follows a 9% increase in physical & earth sciences in 2008. Offers of admission decreased 3% in engineering this year after no growth last year, and offers of admission declined 1% in social sciences & psychology, following a 1% gain in 2008.

Increases in offers of admission occurred in five broad fields in 2009. The largest increases were in 'other' fields (11%) and education (10%), two of the smallest broad fields for international graduate students at U.S. institutions. The increase in education follows a 7% decline in 2008. Smaller gains occurred in 2009 in business (4%), life sciences (3%), and arts & humanities (1%).

Offers of Admission by Institutional Control and Carnegie Classification

Offers of admission to prospective international students decreased at public institutions but increased at private, not-for-profit institutions in 2009. Of the 250 institutions that provided total offers of admission data for both 2008 and 2009 in this year's *Phase III* survey, 173 were public institutions, 75 were private, not-for-profit institutions, and two were private, for-profit institutions. At public institutions, international offers of admission decreased 1% in 2009, and at private, not-for-profit institutions, international offers of admission increased 1% (see Table 2 on the following page). Data for the two private, for-profit respondents are included in the total but are not broken out separately.

Institutions providing international offers of admission data for both 2008 and 2009 in the *Phase III* survey were coded according to their 2005 Carnegie basic classification. For the analysis, the 165 responding institutions classified as RU/VH: Research Universities (very high research activity), RU/H: Research Universities (high research activity), or DRU: Doctoral/Research Universities were grouped as doctoral institutions. The 69 responding institutions classified as Master's/L: Master's Colleges and Universities (larger programs), Master's/M: Master's Colleges and Universities (medium programs), or Master's/S: Master's Colleges and Universities (smaller programs) were grouped as master's institutions. Only 16 responding institutions had classifications not listed above and were therefore excluded from this particular analysis.

Overall, offers of admission to prospective international students for fall 2009 were flat at doctoral institutions and fell 6% at master's-focused institutions (see Table 2 on the following page). By Carnegie classification and institutional control, international offers of admission decreased 1% at public, doctoral institutions, but increased 1% at private, not-for-profit doctoral institutions. At master's-focused

⁹ Bell, N. 2009. *Graduate Enrollment and Degrees: 1998 to 2008*. Washington, DC: Council of Graduate Schools.

institutions, international offers of admission fell 6% at public institutions and 5% at private, not-for-profit institutions; however, these results should be interpreted cautiously given the small number of private, not-for-profit master's institutions responding to the survey.

Table 2. Change in International Offers of Admission by Institutional Control and Carnegie Classification, 2008 to 2009

| | Number of Respondents | Percentage Change in Offers of Admission |
|-----------------------------------|-----------------------|--|
| Total (All Institutions) * | 250 | -1% |
| Public | 173 | -1% |
| Private, not-for-profit | 75 | 1% |
| Doctoral Institutions * | 165 | 0% |
| Public | 116 | -1% |
| Private, not-for-profit | 48 | 1% |
| Master's Institutions | 69 | -6% |
| Public | 49 | -6% |
| Private, not-for-profit | 20 | -5% |

* Two private, for-profit institutions are included in the total for all institutions but are not broken out separately, and one is included in the total for doctoral institutions but is not broken out separately.

Notes: All results are based on the 250 institutions providing total offers of admission data for both 2008 and 2009 in this year's Phase III survey. Carnegie classifications are based on the 2005 Carnegie Classification of Institutions of Higher Education. See text for description of Carnegie groupings. The 16 institutions classified as specialized or baccalaureate institutions are included in the total but are not broken out separately.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

Offers of Admission by Size of International Graduate Enrollment

The overall changes in the numbers of offers of admission to prospective international students potentially mask substantial differences between small and large institutions. To show the wide variation in trends, CGS reports changes in international offers of admission by size of total international graduate student enrollment. Enrollment size is based on data collected by the U.S. Department of Education.¹⁰

Table 3 on the following page displays the changes in international offers of admission from 2008 to 2009 for the responding colleges and universities with the 10, 25, 50, and 100 largest international graduate enrollments. Data are also presented for all responding institutions outside the largest 100.

Overall, institutions with large numbers of international graduate students were more likely to increase the number of offers of admission to prospective international students in 2009 than institutions with smaller numbers of international graduate students. International offers of admission increased 7% at the responding institutions that are among the 10 largest and 4% at the 25 largest, but were flat at the 50

¹⁰ See footnote 3 for more information.

Table 3. Change in International Offers of Admission by Size of International Total Graduate Enrollment, 2008 to 2009

| | 10 Largest Institutions | 25 Largest Institutions | 50 Largest Institutions | 100 Largest Institutions | All Other Institutions |
|---------------------------------|--|--|--|---|---------------------------------------|
| International Total | 7% | 4% | 0% | -1% | 0% |
| Country/Region of Origin | | | | | |
| China | 32% | 24% | 22% | 18% | 13% |
| India | 1% | -7% | -15% | -16% | -11% |
| South Korea | -10% | -13% | -12% | -13% | -18% |
| Middle East & Turkey * | 5% | 6% | 9% | 9% | 27% |
| Field of Study | | | | | |
| Arts & Humanities | 9% | 3% | 3% | 3% | -3% |
| Business | 5% | 3% | 2% | 1% | 8% |
| Education | 7% | 1% | 1% | 9% | 11% |
| Engineering | 8% | 8% | 0% | -3% | -7% |
| Life Sciences | 25% | 13% | 6% | 3% | 3% |
| Physical & Earth Sciences | 3% | -4% | -1% | -3% | -9% |
| Social Sciences & Psychology | 9% | 1% | -1% | -1% | -2% |
| Other Fields | -5% | 4% | 9% | 7% | 21% |

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

Notes: Size of international graduate enrollment is based on NCES data for fall 2007. See footnote 3 for more information. Not all responding institutions provided data by country of origin and/or field of study.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

largest, declined 1% at the 100 largest, and were flat at the institutions outside the largest 100. While not shown in Table 3, the 1% drop in international offers of admission among the 100 largest institutions is due to the decline at institutions ranked 51 to 100 in terms of international total graduate enrollment. International offers of admission fell 3% at these institutions in 2009.

For prospective graduate students from China and the Middle East & Turkey, offers of admission increased across all five size categories shown in Table 3. The largest increases for China were at the 10 largest and 25 largest institutions in terms of international total graduate enrollment, with increases of 32% and 24%, respectively. For prospective students from the Middle East & Turkey, offers of admission increased 5% at the 10 largest institutions, but increased 27% at the institutions outside the largest 100.

Offers of admission to prospective students from South Korea fell across all five size categories shown in Table 3, with decreases ranging from -18% to -10%. Despite a 14% overall decline in offers of admission to prospective students from India, the 10 largest institutions made 1% more offers of admission to applicants from India this year than last year. In contrast, offers of admission to Indian applicants decreased 16% at the 100 largest institutions and 11% at the institutions outside the largest 100.

By broad field, the responding institutions among the 10 largest increased their offers of admission to prospective international students in all broad fields except 'other' fields, in which offers declined 5%. The largest increase at the 10 largest institutions was in life sciences (25%). Declines in international offers of

admission were seen at the 100 largest institutions in three broad fields—engineering (-3%), physical & earth sciences (-3%), and social sciences & psychology (-1%). At the institutions outside the largest 100, offers of admission increased 21% in ‘other’ fields, 11% in education, 8% in business, and 3% in life sciences. International offers of admission declined in all other broad fields among the institutions outside the largest 100, with the largest decrease in physical & earth sciences (-9%).

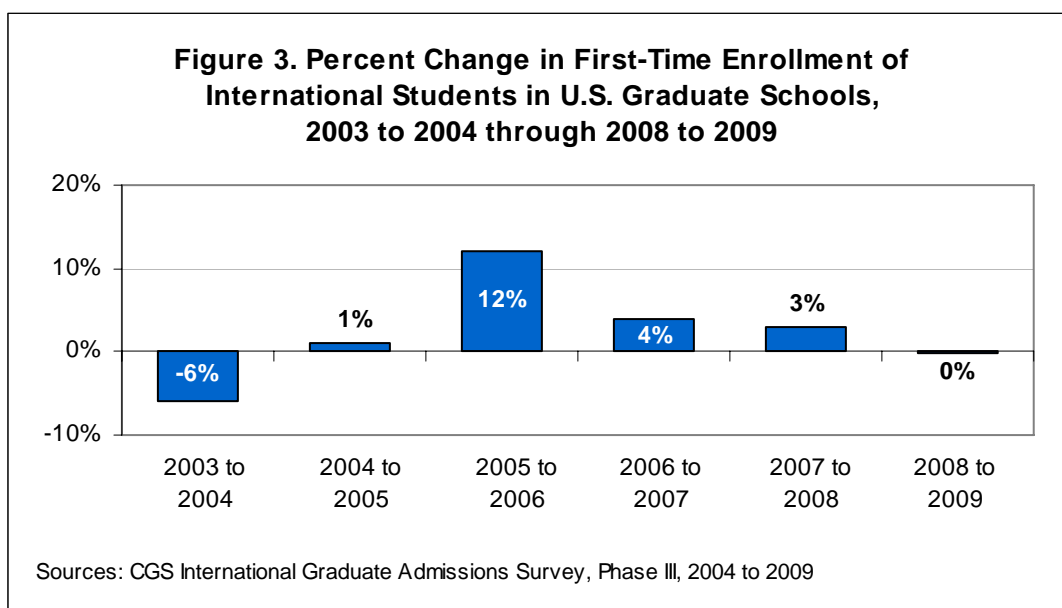
Offers of Admission by Geographic Region

Offers of admission by U.S. graduate schools to prospective international students decreased in two of the four major regions of the United States in 2009. Of the 250 institutions that provided total offers of admission data for both 2008 and 2009 in this year’s *Phase III* survey, 41 institutions are located in the West, 68 institutions are located in the Midwest, 55 in the Northeast, and 86 in the South.¹¹ International offers of admission increased 4% in the West and 2% in the Midwest, but decreased 5% in the Northeast and 1% in the South.

III. International First-Time Graduate Enrollment

Total First-Time Graduate Enrollment

First-time graduate enrollment is typically the best indicator of future trends in graduate enrollment. The *Phase III* survey results show that first-time graduate enrollment of international students in U.S. graduate schools remained flat between 2008 and 2009, marking the first time since 2004 that first-time graduate enrollment failed to increase.¹² In contrast, international first-time graduate enrollment increased 3% in 2008, 4% in 2007, and 12% in 2006 (see Figure 3).



¹¹ States were divided into regions as follows: *Midwest* – Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *Northeast* – Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *West* – Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming; and *South* – Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

¹² While figures in this report are all rounded to whole numbers, the unrounded change in international first-time graduate enrollment was -0.17%.

Of the 249 institutions that provided data on first-time enrollment for both 2008 and 2009 in this year's *Phase III* survey, 124 (50%) reported an increase in international first-time graduate enrollment for fall 2009, with an average increase of 13% at these institutions. At the 117 institutions (47%) reporting a decrease, the average decline in international first-time enrollment was 13%. Eight institutions (3%) reported no change in international first-time enrollment.

International first-time graduate enrollment remains below its 2003 level at many institutions. About 28% (23) of the 83 institutions that responded to the *Phase III* survey in both 2004 and 2009 had fewer international first-time enrollees this year than they did in 2003. Collectively, the number of first-time enrollees from abroad at these 23 institutions is currently 24% below what it was in 2003. Despite this decline, the overall number of international first-time graduate students at all 83 institutions that responded to the *Phase III* survey in both 2004 and 2009 is 15% higher this year than it was in 2003. This statistic should be interpreted cautiously though, since it is based on a smaller subset of institutions than the 2008 to 2009 comparisons.

First-Time Graduate Enrollment by Country/Region of Origin

The *Phase III* survey results reveal that first-time graduate enrollment of students from India fell 16% in 2009, following a 2% decline in 2008, and an 8% increase in 2007 (see Table 4). First-time graduate enrollment of students from South Korea fell 13% in 2009, following a 4% decline in 2008, and a 3% increase in 2007.

Table 4. Change in International First-Time Graduate Enrollment, 2005 to 2006 through 2008 to 2009

| | First-Time Graduate Enrollment, 2005 to 2006 | First-Time Graduate Enrollment, 2006 to 2007 | First-Time Graduate Enrollment, 2007 to 2008 | First-Time Graduate Enrollment, 2008 to 2009 |
|---------------------------------|---|---|---|---|
| International Total | 12% | 4% | 3% | 0% |
| Country/Region of Origin | | | | |
| China | 20% | 19% | 14% | 16% |
| India | 32% | 8% | -2% | -16% |
| South Korea | 5% | 3% | -4% | -13% |
| Middle East & Turkey * | -1% | 12% | 8% | 22% |
| Field of Study | | | | |
| Arts & Humanities | -6% | 4% | -1% | -3% |
| Business | 10% | 12% | 4% | 0% |
| Education | 8% | -6% | -2% | 5% |
| Engineering | 22% | 8% | 1% | 0% |
| Life Sciences | 2% | 6% | 1% | 0% |
| Physical & Earth Sciences | 5% | 2% | 5% | -4% |
| Social Sciences & Psychology | 3% | -1% | -1% | 1% |
| Other Fields ** | -- | -- | -- | 6% |

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

** Prior to 2009, data for 'Other Fields' were not collected separately.

Note: Not all responding institutions provided data by country of origin and/or field of study.

Sources: CGS International Graduate Admissions Survey, Phase III, 2006 to 2009

First-time graduate enrollment of students from China continued to increase in 2009. The 16% gain marks the fourth consecutive year of double-digit growth. First-time graduate enrollment of students from the Middle East & Turkey increased 22% in 2009, following an 8% gain in 2008.

First-Time Graduate Enrollment by Field of Study

International first-time graduate enrollment declined in two broad fields in 2009 (see Table 4). The largest decline (-4%) occurred in physical & earth sciences, one of the three largest broad fields for international students. This follows a 5% increase in physical & earth sciences in 2008. International first-time graduate enrollment decreased 3% in arts & humanities this year after a 1% decline last year.

Increases in international first-time graduate enrollment occurred in three broad fields in 2009. The largest increase was in 'other' fields (6%), followed by education (5%), and social sciences & psychology (1%). The increase in education follows a 2% decline in 2008, and the increase in social sciences & psychology follows a 1% decline in 2008.

International first-time graduate enrollment remained flat in three broad fields in 2009—in business and engineering, two of the three largest broad fields for international students, and also in life sciences. First-time graduate enrollment increased in all three of these broad fields last year, with a 4% increase in business and 1% gains in engineering and life sciences.

First-Time Graduate Enrollment by Institutional Control and Carnegie Classification

Of the 249 institutions that provided international first-time graduate enrollment data for both 2008 and 2009 in this year's *Phase III* survey, 172 were public institutions, 75 were private, not-for-profit institutions, and two were private, for-profit institutions. At public institutions, international first-time graduate enrollment remained flat in 2009, and at private, not-for-profit institutions, international first-time graduate enrollment decreased 1% (see Table 5 on the following page). Data for the two private, for-profit respondents are included in the total but are not broken out separately.

Institutions providing international first-time graduate enrollment data for both 2008 and 2009 in the *Phase III* survey were coded according to their 2005 Carnegie basic classification. For the analysis, the 165 responding institutions classified as RU/VH: Research Universities (very high research activity), RU/H: Research Universities (high research activity), or DRU: Doctoral/Research Universities were grouped as doctoral institutions. The 68 responding institutions classified as Master's/L: Master's Colleges and Universities (larger programs), Master's/M: Master's Colleges and Universities (medium programs), or Master's/S: Master's Colleges and Universities (smaller programs) were grouped as master's institutions. Only 16 responding institutions had classifications not listed above and were therefore excluded from this particular analysis.

Overall, international first-time graduate enrollment for fall 2009 was flat at doctoral institutions and fell 5% at master's-focused institutions (see Table 5 on the following page). By Carnegie classification and institutional control, international first-time graduate enrollment was flat at both public, doctoral institutions and private, not-for-profit doctoral institutions. At master's-focused institutions international first-time graduate enrollment fell 2% at public institutions and 10% at private, not-for-profit institutions; however, these results should be interpreted cautiously given the small number of private, not-for-profit master's institutions responding to the survey.

Table 5. Change in International First-Time Graduate Enrollment by Institutional Control and Carnegie Classification, 2008 to 2009

| | Number of Respondents | Percentage Change in First-Time Enrollment |
|-----------------------------------|-----------------------|--|
| Total (All Institutions) * | 249 | 0% |
| Public | 172 | 0% |
| Private, not-for-profit | 75 | -1% |
| Doctoral Institutions * | 165 | 0% |
| Public | 116 | 0% |
| Private, not-for-profit | 48 | 0% |
| Master's Institutions | 68 | -5% |
| Public | 48 | -2% |
| Private, not-for-profit | 20 | -10% |

* Two private, for-profit institutions are included in the total for all institutions but are not broken out separately, and one is included in the total for doctoral institutions but is not broken out separately.

Notes: All results are based on the 249 institutions providing first-time enrollment data for both 2008 and 2009 in this year's Phase III survey. Carnegie classifications are based on the 2005 Carnegie Classification of Institutions of Higher Education. See text for description of Carnegie groupings. The 16 institutions classified as specialized or baccalaureate institutions are included in the total but are not broken out separately.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

First-Time Graduate Enrollment by Size of International Graduate Enrollment

The overall lack of growth in international first-time graduate enrollment obscures differences between small and large institutions. As with the data on international offers of admission, CGS reports changes in international first-time graduate enrollment by size of total international graduate enrollment. Enrollment size is based on data collected by the U.S. Department of Education.¹³

Table 6 on the following page displays the changes in international first-time graduate enrollment from 2008 to 2009 for the responding colleges and universities with the 10, 25, 50, and 100 largest enrollments of international graduate students. In addition, data are presented for all responding institutions outside the largest 100.

Overall, institutions with large numbers of international graduate students were more likely to experience increases in international first-time graduate enrollment in 2009 than institutions with smaller numbers of international graduate students. International first-time graduate enrollment increased 7% at the responding institutions that are among the 10 largest and 1% at the 25 largest, but was flat at the 50 largest and 100 largest, and declined 1% at the institutions outside the largest 100.

¹³ See footnote 3 for more information.

For students from China and the Middle East & Turkey, first-time graduate enrollment increased across all five size categories shown in Table 6. The largest increases for China were at the 10 largest and 25 largest institutions in terms of international graduate enrollment, with increases of 29% and 22% respectively. For students from the Middle East & Turkey, increases in first-time graduate enrollment ranged from 13% at the 10 largest institutions to 31% at the institutions outside the largest 100.

For students from South Korea, first-time graduate enrollment fell across all five size categories shown in Table 6, with decreases ranging from -13% to -10%. While first-time graduate enrollment of students from India was down 16% overall in 2009, the decline at the 10 largest institutions was only 6%. In contrast, first-time graduate enrollment of Indian students decreased 17% at the 50 largest institutions, 16% at the 100 largest institutions, and 15% at the institutions outside the largest 100.

At the responding institutions among the 10 largest, international first-time graduate enrollment increased in all broad fields except physical & earth sciences (-4%) and arts & humanities (-3%). The largest increase at the 10 largest institutions was in life sciences (19%). Declines in international first-time graduate enrollment were seen at the 100 largest institutions in three broad fields—physical & earth sciences (-5%), arts & humanities (-2%), and business (-1%). At the institutions outside the largest 100, international first-time graduate enrollment increased 21% in 'other' fields and 3% in business, but declined in all other broad fields, with the largest decreases in arts & humanities (-8%) and life sciences (-6%).

Table 6. Change in International First-Time Graduate Enrollment by Size of International Total Graduate Enrollment, 2008 to 2009

| | 10 Largest Institutions | 25 Largest Institutions | 50 Largest Institutions | 100 Largest Institutions | All Other Institutions |
|---------------------------------|--|--|--|---|---------------------------------------|
| International Total | 7% | 1% | 0% | 0% | -1% |
| Country/Region of Origin | | | | | |
| China | 29% | 22% | 20% | 17% | 12% |
| India | -6% | -16% | -17% | -16% | -15% |
| South Korea | -10% | -10% | -12% | -13% | -13% |
| Middle East & Turkey * | 13% | 14% | 19% | 18% | 31% |
| Field of Study | | | | | |
| Arts & Humanities | -3% | -3% | -3% | -2% | -8% |
| Business | 12% | 1% | 0% | -1% | 3% |
| Education | 1% | 8% | 5% | 8% | -1% |
| Engineering | 8% | 1% | -1% | 1% | -4% |
| Life Sciences | 19% | 9% | 6% | 2% | -6% |
| Physical & Earth Sciences | -4% | -7% | -4% | -5% | -2% |
| Social Sciences & Psychology | 11% | 4% | 1% | 3% | -3% |
| Other Fields | 1% | -3% | -1% | 1% | 21% |

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

Notes: Size of international graduate enrollment is based on NCES data for fall 2007. See footnote 3 for more information. Not all responding institutions provided data by country of origin and/or field of study.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

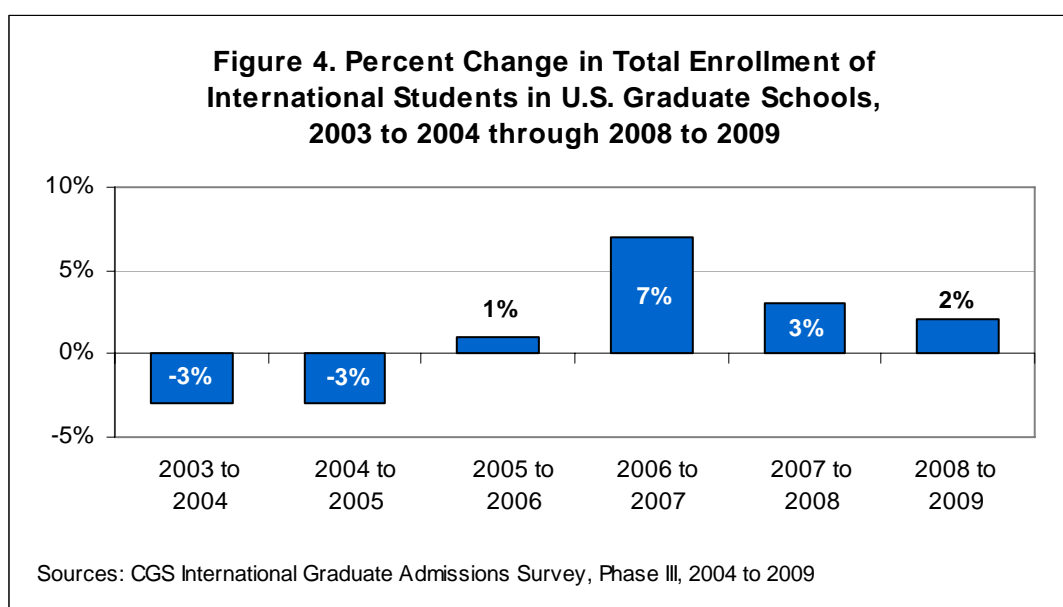
First-Time Graduate Enrollment by Geographic Region

International first-time graduate enrollment increased in three of the four major regions of the United States in 2009. Of the 249 institutions that provided international first-time graduate enrollment data for both 2008 and 2009 in this year's *Phase III* survey, 41 institutions are located in the West, 67 institutions are located in the Midwest, 86 in the South, and 55 in the Northeast.¹⁴ International first-time graduate enrollment increased 3% in 2009 in the West, 2% in the South, and 1% in the Midwest, but decreased 6% in the Northeast.

IV. International Total Graduate Enrollment

Total Graduate Enrollment

The *Phase III* survey results show that total graduate enrollment of international students in U.S. graduate schools increased 2% between 2008 and 2009 following increases of 3% in 2008 and 7% in 2007 (see Figure 4). This year's increase is the smallest since 2006.



Of the 245 institutions that provided data on total graduate enrollment for both 2008 and 2009 in this year's *Phase III* survey, 135 (55%) reported an increase in international total graduate enrollment for fall 2009, with an average increase of 7% at these institutions. At the 101 institutions (41%) reporting a decrease, the average decline in international total graduate enrollment was 5%. Nine institutions (4%) reported no change in international total graduate enrollment.

International total graduate enrollment remains below its 2003 level at many institutions. About 46% (37) of the 81 institutions that responded to the *Phase III* survey in both 2004 and 2009 had fewer international enrollees this year than they did in 2003. Collectively, the number of enrollees from abroad at these 37 institutions is currently 15% below what it was in 2003. Despite this decline, the overall number of international graduate students at all 81 institutions that responded to the *Phase III* survey in both 2004 and 2009 is 4% higher this year than it was in 2003, but this statistic should be interpreted cautiously since it is based on a smaller subset of institutions than the 2008 to 2009 comparisons.

¹⁴ See footnote 11 for a listing of the states included in each region.

Total Graduate Enrollment by Country/Region of Origin

The *Phase III* survey results reveal that total graduate enrollment of students from India fell 4% in 2009, following a 3% increase in 2008, and a 14% increase in 2007 (see Table 7). Total graduate enrollment of students from South Korea also fell in 2009, with a 5% decline. This follows a 2% decline in 2008, and a 2% increase in 2007.

Total graduate enrollment of students from China continued to increase in 2009. This year's 12% gain marks the third consecutive year of double-digit growth. Total graduate enrollment of students from the Middle East & Turkey increased 13% in 2009, following a 7% gain in 2008.

Table 7. Change in International Total Graduate Enrollment, 2005 to 2006 through 2008 to 2009

| | Total Graduate Enrollment, 2005 to 2006 | Total Graduate Enrollment, 2006 to 2007 | Total Graduate Enrollment, 2007 to 2008 | Total Graduate Enrollment, 2008 to 2009 |
|---------------------------------|---|---|---|---|
| International Total | 1% | 7% | 3% | 2% |
| Country/Region of Origin | | | | |
| China | -2% | 15% | 10% | 12% |
| India | 8% | 14% | 3% | -4% |
| South Korea | -3% | 2% | -2% | -5% |
| Middle East & Turkey * | 1% | 5% | 7% | 13% |
| Field of Study | | | | |
| Arts & Humanities | -7% | 1% | 0% | 0% |
| Business | 1% | 10% | 2% | 2% |
| Education | -9% | -2% | 0% | 3% |
| Engineering | 3% | 8% | 3% | 2% |
| Life Sciences | -1% | 3% | 3% | 3% |
| Physical & Earth Sciences | -4% | 0% | 2% | 3% |
| Social Sciences & Psychology | -2% | 1% | 2% | -1% |
| Other Fields ** | -- | -- | -- | 4% |

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

** Prior to 2009, data for 'Other Fields' were not collected separately.

Note: Not all responding institutions provided data by country of origin and/or field of study.

Sources: CGS International Graduate Admissions Survey, Phase III, 2006 to 2009

Total Graduate Enrollment by Field of Study

In 2009, international total graduate enrollment increased in all three of the largest broad fields for international students: engineering, physical & earth sciences (which includes mathematics and computer science), and business (see Table 7).

The largest gain in international total graduate enrollment in 2009 was in 'other' fields (4%). In three broad fields, international total graduate enrollment increased by 3%: education, life sciences, and physical & earth sciences. In both business and engineering, international total graduate enrollment increased by 2%, and international total graduate enrollment remained flat in arts & humanities. Social sciences &

psychology was the only broad field in which international total graduate enrollment decreased. This year's 1% decline follows a 2% increase last year.

Total Graduate Enrollment by Institutional Control and Carnegie Classification

Of the 245 institutions that provided international total graduate enrollment data for both 2008 and 2009 in this year's *Phase III* survey, 170 were public institutions, 73 were private, not-for-profit institutions, and two were private, for-profit institutions. At public institutions, international total graduate enrollment increased 3% in 2009, but at private, not-for-profit institutions, international total graduate enrollment remained flat (see Table 8). Data for the two private, for-profit respondents are included in the total but are not broken out separately.

Institutions providing international total graduate enrollment data for both 2008 and 2009 in the *Phase III* survey were coded according to their 2005 Carnegie basic classification. For the analysis, the 161 responding institutions classified as RU/VH: Research Universities (very high research activity), RU/H: Research Universities (high research activity), or DRU: Doctoral/Research Universities were grouped as doctoral institutions. The 68 responding institutions classified as Master's/L: Master's Colleges and Universities (larger programs), Master's/M: Master's Colleges and Universities (medium programs), or Master's/S: Master's Colleges and Universities (smaller programs) were grouped as master's institutions. Only 16 responding institutions had classifications not listed above and were therefore excluded from this particular analysis.

Table 8. Change in International Total Graduate Enrollment by Institutional Control and Carnegie Classification, 2008 to 2009

| | Number of Respondents | Percentage Change in Total Enrollment |
|-----------------------------------|-----------------------|---------------------------------------|
| Total (All Institutions) * | 245 | 2% |
| Public | 170 | 3% |
| Private, not-for-profit | 73 | 0% |
| Doctoral Institutions * | 161 | 2% |
| Public | 114 | 3% |
| Private, not-for-profit | 46 | 1% |
| Master's Institutions | 68 | -2% |
| Public | 48 | 0% |
| Private, not-for-profit | 20 | -9% |

* Two private, for-profit institutions are included in the total for all institutions but are not broken out separately, and one is included in the total for doctoral institutions but is not broken out separately.

Notes: All results are based on the 245 institutions providing total enrollment data for both 2008 and 2009 in this year's *Phase III* survey. Carnegie classifications are based on the 2005 Carnegie Classification of Institutions of Higher Education. See text for description of Carnegie groupings. The 16 institutions classified as specialized or baccalaureate institutions are included in the total but are not broken out separately.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

Overall, international total graduate enrollment for fall 2009 increased 2% at doctoral institutions and fell 2% at master's-focused institutions (see Table 8). By Carnegie classification and institutional control, international total graduate enrollment increased 3% at public, doctoral institutions and 1% at private, not-for-profit doctoral institutions. At master's-focused institutions international total graduate enrollment remained flat at public institutions and fell 9% at private, not-for-profit institutions; however, these results should be interpreted cautiously given the small number of private, not-for-profit master's institutions responding to the survey.

Total Graduate Enrollment by Size of International Graduate Enrollment

As noted in previous sections of this report, differences between small and large institutions can be masked by the overall change in international total graduate enrollment. Therefore, CGS reports changes in international graduate enrollment by size of international total graduate enrollment. Enrollment size is based on data collected by the U.S. Department of Education.¹⁵

Table 9 displays the changes in international total graduate enrollment from 2008 to 2009 for the responding colleges and universities with the 10, 25, 50, and 100 largest enrollments of international graduate students. In addition, data are presented for all responding institutions outside the largest 100.

Table 9. Change in International Total Graduate Enrollment by Size of International Total Graduate Enrollment, 2008 to 2009

| | 10 Largest Institutions | 25 Largest Institutions | 50 Largest Institutions | 100 Largest Institutions | All Other Institutions |
|---------------------------------|--|--|--|---|---------------------------------------|
| International Total | 4% | 1% | 2% | 2% | 3% |
| Country/Region of Origin | | | | | |
| China | 17% | 12% | 13% | 11% | 14% |
| India | -1% | -5% | -5% | -5% | -3% |
| South Korea | -2% | -4% | -4% | -4% | -9% |
| Middle East & Turkey * | 9% | 9% | 12% | 11% | 18% |
| Field of Study | | | | | |
| Arts & Humanities | 2% | 3% | -1% | 0% | -3% |
| Business | 1% | 0% | 1% | 1% | 3% |
| Education | -12% | -3% | -3% | -1% | 13% |
| Engineering | 2% | 0% | 1% | 2% | 2% |
| Life Sciences | 7% | 7% | 6% | 4% | 0% |
| Physical & Earth Sciences | -1% | 0% | 3% | 2% | 5% |
| Social Sciences & Psychology | 7% | 1% | -2% | -1% | -2% |
| Other Fields | 6% | -13% | -2% | 0% | 15% |

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

Notes: Size of international graduate enrollment is based on NCES data for fall 2007. See footnote 3 for more information. Not all responding institutions provided data by country of origin and/or field of study.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

¹⁵ See footnote 3 for more information.

Overall, institutions with the largest numbers of international graduate students were slightly more likely to experience increases in international total graduate enrollment in 2009 than institutions with the smallest numbers of international graduate students. International total graduate enrollment increased 4% at the responding institutions that are among the 10 largest, compared with 3% at the institutions outside the largest 100. Institutions among the 25 largest in terms of international graduate enrollment experienced the smallest increase (1%) in international total graduate enrollment in 2009.

For students from China and the Middle East & Turkey, total graduate enrollment increased across all five size categories shown in Table 9. The largest increases for China were at the 10 largest institutions in terms of international graduate student enrollment and at the institutions outside the largest 100, with increases of 17% and 14%, respectively. For students from the Middle East & Turkey, increases in total graduate enrollment ranged 9% at the 10 largest institutions to 18% at the institutions outside the largest 100.

For students from South Korea, total graduate enrollment fell across all five size categories shown in Table 9, with decreases ranging from -2% at the 10 largest institutions to -9% at the institutions outside the largest 100. While total graduate enrollment of students from India was down 4% overall in 2009, the decline at the 10 largest institutions was only 1%. In contrast, total graduate enrollment of Indian students fell 5% at the 25 largest, 50 largest, and 100 largest institutions, and fell 3% at the institutions outside the largest 100.

At the responding institutions among the 10 largest, international total graduate enrollment increased in all broad fields except education (-12%) and physical & earth sciences (-1%). The largest increases at the 10 largest institutions were in life sciences and social sciences & psychology, both with 7% gains.

Small declines in international total graduate enrollment were seen at the 100 largest institutions in education and social sciences & psychology, both with 1% declines. The largest increase at the 100 largest institutions was in life sciences, with a 4% gain in 2009.

At the institutions outside the largest 100, international total graduate enrollment increased 15% in 'other' fields and 13% in education, but these two broad fields account for only a small proportion of all international students in U.S. graduate schools. International total graduate enrollment declined in arts & humanities (-3%) and social sciences & psychology (-2%) at the institutions outside the largest 100.

Total Graduate Enrollment by Geographic Region

International total graduate enrollment increased in all four of the major regions of the United States in 2009. Of the 245 institutions that provided international total graduate enrollment data for both 2008 and 2009 in this year's *Phase III* survey, 85 institutions are located in the South, 41 institutions are located in the West, 67 in the Midwest, and 52 in the Northeast.¹⁶ International total graduate enrollment increased 3% in 2009 in the South, 3% in the West, 2% in the Midwest, and 1% in the Northeast.

V. U.S. Citizen and Permanent Resident First-Time Enrollment

While the primary focus of the *CGS International Graduate Admissions Survey* is on the participation of international students in U.S. graduate education, each phase of the survey also asks CGS member colleges and universities to respond to one or more questions regarding critical issues in graduate education. In this year's *Phase III* survey, institutions were asked to respond to a question about

¹⁶ See footnote 11 for a listing of the states included in each region.

U.S. citizen and permanent resident first-time graduate students. Institutions were asked to provide the number of U.S. citizens and permanent residents enrolled for the first time at their institution in graduate certificate, education specialist, master's, or doctoral programs for the fall term in 2008 and the fall term in 2009 as of October 1st or the same date each year.

A total of 245 institutions provided first-time graduate enrollment data for U.S. citizens and permanent residents for fall 2008 and fall 2009. Of those institutions, 171 (70%) were public institutions, 72 (29%) were private, not-for-profit institutions, and 2 (1%) were private, for-profit institutions. By basic Carnegie classification, 161 of the respondents were doctoral institutions, 68 were master's institutions, and 16 were institutions classified as baccalaureate or specialized.¹⁷ Among the 245 institutions, 27% are located in the Midwest, 22% are in the Northeast, 17% are in the West, and 34% are in the South.¹⁸ Seventy of the 100 largest institutions in the United States in terms of total graduate enrollment provided first-time enrollment data for U.S. citizens and permanent residents, along with 175 institutions outside the largest 100.¹⁹ The responding institutions enrolled about 44% of all graduate students in the United States in fall 2007. Given this diverse set of survey respondents, it is likely that the findings presented below accurately reflect the current trends in first-time graduate enrollment of U.S. citizens and permanent residents in colleges and universities across the United States.

Overall, U.S. citizen and permanent resident first-time graduate enrollment increased 6% between fall 2008 and fall 2009. This contrasts sharply with the lack of growth in international first-time graduate enrollment at these same institutions in fall 2009.

Of the 245 institutions that provided data for both 2008 and 2009, 166 (68%) reported an increase in U.S. citizen and permanent resident first-time graduate enrollment for fall 2009, with an average increase of 11% at these institutions. At the 79 institutions (32%) reporting a decrease, the average decline in U.S. citizen and permanent resident first-time graduate enrollment was 7%.

The increase in U.S. citizen and permanent resident first-time graduate enrollment varied minimally by size of total graduate enrollment.²⁰ At the 70 responding institutions among the 100 largest in terms of total graduate enrollment, U.S. citizen and permanent resident first-time graduate enrollment increased 7%, while at the 175 responding institutions outside the largest 100, U.S. citizen and permanent resident first-time graduate enrollment increased 6%.

Public institutions and private, not-for-profit institutions both reported a 6% increase in U.S. citizen and permanent resident first-time graduate enrollment (see table 10 on the following page). There was slightly more variation by Carnegie classification. Doctoral institutions reported a 6% increase in U.S. citizen and permanent resident first-time graduate enrollment, while master's-focused institutions reported a 3% gain.²¹

¹⁷ See page 5 for information on Carnegie classifications.

¹⁸ See footnote 11 for a listing of states included in each region.

¹⁹ Figures are based on total graduate enrollment in fall 2007. For more information, see National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey. Dataset. On-line. Available: <http://nces.ed.gov/ipeds/>.

²⁰ While previous sections of this report examined the changes by size of international total graduate enrollment, this section of the report examines the findings by size of total graduate enrollment, including U.S. citizens and permanent residents *and* non-U.S. citizens on temporary visas (international students).

²¹ Since the data for U.S. citizen and permanent resident first-time graduate enrollment were collected as part of the *CGS International Graduate Admissions Survey*, it is possible that the increase at master's-focused institutions is not representative of the entire universe of master's-focused institutions in the United States, since small master's-focused institutions are less likely to have international graduate students and therefore may have been less likely to respond to the survey.

Table 10. Change in U.S. Citizen and Permanent Resident First-Time Graduate Enrollment by Institutional Control and Carnegie Classification, 2008 to 2009

| | Number of Respondents | Percentage Change in First-Time Enrollment |
|-----------------------------------|-----------------------|--|
| Total (All Institutions) * | 245 | 6% |
| Public | 171 | 6% |
| Private, not-for-profit | 72 | 6% |
| Doctoral Institutions * | 161 | 6% |
| Public | 115 | 7% |
| Private, not-for-profit | 45 | 5% |
| Master's Institutions | 68 | 3% |
| Public | 48 | 2% |
| Private, not-for-profit | 20 | 7% |

* Two private, for-profit institutions are included in the total for all institutions but are not broken out separately, and one is included in the total for doctoral institutions but is not broken out separately.

Notes: All results are based on the 245 institutions providing first-time enrollment data for U.S. citizens and permanent residents for both 2008 and 2009 in this year's Phase III survey. Carnegie classifications are based on the 2005 Carnegie Classification of Institutions of Higher Education. See page 5 for a description of Carnegie groupings. The 16 institutions classified as specialized or baccalaureate institutions are included in the total but are not broken out separately.

Source: CGS International Graduate Admissions Survey, Phase III, 2009

Doctoral institutions were more likely to report increases in U.S. citizen and permanent resident first-time graduate enrollment than master's-focused institutions. Among the 161 doctoral institutions providing data for both 2008 and 2009, three-quarters (75%) reported an increase in U.S. citizen and permanent resident first-time graduate enrollment, while only about half (53%) of the 68 master's-focused institutions reported an increase.

By institutional control and Carnegie classification, public doctoral institutions reported a slightly higher increase in U.S. citizen and permanent resident first-time graduate enrollment than private, not-for-profit doctoral institutions—7% vs. 5%. Among master's-focused institutions, private, not-for-profit institutions were more likely to report increases in U.S. citizen and permanent resident first-time graduate enrollment than public institutions—7% vs. 2%. However, as noted in other sections of this report, these results should be interpreted cautiously given the small number of private, not-for-profit master's institutions responding to the survey.

The increases in U.S. citizen and permanent resident first-time graduate enrollment varied slightly by geographic region. Increases were highest at institutions located in the South and the Midwest, with increases of 8% and 7%, respectively. Colleges and universities located in the Northeast reported a 5% increase in U.S. citizen and permanent resident first-time graduate enrollment, and those in the West reported a 4% increase.

VI. Summary and Conclusions

Summary

The results of the *2009 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* show that offers of admission to prospective international students by U.S. graduate schools decreased 1% in 2009, first-time graduate enrollment of international students remained flat, and total graduate enrollment of international students increased 2%. In contrast to the lack of growth in international first-time graduate enrollment, U.S. citizen and permanent resident first-time graduate enrollment increased 6% between fall 2008 and fall 2009.

Offers of admission to prospective graduate students from both India and South Korea fell 14% in 2009, but these declines were partially offset by increases in offers of admission to prospective students from China and the Middle East & Turkey, with increases of 17% and 14%, respectively. International offers of admission increased in five broad fields in 2009, and decreased in three broad fields. The largest increases were in 'other' fields (11%) and education (10%), two of the smallest fields for international students in U.S. graduate schools. The largest decreases were in physical & earth sciences (-5%) and engineering (-3%), the two largest fields for international students.

International offers of admission decreased 1% at public institutions in fall 2009, but increased 1% at private, not-for-profit institutions. By Carnegie classification, international offers of admission were flat at doctoral institutions and fell 6% at master's-focused institutions.

Overall, institutions with large numbers of international graduate students were more likely to increase the number of offers of admission to prospective international graduate students in 2009 than institutions with smaller numbers of international graduate students. International offers of admission increased 7% at the responding institutions that are among the 10 largest in terms of international graduate enrollment, fell 1% at the 100 largest, and were flat at the institutions outside the largest 100.

While there was no change in the number of international first-time enrollees in fall 2009, there was wide variation by country/region of origin. First-time graduate enrollment of students from China and the Middle East & Turkey soared in 2009, with increases of 16% and 22%, respectively. In contrast, first-time graduate enrollment of students from India fell 16%, and first-time graduate enrollment of students from South Korea fell 13%.

International first-time graduate enrollment decreased 4% in physical & earth sciences and 3% in arts & humanities in 2009. Increases in international first-time graduate enrollment occurred in three broad fields in 2009: 'other' fields (6%), education (5%), and social sciences & psychology (1%). In the three remaining broad fields, international first-time graduate enrollment was flat.

International first-time graduate enrollment remained flat at public institutions in fall 2009, and decreased 1% at private, not-for-profit institutions. By Carnegie classification, international first-time graduate enrollment was flat at doctoral institutions and fell 5% at master's-focused institutions.

As was seen with the data on international offers of admission, institutions with large numbers of international graduate students were more likely to experience increases in the number of international first-time graduate students than institutions with smaller numbers of international graduate students. International first-time graduate enrollment increased 7% in 2009 at the responding institutions that are among the 10 largest in terms of international graduate enrollment, was flat at the 100 largest, and fell 1% at the institutions outside the largest 100.

While both international offers of admission and first-time graduate enrollment failed to increase in 2009, international total enrollment increased 2%. Despite the overall gain, total enrollment of students from India and South Korea fell, with decreases of 4% and 5%, respectively. In contrast, double-digit increases occurred in total enrollment of students from China (12%) and the Middle East & Turkey (13%).

International total graduate enrollment increased in all but one broad field in 2009. The largest increase was in 'other' fields (4%), followed by 3% gains in education, life sciences, and physical & earth sciences. In both business and engineering, international total graduate enrollment increased 2%, and international total graduate enrollment remained flat in arts & humanities. International total graduate enrollment fell 1% in social sciences & psychology in 2009.

International total graduate enrollment increased 3% at public institutions in fall 2009, and remained flat at private, not-for-profit institutions. By Carnegie classification, international total graduate enrollment rose 2% at doctoral institutions, but fell 2% at master's-focused institutions.

While there were considerable differences for international offers of admission and first-time enrollment between institutions with large numbers of international graduate students and institutions with smaller numbers of international graduate students, there was less variation for international total enrollment. Among the 10 largest institutions in terms of international graduate enrollment, international total graduate enrollment increased 4% in 2009, compared with a 2% gain at the 100 largest, and a 3% increase at the institutions outside the largest 100.

In sharp contrast to the lack of growth in international first-time graduate enrollment, U.S. citizen and permanent resident first-time graduate enrollment increased 6% between fall 2008 and fall 2009. Public institutions and private, not-for-profit institutions both reported a 6% increase in U.S. citizen and permanent resident first-time graduate enrollment. The increase in U.S. citizen and permanent resident first-time graduate enrollment varied minimally by size of total graduate student enrollment. At the 100 largest institutions in terms of total graduate student enrollment, U.S. citizen and permanent resident first-time graduate enrollment increased 7%, compared to a 6% increase at the institutions outside the largest 100. Doctoral institutions reported a larger increase in U.S. citizen and permanent resident first-time graduate enrollment than master's-focused institutions—6% vs. 3%.

Conclusions

Four main stories emerge from the findings of the *2009 CGS International Graduate Admissions Survey, Phase III: Final Applications and Initial Offers of Admission*. Two of these stories are particularly troubling.

The first story is the decline in international offers of admission and the lack of growth in international first-time graduate enrollment. While troubling, this finding is not a surprise. Since 2006, the rates of growth in international offers of admission and first-time graduate enrollment have been slowing, and this year's data simply bring to fruition the reality that was forecast in the findings of previous *CGS International Graduate Admissions Surveys*.

The second troubling finding is the decline among South Korean and Indian students. The *2009 Phase II* survey found a 12% decline in graduate applications from Indian students and a 9% decline in applications from South Korean students. Given these declines it was inevitable that offers of admission, first-time enrollment, and total enrollment would also decline for Indian and South Korean students in fall 2009, but the decreases that occurred were even steeper than expected. For both Indian and South Korean students, the decreases in offers of admission and first-time enrollment in fall 2009 exceeded the drop in applications.

The third story to emerge from the *Phase III* data is the difference in international offers of admission and first-time enrollment between institutions with large numbers of international students and institutions with smaller numbers of international students. Were it not for the increases in international offers of admission and first-time enrollment at the 10 largest and 25 largest institutions in terms of international total graduate enrollment, the data for 2009 would show a decline in international first-time graduate enrollment and an even larger decline in international offers of admission. While some institutions with smaller numbers of international students experienced growth in 2009, institutions that already had large numbers of international students were far more likely to see gains.

Finally, the fourth story is that of U.S. citizen and permanent resident first-time graduate students. Despite the stagnant numbers for international students, U.S. citizen and permanent resident first-time graduate enrollment increased 6% in 2009. The overall increase in first-time graduate enrollment nationally that is suggested by the figures in this report is thus due entirely to the rising numbers of U.S. citizens and permanent residents entering graduate school this year.

While the *CGS International Graduate Admissions Survey* reveals the current trends in U.S. graduate education, the numbers alone cannot tell us why these changes are occurring. For international students, several factors are likely at play including the global economy and its differing effect on individual countries, competition for international students from other countries, an increased capacity for graduate education in some countries, and the effect of the current economic situation on state and university budgets which may have reduced the amount of financial aid available for graduate students. For domestic students, the national economy and weak job market are likely partially responsible for the increase in first-time graduate enrollment, along with increased recognition by students of the value of a graduate degree in today's competitive world.

While this report does not empirically identify the specific causes, the situation is clear. Despite the high quality of graduate education in the United States, we cannot continue to assume that our institutions are the number one destination of international graduate students. In the last three years, growth in the numbers of international graduate students coming to the United States has slowed, and now the numbers have flat lined, even though global student mobility has rapidly increased over the last decade.²² Given this new reality, policymakers and the graduate school community are faced with several key questions if the United States is to remain the destination of choice for international graduate students: Are there national policies that deter international students from coming to the United States for graduate school? How do we make U.S. graduate programs attractive to both domestic *and* international students? Within the constraints of the current economic situation, what can institutions do to more effectively attract international students to their graduate programs? And, what lessons can we learn from the successes of colleges and universities in other countries in attracting international students to their graduate programs?

Principal Researcher and Author: Nathan E. Bell, Director, Research and Policy Analysis

Research Assistant: Joshua D. Mahler, Program and Operations Associate

The Council of Graduate Schools (CGS) is an organization of over 500 institutions of higher education in the United States and Canada engaged in graduate education, research, and the preparation of candidates for advanced degrees. Among U.S. institutions, CGS members award 95% of the doctoral degrees and 78% of the master's degrees.²³ 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.

²² Bhandari, R. & Laughlin, S., Eds. 2009. *Higher Education on the Move: New Developments in Global Mobility*. New York, NY: Institute of International Education.

²³ Based on data from the 2008 *CGS/GRE Survey of Graduate Enrollment and Degrees*.

Appendix A
CGS International Graduate Admissions Survey Taxonomy

ARTS & HUMANITIES

Arts – History, Theory & Criticism
Arts – Performance & Studio
English Language & Literature
Foreign Languages & Literatures
History
Philosophy
Arts & Humanities, Other

BUSINESS

Accounting
Banking and Finance
Business Administration & Management
Business, Other

EDUCATION

Education Administration
Curriculum and Instruction
Early Childhood Education
Elementary Education
Evaluation and Research
Higher Education
Secondary Education
Special Education
Student Counseling & Personnel Services
Education, Other

ENGINEERING

Chemical Engineering
Civil Engineering
Electrical & Electronics Engineering
Industrial Engineering
Materials Engineering
Mechanical Engineering
Engineering, Other

LIFE SCIENCES

Agriculture
Biological Sciences
Health & Medical Sciences

PHYSICAL & EARTH SCIENCES

Chemistry
Computer & Information Sciences
Earth, Atmospheric & Marine Sciences
Mathematical Sciences
Physics & Astronomy
Physical Sciences, Other

SOCIAL SCIENCES & PSYCHOLOGY

Anthropology
Archaeology
Economics
Political Science
Psychology
Sociology
Social Sciences, Other

OTHER FIELDS

Architecture & Environmental Design
Communications
Family & Consumer Sciences
Library & Archival Studies
Public Administration
Religion & Theology
Social Work
Other Fields