



Findings from the 2014 CGS International Graduate Admissions Survey

Phase III: Final Offers of Admission and Enrollment

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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' interest in ongoing changes in the enrollment of students from abroad seeking master's and doctoral degrees from U.S. colleges and universities. International students comprise 17% 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 the 2014 *Phase III* survey reveal continued growth in offers of admission and enrollment. Between 2013 and 2014, offers of admission to prospective international graduate students increased 7%, first-time international graduate enrollment increased 8%, and total international graduate enrollment increased 8%.

The first section of this report describes the methodology used to collect the data and calculate changes in offers of admission and enrollment from 2013 to 2014. The second section presents the 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 *2014 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* consisted of all 498 U.S. colleges and universities that were members of CGS as of September 2014. CGS also has member institutions in Canada and global affiliates, but these institutions are not included in the survey population. The survey questionnaire was e-mailed to the graduate dean (or equivalent) at each member institution on September 10, 2014, and responses were collected electronically through October 16, 2014.

¹ Allum, J. (2014). *Graduate Enrollment and Degrees: 2003 to 2013*. Washington, DC: Council of Graduate Schools.

² See www.cgsnet.org for reports from previous *CGS International Graduate Admissions Surveys*.

The survey asked institutions to report the final number of offers of admission granted to prospective international graduate students for fall 2013 and fall 2014, the number of new (first-time) international graduate students in fall 2013 and fall 2014, and the total number of international graduate students in fall 2013 and fall 2014 (see Appendix A).³ 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 taxonomy is presented in Appendix B.

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, and Taiwan) and three 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, accounting for about one-half of all non-U.S. citizens on temporary visas attending U.S. graduate schools.⁴ Thus, examining student flows from these three countries in particular provides a good indicator of overall trends in offers of admission to and enrollment in U.S. graduate programs. Data regarding students from Brazil, Canada, Mexico, and Taiwan, as well as regions of Africa, Europe, and the Middle East were included beginning in 2012 because of the desire of CGS membership to know more about students from these countries and regions. It should be noted that beginning in 2012, students from Cyprus and Turkey were included in Europe. Prior to 2012, students from these countries were included in the Middle East, and year-to-year comparisons by region should be made with this in mind. Institutions were also asked to provide offers of admission and enrollment data for students in eight broad fields of study: arts and humanities, business, education, engineering, life sciences, physical and earth sciences,⁵ social sciences and psychology, and 'other' fields.

Responses were coded according to the 2010 Carnegie basic classification. Specifically, 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. 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

³ 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 2013 and fall 2014. These data will be analyzed separately and reported in the December 2014 issue of CGS' *GradEdge*.

⁴ Allum, J. (2013). *Findings from the 2013 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools; Farrugia, C.A., Bhandari, R., & Chow, P. (2013). *Open Doors 2012: Report on International Educational Exchange*. New York, NY: Institute of International Education.

⁵ The broad field of physical and earth sciences includes mathematics and computer sciences.

grouped as master's-focused institutions. Responding institutions classified as specialized or baccalaureate institutions were excluded from this analysis.

Survey respondents were also coded according to one of four geographic regions: 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); 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); and West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

Finally, 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. Responses were coded in one of five categories, being colleges and universities awarding the 10 largest, 25 largest, 50 largest, and 100 largest numbers of master's and doctoral degrees to international students, as well as responding institutions outside the largest 100. The rankings are based on data collected by the U.S. Department of Education IPEDS data file.⁶

A total of 308 institutions responded to the survey, for a response rate of 62%. Eighty of the 100 institutions that award the largest number of master's and doctoral degrees to international students were represented in this study. The high response rate from the top 100 institutions is important because they confer about 59% of all graduate degrees awarded annually to international students in the United States. Overall, the 308 institutions responding to the *Phase III* survey conferred 72,970 or 67% of the approximately 109,000 graduate degrees awarded to international students in the United States in 2011/12. The vast majority (93%) of degrees awarded by the 308 institutions participating in this survey were awarded by doctoral granting institutions.

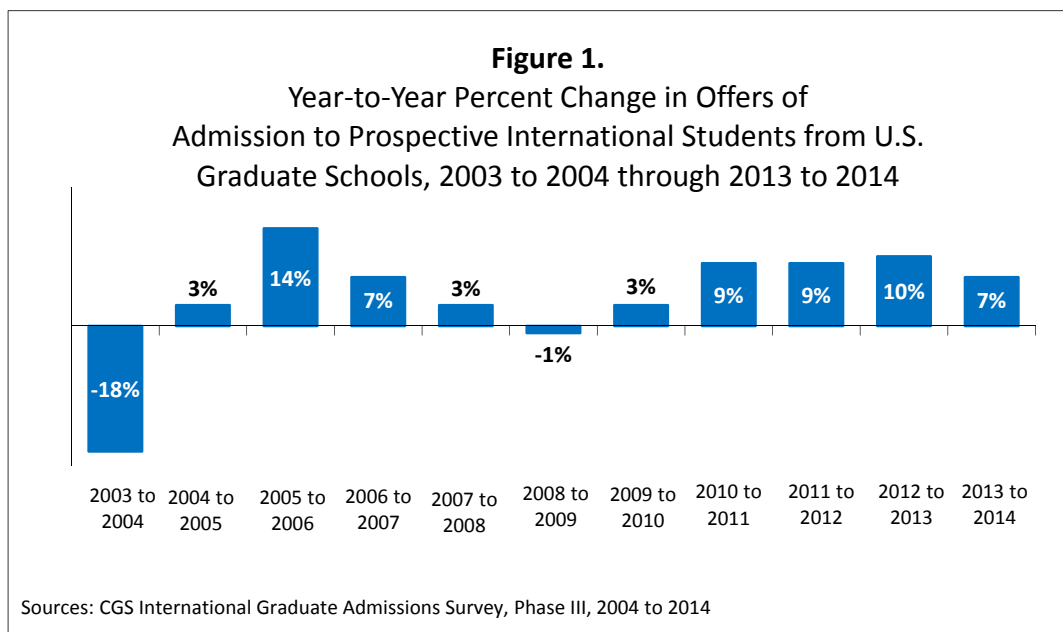
Institutions responding to the *Phase III* survey provided data for fall 2014 on a total of 198,399 offers of admission to prospective international graduate students, 76,821 international first-time enrollees, and 236,747 total international graduate students. In a few cases, institutions were unable to provide data for both 2013 and 2014 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. Summary data appear in Appendix C and Appendix D.

⁶ These rankings are based on the number of graduate degrees awarded in academic year 2011/12, the most recent data available, as derived from the Integrated Postsecondary Education Data System (IPEDS) data files.

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 7% between 2013 and 2014. This increase in offers of admission follows a 10% increase in 2012 and 9% increases in the previous two years (see Figure 1). The final 7% increase in international offers of admission from this *Phase III* survey is quite consistent with the initial 9% increase in international offers of admission reported in the *Phase II* survey report, released in August 2014.



Offers of Admission by Country/Region of Origin

The *Phase III* survey results reveal substantial increases in offers of admission to prospective graduate students from India and Brazil (see Table 1). Offers of admission to prospective graduate students from India increased 24% in 2014. This is especially notable due to the fact that prospective graduate students from India, based upon respondents to this survey, constitute 27% of all offers of admission to U.S. graduate schools. Offers of admission to prospective graduate students from Brazil increased 94% in 2014, although it is important to note that prospective students from Brazil are relatively small in number. Offers of admission to prospective graduate students from the Middle East increased 5% in 2014, following a 13% increase in 2013 and a 17% gain in 2012. Offers of admission to prospective graduate students from China decreased 2% in 2014. This is notable because, based upon respondents to this survey, Chinese nationals constitute 37% of all offers of admission to U.S. graduate schools.

Offers of admission to prospective graduate students from South Korea and Taiwan declined 8% each in 2014.

Table 1. Change in International Offers of Admission, 2010 to 2011 through 2013 to 2014

	Final Number of Offers of Admission, 2010 to 2011	Final Number of Offers of Admission, 2011 to 2012	Final Number of Offers of Admission, 2012 to 2013	Final Number of Offers of Admission, 2013 to 2014
International Total	9%	9%	10%	7%
Country of Origin				
China	21%	20%	5%	-2%
India	2%	0%	30%	24%
South Korea	-2%	0%	-11%	-8%
Taiwan	--	-4%	-2%	-8%
Canada	--	9%	0%	3%
Mexico	--	6%	2%	2%
Brazil	--	6%	23%	94%
Region of Origin				
Africa	--	10%	7%	1%
Europe	--	2%	-1%	3%
Middle East	16%	17%	13%	5%
Field of Study				
Arts & Humanities	5%	6%	8%	4%
Business	11%	21%	6%	3%
Education	7%	12%	-1%	0%
Engineering	8%	9%	16%	8%
Life Sciences	7%	0%	-4%	4%
Physical & Earth Sciences *	11%	7%	11%	14%
Social Sciences & Psychology	2%	8%	3%	5%
Other Fields	13%	11%	8%	3%

* Physical and earth sciences includes mathematics and computer sciences.

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

Source: CGS International Graduate Admissions Survey, Phase III, 2010 to 2014

Offers of Admission by Field of Study

More than one-half (58%) 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,⁷ and the *Phase III* survey reveals that

⁷ Allum, J. (2014). *Graduate Enrollment and Degrees: 2003 to 2013*. Washington, DC: Council of Graduate Schools.

international offers of admission increased in all three of these broad fields of study, 8%, 14%, and 3% respectively. Increases also occurred in social sciences and psychology (5%), life sciences (4%), arts & humanities (4%), and 'other' fields (3%). There was no change in international offers of admission in education.

Offers of Admission by Institutional Control and Carnegie Classification

International offers of admission increased at both public and private, not-for-profit institutions in 2014. At public institutions, international offers of admission increased 7% in 2014 following a 12% gain in 2013. At private, not-for-profit institutions, international offers of admission also increased 7% in 2014 following a 7% gain in 2013 (see Table 2). Of the 292 institutions that provided total offers of admission data for both 2013 and 2014 in this year's *Phase III* survey, 209 were public institutions, 82 were private, not-for profit institutions, and one was a private, for-profit institution. Data for the private, for-profit institution are included in the totals in Table 2, but are not broken out separately.

By Carnegie classification, international offers of admission increased 6% at public doctoral institutions in 2014 as well as private, not-for-profit doctoral institutions. International offers of admission increased 37% at public master's-focused institutions in 2014 and 23% at private, not-for-profit master's-focused institutions. While the growth rate for master's-focused institutions is very high, it is important to note that it represents a change from a small base number of applications. In the 2014 *Phase III* survey, just 7% 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, 2012 to 2013 and 2013 to 2014

	2012 to 2013		2013 to 2014	
	No. of Respondents	Final Change in Offers of Admission	No. of Respondents	Final Change in Offers of Admission
Total (All Institutions) *	269	10%	292	7%
Public	192	12%	209	7%
Private, not-for-profit	75	7%	82	7%
Doctoral Institutions *	187	10%	191	6%
Public	136	12%	140	6%
Private, not-for-profit	49	7%	50	5%
Master's-Focused Institutions	58	19%	74	30%
Public	42	27%	54	37%
Private, not-for-profit	16	4%	20	23%

* For 2012 to 2013 and 2013 to 2014, a small number of private, for-profit institutions are included in the totals but not broken out separately by institutional control.

Note: Institutions classified as specialized or baccalaureate institutions are included in the total for all institutions but are not broken out separately.

Source: CGS International Graduate Admissions Survey, Phase III, 2013 and 2014

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 2014. International offers of admission increased 9% each in the Midwest and South, and 5% each in the West and Northeast. Of the 292 institutions that provided total offers of admission data for both 2013 and 2014 in this year's *Phase III* survey, 110 institutions are located in the South, 71 in the Midwest, 60 in the Northeast, and 51 in the West.

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

In 2014, increases in the number of offers of admission to prospective international graduate students were smaller at institutions awarding larger numbers of graduate degrees to international students than institutions awarding smaller numbers of graduate degrees to international students. International offers of admission increased 6% on average (from 132,605 to 140,055) at the responding institutions that are among the 100 largest institutions in terms of graduate degrees awarded to international students, and 11% on average (from 50,994 to 56,827) 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 71% of all offers of admission reported, with the remaining 29% of all offers of admission coming from the

institutions outside the largest 100. Data on offers of admission to prospective graduate students from India drive the overall trend. For instance, offers of admission to prospective students increased 18% on average (from 35,016 to 41,320) at the 100 largest institutions. By comparison, offers of admission to prospective students increased 39% on average (from 14,184 to 19,756) at the 100 largest institutions in terms of number of degrees awarded. Data collected for two regions of origin, Europe and the Middle East, follow a similar trend in which increases in offers of admission at the 100 largest institutions are smaller than increases at institutions outside the largest 100. For example, offers of admission to prospective students from Europe increased 2% on average among the 100 largest institutions, and 5% on average among institutions outside the 100 largest institutions. Offers of admission to prospective students from Africa decreased 3% on average among the 100 largest institutions, and increased 4% on average among institutions outside the 100 largest institutions.

There were some differences in patterns of offers of admission by field of study. For instance, offers of admission in the field of engineering increased 17% on average at institutions outside the largest 100 and increased 6% on average at the largest 100 institutions. Similarly, in physical science, offers of admission increased 10% on average at the 100 largest institutions and increased 27% on average at the institutions outside the largest 100. In life sciences, offers of admission increased 5% on average at the largest 100 institutions and 3% on average at institutions outside the largest 100.

Table 3. Change in International Offers of Admission by Number of Graduate Degrees Awarded to International Students, 2013 to 2014

	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	5%	5%	5%	6%	11%
Country of Origin					
China	-2%	0%	-1%	-1%	-4%
India	18%	16%	16%	18%	39%
South Korea	-4%	-8%	-8%	-10%	1%
Taiwan	-8%	-4%	-6%	-7%	-10%
Canada	26%	21%	13%	9%	-12%
Mexico	-15%	-7%	1%	0%	8%
Brazil	107%	105%	90%	99%	83%
Region of Origin					
Africa	-15%	3%	1%	-3%	4%
Europe	-11%	-2%	3%	2%	5%
Middle East	-4%	4%	6%	2%	9%
Field of Study					
Arts & Humanities	8%	7%	7%	3%	8%
Business	-14%	3%	4%	4%	-1%
Education	21%	5%	0%	-3%	5%
Engineering	2%	3%	3%	6%	17%
Life Sciences	4%	6%	6%	5%	3%
Physical & Earth Sciences *	21%	12%	10%	10%	27%
Social Sciences & Psychology	2%	12%	6%	4%	9%
Other Fields	6%	1%	3%	3%	4%

* Physical and earth sciences includes mathematics and computer sciences.

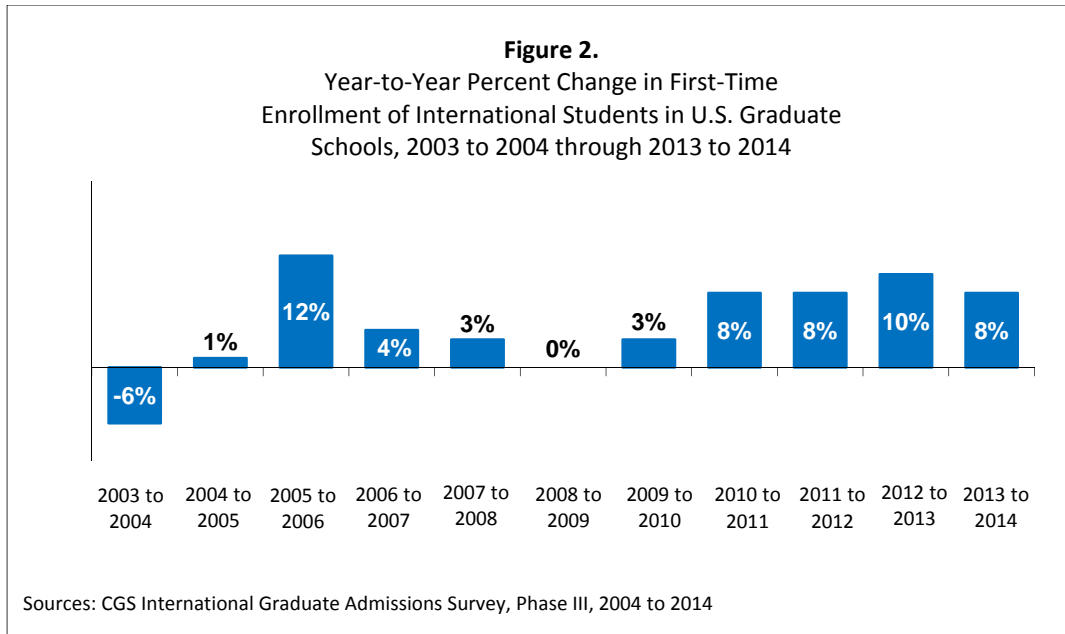
Note: Not all responding institutions provided data by country/region of origin and/or field of study.

Source: CGS International Graduate Admissions Survey, Phase III, 2014

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 2013 and 2014, slightly lower than the 10% gain in 2013, but equivalent to the 8% increases in 2012 and 2011 (see Figure 2).



First-Time Graduate Enrollment by Country/Region of Origin

By country of origin, the largest increases in first-time graduate enrollment were from students from Brazil and India (see Table 4). First-time enrollment of students from Brazil increased 91% in 2014, although the percentage is based upon a relatively small number (595 in 2013 and 1,134 in 2014). First-time enrollment of students from India increased 27% in 2014, from 17,278 to 21,889. First-time enrollments also increased among students from Mexico (8%), which was an improvement from the 2% decrease in 2013.

First-time graduate enrollment among students from China decreased 1% in 2014 (from 26,535 to 26,351), the first ever decrease in first-time enrollment of students from that country since the *CGS International Graduate Admissions Survey* was initiated in 2004. First-time graduate enrollment of students from South Korea and Taiwan also declined, 7% and 8% respectively in 2014. First-time enrollment of students from Canada also declined (-1%) in 2014.

Table 4. Change in International First-Time Graduate Enrollment, 2010 to 2011 through 2013 to 2014

	First-Time Graduate Enrollment, 2010 to 2011	First-Time Graduate Enrollment, 2011 to 2012	First-Time Graduate Enrollment, 2012 to 2013	First-Time Graduate Enrollment, 2013 to 2014
International Total	8%	8%	10%	8%
Country of Origin				
China	21%	22%	5%	-1%
India	2%	1%	40%	27%
South Korea	0%	-2%	-12%	-7%
Taiwan	--	-2%	-8%	-8%
Canada	--	4%	3%	-1%
Mexico	--	5%	-2%	8%
Brazil	--	14%	17%	91%
Region of Origin				
Africa	--	4%	5%	1%
Europe	--	1%	3%	1%
Middle East	14%	18%	10%	8%
Field of Study				
Arts & Humanities	5%	5%	9%	3%
Business	9%	15%	6%	2%
Education	12%	8%	3%	-1%
Engineering	6%	12%	17%	11%
Life Sciences	1%	1%	-3%	7%
Physical & Earth Sciences *	12%	4%	18%	20%
Social Sciences & Psychology	2%	9%	1%	2%
Other Fields	8%	8%	7%	2%

* Physical and earth sciences includes mathematics and computer sciences.

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

Source: CGS International Graduate Admissions Survey, Phase III, 2010 to 2014

Changes in first-time graduate enrollment of students from the Middle East were the largest of the three regions (8%), a trend that has been consistent for the past three years. First-time enrollment of students from the Middle East has been growing in recent years, from 14% in 2011, to 18% in 2012, and 10% in 2013. Increases in first-time enrollment by students from Africa and Europe were smaller in 2014, at 1% each.

First-Time Graduate Enrollment by Field of Study

International first-time graduate enrollment increased in all but one broad field in 2014 (see Table 4). The largest gains were in physical and earth sciences (20%) and engineering (11%). There were also increases in first-time enrollment in life sciences (7%), arts & humanities (3%), 'other' fields (2%), business (2%), and social sciences and psychology (2%). The 3% increase in arts & humanities was the largest increase among non-STEM fields. There was a 1% decrease in first-time enrollment among international students in the field of education.

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 2014 (see Table 5). At public institutions, international first-time graduate enrollment increased 9% in 2014 following an 11% gain in 2013, while at private, not-for-profit institutions international first-time graduate enrollment increased 6% in 2014 following an 8% increase in 2013.

By Carnegie classification, international first-time graduate enrollment increased 7% in 2014 at doctoral institutions following a 9% increase in 2013, and increased 30% at master's-focused institutions in 2014 (see Table 5). By Carnegie classification and institutional control, international first-time graduate enrollment increased 7% at public doctoral institutions and 5% at private, not-for-profit doctoral institutions. At master's-focused institutions, international first-time graduate enrollment increased 37% at public institutions and 20% at the master's-focused private, not-for-profit institutions. Data for master's-focused institutions should be interpreted cautiously given the small number of these institutions responding to the survey and due to the fact that a small number of first-time international graduate students are enrolled at these institutions.

Table 5. Change in International First-Time Graduate Enrollment by Institutional Control and Carnegie Classification, 2012 to 2013 and 2013 to 2014

	2012 to 2013		2013 to 2014	
	No. of Respondents	% Change in First-Time Enrollment	No. of Respondents	% Change in First-Time Enrollment
Total (All Institutions) *	273	10%	292	8%
Public	195	11%	208	9%
Private, not-for-profit	76	8%	82	6%
Doctoral Institutions *	186	9%	192	7%
Public	135	10%	140	7%
Private, not-for-profit	49	8%	52	5%
Master's-Focused Institutions	62	41%	74	30%
Public	46	50%	55	37%
Private, not-for-profit	16	20%	19	20%

* For both 2012 to 2013 and 2013 to 2014, a small number of private, for-profit institutions is included in the total but are not broken out separately by institutional control.

Note: Institutions classified as specialized or baccalaureate institutions are included in the total for all institutions but are not broken out separately.

Source: CGS International Graduate Admissions Survey, Phase III, 2013 and 2014

First-Time Graduate Enrollment by Geographic Region

International first-time graduate enrollment increased in all four major regions of the United States in 2014. International first-time graduate enrollment increased 10% in the South, 9% in the West, 8% in the Midwest, 6% in the Northeast. Of the 292 institutions that provided international first-time graduate enrollment data for both 2013 and 2014 in this year's *Phase III* survey, 109 institutions are located in the South, 71 in the Midwest, 60 in the Northeast, and 52 in the West.

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

Institutions awarding larger numbers of graduate degrees to international students had smaller increases in international first-time graduate enrollment in 2014 than institutions awarding smaller numbers of graduate degrees to international students (see Table 6). International first-time graduate enrollment increased 7% on average (from 51,709 to 55,341) at the responding institutions that are among the 100 largest in terms of graduate degrees awarded to international students, compared with a 12% average increase (from 18,901 to 21,151) 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 first-time graduate enrollment in 2014, with the remaining 28% 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, 2013 to 2014

	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	5%	7%	7%	7%	12%
Country of Origin					
China	2%	1%	0%	1%	-6%
India	19%	22%	25%	22%	38%
South Korea	-3%	-7%	-5%	-9%	3%
Taiwan	-9%	-6%	-6%	-6%	-17%
Canada	18%	11%	8%	5%	-18%
Mexico	-9%	-5%	4%	5%	15%
Brazil	127%	100%	84%	95%	80%
Region of Origin					
Africa	-16%	2%	2%	1%	2%
Europe	-12%	-4%	-1%	-1%	4%
Middle East	3%	8%	4%	3%	14%
Field of Study					
Arts & Humanities	-6%	-3%	4%	1%	5%
Business	-6%	1%	1%	2%	0%
Education	8%	5%	0%	-1%	2%
Engineering	8%	10%	10%	10%	15%
Life Sciences	12%	11%	9%	8%	5%
Physical & Earth Sciences *	19%	16%	17%	13%	35%
Social Sciences & Psychology	0%	3%	5%	3%	0%
Other Fields	4%	5%	4%	3%	-2%

* Physical and earth sciences includes mathematics and computer sciences.

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

Source: CGS International Graduate Admissions Survey, Phase III, 2014

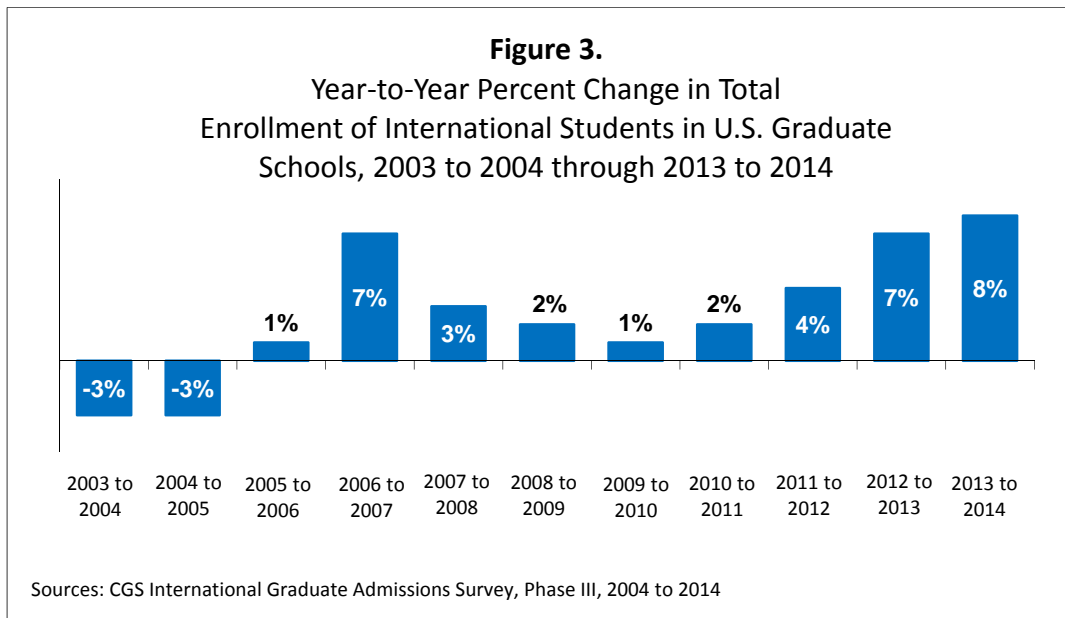
Students from India drive the overall trend in terms of first-time enrollment, with smaller increases on average at the 100 largest institutions (22%) than at the institutions outside the largest 100 (38%). First-time enrollment at the largest 100 institutions among students from China increased 1% on average, driven in particular by increases in total enrollment among the 10 largest institutions in terms of graduate degrees awarded.

In three of eight broad fields (arts and humanities, engineering, and physical and earth sciences) growth in first-time graduate enrollment was slower at the 100 largest institutions than at institutions outside the largest 100. For example, international first-time graduate enrollment in engineering increased 10% on average at the 100 largest institutions and increased 15% on average at the institutions outside the largest 100.

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 8% between 2013 and 2014 following increases of 7% in 2013 and 4% in 2012 (see Figure 3). This year’s increase is the ninth 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 India increased 26% in 2014 (see Table 7). This is the second double-digit increase in total graduate enrollment among students from India. Total graduate enrollment of students from China increased 3% in 2014, following an 11% increase in 2013, a 16% increase in 2012, and a 15% increase in 2012. Total graduate enrollment increased 32% among students from Brazil.

There were decreases in total graduate enrollment among students from all other countries captured by the survey. Total enrollment among graduate students from Taiwan and South Korea decreased 7% and 6% respectively. This marks the seventh consecutive year in which total graduate enrollment among students from South Korea has declined. Total enrollment also declined 1% each among students from Canada and Mexico.

Table 7. Change in International Total Graduate Enrollment, 2010 to 2011 through 2013 to 2014

	Total Graduate Enrollment, 2010 to 2011	Total Graduate Enrollment, 2011 to 2012	Total Graduate Enrollment, 2012 to 2013	Total Graduate Enrollment, 2013 to 2014
International Total	2%	4%	7%	8%
Country of Origin				
China	15%	16%	11%	3%
India	-6%	-3%	14%	26%
South Korea	-5%	-3%	-6%	-6%
Taiwan	--	-4%	-7%	-7%
Canada	--	3%	-1%	-1%
Mexico	--	11%	6%	-1%
Brazil	--	4%	9%	32%
Region of Origin				
Africa	--	3%	0%	3%
Europe	--	1%	1%	-1%
Middle East	11%	21%	15%	11%
Field of Study				
Arts & Humanities	1%	2%	5%	4%
Business	6%	9%	9%	-1%
Education	-1%	5%	2%	3%
Engineering	2%	6%	10%	11%
Life Sciences	0%	1%	1%	1%
Physical & Earth Sciences *	2%	4%	11%	15%
Social Sciences & Psychology	0%	5%	3%	1%
Other Fields	3%	6%	2%	1%

* Physical and earth sciences includes mathematics and computer sciences.

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

Sources: CGS International Graduate Admissions Survey, Phase III, 2010 to 2014

By region, total graduate enrollment of students from the Middle East increased 11% in 2014, marking the sixth consecutive year of double-digit increases in total enrollment among students from that region. While total graduate enrollment of students from Africa increased 3% in 2014, total graduate enrollment decreased 1% among students from Europe.

Total Graduate Enrollment by Field of Study

In 2014, international total graduate enrollment increased in all broad fields except for business, which decreased 1% (see Table 7). The largest increases in international total graduate enrollment occurred in physical and earth sciences (15%, from 44,806 to 51,569) and engineering (11%, from 66,508 to 73,658). Smaller increases were in arts & humanities (4%), education (3%), and life sciences, social sciences and psychology, and 'other' fields (1% each).

Total Graduate Enrollment by Institutional Control and Carnegie Classification

International total graduate enrollment increased at both public and private, not-for-profit institutions in 2014 (see Table 8). At public institutions, international total graduate enrollment increased 8% in 2014 following a 7% rise in 2013. At private, not-for-profit institutions, international total graduate enrollment rose 7% in 2014, the same increase as in 2013.

By Carnegie classification, international total graduate enrollment increased 6% at doctoral institutions in 2014, and 37% at master's-focused institutions (see Table 8). The 6% gain at doctoral institutions in 2014 matches the 6% gain in 2013, while the 37% increase at master's-focused institutions in 2014 follows a 14% increase in 2013. By Carnegie classification and institutional control, international total graduate enrollment increased 7% at public doctoral institutions and 5% at private, not-for-profit doctoral institutions. At master's-focused institutions, international total graduate enrollment increased 44% at public institutions, and increased 26% 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.

Table 8. Change in International Total Graduate Enrollment by Institutional Control and Carnegie Classification, 2012 to 2013 and 2013 to 2014

	2012 to 2013		2013 to 2014	
	No. of Respondents	% Change in Total Enrollment	No. of Respondents	% Change in Total Enrollment
Total (All Institutions) *	275	7%	291	8%
Public	196	7%	207	8%
Private, not-for-profit	77	7%	83	7%
Doctoral Institutions *	187	6%	193	6%
Public	136	6%	140	7%
Private, not-for-profit	49	7%	52	5%
Master's-Focused Institutions	63	14%	73	37%
Public	46	18%	54	44%
Private, not-for-profit	17	4%	19	26%

* For both 2012 to 2013 and 2013 to 2014, a small number of private, for-profit institutions are included in the totals but are not broken out separately by institutional control.

Note: 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, 2013 and 2014

Total Graduate Enrollment by Geographic Region

International total graduate enrollment increased in all four major regions of the United States in 2014. International total graduate enrollment increased 10% in the Midwest, 9% in the West, 7% in the Northeast, and 6% the South. Of the 291 institutions that provided international total graduate enrollment data for both 2013 and 2014 in this year's *Phase III* survey, 108 institutions are located in the South, 71 in the Midwest, 61 in the Northeast, and 51 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 had smaller increases in international total graduate enrollment in 2014 than institutions awarding smaller numbers of graduate degrees to international students (see Table 9). International total graduate enrollment increased 13% on average at the responding institutions that are among institutions outside the largest 100, compared with a 6% increase at the 100 largest institutions in terms of graduate degrees awarded. Among this year's *Phase III* survey respondents, the institutions that are among the 100 largest accounted for 71% of all international graduate

enrollment in 2014, with the remaining 29% 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, 2013 to 2014

	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	4%	6%	5%	6%	13%
Country of Origin					
China	3%	5%	4%	4%	-1%
India	14%	17%	18%	19%	43%
South Korea	-9%	-8%	-6%	-6%	-6%
Taiwan	-10%	-7%	-7%	-7%	-11%
Canada	-4%	-2%	-1%	-1%	0%
Mexico	-1%	-3%	2%	1%	-4%
Brazil	35%	35%	29%	33%	30%
Region of Origin					
Africa	-8%	0%	3%	2%	5%
Europe	-4%	-3%	-2%	-2%	2%
Middle East	-5%	6%	8%	8%	15%
Field of Study					
Arts & Humanities	2%	5%	5%	4%	6%
Business	-12%	-4%	-3%	-2%	2%
Education	6%	8%	4%	4%	3%
Engineering	4%	8%	8%	9%	17%
Life Sciences	2%	1%	0%	1%	3%
Physical & Earth Sciences *	14%	14%	11%	10%	28%
Social Sciences & Psychology	0%	-1%	1%	0%	3%
Other Fields	2%	-4%	-1%	0%	4%

* Physical and earth sciences includes mathematics and computer sciences.

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

Source: CGS International Graduate Admissions Survey, Phase III, 2014

For students from India, total graduate enrollment increased 19% on average at the 100 largest institutions, and 43% on average at institutions outside the largest 100. For students from China, total graduate enrollment increased 4% at the 100 largest institutions and decreased 1% at institutions outside the largest 100. For students from South Korea, there was a 6% decrease in total enrollment among the 100 largest institutions as well as institutions outside the largest 100. Education was the only field of study that did not reflect the overall trend. Specifically, the

increase in total enrollment among international graduate students in education decreased 2% at the 100 largest institutions and increased 2% at the institutions outside the largest 100.

V. Summary and Conclusions

Summary

The results of the *2014 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* revealed that 198,399 offers of admission were made to prospective international graduate students in 2014. Offers of admission to U.S. graduate schools increased 7% between 2013 and 2014. Offers of admission to prospective graduate students from India increased 24%, while offers of admission to prospective graduate students from China declined 2%. This is the second consecutive year in which offers of admission for prospective graduate students from China did not realize a double-digit increase. Offers of admission to prospective students from Brazil and the Middle East continue to increase.

Survey respondents reported a total of 76,821 international first-time enrollees in 2014. The *Phase III* survey results show that first-time enrollment of international students in U.S. graduate schools increased 8% between 2013 and 2014. First-time enrollment among students from China decreased 1%, marking the second consecutive year without double-digit increases in first-time graduate enrollment among students from that country. In contrast, first-time enrollment among students from India increased 27% in 2014, the second consecutive year of double-digit increases in first-time enrollment of students from that country. Although comparatively small in numbers, it is notable that first-time enrollment among students from Brazil rose 91%.

By field of study, the largest gains were in physical and earth sciences (20%) and engineering (11%). First-time enrollment in business, a field which has traditionally been popular among international students, increased 2% overall in 2014, which is low compared to prior years. First-time enrollment in arts & humanities increased 3% in 2014, representing the second consecutive year in which this was the case. Moreover, first-time enrollment declined 6% at institutions that award the largest number of graduate degrees. Growth in first-time enrollment in business was fairly evenly distributed among institutions that ranked between the 10 and 100 largest graduate degree granting institutions.

Finally, respondents to the *2014 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment* reported that 236,747 international graduate students were enrolled in graduate programs in 2014. Total graduate enrollment of international students in U.S. graduate schools increased 8% in 2014 following increases of 7% in 2013 and 4% in 2012. Whereas total graduate enrollment of students from China rose 3% in 2014, this increase was

considerably smaller than the double-digit increases seen in previous years. Total graduate enrollment of students from India increased 26%, the second consecutive year of double-digit increases in total enrollment among students from that country. Total graduate enrollment of students from Taiwan and South Korea declined 7% and 6% respectively. By field of study, the largest increase in international total graduate enrollment occurred in physical and earth sciences (15%) and engineering (11%). There was a 1% decrease in total enrollment in business.

Conclusions

The 2014 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment shows continued growth in offers of admission, first-time enrollment, and total enrollment among international graduate students at U.S. institutions, an indicator that U.S. institutions remain a destination of choice for many of the world's students.

Growth in first-time enrollment is particularly robust in physical & earth sciences as well as engineering, two traditionally popular fields of study among international students. However, first-time enrollment in the field of business, another traditionally popular field of study among international students, is waning. The 2% increase in first-time enrollment among international students in the field of business in 2014 was the lowest seen since 2010, and the 1% decrease in total enrollment in business was the first decrease in this field of study in ten years.

The recent surge in first-time enrollment among students from India is undoubtedly offsetting declines in first-time enrollment among students from China, as well as the persistent declines from South Korea and Taiwan. Due to the fact that graduate students from China outnumber graduate students from any other nation, including India, continuing stagnation and declines in enrollment among students from that country will necessitate increases from many other countries in order to maintain current rates of growth. Brazil and the greater Middle East are two examples of areas that have shown steady increases in first-time enrollment over the past three years.

Finally, increases in first-time enrollment appears to be concentrated at either institutions that are among the top 10 institutions awarding graduate degrees to international students, or institutions outside the largest 100. The greatest rates of growth in first-time enrollment among students from Brazil, China, and Canada, for example are at the top 10 institutions, while the greatest rates of growth in first-time enrollment among students from India, South Korea, and Mexico are among institutions outside the top 100. This reflects a different pattern in first-time enrollment by this particular institutional characteristic.

Appendix A.
2014 CGS International Graduate Admissions Survey, Phase III:
Final Offers of Admission and Enrollment

Institution ID: _____

Institution Name: _____

Name of Individual Completing the Survey: _____

Phone Number: _____ E-mail: _____

Note: Question 1 applies only to U.S. citizens and permanent residents.

1. Please provide the number of **U.S. citizens and permanent residents** enrolled for the **first time** at your institution in graduate certificate, education specialist, master's, or doctoral programs for the fall term in 2013 and the fall term in 2014 *as of October 1st or the same date each year.*

U.S. Citizen and Permanent Resident

First-time Graduate Enrollment:

Fall 2013

Fall 2014

2. Please provide the final number of offers of admission granted by your institution to prospective **international graduate students** for fall 2013 and fall 2014. In addition, please provide first-time and total enrollment figures for international graduate students at your institution *as of October 1st or the same date each year.* See the *Survey Instructions and Definitions* for detailed instructions, definitions, and taxonomy.

Total Non-U.S. Citizens		Fall 2013	Fall 2014
Total Non-U.S. Citizens (<i>from all countries/regions outside the U.S.</i>)	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		

Select Countries of Origin		Fall 2013	Fall 2014
China	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
India	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		

(Continued on the next page)

Select Countries of Origin (continued)		Fall 2013	Fall 2014
South Korea	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Taiwan	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Canada	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Mexico	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Brazil	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		

Select Regions of Origin <i>(see region definitions on page 5)</i>		Fall 2013	Fall 2014
Africa	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Europe	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Middle East	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		

Total Non-U.S. Citizens by Field of Study <i>(see taxonomy on page 7)</i>		Fall 2013	Fall 2014
Arts and Humanities	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Business	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Education	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		

(Continued on the next page)

Total Non-U.S. Citizens by Field of Study (continued)		Fall 2013	Fall 2014
Engineering	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Life Sciences	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Physical and Earth Sciences <i>(incl. Math & Computer Science)</i>	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Social Sciences and Psychology	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		
Other Fields	Offers of Admission		
	First-Time Enrollment		
	Total Enrollment		

Appendix B
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

LIFE SCIENCES

Agriculture, Natural Resources & Conservation
Biological & Biomedical Sciences

Appendix C. Final Number of Applications and Offers of Admission, First-time Enrollment and Total Enrollment by Field of Study, Fall 2014

	Final Number of Applications, Fall 2014	Final Number of Offers of Admission, Fall 2014	First-time Graduate Enrollment Fall 2014	Total Graduate Enrollment, Fall 2014
International Total	747,577	198,399	76,821	236,747
Field of Study				
Arts & Humanities	36,156	7,792	3,676	13,365
Business	108,067	31,536	13,079	30,150
Education	14,943	5,319	2,261	8,205
Engineering	246,771	70,268	24,031	73,715
Life Sciences	66,281	12,652	6,292	25,939
Physical & Earth Sciences	160,678	43,362	16,235	51,721
Social Sciences & Psychology	64,294	12,228	4,691	15,917
Other Fields	38,337	13,509	5,334	13,478

Note: Not all responding institutions provided data by field of study. This data represent only those data reported by institutions responding to the survey.

Source: CGS International Graduate Admissions Survey, Phase II & III, 2014

Appendix D. Final Number of Applications, Offers of Admission, First-time Enrollment, and Total Enrollment by Country/Region of Origin, Fall 2014

	Final Number of Applications, Fall 2014	Final Number of Offers of Admission, Fall 2014	First-time Graduate Enrollment Fall 2014	Total Graduate Enrollment, Fall 2014
International Total	747,577	198,399	76,821	236,747
Country of Origin				
China	292,649	74,241	26,563	79,118
India	203,583	61,192	21,916	54,245
South Korea	30,139	5,498	2,536	11,080
Taiwan	19,591	3,755	1,629	6,018
Canada	11,006	3,029	1,492	5,161
Mexico	4,190	1,400	817	2,839
Brazil	5,939	2,069	1,141	2,583
Region of Origin				
Africa	19,973	5,118	2,124	7,438
Europe	38,697	10,237	5,281	18,164
Middle East	52,094	11,340	4,425	16,851

Note: Not all responding institutions provided data by country/region of origin. These data represent only those data reported by the institutions responding to the survey.

Sources: CGS International Graduate Admissions Survey, Phase II & III, 2014
