



**Findings from the
2012 CGS International Graduate Admissions Survey
Phase III: Final Offers of Admission and Enrollment**

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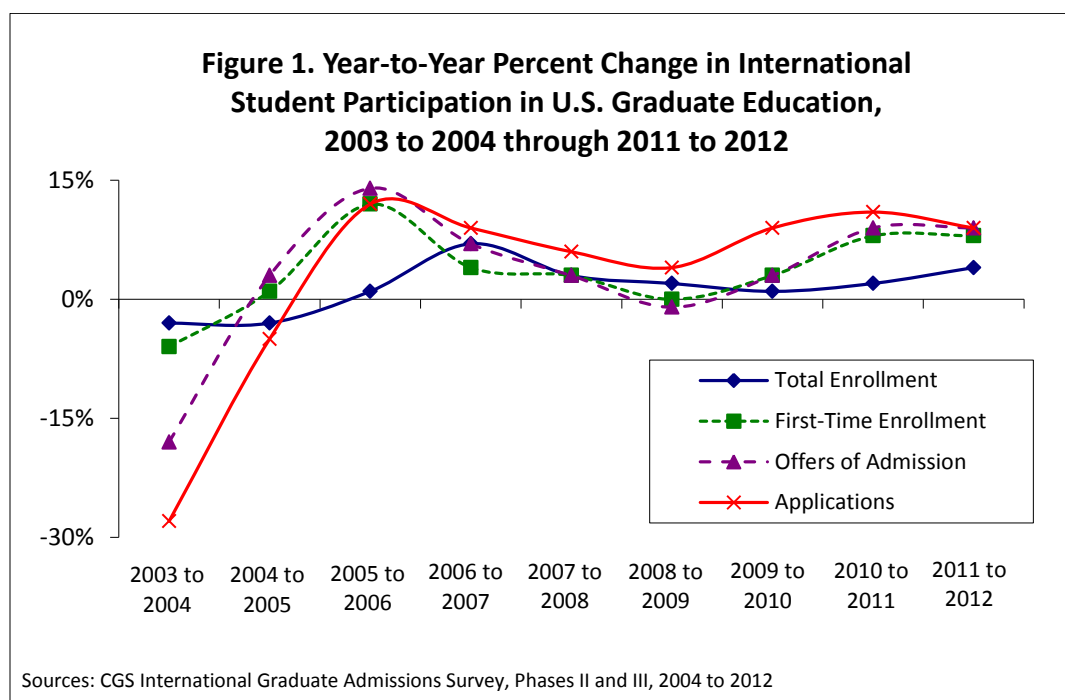
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Overview

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 comprise 14.5% of all graduate students in the U.S.¹

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).²

Data from this year's *Phase III* survey reveal continued growth in applications, offers of admission, and enrollment (see Figure 1). Between 2011 and 2012, offers of admission to prospective international graduate students increased by 9%, first-time international graduate enrollment increased by 8%, and total international graduate enrollment increased 4%.



¹ Allum, J.R., Bell, N.E., Sowell, R.S. (2012). *Graduate Enrollment and Degrees: 2001 to 2011*. Washington, DC: Council of Graduate Schools.

² See www.cgsnet.org for reports from the *CGS International Graduate Admissions Survey* from 2006 to present.

This report first describes the methodology used to collect the data and calculate changes in offers of admission and enrollment from 2011 to 2012. 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 one-year changes to those in prior years. Section four examines total international graduate enrollment, and section five offers a summary and conclusion.

I. Survey Methodology and Response Rate

The survey population for the *2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* consisted of all 506 U.S. colleges and universities that were members of CGS as of September 2012.³ A link to the survey instrument was e-mailed to the graduate dean (or equivalent) at each member institution on September 26, 2012, and responses were collected electronically through October 22, 2012.

The survey asked institutions to report the final number of offers of admission granted to prospective international graduate students for fall 2011 and fall 2012, the number of new (first-time) international graduate students in fall 2011 and fall 2012, and the total number of international graduate students in fall 2011 and fall 2012. 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. 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. The survey taxonomy is presented in the Appendix.

Institutions were also asked to provide admissions and enrollment data for international students who originate from seven key sending countries (Brazil, Canada, China, India, Mexico, South Korea, Taiwan), three regions (Africa, Europe, Middle East), and for eight broad fields of study (arts and humanities, business, education, engineering, life sciences, physical and earth sciences,⁴ social sciences and psychology, and other fields).⁵ It should be noted that beginning in 2012, students from Cyprus and Turkey were included in Europe. Prior to 2012, students

³ 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*.

⁴ The broad field of physical and earth sciences includes mathematics and computer sciences.

⁵ 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 2011 and fall 2012. These data will be analyzed separately and reported in the December 2012 issue of the CGS' *GradEdge*.

from Cyprus and Turkey were included in the Middle East. Year-to-year comparisons between 2012 and previous years by region should be made with this in mind.

A total of 265 institutions responded to the survey, for a response rate of 52%. The response rates among certain types of institutions were even higher: eight of the ten institutions that award the largest numbers of master's and doctoral degrees to international students, 22 of the 25 largest (88%), 44 of the 50 largest (88%), and 79 of the 100 largest (79%) responded to the survey.⁶ 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.⁷ Overall, the 265 institutions responding to the *Phase III* survey conferred about 64% of the nearly 97,000 graduate degrees awarded to international students in the United States in 2011/12, suggesting that the survey results generally depict recent trends in the participation of international students in U.S. graduate education.⁸

Institutions responding to the *Phase III* survey provided data for fall 2012 on a total of 157,003 offers of admission to prospective international graduate students, 62,058 international first-time enrollees, and 197,115 international graduate students. In a few cases, institutions were unable to provide data for both 2011 and 2012 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.

II. Offers of Admission to Prospective International Graduate Students

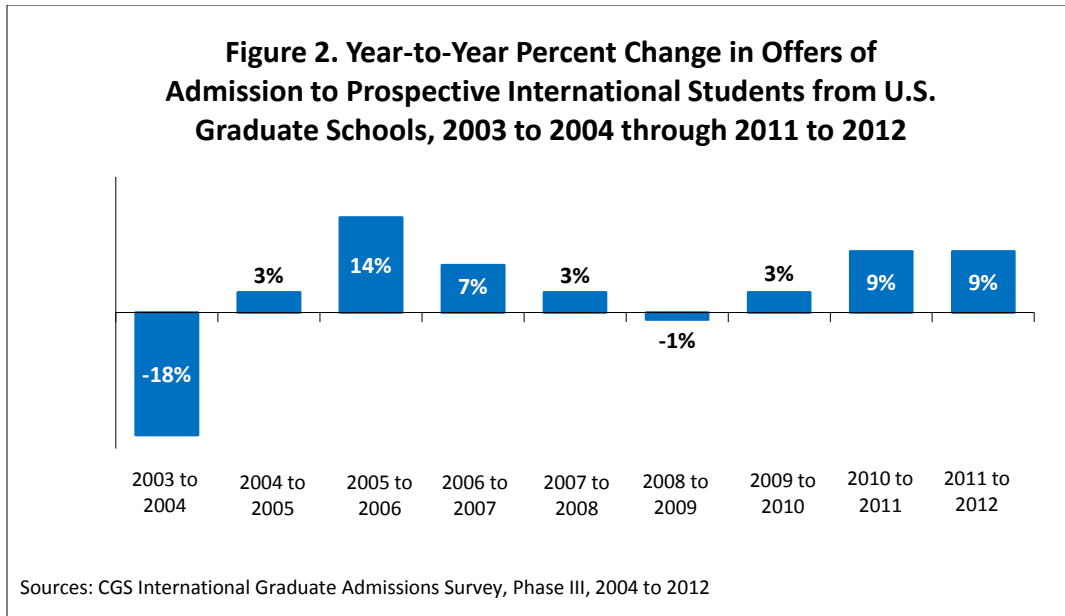
Total Number of Offers of Admission

For prospective international students, offers of admission to U.S. graduate schools increased 9% between 2011 and 2012. This year's increase in offers of admission follows a 9% increase last year and a 3% increase in 2010 (see Figure 2). The final 9% increase in international offers of admission from this *Phase III* survey matches the 9% initial offers of admission in the *Phase II* survey results, released in August 2012.

⁶ These figures are based on graduate degrees awarded in academic year 2009/10. 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).

⁷ See footnote 6.

⁸ See footnote 6.



Offers of Admission by Country/Region of Origin

In addition to the aggregate data, the *CGS International Graduate Admissions Survey* collects data on seven sending countries (Brazil, Canada, China, India, South Korea, and Taiwan), and three sending regions (Africa, Europe, and the Middle East). 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.⁹ Thus, examining student flows from these three countries in particular provides a good indicator of overall trends in international applications. Applications from students from Brazil, Canada, and Taiwan, as well as regions of Africa, Europe, and the Middle East¹⁰ have been included in 2012 because of the desire of membership to know more about students from these countries and regions.

The *Phase III* survey results reveal continued increases in offers of admission to prospective graduate students from China and the Middle East (see Table 1). Offers of admission to prospective graduate students from China increased 20% in 2012 following a 21% gain in 2011 and a 15% gain in 2010. This is the seventh consecutive year of double-digit growth in applications from China, and is especially significant because, based upon respondents to this survey, Chinese nationals constitute 39% of all offers of admission to U.S. graduate schools.

⁹ Bell, N. (2011). *Findings from the 2011 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools; Chow, P. & Bhandari, R. (2011). *Open Doors 2011: Report on International Educational Exchange*. New York, NY: Institute of International Education.

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

Offers of admission to prospective graduate students from the Middle East increased 17% in 2012 following a 16% gain in 2011 and a 10% gain in 2010. Offers of admission to prospective graduate students from India and South Korea did not change in 2012. In the case of India, this represents a decrease from the 2% gain in offers of admission in 2011. In the case of South Korea, this is an increase from the 2% decline in offers of admission in 2011 and part of a comeback after several years of declining offers of admission.

Table 1. Change in International Offers of Admission, 2008 to 2009 through 2011 to 2012

	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	Final Number of Offers of Admission, 2011 to 2012
International Total	-1%	3%	9%	9%
Country of Origin				
Brazil	--	--	--	6%
Canada	--	--	--	9%
China	17%	15%	21%	20%
India	-14%	-5%	2%	0%
Mexico	--	--	--	6%
South Korea	-14%	-7%	-2%	0%
Taiwan	--	--	--	-4%
Region of Origin				
Africa	--	--	--	10%
Europe *	--	--	--	2%
Middle East **	14%	10%	16%	17%
Field of Study				
Arts & Humanities	1%	2%	5%	6%
Business	4%	3%	11%	21%
Education	10%	-5%	7%	12%
Engineering	-3%	2%	8%	9%
Life Sciences	3%	-5%	7%	0%
Physical & Earth Sciences ***	-5%	8%	11%	7%
Social Sciences & Psychology	-1%	4%	2%	8%
Other Fields ****	11%	5%	13%	11%

* Europe consists of 51 nations, including Cyprus and Turkey, which, prior to 2012, were reported with data for the Middle East.

** Middle East includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. Prior to 2012, data for students from Cyprus and Turkey were included with this region. Starting in 2012, those data are reported with data for Europe.

*** Physical and earth sciences includes mathematics and computer sciences.

**** 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 2012

Offers of Admission by Field of Study

The majority (56%) 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.¹¹ Life sciences, social sciences, and psychology also account for large numbers of international graduate students at U.S. institutions. The *Phase III* survey reveals that international offers of admission increased in all broad fields of study in 2012.

The largest increase in international offers of admission occurred in business (21%) nearly twice the 11% gain in this broad field in 2011. Large increases also occurred in education (12%), 'other' fields (11%), and engineering (9%) in 2012 following gains of 7%, 13%, and 8% respectively, in these broad fields in 2011. The smallest increases in international offers of admission in 2012 were in life sciences (0%), arts & humanities (6%), physical & earth sciences (7%), and social science & psychology (8%).

Offers of Admission by Institutional Control and Carnegie Classification

International offers of admission increased at both public and private, not-for-profit institutions in 2012. At public institutions, international offers of admission increased 7% in 2012 following an 8% gain in 2011. At private, not-for-profit institutions, international offers of admission increased 14% in 2012 following an 11% gain in 2011 (see Table 2).¹²

By Carnegie classification, offers of admission to prospective international graduate students increased 9% overall at doctoral institutions in 2012, matching the 9% increase at these institutions in 2011.¹³ International offers of admission increased 7% at public, doctoral institutions in 2012 and 14% at private, not-for-profit doctoral institutions. At master's-focused institutions, international offers of admission increased by 6% in 2012 following a 0% increase in 2011 (see Table 2). International offers of admission fell 6% at public master's-focused institutions in 2012 but rose 22% at private, not-for-profit master's focused institutions. 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 2012 *Phase III* survey, just

¹¹ Allum, J.R., Bell, N.E., Sowell, R.S. (2012). *Graduate Enrollment and Degrees: 2001 to 2011*. Washington, DC: Council of Graduate Schools.

¹² Of the 253 institutions that provided total offers of admission data for *both* 2011 and 2012 in this year's *Phase III* survey, 189 were public institutions, 63 were private, not-for profit institutions, and one was a private, for-profit institution. Data for the private, for-profit respondent are included in the totals in Table 2, but are not broken out separately.

¹³ 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 analysis.

6% of all offers of admission to prospective international graduate students were from master's-focused institutions.

Table 2. Change in International Offers of Admission by Institutional Control and Carnegie Classification, 2010 to 2011 and 2011 to 2012

	2010 to 2011		2011 to 2012	
	No. of Respondents	Final Change in Offers of Admission	No. of Respondents	Final Change in Offers of Admission
Total (All Institutions) *	231	9%	253	9%
Public	172	8%	189	7%
Private, not-for-profit	58	11%	63	14%
Doctoral Institutions *	166	9%	172	9%
Public	123	8%	129	7%
Private, not-for-profit	42	13%	42	14%
Master's-Focused Institutions	47	0%	62	6%
Public	38	11%	47	-6%
Private, not-for-profit	9	-15%	15	22%

* For both 2010 to 2011 and 2011 to 2012, 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 (2010 and 2011 and/or 2011 and 2012). Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. See footnote 13 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, 2011 and 2012

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 2012. International offers of admission increased 15% in the Northeast, 8% in the West, and 7% in both the South and the Midwest.¹⁴

¹⁴ Of the 253 institutions that provided total offers of admission data for both 2011 and 2012 in this year's Phase III survey, 48 institutions are located in the Northeast, 98 in the South, 64 in the Midwest, and 43 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.

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 2011 to 2012 for the responding colleges and universities 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.¹⁵

In 2012, 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 11% at the responding institutions that are among the 100 largest institutions in terms of graduate degrees awarded to international students and rose 5% 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 (21%) than at the institutions outside the largest 100 (18%). In contrast, for prospective graduate students from the Middle East, the average increase in offers of admission was larger at the institutions outside the largest 100 (19%) than at the 100 largest institutions (16%). Offers of admission to prospective graduate students from Brazil were particularly striking, with the largest increase at institutions outside of the largest 100 (29%), as well as the 25 largest institutions (22%), but comparatively low in other institutional categories. Offers of admission to prospective graduate students from India decreased 4% at the institutions outside the largest 100 and increased 2% at the 100 largest institutions.

In all 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 12% on average at the 100 largest institutions compared with 9% at the institutions outside the largest 100. In business, offers of admission increased 25% on average at the 100 largest institutions compared with 13% at the institutions outside the largest 100.

¹⁵ See footnote 6 for more information.

Table 3. Change in International Offers of Admission by Number of Graduate Degrees Awarded to International Students, 2011 to 2012

	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	13%	7%	9%	11%	5%
Country of Origin					
Brazil	7%	22%	5%	-2%	29%
Canada	7%	11%	9%	10%	6%
China	19%	17%	19%	21%	18%
India	6%	-1%	0%	2%	-4%
Mexico	5%	-2%	-1%	6%	6%
South Korea	3%	1%	-2%	0%	-1%
Taiwan	7%	-1%	-5%	-3%	-7%
Region of Origin					
Africa	4%	1%	11%	12%	8%
Europe *	2%	1%	0%	4%	-3%
Middle East **	15%	3%	9%	16%	19%
Field of Study					
Arts & Humanities	12%	12%	3%	7%	3%
Business	15%	10%	17%	25%	13%
Education	32%	11%	11%	14%	11%
Engineering	9%	5%	6%	9%	6%
Life Sciences	7%	4%	2%	2%	-4%
Physical & Earth Sciences ***	15%	6%	7%	9%	1%
Social Sciences & Psychology	23%	12%	12%	10%	2%
Other Fields ****	20%	18%	11%	12%	9%

* Europe consists of 51 nations, including Cyprus and Turkey, which, prior to 2012, were reported with data for the Middle East

** Middle East includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. Prior to 2012, data for students from Cyprus and Turkey were included with this region. Starting in 2012, those data are reported with data for Europe.

*** Physical and earth sciences includes mathematics and computer sciences.

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

Notes: The rankings are based on data collected by the U.S. Department of Education. See footnote 6 for more information. Not all responding institutions provided data by country of origin and/or field of study.

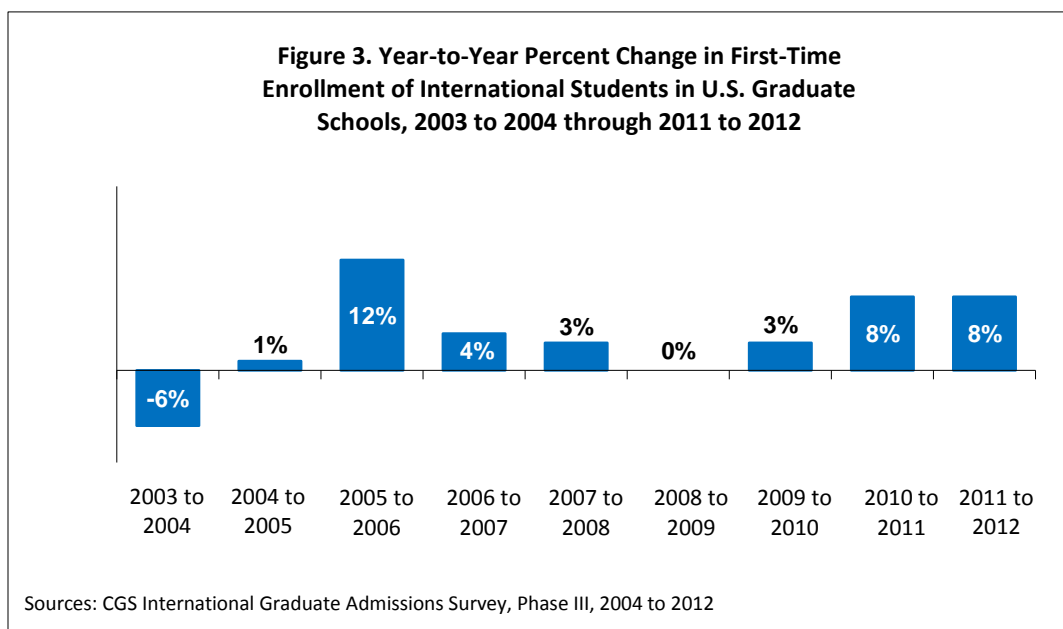
Source: CGS International Graduate Admissions Survey, Phase III, 2012

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 2011 and 2012, matching the 8% gain in 2011 (see Figure 3).



First-Time Graduate Enrollment by Country/Region of Origin

First-time graduate enrollment of students from China continues to increase in 2012 (see Table 4). This year's 22% gain in first-time graduate enrollment of students from China marks the seventh consecutive year of double-digit growth. Moreover, Chinese students constitute 37% of all international graduate students in the United States. First-time enrollment of students from Brazil increased substantially in 2012, at 14%. Increases in first-time enrollment of students from Mexico and Canada were smaller than the overall average, at 5% and 4% respectively, but still larger than India (1%), South Korea (-2%), and Taiwan (-2%). First-time graduate enrollment of students from India is notable in that the 1% in 2012, while small, is still an improvement from previous years when first-time enrollment dropped. First-time graduate enrollment of students from South Korea declined by 2% in 2012, following no change the previous year.

By region, changes in first-time graduate enrollment of students from the Middle East were the largest, at 18%. First-time enrollment of students from the Middle East has been growing in recent years, from 7% in 2010 to 14% in 2011. Changes in first-time enrollment by students from Africa and Europe were small, at 4% and 1% respectively. The impact of these gains is offset some by the fact that they constitute moderate to small numbers of first-time enrollments. Students from Europe constitute 8% of all first-time enrollments among international students in fall 2011, and students from Africa constitute 3%, according to respondents to this survey.

Table 4. Change in International First-Time Graduate Enrollment, 2008 to 2009 through 2011 to 2012

	First-Time Graduate Enrollment, 2008 to 2009	First-Time Graduate Enrollment, 2009 to 2010	First-Time Graduate Enrollment, 2010 to 2011	First-Time Graduate Enrollment, 2011 to 2012
International Total	0%	3%	8%	8%
Country of Origin				
Brazil	--	--	--	14%
Canada	--	--	--	4%
China	16%	20%	21%	22%
India	-16%	-3%	2%	1%
Mexico	--	--	--	5%
South Korea	-13%	-3%	0%	-2%
Taiwan	--	--	--	-2%
Region of Origin				
Africa	--	--	--	4%
Europe *	--	--	--	1%
Middle East **	22%	7%	14%	18%
Field of Study				
Arts & Humanities	-3%	5%	5%	5%
Business	0%	2%	9%	15%
Education	5%	-7%	12%	8%
Engineering	0%	3%	6%	12%
Life Sciences	0%	0%	1%	1%
Physical & Earth Sciences ***	-4%	9%	12%	4%
Social Sciences & Psychology	1%	4%	2%	9%
Other Fields ****	6%	5%	8%	8%

* Europe consists of 51 nations, including Cyprus and Turkey, which, prior to 2012, were reported with data for the Middle East.

** Middle East includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. Prior to 2012, data for students from Cyprus and Turkey were included with this region. Starting in 2012, those data are reported with data for Europe.

*** Physical and earth sciences includes mathematics and computer sciences.

**** 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, 2009 to 2012

First-Time Graduate Enrollment by Field of Study

International first-time graduate enrollment increased in all broad fields in 2012 (see Table 4). The largest gains were in business (15%) and engineering (12%). This is particularly significant

due to the fact that, according to respondents to this survey, nearly one-half (47%) of all international first-time enrollments were in these two fields. There were smaller increases in first-time enrollment in social sciences & psychology, education, and 'other' fields, at 9%, 8%, and 8% respectively.

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 2012 (see Table 5). At public institutions, international first-time graduate enrollment increased 8% in 2012 following a 7% gain in 2011, while at private, not-for-profit institutions international first-time graduate enrollment increased 9% in 2012 following a 10% gain in 2011. Overall, for both 2011 and 2012, increases in first-time enrollment at private, not-for-profit institutions outpaced increases in first-time enrollment at public institutions.

Table 5. Change in International First-Time Graduate Enrollment by Institutional Control and Carnegie Classification, 2010 to 2011 and 2011 to 2012

	2010 to 2011		2011 to 2012	
	No. of Respondents	% Change in First-Time Enrollment	No. of Respondents	% Change in First-Time Enrollment
Total (All Institutions) *	231	8%	257	8%
Public	172	7%	189	8%
Private, not-for-profit	58	10%	67	9%
Doctoral Institutions *	166	8%	174	9%
Public	123	7%	129	9%
Private, not-for-profit	42	11%	44	9%
Master's-Focused Institutions	48	-5%	63	-3%
Public	39	4%	47	-9%
Private, not-for-profit	9	-31%	16	9%

* For both 2010 to 2011 and 2011 to 2012, 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 (2010 and 2011 and/or 2011 and 2012). Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. See footnote 13 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, 2011 and 2012

By Carnegie classification, international first-time graduate enrollment increased 9% in fall 2012 at doctoral institutions following an 8% gain in 2011, but fell 3% at master's-focused institutions for the second year in a row (see Table 5).¹⁶ By Carnegie classification and institutional control, international first-time graduate enrollment increased 9% at public doctoral institutions as well as private, not-for-profit doctoral institutions. At master's-focused institutions international first-time graduate enrollment decreased 9% at public institutions, but increased by 9% at the master's-focused private, not-for-profit institutions responding to the survey. 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 2012. International first-time graduate enrollment increased 11% in the Northeast, 8% in the Midwest, 7% in the West, and 5% in the South.¹⁷

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 2012 than institutions awarding smaller numbers of graduate degrees to international students (see Table 6). International first-time graduate enrollment increased 10% at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students, compared with a 3% 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 73% of all international first-time graduate enrollment in 2012, with the remaining 27% of international first-time graduate enrollment at the institutions outside the largest 100.

Data on first-time graduate enrollment of students from China both reflect and drive the overall trend in terms of first-time enrollment, with larger increases on average at the 100 largest institutions (24%) than at the institutions outside the largest 100 (16%). Similarly, first-time enrollment at the largest 100 institutions among students from the Middle East increased by

¹⁶ See footnote 13 for more information on Carnegie classifications.

¹⁷ Of the 257 institutions that provided international first-time graduate enrollment data for *both* 2011 and 2012 in this year's *Phase III* survey, 51 institutions are located in the Northeast, 98 in the South, 44 in the West, and 64 in the Midwest. See footnote 14 for a listing of the states included in each region.

20%. First-time enrollment rose dramatically among students from Brazil at institutions outside the largest 100, at 41%.

Table 6. Change in International First-Time Graduate Enrollment by Number of Graduate Degrees Awarded to International Students, 2011 to 2012

	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	12%	11%	11%	10%	3%
Country of Origin					
Brazil	14%	23%	6%	6%	41%
Canada	1%	5%	6%	8%	-5%
China	23%	22%	24%	24%	16%
India	3%	4%	5%	5%	-12%
Mexico	-6%	-1%	3%	7%	-1%
South Korea	0%	1%	-1%	-3%	1%
Taiwan	13%	5%	1%	2%	-20%
Region of Origin					
Africa	-14%	-1%	5%	9%	-2%
Europe *	3%	2%	3%	4%	-7%
Middle East **	16%	11%	17%	20%	15%
Field of Study					
Arts & Humanities	12%	17%	7%	6%	2%
Business	5%	10%	15%	17%	10%
Education	31%	-4%	3%	6%	10%
Engineering	16%	12%	14%	15%	2%
Life Sciences	7%	6%	3%	4%	-5%
Physical & Earth Sciences ***	2%	5%	7%	6%	-2%
Social Sciences & Psychology	30%	22%	17%	12%	2%
Other Fields ****	13%	12%	15%	11%	0%

* Europe consists of 51 nations, including Cyprus and Turkey, which, prior to 2012, were reported with data for the Middle East.

** Middle East includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. Prior to 2012, data for students from Cyprus and Turkey were included with this region. Starting in 2012, those data are reported with data for Europe.

*** Physical and earth sciences includes mathematics and computer sciences.

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

Notes: The rankings are based on data collected by the U.S. Department of Education. See footnote 6 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, 2012

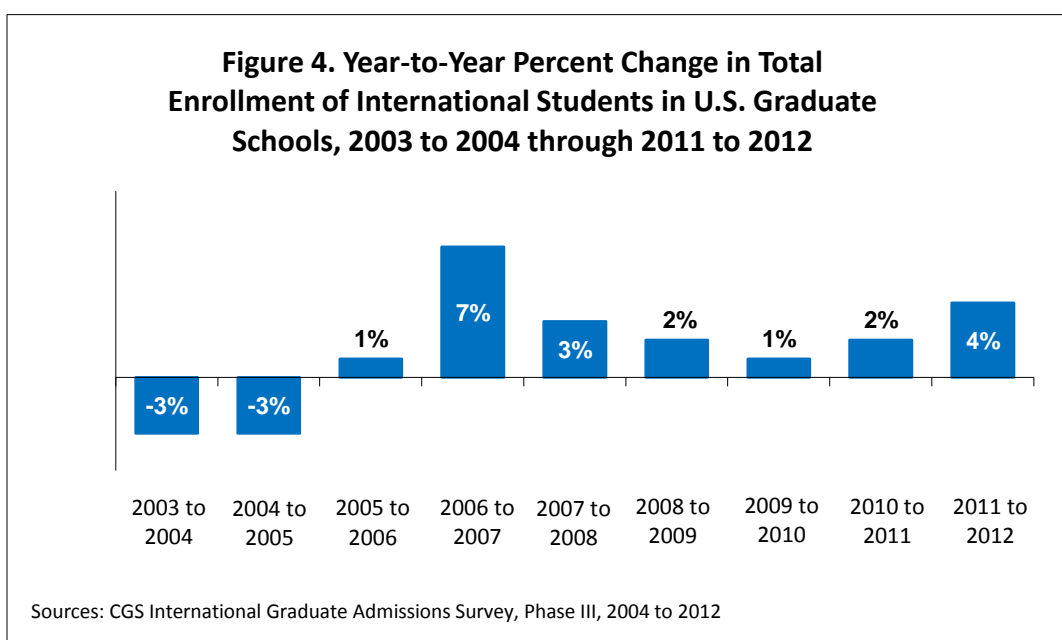
Similar to the findings on international offers of admission, in most broad fields international first-time graduate enrollment increased by a larger amount at the 100 largest institutions than at institutions outside the largest 100. For example, international first-time graduate

enrollment in business increased 17% on average at the 100 largest institutions compared with 10% at the institutions outside the largest 100. Only in the broad field of education was the gain greater at the institutions outside the largest 100 (10%) than at 100 largest institutions (6%).

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 4% between 2011 and 2012 following increases of 2% in 2011 and 1% in 2010 (see Figure 4). This year’s increase is the seventh consecutive year of growth in total graduate enrollment among international students.



Total Graduate Enrollment by Country/Region of Origin

The *Phase III* survey results reveal that total graduate enrollment of students from China increased by 16%, following a 15% increase in 2011 and a 13% increase in 2010. Total graduate enrollment of students from India and South Korea fell 3% each in 2012. In both cases, however, these declines are smaller than in previous years (see Table 7). Total graduate enrollment of students from the Middle East increased 21% in 2012, nearly double the 11% increase in both 2010 and 2011. Total graduate enrollment of students from Africa and Europe increased by smaller percentages in 2012, at 3% and 1% respectively.

Table 7. Change in International Total Graduate Enrollment, 2008 to 2009 through 2011 to 2012

	Total Graduate Enrollment, 2008 to 2009	Total Graduate Enrollment, 2009 to 2010	Total Graduate Enrollment, 2010 to 2011	Total Graduate Enrollment, 2011 to 2012
International Total	2%	1%	2%	4%
Country of Origin				
Brazil	--	--	--	4%
Canada	--	--	--	3%
China	12%	13%	15%	16%
India	-4%	-6%	-6%	-3%
Mexico	--	--	--	11%
South Korea	-5%	-6%	-5%	-3%
Taiwan	--	--	--	-4%
Region of Origin				
Africa	--	--	--	3%
Europe *	--	--	--	1%
Middle East **	13%	11%	11%	21%
Field of Study				
Arts & Humanities	0%	0%	1%	2%
Business	2%	0%	6%	9%
Education	3%	0%	-1%	5%
Engineering	2%	3%	2%	6%
Life Sciences	3%	1%	0%	1%
Physical & Earth Sciences ***	3%	4%	2%	4%
Social Sciences & Psychology	-1%	3%	0%	5%
Other Fields ****	4%	4%	3%	6%

* Europe consists of 51 nations, including Cyprus and Turkey, which, prior to 2012, were reported with data for the Middle East.

** Middle East includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. Prior to 2012, data for students from Cyprus and Turkey were included with this region. Starting in 2012, those data are reported with data for Europe.

*** Physical and earth sciences includes mathematics and computer sciences.

**** 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, 2009 to 2012

Total Graduate Enrollment by Field of Study

In 2012, international total graduate enrollment increased in all broad fields (see Table 7). The largest increase in international total graduate enrollment occurred in business, with a 9% gain. This follows a 6% gain in 2011 and no growth in 2010. Strong growth in international total graduate enrollment also occurred in engineering and ‘other’ fields, both at 6% each in 2012. In both education and social sciences & psychology, international total graduate enrollment increased 5% in 2012.

Total Graduate Enrollment by Institutional Control and Carnegie Classification

International total graduate enrollment increased at both public and private, not-for-profit institutions in 2012 (see Table 8). At public institutions, international total graduate enrollment increased 3% in 2012 following a 2% rise in 2011. At private, not-for-profit institutions, international total graduate enrollment rose 7% in 2012, following a 4% increase in 2011.

Table 8. Change in International Total Graduate Enrollment by Institutional Control and Carnegie Classification, 2010 to 2011 and 2011 to 2012

	2010 to 2011		2011 to 2012	
	No. of Respondents	% Change in Total Enrollment	No. of Respondents	% Change in Total Enrollment
Total (All Institutions) *	231	2%	257	4%
Public	171	2%	189	3%
Private, not-for-profit	59	4%	67	7%
Doctoral Institutions *	164	3%	173	4%
Public	122	2%	129	3%
Private, not-for-profit	41	5%	43	7%
Master's-Focused Institutions	49	-5%	64	-2%
Public	38	0%	47	-3%
Private, not-for-profit	11	-16%	17	1%

* For both 2010 to 2011 and 2011 to 2012, 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 (2010 and 2011 and/or 2011 and 2012). Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. See footnote 13 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, 2011 and 2012

By Carnegie classification, international total graduate enrollment increased 4% at doctoral institutions in 2012, but fell 2% at master's-focused institutions (see Table 8).¹⁸ The 4% gain at doctoral institutions in 2012 follows a 3% gain in 2011, while the 2% decline at master's-focused institutions follows a 5% decline in 2011. By Carnegie classification and institutional control, international total graduate enrollment increased 3% at public, doctoral institutions compared with 7% at private, not-for-profit doctoral institutions. At master's-focused institutions, international total graduate enrollment declined by 3% at public institutions, and increased 1% at private, not-for-profit institutions. 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.

Total Graduate Enrollment by Geographic Region

International total graduate enrollment increased in three of the four major regions of the United States in 2012.¹⁹ International total graduate enrollment increased 6% in both the Northeast and the West, 3% in the South, and 1% in the Midwest.

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 2012 than institutions awarding smaller numbers of graduate degrees to international students (see Table 9).²⁰ International total graduate enrollment increased 5% 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 70% of all international graduate enrollment in 2012, with the remaining 30% of international graduate enrollment at the institutions outside the largest 100.

Total enrollment by students from China grew significantly in all institution categories. The largest increases for China were at the 10 largest institutions in terms of graduate degrees awarded to international students, with an increase of 20%.

¹⁸ See footnote 13 for more information on Carnegie classifications.

¹⁹ Of the 257 institutions that provided international total graduate enrollment data for *both* 2011 and 2012 in this year's *Phase III* survey, 52 institutions are located in the Northeast, 44 in the West, 97 in the South, and 64 in the Midwest. See footnote 14 for a listing of the states included in each region.

²⁰ See footnote 6 for more information.

Table 9. Change in International Total Graduate Enrollment by Number of Graduate Degrees Awarded to International Students, 2011 to 2012

	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	7%	5%	5%	5%	1%
Country of Origin					
Brazil	5%	4%	0%	3%	6%
Canada	-1%	1%	1%	2%	4%
China	20%	16%	17%	17%	12%
India	-2%	0%	1%	0%	-12%
Mexico	-7%	-3%	5%	11%	9%
South Korea	-7%	-4%	-4%	-3%	-1%
Taiwan	-2%	-5%	-4%	-3%	-8%
Region of Origin					
Africa	-2%	-1%	3%	4%	1%
Europe *	0%	-2%	1%	1%	-2%
Middle East **	13%	10%	14%	19%	24%
Field of Study					
Arts & Humanities	1%	0%	0%	2%	3%
Business	5%	6%	9%	11%	4%
Education	7%	-3%	0%	3%	7%
Engineering	7%	5%	7%	8%	1%
Life Sciences	3%	1%	0%	2%	1%
Physical & Earth Sciences ***	6%	5%	5%	6%	-1%
Social Sciences & Psychology	10%	8%	7%	6%	1%
Other Fields ****	13%	10%	8%	9%	-1%

* Europe consists of 51 nations, including Cyprus and Turkey, which, prior to 2012, were reported with data for the Middle East.

** Middle East includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. Prior to 2012, data for students from Cyprus and Turkey were included with this region. Starting in 2012, those data are reported with data for Europe.

*** Physical and earth sciences includes mathematics and computer sciences.

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

Notes: The rankings are based on data collected by the U.S. Department of Education. See footnote 6 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, 2012

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 12%. For students from the Middle East, total graduate enrollment increased 24% at the institutions outside the largest 100, compared with a 19% gain at the 100 largest institutions. For students from India and

South Korea, total graduate enrollment fell or experienced no change across all five size categories, as shown in Table 9. For students from India, decreases were as low as -12% at all other institutions. For students from South Korea, decreases ranged from -7% to -1%, with the largest decrease at the 10 largest institutions.

There was variation in international total graduate enrollment by the number of graduate degrees awarded to international students by field of study. In business, engineering, and physical & earth sciences, three of the 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 growth at the 10 largest institutions (5%) outpaced the growth at all other institutions (4%). Similarly, growth in engineering at the 10 largest institutions (7%) outpaced the growth at all other institutions (1%).

V. Summary and Conclusions

Summary

The results of the *2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* revealed that 157,003 offers of admission were made to prospective international graduate students in 2012. Offers of admission to U.S. graduate schools increased 9% between 2011 and 2012, the percentage increase as between 2010 and 2011. Offers of admission to prospective graduate students from China increased 20%. Although this is 1% smaller than the previous year, it marks the seventh consecutive year of double-digit growth in offers of admission for prospective graduate students from China. The largest increase in international offers of admission occurred in business (21%), followed by education (12%), 'other' fields (11%), and engineering (9%).

Survey respondents reported a total of 62,058 international first-time enrollees in fall 2012. The Phase III survey results show that first-time enrollment of international students in U.S. graduate schools increased 8% between 2011 and 2012, matching the 8% increase between 2010 and 2011. First-time enrollments among students from China increased by 22%, the seventh consecutive year of double-digit growth. Chinese students, according to survey respondents, make-up 37% of all international first-time graduate students in the United States. The largest gains were in business (15%) and engineering (12%). According to survey respondents, nearly one-half (47%) of all international first-time enrollments were in these two fields. Institutions awarding larger numbers of graduate degrees to international students were more likely to experience increases in international first-time graduate enrollment in 2012 than institutions awarding smaller numbers of graduate degrees to international students. By

Carnegie classification, international first-time graduate enrollment increased 9% in fall 2012 at doctoral institutions, but fell 3% at master's-focused institutions for the second year in a row. Finally, respondents to the *2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* reported that 197,115 international graduate students were enrolled in graduate programs in fall 2012. Total graduate enrollment of international students in U.S. graduate schools increased 4% between 2011 and 2012 following increases of 2% in 2011 and 1% in 2010. Whereas total graduate enrollment of students from China rose by 16% between 2011 and 2012, total graduate enrollment of students from India and South Korea fell 3% each during the same time period. The declines in total graduate enrollment by students from India and South Korea are smaller than in previous years. The largest increase in international total graduate enrollment occurred in business, with a 9% gain. This follows a 6% gain in 2011 and no growth in 2010. By Carnegie classification, international total graduate enrollment increased 4% at doctoral institutions in 2012, and fell 2% at master's-focused institutions.

Conclusions

The 9% increase in offers of admission, the 8% increase in first-time enrollment, and the 4% gain in total enrollment revealed by the *2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* extend the trend in growing popularity of, and enrollment in American graduate education for yet another year. The United States remains a destination of choice for prospective international graduate students.

The results appear to be driven by two strong trends. First, Chinese students are applying to and enrolling in American graduate programs in very large numbers. Chinese students constitute 39% of all offers of admission to international students, 37% of all first-time enrollments among international students, and 32% of all total enrollments among international students. Students from other nations, such as Brazil, Mexico, and Canada are also applying to and enrolling in American graduate programs in growing numbers, but the number of students is comparatively small.

Second, large numbers of international students are being granted offers of admission, and enrolling in business and engineering programs. This is particularly significant due to the fact that, according to respondents to this survey, nearly one-half (47%) of all international first-time enrollments were in these two fields. Offers of admission to business and engineering programs rose by 21% and 9% respectively between 2011 and 2012. During the same time period, first-time enrollments in business and engineering programs rose by 15% and 12% respectively. This marked the third straight year of increases in first-time enrollment in business and engineering.

Finally, survey respondents report continuing growth in 2012 in first-time graduate enrollment of students from India. Between 2008 and 2009, first-time graduate enrollment of students from India decreased by 16%. Since that time, first-time enrollment by students from India has gradually recovered, including a 1% increase between 2011 and 2012. The growth is still slow, however, and future surveys will document the extent to which this recovery will continue.

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Appendix

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