

# Findings from the 2013 CGS International Graduate Admissions Survey

## **Phase I: Applications**

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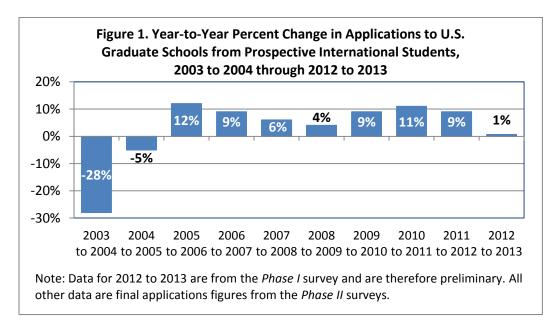


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#### Overview

In 2004, the Council of Graduate Schools (CGS) began a multi-year empirical examination of international graduate application, admission, and enrollment trends in response to member institutions' concerns about continuing changes in the enrollment of students from abroad seeking master's and doctoral degrees from U.S. colleges and universities. The core of this examination is a three-phase survey of CGS member institutions. The *CGS International Graduate Admissions Survey* collects an initial snapshot of applications to U.S. graduate schools from prospective international students (*Phase I,* conducted in February each year), final applications and an initial picture of admission and first-time and total international graduate student (*Phase III,* October).<sup>1</sup>

Data from this year's *Phase I* survey indicate that applications from prospective international students to U.S. graduate schools increased by only 1% between 2012 and 2013, the smallest growth in eight years (see Figure 1). In previous years, positive changes in international applications ranged from a high of 12% between 2005 and 2006, to a low of 4% in between 2008 and 2009. The slowdown appears to be driven primarily by the decline in applications from China (see Table 2).



As reported earlier by CGS,<sup>2</sup> first-time graduate enrollment among students from China rose 22% between 2011 and 2012, the seventh consecutive year of double-digit growth. As of 2011, Chinese students constituted roughly one-third of all international graduate students in the

<sup>&</sup>lt;sup>1</sup> See <u>http://www.cgsnet.org/benchmarking/international-graduate-admissions-survey</u> for reports from the CGS International Graduate Admissions Survey from 2007 to present.

<sup>&</sup>lt;sup>2</sup> Allum, J.R. (2012). *Findings from the 2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools.

United States.<sup>3</sup> Such large numbers have helped to mitigate two-years of declines in first-time enrollment among all graduate students attending U.S.-based institutions.<sup>4</sup>

This report first describes the survey methodology used to collect data and calculate changes in international applications from 2012 to 2013. The second section presents the current survey results on applications from prospective international students to U.S. graduate schools and compares the one-year changes to those in prior years. Section three provides a summary and conclusions.

#### I. Survey Methodology and Response Rate

The survey population for the 2013 CGS International Graduate Admissions Survey, Phase I: Applications consisted of all 507 U.S. colleges and universities that were members of CGS as of January 2013.<sup>5</sup> A link to the survey instrument was e-mailed to the graduate dean and data coordinators (or equivalent) at each member institution on January 28, 2013, and responses were collected electronically through March 22, 2013.

The survey asked institutions to report the numbers of applications for admission to graduate programs from prospective international students for fall 2012 and fall 2013, as of the same date each year. See Appendix A for the survey questionnaire and taxonomy of fields of study. 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. While the aggregate data reflect applications for all international students, institutions were also asked to provide specific data on applications from students who originate from seven key sending countries and three key sending regions and for eight broad fields of study.

A total of 276 institutions responded to the survey, for a response rate of 54%. 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 (80%), 20 of the 25 largest (80%), 44 of the 50 largest (88%), and 76 of the 100 largest (76%) responded to the survey.<sup>6</sup> The high response rates from these institutions are important because collectively the 100 largest institutions confer 59% of all graduate degrees awarded annually to international students in the United States.<sup>7</sup> Overall, the 276 institutions responding to the *Phase I* survey conferred about 64% of the approximately 103,000 graduate degrees awarded

<sup>&</sup>lt;sup>3</sup> Allum, J.R. (2012). *Findings from the 2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools; Institute of International Education. "International Students by Academic Level and Place of Origin, 2011/12." Open Doors Report on International Educational Educational Exchange. Retrieved from <u>http://www.iie.org/opendoors</u> on March 25, 2013.

<sup>&</sup>lt;sup>4</sup> Allum, J.R., Bell, N.E., and Sowell, R.S. (2012). *Graduate Enrollment and Degrees: 2001 to 2011*. Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>5</sup> CGS also has member institutions in Canada and global affiliates. These institutions are not included in the survey population for the CGS International Graduate Admissions Survey.

<sup>&</sup>lt;sup>6</sup> These figures are based on graduate degrees awarded in academic year 2010-11. Data were derived from the Integrated Postsecondary Education Data System (IPEDS) data files (http://nces.ed.gov/ipeds/).

<sup>&</sup>lt;sup>7</sup> See footnote 6.

to international students in the United States in 2010-11, suggesting that the survey results accurately depict recent trends in international applications to U.S. graduate schools.<sup>8</sup>

Institutions responding to the *Phase I* survey provided data on a total of 555,824 applications to U.S. graduate schools by prospective international students for fall 2013. In a few cases, institutions were unable to provide data for both 2012 and 2013 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.

For some campuses, the *Phase I* survey was administered early in their application cycles, before final numbers were known. These institutions provided preliminary applications figures. For that reason, the survey results (described in the next section of this report) should be considered preliminary, subject to revision in the 2013 *Phase II* survey when final applications numbers are reported. Nonetheless, past *Phase I* surveys have shown that because of the high response rates among the institutions awarding large numbers of graduate degrees to international students and the large numbers of applications represented in the *Phase I* survey data, the overall results accurately illustrate the trends in international graduate applications in the United States.

#### **II. Survey Results**

#### Total Number of Applications

This year, applications to U.S. graduate schools from prospective international students marks the smallest growth in applications over the past eight years. Between 2012 and 2013, international graduate applications increased by only 1%, following a 9% gain in 2012 and an 11% increase in 2011 (see Table 1 on the following page).

The majority of this year's *Phase I* survey respondents reported an increase in applications from prospective international students in 2013. Of the 248 institutions that provided total applications data for both 2012 and 2013 in this year's *Phase I* survey, 129 (52%) reported an increase in international applications for fall 2013, with an average increase of 9% at these institutions. At the 119 institutions (48%) reporting a decrease, the average decline in international applications was 7%.

### Applications by Field of Study

According to CGS's *Graduate Enrollment and Degrees: 2001 to 2011* report, international students comprise about 15% of all students at U.S. graduate schools, but three-quarters (76%) of all international students at U.S. graduate schools are enrolled in natural sciences, engineering, and business fields, and just one-quarter (24%) are in social sciences, arts &

humanities, education, and other fields.<sup>9</sup> More than one-quarter (27%) of all international graduate students at U.S. institutions are enrolled in engineering, 17% are in business, and 20% are in physical and earth sciences and mathematics and computer sciences.<sup>10</sup> Just 8% of all international graduate students at U.S. institutions are enrolled in social sciences & psychology, 6% are in arts & humanities, 4% are in education, and 5% are in 'other' fields.<sup>11</sup>

	Final Number of Applications, 2009 to 2010	Final Number of Applications, 2010 to 2011	Final Number of Applications, 2011 to 2012	Preliminary Number of Applications, 2012 to 2013
International Total	9%	11%	9%	1%
Field of Study				
Arts & Humanities	9%	8%	7%	4%
Business	11%	11%	7%	2%
Education	8%	13%	18%	-3%
Engineering	8%	14%	14%	2%
Life Sciences	2%	8%	-1%	-7%
Physical & Earth Sciences	10%	15%	8%	3%
Social Sciences & Psychology	11%	5%	11%	1%
Other Fields	13%	10%	9%	4%

**Table 1.** Change in International Graduate Applications by Field of Study,

 2009 to 2010 through 2012 to 2013

Notes: Not all responding institutions provided data by field of study. See Appendix A for the survey taxonomy.

Sources: CGS International Graduate Admissions Survey, Phase II, 2010 to 2012, and Phase I, 2013

The *Phase I* survey results indicate that increases in international applications slowed markedly in all broad fields of study in 2013, with the exception of education and life sciences, where applications decreased by 3% and 7% respectively (see Table 1).<sup>12</sup> In 2013, the arts & humanities and 'other' fields disciplines had the largest increase in international applications with a 4% increase in each discipline, while the smallest gain in international applications in 2013 was in social sciences & psychology (1%).

<sup>&</sup>lt;sup>9</sup> Allum, J.R., Bell, N.E., and Sowell, R.S. (2012). *Graduate Enrollment and Degrees: 2001 to 2011*. Washington, DC: Council of Graduate Schools. Natural sciences includes biological and agricultural sciences, health sciences, mathematics and computer sciences, and physical and earth sciences. Social sciences include public administration and services and social and behavioral sciences.

<sup>&</sup>lt;sup>10</sup> See footnote 9.

<sup>&</sup>lt;sup>11</sup> See footnote 9.

<sup>&</sup>lt;sup>12</sup> See Appendix A for the survey taxonomy.

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#### Applications by Country/Region of Origin

Since 2004, the *CGS International Graduate Admissions Survey* has collected data on four key sending countries or regions: China, India, South Korea, and the Middle East. China, India, and South Korea were included in the survey since they are the top three countries of origin for international graduate students in the United States. Countries in the Middle East were included because of the geopolitical importance of this region. It is important to note that prior to 2012 data for Cyprus and Turkey were included in the Middle East, but are now included in Europe.

In 2012, the list of countries and regions included in the survey was expanded. In addition to collecting aggregate data on the total number of applications to U.S. graduate schools from prospective international students, the survey now collects data on seven specific sending countries (China, India, South Korea, Taiwan, Canada, Mexico, and Brazil) and three regions (Africa, Europe, and the Middle East).<sup>13</sup> China, India, South Korea, Taiwan, and Canada are the top five countries of origin for international graduate students in the United States. Collectively, students from these five countries account for about 63% of all non-U.S. citizens on temporary visas attending U.S. graduate schools, according to research from both CGS and the Institute of International Education.<sup>14</sup> Mexico and Brazil are included in the survey because they are the largest sending countries from Central America and South America, respectively. Altogether, the seven countries and three regions included in the CGS International Graduate Admissions Survey account for the home countries of about 86% of all international graduate students in the United States. Thus, examination of international application trends of prospective graduate students from these countries and regions provides a good leading indicator of the potential future changes in final applications, admissions, and enrollment trends in international students attending U.S. graduate schools.

Graduate applications from prospective students from five of the seven sending countries covered by this survey declined between 2012 and 2013, while applications from the remaining two countries, Brazil and India, increased by 24% and 20% respectively (see Table 2). The largest decline in international applications in 2013 for the seven countries and three regions covered by this survey was from South Korea and Taiwan, where applications in both countries declined by 13%. Declines in international applications from prospective students also occurred from Mexico (-11%) and Canada (-4%)

<sup>&</sup>lt;sup>13</sup> Africa includes Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Côte d'Ivoire (Ivory Coast), Democratic Republic of the Congo (formerly Zaire), Djibouti, Egypt, Eritrea, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Réunion, Rwanda, Sahrawi Arab Democratic Republic, Saint Helena, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe. *Europe* includes: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, and Vatican City. The *Middle East* includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen.

<sup>&</sup>lt;sup>14</sup> See footnote 3.

# **Table 2.** Change in International Graduate Applications by Country/Region of Origin,2009 to 2010 through 2012 to 2013

	Final Number of Applications, 2009 to 2010	Final Number of Applications, 2010 to 2011	Final Number of Applications, 2011 to 2012	Preliminary Number of Applications, 2012 to 2013
International Total	9%	11%	9%	1%
Country of Origin				
China	20%	21%	19%	-5%
India	1%	8%	3%	20%
South Korea	0%	2%	-1%	-13%
Taiwan			-2%	-13%
Canada			7%	-4%
Mexico			10%	-11%
Brazil			9%	24%
Region of Origin				
Africa			-3%	6%
Europe			7%	-4%
Middle East *	20%	16%	11%	2%

Note: Not all responding institutions provided data by country/region of origin.

\* Prior to 2012, data for Cyprus and Turkey were included with the Middle East, but are now included with Europe.

Sources: CGS International Graduate Admissions Survey, Phase II, 2010 to 2012, and Phase I, 2013

In 2013, applications from China declined by five percent, a stark contrast to the double-digit increases between 2010 and 2012. China remains the largest country of origin for international graduate students in the United States. During the 2011-12 academic year, China sent approximately 29% of all international students to U.S. institutions, while India sent about 20%, and Brazil sent about 1% of all international students.<sup>15</sup>

Across the three regions covered by this survey, international applications increased between 2012 and 2013 in Africa (6%) and the Middle East (2%), while in Europe, applications declined by 4%.

<sup>&</sup>lt;sup>15</sup> See footnote 3. Council of Graduate Schools

#### Applications by Institutional Control and Carnegie Classification

International applications increased at public institutions (3%), but declined at private, not-forprofit institutions (-4%) in 2013 (see Table 3).<sup>16</sup> This year's survey results contrast trends from the previous two years, where the gains at private, not-for-profit institutions outpaced those at public institutions.

<b>Table 3.</b> Change in InternationCarnegie Classification, 2010		•	onal Control and
	Final % Change in Applications 2010 to 2011	Final % Change in Applications 2011 to 2012	Preliminary % Change in Applications 2012 to 2013
Total (All Institutions)	11%	9%	1%
Public	10%	8%	3%
Private, not-for-profit	16%	12%	-4%
Doctoral Institutions	11%	10%	1%
Public	9%	9%	3%
Private, not-for-profit	16%	13%	-5%
Master's-Focused Institutions	15%	-5%	18%
Public	16%	-5%	11%
Private, not-for-profit	12%	-5%	24%

Notes: Carnegie classifications are based on the 2010 Carnegie Classification of Institutions of Higher Education. Private, for-profit institutions and institutions classified as specialized or baccalaureate institutions are included in the totals but are not broken out separately. Sources: CGS International Graduate Admissions Survey, Phase II, 2011 and 2012, and Phase I, 2013

By Carnegie classification, applications from prospective international graduate students increased 18% on average at master's-focused institutions in 2013, a sharp increase from the 5% decline that occurred in 2012.<sup>17</sup> International applications increased by 1% at doctoral institutions in 2013, following a 10% increase in 2012. In the 2013 *Phase I* survey, just 2% of all

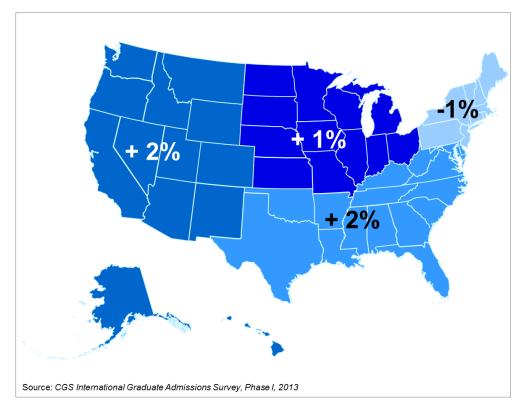
<sup>&</sup>lt;sup>16</sup> Of the 248 institutions that provided total applications data for both 2012 and 2013 in this year's *Phase I* survey, 178 were public institutions, and 70 were private, not-for profit institutions.

<sup>&</sup>lt;sup>17</sup> Institutions were coded according to their 2010 Carnegie basic classification. In the analysis, the responding institutions classified as RU/VH: Research Universities (very high research activity), RU/H: Research Universities (high research activity), or DRU: Doctoral/Research Universities were grouped as doctoral institutions. The responding institutions classified as Master's/L: Master's Colleges and Universities (larger programs), Master's/M: Master's Colleges and Universities (medium programs), or Master's/S: Master's Colleges and Universities (smaller programs) were grouped as master's institutions. Responding institutions classified as specialized or baccalaureate institutions were excluded from this particular analysis.

applications from prospective international students were for admission to master's-focused institutions.<sup>18</sup>

#### Applications by Geographic Region

Applications to U.S. graduate schools from prospective international students increased slightly in all four major regions of the United States in 2012, except the Northeast (see Figure 2). International applications increased the most in the South and West (2% in each region), and by 1% in the Midwest. Applications decreased by 1% in the Northeast.<sup>19</sup>



#### Figure 2. Year-to-Year Percent Change in International Applications by Geographic Region, 2012 to 2013

<sup>&</sup>lt;sup>18</sup> The data for private, not-for-profit master's-focused institutions should be interpreted cautiously given the small number of these institutions responding to the survey.

<sup>&</sup>lt;sup>19</sup> Of the 248 institutions that provided total applications data for both 2011 and 2012 in this year's *Phase I* survey, 53 institutions are located in the Northeast, 61 in the Midwest, 89 in the South, and 45 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.

#### Applications by Number of Graduate Degrees Awarded to International Students

The overall changes in the numbers of applications from prospective international students potentially mask substantial differences between institutions with small and large numbers of international students. To show the variation in trends, CGS reports changes in international applications by the number of graduate degrees awarded to international students. Table 4 displays the changes in international graduate applications from 2012 to 2013 for the responding colleges and universities that are among the 10, 25, 50, and 100 largest in terms of the numbers of graduate degrees awarded to international students. In addition, data are presented for all responding institutions outside the largest 100. The rankings are based on data from the Integrated Postsecondary Education Data System (IPEDS).<sup>20</sup>

	All Institutions	10 Largest Institutions	25 Largest Institutions	50 Largest Institutions	100 Largest Institutions	All Other Institutions
International Total	1%	-6%	-1%	0%	1%	0%
Country of Origin						
China	-5%	-10%	-6%	-4%	-4%	-6%
India	20%	8%	15%	19%	20%	19%
South Korea	-13%	-15%	-15%	-15%	-14%	-9%
Taiwan	-13%	-11%	-10%	-11%	-12%	-19%
Canada	-4%	-4%	-4%	-3%	-4%	-4%
Mexico	-11%	-2%	-7%	-7%	-8%	-23%
Brazil	24%	13%	23%	22%	25%	21%
Region of Origin						
Africa	6%	21%	10%	9%	6%	5%
Europe	-4%	-6%	-3%	-3%	-4%	-4%
Middle East	2%	-4%	0%	1%	1%	4%

**Table 4.** Change in International Graduate Applications by Country/Region of Origin and Numberof Graduate Degrees Awarded to International Students, 2012 to 2013

Notes: The rankings are based on data from the Integrated Postsecondary Education Data System (IPEDS). See footnote 3 for more information. Not all responding institutions provided data by country of origin. Source: *CGS International Graduate Admissions Survey, Phase I, 2013* 

Although international applications in 2013 increased only slightly overall, application trends were stronger on average (i.e., larger gains and smaller declines) at institutions awarding large numbers of graduate degrees to international students than at institutions awarding smaller numbers of graduate degrees to international students. International graduate applications increased 1% on average at the responding institutions that are among the 100 largest institutions compared with no change at all other institutions (see Table 4). Stronger application

<sup>&</sup>lt;sup>20</sup> See footnote 6 for more information.

**Council of Graduate Schools** 

patterns at the top 100 institutions that award the highest number of graduate degrees to international students were true, on average, for applications from prospective students from Africa, China, India, Taiwan, Mexico, and Brazil. At these institutions, applications from Africa, Brazil, and India increased more, while applications from China, Taiwan, and Mexico had slower declines than at institutions outside the largest 100. In contrast, applications from prospective graduate students from the Middle East increased more and applications from South Korea declined less at the institutions outside the 100 largest institutions.

#### **III. Summary and Conclusions**

#### Summary

The results of the 2013 CGS International Graduate Admissions Survey, Phase I: Applications indicate that applications to U.S. graduate schools from prospective international students slowed to a mere 1% increase between 2012 and 2013, the smallest gain over the past eight years. This year's increase follows a 9% gain between 2011 2012 and an 11% increase between 2010 and 2011. Increases in international applications also slowed substantially across all broad fields of study in 2013, with the exception of education and life sciences, in which applications declined by 3% and 7% respectively. Small gains occurred in the arts & humanities (4%), 'other' fields (4%), physical & earth sciences (3%), business (2%), engineering (2%), and social sciences & psychology (1%).

With the exception of Brazil and India, from which applications increased by 24% and 20% respectively, applications from prospective graduate students declined from the other five sending countries covered by this survey. Last year, increases in applications from Brazil and India were 9% and 3% respectively. International applications from China, which in previous years had double-digit growth, declined by 5% in 2013. Declines also occurred in applications from prospective graduate students from South Korea (-13%), Taiwan (-13%), Mexico (-11%), and Canada (-4%). Across the three regions covered by this survey, international applications from prospective graduate students increased from Africa (6%) and the Middle East (2%), but declined from Europe (-4%).

International applications increased at public institutions by 3%, but declined at private, notfor-profit institutions by almost the same amount (-4%). By Carnegie classification, graduate applications from prospective international students increased 18% at master's-focused institutions, and increased by 1% at doctoral institutions.

Although international applications in 2013 increased by only 1% overall, international applications in 2013 were stronger on average (i.e., larger gains and smaller declines) at the top 100 institutions that award the highest number of graduate degrees to international students. International graduate applications increased 1% on average at the responding institutions that were among the 100 largest, compared with no change at the institutions outside the largest 100. This pattern of stronger applications at the largest 100 institutions was true, on average, for applications from prospective students from Africa, China, India, Taiwan, Mexico, and Brazil.

#### Conclusions

The data from the 2013 CGS International Graduate Admissions Survey, Phase I: Applications indicate a substantial shift in the robust growth in applications from prospective international graduate students over the past eight years. The slowdown in international applications appears to have been driven primarily by the five percent decline in applications from China, although growth in the number of applications from India and Brazil, and smaller increases in applications from Africa and the Middle East helped to offset the overall declines.

The decline in applications from prospective international applications from China is particularly dramatic, since the growth in first-time graduate enrollment among students from China has been so robust over the past several years. For example, first-time enrollment among students from China grew by 22% between 2011 and 2012,<sup>21</sup> the seventh consecutive year of double-digit growth. This level of growth has helped to mitigate two-years of declines in first-time enrollment among all graduate students attending U.S.-based institutions,<sup>22</sup> and significant declines in applications from China may contribute to continuing declines in first-time enrollments as well.

It is worth noting that unlike previous years, the 2013 *Phase I* survey results indicated that increases in international applications at doctoral institutions slowed substantially to only 1%, and that international application growth was stronger at public institutions than at private, not-for-profit institutions.

Applications are a key indicator of interest among international students in U.S. graduate programs, but an application may or may not result in the enrollment of a student in a U.S. graduate program. Changes in the average number of applications per applicant, competition from other countries for international students, decisions by universities on the numbers of applicants to accept for fall 2013, and the dollar value of the financial aid packages offered to prospective international students will all affect the ultimate enrollment of international students in U.S. graduate programs. Although the 1% increase in international applications for fall 2013 suggests that first-time enrollment among international students may remain relatively flat, the scope of that change will not be revealed until the *Phase II* and *Phase III CGS International Graduate Admissions Surveys* are conducted later this year.

<sup>&</sup>lt;sup>21</sup> Allum, J.R. (2012). *Findings from the 2012 CGS International Graduate Admissions Survey, Phase III: Final Offers of Admission and Enrollment*. Washington, DC: Council of Graduate Schools.

<sup>&</sup>lt;sup>22</sup> Allum, J.R., Bell, N.E., and Sowell, R.S. (2012). *Graduate Enrollment and Degrees: 2001 to 2011*. Washington, DC: Council of Graduate Schools.

Appendix A Survey Questionnaire and Taxonomy of Fields of Study



### 2013 CGS International Graduate Admissions Survey, Phase I: Applications

Institution Name: \_\_\_\_\_\_\_\_Name of Individual Completing the Survey: \_\_\_\_\_\_\_\_Phone Number: \_\_\_\_\_\_\_ E-mail: \_\_\_\_\_\_\_

For our on-going effort to monitor international student admissions, please estimate the number of graduate applications your institution received from international students for Fall 2012 and Fall 2013 as of the same date each year. (For example, Fall 2012 applications as of 2/15/12 and Fall 2013 applications as of 2/15/13 See pages 3-9 for the instructions, definitions, and taxonomy).

I. Total Non-U.S. Citizens	Fall 2012 Applications	Fall 2013 Applications
Total Non-U.S. Citizens (see definition on page 3)		

II. Non-U.S. Citizens from Select Countries/Regions of Origin	Fall 2012 Applications	Fall 2013 Applications
Countries (see definitions on page 4)		
China		
India		
South Korea		
Taiwan		
Canada		
Mexico		
Brazil		
<b>Regions</b> (see definitions on page 4)		
Africa		
Europe		
Middle East		

(continued on page 2)

III. Total Non-U.S. Citizens by Field of Study (see definitions on page 5)	Fall 2012 Applications	Fall 2013 Applications
Arts & Humanities		
Business		
Education		
Engineering		
Life Sciences		
Physical & Earth Sciences (incl. Math & Comp. Sci.)		
Social Sciences & Psychology		
Other Fields		

Please submit your survey by Friday, March 1, 2013. Click the "Submit Form" button in the right-hand corner of the purple dialogue banner to send your completed survey to CGS.

You will NOT be able to submit this form through the "Preview" function on Mac computers. You MUST use Adobe Reader. To open the form with Adobe Reader, install Adobe Reader (<u>http://get.adobe.com/reader/</u>), launch Adobe Reader, go to File-> Open and select the PDF form.

If you are unable to submit using the "Submit Form" button, please send completed surveys as an attachment to CGS Research at <u>research@cgs.nche.edu</u> with "Submitting Completed Form" in the subject line.

#### **Questions?**

If you have problems submitting your survey electronically, please contact Jeannette Remington at (202) 461-3860 or <u>jremington@cgs.nche.edu</u>. For all other questions, please contact Leila Gonzales, Manager of Surveys and Information Services at (202) 461-3886 or <u>Igonzales@cgs.nche.edu</u>.

#### SURVEY INSTRUCTIONS AND DEFINITIONS

#### About the Survey:

The 2013 CGS International Graduate Admissions Survey, Phase I: Applications is being sent to all U.S. colleges and universities that are members of the Council of Graduate Schools (CGS) as of January 2013 in order to provide an initial snapshot of graduate school applications for Fall 2013. The survey asks institutions to report the numbers of applications for admission to graduate certificate and degree programs from prospective international students. The three-part *International Graduate Admissions Survey* has been conducted annually by CGS since 2004. Survey reports are available online at <u>www.cgsnet.org</u>.

#### **Confidentiality:**

All data and information submitted for the *CGS International Graduate Admissions Survey* will be treated as confidential and will only be used for research or statistical purposes by CGS. Any information released publicly will be in a format that does not allow the identification of institutions or the personal identification of students. All survey data are stored on a secure, password-protected server, and access to the raw survey data is restricted to those individuals directly involved in the data collection and analysis. Participation in the *CGS International Graduate Admissions Survey* is voluntary.

#### **Survey Instructions and Definitions:**

- Please provide international applications data for Fall 2012 and Fall 2013 as of the same date each year. For example, if you provide data for Fall 2012 applications as of 2/15/12, provide Fall 2013 applications data as of 2/15/13. Since we are measuring changes in applications from year to year, it is important that we compare data from the same point in time each year.
- The Phase I survey collects data on <u>applications</u>, not applicants. If a student applied to more than one graduate program, both applications should be counted and included in your survey data.
- Only report data for non-U.S. citizens on temporary visas. Non-U.S. citizens are students or prospective students who are not citizens, nationals, or permanent residents of the United States. These individuals will be expected to be in the United States on a student visa, or on a temporary basis, and do not have the legal right to remain indefinitely. Students or prospective students from Puerto Rico, Guam, the U.S. Virgin Islands, or other U.S. territories are considered citizens of the United States and thus should not be included in the survey data. Undocumented students (i.e., illegal aliens) should not be included in the survey data.
- Submission instructions: After filling in all fields, please click the "Submit Form" button in the right-hand corner of the document window. A new window will appear in Adobe titled "Send Form". Enter your e-mail address and your name. Hit the "Send" button in the bottom right-hand corner of the dialogue box. Forms cannot be completed and sent through the "Preview" function on Mac computers. You MUST open the form in Adobe Reader. If you are unable to submit using the "Submit Form" button, please send completed surveys as an attachment to CGS Research at research@cgs.nche.edu. We prefer to receive the survey data electronically, but if you are unable to submit by e-mail, please print the completed form and fax it to 202-331-7157.
- Confirmation of receipt: Within two business days of electronic submission you will receive e-mail verification from CGS that your survey was successfully submitted. If you do not receive this e-mail confirmation, please contact Jeannette Remington at <u>jremington@cgs.nche.edu</u> or (202) 461-3860.
- The survey response deadline is Friday, March 1, 2013.
- **Contact information:** If you have problems submitting your survey electronically, please contact Jeannette Remington at (202) 461-3860 or <u>iremington@cgs.nche.edu</u>. For all other questions, please contact Leila Gonzales, Manager of Surveys and Information Services at (202) 461-3886 or <u>lgonzales@cgs.nche.edu</u>.

#### SECTION I: TOTAL NON-U.S. CITIZENS

- When providing data for Section I, "Total Non-U.S. Citizens," include non-U.S. citizens on temporary visas from *all* countries and regions of origin, not just those listed in Section II.
- Please provide data for all international students applying for admission to graduate certificate, master's degree, education specialist, and doctoral degree programs offered by **ALL** divisions, schools, colleges, or departments of your institution. Each institution should submit one survey combining the data from all divisions, schools, colleges, and/or departments.
- Data to include: Include data for all graduate certificate and degree programs. At the master's level, include data for all students applying for admission to all master of science (M.S.) and master of arts (M.A.) programs, as well as data for students applying for admission to other master's programs in such areas as business (e.g., M.B.A.), fine arts (e.g., M.F.A.), health sciences (e.g., M.P.H.), public administration (e.g., M.P.A.), public policy (e.g., M.P.P.), and social work (e.g., M.S.W.), among other master's programs. At the doctoral level, include data for students applying for admission to all doctoral programs such as Ph.D., Ed.D., D.B.A., D.F.A., and Psy.D, among others. Include data for students applying for admission to graduate certificate programs (including post-baccalaureate and post-master's certificate programs) or other graduate programs (e.g., Ed.S.).
- Data to exclude: Do not include data for non-degree students or for visiting or exchange scholars. Do not include data for students applying for admission to undergraduate-level or first-professional degree programs. First-professional degree programs include Chiropractic (D.C. or D.C.M.), Dentistry (D.D.S. or D.M.D.), Law (L.L.B., J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Pharmacy (Pharm.D.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., M.H.L., B.D., or Ordination), and Veterinary Medicine (D.V.M.). Please note that this list of first-professional degree programs is comprehensive. Data for all other professional programs, including business and all health-related fields not listed above (e.g., D.P.T. and D.N.P.), should be included in your survey data.

#### SECTION II: NON-U.S. CITIZENS FROM SELECT COUNTRIES/REGIONS OF ORIGINS

- When providing data for Section II, "Select Countries/Regions of Origin," only include graduate-level data for non-U.S. citizens on temporary visas. NOTE: The sum of the numbers provided for the ten countries/regions of origin will likely NOT equal the total provided in Section I, "Total Non-U.S. Citizens," since Section I includes applications from students from *all* countries and regions of origin, not just the ten listed in Section II.
- **China** refers to the People's Republic of China (i.e., mainland China) and excludes Hong Kong, Macau, Taiwan, etc.
- Africa includes Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Côte d'Ivoire (Ivory Coast), Democratic Republic of the Congo (formerly Zaire), Djibouti, Egypt, Eritrea, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Réunion, Rwanda, Sahrawi Arab Democratic Republic, Saint Helena, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.
- **Europe** includes: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, and Vatican City. **NOTE:** Do not include data for Kazakhstan with Europe.
- **Middle East** includes: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen. **NOTE:** Prior to 2012, data for students from Turkey were included with this region, but starting in 2012, those data should be reported with the data for Europe.

#### SECTION III: TOTAL NON-U.S. CITIZENS BY FIELD OF STUDY

- When providing data for Section III, "Total Non-U.S. Citizens by Field of Study," only include graduate-level data for non-U.S. citizens on temporary visas. NOTE: The sum of the numbers provided for the eight fields of study SHOULD equal the total provided in Section I, "Total Non-U.S. Citizens." As a reminder, the Phase I survey collects data on <u>applications</u>, not applicants. If a student applied to graduate programs in more than one broad field, both applications should be counted and included in your survey data, in both Section I and Section III.
- The survey taxonomy and CIP crosswalk are included on pages 6-9. Please note that the taxonomy is based on the taxonomy used for the annual CGS/GRE Survey of Graduate Enrollment and Degrees.
- When completing the survey, please enter a "0" (zero) in fields when appropriate, e.g., when no international students in that field of study or from that country/region have applied for admission, or if your institution does not offer programs in a certain field of study. Fields should be left blank only when data are not available.

#### SURVEY TAXONOMY

ARTS AND HUMANITIES Arts - History, Theory, and Criticism Art History, Criticism, and Conservation Ethnomusicology Music History, Literature, and Theory Musicology Theatre Literature, History and Criticism Arts - History, Theory, and Criticism. Other Arts - Performance and Studio Arts, Entertainment, and Media Management Crafts/Craft Design Dance Design and Applied Arts Drama/Theatre Arts Film/Video and Photographic Arts Fine and Studio Arts Music Arts - Performance and Studio, Other **English Language and Literature** American Literature English Language and Literature **English Literature** Rhetoric and Composition/Writing Studies English Language and Literatures, Other Foreign Languages and Literatures African Languages and Literatures American Sign Language Asiatic Languages and Literatures Celtic Languages and Literatures **Classics and Classical Languages** and Literatures Germanic Languages and Literatures Iranian/Persian Languages and Literatures Modern Greek Language and Literature Romance Languages and Literatures Slavic, Baltic, and Albanian Languages and Literatures Foreign Languages and Literatures, Other History American History European History History and Philosophy of Science and Technology History, General History, Other Philosophy Ethics Logic Philosophy Philosophy, Other

Arts and Humanities. Other Linguistic, Comparative, and Related Language Studies and Services Humanities/Humanistic Studies Liberal Arts and Sciences/Liberal Arts Arts and Humanities, Other BUSINESS Accounting Accounting Auditing Taxation **Banking and Finance** Banking and Financial Support Services Credit Management **Financial Planning and Services** International Finance Investments and Securities **Public Finance Business Administration and** Management Business Administration and Management **Business Operations** Business/Commerce, General **Construction Management** E-Commerce Entrepreneurship Hospitality Administration/ Management Human Resources Development Human Resources Management Labor and Industrial Relations Logistics and Supply Chain Management **Operations Management** Organizational Leadership **Organizational Management** Project Management Small Business Operations Sport and Fitness Administration/Management **Telecommunications Management Business Administration and** Management, Other **Business**, Other **Business Statistics** Business/Corporate Communications **Business/Managerial Economics** Insurance International Business Management Information Systems Management Science Marketing Marketing Management Merchandising Real Estate Sales Business Fields, Other

#### **EDUCATION**

**Education** Administration Educational Administration Educational Leadership **Educational Supervision Curriculum and Instruction** Curriculum and Instruction Early Childhood Education Early Childhood Education and Teaching Kindergarten/Preschool Education and Teaching **Elementary Education** Elementary Education and Teaching **Elementary-Level Teaching Fields Educational Assessment**, Evaluation, and Research Educational Assessment, Testing, and Measurement Educational Evaluation and Research Educational Psychology Educational Statistics and **Research Methods** Learning Sciences School Psychology **Higher Education Higher Education** Higher Education Administration Secondary Education Secondary Education and Teaching Secondary-Level Teaching Fields Special Education Education/Teaching of Students w/ Specific Disabilities Education/Teaching of Students w/ Specific Learning Disabilities Education/Teaching of the Gifted and Talented Special Education and Teaching Other Special Education Fields Student Counseling and **Personnel Services** College Student Counseling and **Personnel Services** Counselor Education School Counseling and Guidance Services Student Counseling and Personnel Services, Other Education, Other Adult and Continuing Education Bilingual, Multilingual, and Multicultural Education Education, General Educational/Instructional Media Design Health and Physical Education International and Comparative Education Junior High/Middle School Education and Teaching Outdoor Education

Social and Philosophical Foundations of Education Teaching English as a Second or Foreign Language Other Education Fields ENGINEERING Chemical Engineering Chemical and Biomolecular

Engineering Chemical Engineering **Civil Engineering** Architectural Engineering **Civil Engineering Construction Engineering** Environmental/Environmental Health Engineering Geotechnical and Geoenvironmental Engineering Structural Engineering Surveying Engineering Transportation and Highway Engineering Water Resources Engineering Computer, Electrical, and **Electronics Engineering** Computer Engineering Computer Hardware Engineering Computer Software Engineering Electrical Engineering **Electronics Engineering** Laser and Optical Engineering **Telecommunications Engineering** Industrial Engineering Industrial Engineering Manufacturing Engineering **Operations Research** Materials Engineering Ceramic Sciences & Engineering Materials Engineering Materials Science Metallurgical Engineering Polymer/Plastics Engineering Mechanical Engineering **Engineering Mechanics** Mechanical Engineering Engineering, Other Aeronautical Engineering Aerospace Engineering Agricultural Engineering **Biochemical Engineering Biomedical/Medical Engineering** Electromechanical Engineering **Engineering Chemistry Engineering Physics Engineering Science** Forest Engineering Geological/Geophysical Engineering Mining and Mineral Engineering Naval Architecture and Marine Engineering Nuclear Engineering Ocean Engineering Paper Science and Engineering Petroleum Engineering Systems Engineering Textile Sciences and Engineering

#### LIFE SCIENCES

Agriculture, Natural Resources, and Conservation Agricultural and Domestic Animal Services Agricultural and Food Products Processing Agricultural Business and Management Agricultural Economics Agricultural Mechanization Agricultural Production Agricultural Public Services Agriculture, General Agronomy Animal Sciences Applied Horticulture **Fishing and Fisheries Sciences** and Management Food Science and Technology Forestry Horticultural Business Services International Agriculture Natural Resources and Conservation Natural Resources Management and Policy Parks, Recreation, and Leisure **Facilities Management** Parks, Recreation, and Leisure Studies Plant Sciences Soil Sciences Wildlife and Wildlands Science and Management Agriculture, Natural Resources, and Conservation, Other **Biological and Biomedical** Sciences **Anatomical Sciences** Animal Biology Bacteriology Biochemistry **Bioinformatics** Biology, General **Biomathematics** Biometry **Biophysics** Biotechnology Botany/Plant Biology Cell/Cellular Biology Computational Biology **Developmental Biology** Ecology Entomology Epidemiology Evolution Genetics Immunology Microbiological Sciences Molecular Biology Molecular Medicine Neurosciences Parasitology Pathology Pharmacology Physiology Population Biology Systematics

**Biological and Biomedical** Sciences, Other **Health and Medical Sciences** Allied Health Alternative and Complementary Medicine Audiology **Bioethics/Medical Ethics** Chiropractic (excluding D.C. and D.C.M.) Clinical/Medical Laboratory Science/Research **Communication Disorders** Sciences and Services Dentistry and Oral Sciences (excluding D.D.S. and D.M.D.) **Dietetics and Clinical Nutrition** Services **Environmental Health Exercise Science** Health and Medical Administrative Services Health Sciences Health/Medical Preparatory Pgms. Kinesiology Medical Sciences (excluding M.D.) Mental and Social Health Services Nursing Nutrition Sciences Occupational Therapy Optometry (excluding O.D.) Osteopathic Medicine (excluding D.O.) Pharmaceutical Sciences (excluding Pharm.D.) Physical Therapy Physician Assistant Podiatry (excluding D.P.M., D.P. and Pod.D.) Public Health Rehabilitation and Therapy Speech-Language Pathology Veterinary Biomedical and Clinical Science Veterinary Medicine (excluding D.V.M.) Health and Medical Sciences, Other PHYSICAL AND EARTH SCIENCES Chemistry Analytical Chemistry **Chemical Plastics** Chemistry, General Environmental Chemistry Forensic Chemistry Inorganic Chemistry Medicinal and Pharmaceutical Chemistry Organic Chemistry Physical Chemistry Polymer Chemistry **Theoretical Chemistry** Chemistry, Other **Computer & Information Sciences** Computer and Information

Toxicology

Zoology

Sciences, General

Engineering, Other

Computer Programming **Computer Science** Computer Software and Media Applications **Computer Systems Analysis** Computer Systems Networking and Telecommunications Computer/Information Technology Administration and Management Data Processing Information Sciences/Studies **Microcomputer Applications** Computer and Information Sciences, Other Earth, Atmospheric & Marine Sciences Aquatic Biology/Limnology Atmospheric Sciences **Biological Oceanography** Earth Sciences Geochemistry **Geological Sciences** Geophysics and Seismology Geosciences Hydrology Marine Biology Marine Sciences Meteorology Oceanography Paleontology Earth, Atmospheric, and Marine Sciences. Other **Mathematical Sciences** Actuarial Science **Applied Mathematics** Mathematics Probability Statistics Mathematical Sciences, Other **Physics & Astronomy** Acoustics Astronomy Astrophysics Atomic/Molecular Physics Condensed Matter and Materials Physics Elementary Particle Physics Nuclear Physics **Optics/Optical Sciences** Physics Planetary Astronomy and Science Plasma and High-Temperature Physics Solid State Physics Theoretical and Mathematical Physics Physics and Astronomy, Other Physical Sciences, Other Physical Sciences, General Science Technologies Physical Sciences, Other

#### SOCIAL SCIENCES & PSYCHOLOGY Anthropology and Archaeology Anthropology Archaeology **Economics** Applied Economics

**Econometrics** 

**Economics** International Economics **Political Science** International Relations Political Science and Government Public Policy Analysis Psychology Applied Psychology Clinical Psychology Cognitive Psychology Community Psychology Comparative Psychology Counseling Psychology Developmental and Child Psychology Experimental Psychology Forensic Psychology Industrial and Organizational Psychology Personality Psychology Physiological Psychology **Psycholinguistics** Psychology, General **Psychometrics** Psychopharmacology Quantitative Psychology Research and Experimental Psychology Social Psychology Psychology, Other Sociology Demography Rural Sociology Sociology Social Sciences, Other Adult Development and Aging Area, Ethnic, Cultural, Gender, and Group Studies Criminal Justice/Criminology Geography and Cartography Gerontology Social Sciences, General Urban Studies/Affairs Social Sciences. Other **OTHER FIELDS** Architecture and Environmental

Design Architectural History and Criticism Architectural Sciences and Technology Architecture City/Urban, Community and **Regional Planning Environmental Design** Interior Architecture Landscape Architecture Real Estate Development Architecture and Environmental Design, Other **Communications and Journalism** Advertisina Communication and Media Studies **Communications Technologies** Journalism Mass Communication Public Relations Publishing

Radio, Television, and Digital Communication Speech Communication Communications and Journalism, Other **Family and Consumer Sciences** Apparel and Textiles Family and Consumer Economics Family and Consumer Sciences Family Studies Foods, Nutrition, and Wellness Studies Housing and Human Environments Human Development Human Sciences Work and Family Studies Family and Consumer Sciences, Other Library and Archival Studies Archives/Archival Administration Library and Information Science Library and Archival Sciences, Other **Public Administration** Community Organization and Advocacy Public Administration **Religion and Theology** Philosophy and Religious Studies, General Religion/Religious Studies Theology and Religious Vocations (excluding M.Div., M.H.L., B.D., and Ordination) Religion and Theology, Other Social Work Social Work Youth Services/Administration Social Work, Other **Other Fields** Fire Protection Homeland Security Interdisciplinary Studies Legal Research and Professional Studies (excluding L.L.B. and J.D.) Military Technologies **Multidisciplinary Studies** Other Fields Not Previously Classified

#### CGS INTERNATIONAL GRADUATE ADMISSIONS SURVEY

#### Cross-reference between CGS Taxonomy of Disciplines and the 2000 and the 2010 National Center for Education Statistics (NCES) Classification of Instructional Programs (CIP)

CGS Taxonomy Broad Field	2010 CIP Codes
Arts and Humanities	16, 23, 24, 38.01, 50, 54
Business	52 (except 52.1304), 31.0504
Education	13, 31.05 (except 31.0504 and 31.0505), 31.06, 42.2805, 42.2806, 51.0913, 51.2309
Engineering	14, 15, 40.10
Life Sciences	01, 03, 26 (except 26.1302 and 26.1304), 30.19, 31.01, 31.03, 31.0505, 31.99, 41.01, 51 (except 51.0913, 51.2004, and 51.2309)
Physical and Earth Sciences (including Mathematics and Computer Science)	11, 26.1302, 26.1304, 27, 30.18, 40 (except 40.10), 41 (except 41.01), 51.2004, 52.1304
Social Sciences and Psychology	05, 19.0702, 30.11, 42 (except 42.2805 and 42.2806), 43.01, 44.05, 45
Other Fields	04, 09, 10, 12, 19 (except 19.0702), 25, 30 (except 30.11, 30.18, and 30.19), 38.00, 38.02, 38.99, 39, 43.02, 43.03, 43.99, 44 (except 44.05), 48, 49, and all other fields not classified above

#### 2010 Cross-Reference Table