



Council of Graduate Schools

RESEARCH REPORT

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**Findings from the  
2011 CGS International Graduate Admissions Survey  
Phase III: Final Offers of Admission and Enrollment**

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**Council of Graduate Schools**

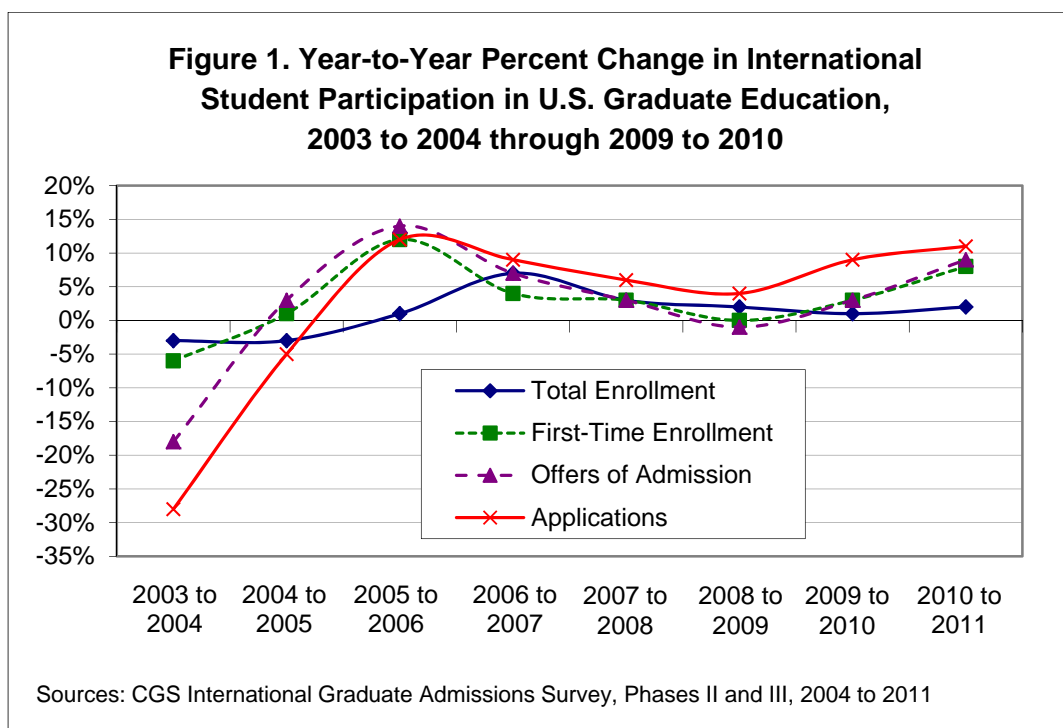
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## Overview

Since 2004, the Council of Graduate Schools (CGS) has conducted a 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. International students currently comprise about 14.2% of all graduate students in the United States.<sup>1</sup>

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).<sup>2</sup>

Data from this year's *Phase III* survey reveal that offers of admission to prospective international graduate students increased 9% in 2011, the largest increase to occur since 2006 (see Figure 1). First-time international graduate enrollment also increased in 2011, jumping 8%, following a 3% increase in 2010. This year's increase in international first-time graduate enrollment is also the largest since 2006. Total international graduate enrollment increased 2% in 2011, up slightly from a 1% gain in 2010.



This report first describes the methodology used to collect the data and calculate changes in offers of admission and enrollment from 2010 to 2011. The second section presents the current survey results on offers of admission to prospective international students and compares the one-year changes to those in prior years. Section three presents data on first-time international graduate enrollment and compares the

<sup>1</sup> Bell, N. 2011. *Graduate Enrollment and Degrees: 2000 to 2010*. Washington, DC: Council of Graduate Schools.

<sup>2</sup> See [www.cgsnet.org](http://www.cgsnet.org) for reports from the *CGS International Graduate Admissions Survey* from 2004 to present.

one-year changes to those in prior years, and section four examines total international graduate enrollment. Section five provides a summary and conclusions.

## I. Survey Methodology and Response Rate

The survey population for the *2011 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* consisted of all 494 U.S. colleges and universities that were members of CGS as of September 2011.<sup>3</sup> A link to the survey instrument was e-mailed to the graduate dean (or equivalent) at each member institution on September 13, 2011, and responses were collected electronically through October 24, 2011.

The survey asked institutions to report the final number of offers of admission granted to prospective international graduate students for fall 2010 and fall 2011, the number of new (first-time) international graduate students in fall 2010 and fall 2011, and the total number of international graduate students in fall 2010 and fall 2011. 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.<sup>4</sup> The survey taxonomy is presented in Appendix A. 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.

A total of 237 institutions responded to the survey, for a response rate of 48%. The response rates among certain types of institutions were even higher: seven of the ten institutions that award the largest numbers of master's and doctoral degrees to international students, 20 of the 25 largest (80%), 42 of the 50 largest (84%), and 75 of the 100 largest (75%) responded to the survey.<sup>5</sup> The high response rates from these institutions are important because collectively the 100 largest institutions confer about 60% of all graduate degrees awarded annually to international students in the United States.<sup>6</sup> Overall, the 237 institutions responding to the *Phase III* survey conferred about 61% of the approximately 96,000 graduate degrees awarded to international students in the United States in 2008-09, suggesting that the survey results accurately depict recent trends in the participation of international students in U.S. graduate education.<sup>7</sup>

Institutions responding to the *Phase III* survey provided data for fall 2011 on a total of 141,493 offers of admission to prospective international graduate students, 54,269 international first-time enrollees, and 181,133 international graduate students. In a few cases, institutions were unable to provide data for both 2010 and 2011 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.

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<sup>3</sup> CGS also has member institutions in Canada and global affiliates. These institutions are not included in the survey population for the *CGS International Graduate Admissions Survey*.

<sup>4</sup> 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 2010 and fall 2011 and to respond to a question about the most effective recruitment methods for international students at their institution. These data will be analyzed separately and reported in the December issue of the *CGS Communicator*.

<sup>5</sup> These figures are based on graduate degrees awarded in academic year 2008-09. Data were derived from the National Science Foundation's WebCASPAR Database (<http://webcaspar.nsf.gov>) using data from the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS).

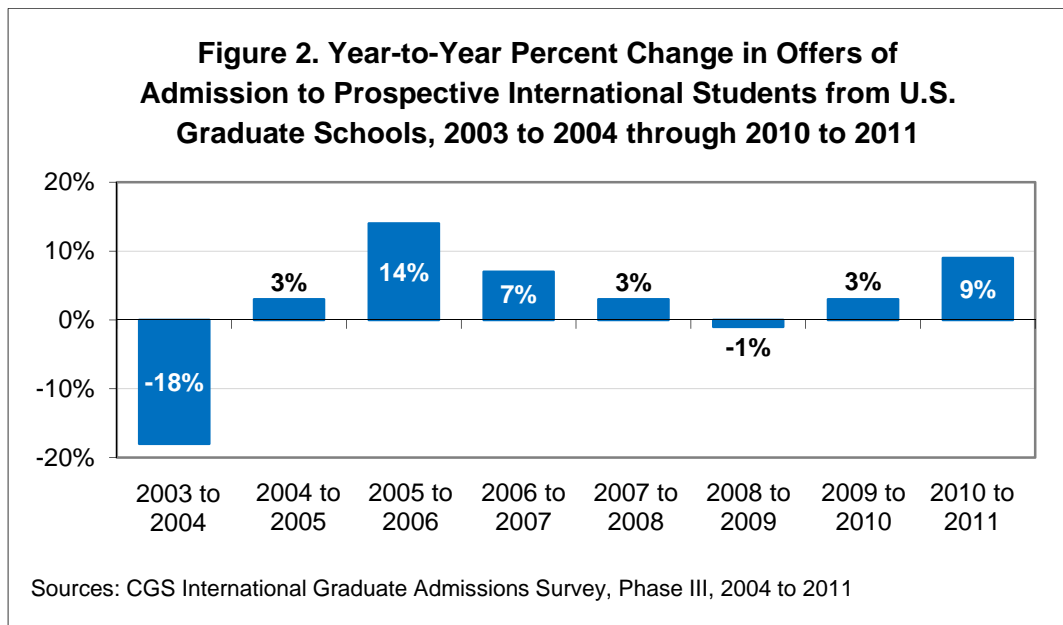
<sup>6</sup> See footnote 5.

<sup>7</sup> See footnote 5.

## 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 increased 9% between 2010 and 2011. This year's increase in offers of admission follows a 3% increase last year and a 1% decline in 2009 (see Figure 2). It is the largest jump in offers of admission to prospective international students since 2006, when offers increased 14%. The final 9% increase in international offers of admission from this *Phase III* survey is slightly lower than the 11% gain reported for initial offers of admission in the *Phase II* survey results, released in August.



Of the 231 institutions that provided data on offers of admission for both 2010 and 2011 in this year's *Phase III* survey, 141 (61%) reported an increase in international offers of admission for fall 2011, with an average increase of 15% at these institutions. At the 85 institutions (37%) reporting a decrease, the average decline in international offers of admission was 11%. Five institutions (2%) reported no change in international offers of admission.

### Offers of Admission by Country/Region of Origin

In addition to the aggregate data, the *CGS International Graduate Admissions Survey* collects data on four key sending countries or regions: China, India, South Korea, and the Middle East & Turkey. China, India, and South Korea are the 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.<sup>8</sup> Thus, examining student flows from these three countries provides a good indicator of overall international applications trends. Applications from students from

<sup>8</sup> Bell, N. 2010. *Findings from the 2010 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools; Chow, P. & Bhandari, R. 2010. *Open Doors 2010: Report on International Educational Exchange*. New York, NY: Institute of International Education.

countries in the Middle East & Turkey<sup>9</sup> 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 6% of all international graduate students in the United States.<sup>10</sup>

The *Phase III* survey results reveal continued increases in offers of admission to prospective graduate students from China and the Middle East & Turkey, a slight gain in offers of admission to prospective graduate students from India, and a slowing decline for students from South Korea (see Table 1). Offers of admission to prospective graduate students from China increased 21% in 2011 following a 15% gain in 2010 and a 17% gain in 2009; this is the sixth consecutive year of double-digit growth. Offers of admission to prospective graduate students from the Middle East & Turkey increased 16% in 2011 following a 10% gain in 2010 and a 14% gain in 2009. Offers of admission to prospective graduate students from India rose 2% in 2011, the first increase to occur for students from India since 2007. This year's 2% increase follows a 5% decline in 2010 and a 14% drop in 2009. Offers of admission to prospective graduate students from South Korea fell 2% in 2011, marking the fifth consecutive year of declines. The most recent declines for South Korea were a 7% decrease in 2010 and a 14% drop in 2009.

**Table 1.** Change in International Offers of Admission, 2007 to 2008 through 2010 to 2011

	Final Number of Offers of Admission, 2007 to 2008	Final Number of Offers of Admission, 2008 to 2009	Final Number of Offers of Admission, 2009 to 2010	Final Number of Offers of Admission, 2010 to 2011
<b>International Total</b>	3%	-1%	3%	<b>9%</b>
<b>Country/Region of Origin</b>				
China	15%	17%	15%	<b>21%</b>
India	-2%	-14%	-5%	<b>2%</b>
South Korea	-2%	-14%	-7%	<b>-2%</b>
Middle East & Turkey *	13%	14%	10%	<b>16%</b>
<b>Field of Study</b>				
Arts & Humanities	0%	1%	2%	<b>5%</b>
Business	2%	4%	3%	<b>11%</b>
Education	-7%	10%	-5%	<b>7%</b>
Engineering	0%	-3%	2%	<b>8%</b>
Life Sciences	-1%	3%	-5%	<b>7%</b>
Physical & Earth Sciences	9%	-5%	8%	<b>11%</b>
Social Sciences & Psychology	1%	-1%	4%	<b>2%</b>
Other Fields **	--	11%	5%	<b>13%</b>

\* 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, 2008 to 2011

<sup>9</sup> 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.

<sup>10</sup> See footnote 8.

### *Offers of Admission by Field of Study*

The majority (63%) 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 graduate students at U.S. institutions. In fall 2010, 21% of international students were enrolled in these two 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).<sup>11</sup> The *Phase III* survey results reveal that international offers of admission increased in all broad fields of study in 2011.<sup>12</sup>

The largest increase in international offers of admission occurred in 'other' fields (13%) following a 5% gain in this broad field in 2010. Large increases also occurred in physical & earth sciences (11%) and business (11%) in 2011 following gains of 8% and 3%, respectively, in these broad fields in 2010. The smallest increases in international offers of admission in 2011 were in social sciences & psychology (2%), arts & humanities (5%), life sciences (7%), and education (also 7%). The 7% gains in life sciences and education in 2011 follow 5% declines in both of these broad fields in 2010.

### *Offers of Admission by Institutional Control and Carnegie Classification*

International offers of admission increased at both public institutions and private, not-for-profit institutions in 2011. At public institutions, international offers of admission increased 8% in 2011 following a 1% gain in 2010. At private, not-for-profit institutions, international offers of admission increased 11% in 2011 following an 8% gain in 2010 (see Table 2).<sup>13</sup> For both 2010 and 2011, the gains at private, not-for-profit institutions outpaced those at public institutions.

By Carnegie classification, offers of admission to prospective international graduate students increased 9% overall at doctoral institutions in 2011, up from a 4% gain at these institutions in 2010.<sup>14</sup> International offers of admission remained flat at master's-focused institutions in 2011 following a 1% increase in 2010 (see Table 2). The data for master's-focused institutions should be interpreted cautiously since they reflect a relatively small number of international offers of admission. In the 2011 *Phase III* survey, just 4% of all offers of admission to prospective international graduate students were from master's-focused institutions.

By Carnegie classification and institutional control, international offers of admission increased 8% at public, doctoral institutions in 2011 and 13% at private, not-for-profit doctoral institutions. At master's-focused institutions, international offers of admission rose 11% at public institutions in 2011 but fell 15% at private, not-for-profit institutions.

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<sup>11</sup> Bell, N. 2011. *Graduate Enrollment and Degrees: 2000 to 2010*. Washington, DC: Council of Graduate Schools.

<sup>12</sup> See Appendix A for the summarized survey taxonomy.

<sup>13</sup> Of the 231 institutions that provided total offers of admission data for both 2010 and 2011 in this year's *Phase III* survey, 172 were public institutions, 58 were private, not-for-profit institutions, and one was a private, for-profit institution. Data for the one private, for-profit respondent are included in the totals in Table 2, but are not broken out separately.

<sup>14</sup> Institutions were coded according to their 2010 Carnegie basic classification. In the analysis, the 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 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-focused institutions. Responding institutions classified as specialized or baccalaureate institutions were excluded from this particular analysis.

**Table 2.** Change in International Offers of Admission by Institutional Control and Carnegie Classification, 2009 to 2010 and 2010 to 2011

	2009 to 2010		2010 to 2011	
	No. of Respondents	Final Change in Offers of Admission	No. of Respondents	Final Change in Offers of Admission
<b>Total (All Institutions) *</b>	221	3%	<b>231</b>	<b>9%</b>
Public	154	1%	<b>172</b>	<b>8%</b>
Private, not-for-profit	66	8%	<b>58</b>	<b>11%</b>
<b>Doctoral Institutions *</b>	156	4%	<b>166</b>	<b>9%</b>
Public	108	2%	<b>123</b>	<b>8%</b>
Private, not-for-profit	47	7%	<b>42</b>	<b>13%</b>
<b>Master's-Focused Institutions</b>	51	1%	<b>47</b>	<b>0%</b>
Public	39	-3%	<b>38</b>	<b>11%</b>
Private, not-for-profit	12	7%	<b>9</b>	<b>-15%</b>

\* For both 2009 to 2010 and 2010 to 2011, one private, for-profit institution is included in the total but is not broken out separately by institutional control.

Notes: All results are based on the institutions providing total offers of admission data for both years being compared (2009 and 2010 and/or 2010 and 2011). Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. See footnote 14 for a description of the Carnegie groupings. Institutions classified as specialized or baccalaureate institutions are included in the total for all institutions but are not broken out separately.

Sources: CGS International Graduate Admissions Survey, Phase III, 2010 and 2011

### *Offers of Admission by Geographic Region*

Offers of admission by U.S. graduate schools to prospective international students increased in all four major regions of the United States in 2011. International offers of admission increased 11% in both the West and the Northeast, and 7% in both the South and the Midwest.<sup>15</sup>

### *Offers of Admission by Number of Graduate Degrees Awarded to International Students*

The overall changes in the numbers of offers of admission to prospective international students potentially mask substantial differences between institutions with smaller and larger numbers of international students. To show the variation in trends, CGS reports changes in international offers of admission by the number of master's and doctoral degrees awarded to international students. Table 3 displays the changes in international offers of admission from 2010 to 2011 for the responding colleges and universities

<sup>15</sup> Of the 231 institutions that provided total offers of admission data for both 2010 and 2011 in this year's *Phase III* survey, 40 institutions are located in the Northeast, 93 in the South, 60 in the Midwest, and 38 in the West. 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.

**Table 3.** Change in International Offers of Admission by Number of Graduate Degrees Awarded to International Students, 2010 to 2011

	<b>10 Largest Institutions</b>	<b>25 Largest Institutions</b>	<b>50 Largest Institutions</b>	<b>100 Largest Institutions</b>	<b>All Other Institutions</b>
<b>International Total</b>	11%	9%	10%	10%	6%
<b>Country/Region of Origin</b>					
China	27%	23%	24%	23%	13%
India	-8%	-4%	1%	2%	4%
South Korea	-9%	-5%	-4%	-2%	-1%
Middle East & Turkey *	18%	10%	13%	14%	20%
<b>Field of Study</b>					
Arts & Humanities	9%	6%	9%	5%	3%
Business	15%	5%	13%	12%	7%
Education	44%	10%	12%	12%	-2%
Engineering	14%	11%	10%	9%	7%
Life Sciences	4%	3%	7%	8%	5%
Physical & Earth Sciences	3%	4%	8%	11%	11%
Social Sciences & Psychology	0%	1%	4%	2%	3%
Other Fields	14%	21%	18%	16%	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.

Notes: The rankings are based on data collected by the U.S. Department of Education. See footnote 5 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, 2011

awarding the 10 largest, 25 largest, 50 largest, and 100 largest numbers of master's and doctoral degrees to international students. In addition, data are presented for all responding institutions outside the largest 100. The rankings are based on data collected by the U.S. Department of Education.<sup>16</sup>

In 2011, institutions awarding larger numbers of graduate degrees to international students increased the number of offers of admission to prospective international students by a larger amount on average than institutions awarding smaller numbers of graduate degrees to international students. International offers of admission increased 10% at the responding institutions that are among the 100 largest institutions in terms of graduate degrees awarded to international students and rose 6% at the institutions outside the largest 100. Among this year's *Phase III* survey respondents, the institutions that are among the 100 largest accounted for 73% of all offers of admission reported in the survey in 2011, with the remaining 27% of offers of admission coming from the institutions outside the largest 100.

The data on offers of admission to prospective graduate students from China both reflect and drive the overall trend, with larger increases on average at the 100 largest institutions (23%) than at the institutions outside the largest 100 (13%). In contrast, for prospective graduate students from the Middle East & Turkey, the average increase in offers of admission was larger at the institutions outside the largest 100 (20%) than at the 100 largest institutions (14%). Offers of admission to prospective graduate students from South Korea fell across all of the five size categories shown in Table 3, with the largest decrease at

<sup>16</sup> See footnote 5 for more information.



the 10 largest institutions (-9%) and the smallest decrease at the institutions outside the largest 100 (-1%). Offers of admission to prospective graduate students from India increased 4% at the institutions outside the largest 100 and 2% at the 100 largest institutions, but fell 8% at the 10 largest institutions.

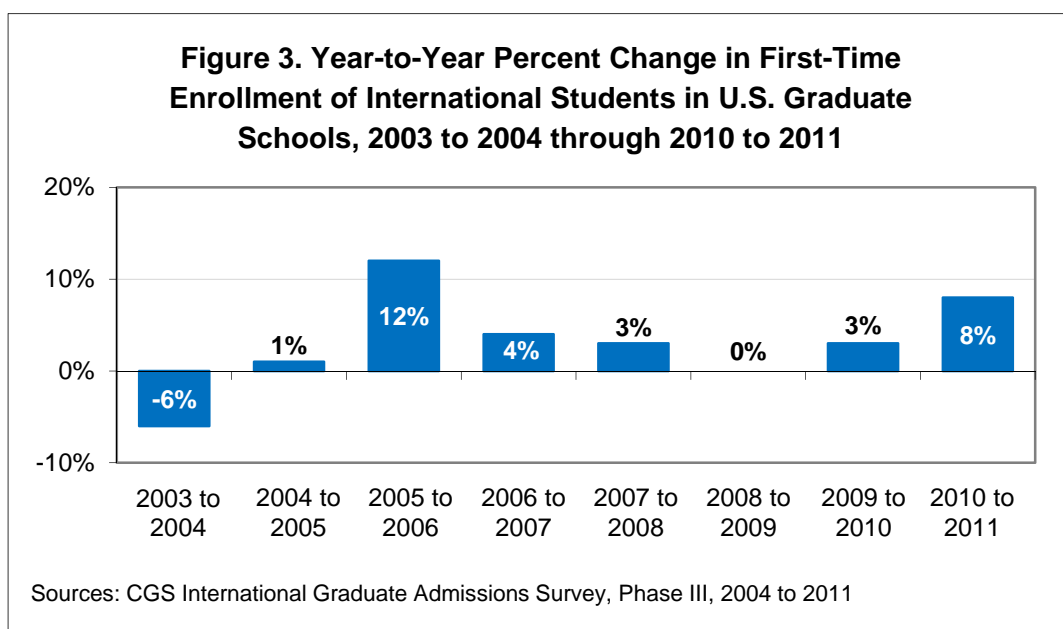
In most broad fields, offers of admission increased by a larger amount at the 100 largest institutions than at institutions outside the largest 100. For example, in ‘other’ fields, offers of admission increased 16% on average at the 100 largest institutions compared with 6% at the institutions outside the largest 100, and in business, offers of admission increased 12% on average at the 100 largest institutions compared with 7% at the institutions outside the largest 100. In contrast, in physical & earth sciences, offers of admission increased by 11% on average at both the 100 largest institutions and the institutions outside the largest 100, and in social sciences & psychology, the average gain was slightly larger at the institutions outside the largest 100 (3%) than at the 100 largest institutions (2%).

### 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 enrollment of international students in U.S. graduate schools increased 8% between 2010 and 2011 following a 3% gain in 2010 and no growth in 2009 (see Figure 3). This year’s gain is the largest since 2006, when international first-time graduate enrollment increased 12%.

Of the 231 institutions that provided data on first-time graduate enrollment for both 2010 and 2011 in this year’s *Phase III* survey, 132 (57%) reported an increase in international first-time graduate enrollment for fall 2011, with an average increase of 15% at these institutions. At the 92 institutions (40%) reporting a decrease, the average decline in international first-time graduate enrollment was 14%. Seven institutions (3%) reported no change in international first-time graduate enrollment in 2011.



### *First-Time Graduate Enrollment by Country/Region of Origin*

First-time graduate enrollment of students from China and the Middle East & Turkey continued to increase in 2011 (see Table 4). This year's 21% gain in first-time graduate enrollment of students from China marks the sixth consecutive year of double-digit growth. First-time graduate enrollment of students from the Middle East & Turkey increased 14% in 2011, following a 7% increase in 2010 and a 22% gain in 2009.

First-time graduate enrollment of students from India increased 2% in 2011 following a 3% drop in 2010 and a 16% decline in 2009. This year's gain is the first to occur since 2007, when first-time graduate enrollment of students from India rose 8%. First-time graduate enrollment of students from South Korea remained flat in 2011 following a 3% drop in 2010 and a 13% decline in 2009. The last time that first-time graduate enrollment increased for students from South Korea was 2007, when it rose 3%.

**Table 4.** Change in International First-Time Graduate Enrollment, 2007 to 2008 through 2010 to 2011

	First-Time Graduate Enrollment, 2007 to 2008	First-Time Graduate Enrollment, 2008 to 2009	First-Time Graduate Enrollment, 2009 to 2010	First-Time Graduate Enrollment, 2010 to 2011
<b>International Total</b>	3%	0%	3%	<b>8%</b>
<b>Country/Region of Origin</b>				
China	14%	16%	20%	<b>21%</b>
India	-2%	-16%	-3%	<b>2%</b>
South Korea	-4%	-13%	-3%	<b>0%</b>
Middle East & Turkey *	8%	22%	7%	<b>14%</b>
<b>Field of Study</b>				
Arts & Humanities	-1%	-3%	5%	<b>5%</b>
Business	4%	0%	2%	<b>9%</b>
Education	-2%	5%	-7%	<b>12%</b>
Engineering	1%	0%	3%	<b>6%</b>
Life Sciences	1%	0%	0%	<b>1%</b>
Physical & Earth Sciences	5%	-4%	9%	<b>12%</b>
Social Sciences & Psychology	-1%	1%	4%	<b>2%</b>
Other Fields **	--	6%	5%	<b>8%</b>

\* 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, 2008 to 2011

### *First-Time Graduate Enrollment by Field of Study*

International first-time graduate enrollment increased in all broad fields in 2011 (see Table 4). The largest gains were in education and physical & earth sciences (both 12%), although the gain in education should be interpreted cautiously given the small number of international students enrolled in education. This year's increase in education follows a 7% decline in 2010, while the gain in physical & earth sciences follows a 9% gain in 2010. Business (9%), 'other' fields (8%), and engineering (6%) also experienced

strong growth in 2011. International first-time graduate enrollment increased the least in life sciences in 2011 with a 1% gain. This minimal increase follows two consecutive years of no growth.

*First-Time Graduate Enrollment by Institutional Control and Carnegie Classification*

International first-time graduate enrollment increased at both public institutions and private, not-for-profit institutions in 2011 (see Table 5). At public institutions, international first-time graduate enrollment increased 7% in 2011 following a 1% gain in 2010, while at private, not-for-profit institutions international first-time graduate enrollment increased 10% in 2011 following an 8% gain in 2010. For both 2010 and 2011, the gains at private, not-for-profit institutions outpaced those at public institutions.

**Table 5.** Change in International First-Time Graduate Enrollment by Institutional Control and Carnegie Classification, 2009 to 2010 and 2010 to 2011

	2009 to 2010		2010 to 2011	
	No. of Respondents	% Change in First-Time Enrollment	No. of Respondents	% Change in First-Time Enrollment
<b>Total (All Institutions) *</b>	220	3%	<b>231</b>	<b>8%</b>
Public	154	1%	<b>172</b>	<b>7%</b>
Private, not-for-profit	65	8%	<b>58</b>	<b>10%</b>
<b>Doctoral Institutions *</b>	155	4%	<b>166</b>	<b>8%</b>
Public	108	2%	<b>123</b>	<b>7%</b>
Private, not-for-profit	46	8%	<b>42</b>	<b>11%</b>
<b>Master's-Focused Institutions</b>	52	-5%	<b>48</b>	<b>-5%</b>
Public	40	-8%	<b>39</b>	<b>4%</b>
Private, not-for-profit	12	-1%	<b>9</b>	<b>-31%</b>

\* For both 2009 to 2010 and 2010 to 2011, one private, for-profit institution is included in the total but is not broken out separately by institutional control.

Notes: All results are based on the institutions providing total offers of admission data for both years being compared (2009 and 2010 and/or 2010 and 2011). Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. See footnote 14 for a description of the Carnegie groupings. Institutions classified as specialized or baccalaureate institutions are included in the total for all institutions but are not broken out separately.

Sources: CGS International Graduate Admissions Survey, Phase III, 2010 and 2011

By Carnegie classification, international first-time graduate enrollment increased 8% in fall 2011 at doctoral institutions following a 4% gain in 2010, but fell 5% at master's-focused institutions for the second year in a row (see Table 5).<sup>17</sup> By Carnegie classification and institutional control, international first-time graduate enrollment increased 7% at public, doctoral institutions and 11% at private, not-for-profit doctoral institutions. At master's-focused institutions international first-time graduate enrollment increased 4% at public institutions, but fell 31% at the nine master's-focused private, not-for-profit institutions responding to the survey.<sup>18</sup>

<sup>17</sup> See footnote 14 for more information on Carnegie classifications.

<sup>18</sup> The data for master's-focused institutions should be interpreted cautiously given the small number of these institutions—particularly private, not-for-profit master's-focused institutions—responding to the survey and to the small number of first-time international graduate students at these institutions.

### First-Time Graduate Enrollment by Geographic Region

International first-time graduate enrollment increased in all four major regions of the United States in 2011. International first-time graduate enrollment increased 10% in the Northeast, 8% in the Midwest, and 7% in both the West and the South.<sup>19</sup>

### First-Time Graduate Enrollment by Number of Graduate Degrees Awarded to International Students

Institutions awarding larger numbers of graduate degrees to international students were more likely to experience increases in international first-time graduate enrollment in 2011 than institutions awarding smaller numbers of graduate degrees to international students (see Table 6).<sup>20</sup> International first-time graduate enrollment increased 9% at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students, compared with a 4% increase at the institutions outside the largest 100. Among this year's *Phase III* survey respondents, the institutions that are among the 100 largest accounted for 74% of all international first-time graduate enrollment in 2011, with the remaining 26% of international first-time graduate enrollment at the institutions outside the largest 100.

**Table 6.** Change in International First-Time Graduate Enrollment by Number of Graduate Degrees Awarded to International Students, 2010 to 2011

	<b>10 Largest Institutions</b>	<b>25 Largest Institutions</b>	<b>50 Largest Institutions</b>	<b>100 Largest Institutions</b>	<b>All Other Institutions</b>
<b>International Total</b>	6%	7%	9%	9%	4%
<b>Country/Region of Origin</b>					
China	19%	21%	24%	24%	14%
India	-8%	-3%	2%	3%	-1%
South Korea	-10%	-5%	-2%	0%	-1%
Middle East & Turkey *	11%	5%	10%	14%	16%
<b>Field of Study</b>					
Arts & Humanities	3%	-2%	8%	6%	4%
Business	12%	8%	13%	11%	3%
Education	43%	11%	16%	15%	8%
Engineering	1%	5%	8%	7%	3%
Life Sciences	-1%	-2%	1%	3%	-1%
Physical & Earth Sciences	18%	8%	12%	15%	8%
Social Sciences & Psychology	-2%	2%	3%	1%	7%
Other Fields	10%	19%	13%	10%	1%

\* 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: The rankings are based on data collected by the U.S. Department of Education. See footnote 5 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, 2011

<sup>19</sup> Of the 231 institutions that provided international first-time graduate enrollment data for both 2010 and 2011 in this year's *Phase III* survey, 42 institutions are located in the Northeast, 92 in the South, 38 in the West, and 59 in the Midwest. See footnote 15 for a listing of the states included in each region.

<sup>20</sup> See pages 6 and 7 and footnote 5 for more information.

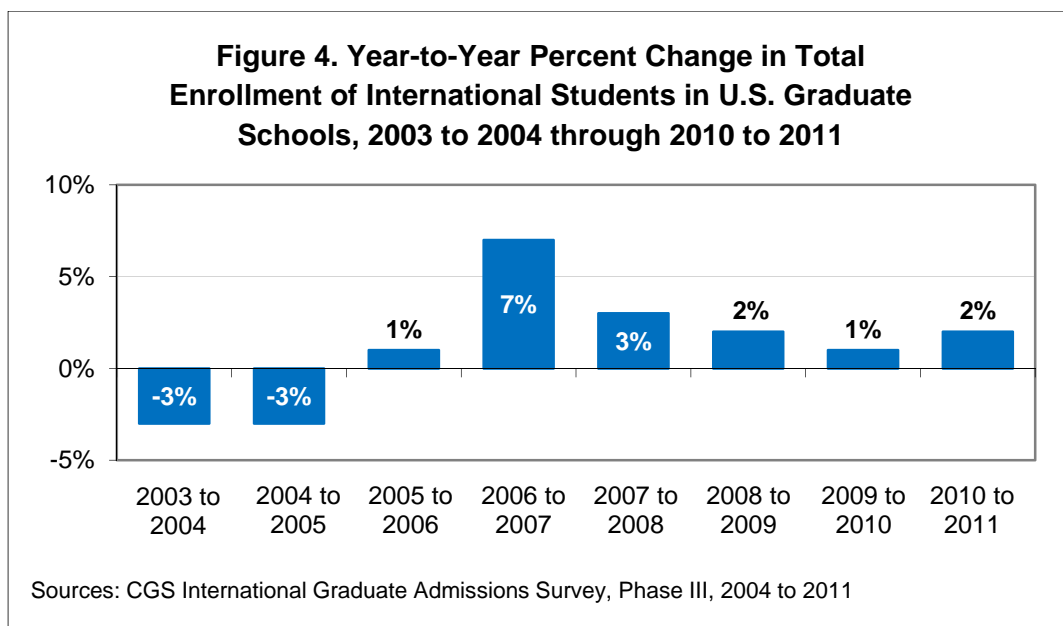
As was seen with offers of admission, the data on first-time graduate enrollment of students from China both reflect and drive the overall trend, with larger increases on average at the 100 largest institutions (24%) than at the institutions outside the largest 100 (14%). For students from the Middle East & Turkey, however, international first-time graduate enrollment increased slightly more at the institutions outside the largest 100 (16%) than at the 100 largest institutions (14%). For students from India, the overall 2% increase in first-time graduate enrollment that occurred in 2011 was driven by a 3% average gain at the 100 largest institutions, compared with a 1% decline at the institutions outside the largest 100. For students from South Korea, a 10% drop occurred at the 10 largest institutions, but first-time graduate enrollment remained level at the 100 largest institutions on average and dipped minimally (-1%) at the institutions outside the largest 100.

Similar to the findings on international offers of admission, in most broad fields international first-time graduate enrollment increased by a larger amount at the 100 largest institutions than at institutions outside the largest 100. For example, international first-time graduate enrollment in business increased 11% on average at the 100 largest institutions compared with 3% at the institutions outside the largest 100. Only in social sciences & psychology was the gain greater at the institutions outside the largest 100 (7%) than at 100 largest institutions (1%).

#### 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 2010 and 2011 following increases of 1% in 2010 and 2% in 2009 (see Figure 4). While this year's increase is small, it is larger than last year's gain (the smallest since 2006) and reflects the strong growth in first-time graduate enrollment that occurred this year.



Of the 231 institutions that provided data on total graduate enrollment for both 2009 and 2010 in this year's *Phase III* survey, 128 (55%) reported an increase in international total graduate enrollment for fall 2011, with an average increase of 6% at these institutions. At the 101 institutions (44%) reporting a

decrease, the average decline in international total graduate enrollment was 7%. Two institutions (1%) reported no change in international total graduate enrollment.

#### *Total Graduate Enrollment by Country/Region of Origin*

The *Phase III* survey results reveal that total graduate enrollment of students from India fell 6% in 2011 following an identical decline in 2010 and a 4% decline in 2009 (see Table 7). Total graduate enrollment of students from South Korea also fell 5% in 2011 following a 6% drop in 2010 and a 5% decline in 2009. In contrast, total graduate enrollment of students from China continued to increase in 2011. This year's 15% gain marks the fifth consecutive year of double-digit growth. Total graduate enrollment of students from the Middle East & Turkey increased 11% in 2011 following gains of 11% and 13% in 2010 and 2009, respectively.

**Table 7.** Change in International Total Graduate Enrollment, 2007 to 2008 through 2010 to 2011

	Total Graduate Enrollment, 2007 to 2008	Total Graduate Enrollment, 2008 to 2009	Total Graduate Enrollment, 2009 to 2010	Total Graduate Enrollment, 2010 to 2011
<b>International Total</b>	3%	2%	1%	<b>2%</b>
<b>Country/Region of Origin</b>				
China	10%	12%	13%	<b>15%</b>
India	3%	-4%	-6%	<b>-6%</b>
South Korea	-2%	-5%	-6%	<b>-5%</b>
Middle East & Turkey *	7%	13%	11%	<b>11%</b>
<b>Field of Study</b>				
Arts & Humanities	0%	0%	0%	<b>1%</b>
Business	2%	2%	0%	<b>6%</b>
Education	0%	3%	0%	<b>-1%</b>
Engineering	3%	2%	3%	<b>2%</b>
Life Sciences	3%	3%	1%	<b>0%</b>
Physical & Earth Sciences	2%	3%	4%	<b>2%</b>
Social Sciences & Psychology	2%	-1%	3%	<b>0%</b>
Other Fields **	--	4%	4%	<b>3%</b>

\* 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, 2008 to 2011

#### *Total Graduate Enrollment by Field of Study*

In 2011, international total graduate enrollment increased or remained level in all broad fields except education (see Table 7). The largest increase in international total graduate enrollment occurred in business, with a 6% gain. This follows no growth in 2010 and is the largest increase to occur in business since 2007. Strong growth in international total graduate enrollment also occurred in 'other' fields (3%) in 2011, following a 4% gain in this broad field in 2010. In both engineering and physical & earth sciences (including mathematics and computer science), international total graduate enrollment increased 2% in 2011, a slightly larger gain than the 1% increase that occurred in arts & humanities. International total

graduate enrollment remained level in life sciences and social sciences & psychology in 2011, while in education international total graduate enrollment fell 1%.

*Total Graduate Enrollment by Institutional Control and Carnegie Classification*

International total graduate enrollment increased at both public institutions and private, not-for-profit institutions in 2011 (see Table 8). At public institutions, international total graduate enrollment increased 2% in 2011 following no growth in 2010. At private, not-for-profit institutions, international total graduate enrollment rose 4% in 2011, matching last year's increase.

By Carnegie classification, international total graduate enrollment increased 3% at doctoral institutions in 2011, but fell 5% at master's-focused institutions (see Table 8).<sup>21</sup> The 3% gain at doctoral institutions follows a 2% gain in 2010, while the 5% decline at master's-focused institutions follows a 6% decline in 2010. By Carnegie classification and institutional control, international total graduate enrollment increased 2% at public, doctoral institutions compared with 5% at private, not-for-profit doctoral institutions. At master's-focused institutions, international total graduate enrollment remained flat at public institutions, but fell 16% at private, not-for-profit institutions. The data for master's-focused institutions should be interpreted cautiously, however, given the small number of these institutions responding to the survey and to the small number of international graduate students at these institutions.

**Table 8.** Change in International Total Graduate Enrollment by Institutional Control and Carnegie Classification, 2009 to 2010 and 2010 to 2011

	2009 to 2010		2010 to 2011	
	No. of Respondents	% Change in Total Enrollment	No. of Respondents	% Change in Total Enrollment
<b>Total (All Institutions) *</b>	220	1%	<b>231</b>	<b>2%</b>
Public	156	0%	<b>171</b>	<b>2%</b>
Private, not-for-profit	63	4%	<b>59</b>	<b>4%</b>
<b>Doctoral Institutions *</b>	154	2%	<b>164</b>	<b>3%</b>
Public	109	1%	<b>122</b>	<b>2%</b>
Private, not-for-profit	44	4%	<b>41</b>	<b>5%</b>
<b>Master's-Focused Institutions</b>	52	-6%	<b>49</b>	<b>-5%</b>
Public	40	-5%	<b>38</b>	<b>0%</b>
Private, not-for-profit	12	-6%	<b>11</b>	<b>-16%</b>

\* For both 2009 to 2010 and 2010 to 2011, one private, for-profit institution is included in the total but is not broken out separately by institutional control.

Notes: All results are based on the institutions providing total offers of admission data for both years being compared (2009 and 2010 and/or 2010 and 2011). Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. See footnote 14 for a description of the Carnegie groupings. Institutions classified as specialized or baccalaureate institutions are included in the total for all institutions but are not broken out separately.

Sources: CGS International Graduate Admissions Survey, Phase III, 2010 and 2011

<sup>21</sup> See footnote 14 for more information on Carnegie classifications.

### Total Graduate Enrollment by Geographic Region

International total graduate enrollment increased in three of the four major regions of the United States in 2010.<sup>22</sup> International total graduate enrollment increased 4% in the Northeast, 3% in the South, and 2% in the Midwest, but remained flat in the West.

### Total Graduate Enrollment by Number of Graduate Degrees Awarded to International Students

Institutions awarding larger numbers of graduate degrees to international students were more likely to experience increases in international total graduate enrollment in 2011 than institutions awarding smaller numbers of graduate degrees to international students (see Table 9).<sup>23</sup> International total graduate enrollment increased 3% on average at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students, but rose by just 1% on average at the institutions outside the largest 100. Among this year's *Phase III* survey respondents, the institutions that are among the 100 largest accounted for 72% of all international graduate enrollment in 2011, with the remaining 28% of international graduate enrollment at the institutions outside the largest 100.

**Table 9.** Change in International Total Graduate Enrollment by Number of Graduate Degrees Awarded to International Students, 2010 to 2011

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

\* 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: The rankings are based on data collected by the U.S. Department of Education. See footnote 5 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, 2011

<sup>22</sup> Of the 231 institutions that provided international total graduate enrollment data for both 2010 and 2011 in this year's *Phase III* survey, 59 institutions are located in the Northeast, 39 in the West, 93 in the South, and 59 in the Midwest. See footnote 15 for a listing of the states included in each region.

<sup>23</sup> See page 6 and 7 and footnote 5 for more information.



For students from China, 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 graduate degrees awarded to international students and at the 50 largest institutions, with increases of 22% and 18%, respectively. While the increase in total graduate enrollment of students from China was smallest at the institutions outside the largest 100, the gain in this category was 13%. For students from the Middle East & Turkey, total graduate enrollment increased 18% at the institutions outside the largest 100, compared with an 8% gain at the 100 largest institutions. For students from India and South Korea, total graduate enrollment fell across all five size categories shown in Table 9. For students from India, decreases ranged from 3% at the 50 largest institutions to 10% at the 10 largest institutions and the institutions outside the largest 100. For students from South Korea, decreases ranged from 4% to 6%, with the largest decrease at the 25 largest institutions.

Despite some variation in international total graduate enrollment by the number of graduate degrees awarded to international students, no strong pattern emerged by field of study. In engineering and physical & earth sciences, the two largest broad fields of study for international students in U.S. graduate schools, the increases in international total graduate enrollment were larger at the 100 largest institutions than at the institutions outside the largest 100. In business, the third largest field of study for international students, the growth at the institutions outside the largest 100 (6%) slightly outpaced the growth at the 100 largest institutions (5%).

## **VI. Summary and Conclusions**

### *Summary*

The results of the *2011 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 increased 9% in 2011, the largest increase to occur since 2006. First-time graduate enrollment of international students increased 8%, also the largest gain since 2006, while total graduate enrollment of international students rose 2%.

Offers of admission to prospective graduate students from China and the Middle East & Turkey continued to increase in 2011, with gains of 21% and 16%, respectively. Offers of admission to prospective graduate students from India rose 2% in 2011, the first increase to occur for students from India since 2007. For students from South Korea, offers of admission fell for the fifth consecutive year, but this year's 2% decline was smaller than the declines that occurred in 2010 (-7%) and 2009 (-14%). Increases in international offers of admission occurred in all broad fields in 2011, with the largest gains in 'other' fields (13%), business (11%), and physical & earth sciences (also 11%).

International offers of admission increased 8% at public institutions in fall 2011 and rose 11% at private, not-for-profit institutions. By Carnegie classification, international offers of admission increased 9% at doctoral institutions, but remained flat at master's-focused institutions. Institutions awarding larger numbers of graduate degrees to international students increased the number of offers of admission to prospective international graduate students by a larger amount in 2011 than institutions awarding smaller numbers of graduate degrees to international students. International offers of admission increased 10% on average at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students and rose 6% at the institutions outside the largest 100.

Overall, international first-time graduate enrollment increased 8% between 2010 and 2011 following a 3% gain last year, but there was wide variation by country/region of origin. First-time graduate enrollment of students from China continued to soar in 2011, with a 21% increase; this is the sixth consecutive year of

double-digit growth. First-time graduate enrollment of students from the Middle East & Turkey rose 14% this year. For students from India, first-time graduate enrollment increased 2% in 2011, the first gain since 2007, while for students from South Korea, first-time graduate enrollment remained flat in 2011, after declining for three consecutive years.

International first-time graduate enrollment increased in all broad fields in 2011. The largest increases in international first-time graduate enrollment occurred in education and physical & earth sciences (both 12%), while the smallest gains were in life sciences (1%) and social sciences & psychology (2%).

International first-time graduate enrollment increased 7% at public institutions in fall 2011 and rose 10% at private, not-for-profit institutions. By Carnegie classification, international first-time graduate enrollment increased 8% at doctoral institutions, but fell 5% at master's-focused institutions. International first-time graduate enrollment increased 9% on average at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students, compared with a 4% increase at the institutions outside the largest 100.

International total graduate enrollment increased 2% in 2011 following a 1% gain in 2010. Total graduate enrollment of students from India and South Korea continued to fall in 2011, with decreases of 6% and 5%, respectively. In contrast, double-digit increases occurred in total graduate enrollment of students from China (15%) and the Middle East & Turkey (11%).

In 2011, international total graduate enrollment increased or remained level in all broad fields except education, led by increases of 6% in business and 3% in 'other' fields. International total graduate enrollment fell 1% in education in 2011 and remained flat in life sciences and social sciences & psychology.

International total graduate enrollment increased 2% at public institutions and 4% at private, not-for-profit institutions in 2011. By Carnegie classification, international total graduate enrollment rose 3% at doctoral institutions, but fell 5% at master's-focused institutions. International total graduate enrollment increased 3% on average at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students and rose 1% on average at the institutions outside the largest 100.

### *Conclusions*

The data from this year's *Phase III* survey clearly document the strong interest among international students in pursuing graduate studies. This year's gains in international offers of admission and first-time graduate enrollment were substantial and were the largest to occur since 2006, indicating that not only do international students value graduate education, but that the United States remains a destination of choice for prospective international graduate students.

This year's *Phase III* survey also documents two continuing trends that are shaping international graduate enrollment. The first is the soaring participation of Chinese students in U.S. graduate programs. After five consecutive years of double-digit growth in total graduate enrollment of students from China, compared with a 2.4% average annual increase for all international students in U.S. graduate schools over the past five years,<sup>24</sup> the country of origin of international students is shifting. An international student in a U.S. graduate program today is much more likely to be Chinese than was the case just five years ago. There is no indication that the growth in the participation of Chinese students in U.S. graduate education is slowing, but is important to remember that past trends do not guarantee future participation.

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<sup>24</sup> Bell, N. 2011. *Graduate Enrollment and Degrees: 2000 to 2010*. Washington, DC: Council of Graduate Schools.

The second continuing trend is the more recent growth in international offers of admission and enrollment at institutions that already award large numbers of graduate degrees to international students. The majority of all international students in U.S. graduate schools attend the 100 largest institutions in terms of graduate degrees awarded to international students, and the rates of increase in international offers of admission and enrollment at these institutions are outpacing the rates of increase at institutions that award smaller numbers of degrees to international students. This trend is resulting in a larger share of all international graduate students at a relatively small number of institutions.

Finally, it is encouraging to see some growth in 2011 in first-time graduate enrollment of students from India, indicating a rebound in the interest of these students in U.S. graduate programs. While their numbers have declined over the last three years, this year's uptick for Indian graduate students suggests the possibility of the beginning of a period of growth. Future surveys will document whether that will occur.

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**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  
Educational Assessment, Evaluation and  
Research  
Higher Education  
Secondary Education  
Special Education  
Student Counseling & Personnel Services  
Education, Other

**ENGINEERING**

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

**LIFE SCIENCES**

Agriculture, Natural Resources &  
Conservation  
Biological & Biomedical 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 & Journalism  
Family & Consumer Sciences  
Library & Archival Studies  
Public Administration  
Religion & Theology  
Social Work  
Other Fields