

The Economic Impact of International Students in Spain

2018

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Executive Summary

This is the fifth issue of the study of the economic impact of international students in Spain first launched by the Association of North American Programs in Spain (APUNE) in 2006. While the early papers focused on US study abroad students the following editions have addressed increasingly broad populations, with this including: US study abroad, Erasmus, language and culture, and graduate business students. The research, now supported by the ICEX and the association EDUESPANA, maintains its initial aim to serve as an information piece to advocate with Spanish authorities and stakeholders to ease barriers imposed on participants and program administrators, that could negatively impact enrollments, and inform the greater public on the benefits of this economic activity. The analysis herein not only measures expenditures made by these international students in Spain, but also accounts for the considerable multiplier effect of those expenditures.

For its size and population, in the past two decades Spain has remained a preferred educational destination for international students. Participants in US study abroad programs have arrived in increasing numbers for the past 50 years, and the country maintains its position as the third largest destination for this group. Erasmus students have made Spain their preferred destination since 2001, with greater numbers of incoming participants than any other country. With an enrollment of 472,150, language and culture specialized schools attracted more internationals than the other three clusters included in this study and had the greatest economic impact. Graduate business programs of diverse types recruited their students from all global regions, and especially from Latin American and Caribbean countries. Some of the institutions in this group have strong international reputations, hold prestigious accreditations and rank among the best in the world.

The overall economic impact of the 616,788 international students, attending academic programs of these four groups during the school year 2017-2018 was estimated at 2,143,631,704 Euros. The multiplier effect for this activity turned out to be 1.86; implying that for every euro spent on the delivery of an academic program there were an additional .86 Euros spent on other sectors of the Spanish economy. While the report contains a good deal of detail regarding the calculation of these impacts, the bottom line of our research conclusions is summarized in the following paragraphs.

First, the export of education continues to be a relevant item in the Spanish Gross Domestic Product (GDP) both in terms of direct spending and the multiplier impact of this spend. Spain is one of the major exporters of education worldwide along with countries greater in size and population, such as The United States, Canada, Australia and Great Britain. Several of those nations have highly coordinated efforts to build this market and all of them give the sector priority in handling visas, temporary immigration for study, and related governmental support.

Second, Spain continues to be an appealing destination for students of all types and the sector has further potential for growth and development, but actors must realize that they are competing with countries around the world for this spend. The relevance of the export of education should be considered when promulgating policies and procedures impacting the industry. To achieve this, educational institutions of all types must join forces in: promoting data-gathering that will allow for accurate state of the field reports, conveying research-based findings to the public, and developing and enforcing principles of good practice that will continue to enhance the quality of all types of programs.

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One of the greater challenges we faced to complete this study were the lack of data and the vacuum of communication and cooperation between private and public institutions and organizations across and within the sectors of this market where, in some cases, it was impossible to access accurate figures. It would also be important to determine place of origin and educational destination, as the Ministry of Education has done for graduate business students attending accredited programs at universities. Mapping these data would help identify the regions with greater sending/receiving capacity, to focus policies and resources either on those locations or on expanding to others where there are opportunities to be competitive.

In addition, study of this marketplace in terms of longer-range impacts, for example links between Spain and other countries in trade, would provide useful information for further economic development. While there are numerous news pieces on the success of Spain as a destination for international students, these typically settle on anecdotal data instead of analyzing the reasons for the country's success and how these could be capitalized upon. The lack of information across academic sectors and over longer time periods makes data collection for research an intricate procedure, when it should be a clear-cut process.

Next, facilitation of this market by the Spanish government, everything from visas to marketing support for exporters, is important. While both the ICEX (Instituto de Comercio Exterior) and the SEPIE (Servicio Español para la Internacionalización de la Educación) have sought ways to maximize the public resources made available, the sector would greatly benefit from: greater institutional funds and support, coordinated marketing efforts for all four clusters included in this study, and an expedited process for student visas. In this regard, the passing of new legislation in August 31st of 2018, could eliminate the previous barriers for non-EU students and those who intend to complete an internship after their studies here.

Finally, the joint impact of these four cohorts goes well beyond the educational institutions where students enroll, as they contribute to the economic growth of sectors including: providers of housing, travel and transportation; small local businesses; and entities that organize social and cultural activities. Supporting ongoing research, both on the economic impact and the social benefits of the export of education, will provide a baseline for measuring growth and important information to better invest in this market, generate ideas for further development, and help the broader public understand the benefits of internationalization at home.

International education, in all its forms, is now a major economic sector for the Spanish economy. The impact of hundreds of thousands of students in Spain, both on the finances of our educational institutions, and on the multiplier impact on the overall Spanish economy, is enormous. A combination of quality offerings, Spanish educational brand recognition and natural attractions (climate, culture, security) have made Spain one of the leading exporters of educational offerings throughout the world.

It is important to remember that Spain is in competition with other countries which offer reputable products; the US, UK, Australia and New Zealand and increasingly China. Many of these countries track data more effectively and coordinate among agencies to assure a coherent and most effective national policy for educational export in areas such as visa issuance and work opportunities upon graduation. Coordinating data collection to direct Spanish marketing efforts would further strengthen Spain's position in this market.

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Introduction

The purpose of this analysis is to estimate the overall economic impact of international students attending various types of programs in Spain, during the 2017-2018 academic year, to: inform public and private stakeholders, help shape more effective institutional policies and legislation, and provide a data-based advocacy tool to further international exchange and cooperation.

Scope of the Study and Expected Outputs

We addressed this topic seeking responses to the following research questions:

1. How many international students enrolled and for what length in US study abroad, Erasmus, language and culture, and graduate business programs?
2. Which are the most relevant indicators of the economic impact of these international students in the Spanish context?
3. How should the direct and indirect effects generated by students attending each of these programs be quantified?
4. What are the overall economic impact of visiting international students and the multiplier effect for other industries in Spain?

Review of Existing Literature

To determine what research design would best produce a realistic estimate of the overall effects of this economic activity, we reviewed similar studies completed in other countries, researched articles on economic impact outside the field of education and explored different data-collection and analysis methods.

Studies on the economic impact of international students

Some of the best-known reports on the economic impact of international students are those regularly published in the US by NAFSA (*International student economic value tool*) and the Institute of International Education (*Economic impact of international students*). Relevant reports have also been published in other nations including: *The value of international education to Australia*, *Assessing the economic impact of international education in Canada*, and *The economic impact of export education*, in New Zealand. Although these works included other types of university students, they helped set the base for our research. In 2018 Southern Cross Consulting published *Understanding US Study Abroad in Ireland: Economic impact and future possibilities*¹, a new study which we also reviewed in our literature.

NAFSA regularly analyzes the contribution made by international students attending US colleges and universities, and their families, to the US economy in terms of income and jobs generated. According to the latest findings, released in 2018: 1,094,792 students contributed \$39 billion, and helped create 455,622 jobs². For this yearly report NAFSA employs international enrollment data from the Institute for International Education (IIE) and the US Department of State; draws living expenses from the US Department of Education's National Center of Educational Statistics Integrated Postsecondary Education Data Systems; and assesses overall benefits and derived jobs applying formulas developed by

¹ <https://www.educationinireland.com/en/Publications/Understanding%20US%20Study%20Abroad%20in%20Ireland.pdf>

² Retrieved December 10, 2018, from: http://www.nafsa.org/File/econvalue_2018.pdf?ga=2.43727205.1317972023.1545571970-1402398561.1545419751

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Jason Baumgartner, Director of Information Resources at the [Office of International Services of Indiana University - Bloomington](#).

According to IIE's special report *Economic impact of international students*, published in 2017, 67% of all international students in the US received most of their funds from sources abroad, including personal and family resources as well as assistance from their home country governments or universities.

In 2017, the continued growth in international students coming to the U.S. for higher education had a significant positive economic impact on the United States. International students contributed more than \$42.4 billion to the U.S. economy, according to the U.S. Department of Commerce³.

Two additional works published in the US addressed the methodology of economic impact studies in higher education. In 2007 Siegfried, Sanderson, and McHenry (2007) published an article describing the "methodological approaches and pitfalls common to studies of the economic impact of colleges and universities"⁴. The authors highlighted the most common shortcomings of this type of reports, warning against a lack of quality of the research and asserting that studies often magnify the contribution made by institutions of higher education to their regions.

In May of 2013 the Association of American Universities (AAU) and the Association of Public Land-grant Universities (APLU) sponsored an Economic Impact Workshop, where three authors from the Bureau of Economic Analysis of the U.S. Department of Commerce recommended using input-output analysis to assess the contributions made by universities to regional economies⁵. In their presentation, Ambargis, Mead, and Rzeznik suggested best practices to apply input-output models. In line with Siegfried, Sanderson, and McHenry (2007), they warned against the risk of double-counting which leads to unreasonably high estimates and suggested "a transparent framework for presenting results" (p. 1). The authors provided several useful examples to illustrate how to complete a study on the regional impact of a university in the US.

The authors of *Assessing the economic impact of international education in Canada* "combine the estimated number of international students in Canada by level of study in each province and territory and estimates on educational and living costs"⁶, to assess the total expenditure during their studies. They conclude that "international education services for long-term students alone contribute to the equivalent of 17.2% of Canada's total export in goods to the world" for an amount of \$12 billion, and that the activity generates 158,300 jobs.

In addition to the US and Canadian reports, several other studies look at the contribution made by *education exports*. The following three, carried out in Australia and New Zealand, also address the effects of international students' expenditures on other national industries, and determine the multiplier effects of this economic activity.

³ Retrieved December 10, 2018 from: <https://www.iie.org/Research-and-Insights/Open-Doors/Data/Economic-Impact-of-International-Students>

⁴ Siegfried, J. J., Sanderson, A. R., & McHenry, P. (2007). The economic impact of colleges and universities. *Economics of Education Review*, 26(5), 546-558, p. 546

⁵ Ambargis, Z. O., Mead, C. I., & Rzeznik, S. J. (2014). *University Contribution Studies Using Input-Output Analysis* (No. 0105). Bureau of Economic Analysis, retrieved June 2016, from: https://www.bea.gov/papers/pdf/BEAWP_UniversityContributionStudiesIO_022014.pdf

⁶ Retrieved February 18, 2017, from: http://www.international.gc.ca/education/report-rapport/economic-impact-economique/sec_6.aspx?lang=eng

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The economic impact of export education (2008) was "developed with funding from the Export Education levy and managed by Education New Zealand on behalf of the Ministry of Education"⁷. Its authors define economic impact as the contribution to Gross Domestic Product made by: tuition fees, students' living expenditures, earnings from offshore education, "and flow-on effects through the wider economy" (par. 5). According to these researchers, the previous assessments (published in 1999, 2001 and 2004) had been less comprehensive, lacked "a dedicated survey of expenditure by foreign fee-paying students", and failed to include the provision of educational goods and services abroad by companies and institutions. A summary in the *Education Counts* website details how the previous deficiencies were addressed in the 2008 study:

Over 2007/08 the export education industry generated around \$2.3 billion of foreign exchange, of which \$70 million came from offshore provision. The industry's contribution to New Zealand's gross domestic product is estimated at approximately \$2.1 billion after allowing for flow-on effects to other industries and leakages offshore (par. 3).

The earliest study we found in Australia including multiplier effects was completed by McKay in 1998 and focused on the impact of international students on the city of Wollongong's economy. In his research, McKay found that each dollar invested in attracting international students would generate \$1.8 of household income and contribute to create a vast number of jobs. In 2015 the Australian Government commissioned Deloitte Access Economics to complete a similar study, which would also produce multipliers. This was to be a much broader research, including data from the entire country.

In a 2015 Australian report, Deloitte valued exports from international education, including "international students studying at schools, vocational education and training (VET) providers, higher education providers and those studying English Language Intensive Courses for Overseas Students (ELICOS) courses"⁸. The total impact was estimated at \$18.8 billion, and researchers determined that the activity was supporting over 130,700 full time employees. There were an additional \$400 million in government revenue as the result of consumption taxes, and \$336 million attributed to tourism activities of students, their families and friends. In the document the authors describe the role of multipliers,

A widely used measure of the spill-over of activity from one sector to another is captured by the ratio of the total to direct change in economic activity. The resulting estimate is typically referred to as 'the multiplier'. A multiplier greater than one implies some indirect activity, with higher multipliers indicating relatively larger indirect and total activity flowing from a given level of direct activity (p. 72).

The latest figures, published by Universities Australia in August of 2018 after their release by the Australian Bureau of Statistics, indicate records of international students in the country contributing 32 billion to the economy "boosting Aussie jobs and wages"⁹. Australia sets an example for other world regions, in: the success of strategies and funding employed to promote the country as an educational destination, the data-collection and analysis processes, and the circulation of results.

⁷ Retrieved February 16, 2017, from: <https://www.educationcounts.govt.nz/publications/international/35324>

⁸ Retrieved February 16, 2017, from: <https://internationaleducation.gov.au/research/research-papers/Documents/ValueInternationalEd.pdf>, p. 1

⁹ Retrieved November 12, 2018, from: <https://www.universitiesaustralia.edu.au/Media-and-Events/media-releases/International-students-inject--32-billion-a-year-into-Australia-s-economy---boosting-Aussie-jobs-and-wages#.XB5cylxKhPY> par. 1

In *Understanding U.S. Study Abroad in Ireland* (2018)¹⁰, a group of researchers led by Gill Roe completed a thorough analysis of the character, economic impact and future of this sector. They collected data on six different types of study abroad programs, to assess their direct, indirect and induced effects on the Irish economy. The study constitutes a tool to advocate for the benefits of international educational experiences both for the host and the sending countries, and especially for the communities with a more direct role in the exchange.

Economic impact studies in fields other than education

The American Independent Business Alliance (AMIBA) employs the multiplier effect to assess the economic impact on communities of local businesses vs. national franchises. AMIBA promoted a series of studies to communicate and advocate for the importance of the local economic multiplier effect or *local premium*. The organization recommended the input-output model be employed as a key part of effective *buy local* and public education campaigns, and we found their advocacy approach¹¹ somehow transferable to the field of international education.

In their *Guide for undertaking economic impact studies*¹², John L. Crompton, Seokho Lee, And Thomas J. Shuster (2001) use the Ocean City, Maryland, Springfest as an example for tourism professionals to apply in their communities. They focus on the principles that are key to the integrity of the assessment process, when determining the return on residents' taxes used by the City Council to fund the festival. The authors suggest assessing the overall impact from "nonresident visitors who spend money in the local community both inside and outside of the event or facility that they visit". Their process includes using surveys to measure the total direct expenditures made by non-residents at the Springfest, as well as their indirect impact on sales, personal income, and employment in the local community.

Economic interdependence: Input-output studies

In his 1965 book, *The elements of input-output analysis*, William H. Miernyk¹³ introduces students to the historical context in which the thought of economic interdependence developed, starting with the works of Francois Quesnay and his *Tableau Economique* (1758) and culminating in the 1930s with Professor Wassily Leontief's approach to economic interdependence studies. Leontieff focused on quantitative relations among the components of an economic system and their effect on one another. Although his input-output model is based on linear equations, Miernyk covers the essentials of the process in non-mathematical terms to help his readers understand how it works. His book influenced our choice of a research design that would focus on economic interdependence.

Miller and Blair (*Input-output analysis: Foundations and extensions*, 2009)¹⁴ explore Leontief's framework as it applies to the regional level, detail the extensions that have been developed in the past seven decades, and describe how the model is applied in different contexts. This text was especially useful in clarifying the types and roles of multipliers, and how employing these would best contribute to the purpose of our study. They define multipliers as a notion that "rests upon the difference between the initial effect of an exogenous change and the total effects of that change". These authors distinguish between Type I or *simple multipliers*, when only direct and indirect effects are considered; and Type

¹⁰ Retrieved November 18, 2018, from:

<https://www.educationinireland.com/en/Publications/Understanding%20US%20Study%20Abroad%20in%20Ireland.pdf>

¹¹ Retrieved February 14, 2017, from: <http://www.amiba.net/resources/multiplier-effect/>

¹² *A guide for undertaking economic impact studies: The Springfest example*, John L. Crompton, Seokho Lee, and Thomas J. Shuster, 2001, Journal of Travel Research, Vol. 40, August 2001, 79-87 © 2001 Sage Publications

¹³ The Web Book of Regional Science, sponsored by The Regional Research Institute of West Virginia University. Retrieved February 8, 2017, from: <http://www.rri.wvu.edu/WebBook/Miernykweb/new/index.htm>

¹⁴ Miller, Ronald E.; Blair, Peter D.. *Input-Output Analysis : Foundations and Extensions*. Cambridge, GBR: Cambridge University Press, 2009. Retrieved February 10, 2017, from: <http://site.ebrary.com/lib/mitlibraries/Doc?id=10329730&ppg=44>, (p. 244)

II or *total multipliers*, when direct, indirect and induced effects are employed. Type I multipliers are likely to produce lower estimates of economic impact than Type II, as the latter include also the induced effects resulting from a specific trade activity.

In December 2014 The Association of Public and Land-grant Universities (APLU), through its Commission on Innovation, Competitiveness, and Economic Prosperity (CICEP), and the Association of American Universities developed their *Economic impact guidelines*, acknowledging that "APLU's member institutions are increasingly being asked to demonstrate their economic value and relevance"¹⁵. They encouraged higher education institutions to "focus efforts not only on telling their economic engagement story well, but also growing, improving, and advancing their economic engagement enterprise and thereby accelerating economic development in their regions, nationally" (p. vii). Regarding economic engagement, the framework developed by CICEP is based on four basic suggestions for universities: knowing what they are doing well and what needs to be improved; measuring their degree of engagement; telling how they contribute to economic development; and engaging with stakeholders to have a meaningful impact. While our study seeks to assess economic impact at a national level, it aligns with the CICEP guidelines.

Research Design

For this 2018 work we expanded the scope of our previous studies adding students in graduate business degrees, a sector where Spanish schools with global reputations have succeeded in enrolling growing numbers of internationals.

While we did not apply Leontief's method per se, his analytical framework and the basic concepts of input output models continued to serve as a base for our work. For the purpose of this study, we made the following assumptions:

- Direct impacts are the expenditures related to the delivery of an academic program, including fees paid to local schools and teachers;
- Indirect impacts are subsequent to direct impacts, and occur as international students attending an educational program in Spain spend money on other sectors of the economy, such as: housing, travel, cultural activities, transportation, and leisure; and
- Induced impacts are secondary effects to indirect impacts, which can: (a) happen during or after the educational program; and (b) be the result of spending by individuals other than the student. Examples of induced impacts are family and friend's visits, future return trips, an increase in the consumption of Spanish goods abroad, and the strengthening of commercial bonds between Spain and the students' home countries.

While we acknowledged that, regardless of the type of program they attend, international students in Spain undoubtedly generate direct, indirect and induced economic contributions; in our work we only employed elements that were both relevant and measurable. It is important to highlight that there are myriads of additional social and economic positive outcomes which derive from the presence of international students. Ms. Anne-Marie Lansdown, Deputy Chief Executive for Universities Australia, suggested some of the induced impacts that have ensued the significant presence of internationals in Australian institutions of higher education: "Australians develop powerful personal and professional relationships, and long-lasting cultural, diplomatic and trade ties, when students from overseas spend their formative years here", "and when international students return home from their studies – which

¹⁵ Retrieved December 7, 2018, from:

<https://www.aau.edu/sites/default/files/AAU%20Files/Key%20Issues/Research%20Administration%20%26%20Regulation/AAU-APLU-Economic-Impact-Guidelines.pdf>, p. vii

the vast majority do – this creates a powerful network of global alumni with great affection for Australia¹⁶. The same effects are transferable to all destinations. To compose the full picture, these benefits should be identified and assessed in future research studies.

The decision on whether we would adopt a research design using simple (Type I) or total (Type II) income multipliers was, thus, influenced by our limited capacity to measure induced impacts.

Methodology and methods

We approached this as a quantitative study where each of the research questions required specific sources, and methods for data collection and analysis described in the following sections.

1. *How many international students enrolled and for what length in US study abroad, Erasmus, language and culture, and graduate business programs?*

We used a combination of different sources to determine numbers of participants and length of their stay in Spain. The association EDUESPAÑA facilitated unpublished data from Spain's Ministry of Interior on numbers of visas awarded to US-based students attending programs longer than 90 days. Combining this figure with program duration data from the Open Doors report (IIE), we determined the percentage of SA students who enrolled in programs of different lengths.

The European Commission publishes data on all its Erasmus+ programs, specifying numbers of incoming and outgoing participants by country and their average length of stay abroad. Since figures for the academic year 2017-2018 had not become public yet we made a prediction, based on previous years (from 2010-2011 to 2015-2016). Specialists from the Servicio Español para la Internacionalización de la Educación (SEPIE) –SEPIE is the Spanish government agency responsible for Erasmus+ and all other international nationwide programs– provided their input to make this assumption as realistic as possible.

Determining how many individuals had completed programs at specialized language academies, and for what length, required the assistance of EDUESPAÑA. This association and the Federation of Spanish Language Schools (FEDELE) collect and analyze data on enrollment, and length of study for internationals studying at language academies throughout Spain.

There are two types of institutions enrolling international students in graduate business programs: private schools offering professional master's, and universities offering accredited master's degrees through their schools of business. For professional business schools, we gathered data on numbers of students and length of stay, through the Spanish Association of Business Schools (Asociación Española de Escuelas de Negocios, AEEN), and its 42 members. We employed AEEN's average enrollment to assess the total number of students in this sector. EDUESPANA provided the total number of organizations offering these programs (150) throughout the country.

We gathered data on numbers of students enrolled at higher education institutions offering graduate business degrees, from: the Spanish Ministry of Education's Registry of Universities, Certificates and Degrees [Registro de Universidades, Certificados y Titulaciones, RUCT], and the *Avance de la Estadística de Estudiantes Universitarios* online data.

¹⁶ Retrieved December 8, 2018, from: <https://www.universitiesaustralia.edu.au/Media-and-Events/media-releases/International-students-inject--32-billion-a-year-into-Australia-s-economy---boosting-Aussie-jobs-and-wages#.XB5cylxKhPY>

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Students attending professional programs can complete their studies online, with a short intensive 2-week session in Spain or attend the institution on-site full-time for a year. International students who arrive in Spain to complete an accredited degree at a university typically enroll full-time at on-campus programs. The average length of these is 12 months, with some adding an experience abroad. Sources of data for each of the four clusters, are displayed in Table 1.

Table 1: Sources of data employed to determine numbers of students and length of their stay in Spain, for the 2017-2018 academic year

	NUMBER OF STUDENTS	LENGTH OF STAY IN SPAIN
Study Abroad	Spanish Ministry of Interior (data on visas issued for programs lasting more than 90 days)	Percentages in Open Doors Report 2018
Erasmus	European Commission SEPIE	
Language and Culture	EDUESPAÑA	
Graduate Business programs: Professional Programs	AEEN EDUESPANA	AEEN Professional schools' websites
University Degrees	Spain's Ministry of Education: → RUTC → Statistics and Reports	University websites

2. Which are the most relevant indicators of the economic impact of these international students in the Spanish context?

To determine the changes that occur in the Spanish economy as the result of receiving visiting international students we needed to identify the most accurate indicators for each cluster, including the direct and indirect effects, which do not necessarily coincide for the four groups. The qualitative decisions made in identifying and classifying these indicators were reviewed with associations and public entities with a relevant role in each specific area, including: APUNE for Study Abroad; SEPIE for Erasmus; EDUESPAÑA for language schools; and institutional websites, AEEN and EDUESPANA for business schools. To be considered, any direct and indirect effects would need to be quantifiable.

3. How should the direct and indirect effects generated by students attending each of these programs be quantified?

The assistance from associations and public and private entities would be, once again, fundamental in helping us collect data to quantify the direct and indirect effects for each of the student clusters (see Table 2).

Table 2: Sources and types of data used to quantify direct and indirect impacts

	SOURCES	TYPE OF EXPENSE
Study Abroad	APUNE program directors	→ Academic program delivery → Extra-academic items and services → Student/personnel ratio
	→ APUNE survey on salaries → Instituto Nacional de Estadística → ADECCO / Infojobs report → Régimen General de la Seguridad Social	Personnel costs
	APUNE students	Living and leisure expenses
Erasmus	Spanish Ministry for Education, Culture and Sports	Public funding for outgoing Erasmus participants
	→ SEPIE → Public (online) sources	Living and leisure expenses
Language and Culture	→ EDUESPAÑA → FEDELE → Instituto Nacional de Estadística → ADECCO / Infojobs report → Régimen General de la Seguridad Social	→ Academic program delivery → Personnel
	Public (online) sources	Living and leisure expenses
Graduate Business Schools	→ AEEN → EDUESPANA → RUCT → Professional schools' websites → Universities' websites	Academic program delivery
	Public (online) sources	Living and leisure expenses

APUNE circulated two different surveys on expenditures, one among directors and another among students, to define the amounts spent for each of the items and terms for the study abroad cohort. To assess direct impacts, we sought to define expenditures directly related to the delivery of the academic programs, such as: the fees paid to local educational institutions and teachers, and the overall cost for the leadership and staff employed. We defined personnel expenditures using the average students/staff ratio from the surveys, and data on salaries from sources including: APUNE, the Spanish Statistics National Institute [Instituto Nacional de Estadística], a report published by the companies ADECCO & Infojobs, and the Spanish social security administration.

Erasmus students going abroad pay their home institutions for the academic programs they attend. Since participants in these EHEA educational exchanges usually receive a stipend from their governments, we accessed Spain's Ministry of Education data to assess whether public funding awarded to outgoing Spanish students would have a negative economic impact to be considered.

In 2017, the association EDUESPAÑA had provided data on academic program delivery costs for Spanish language and culture programs. There was no indication that the cost of these programs had shifted, thus we employed the same fees for this study. Using the FEDELE state of the field report, we were able to define how many teachers and staff were hired by language schools to carry out their economic activity.

Information on costs for academic delivery and expenses incurred by private schools offering professional master's degrees were provided by AEEN. Additional data, on schools not associated with AEEN was gathered from their websites. Data on tuition and fees for universities offering graduate degrees through their schools of business were based on the RUCT and quantified using information posted in higher education institutions' websites.

To quantify living and leisure expenditures, in which Erasmus, language, and business students incurred while in Spain, we gathered data from web sites that provide such information to incoming internationals.

4. What are the overall economic impact of visiting international students and the multiplier effect for other industries in Spain?

We used quantitative findings from the previous research questions to produce the aggregate amount of direct and indirect impacts. The multiplier effect would be the ratio of the total contribution to the direct contribution of the combined four groups of students. The resulting figure, if greater than one, would reflect the overall effects on sectors of the Spanish economy (other than education) which benefit from these students' enrollment.

In Response to Research Question 1: How many international students enrolled and for what length in US study abroad, Erasmus, language and culture, and graduate business programs?

We combined data from diverse sources to determine enrollment numbers and length of stay, for each of the student categories.

Number and length of stay of students attending US study abroad programs in Spain

The Ministry of The Interior records numbers of mandatory visas granted to US students per calendar year. Data for 2018 had not been published yet, so we came up with a projected figure based on the average numbers of the previous 4 years. Visas granted from 2014 through 2017 increased consistently except for one year (2016), so adopting the average number provided a conservative estimate.

While there are typically more students enrolled in the spring than in the fall, we assumed that the average per-semester in 2017 would balance with the average per-semester in 2018. According to these, the total number of US study abroad students who requested visas for semester or year programs (2017-2018) would have been 19,477 (see Table 3).

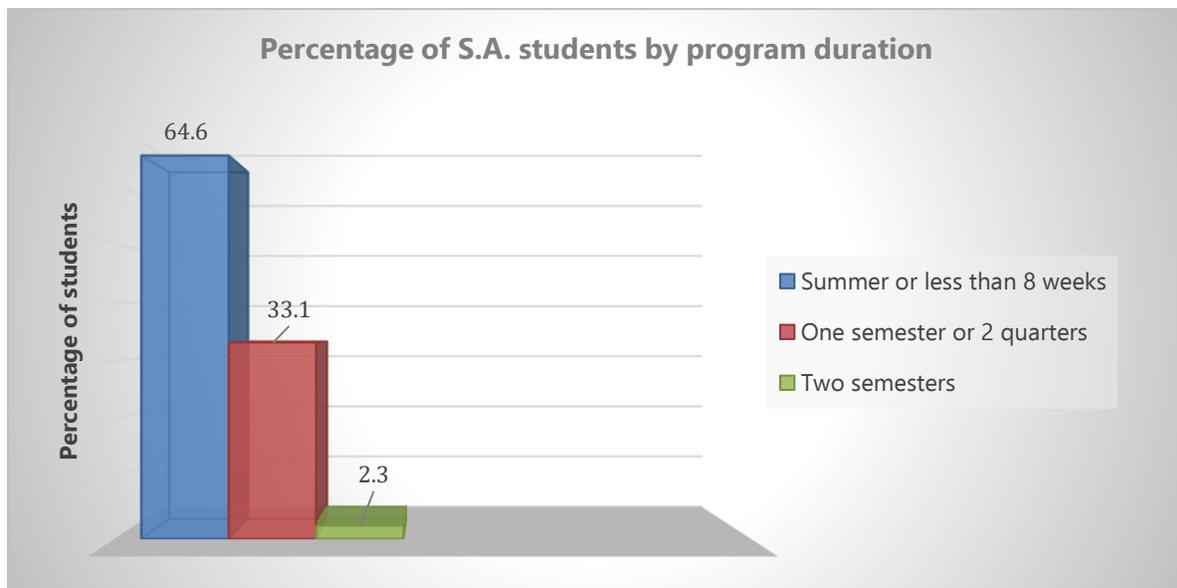
According to Open Doors' Fast Facts 2018: 64.6% of US students abroad enrolled in summer sessions or programs shorter than 8 weeks, 33.1% enrolled in (mid-length) semester or one or two-quarter programs, and 2.3% enrolled in academic year programs (see Chart 1).

Table 3: Visas issued by the Ministry of The Interior to students in the US, for stays longer than 90 days

YEAR	VISAS ISSUED / YEAR	SEMESTER AVERAGE	PROJECTED 2017-2018
2018	18,863*	9,431	19,477
2017	20,092	10,046	
2016	18,742	9,371	
2015	19,094	9,547	
2014	17,523	8,761	

(*) Projected, based on average of previous four years

Chart 1: Open Doors figures on percentages of students by duration of programs they attended



Adapted from Open Doors 2018, *Fast Facts*

Applying the Open Doors percentages, the visas issued by the Ministry would account for 35.4% of the total number of students who attended programs in Spain, and the remaining 64.6% would have attended programs of 8 weeks or less. Thus, we infer that a total of 55,018 US study abroad students attended programs in Spain, in 2017-2018. Figures, by length of stay, are displayed in Table 4.

Table 4: Number of SA students in Spain, in the 2017-2018 academic year, by length of stay

PROGRAM LENGTH	NUMBER OF VISAS ISSUED	PERCENTAGE OF STUDENTS	NUMBER OF STUDENTS
Summer & others (less than 8 weeks)	0	64.6%	35,542
Semester or 2 quarters	18,211	33.1%	18,211
Academic year	1,265	2.3%	1,265
Total	19,477	100%	55,018

This figure is higher than the one we arrived at in our previous study (2017), when we concluded the total SA enrollment for 2014-2015 "adding up all lengths of stay, would amount to 49,750 US students"¹⁷. The difference between our total numbers and those provided in the *Open Doors* reports could respond to the fact that not all US institutions whose students attend programs in Spain would necessarily report their data to the IIE.

Number and length of stay of students attending Erasmus programs in Spain

Both the overall numbers of learners participating in Erasmus/Erasmus+ programs and the funding awarded by the European Commission regularly increased for the past 30 years, with Spain remaining the top destination since 2001. Exact figures for sending and receiving countries (2017-2018) would only become available in 2020, so we made a projection based on the average percentage of growth from 2010-2011 until 2015-2016, i.e. 4.53%. Based on this rationale, since the European Commission and the SEPIE reported 44,596 in the academic year 2015-2016, given a 4.5% annual increase in numbers, there would have been 48,700 students attending Erasmus+ programs at institutions of higher education in Spain in 2017-2018.

In its *2016 Erasmus+ Report* the European Commission stated the average length of stay abroad for its higher education programs was 5.2 months. Since Erasmus students attend regular semesters at Spanish universities, we assumed the length of stay had remained the same.

Number and length of stay of students attending language and culture programs in Spain

EDUESPAÑA has close ties to the Federation of Associations of Spanish Language Schools (Federación Española de Asociaciones de Escuelas de Español para Extranjeros, FEDELE) and to additional independent language academies; and it regularly collects, analyzes and distributes their overall enrollment figures to several public agencies. EDUESPANA recorded a total of 350 specialized language and culture schools throughout the country, in 2017. In the same year, FEDELE reported on numbers of students and length of their stay in Spain. According to this source the average number of students enrolled at language academies was 1,349, and their length of stay was 2.34 weeks. With an annual enrollment of 1,390, the 350 institutions would have attracted a total of 472,150 internationals.

¹⁷ Grasset (2017). *The Economic Impact of Study Abroad, Spain*, retrieved October 18, 2018, from: <http://www.spaineduprograms.es/wp-content/uploads/Economic-Impact-2017-Study-January-24-2018-1.pdf> p. 13

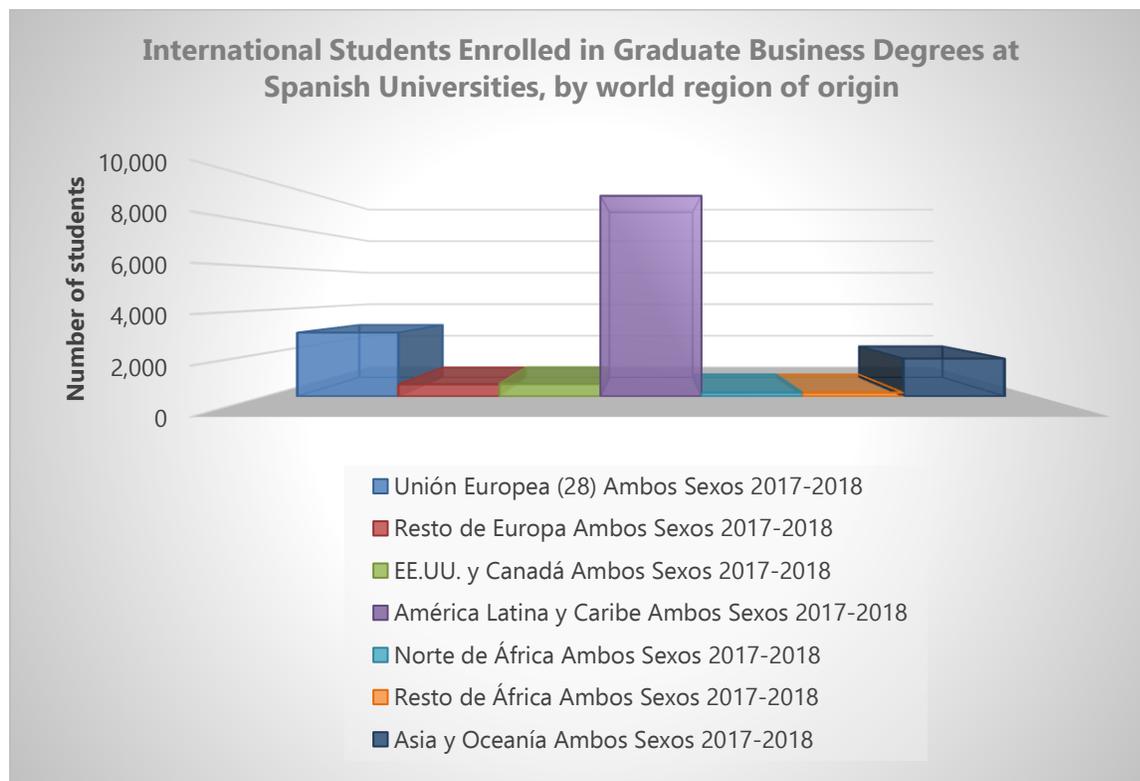
Number and length of stay of students attending graduate business programs in Spain

After several conversations with stakeholders we decided to focus on one-year master's programs, which seem to be most-common both for organizations offering private professional degrees and for accredited universities granting graduate degrees.

According to EDUESPANA there are 100 schools of this type throughout Spain. We gathered data from AEEN, collected from the 42 members of the association, on the number of students in these programs and their format. AEEN schools have an average enrollment of 880 and we used that figure to assess the approximate overall enrollment for the other 58 organizations. Applying percentages of international business students at Spanish graduate institutions, provided by the Ministry of Education (i.e., 31%), we figured 27,280 internationals completed professional business degrees in the 2017-2018 academic year.

According to the Ministry of education, 15,500 international students enrolled in graduate business on-campus programs at Spanish public and private institutions of higher education in 2017-2018¹⁸ (see Chart 2).

Chart 2: Number of international students enrolled in graduate business on-campus programs at Spanish public and private institutions of higher education in 2017-2018



Adapted from Ministerio de Educación y Formación Profesional, *Anuario de indicadores universitarios*

¹⁸ Ministerio de Educación. Avance de la Estadística de Estudiantes Universitarios. Curso 2017/2018: 1.4.3 Número total de estudiantes matriculados, por nacionalidad (regiones), sexo y ámbito de estudio. Estudios de Máster. Retrieved December 27, 2018, from: http://estadisticas.mecd.gob.es/EducaJaxiPx/Datos.htm?path=/Universitaria/Alumnado/Avance/2017-2018/2Master/Capitulol/10/&file=AV16_mat_14c.px&type=pcaxis

In Response to Research Question 2: Which are the most relevant indicators of the economic impact of these international students in the Spanish context?

Identifying the most relevant measures of the economic impact of international visiting students in Spain was fundamental for our research to produce accurate findings. For our previous study, we had to choose whether we would consider the direct, indirect and induced impacts of the economic activity, or would simply address the first two. We acknowledged the relevance of induced consequences brought about by visiting international students, but also realized measuring these was well beyond the scope of our work. Thus, we employed Type I indicators (direct and indirect impacts). Faced by the same limitations for the present study, we continued to postpone the evaluation of the induced effects which derive from the presence of international students in Spain and suggest that as a relevant topic for future research. The complete list of direct and indirect impacts for each student cohort, is displayed in Table 6.

Measures of the economic impact of US study abroad students

Study abroad classes are delivered via various models –typically programs will offer direct enrollment at a local institution, *cursos de extranjeros*, and or US university courses set up by providers. Most participants are enrolled in courses specifically designed for internationals and or offered by a US program provider, with few students opting for direct enrollment¹⁹. In addition to tuition, study abroad programs usually provide a broad range of student services for which they hire local personnel including staff and management. Academic delivery and personnel costs are the more relevant direct effects of study abroad programs in Spain.

For this study we surveyed directors and students in US university programs to identify the main items and services on which institutions and participants made expenditures during a term in Spain. We also asked whether there were any other relevant expenses. While several directors suggested various additional items, these seemed to be program-specific and we did not find an across-programs category worth including. Thus, the study abroad items and services quantified remain the same as in the previous study. The number of responses from APUNE program member institutions has continued to increase throughout the various editions, with 55% more directors and 197% more students completing their surveys this year.

Measures of the economic impact of Erasmus students

Erasmus+ participants pay tuition at their home institutions and join the official degree programs offered at their destination, so incoming students don't have a direct economic impact on the host country. However, to promote mobility within the EHEA the Spanish national government and the autonomous communities grant public funding to some participants. That disbursement made by national and regional administrations would not happen without the international exchange, so we consider it a negative direct economic impact that results from the specific activity.

Erasmus+ participants incur in living and leisure expenses, which are itemized and priced in a varied range of web sites and materials made available by private and public entities. We have used these public data sources to identify the most relevant indirect effects of this population.

¹⁹ According to Monica Perez-Bedmar, Executive Director of APUNE, direct enrollment typically requires a high command of Spanish and the ability to adapt to teaching styles with a strong direct instruction component (M. Perez-Bedmar, personal communication December 2, 2018)

The Economic Impact of International Students in Spain, 2018

Table 6: Conceptually clustered matrix displaying the direct and indirect impacts of international students by group, using Type I multipliers

STUDENTS	DIRECT IMPACT	INDIRECT IMPACT	TOTAL IMPACT
US Study Abroad	<ul style="list-style-type: none"> ▪ Academic program delivery ▪ Personnel (leadership and staff) plus benefit load (Seguridad Social) 	<u>Paid for by programs:</u> <ul style="list-style-type: none"> ▪ Housing ▪ Orientation and welcome ▪ Local cultural activities ▪ End of semester workshops, receptions and other activities ▪ Medical insurance ▪ Excursions (2-day or longer) <u>Paid for by individual students:</u> <ul style="list-style-type: none"> ▪ Local transportation ▪ Cell phone ▪ Travel ▪ Leisure activities 	From US study abroad
Erasmus	(Public funding awarded to Spanish Erasmus students attending programs abroad)	<u>Paid for by individual students:</u> <ul style="list-style-type: none"> ▪ Housing: room and board ▪ Local transportation ▪ Independent travel ▪ Leisure ▪ Shopping and others 	From Erasmus
Language and Culture	<ul style="list-style-type: none"> • Language program delivery • Personnel plus benefit load (Seguridad Social) 	<u>Paid for by individual students:</u> <ul style="list-style-type: none"> ▪ Housing: room and board ▪ Local transportation ▪ Independent travel ▪ Leisure ▪ Shopping and others 	From Language and Culture
Business Schools	Academic program delivery	<u>Paid for by individual students:</u> <ul style="list-style-type: none"> ▪ Housing: room and board ▪ Local transportation ▪ Independent travel ▪ Leisure ▪ Shopping and others 	From Graduate Business Schools
	Total Direct Impact of the economic activity	Total Indirect impact of the economic activity	Overall Economic Contribution

Measures of the economic impact of language students

Students attending language academies have a direct impact through the fees they pay to the entities delivering these programs, and as the result of schools hiring employees (teachers and administrative staff). Their jobs are a direct effect of the economic activity. To assess the indirect impact of this group, we assumed that participants in these programs incur in similar living and leisure expenses as their Erasmus+ peers.

Measures of the economic impact of graduate business programs

To identify the most relevant indicators of the economic impact of these international students we addressed each of the two cohorts separately: private schools offering professional master's degrees; and universities offering accredited master's degrees. Throughout the cluster, the academic program delivery would be a direct impact and students' living expenses during their time in Spain would account for their indirect impact.

We assessed tuition fees for professional business programs using a combination of data from AEEN and from some of the other 58 schools of this type. While we were unable to reach all these organizations, we did access data for those with a stronger international presence, through their websites.

Using data from the Ministry of Education we were able to identify public and private universities offering accredited graduate business degrees. We employed their average tuitions to account for the direct impact of this group and assumed their living and leisure expenses (indirect impact) would be like those of students in other types of programs.

In Response to Research Question 3: How should the direct and indirect effects generated by students attending each of these programs be quantified?

To address this question, we searched for the most accurate ways to quantify the direct and indirect items we had identified for each of the four groups of students.

Quantifying the impact of SA students

The surveys completed by APUNE program directors helped us define the costs of academic program delivery, personnel, and student services. Most of the items returned clear quantitative values from which we were able to produce average per student per term amounts. Personnel costs required collecting additional data and making some qualitative decisions prior to quantifying their impact.

To determine personnel expenditures, we looked at data in a 2018 APUNE survey (Program Questionnaire) where the average salary for a program director was quoted as being 60,000 euros per year. According to the same source, the average salary for staff amounted to 31,200 Euros per year. We decided to triangulate the data by looking at two additional Spanish sources:

- Spain's National Statistics Institute [Instituto Nacional de Estadística] reflected the average salary in the services sector to be 29,335.82 Euros per year²⁰; and
- Infoempleo & ADECCO quoted average wages of 30,943.43 Euros per year²¹, for workers with a graduate degree (masters)

Based on these data we came up with average yearly wages of 30,493 Euros for staff and 60,000 Euros for leadership, with one leadership position for every four staff. We added benefit amounts, using data drawn from the country's Seguridad Social administration, to produce the total compensation costs. We presumed that most staff would fall under the Oficiales Administrativos category, which would contribute 8,829.60 Euros per year. For leadership positions

²⁰ Retrieved December 11, 2018, from: Instituto Nacional de Estadística, at: https://www.ine.es/dyns/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736060920&menu=ultiDatos&idp=1254735976596

²¹ Retrieved December 11, 2018, from: <https://iestatic.net/infoempleo/documentacion/Informe-Infoempleo-Adecco-2017.pdf>

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(likely under group 1: engineers and graduates), the average social security would add up to 12,917.37 Euros per year. The resulting personnel costs for the SA cohort, including wages and mandatory social security benefits, would be 39,323 Euros per staff member and 72,917 Euros per leadership position²² (see Table 7).

Table 7: Study Abroad personnel expenditures

TERM LENGTH	STUDENT/ STAFF	PERSONNEL	FTEs	WAGES	TOTAL COST
One month <i>n</i> 35,542	Total	2,397	218		
	Staff	1,918	174	39,323	€ 6,842,202
	Leadership	479	44	72,917	€ 3,208,348
Semester (4.5 months) <i>n</i> 18,211	Total	1,228	502		
	Staff	982	402	39,323	€ 15,807,846
	Leadership	246	100	72,917	€ 7,291,700
Academic Year (9 months) <i>n</i> 1265	Total	85	70		
	Staff	68	56	39,323	€ 2,202,088
	Leadership	17	14	72,917	€ 1,020,838
SUM ²³		3,710	790		€ 36,373,022.00

With student to staff ratios from the APUNE surveys, we were able to determine how many personnel would be hired to work for these programs (14.83/1). We used Spain's standard –employees receive 12 months of compensation for 11 months of work– to turn months of employment into equivalent yearly positions (FTEs) (see Table 8).

Table 8: Direct impact of SA students (in Euros)

TERM LENGTH		YEAR	SEMESTER	SUMMER	TOTAL €
Number of Students		n 1,265	n 18,211	n 35,542	
Academic program delivery	Per student	6,000	3,000	1,000	
	All students	7,590,000	54,633,000	35,542,000	97,765,000
FTE Personnel		70	502	218	36,373,022
Total Direct Impact SA					134,138,022

²² These amounts are lower than those resulting from our calculations for the 2017 study, largely due to lower Social Security costs.

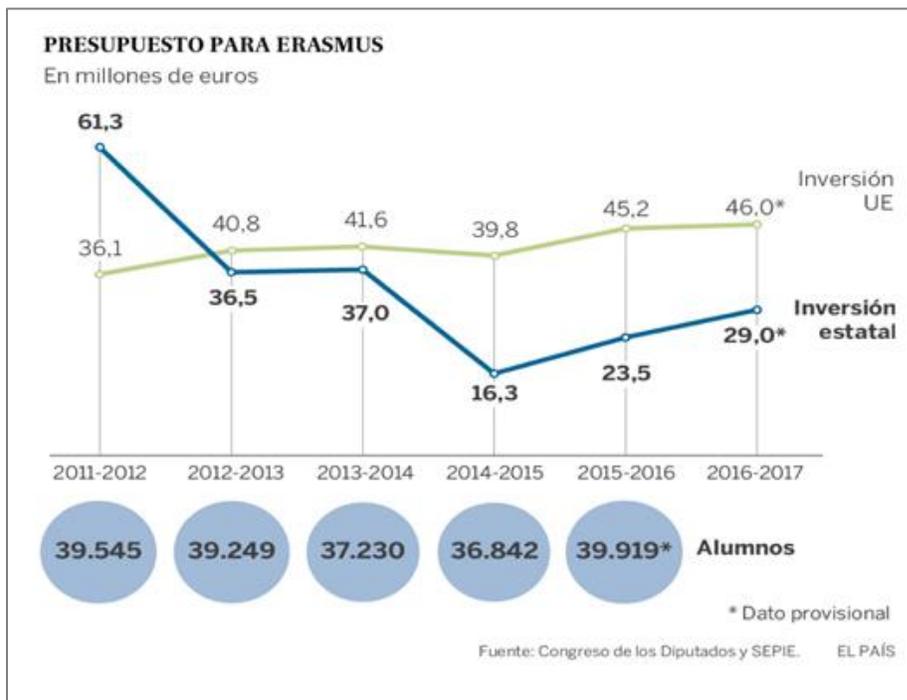
²³ All figures in personnel tables rounded to the nearest whole number

To quantify the indirect impact of SA students we combined data gathered from directors' and students' surveys on all items and services on which there is spending outside the academic aspects of the programs. US institutions in Spain generally include numerous services in their fees, such as: housing, orientation and welcome, local cultural activities, end of semester events, medical insurance, and excursions. In addition to those expenditures, participants spend money on living and leisure categories, such as: local transportation, cell phones, travel, leisure, and transportation. Figures on the indirect impact of study abroad students, resulting from these expenses, are displayed in Table 9.

Quantifying the impact of Erasmus students

Since incoming participants paid tuition at their home universities, we concluded they did not have a direct economic impact on the host institutions. Their presence did not increase the costs of academic program delivery nor did it require hiring additional faculty. However, several Spanish Erasmus students got a stipend to go abroad from their regional and or national administrations. Spain's Government funding for Erasmus students decreased from 2011-2012 until 2014-2015 when amounts awarded went back on an upward trend²⁴ (see Chart 3).

Chart 3: Erasmus scholarship budget amounts granted by the Spanish government



Adapted from El Pais, May 17, 2017

²⁴ Pilar Alvarez and Jose Marcos, El Pais, May 19, 2017. Retrieved October 20, 2018, from https://elpais.com/politica/2017/05/19/actualidad/1495219425_344304.html

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Table 9: Indirect impacts generated by SA students (in Euros)

ITEM	TYPE	YEAR <i>n</i> 1,265	SEMESTER <i>n</i> 18,211	SUMMER <i>n</i> 35,542
EXPENDITURES MADE BY PROGRAMS				
Housing: 837 € / month	Per student	6,696	3,348	837
	All students	8,470,440	60,970,428	29,748,654
Orientation & Welcome	Per student	452.8	226.4	113.2
	All students	572,792	4,122,970	4,023,354.40
Local cultural activities	Per student	552.38	276.19	138
	All students	693,789.28	5,029,696.09	4,904,796.00
End of semester activities	Per student	166.58	83.29	41.65
	All students	210,723.70	1,516,794.19	1,480,324.30
Medical insurance	Per student	113.22	56.61	28.31
	All students	143,223.30	1,030,924.71	1,005,838.60
Excursions	Per student	1,286.37	643.18	321.59
	All students	1,627,252.47	11,713,001.89	11,430,001.46
Sum	All students	11,718,221	84,383,815	52,592,969
EXPENDITURES MADE BY INDIVIDUAL STUDENTS				
Local transportation	Per student	424	238.5	53
	All students	536,360.00	4,343,323.50	1,883,726.00
Cell phone	Per student	208	117	26
	All students	263,120	2,130,687	924,092
Travel	Per student	4264	2,398.50	533
	All students	5,393,960	43,679,083.50	18,943,886
Leisure activities	Per student	1888	1062	236
	All students	2,388,320	19,340,082	8,387,912
Other: 40% of Students	Per student	784	441	98
	All students	396,704.00	3,212,420.40	1,393,246.40
Sum	All students	8,978,464.00	72,705,596.40	31,532,862.40
Totals	All students	20,696,685	157,089,412	84,125,831
TOTALS	All items			261,911,928

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With rising government support and no data available for the academic year 2017-2018, we assumed mobility funds to add up to 29 million Euros. These figures coincide with a June 2017 communiqué from the Ministry of Education mentioning a budget of 29 million Euros to fund the Erasmus+ mobility of 33,994 higher education students²⁵. Since this expenditure of public funds would not have taken place without the international exchange activity, the figure was factored in as a negative direct impact (see Table 10).

Data on these students' indirect spending was drawn from several online sites advising participants who are considering Spain as a destination, including: [Mastersportal](#); [TopUniversities.com](#); [GoEuro.com](#); [GoOverseas.com](#); and [StudyLink.com](#). We came up with an average monthly spending of 885 Euros/student. According to the European Commission, the average length of stay abroad was 5.2 months, thus we determined the indirect impact of each Erasmus student to be 4,602 Euros (see Table 10).

Table 10: Direct and indirect impacts generated by Erasmus students

	ITEM	Contribution/ Month	5.2 months	Total n 48,700
DIRECT	Academic program delivery (incoming students)			N/A
	Public funds awarded to Spanish students attending Erasmus+ abroad			(29,000,000)
INDIRECT	Living and leisure expenses	885	4,602	224,117,400
	SUM			195,117,400

Quantifying the impact of language and culture students

Students in this cluster pay their host schools for the academic delivery of the program. To quantify this item, we used the data provided by EDUESPAÑA from surveys among federated (FEDELE) and independent schools in 2017, where average per-student cost for a month-long program was 1,449.83 euros. We adapted the cost to the 2.34 weeks current length of stay.

Language schools need to hire teachers and administrative staff, to fulfill their economic activity so we considered personnel salaries and benefits a direct effect of this cluster. We employed the same average salary and benefits of study abroad administrative staff, of 39,323 per year for an FTE. According to FEDELE's state of the field 2017 report²⁶ the average number of full-time employees working at specialized language schools is 13.

For the purpose of our study we assumed individuals in this cluster spent similar amounts on living and leisure as their Erasmus+ peers. We have reflected the direct and indirect impacts of language students in Table 11.

²⁵ Ministerio de Educación (June 26, 2017), *Educación adjudica más de 102 millones de euros para el Programa Erasmus+ en 2017*. Retrieved October 28, 2018, from: <http://www.educacionyfp.gob.es/prensa-mecd/actualidad/2017/06/20170626-erasmus.html>

²⁶ *Español en España: Informe Sectorial 2017*. Personal contratado por escuelas FEDELE, p. 7.

Table 11: Direct and indirect impacts generated by Language students

ITEM		Contribution	Total <i>n</i> 472,150
DIRECT	Academic program delivery <i>n</i> 472,150 (1,349 students x 350 schools)	807.76	381,383,884
	Teaching and administrative staff <i>n</i> 4,550 (13 FTEs x 350 schools)	39,323	178,919,650
INDIRECT	Living and leisure expenses	493.06	232,798,940
SUM			793,102,474

Quantifying the impact of graduate business students

To identify the most relevant indicators of the economic impact of these international students we employed three separate groups: private schools offering professional master's degrees, private universities offering accredited master's degrees, and public universities offering accredited master's degrees.

For business schools of all types, when necessary, we applied the percentage of internationals in graduate business programs (i.e. 31%) obtained from figures provided by the Ministry of Education²⁷. When we needed to determine how many candidates were completing their programs on-site vs. on-line, we also drew from the Ministry's statistics where 22% of all international students enrolled at universities completed their degrees on-line (see Table 12).

Participants, both at private and public universities, will typically remain in the country for an average of 12 months. There are some multi-country options, which we attempted to identify to avoid having their data pollute our assessment of economic impact in Spain. While graduate students are likely to spend more on living and leisure than undergraduates, we had no concrete data to assert this thus we assumed spending to be the same both for undergraduates and graduates. Tuition would account for the direct impact of this group, and the living and leisure expenses would constitute its indirect impact.

Table 12: Percentages of international and on-site graduate students enrolled at Spanish universities

STUDENTS AT SPANISH UNIVERSITIES	Number	Percentage
All students enrolled in business programs	49,817	100%
All international students enrolled in business programs	15,500	31%
On-site international graduate students		78%
On-line international graduate students		22%
Enrolled at private universities		26%
Enrolled at public universities		74%

²⁷ Ministerio de Educación y Formación Profesional. Avance de la Estadística de estudiantes. Curso 2017-2018 Estudios de Máster. Retrieved, December 28, 2018, from: https://www.educacionyfp.gob.es/servicios-al-ciudadano-mecd/estadisticas/educacion/universitaria/estadisticas/alumnado/2017-2018_Av/Master.html

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Quantifying the impact of international students at professional business schools

In the 2017-2018 academic year 37,000 students enrolled in specialized private business schools belonging to the association AEEN, to complete one-year degrees. Of these, 31% (i.e., 11,470) were internationals who could obtain a professional degree from a Spain-based institution while remaining in their home countries for most of their academic program. The average enrollment at AEEN member schools was 880 students, of which 273 were internationals.

Within this cohort it is typical for international students to complete online courses throughout the year, and travel to Spain for approximately 2 weeks of intensive workshops, lectures and visits. According to AEEN statistics (Mr. Jorge Ruiz, private communication, December 14, 2018), average tuition for their 42 associated schools was 2,000 Euros. For the part of their program completed in Spain we calculated student spending to be 500 euros per person.

In addition to AEEN members, there are another 58 professional business schools throughout Spain. Of these, according to their websites, ten had tuitions ranging from 100,000 to 14,100 Euros with the average amounting to 37,120 Euros. This is an indication that, for those 58 private business schools, tuition could be much higher than the AEEN average. Without more data we assumed that tuition, for this cohort, would be the average of AEEN and the additional 10 schools, i.e., 8,753 Euros, and that their average enrollment would be that of the AEEN organizations (see Table 12).

To determine their indirect impact, we assumed that 78% of all non-AEEN students completed their degrees on-line (see Table 13).

Table 13: Direct and indirect impacts generated by graduate students attending professional business programs

	ITEM	Contribution	Length	Total
DIRECT:				
All international students in professional schools	Academic program delivery <i>n</i> 27,280	8,753	12 months	238,781,840
INDIRECT:				
AEEN	Living and leisure expenses <i>n</i> 11,470	250/week	2 weeks	5,735,000
Other business schools (78% of 15,822)	<i>n</i> 12,341	885/month	12 months	131,061,420
	SUM			375,578,260

Quantifying the impact of international students at business schools of private universities

Some Spanish graduate business degrees have worldwide reputations; are accredited by prestigious foreign agencies, such as AACSB, ACBSP, AMBA, IACBE, etc.; and consistently appear at the forefront of international rankings. With English-taught curriculums, these degrees have managed to attract outstanding students from all world regions and their alumni occupy relevant positions in numerous multinational corporations. Their tuition aligns with that of other elite business schools in Europe, the US and Asia.

To determine the direct impact of business degrees at private universities, we employed the average cost for the accredited universities listed in the RUTC, with programs taught in English. This approach turned out to be very

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conservative for two reasons. First, tuition at the most-prestigious of these universities can be 22 times higher than that at a lesser-known more affordable private institution of higher education. Second, more prestigious organizations with a stronger global presence, a long history of successful placements, and robust accreditations are likely to attract higher percentages of international students. As an example: at one of the higher-ranked, higher-end programs 90% of the students are internationals, so the actual impact is likely to be much higher than what we estimated. However, obtaining more specific data on enrollment figures was not possible in this highly-competitive sector. Average tuition for master's degrees at these business schools turned out to be 33,009 Euros, and 4,030 international students enrolled at these institutions (see Table 14).

Table 14: Direct and indirect impacts generated by international students at business schools of private universities

	ITEM	Contribution	Length	TOTAL
DIRECT	Academic program delivery <i>n</i> 4,030 (26% of 15,500)	33,009	one year	133,026,270
INDIRECT	Living and leisure expenses <i>n</i> 4,030	885	12 months	42,798,600
	SUM			175,824,870

Quantifying the impact of international students at business schools of public universities

We looked at all the public institutions of higher education granting accredited degrees that appear in the RUCT to assess whether their programs had the potential to attract international students and excluded those where finding a relevant population would be very unlikely. Employing this method, average tuition for master's degrees at business schools of public universities turned out to be 10,028 Euros (see Table 15).

While the Ministry's across-disciplines percentages do not necessarily align with the reality of business degrees, for lack of more specific data, we applied these to determine how many international students enrolled at public universities (see Graph 2). Save few exceptions, private universities have been more proactive in strengthening business departments, allocating resources and attracting both international students and professors. Private institutions have also been more effective in creating a broader offer of specialized degrees and those taught in English. From these facts we could infer that there is a higher percentage of international students at private universities and a lesser at public universities than those reflected in the Ministry's percentages.

Of the 11,470 students enrolled at public institutions 8,947 would had attended on-site programs

Table 15: Direct and indirect impacts generated by international students at business schools of public universities

	ITEM	Contribution	Length	Total
DIRECT	Academic program delivery <i>n</i> 11,470 (74% of 15,500)	10,028	one year 10,018 €	114,906,460
INDIRECT	Living and leisure expenses <i>n</i> 8,947 (78% of 11,470)	885	10,620	95,017,140
	SUM			209,923,600

The Economic Impact of International Students in Spain, 2018

The overall direct and indirect impacts for students attending graduate business programs in Spain results from adding effects of private schools offering professional master's degrees, private universities offering accredited master's degrees, and public universities offering accredited master's degrees (see Table 16)

Table 16: Overall impact for all graduate business students

TYPE OF BUSINESS PROGRAM	Direct Impact		Indirect Impact		Total
Professional Schools	€	238,781,840	€	136,796,420	€ 375,578,260
Private Universities	€	131,061,420	€	42,798,600	€ 173,860,020
Public Universities	€	114,906,460	€	95,017,140	€ 209,923,600
Sum	€	484,749,720	€	274,612,160	€ 759,361,880

In Response to Research Question 4: What are the overall economic impact of visiting international students and the multiplier effect for other industries in Spain?

We computed the overall contribution to the Spanish economy by adding the totals for each of the four clusters (see Table 17).

Table 17: Overall economic impact from visiting international students on the Spanish economy

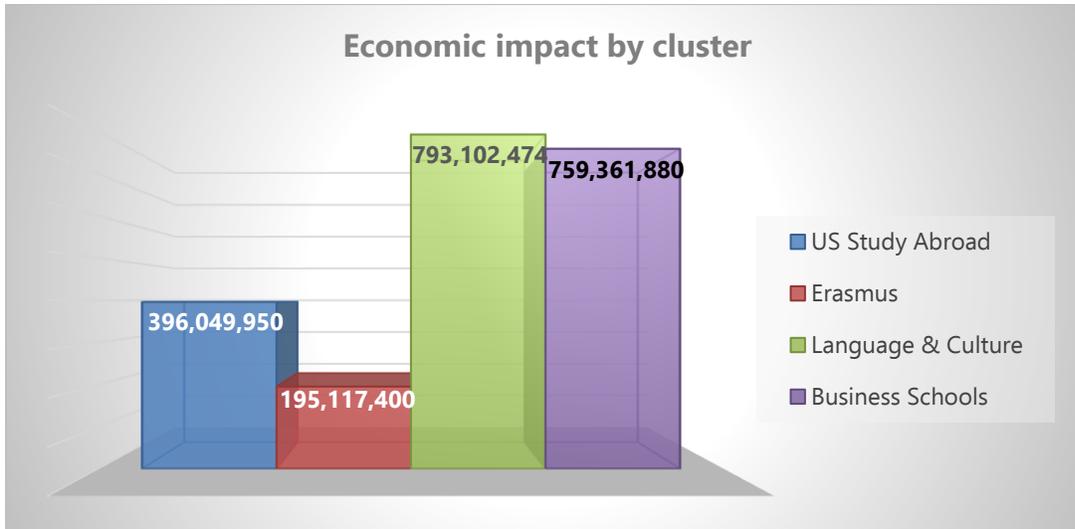
COHORT	DIRECT IMPACT		INDIRECT IMPACT		OVERALL IMPACT
US Study Abroad	€	134,138,022	€	261,911,928	€ 396,049,950
Erasmus	€	(29,000,000)	€	224,117,400	€ 195,117,400
Language & Culture	€	560,303,534	€	232,798,940	€ 793,102,474
Business Schools	€	484,749,720	€	274,612,160	€ 759,361,880
SUM		€ 1,150,191,276		€ 993,440,428	€ 2,143,631,704
Multiplier Effect: Overall Impact / Direct Impact					1.86

The multiplier is an indicator of the spillover effect that the international visiting students' presence triggers on sectors of the Spanish economy other than education. A multiplier effect of 1.87 indicates that for each Euro spent on their academic program, these international students spent an additional .87 Euros on a broad range of sectors of the Spanish economy.

Conclusions

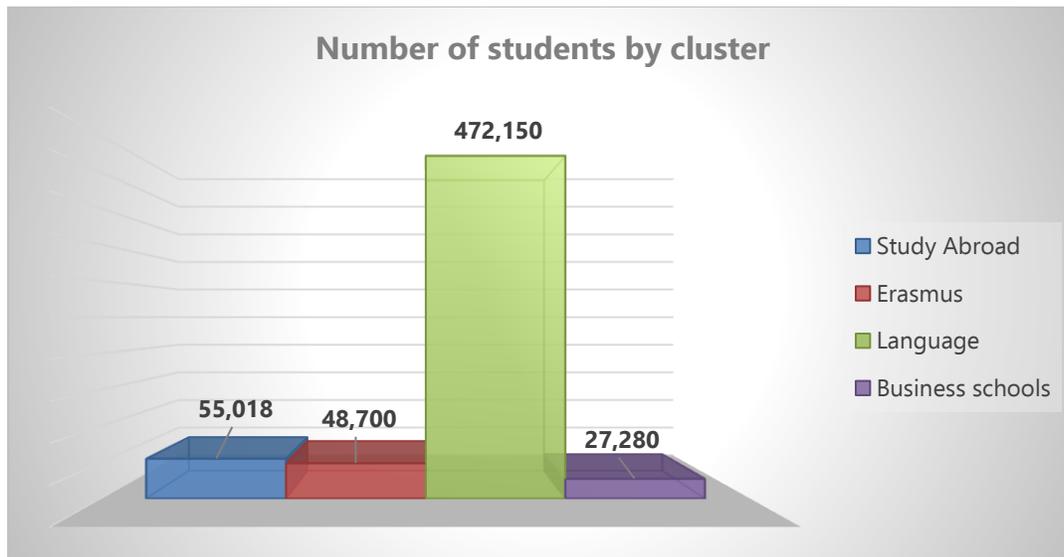
Through this research we found that 616,788 international students enrolled at Spain-based institutions of various types during the 2017-2018 academic year. These included participants in study abroad, Erasmus+, language, and graduate business programs. We determined that their overall economic impact on the Spanish economy amounted to 2,143,631,704 Euros and the multiplier effect for students' spend was 1.86. Internationals enrolled in language and culture programs had the greatest impact, contributing 793,102,474 Euros (see Chart 4).

Chart 4: Economic impact of international students, in Euros, by cluster



Students attending language and culture programs also constituted the largest group, with close to half a million participants (472,150). The Study Abroad and Erasmus clusters accounted for similar numbers of participants, with graduate business degrees of various kinds displaying a lesser enrollment (see Chart 5).

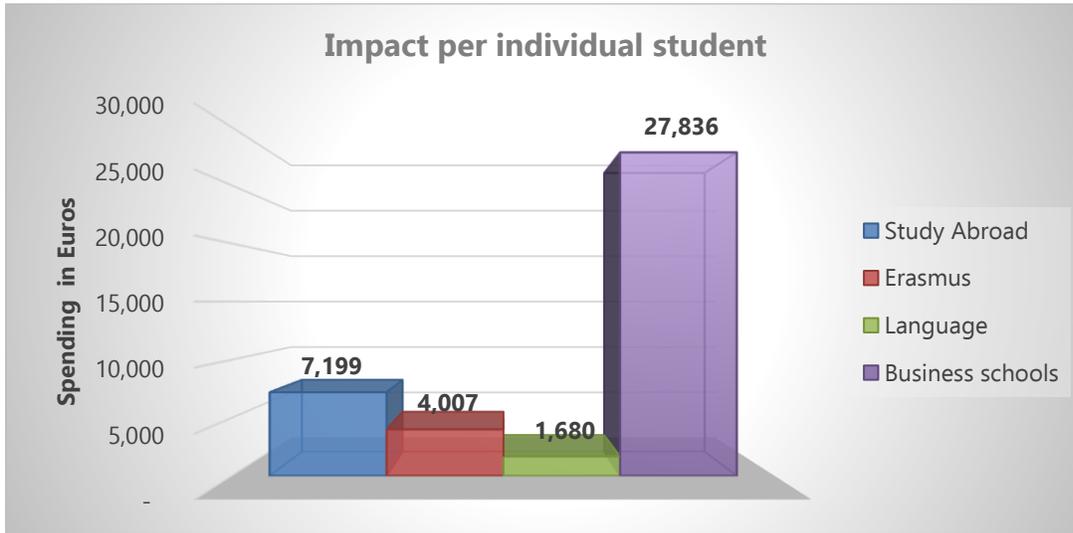
Chart 5: Number of students enrolled, by cluster



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In terms of per-student impact the highest was that of graduates enrolled in business degrees, estimated at 27,836 Euros, followed by study abroad students contributing 7,199 Euros (see Chart 6). The per-person lesser impact was that of participants in language and culture programs, who typically remained in Spain for less than three weeks. Among graduate business students attending public and private universities, 60% were from Latin America and the Caribbean and 19% were from the European Union, with other world regions having a much smaller presence (see Chart 2).

Chart 6: Average economic impact per individual student, for each of the clusters

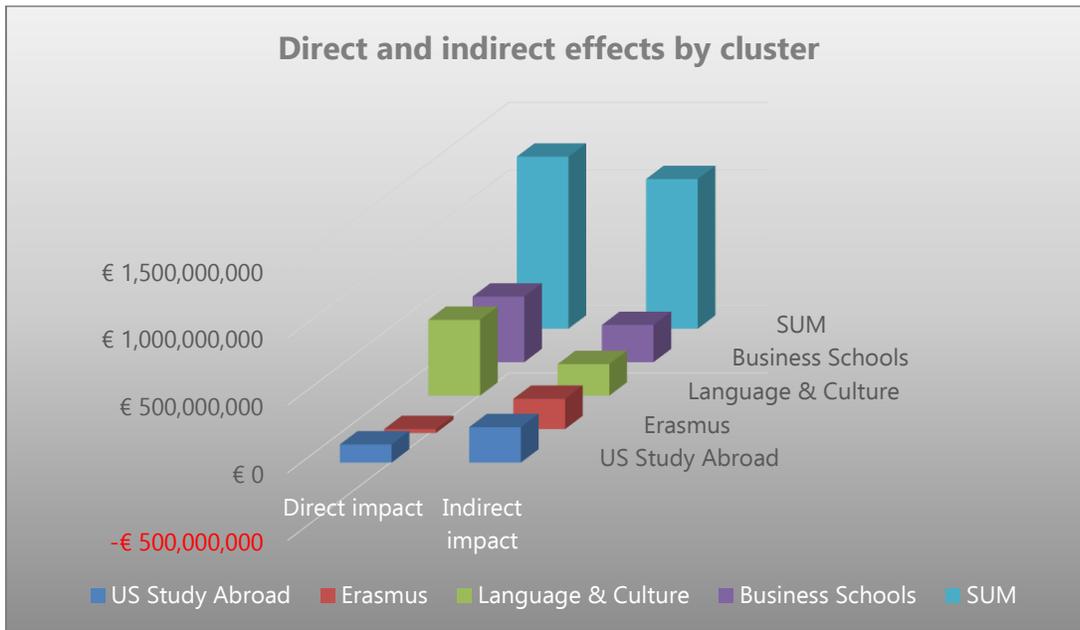


The findings of our 2017 study included a larger multiplier effect for a smaller group of international students (2.51 vs. 1.86)²⁸. While there are several factors that influence this difference, the current multiplier indicates that there is a relevant global population of students willing to invest high percentages of their budgets on the academic part of their experience in Spain, especially in the areas of business and language and culture (see Chart 7). This should encourage education providers to focus on the quality, prestige and professional outcomes of their programs. Erasmus students did not pay tuition in Spain; thus, their direct spending does not inform the value they place on the academic quality of the institutions where they enroll, but their numbers would not continue to increase as they do unless their learning experience had been valuable. As for US study abroad students, Spain continues to be one of their favored destinations and they rely heavily on the cultural activities and services which are a valued component of their higher education experience.

International students and the academic providers that recruit them are also contributing strongly to the financing of the Spanish taxation system in, at least, two ways. First, a significant part of their spending is subject to a value added tax of 4% to 21%. Second, at least two types of programs (study abroad and language schools) hire faculty and staff for whom they make payments to the social security administration. If it were not for this international education market, highly-qualified personnel would likely become part of the unemployed population obliged to survive on public funding. The number of employees that have jobs as the result of this economic activity amounted to 5,340 FTEs. To these we should add all jobs created as the result of the indirect spending of students in their host communities, including: neighborhood cafes and restaurants, grocery stores, gyms, pharmacies, clothing stores, travel, hotels, etc.

²⁸ <http://www.spaineduprograms.es/wp-content/uploads/Economic-Impact-2017-Study-January-24-2018-1.pdf> p. 2

Chart 7: A comparison of direct and indirect effects of the four clusters and overall amounts



In addition to the economic benefits generated by the export of education, we must continue to highlight the constructive social outcomes that derive from the presence of these international students, including: the modernization of educational institutions²⁹, the internationalization of host communities, the development of the socio-cultural environment, and eventually the enhancement of the policies and politics that will shape Spain's international relations. Each of these cohorts contributes in similar and diverse ways.

Study abroad students will continue to promote Spain and its products in the USA and will return to travel the country with their families and friends. Some will be in positions where they can strengthen the international and commercial relations from leadership roles in corporations in the private sector, others will do so from government posts or through a diplomatic assignment as in the case of Ambassador Buchan³⁰.

Erasmus participants take all their courses with local peers, experiencing a full immersion in the Spanish higher education system. According to José Manuel González Canino, Director of the Higher Education Unit at SEPIE, Spain's performance in the EHEA continues to be a great accomplishment: having consistently led in numbers of received students since 2001 and sending greater numbers than countries with larger populations such as Italy³¹. These are signs

²⁹ Alvaro Escribano, Director of the Carlos III International School at Universidad Carlos III de Madrid, personal communication, March 2, 2017

³⁰ "Ambassador Buchan has had strong ties to Spain for almost 40 years. He studied at universities in Valencia and Seville and has travelled extensively throughout the country. A longtime supporter of international education and study of the Spanish language and culture, Ambassador Buchan and his family established a successful exchange program between students in Spain and the United States". Retrieved January 30, 2017, from <https://es.usembassy.gov/u-s-ambassador-richard-duke-buchan-iii-arrives-madrid/>

³¹ José Manuel González Canino, personal communication, January 10, 2019

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of success both as a country and toward the original Erasmus rationales of enhancing the global employability of participants and promoting a European mindset.

Language students attend programs in Spain in numbers larger than any of the other cohorts. The role of specialized academies must be recognized and associations in that sector must continue to promote best practices and the continuous assessment of programs toward widespread quality. Organizations such as FEDELE play a key role in advancing this market and their leadership should be praised for their state of the field reports. This type of research sets the foundation to strengthen the sector in a highly-competitive market and helps advance the global relevance of the Spanish language.

Business programs of diverse types are being successful in attracting international students from all world regions, generating a substantial per-student impact. Some, both private and public, have attained prestigious accreditations and appear at the forefront of international rankings. They must be recognized for their achievements and used as an example. Thousands of Latin American and Caribbean students who are obtaining their graduate business degrees in Spain are establishing our country as a gateway to Europe. They will return to their home countries to bring about change and internationalization using their global connections and Spain as foundations.

The recognition of all these added social benefits of the export of education is a pending subject with the broader public in Spain. It's a topic that must be researched and the product of that work should be widely distributed.

There are some indications that slowly but steadily public support for the export of education is being reinstated to pre-crisis levels and made available to sustain marketing efforts for all education-related exporters, including academic institutions and service providers. A global network of existing public institutions, including all ICEX Trade Offices, Consulates, and Instituto Cervantes Centers, must continue to serve as a base on which to promote an expansion of this market that will ultimately benefit a great number of Spanish stakeholders. More can be done, but there are signs of progress such as the ICEX's increasing support of the export of education and of our research efforts to promote growth and quality.

The Ministry of Education's initiative to publish advanced enrollment statistics, reflecting international students and their origin for the 2017-2018 academic year, is a huge development for the analysis of the current scenario and the assessment of actions implemented. That effort must be praised. While we understand the complexity of keeping these figures updated – a 2-year delay in access to data is common among EU and US administrations and organizations – that timeline poses huge challenges when completing reports such as ours. Our work was only possible due to the support of organizations that provided data and guided our rationales to come up with accurate predictions, including EDUESPANA, APUNE, SEPIE, AEEN, and The Ministry of Education.

There are also signs of progress in the policies and procedures that regulate the awarding of student visas to international students. The Royal Decree 11/2018 approved August 31st of 2018 allows for a greater degree of flexibility for students who wish to request their visa after arriving in Spain. The new decree also allows students who have completed an academic program here to remain in the country while they search for a job for up to one year after completion of their studies. While the details on procedures are not clear yet, these changes should facilitate access to non-EU citizens who wish to enroll in educational programs of multiple types.

Whether there is a positive correlation between stakeholders' efforts to advocate for international education and these changes, or not, we should continue to brief and encourage politicians and government officials to recognize the relevance of Spain as a leading educational destination and the need for the collaboration and support of all public institutions. It would be unwise to neglect a market which has been extremely successful at achieving such great economic and social benefits. While this country will likely remain an appealing destination, there is and will continue

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to be increasing competition from other nations. Maintaining our place in the world will require constant improvements and innovation in how academic programs are marketed and delivered, in granting access, and in what complementing services are offered and at what cost.

Our analysis, as in any other economic impact study, is an approximate process where "output numbers should be regarded as a 'best guess' rather than as being inviolably accurate"³². Nonetheless, producing these measures of the economic impact of international students in Spain allows us to raise awareness on the benefits of this activity, helps advocate for favorable legislation, and can help strengthen the quality of educational programs of all types. All of these fortify the country's assets as an excelling educational destination for all kinds of students and contribute to exploring Spain's potential for other international cohorts such as those who would complete their undergraduate degrees here.

The ICEX funding provided to produce this report and its use by all stakeholders to promote the export of education are a perfect example of what can be done. Supporting this and other research will provide a baseline for measuring growth and development as well as ideas for the further improvement of the educational exports market.

In Madrid. April 10, 2019

³² Journal of Travel Research, p. 81, A Guide for Undertaking Economic Impact Studies: The Springfest Example, retrieved June 20, 2016, from http://agrilife.org/cromptonrpts/files/2011/06/3_4_7.pdf