

IIE Center for Academic Mobility
Research and Impact



Higher Education and Student Mobility

A Capacity Building Pilot Study in Brazil

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Introduction

With support from the Australian Government, the Institute of International Education (IIE) Center for Academic Mobility Research and Impact carried out this project to expand the capacity of higher education institutions to gather and report mobility data. The project is part of the larger *Project Atlas*[®] initiative which is managed by IIE and supported by the Bureau of Educational and Cultural Affairs at the U.S. Department of State. The Australian Government's Department of Education and Training is the Australian partner entity within the *Project Atlas* network and an expert agency in student mobility data collection.

Specifically, the current project aims to develop resources and tools that can be used by institutions and national-level agencies to build or improve their higher education and international mobility data collection processes. The ultimate goal of this knowledge sharing project is to foster a global community of countries that collect timely, comprehensive and universal institutional and national-level data on student mobility flows.

IIE and the Department of Education and Training, Australia identified Brazil as a country to partner with and pilot test one of the online surveys to assist higher education institutions and relevant organizations in collecting student mobility data for Brazil. Brazil was chosen as a country partner for this project particularly due to its rising key role as a player in the field of international education. Brazil's extensive work in recent years to internationalize its higher education include its significant investments in projects that support student mobility such as the Brazil Scientific Mobility Program, which sent Brazilians abroad for a part of their studies.

The Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES), a foundation that plays a fundamental role in the expansion and consolidation of graduate courses in Brazil, and the Brazilian Association for International Education (FAUBAI), an organization dedicated to improving the management of international exchange and cooperation, distributed the survey to 485 institutions of higher education. The survey gathered quantitative data and measured and assessed a set of indicators of internationalization. The respondents comprised 158 public and private institutions from across Brazil.

Key Findings

Brazil is home to the largest system of higher education in Latin America with 2,368 institutions (87 percent are private) and over 7.8 million students enrolled in higher education across the country.¹ Growth at the tertiary level is expected to continue at a rapid pace, making Brazil's higher education system among the largest in the world by 2020 (British Council, 2012). Despite political and economic shifts and uncertainties over the past two years, Brazil has continued to make strides toward further internationalizing its higher education sector. Recently, a program to promote internationalization at the graduate level was announced. Previous initiatives to advance student mobility include the Science Without Borders program, the CAPES – French Committee for the Evaluation of Academic and Scientific Cooperation with Brazil (COFECUB) agreement, Programa de Estudantes-Convênio de Graduação (PEC-G), and Programa de Estudantes-Convênio de Pós Graduação (PEC-PG). Across the country's universities, internationalization is visible in the provision of programs and courses taught in English, virtual learning, and initiatives to support inbound and outbound student flows. However, while global engagement is increasing in many directions, little is known about the trends, challenges, and opportunities for internationalization that define Brazil's higher education sector. It is within this context that the survey gleaned insight into global mobility in Brazil's higher education sector and illuminated the gaps in institutional data collection processes.

The sections below provide an overview of the key findings:

Outbound Domestic Students

Low outbound mobility: The findings of this survey reveal that 0.6 percent of Brazilian students study abroad. The Brazilian demand for an international education is, however, relatively low when compared with the outbound mobility ratios of other Latin American countries: Ecuador (2 percent), Columbia (1.2 percent), Chile (0.8 percent), and Mexico (0.8 percent).² In Brazil, a combination of factors may limit outbound mobility. Language poses a barrier for Brazilian students who would prefer to study in the USA or Europe but have not met English language requirements. At the undergraduate level, Brazilians may be less likely to study abroad due to the good quality of higher education in the South and Southeast as well as “generally strong cultural ties to their local setting” (European Commission, 2012).

Greatest outbound student flow is at the undergraduate level in STEM fields: Seventy-seven percent of the students undertaking an education abroad do so at the undergraduate level. Outbound mobility was concentrated in science, technology, engineering, and math (STEM): Engineering (29 percent); Life Sciences, Earth, Space, Chemistry, Physics, and Mathematics (10 percent); and biological sciences (7

¹ Instituto Nacional de Edstudos e Pesuisas Educacionais Anisio Teixeira, Higher Education Statistics. For more information, visit: <http://portal.inep.gov.br/web/guest/inicio>.

² For more information, visit: <http://uis.unesco.org/en/uis-student-flow>.

percent). This finding illustrates, in part, the support of the Brazil Scientific Mobility program (2011-2016), which granted 100,000 scholarships for outbound Brazilians in STEM fields.

The USA and Portugal are top destinations for Brazilian students who study abroad: Of the 15,492 outbound Brazilian students, the largest group (18 percent) studied at institutions in the USA. This reflects the findings of IIE's *Open Doors*[®] report which found that Brazil is the eighth leading place of origin for students coming to the United States. During the 2015/16 academic year, 19,370 students from Brazil were studying in the United States (Farrugia & Bhandari, 2016), indicating significant demand for an American education. Portugal is the second most popular destination for Brazilian outbound students. This finding indicates that the opportunity to study abroad and use a common language attracts 13 percent of Brazilian students to Portuguese higher education institutes.

Inbound International Students

Metropolitan regions attract international students: The results of this survey show that 64 percent of the total population of 20,523 international students enrolled in degree and non-degree programs chose to study in the country's economic and industrial hub, the Southeastern region. Brazil's State University of Campinas is the top university in Latin America, according to a Times Higher Education ranking for the region.³ Other highly ranked institutions in the Southeast include the University of São Paulo, Federal University of São Paulo, and Federal University of Rio de Janeiro. The prestige of the universities in this region may be among the factors that draw international students to the Southeast.

Greatest inbound flow at the undergraduate level and in the fields of social science and law: Eighty-three percent of the students studying in Brazil are pursuing an undergraduate education, with the majority classified as full-degree students (74 percent). Across all academic levels, social science subjects and law attract the greatest number of inbound international students (39 percent). While private institutes have traditionally had strong reputations for law education (Bezerra, Niskier & Batourina, 2017), at least domestically, this survey found that international enrolment in law and social sciences was concentrated (36 percent) in federal public institutions.

Internationalization at Higher Education Institutions

More international students and partnerships overall at public federal and private not-for-profit institutes: Public federal institutions and private not-for-profit institutions attract the largest cohorts, 36 percent and 30 percent (respectively), of the inbound student population of 20,523. Public federal institutions and private non-profit institutes also entered more formal agreements, 32 percent and 34

³ For more information, visit: <https://www.timeshighereducation.com/world-university-rankings/latin-america-university-rankings-2017-results-out-now>.

percent (respectively) with international counterparts in 2016 than public state, municipal and private for-profit institutes.⁴ This suggests that memoranda of understanding (MOU) represent a potentially measurable commitment to international collaboration, at least at the student level, rather than protocol.

Institutional budgets for internationalization: The results of this survey indicate that funding for internationalization is scant with nearly half (47 percent) of responding institutions reporting a lack of financial resources for international initiatives. Of the institutions that reported having institutional funding (22 percent), most were unable to report valid data about how budgets are allocated. This appears reflective of a common situation among Latin American universities which promote internationalization in policy and discourse but lack or have inadequate financial resources to support global mobility in practice (Gacel-Ávila, Jaramillo, Knight & De Wit, 2005).

⁴ It merits mention that there is a range of public and private university types among the top ranked institutes in Brazil as measured by the Times Higher Education ranking which considers international outlook as a key criterion. For more information, visit: <https://www.timeshighereducation.com/news/ranking-methodology-2016>.

Methodology

The Brazil Mobility Data Project developed a survey tool that can be used by institutions and national-level agencies in Brazil to collect comprehensive data on higher education mobility into and out of Brazil. This pilot project intended to test the survey tool and capture a snapshot of internationalization at higher education institutions in Brazil during the 2016 academic year (January/February – December 2016) as of June 9, 2017.

The Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES) and the Brazilian Association for International Education (FAUBAI) distributed the survey to 485 institutions of higher education. Survey respondents were asked to provide institutional information and data on the following: inbound international students; outbound Brazilian students; and internationalization at their institutions. Indicators of internationalization comprise language policy, international online learning, funding, and partnerships between Brazilian and international institutions of higher education.

The survey gathered 158 responses from public and private institutions of higher education. The public institutions include federal, state, and municipal institutions. The private institutions include community or philanthropic, referred to in this study as not-for-profit, and private for-profit institutes. The types of institutions represented in this survey are: universities; university centers; faculty (college), integrated faculty or school of higher education; and federal institutes of education, science, and technology (IFETs) and CEFETs. It is important to emphasize that there were discrepancies in the reported data and some institutions were unable to provide valid responses to all survey queries. The findings presented below should therefore be interpreted with caution.

Respondent Profile

The 158 institutions that provided responses on student mobility and internationalization reflect a broad range of institutional types and locations in Brazil. Public universities accounted for 47 percent of responding institutions, with 32 percent federal, 13 percent state, and 2 percent municipal. Private institutions accounted for 53 percent of survey respondents, with 31 percent being non-profit and 21 percent being for-profit institutes. Responding institutions were distributed around Brazil, with a higher concentration in the Southeast: Southeast (51 percent), South (23 percent), Northeast (14 percent), Central-West (9 percent), North (4 percent).⁵

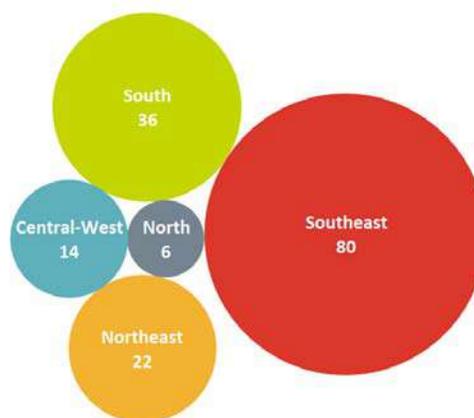


Figure 1. Number of Higher Education Institutions by Geographic Region

⁵ For statistics and information about higher education institutes in Brazil, please visit: <http://portal.inep.gov.br/web/guest/inicio>

Higher Education Mobility in Brazil

This section of the report provides an overview and analysis of institutions' responses to the survey. The findings are divided into three main sections: (1) the flow of higher education students into and out of Brazil, and (2) institutional indicators of internationalization across Brazilian higher education institutions. It is important to note that the respondent pool varies throughout the sections below due to fluctuations in response rates and some institutions' inability to report comprehensive information.

The Flow of Higher Education Students into and Out of Brazil

Inbound International Students

This section describes the characteristics of the pool of international students enrolled in short-term or exchange programs at higher education institutions in Brazil (see Table A-1 for academic level information). An *International Student* is defined as an individual who has physically crossed international borders into Brazil for the main purpose of pursuing a non-degree (short-term or exchange mobility) or full-degree education at an accredited higher education institution. The individual holds a temporary student visa for any length of time and is not a citizen, immigrant, or permanent resident of Brazil.

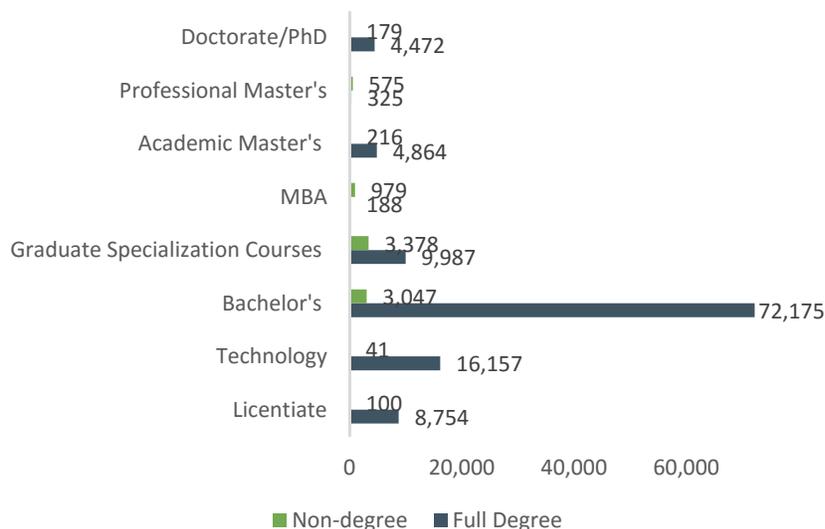


Figure 2. International Students by Academic Level

International students account for 0.8 percent of the responding institutions total enrollment of 2,700,943. The cohort includes 47 percent female, 45 percent male, and 8 percent unspecified students. Sixty-four percent of inbound students attend institutions in the Southeast, 19 percent in the South, 12 percent in the Central-West, 4 percent in the Northeast, and 0.5 percent in the North. The top ten countries of origin of the international student body are: Columbia (10 percent), Peru (4 percent),

Argentina (3 percent), Angola (3 percent), Mexico (3 percent), Germany (2 percent), Spain (2 percent), Portugal (2 percent), Bolivia (2 percent), and Chile (2 percent).

Thirty-nine percent of the international student population studied social sciences and law, followed by: engineering (18 percent); health sciences (19 percent); humanities (8 percent); agriculture (6 percent); life sciences, earth, space, chemistry, physics, mathematics (4 percent); linguistics, literature, and arts (2 percent); biological sciences (2 percent); and multidisciplinary (1 percent).

Outbound Domestic Students

This section describes outbound domestic students enrolled in short-term programs at institutions abroad (see Table A-1 for academic level information). This population is comprised of Brazilian national or resident students studying abroad and enrolled at a home institution in Brazil.



Figure 3. Outbound Brazilian Students by Academic Level

During the 2016 academic year, 0.6 percent of domestic students at the responding institutions studied abroad. In terms of gender, 37 percent are female and 36 percent are male. Outbound students were based at home institutions around Brazil: Southeast (60 percent), South (31 percent), Central-West (4 percent), and North (0.3 percent). The top ten destinations for outbound students are: United States (18 percent), Portugal (13 percent), France (9 percent), Spain (8 percent), Germany (5 percent), Australia (4 percent), Italy (3 percent), Canada (3 percent), United Kingdom (2 percent), and Argentina (1 percent).

Twenty-nine percent of the outbound student population studied engineering, followed by: social sciences and law (26 percent); life sciences, earth, space, chemistry, physics, mathematics (10 percent); health sciences (10 percent); humanities (8 percent); biological sciences (7 percent); agriculture (4 percent); linguistics, literature, and arts (3 percent); and multidisciplinary (3 percent).

Student Mobility in Public and Private Institutions

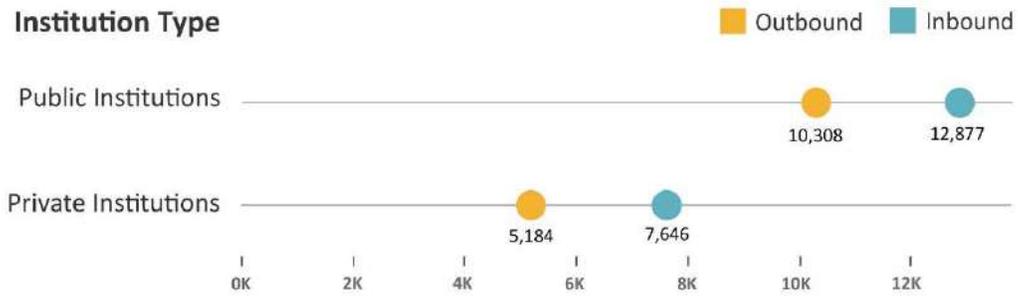


Figure 4. Inbound and Outbound Populations by Public and Private University Types

Public federal institutions enroll 52 percent of the Brazil's outbound student population, followed by private not-for-profit institutes (30 percent), public state (14 percent), private for-profit institutes (4 percent), and lastly public municipal (1 percent). Public federal institutions enroll 36 percent of the inbound international student population, followed by public state (26 percent), private not-for-profit (19 percent), private for-profit (19 percent), and public municipal (0 percent). The globally mobile population is made up of 0.6 percent outbound domestic and 0.8 percent inbound international students.

Institutional Indicators of Internationalization Across Brazilian Higher Education Institutions

Funding for Internationalization and Allocation of Financial Resources

Of the 158 institutions that participated in the survey, 35 have designated funding for internationalization (22 percent), 74 do not have funding (46 percent), and 49 (31 percent) of respondents do not have information on their institutions budget for internationalization. The amounts of funding for internationalization ranged from 20,000 – 4,813,617 Brazilian Reals (BRL) (6,300 – 1,500,000 USD). The 35 institutions that have budgets allocated their funding to: student mobility, faculty mobility, international meetings and events, international office operations, and other expenses.

Language Policy, English-medium Instruction, Virtual Learning, and Dual Degrees

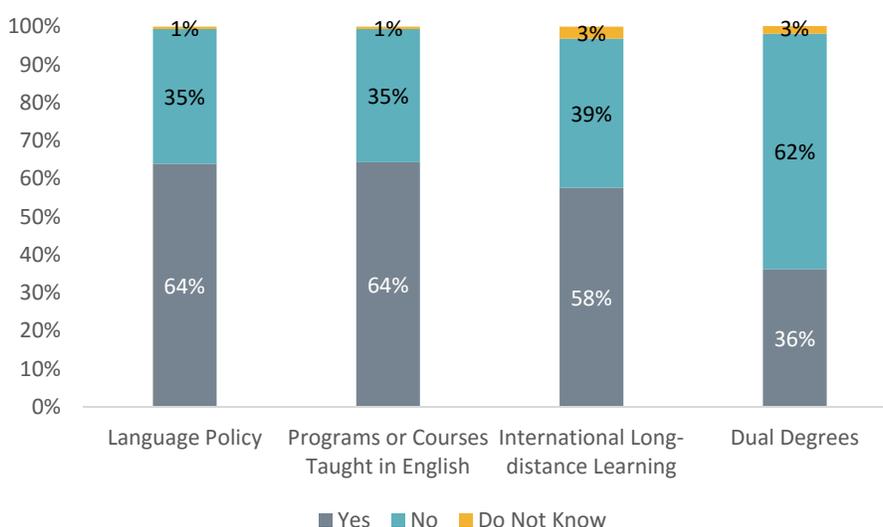


Figure 5. Internationalization Strategy by Indicators Across Institution Types

Sixty-four percent of respondents reported having language policies in place as part of institutional strategies for internationalization. Public federal (23 percent) and private not-for-profit institutions (20 percent) are leaders in the provision of language policies over other institution types: private for-profit (10 percent), public state (9 percent), and public municipal (1 percent). Similarly, 64 percent of the surveyed institutions offer programs or courses taught in English.⁶ Private not-for-profit institutes (22

⁶ It should be emphasized that the sample gathered by this survey may not represent the total number of programs, courses, and modules offered in English across all HEIs in Brazil. For more information, visit: https://www.britishcouncil.org.br/sites/default/files/guide_brazilian_highered_courses_inenglish.pdf

percent) and public federal (19 percent) offer more instruction in English than private for-profit (12 percent), public state (10 percent), and public municipal (1 percent).

Sixty-three percent of surveyed institutions offer dual degree programs. Of the institutions that offer dual degrees, 35 percent of the programs are at both undergraduate and graduate levels, 35 percent are only at the graduate level, and 31 percent are only at the undergraduate level. Private not-for-profit institutions (35 percent) and public federal (33 percent) provide more dual degree programs than other institution types: private for-profit (0.1 percent), public state (0.2 percent), and public municipal (0.01 percent).

Fifty-eight percent of surveyed institutions offer international long-distance learning. Of those institutes, private not-for-profit (22 percent) and public federal (20 percent) offer more virtual learning opportunities than public state (8 percent), private for-profit (7 percent), and public municipal (0 percent).

Memoranda of Understanding

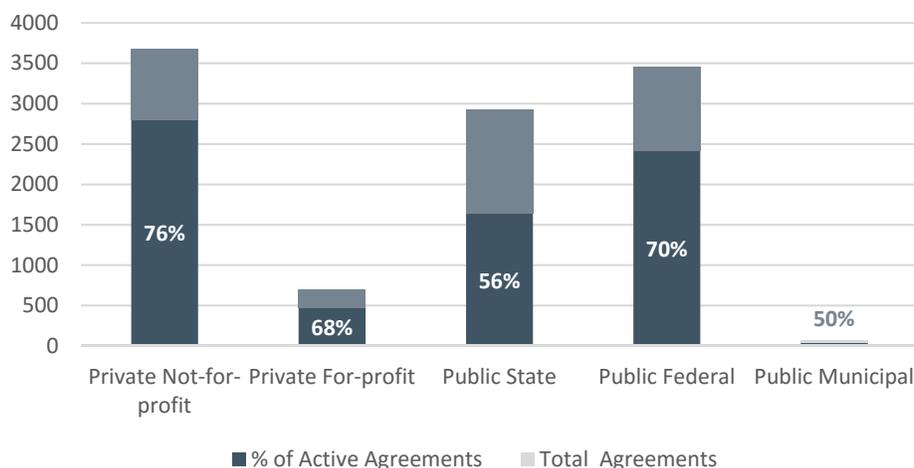


Figure 6. Total Number of Agreements and Percentage Active by Institution Type

Reflecting the findings outlined above, private not-for-profit and public federal institutes hold more agreements with international higher education entities than public states, private for profit, and public municipal institutions. In terms of the percentage of the agreements that are active, private not-for-profit (76 percent) and public federal (70 percent) private for-profit (68 percent), public states (56 percent), and public municipal (50 percent).

Summary and Recommendations

The foundational understanding of internationalization at higher education institutions in Brazil generated by this survey is important for several reasons. First, it is anticipated that this pilot project will serve as a basis for expanding the capacity of institutions to gather and report mobility data. While 158 institutions participated in the project, some respondents were unable to provide detailed, valid, and consistent data on the indicators measured by this survey – resulting in a somewhat unclear picture of the mobility aspect of internationalization. What came to the fore during analysis is that increasing the ability of institutions and individuals to collect accurate data will allow us to see with greater clarity the nuances of the international dimension of higher education in Brazil. As mobility in Brazil’s higher education sector increases, future iterations of this survey disseminated to a wider pool of institutes will enable the collection of concrete data that will help to inform and refine internationalization strategies.

The section below provides a set of recommendations based on analysis of the data:

Measuring and assessing MOU: This survey found that all institutions types have agreements with international institutions, with private not-for-profits and public federal universities having both the most partnerships and highest active percentage. Generating robust accounts of the characteristics of active MOU and measuring the extent of institutional involvement in regional and international networks should be a priority of future surveys. Gathering further data on international partnerships would enable a clear understanding of how internationalization in policy is put into practice.

Understanding outbound mobility of graduate students: Generating an expanded set of data on the factors that support and limit outbound mobility at the graduate level is important to better understand overall outbound student flows. Twenty-three percent of outbound students are at the graduate level, with the majority being doctoral students (15 percent) and MBA students (5 percent). This finding indicates that bilateral agreements for student exchange largely focus on the undergraduate level, which accounts for 77 percent of outbound mobility. This situation also suggests that recognition of credits gained abroad may be particularly problematic at the graduate level and a factor inhibiting the outbound flow of graduate students.

Examining the factors that attract international students to Brazil’s HEIs: While institutions are offering English-medium instruction, virtual learning, language policies, and dual degree options as core components of internationalization strategies, not enough is known about the student populations that enroll in Brazilian institutions because of these initiatives. This survey did find that the largest inbound cohorts hail from Spanish and Portuguese speaking countries, suggesting a strong linguistic pull factor. However, future iterations of this survey should query the factors that draw students to Brazil to assess and measure the effectiveness of internationalization strategies.

Indicators of internationalization: Future iterations of this survey might query a greater range of indicators. For example, the mobility of faculty and short term or visiting researchers, and outbound Brazilians undertaking full degrees abroad, are populations that were not covered by the current data

collection. Developing a process for counting the number of academics undertaking short term teaching and research abroad as well as students pursuing full degrees outside of Brazil would contribute to a more complete picture of academic mobility.

Collecting and reporting on financial data: Capturing accurate accounts of how much and where funding for internationalization is directed is important to create a comprehensive understanding of how institutions are supporting international mobility. This data is also useful for institutional-level and national-level decision making. Forty-seven percent of respondents reported an absence of financial resources for internationalization and 31 percent of respondents did not know if funding existed at their institution. In addition, of the 35 institutions that reported having budgets for internationalization, 38 percent were unable to provide responses or valid reporting on how their funding is allocated. This situation speaks to the need for capacity building at the institutional level.

References

Bezerra, J., Niskier, C. & Batourina, L. (2017). *Private Higher Education in Brazil: Fueling Economic Growth*. International Higher Education. Boston: Center for International Higher Education.

British Council and Oxford Economics (2012). *The Shape of Things to Come: Higher Education Global Trends and Emerging Opportunities to 2020*. Retrieved from: <https://www.britishcouncil.org/education/ihe/knowledge-centre/global-landscape/report-shape-of-things-to-come-1>.

European Commission (2012). *Analysis of Existing Co-operation in Terms of Academic Mobility Between the EU and Brazil and Identification of the Main Obstacles to Mobility*. European Commission. Retrieved from: <https://www.iie.org/Research-and-Insights/Publications/Shifting-Tides-Understanding-International-Student-Yield-for-Fall-2017>.

Farrugia, C. & R. Bhandari (2016). *Open Doors 2016 Report on International Educational Exchange*. New York: Institute of International Education.

Gacel-Ávila, Jaramillo, Knight & De Wit (2005). *The Latin American Way: Trends, Issues, and Directions*. In De Wit, Jaramillo, Gacel-Ávila & Knight (Eds.), *Higher Education in Latin America: The International Dimension* (pp. 341-367). Washington, DC: The World Bank.

Appendix

Academic Level	Portuguese Translation and Classification	Definition
Undergraduate	Graduação	In Brazil, a Bachelor's, Licenciante or <i>Technologist</i> degree is required for entrance into a graduate program, called <i>pós-graduação</i> .
Licentiate	Licenciatura	3 to 4 years to complete. Enables individuals to act as elementary or secondary school teachers in a subject area (e.g. licensed teacher of Math).
Technology	Tecnológica	2 to 3 years to complete. This degree includes professional courses that provide specialized knowledge (e.g. agribusiness, tourism management degree).
Bachelor's	Bacharelado	Between 3 to 6 years to complete. Enables individuals to act as professionals in a certain area (e.g. lawyer, physician).
Graduate	Pós-graduação	Graduate Programs
1. Specializations and MBAs	1. Lato sensu	
a. Graduate specialization courses	a. Cursos de especializacao	1 to 2 years to complete. Specialization courses consist of vocational or professional programs and are generally not accredited by the MOE. Represents a specialization in a certain area. A lato sensu degree is not a door opener for pursuit of a doctoral degree. If one is interested in a PhD, a strictu sensu master's degree should be taken instead. <u>Leaving Certificate:</u> Certificado de Especialização
b. MBA	b. Mestrado em Administração de Negócios	MBA is a separate category under lato sensu.
2. Graduate	2. Stricto sensu	Enables one to pursue an academic career.
a. Academic Master's	a. Mestrado Acadêmico	1 to 2 years to complete. Can be an additional qualification for those in the job market or for pursuit of a Ph.D. A stricto sensu master's degree in management is the equivalent of a full time MBA in North America. There are two types of Master's degree: Academic Master (Mestrado Acadêmico) and Professional Master (Mestrado Profissional). Courses focus on theory and research, ability in a foreign language, and completion of a thesis. <u>Leaving Certificate:</u> Mestre
b. Professional Master 's	b. Mestrado Profissional	
c. Doctorate / PhD	c. Doutorado	Takes 3 to 4 years to complete. In most cases, a Mestre is required for admission. For select programs, a student can be admitted with a Bacharel. A thesis or dissertation is required for graduation. <u>Leaving Certificate:</u> Doutor

Table A-1. Academic levels, translations and classifications, and definitions