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Who's Counting?

Understanding the Landscape of Graduate Learning Overseas

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The Graduate Learning Overseas project is funded by a grant from the U.S. Department of Education, International and Foreign Language Education Office. The opinions, advice, or conclusions of the authors expressed herein do not necessarily state or reflect the official positions of the U.S. Department of Education, IIE, or any other entities.

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Suggested citation: Sanger, J., & Mason, L. (2019). *Who's counting? Understanding the landscape of graduate learning overseas*. New York: Institute of International Education.

Designed by Allison Kline, Mishmash Art & Design.

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Introduction

Focus on graduate study abroad experiences has evolved over the past decade in response to initiatives that emphasize the need for a global graduate education to address national competitiveness and innovation in the economy. Simultaneously, the United States has marked increased enrollments of U.S. and international students seeking to advance their education and career preparation through graduate study. Despite these developments in graduate education, the full scale and scope of U.S. graduate experiences abroad has not been reported through comprehensive data collection efforts at the national level, and such students remain invisible in the national discourse on U.S. study abroad.

The Graduate Learning Overseas (GLO) research study, implemented by the Institute of International Education (IIE) and launched in 2017 with support from the U.S. Department of Education, Office of International and Foreign Language Education, aims to identify the scale and scope of U.S. graduate students' educational activities and to better understand the institutional practices around student mobility data collection. This report serves as the first report of a three-year initiative focused specifically on U.S. graduate student mobility. It comprises results of the first national survey to U.S. higher education institutions on this topic. The results from this survey paint a clearer picture of the graduate-level study abroad landscape and demonstrate the need for institutions to build capacity to collect graduate student mobility data to support graduate students' needs. In addition, it aims to help researchers better serve the international education field by both improving data collection practices and developing resources for institutions.

Context

The importance of developing global skills for employment in today's workforce is clear. International educational experiences develop key skills related to global citizenship, intercultural communication, and language competency (Farrugia & Sanger, 2017; Kuh, 2008). The Council of Graduate Schools (2013) noted that "global research and development networks, along with new technologies for communication and collaboration, make it essential for graduate students to develop global perspectives and skills." This sentiment is echoed by Bista and Saleh (2014) who describe graduate student and alumni perceptions on the importance of global education to enrich their learning experience. Study abroad has a positive impact on skill development, personal growth, and employability (Farrugia & Sanger, 2017).

In addition to the impact on students, international educational experiences position students' home institutions to enhance their international partnerships, research collaborations, and other forms of global engagement. As highlighted by IIE's Generation Study Abroad¹ initiative, U.S. and international partners alike are leveraging research on the value of global education networks to help an increasing number of U.S. students go abroad and gain vital global skills. This area is increasingly important for institutions to understand as enrollment in U.S. graduate education continues to rise (Okahana & Zhou, 2017).

¹ [Generation Study Abroad](#) is an initiative launched in 2014 by IIE to significantly increase the number of U.S. students studying abroad by 2020.

The body of research on the impact of study abroad has traditionally focused on the undergraduate level. A workshop convened by the Council of Graduate Schools in 2016 determined that, although institutions have been increasingly asked to demonstrate the impact of international experiences, “there is no consensus on the best methods for tracking the outcomes of such experiences for graduate students, institutions, and the research enterprise” (Mitchell, Vögler, & Nerad, 2016). Due to the nature of graduate-level study and institution-level reporting challenges, only a small fraction of graduate students’ overseas education is captured in existing national data collection efforts. According to the *Open Doors® 2018 Report on International Educational Exchange*, currently, only 12% of students studying abroad are enrolled at the graduate level. However, anecdotal reports from institutions indicate that factors such as decentralized systems at the graduate level and study abroad office focus on only undergraduate students result in an undercount of graduate student mobility. As such, gaps exist in U.S. graduate experiences abroad reported at the national level in comprehensive data collection efforts. This knowledge gap diminishes the ability of higher education administrators, researchers, and policymakers to assess how well U.S. higher education institutions prepare graduates for today’s global workforce and inform the allocation of resources and development of programs and policies.

Overview

The following key findings are grouped according to the two main sections of the GLO Survey, graduate learning overseas landscape and institutional data collection practices. The report provides a brief overview of the research methodology with additional detail available in the appendix. A comprehensive analysis of the data then similarly follows in two parts. Part 1 describes the graduate student demographic profile, including degree levels, study abroad requirements, and fields of study of graduate students engaged in learning overseas, as well as activity types, destinations, and durations of their overseas experiences. Part 2 describes the data collection methods, practices, motivations, and challenges reported by institutions, triangulating these findings with confidence in data completeness across different activity types, institutional characteristics, and the student mobility data reported in Part 1. The report concludes with a discussion of the findings and their implications, as well as opportunities for further research.

Key Findings

GLO Landscape

3.4% of all students enrolled in U.S. graduate degree programs participated in an overseas learning activity in 2016/17. This ratio is inclusive of both credit and non-credit bearing educational experiences undertaken by U.S. and international students. Although this percentage of students is promising, respondents indicated that it is an undercount of graduate students participating in experiential learning overseas activities.

70% of these students did so voluntarily, not to fulfill degree requirements. This percentage highlights the value that graduate students place on including an international component to their academic experience while juggling rigid course requirements and commitments beyond the classroom such as work and family.

Graduate students are more likely to engage in limited- and short-term overseas experiences than the overall study abroad population as reported in *Open Doors*. Graduate students participate in limited-term overseas experiences (less than 2 weeks in duration) at more than twice the rate of the overall study abroad population (51% compared with 24%, respectively). They also engage in short-term experiences (2 to 8 weeks) at equivalent rates to the overall study abroad population, bringing the total number of graduate students participating in 8 weeks or shorter learning overseas experiences to 87%.

Business is the top graduate field engaged in learning overseas, representing 34% of the graduate study abroad population as compared with only 17% of national graduate enrollments in business. Business is also a top field among the overall study abroad population, while legal professions and studies, public administration and social service professions, and architecture are top fields distinct to graduate study abroad.

China hosts the highest number of graduate students engaging in overseas learning. The UK follows closely as the country hosting the second highest number of graduate students with Germany rounding out the top three. Distinct from overall study abroad destinations as reported in *Open Doors*, Mexico, India, South Africa, and Peru also fall in the top ten destinations, ranking fourth, sixth, eighth, and tenth, respectively.

GLO Data Collection

The greatest challenges in collecting GLO data involved institutions relying on students to self-report information, and institutional offices not maintaining records on student activities that do not count for academic credit. Doubts about the completeness of records for traditional coursework and study tour activities, particularly at larger institutions, arose most often among those institutions relying on self-reported data. However, when looking at less traditional overseas activities, a lack of recordkeeping for non-credit activities was the most significant obstacle reported.

Working with other offices, particularly with academic departments, positively affects the ability to collect comprehensive and complete GLO data. Although most survey respondents are housed in study abroad offices and are the expected champions of study abroad on a campus, respondents reported that working with academic units to collect data significantly helped them feel more confident in the completeness of the less traditional overseas activity data.

Methodology

This study measures the scale and scope of U.S. graduate students' educational activities abroad and maps institutional data collection practices, motivations, and challenges. It consists of a national survey of U.S. higher education institutions to provide aggregate institutional-level data on student mobility and to identify gaps in data collection processes.

The IIE research team administered the GLO Survey online to accredited U.S. higher education institutions that enrolled at least 50% of their graduate students in non-distance education programs. The team widely distributed the survey from April through August 2018 with support from the Council of Graduate Schools, and promoted on social media and other online platforms. Targeted outreach was conducted via email and phone to reach a nationally representative sample. IIE used stratified purposive sampling to recruit institutions for participation in the survey based on the following five criteria, among others: Carnegie Classification of Institutions of Higher Education; institutional size; institutional control (public/private); minority serving institutions; and U.S. state and region.

The following research questions guided the survey design:

1. What does the landscape of U.S. graduate student mobility look like? What type of educational activities do graduate students participate in overseas?² Where and for how long?
2. What is the profile of graduate students who participate in a learning overseas activity?³
3. How do U.S. institutions collect student mobility data for graduate students? With what level of accuracy do institutions collect and report the data? What data is missing from this collection?

A total of 205 institutions representing 795,062 enrolled graduate students responded to the survey, yielding a targeted institutional response rate of 23%. When looking at the number of graduate students nationally at institutions enrolling at least 50% of students in non-distance education programs (2,442,580 students in 2016), the sample represents 33% of U.S. graduate student enrollment, and 12% of U.S. institutions. 186 institutions reported having at least some data on graduate students engaged in learning overseas, and 180 institutions reported having at least one or more students overseas in the 2016/17 academic year.

The study purposefully targeted institutions with large graduate student enrollments to represent a higher percentage of graduate *students* and not just *institutions* offering graduate-level programs. Therefore, there is a larger representation of large, public research institutions. A full table comparing sample and national enrollment numbers is found in Figure 17 in the appendix.

² Educational activities are defined as credit-bearing and non-credit bearing educational activities.

³ Graduate students are defined as U.S. and international students enrolled in a U.S. graduate degree program.

As with all research, there are limitations to the study design. The survey gathered aggregate information on the characteristics of graduate students' educational activities abroad, as well as institutional practices for identifying and reporting graduate students' overseas activities. Respondents at higher education institutions and schools reported aggregated numbers for their institutions; IIE did not collect individual student-level data. Therefore, examining relationships through correlation analyses is possible at the institutional level, but not between student-level choices and characteristics.

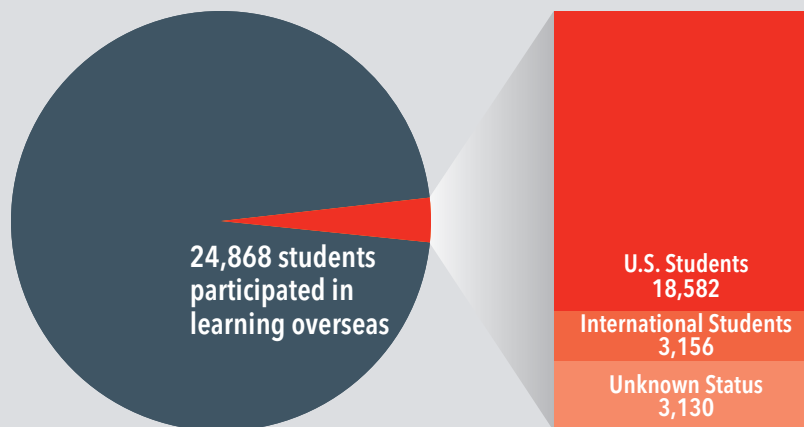
Throughout this research, study abroad program characteristics, such as duration, destination regions, and academic majors, are aligned with the *Open Doors* U.S. Study Abroad Survey to allow for comparisons between the GLO Survey's findings and the available national-level trends in U.S. study abroad. However, comparisons should consider that the GLO survey includes international graduate students who are enrolled at U.S. higher education institutions and counts participation in both credit and non-credit bearing experiences.

Part 1: Graduate Student Learning Overseas Data

This section examines the landscape of graduate learning overseas experiences. The data explores the academic levels, destinations, fields of study, durations, and types of activities undertaken at the graduate level. The analysis makes comparisons to national graduate student enrollments, as well as the overall study abroad population, which primarily represents undergraduate students. Some analyses also examine similarities and differences between U.S. students and international students, providing additional nuance unexplored in previous data collection efforts.

3.4% of graduate students participated in an overseas learning activity in 2016/17, with U.S. and international students doing so at similar rates

Figure 1: U.S. and international graduate student participation in learning overseas (2016/17)



A total of 180 schools and institutions offering graduate-level degrees reported that 24,868 students, or 3.4% of all enrolled graduate students, engaged in learning overseas in the 2016/17 academic year. Approximately 85% of these graduate students who engaged in learning overseas were from the United States and 15% were international students.⁴ This proportion is equivalent to the overall ratio of U.S. and international student enrollments in U.S. higher education at the graduate level in 2016/17 (National Center for Education Statistics, 2019).⁵

A majority of institutions reported at least one or more international students participating in learning overseas in 2016/17, with the international student total spanning 101 institutions in the sample. Doctorate-granting institutions were the most likely to report international students engaging in learning overseas, with 69% of this type of institution reporting at least one international student.

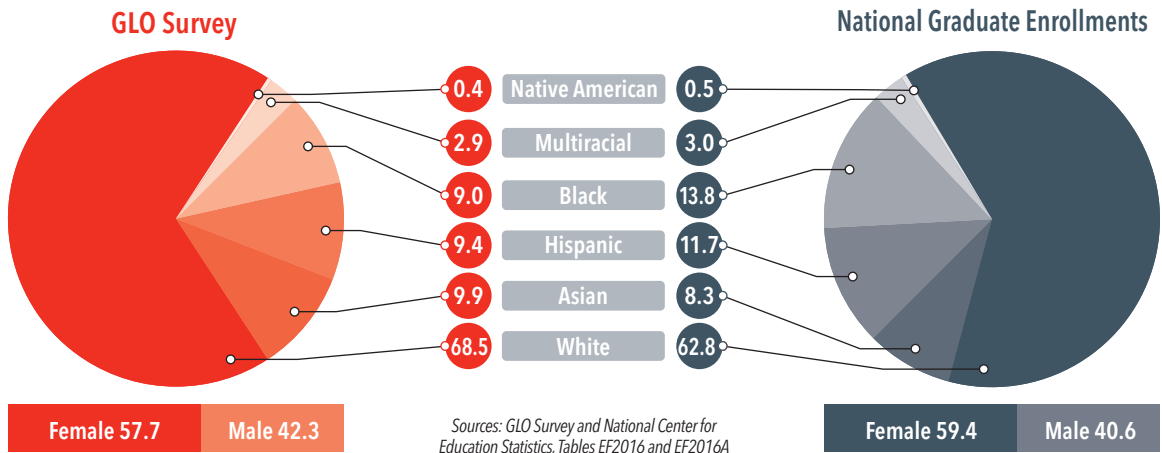
⁴ Percentages derived from student participants in learning overseas with known and reported citizenship or immigration (N=20,593)

⁵ Source: This custom report included only institutions that are degree-granting and offer non-distance education programs so as to be comparable to the GLO Survey sample.

Conversely, only 24% of all other institution types (master's, baccalaureate, and special focus) reported any international students engaged in learning overseas.

Graduate student participation in study abroad is representative of the graduate student population

Figure 2: Race/ethnicity and gender of GLO Survey and national graduate enrollments (2016/17)



In terms of ethnic and racial identity, 69% of U.S. students engaged in overseas learning identified as white, an overrepresentation of about 6% compared with national graduate school enrollments. Students identifying as Asian are slightly overrepresented as well, while Hispanic and Black students are underrepresented by about 2 and 5 percentage points, respectively.

A total of 42% of graduate students engaged in learning overseas are male, higher than the overall U.S. study abroad population in which only 33% of students are male (Baer, J., Bhandari, R., Andrejko, N., & Mason, L., 2018) but in line with the proportion of male graduate students enrolled in U.S. graduate education (U.S. Department of Education, 2018).

Higher numbers at the master's level, but higher ratio at the doctoral level

Figure 3: Degree-level comparison of GLO Survey and graduate degrees conferred (2016/17)



Sources: GLO Survey and National Center for Education Statistics, Table 318.40, 2016-17

Note: 1.2% of degrees sought by students in the GLO Survey were at the graduate certificate level, therefore the graph does not sum to 100.

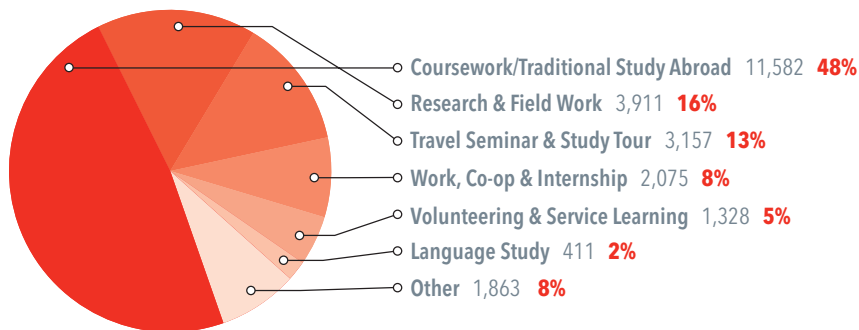
While a large majority (68%) of students were enrolled at the master's level while engaged in overseas learning, this percentage is lower than the proportion of master's degrees conferred at U.S. institutions overall. Compared with degrees conferred, the survey data suggests a larger proportion of doctoral students engage in overseas learning compared with master's degree students. This finding might be due to the longer period of study at the doctoral level, which allows for greater flexibility to engage in learning overseas. Though a small portion of overall U.S. higher education enrollments, doctoral students may be engaged in learning overseas at rates much higher than determined in previous data collection efforts.

Graduate learning overseas is driven by student interest, not degree requirements

Not all institutions were able to report whether students who engaged in learning overseas were required to do so as part of their graduate program requirements. However, 30% of students whose requirements could be identified and who went overseas in 2016/17 had a programmatic requirement to do so. Although that represents a fairly significant portion of the population, most students (70%) are engaging in learning overseas without any requirement to do so.

Experiential activities comprise more than half of all graduate learning overseas

Figure 4: Number of students engaged in learning overseas by activity type (2016/17)



The most popular type of activity reported by institutions was participation in a traditional type of study abroad program that includes the completion or fulfillment of coursework, with 11,582 graduate students (48%) engaged in this activity type.⁶ However, experiential activities that may or may not be credit-bearing accounted for more than half of all activities. Research or field work was the next most common activity type (16%), followed closely by travel seminars or study tours (13%). Less than 10% of graduate students engaged in overseas learning participated in work, co-op, or internships; volunteering or service learning; language study; or “other” types of activities, including activities like clinical rotations, teaching, and musical performances.

⁶ Institutions were asked to include all applicable activity types for each overseas record. Students who participated in more than one overseas activity are represented under each activity.

Business student participation in learning overseas is nearly double their enrollment ratios

Figure 5: Comparison of GLO Survey (2016/17) top ten fields of study to *Open Doors* (2016/17) and national graduate enrollments (2015/16)

Field of Study	GLO Survey (Graduate) %	National Enrollments* (Graduate) %	<i>Open Doors</i> (All Levels) %
Business, Management, Marketing, and Related Support Services	34.0%	17.1%	20.7%
Health Professions and Related Programs	16.5%	20.1%	7.1%
Education	5.0%	17.4%	3.3%
Legal Professions and Studies	4.1%	3.8%	1.6%
Social Sciences (excluding International Relations and Affairs)	4.0%	2.2%	8.6%
Biological and Biomedical Sciences	3.8%	3.1%	6.1%
Public Administration and Social Service Professions	3.7%	4.0%	1.4%
Architecture and Related Services	2.7%	0.7%	1.4%
Engineering	2.5%	5.4%	4.9%
Liberal Arts and Sciences, General Studies and Humanities	2.4%	0.9%	2.5%

*Source: U.S. Department of Education, 2015/16 National Postsecondary Student Aid Study:16, graduate school enrollments

Eight of the top ten fields of study in the GLO Survey also appear in the top ten fields of study for national graduate enrollments. Business was the top field of study among graduate students who participated in learning overseas in 2016/17, at a rate double the proportion of the national enrollment. The establishment of global business programs coupled with graduate business schools' interest in rankings (for which overseas activities matter) may lead business schools to have better student mobility data than other graduate schools on a given campus.

Comparing the GLO Survey results to overall higher education study abroad trends, half of the top ten fields of study reported to the GLO Survey reflect those that appear in the top ten fields of study of all post-secondary students as reported in the *Open Doors* U.S. Study Abroad Survey.⁷ Fields that are among the top ten overall but do not appear on the top ten list among graduate-level study abroad are communication and journalism (5% of overall study abroad in 2016/17); visual and performing arts (5%); psychology (4%); foreign languages, literatures, and linguistics (4%); and international/global studies (3%).

In total, five fields are represented in the top ten fields of the *Open Doors* U.S. Study Abroad Survey, the GLO Survey, and national graduate-level enrollments: business, health professions, social sciences, biological and biomedical sciences, and engineering. Health professions represents more than twice the percentage of students in the GLO Survey (17%) than it does among the broader *Open Doors* student population (7%), though the representation does still slightly lag behind overall health professions graduate enrollments (20%). Legal professions and studies, and architecture are also notable, as they represent higher engagement in learning overseas when compared with both overall study abroad trends and national graduate school enrollments.

⁷ Note that the GLO Survey is inclusive of international students, while the *Open Doors* U.S. Study Abroad Survey does not include international students. In addition, international students represent larger enrollment ratios in Science, Technology, Engineering, and Mathematics (STEM) fields in U.S. higher education than other fields of study.

China and others edge out more traditional study abroad destinations

Figure 6: Comparison of GLO Survey top ten destinations with *Open Doors* (2016/17)

GLO Survey, 2016/17			Open Doors, 2016/17		
Destination	N	%	Destination	N	%
China	1,959	8.7%	United Kingdom	39,851	12.0%
United Kingdom	1,839	8.2%	Italy	35,366	10.6%
Germany	1,047	4.7%	Spain	31,230	9.4%
Mexico	877	3.9%	France	16,462	4.9%
France	861	3.8%	Germany	12,585	3.8%
India	852	3.8%	China	11,910	3.6%
Italy	826	3.5%	Ireland	11,492	3.5%
South Africa	626	3.4%	Australia	10,400	3.1%
Spain	625	2.6%	Costa Rica	8,322	2.5%
Peru	586	2.4%	Japan	7,531	2.3%

A comparison of the GLO Survey with the *Open Doors* 2016/17 data reveals that the top six *Open Doors* destinations also appear among the GLO Survey top ten destinations. Notably, China was the top destination for graduate students reported in the GLO Survey, while only sixth overall as reported in *Open Doors*. Italy and Spain, ranked as the second and third destinations in *Open Doors*, were seventh and ninth in the GLO Survey. In addition, destinations rounding out the top ten in *Open Doors*—Ireland, Australia, Costa Rica, and Japan—did not appear in the top destinations for graduate students as reported in the GLO Survey. Instead, Mexico, India, South Africa, and Peru were ranked among the most popular destinations.

GLO Survey respondents also reported the destination choices by U.S. and international students. Little is known about the study abroad choices of international students enrolled in U.S. degree programs, and collecting this data shed light on differences and similarities between these two student populations. Among international students, China took a stronger lead as the top destination choice, attracting nearly 12% of all international students who engaged in learning overseas. Germany was the second most popular destination for international students, at 6%, pushing the United Kingdom to the third position for international students engaged in learning overseas from U.S. graduate programs.

For international students, an overseas learning experience may also be an opportunity to return home while continuing with research, internships, or other activities, as Brazil, Japan, and Canada are all leading senders of students to the United States for study. Brazil was the fifth most popular destination (5%) for international students but did not appear in the top ten destinations among U.S. students. Japan and Canada also appeared in the top ten destinations among international students, distinctive from U.S. student destinations. Other notable differences in the top ten destinations for U.S. students compared with international students were South Africa, Peru, and Spain. These three countries did not appear in the top ten destinations for international students.

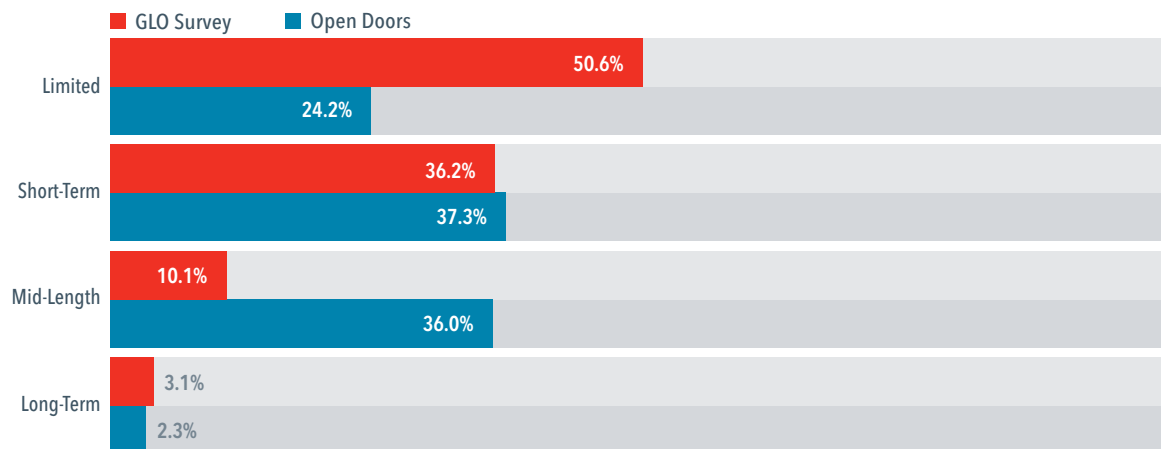
Figure 7: Top ten destinations by U.S. and international students, GLO Survey (2016/17)

U.S. Students			International Students			Total*		
Destination	N	%	Destination	N	%	Destination	N	%
China	1,304	7.8%	China	341	11.5%	China	1,959	8.7%
UK	1,259	7.5%	Germany	173	5.9%	UK	1,839	8.2%
Mexico	713	4.3%	UK	151	5.1%	Germany	1,047	4.7%
Germany	689	4.1%	France	143	4.8%	Mexico	877	3.9%
India	661	3.9%	Brazil	140	4.7%	France	861	3.8%
Italy	584	3.5%	Italy	121	4.1%	India	852	3.8%
South Africa	570	3.4%	Japan	120	4.1%	Italy	826	3.7%
Peru	492	2.9%	India	113	3.8%	South Africa	626	2.8%
France	483	2.9%	Canada	112	3.8%	Spain	625	2.6%
Spain	415	2.5%	Mexico	102	3.5%	Peru	586	2.4%

*Note: Some institutions were not able to report the breakdown of U.S. and international students by destination, and therefore, totals may exceed the sum of U.S. and international students as shown in this table

Short-term experiences drive graduate learning overseas engagement

Figure 8: Comparison of GLO Survey durations overseas with Open Doors (2016/17)



Most responding institutions and schools were able to provide data on the duration of time their graduate students spent overseas in 2016/17. The most popular duration was the limited (less than 2 weeks) length, representing just more than half of all experiences reported in the GLO Survey. Short-term experiences (2 to 8 weeks) accounted for 36%. These two categories combined represent a large majority (87%) of the experiences in which graduate students engaged. Only 13% of the reported students engaged in experiences longer than 8 weeks, with 10% engaged in mid-length experiences (9 to 24 weeks), and 3% engaged in long-term experiences (more than 24 weeks). Aligning the *Open Doors* duration categories with those established in the GLO Survey, the data suggests that graduate students are more likely to

engage in shorter duration experiences overseas.⁸ Most graduate students reported in the GLO Survey went abroad for less than two weeks (51%). This percentage is double the overall percentage (including both graduate and undergraduate students) reported in *Open Doors* in equivalent length categories (24%) for the 2016/17 academic year. Conversely, a significantly lower percentage of graduate students went abroad for mid-length durations (10%) compared with the overall study abroad population (36%).

Although the popularity and growth of short-term study abroad has been observed by the field in recent years, the findings from the GLO Survey suggest that graduate-level participation in these duration types is especially strong. Graduate students, who differ from their undergraduate peers, often have commitments such as work and family as well as rigid programs at the master's level that limit their ability to participate in longer duration learning overseas. Another possibility is that non-credit experiences—included in the GLO Survey—are shorter than two weeks, accounting in part for the large difference between the *Open Doors* and GLO Survey findings in this category.

⁸ The approximate equivalents to the "limited" duration, as reported in *Open Doors*, include "Summer: Fewer than two weeks," "8 Weeks or Less During Academic Year: Fewer than two weeks," and "January Term." The short-term (2 to 8 weeks) equivalents include "Summer: Two to eight weeks" and "8 Weeks or Less During Academic Year: Two to eight weeks." Mid-length equivalents include "One Semester," "One Quarter," "Two Quarters," and "Summer: More than eight weeks." Long-term equivalents include "Academic Year" and "Calendar Year."

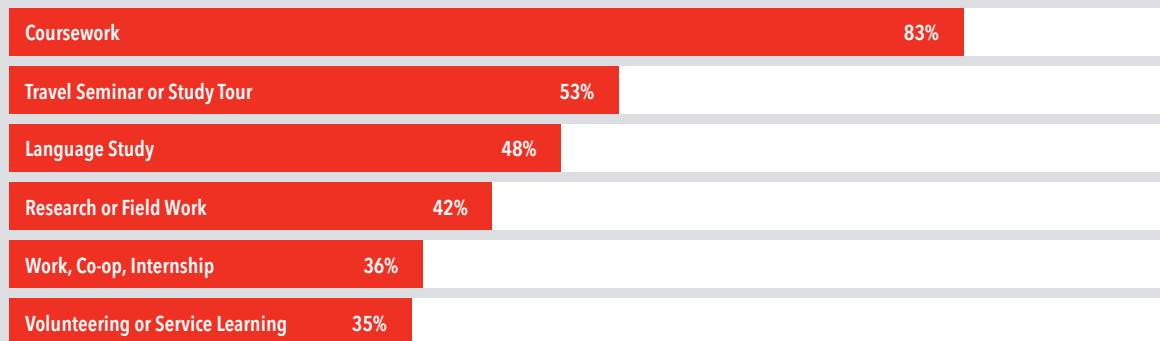
Part 2: Institutional Practices, Challenges and Motivations

This section of the report examines the ways in which schools and institutions are collecting and leveraging data on their graduate students' learning activities overseas. Respondents were asked about their confidence in the completeness of their reported data, as well as their data collection methods and practices, motivations (or lack thereof) for collecting data, and challenges they face in gathering and using this type of data. Data from survey responses in Part 2 are triangulated with institutional characteristics and Part 1 data to conduct correlation analysis.⁹

What data is collected, and just how accurate is it?

Although the descriptive data outlined in the Part 1 of this report is immensely valuable, we know from the survey responses in Part 2 that the data still shows only a fraction of the complete GLO picture. Less than half of responding institutions felt they had most or all of the data on students engaged in research or field work, volunteering or service learning, and work, co-op, or internship activity types, as Figure 9¹⁰ shows. Institutions were more confident in the completeness of their data for the types of activities organized and offered directly by students' home institutions, including coursework (83%) and travel seminars or study tours (53%).

Figure 9: Percentage of institutions confident in completeness of data reported by activity type



There is a significant positive correlation between the total number of students going abroad from an institution and that institution's confidence in the completeness of their work, co-op, or internship data. This correlation does not hold true when looking at the study abroad population as a percentage of enrollment nor when looking solely at total or specifically graduate enrollment sizes. This finding suggests that as institutions send more students abroad—regardless of the size of the student body—they develop better ways to collect data related to work and internship type experiences. However, that correlation does not hold true for any other type of learning activity overseas as one might expect. The following sections delve into other ways institutional practices, motivations and challenges interact with institutions' confidence in collecting complete data.

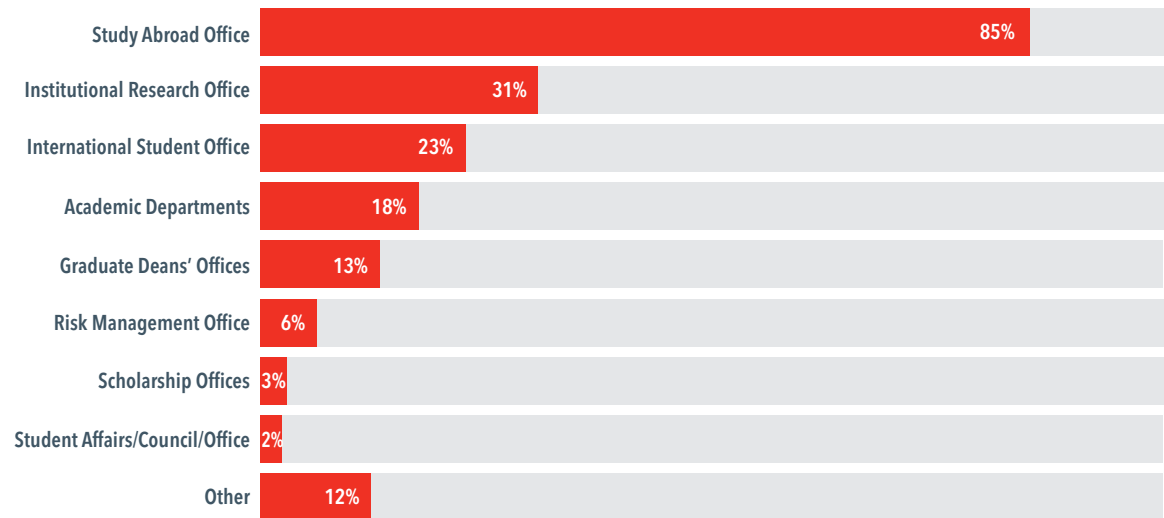
⁹ Correlations presented in this section are all significant at $p < 0.05$.

¹⁰ Institutions were asked to estimate the completeness of the data being reported in the GLO Survey for each activity type, with the ability to choose none (0%), very little (1-25%), small amount (26-50%), fair amount (51-75%), most (76-99%), or all (100%). Figure 9 shows the percentage of institutions that felt confident their data was most or all complete.

Who collects data?

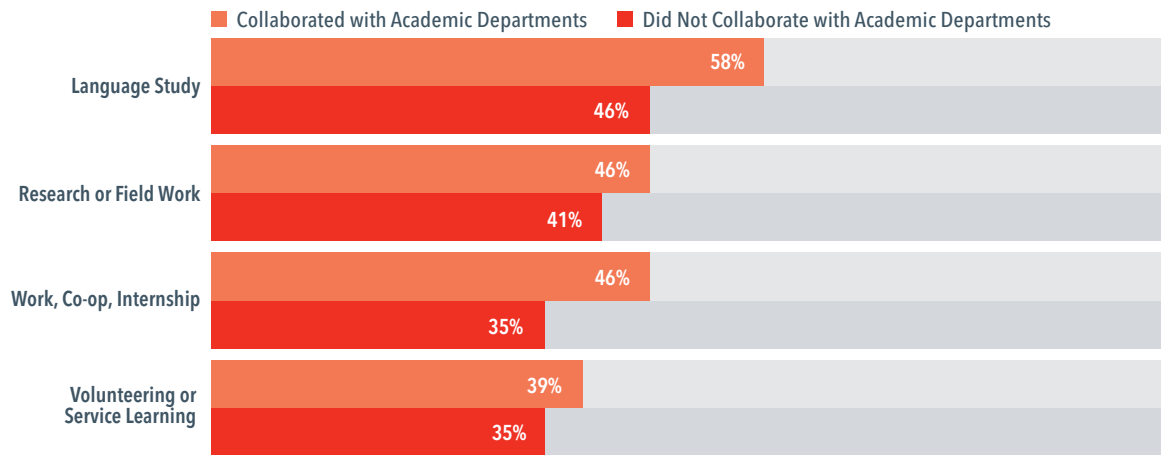
Survey respondents were asked to report with which offices they collaborated in collecting data for the GLO Survey, with the ability to select as many offices as applicable. The study abroad office was, by far, the most popularly used office for reporting data to the GLO Survey, representing 85% of responses. Of the 85% that used the study abroad office for data collection, 33% only used the study abroad office for data collection and did not involve any other office.

Figure 10: Offices contributing data for GLO Survey reporting



Comparing the offices and departments that institutions reported using for data collection and their confidence in the completeness of data by different activity types revealed that targeted collaboration is key. Although no correlation between confidence in the completeness of data and the number of offices used to collect data was found, working with academic departments had a significant impact on confidence in the completeness of data across all non-traditional activities. A total of 39% and 43% of respondents who worked with academic departments and graduate deans' offices, respectively, reported having all or most of the data on volunteering/ service learning activities; 46% of respondents who worked with academic departments reported having all or most of the data on work, co-op, or internship activities; 46% of respondents who worked with institutional research offices or academic departments reported having all or most of the data on research and fieldwork activities; and 58% of respondents who worked with academic departments reported having all or most of the data on language study activities. These findings suggest that the nature of graduate study may necessitate working more closely and intentionally with academic units to leverage and streamline recordkeeping for the variety of different experiential activities graduate students undertake during the course of their degree programs.

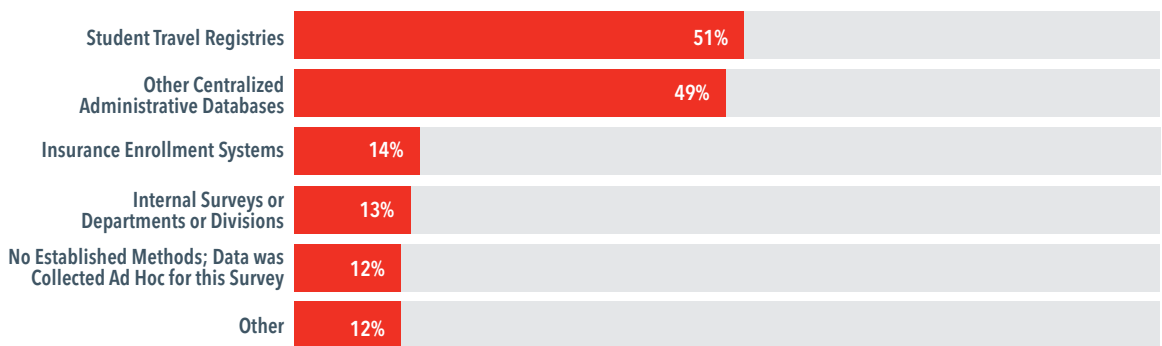
Figure 11: Percentage of institutions confident in data completeness and working with academic departments



Respondents were also asked to identify the types of systems, platforms, and methods used to collect data across the different types of activities graduate students are undertaking overseas.¹¹ Student travel registries and other centralized administrative databases were reported as the methods most commonly used to collect data on graduate students overseas, with about half of survey respondents indicating the use of at least one of these two options.

The use of student travel registries for data collection had a significant positive correlation with institutional size and the total number of graduate students overseas, as well as confidence in the completeness of research and fieldwork data, work and internship data, and “other” experiential activity type data. There was also a significant negative correlation found between not having any established data collection methods (collecting data ad hoc) – an occurrence that was mostly reported by institutions enrolling less than 20,000 students overall – and the confidence in the completeness of coursework data (the type of data for which institutions were most likely to report confidence in data completeness overall) and the confidence in the completeness of language study data. No other data collection methods were found to have significant correlations with institutional size or with the confidence in the completeness of any type of learning overseas data.

Figure 12: Methods used by institutions to track graduate student learning overseas



¹¹ Respondents were able to select as many methods as applicable, specify other methods not listed, or indicate that they have no established methods, and that data was collected ad hoc for the purposes of participating in the GLO Survey.

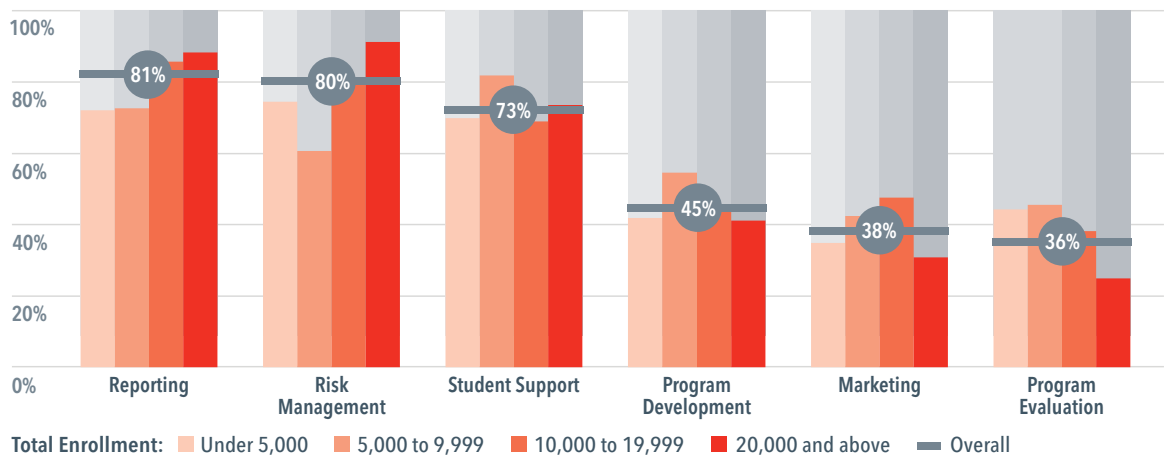
Overall, the importance of working with other offices, particularly with academic departments, is clear. Although most survey respondents are housed in study abroad offices, working with academic units to collect data significantly helped respondents feel more confident in the completeness of the less traditional overseas activity data they were able to collect.

The profile of respondents to the GLO Survey show that study abroad offices - even for graduate students - continue to be the champions for study abroad on a campus. However, it is also clear that they need colleagues able and willing to partner with them. Building relationships, processes, and partnerships with academic departments and other offices as appropriate at their institution will be important in collecting and leveraging complete data as both graduate enrollments and participation in overseas activities continue to grow and evolve.

Why collect the data?

Institutions are using different methods and offices to collect graduate learning overseas data already, but why are they motivated to collect it in the first place, and how do these motivations affect how (and how completely) they are doing so? As Figure 13 shows, a large majority of institutions (81%) are motivated to collect data on graduate students going overseas for reporting purposes, whether internal (such as accreditation or bi-annual reports) or external (such as grant reports or national surveys, like the one undertaken for this research). Similar percentages of institutions said they are motivated to collect data for risk management purposes (80%), including creating consistent and centralized health and safety support systems due to risk concerns, and for student support (73%), including through advising and provision of information. Just over one-third of respondents are motivated to collect this data for the purposes of program evaluation, and less than half are motivated to collect this data for program development purposes. Almost all of those indicating a program evaluation motivation also indicated a program development motivation; 52% of respondents indicated neither of these motivations.

Figure 13: Institutional student mobility tracking motivations by institutional size

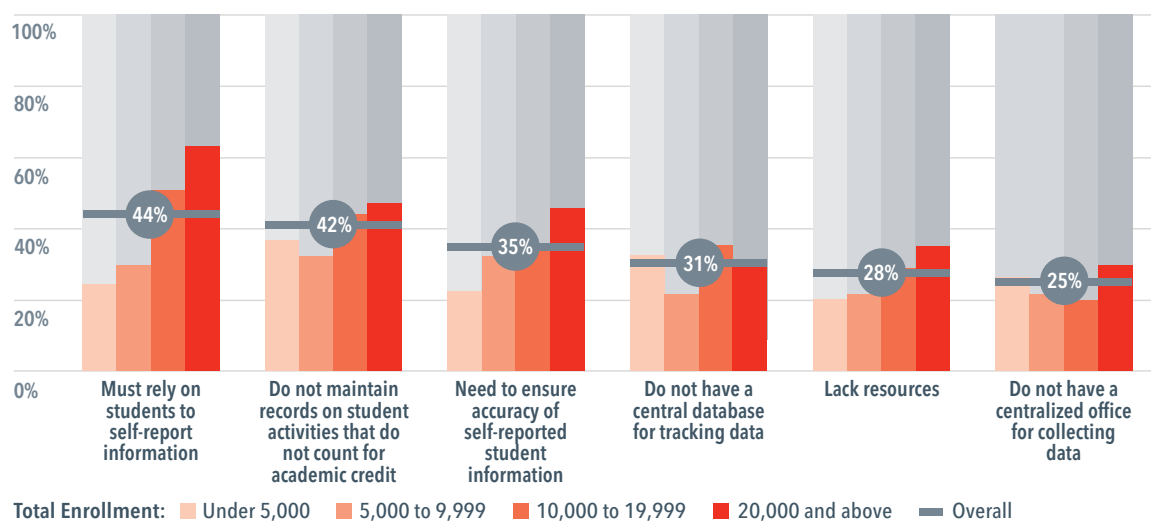


Although program evaluation was the least reported motivation for collecting graduate learning overseas data overall, it was significantly more popular among smaller institutions. Conversely, larger institutions were significantly more likely to report collecting data for risk management and reporting purposes. Reporting that an institution was motivated to collect data for risk management, program development, or reporting purposes were each significantly correlated with using the study abroad office for reporting, but no other significant correlation was found.

Where are the gaps?

Survey respondents—including the 19 respondents that reported they did not have data to report to Part 1 of the survey—were asked about the challenges they face in collecting complete data on the different types of educational overseas activities in which their students engage. In general, larger institutions were more likely to report challenges, with the largest institutions reporting five of the six surveyed challenges at the highest rates.

Figure 14: Institutional graduate learning overseas tracking challenges by institutional size



The least reported challenge was not having a centralized office for collecting data (25%), though not having a central system or database for tracking data was a more widely faced challenge (31%). Although not a significant challenge among institutions, it was a challenge that nonetheless had implications. Across all activity types and fairly evenly across institutional sizes, when institutions reported not having a centralized office for collecting data, they also did not have confidence in the completeness of their data. In addition, not having a central system or database for tracking this data had a similar effect on the confidence in the completeness of coursework, work, volunteering, and language activity types.

More widespread challenges revolved around self-reported information—including relying on students to report the activity as well as ensuring the accuracy of self-reported information—and lack of non-credit activity records. Across all the less traditional overseas activities (work, volunteering, research, and language study), institutions reported lower confidence in their data when faced with the challenge of not maintaining records of non-credit overseas activities. Among traditional coursework and study tour activities, relying on self-reported information—reported particularly among larger institutions—resulted in a lower confidence in data completeness.

Finally, it is interesting to note that although 28% of respondents reported a lack of resources as a challenge, it was not significantly correlated with confidence of data completeness for any activity type. This finding suggests that the more specific methodological and practical challenges mentioned earlier are more important in terms of being able to collect and leverage comprehensive data.

The findings here suggest that although institutions have some data on the less traditional activities their graduate students are undertaking, institutions may be missing a significant amount of data for those types of learning activities that ultimately do not directly bear credit because there is no recordkeeping in place for this information. In addition, although institutions are generally more confident in the completeness of traditional for-credit study abroad data, there may also be room for improvement in this realm; collaborating with other offices and departments on campus may help to bolster confidence in self-reported information or possibly even remove this reliance by identifying and removing redundancies in data collection efforts.

Conclusion

The GLO Survey documents the first landscape of graduate learning overseas from students at U.S. higher education institutions. Although it shows that 3.4% of graduate students participate in learning overseas, it also provides the evidence from institutions that this number is an undercount. One reason for this undercount is the niche experience that many graduate students participate in when engaging in a learning overseas activity.

Unlike their undergraduate counterparts who participate in organized group experiences that encompass a broad curriculum at any location around the world, graduate students participate in learning experiences that are more closely aligned with their academic and career pursuits. Due to the nature of their studies, graduate student learning overseas takes place in less traditional destinations, sometimes alone, with a professor, or with only a small number of peers. These experiences are often fewer than two weeks in duration, allowing students to go overseas while not disrupting their overall degree programs or other aspects of their personal or professional lives.

The nature of graduate learning overseas previously described leads to the challenges that institutions have tracking and reporting these experiences. Most institutions that have a study abroad office focus primarily on undergraduate student experiences and broad programming offered through the institution. The GLO Survey highlights the need for greater communication and collaboration across campus offices to effectively track graduate learning overseas. As graduate student enrollment continues to increase, this communication and collaboration will be essential to ensure that graduate students receive preparation and support for their overseas experience. It will also be key for institution risk management and reporting. There is a clear need for institutions to reflect on their data collection processes for graduate learning overseas and develop strategies that can be implemented realistically at their institution to improve cross-campus communication as well as collection tools for collecting data on graduate learning overseas.

It would be valuable to conduct more qualitative research with survey respondents and others in the field to provide both a more contextualized and nuanced understanding of the survey findings, in particular around areas such as methods for tracking student mobility and cross-campus communication. Additional research on the customized and oftentimes more individual overseas experiences of graduate students would also help higher education institutions and stakeholders to better understand ways to prepare and support graduate students for overseas learning.

Acknowledgments

The GLO project is possible through the cooperation and contributions of many individuals and organizations.

The U.S. Department of Education, Office of International and Foreign Language Education provided grant funding from 2017-2020 for the GLO project. This support enabled IIE to collect, analyze, publish, and widely disseminate the data on graduate learning overseas.

The GLO advisory group is comprised of representatives from the Council of Graduate Schools, Fielding Graduate University, Forum on Education Abroad, NAGAP: The Association for Graduate Enrollment Management, National Science Foundation, University of Michigan, University of Rhode Island, and University of Washington, Seattle. Members of the advisory group provided critical feedback and insight into the survey tool development, analysis, and activities designed to disseminate the GLO findings.

We would also like to acknowledge current and former IIE team members who contributed to the vision and success of the GLO project. Dr. Mirka Martel, Head of Research, Evaluation, and Learning provided overall guidance for the project. Dr. Rajika Bhandari and Dr. Christine Farrugia conceptualized the project and provided guidance for the project in its early stages. Julie Baer provided critical insight during the survey development and administration.

Finally, without the work of hundreds of colleagues at their education institutions across the United States who voluntarily provided their graduate level institutional data, the GLO project would not have been successful.

We thank you all for your support and hope that GLO will serve as a valuable information resource for those interested in U.S. graduate student mobility and international educational exchange.

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Appendix

Figure 15: Survey data collection outline

PART I: Scope of Graduate Education Abroad	
Characteristics of Education Abroad Activity	
Destination	Number of graduate students participating in educational activities abroad, by country, based on a comprehensive list of over 200 countries (U.S. Department of State country classifications).
Activity Type	Types of educational activities students engage in while overseas, including lab research or fieldwork, coursework, work experiences, language study, volunteering, and service learning.
Duration	Duration of education abroad, including short term, summer, mid-length, and long-term durations abroad.
Program Requirements	Number of graduate students who engaged in educational activities overseas who were required to do so as part of their graduate program requirements
Student Characteristics	
Gender	Categories aligned with the current guidelines of the U.S. Department of Education.
Race/Ethnicity	Categories aligned with the race/ethnicity classifications established by the U.S. Office of Management and Budget.
Academic Level	Academic levels, including master's, doctoral, and graduate certificate students, aligned with U.S. Department of Education classifications.
Major Field of Study	Students' major field of study on their home campus, following the U.S. Department of Education's Classification of Instructional Programs.
PART II: Institutional Data Collection Practices	
Confidence in data completeness	Respondents' confidence in the accuracy of their reporting on the full scope of graduate students' actual participation in educational activities abroad.
Organizational units holding graduate education abroad data	Information on which organizational units hold data on graduate education abroad, including study abroad offices, dean's offices, academic departments, student groups, scholarship offices, and institutional review boards.
Methods used to record graduate education abroad data	Methods used by institutions to record graduate activities abroad, including internal surveys, travel registries, and centralized administrative databases.
Data collection challenges	Data on the challenges facing institutions in gathering comprehensive data on graduate education abroad.
How data are used	Information on how institutions use their own data on graduate education abroad, such as for program development, assessment of graduate education effectiveness, or institutional development.

Figure 16: All school and institution GLO survey respondents that have approved public recognition

Alabama State University	Merrimack College
American University - School of International Service	Miami University
Augsburg University	Michigan State University
Augusta University	Middlebury College
Babson College	Montclair State University
Belmont University	Morgan State University
Bentley University	Nazareth College
Boston University	New Mexico State University
Bowie State University	New York University
California Polytechnic State University - San Luis Obispo	North Carolina State University
California State University, Chico	Northern Arizona University
California State University, Fullerton	Northern Illinois University
California State University, Los Angeles	Oakland University
California State University, Monterey Bay	Oklahoma State University
California State University, San Bernardino	Pennsylvania State University - College of Medicine
Case Western Reserve University	Pepperdine University
Cedar Crest College	Purdue University
Chatham University	Radford University
Christopher Newport University	Ramapo College of New Jersey
Clemson University	Regis College
College of Charleston	Rochester Institute of Technology
College of Staten Island - CUNY	Saint Edward's University
Colorado State University	Seattle University
Concordia University, St. Paul	Shenandoah University
Creighton University	Shippensburg University
Daemen College	Southeastern Louisiana University
Drexel University	Southern Illinois University Edwardsville
East Carolina University	Southern Utah University
Elon University	St. Catherine University
Fayetteville State University	St. John's University
Felician University	Stephen F. Austin State University
Florida State University	Suffolk University
Fort Valley State University	SUNY College at Potsdam
George Mason University	Tennessee Tech University

Georgetown University	Texas A&M University
Georgia Institute of Technology	Texas A&M University - Kingsville
Georgia State University	Texas Christian University
Gonzaga University	Texas Woman's University
Governors State University	The Chicago School of Professional Psychology
Grand Valley State University	The University at Buffalo, State University of New York (SUNY)
Illinois State University	The University of Alabama
Indiana University - Bloomington	The University of New Orleans
Iowa State University	The University of Tennessee, College of Graduate Health Sciences
Jackson State University	The University of Texas at Dallas
John Jay College, CUNY	Towson University
Kennesaw State University	Troy University
Lebanon Valley College	Tuskegee University
Lehigh University	Union Presbyterian Seminary
Loyola Marymount University	University at Albany, SUNY
Maryville University	University of Arkansas

Figure 17: GLO Survey sample representation compared to national enrollments

	GLO Survey Response & Graduate-level Enrollment Representation			National Graduate-level Enrollment Representation*
	# Institutions Responding	# Students Represented	% Students Represented	% Students Nationally
Total	205	795,062	33%	100%
Institutional Control Type				
Private Institutions	68	185,371	23%	46%
Public Institutions	137	609,691	77%	54%
Carnegie Classification				
Baccalaureate	7	1,556	0.2%	1%
Master's	76	105,062	13%	23%
Doctorate-granting	109	676,250	85%	64%
Special Focus	13	12,194	2%	10%
Institutional Size				
Under 1,000	5	1,546	0.2%	4%
1,000 to 4,999	44	33,321	4%	17%
5,000 to 9,999	37	61,821	8%	14%
10,000 to 19,999	45	147,040	18%	20%
20,000 and above	74	551,335	69%	45%
U.S. Region				
South	80	322,423	41%	32%
Midwest	47	239,474	30%	23%
North	43	127,031	16%	25%
West	33	105,817	13%	19%
Student Diversity				
Minority Serving Institutions	40	134,471	17%	15%

*Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS)

Figure 18: All fields of study

Field of Study	N	%
01 Business, Management, Marketing, and Related Support Services	8,049	34.0
02 Health Professions and Related Programs	3,915	16.5
03 Education	1,190	5.0
04 Legal Professions and Studies	977	4.1
05 Social Sciences	940	4.0
06 Biological and Biomedical Sciences	908	3.8
07 Public Administration and Social Service Professions	868	3.7
08 Architecture and Related Services	645	2.7
09 Engineering	601	2.5
10 Liberal Art and Sciences, General Studies and Humanities	562	2.4
11 Visual and Performing Arts	532	2.2
12 Foreign Languages, Literatures, and Linguistics	434	1.8
13 Psychology	433	1.8
14 Physical Sciences	400	1.7
15 Communication, Journalism, and Related Programs	362	1.5
16 International/Global Studies	323	1.4
17 Agricultural/Animal/Plant/Veterinary Science and Related Fields	305	1.3
18 Natural Resources and Conservation	295	1.2
19 English Language and Literature/Letters	276	1.2
20 History	257	1.1
21 Multi/Interdisciplinary Studies	247	1.0
22 Area, Ethnic, Cultural, Gender, and Group Studies	240	1.0
23 Computer and Information Sciences and Support Services	178	0.8
24 Parks, Recreation,, Leisure, Fitness, and Kinesiology	126	0.5
25 Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	116	0.5
26 Mathematics and Statistics	89	0.4
27 Other Fields of Study	83	0.4
28* Family and Consumer Sciences/Human Sciences	81	0.3
28* Philosophy and Religious Studies	81	0.3
30 Theology and Religious Vocations	59	0.2
31 Library Science	45	0.2
32 Engineering/Engineering-Related Technologies/Technicians	36	0.2
33 Communications Technologies/Technicians and Support Services	12	0.1
34 Military Science, Leadership and Operational Art	11	0.0

*Note: only fields of study that represented at least 10 graduate students are shown in the table

Figure 19: All destinations

Destination	N	%
Asia	4,747	21.2
East Asia	3,031	13.5
China	1,959	8.7
Hong Kong	129	0.6
Japan	535	2.4
Mongolia	40	0.2
South Korea	286	1.3
Taiwan	82	0.4
South and Central Asia	970	4.3
Bangladesh	20	0.1
India	852	3.8
Nepal	59	0.3
Sri Lanka	11	0.0
Southeast Asia	746	3.3
Cambodia	72	0.3
Indonesia	117	0.5
Malaysia	95	0.4
Myanmar	12	0.1
Philippines	53	0.2
Singapore	70	0.3
Thailand	187	0.8
Vietnam	133	0.6
Europe	7,908	35.3
Central and Eastern Europe	1,513	6.7
Azerbaijan	10	0.0
Croatia	57	0.3
Czech Republic	192	0.9
Estonia	25	0.1
France	861	3.8
Georgia	10	0.0
Hungary	46	0.2
Poland	47	0.2
Romania	45	0.2
Russia	104	0.5
Slovakia	21	0.1

Destination	N	%
Slovenia	15	0.1
Turkey	43	0.2
Western Europe	6,395	28.5
Austria	276	1.2
Belgium	88	0.4
Denmark	69	0.3
Finland	57	0.3
Germany	1,047	4.7
Greece	150	0.7
Iceland	84	0.4
Ireland	479	2.1
Italy	826	3.7
Malta	44	0.2
Netherlands	212	0.9
Norway	35	0.2
Portugal	88	0.4
Spain	586	2.6
Sweden	173	0.8
Switzerland	332	1.5
United Kingdom	1,839	8.2
Latin America and Caribbean	6,093	27.2
Caribbean	1,366	6.1
Bahamas	69	0.3
Bermuda	18	0.1
British Virgin Islands	22	0.1
Cayman Islands	20	0.1
Cuba	457	2.0
Dominican Republic	325	1.4
Grenada	26	0.1
Haiti	201	0.9
Jamaica	158	0.7
Trinidad and Tobago	52	0.2
Mexico and Central America	2,441	10.9
Belize	210	0.9
Costa Rica	438	2.0
El Salvador	36	0.2

Destination	N	%
Guatemala	414	1.8
Honduras	75	0.3
Mexico	877	3.9
Nicaragua	228	1.0
Panama	163	0.7
South America	2,286	10.2
Argentina	319	1.4
Bolivia	53	0.2
Brazil	491	2.2
Chile	318	1.4
Colombia	162	0.7
Ecuador	348	1.6
Guyana	23	0.1
Paraguay	20	0.1
Peru	542	2.4
MENA	891	4.0
Middle East	768	3.4
Israel	346	1.5
Jordan	54	0.2
Lebanon	20	0.1
Oman	32	0.1
Qatar	35	0.2
United Arab Emirates	259	1.2
North Africa	123	0.5
Egypt	29	0.1
Morocco	88	0.4
North America	432	1.9
North America	432	1.9
Canada	432	1.9
Oceania	333	1.5
Oceania	333	1.5
Australia	253	1.1
New Zealand	57	0.3
Sub-Saharan Africa	2,015	9.0
Central Africa	33	0.1
Cameroon	13	0.1

Destination	N	%
East Africa	726	3.2
Ethiopia	48	0.2
Kenya	185	0.8
Rwanda	77	0.3
Tanzania	197	0.9
Uganda	215	1.0
Southern Africa	860	3.8
Botswana	28	0.1
Madagascar	11	0.0
Malawi	44	0.2
Mozambique	13	0.1
Namibia	52	0.2
South Africa	626	2.8
Swaziland	28	0.1
Zambia	48	0.2
West Africa	396	1.8
Benin	17	0.1
Ghana	256	1.1
Liberia	25	0.1
Nigeria	22	0.1
Senegal	39	0.2
Sierra Leone	13	0.1

**Note: only destinations that represented at least 10 graduate students are shown in this table*