

The Economic Impact of International Students in Spain

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Executive Summary

In 2006, the first study of the economic impact of international students in Spain was launched by the Association of North American Programs in Spain (APUNE). The research was conceived as an information piece to assist in advocating with Spanish authorities to ease governmental barriers, imposed on participants and program administrators, that had negatively impacted enrollments. The study was revised and updated in 2009 and again in 2014 (Grasset, Griffin and Perez-Bedmar), when it was presented at The Forum on Education Abroad, a large European conference that draws those engaged in study abroad management, primarily from the United States but with global representation from most countries that receive those students.

The 2014 study still constituted a fairly simple approach to the subject, ignoring multiplier effects and focusing solely on US students vs. on the entire population of internationals who come to Spain to study. The post-publication input received from expert colleagues encouraged us to continue updating the study and to collect and analyze broader data, setting the foundations for this *Economic impact of international students in Spain 2017*. This report is far more comprehensive than the prior effort, dealing not only with North Americans studying abroad but also Erasmus students from the European Higher Education Area (EHEA) and others who participate in the myriad of language driven and related educational experiences in Spain. Finally, the economic analysis herein not only more realistically measures program expenditures in Spain, but also accounts for the considerable multiplier effect of those expenditures.

For the past decade, Spain has remained the largest recipient of Erasmus participants from EHEA countries and the third leading destination for US study abroad students. In addition to these two cohorts, there are relevant numbers of individuals attending language and culture programs in specialized academies throughout the country. Each of these three sectors has its own associations and organizations promoting the quality of programs and advocating for favorable legislation, but there is no assessment of their collective effects on Spain's economy. The joint impact of these three 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; and entities that organize social and cultural activities.

In all, this is a more comprehensive and accurate study of the impact of Spain's export of education to the rest of the world.

The overall economic impact of international visiting students in Spain, attending academic programs of various types during the school year 2014-2015 was 782,963,557 Euros. The multiplier effect for this activity turned out to be 2.51, implying that for every euro spent on the delivery of an academic program there were an additional 2.51 Euros paid out to 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 are summarized in the following paragraphs.

First, the export of education in all forms has become a relevant item in the Spanish GDP (Gross Domestic Product) both in terms of direct spending and the multiplier impact of this spend. Spain has become one of the major exporters of education world-wide along with greater countries, 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. The sector has further potential for growth and development, but Spain must realize that it is competing with countries around the world for this spend. The export of education should be given priority in government circles as policies and procedures impacting the industry are promulgated. As Spain continues to recover from a deep recession, setting the foundations to advance its position among competing destinations should be a national priority.

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 three cohorts included in this study, and an expedited process for student visas.

Finally, ongoing 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. Supporting this ongoing research will provide a baseline for measuring growth and development and important information to better invest in this market. It should also generate ideas for further market development.

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Introduction

The purpose of this analysis is to estimate the overall economic impact of visiting international students in Spain during the 2014-2015 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 in US study abroad, Erasmus and language and culture programs, and what was the duration of their stay in Spain?
2. Which are the most relevant indicators of the economic impact of visiting international students in the Spanish context?
3. How can the direct and indirect impacts generated by students attending each of these three types of programs be quantified?
4. How can the overall economic impact of visiting international students be quantified, and what is 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 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. Our research differs from these works in that we focus on visiting and not on degree-seeking university students, yet these examples helped set the base for our study.

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 2016: 1,043,839 students contributed \$32.8 billion, and helped create 400,812 jobs ¹. 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

¹ Retrieved February 18, 2017, from http://www.nafsa.org/File/econvalue2016_natl.pdf

assesses overall benefits and derived jobs applying formulas developed by 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 2015, 72% of all international students in the US received the majority of their funds from sources abroad, including personal and family resources as well as assistance from their home country governments or universities.

In 2015, 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 \$30.5 billion to the U.S. economy, according to the U.S. Department of Commerce².

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"³, to assess the total expenditure during their studies. They conclude that "international education services for long-term students alone contribute to the equivalent of 1.7% of Canada's total export in goods to the world"⁴ for an amount of \$6.9 billion, and that the activity generates 70,000 jobs.

In addition to the US and Canadian reports, a number of 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.

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"⁵. 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* web site 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).

² Retrieved February 20, 2017 from: <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Economic-Impact-of-International-Students#.WIJMAVMrLIU>

³ Retrieved February 18, 2017, from: http://www.international.gc.ca/education/report-rapport/economic-impact-economique/sec_6.aspx?lang=eng

⁴ Retrieved February 18, 2017, from: http://www.international.gc.ca/education/report-rapport/economic-impact-economique/sec_6.aspx?lang=eng, p. 52

⁵ Retrieved February 16, 2017, from: <https://www.educationcounts.govt.nz/publications/international/35324>

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 the 2015 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"⁶. 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.

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).

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"⁷. 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 economies⁸. 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.

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

⁶ Retrieved February 16, 2017, from <https://internationaleducation.gov.au/research/research-papers/Documents/ValueInternationalEd.pdf>, p. 1

⁷ 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

⁸ 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

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 approach⁹ somehow transferable to the field of international education.

In their *Guide for undertaking economic impact studies*¹⁰, 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 suggests 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. Miernyk¹¹ 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)¹² 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 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.

⁹ Retrieved February 14, from: <http://www.amiba.net/resources/multiplier-effect/>

¹⁰ *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

¹¹ 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>

¹² 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)

Research Design

For this 2017 version we wanted to go beyond the study-abroad scope of our previous study; to add participants in Erasmus and language and culture programs, and address multiplier effects to determine the spill-over of this activity on to other sectors of the economy. While we did not apply Leontief's model per se, his analytical framework and the basic concepts of input output analysis served 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.

Regardless of the type of program they attend, international students in Spain undoubtedly generate direct, indirect and induced effects. In order to structure our research design, we first needed to identify which of these impacts would be both relevant and measurable.

During the first stages of this work we interviewed several individuals who had studied in Spain, to explore the induced effects of their experiences. Among them was Ms. Janet Pollman Kafka, who exemplifies some of the most relevant long-term outcomes of visiting international students in Spain. Ms. Kafka is currently Principal at Janet Kafka and Associates and Honorary Consul of Spain in Dallas-Fort Worth. Her firm specializes in marketing communications, branding and public relations for businesses from Spain, and has represented Spanish companies throughout the United States: "my studies during my Junior Year at the University of Madrid were instrumental in my decision to dedicate my career to the relationship between Spain and the United States. That is where my passion began" (personal communication, Feb. 26, 2017).

US Ambassador Capricia Marshal, who served as Chief of Protocol of the United States from 2009 to 2013, also spent a year at Universidad Complutense de Madrid as an undergraduate student. In her speech, during the 50 year anniversary of the program she attended, she explained how the experience influenced her life and developed her diplomatic abilities: using culture as a tool, and creating lasting bonds through cultural exchange¹³.

While acknowledging the relevance of testimonies, such as Kafka's and Marshal's, we also realized that quantifying the economic impact of these induced effects was beyond the scope of our study. 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 relevant induced impacts.

¹³ Jaime Fernandez, *16.000 estudiantes estadounidenses ya llevan a la UCM en su corazón*, Tribuna Complutense, May 18, 2017. Retrieved May 19, 2017, from: <http://tribuna.ucm.es/43/art2778.php#.WTB00evyvlU>

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 in US study abroad, Erasmus and language and culture programs, and what was the duration of their stay in Spain?

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 total number of SA students who had attended programs of three different lengths: summer (less than 8 weeks), semester, and academic year.

The European Commission publishes data on all of its Erasmus programs (currently Erasmus+), specifying numbers of incoming and outgoing participants by country and their average length of stay abroad, which we adopted for our study.

Determining how many individuals had completed programs at specialized language academies, and for what length, required the assistance of EDUESPAÑA. This association regularly collects enrollment figures from members of the Federation of Spanish Language Schools (FEDELE). In addition to these data EDUESPAÑA sent a survey to 130 independent language academies, with questions on student numbers and the length of their stays.

Sources of data for each of the three 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 2014-2015 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 2016
Erasmus	European Commission	
Language and Culture	Survey distributed through EDUESPAÑA, to: <ul style="list-style-type: none"> ▪ Federation of Spanish language schools (FEDELE) ▪ Independent language academies 	

2. Which are the most accurate indicators of the economic impact of visiting 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 of this activity, including the direct effects of academic program delivery as well as the spillover effects on other sectors, for each of the three student clusters. The qualitative decisions made in identifying and classifying these indicators were reviewed with

associations and public entities with a relevant role in that area, including: APUNE for Study Abroad, SEPIE for Erasmus, and EDUESPAÑA for language schools. To be considered, any direct and indirect effects would need to be quantifiable.

3. How can the direct and indirect impacts generated by students attending each of these three types of 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	<ul style="list-style-type: none"> ▪ Academic program delivery ▪ Extra-academic items and services ▪ Student/personnel ratio
	<ul style="list-style-type: none"> ▪ CUPA-HR <i>Salary Survey</i> ▪ 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
	Public (online) sources	Living and leisure expenses
Language and Culture	EDUESPAÑA survey of FEDELE and independent language schools	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: CUPA-HR *Professionals in Higher Education Salary Survey*, the Spanish Statistics National Institute [Instituto Nacional de Estadística], a report published by the company ADECCO, 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.

The association EDUESPAÑA circulated surveys with their member institutions to provide us with academic program delivery costs for Spanish language and culture programs. To quantify living and leisure expenditures, in which both Erasmus and language students incurred while in Spain, we gathered data from web sites that provide such information to incoming internationals.

4. How can the overall economic impact of visiting international students be quantified, and what is the multiplier effect for other industries in Spain?

We would use quantitative findings from the previous research questions to produce an aggregate amount including all the direct and indirect impacts. The multiplier effect would be the ratio of the total contribution to the direct contribution of the three groups. A larger ratio (greater than one) would reflect the overall effects on sectors of the Spanish economy other than education, which benefit from the enrollment of these students in educational programs of the three types.

In Response to Research Question 1: How many international students enrolled in US study abroad, Erasmus, and language and culture programs, and what was the duration of their stay in Spain?

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 data on the mandatory visas granted to US students per calendar year, so we used two yearly phases to calculate figures for the academic year 2014-2015. While there are typically more students enrolled in the spring than in the fall, we assumed that an average figure in the second semester of 2014 would balance with the average figure for the first semester of 2015. According to these data, the total number of US study abroad students who requested visas for semester or year programs was 18,308 (see Table 3).

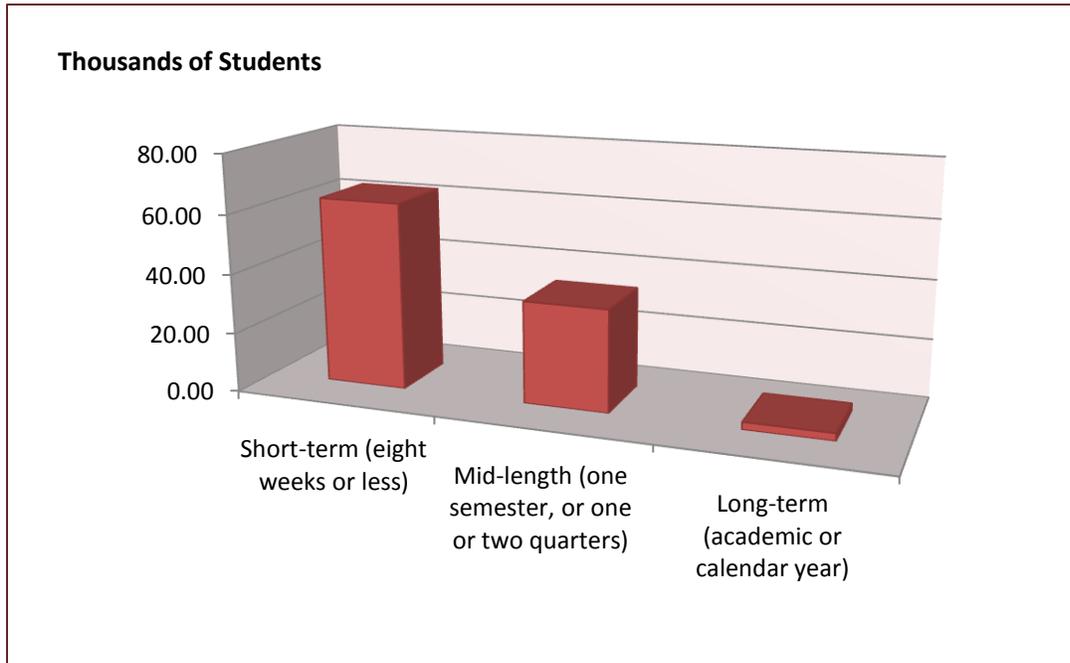
Table 3: Visas issued by the Ministry of The Interior to students in the US, for stays longer than 90 days

YEAR	NUMBER OF STUDENT VISAS ISSUED / YEAR	SEMESTER AVERAGE
2015	19,094	9,547
2014	17,523	8,761

According to Open Doors' *Fast Facts 2016*¹⁴: 63.1% of US students abroad enrolled in summer sessions or programs shorter than 8 weeks, 34.3% enrolled in (mid-length) semester or one or two-quarter programs, and 2.5% enrolled in academic year programs (see Chart 1).

¹⁴ Retrieved February 12, 2017, from: http://www.iie.org/Research-and-Publications/Open-Doors/Data/Fast-Facts#.WMReuW_yvIU

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



Adapted from Open Doors 2016 "Fast Facts"

According to these percentages, the visas issued by the Ministry would account for 36.8% of the total number of students enrolled. In addition, there would have been another 30,502 individuals (the remaining 63.1%) attending programs of 8 weeks or less. Thus we infer that the total number of US study abroad students attending programs in Spain, in 2014-2015, was 49,750. Figures, by length of stay, are displayed in Table 4.

Table 4: Number of SA students in Spain, in the 2014-2015 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	63.1%	31,392
Semester or 2 quarters	17,064	34.3%	17,064
Academic year	1,244	2.5%	1,244
Total	18,308	99.9%	49,700

This figure is similar to the one we arrived at in our 2014 study, when we concluded the total SA enrollment "adding up all lengths of stay, would amount to 50,235 US students"¹⁵. 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.

¹⁵ Grasset, Griffin, and Perez-Bedmar (2014), *The Economic Impact of Study Abroad, Spain*, retrieved January 27, 2017, from <http://www.spaineduprograms.es/wp-content/uploads/Economic-Impact-of-SA-in-Spain-October-2014.pdf>, p. 7

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

According to the European Commission, with 42,537 inbound Erasmus students¹⁶, Spain was yet again the most popular destination in 2014-2015. In its *2015 Erasmus+ Report* the European Commission stated the average length of stay abroad for its higher education programs was 5.3 months.

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 regularly collects, analyzes and reports their overall enrollment figures to several public agencies. In addition, EDUESPAÑA circulated a survey among 150 smaller independent academies outside the federation. The combined numbers from both sources added up to 130,000 students: 96,450 in FEDELE schools and an additional 33,550 at independent academies, who enrolled for an average length of 4.24 weeks (O. Berdugo, private communication, March 7, 2017) which we assumed to be equal to one month .

In Response to Research Question 2: Which are the most accurate indicators of the economic impact of visiting 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. As we organized this study we had to choose whether we would consider the direct, indirect and induced impacts of the economic activity, or we would take into account only its direct and indirect effects. We acknowledged the relevance of induced consequences brought about by visiting international students, but also realized measuring these was well beyond the scope of this work. Thus, we employed Type I indicators (direct and indirect impacts). The complete list of direct and indirect impacts for each of the three groups of students, using Type I multipliers, is displayed in Table 6.

Measures of the economic impact of US study abroad students

Study abroad classes are provided via a number of methods; direct enrollment, *cursos de extranjeros*, and or classes run by US providers. While all models exist, the vast majority of students are enrolled in courses specifically designed for internationals or offered by a US program provider, with direct enrollment accounting for less than 10% of totals. In addition study abroad programs usually provide a broad range of student services for which they must hire local personnel, including staff and management. Academic delivery and personnel costs are the more relevant direct effects of study abroad programs in Spain.

In our 2009 and 2014 studies, we had surveyed directors and students in US university programs to determine which were the main items and services on which institutions and participants made expenditures during a term in Spain. We used the same categories for the surveys circulated for the present study, but also asked whether there were any other relevant expenses. Neither directors nor students suggested additional items, thus we assumed these elements had not changed.

¹⁶ The last data published by Erasmus + Programme Annual Report 2015, retrieved February 14, 2017, from: <https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus/files/erasmus-plus-annual-report-2015.pdf>

Table 6: Conceptually clustered matrix displaying the direct and indirect impacts of visiting 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	Language 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 Language and Culture
	Direct Impact of the economic activity	Type I Multiplier Effects (impact on other sectors of the economy)	Overall Economic Contribution

Measures of the economic impact of Erasmus students

Erasmus participants pay tuition at their home institution, so incoming students don't have a direct economic impact on the host country. However, in an attempt to promote mobility within the EHEA, the Spanish national government and the autonomous communities grant public funding to a number of participants. The disbursement made by national and regional administrations, for students to cover a part of their mobility expenses abroad, would not happen without this international exchange. So, it is fitting to account for that funding as a cost i.e., a negative economic impact that results from the Erasmus international exchange 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.

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. We assumed that participants in these programs incur in similar living and leisure expenses as their Erasmus peers

In Response to Research Question 3: How can direct and indirect impacts generated by students attending each of these three types of 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 three groups of students.

Quantifying the impact of SA students

We circulated surveys among APUNE program directors to 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 the CUPA-HR Professionals in Higher Education Salary Survey (2015), where the *Unweighted Median Salary* for a Study Abroad Advisor was quoted as being \$43,489 per year. According to the same source, the average salary for Directors of International Education would have doubled that amount, to above \$80,000. Since there was no specific data for personnel based outside the US, we decided to look at two additional Spanish sources:

- Spain's National Statistics Institute [Instituto Nacional de Estadística]: average salary in the services sector amounted of 29,462.50 Euros per year¹⁷; and
- ADECCO and Infoempleo's average wages of 27,369.09 Euros per year¹⁸, for workers with a graduate degree (masters or doctoral).

Based on these data we came up with average yearly wages of 32,366 Euros for staff and 64,733 Euros for leadership, with one leadership position for every four staff. We added benefit amounts, using data drawn from the country's Seguridad Social administration¹⁹, to produce the total compensation costs. We presumed that most staff would fall under the *Oficiales Administrativos* category, which would cost the employer a minimum of 9,907.20 Euros per year. For leadership positions (likely under group 1: engineers and graduates), the average social security would add up to 29,424.60 Euros per year. The resulting personnel costs, including wages and mandatory social security benefits, would be 42,273.20 Euros per staff member and 94,157.60 Euros per leadership position (see Table 7).

¹⁷ Retrieved on February 12, 2017, from Instituto Nacional de Estadística, at: http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736060920&menu=ultiDatos&idp=1254735976596

¹⁸ Retrieved on March 18, 2017, from: <http://www.adecco.es/data/NotasPrensa/pdf/788.pdf>

¹⁹ http://www.seg-social.es/Internet_1/Trabajadores/CotizacionRecaudaci10777/Basesytiposdecotiza36537/index.htm#36550

Table 7: Study Abroad personnel expenditures

TERM LENGTH	STUDENTS /STAFF		PERSONNEL	FTEs	WAGES + SOCIAL SECURITY	TOTAL PERSONNEL EXPENDITURES
One month	7.1/1	Total	4,421	402		
		Staff	3,537	322	42,273	13,611,906
		Leadership	884	80	94,158	7,532,640
Semester (4.5 months)	12.8/1	Total	1,333	545		
		Staff	1,066	436	42,273	18,431,028
		Leadership	267	109	94,158	10,263,222
Academic Year (9 months)	12.8/1	Total	97	79		
		Staff	78	63	42,273	2,663,199
		Leadership	19	16	94,158	1,506,528
SUM²⁰			5,851	1,027		54,008,523

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. 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). Academic program delivery and personnel expenditures, combined, produced the direct spending amounts for the study abroad cohort (see Table 8).

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

ITEM		YEAR <i>n</i> 1,244	SEMESTER <i>n</i> 17,064	SUMMER <i>n</i> 31,392	TOTAL in Euros
Academic program delivery	Per student	6,000	3,000	1,000	
	All students	7,464,000	51,192,000	31,392,000	90,048,000
Personnel					54,008,523
SUM					144,056,523

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 provide a number of services included in their fees, such as: housing, orientation and welcome, local cultural activities, end of semester events, and excursions. In addition to those expenditures, participants spend money on living and leisure categories, such as: local transportation, cell phones, travel, leisure, and others. Figures on the indirect impact of study abroad students are displayed in Table 9.

²⁰ All figures in personnel tables rounded to the nearest whole number

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

ITEM	TYPE	YEAR <i>n</i> 1,244	SEMESTER <i>n</i> 17,064	SUMMER <i>n</i> 31,392
EXPENDITURES MADE BY PROGRAMS				
Housing	Per student	800€ x 8 months= 6,400	800€x 4 months = 3,200	800
	All students	7,961,600	54,604,800	25,113,600
Orientation & Welcome	Per student	456	228	99.29
	All students	567,264	3,890,592	3,116,991.68
Local cultural activities	Per student	706.4	353.2	68.57
	All students	878,761.60	6,027,004.80	2,152,549.44
End of semester activities	Per student	186.9	93.45	33.57
	All students	232,578.24	1,594,630.80	1,053,829.44
Medical insurance	Per student	112.2	56.1	----
	All students	139,576.80	957,290.40	
Excursions	Per student	870.8	435.4	296.43
	All students	1,083,275.20	7,429,665.60	9,305,530.56
Sum	All students	10,863,056	74,503,984	40,742,501.12
EXPENDITURES MADE BY INDIVIDUAL STUDENTS				
Local transportation	Per student	237.2	118.6	29.65
	All students	295,076.80	2,023,790.40	930,772.80
Cell phone	Per student	114.56	57.28	14.32
	All students	142,512.64	977,425.92	449,533.44
Travel	Per student	3468.48	1,734.24	433.56
	All students	4,314,789.12	29,593,071.36	13,610,315.52
Leisure activities	Per student	975.2	487.6	121.9
	All students	1,213,148.80	8,320,406.40	3,826,684.80
Other	Per student	702.24	351.12	87.78
	All students	873,586.56	5,991,511.68	2,755,589.76
Sum	All students	6,839,113.92	46,906,205.76	21,572,896.32
Totals	All students	17,702,170	121,410,189	62,315,397
TOTALS	All items			201,427,757

Quantifying the impact of Erasmus students

In 2014-2015 Spain sent 36,842 and received 42,537 higher education students through Erasmus. Incoming participants paid tuition at their home university²¹, while they sat in classrooms and took courses with their Spanish university peers. We concluded they did not have a direct economic impact on the host institutions they attended while in Spain, as they did not increase the costs of academic program delivery nor did they require the hiring of additional faculty.

Typically Erasmus students get a stipend to go to abroad from their regional and or national administrations. Among rationales to promote this mobility are that it enhances the global employability of participants and that it fosters a European mindset. In the 2014-2015 academic year a total of 14,391 Spanish students were awarded grants from the national and or autonomous communities' governments to attend universities abroad through Erasmus+, for an aggregate amount of 21,178,400 Euros²². 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 of Erasmus students (see Table 10).

The data we gathered on these students' indirect spending was drawn from several online sources advising participants who are considering Spain as a destination, including: [Universia](#); [Mastersportal.eu](#); [Erasmus-Spain.net](#); [GoEuro.com](#); [Nuroa.es](#); and [El Confidencial](#). In addition to these, we consulted with the SEPIE and drew information from the Study in Spain Guide (2014) published by the government-sponsored Universidad.es foundation. We combined data from these sources to come up with an average monthly spending per student of 760 Euros. According to the European Commission, the average length of stay abroad was of 5.3 moths, thus we determined the indirect impact of each Erasmus students to be of 4,028 Euros (see Table 10).

Table 10: Direct and indirect impacts generated by Erasmus students

	ITEM	Student/Month	5.3 months	TOTAL <i>n</i> 42,537
DIRECT	Academic program delivery (incoming students)			N/A
	Public funds awarded to Spanish students attending Erasmus+ abroad			(21,178,400)
INDIRECT	Living and leisure expenses	760	4,028/student	171,339,036
	SUM			150,160,636

²¹ Incoming students from Austria, Denmark, Finland, Germany, Greece, Ireland, Norway, Slovenia, and Sweden have free tuition at home, while amounts paid by nationals from other countries would vary.

²² *Recursos económicos. Becas y Ayudas al Estudio. Curso 2014-2015*, Ministerio de Educación, Cultura y Deporte, retrieved April 10, 2017, from <http://www.mecd.gob.es/servicios-al-ciudadano-mecd/estadisticas/educacion/recursos-economicos/becas-ayudas/2014-2015.html>

Quantifying the impact of language and culture students

Students in this cluster pay their host academies for the academic delivery of the program in which they enroll. To quantify this item, we used the data collected by EDUESPAÑA through surveys circulated among federated (FEDELE) and independent schools.

Participants normally pay for their own living arrangements, often through local agencies or contacts provided by the language center, and schedule their own leisure activities. For the purpose of our study we assumed individuals in this cluster spent similar amounts on living and spare-time activities as their Erasmus peers. We have reflected the direct and indirect impact of language students in Table 11.

Table 11: Direct and indirect impacts generated by Language students

	ITEM	Student/Month	One month <i>n</i> 130,000
DIRECT	Academic program delivery	1,449.83	188,477,900
INDIRECT	Living and leisure expenses	760.00	98,800,000
SUM		2,209.83	287,277,900

In Response to Research Question 4: How can the overall economic impact of visiting international students be quantified, and what is 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 three clusters (see Table 12).

Table 12: Overall economic impact from visiting international students on the Spanish economy

COHORT	DIRECT IMPACT	INDIRECT IMPACT	OVERALL IMPACT
US Study Abroad	144,056,523	201,427,757	345,484,280
Erasmus	(21,178,400)	171,339,036	150,160,636
Language & Culture	188,477,900	98,800,000	287,277,900
SUM	311,356,023	471,566,793	782,922,816
Multiplier Effect :			
Overall Impact/Direct Impact			2.51

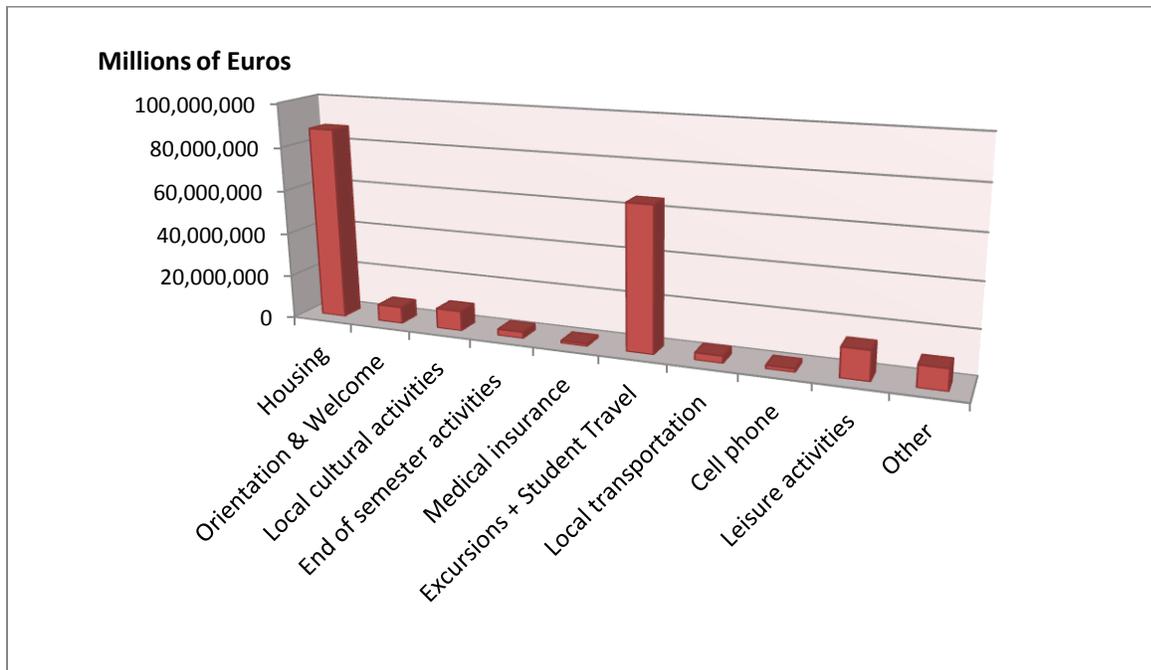
The multiplier is an indicator of the spillover effect that the international visiting students' presence provokes on sectors of the Spanish economy other than education. A multiplier effect of 2.51 indicates that for each Euro spent on their academic program, international visiting students spent an overall 2.51 Euros on a broad range of sectors of the Spanish economy.

Conclusions

A total of 222,287 visiting international students attended academic programs in Spain in the year 2014-2015. Of these, 49,750 came from US institutions of higher education; 42,537 arrived through Erasmus, from EHEA countries; and an additional 130,000 from nations throughout the globe, enrolled in language and culture programs at specialized academies. Their overall economic impact on the Spanish economy amounted to 782,963,557 Euros and the multiplier effect for their spend, on other sectors of the Spanish economy, was 2.51. Of the three groups, US study abroad students made the largest contribution with 22% of students accounting for 44% of the overall economic impact.

In 2014-2015 international students spent 251% more on living and leisure activities than what it cost them to attend their academic programs. Among the items where there was greater spending were housing and travel, a testimony of the relevance of this economic activity for a varied range of stakeholders. Just for the study abroad cohort, housing expenditures amounted to 87,680,000 Euros and travel (combining program excursions and individual trips by students) added up to 65,336,647 Euros (see Chart 3). The combined total for these two items was 19.3% of the overall economic impact. While we were not able to obtain separate figures on housing and travel for the two other cohorts (Erasmus and language programs), these were also likely their two main spending areas. Both housing and travel providers are playing a key role in this economic activity and should be made part of recruitment and research efforts and encouraged to continue to improve their quality standards.

Chart 3: SA indirect impacts by expense item, combining program excursions and students' travel



International students and the academic providers that attract them are also contributing strongly to the financing of the Spanish taxation system in, at least, two ways. First, a significant part of the spending is subject to a value added tax of 4% to 21%. Second, programs hire faculty and or staff for whom they make payments to the social security administration. If it were not for this international education market, that

highly-qualified personnel would likely become part of the unemployed population obliged to survive on public funding.

In addition to the economic benefits generated by the export of education, the presence of international students in Spain has a number of constructive outcomes that cannot be measured quantitatively. These include the modernization of educational institutions²³, 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. The three types of programs have greatly contributed to these non-quantifiable results, but probably more so Erasmus where internationals take all of their courses with local peers. According to José Manuel González Canino, Director of the Higher Education Unit at SEPIE, Spain's performance in the EHEA context is a great accomplishment, having sent and received students in larger numbers than bigger countries such as Germany, the UK, France and Italy. The recognition of the added social benefits of the export of education is a pending subject with the broader public in Spain.

Public support for the export of education had to be reduced significantly, within the previous recession. Public funding should be reinstated to pre-crisis levels and made available to support 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, can well serve as a base on which to promote an expansion of this market that will ultimately benefit a great number of Spanish stakeholders.

The policies and procedures to award student visas are still complicated, often unfriendly, and must be redesigned to recognize the need for additional resources and personnel of the Consular Offices that have (fortunately) been besieged by petitions. Legislation should acknowledge the quality and potential of smaller specialized private educational institutions, and facilitate the access of international students who need to apply for visas to attend these, including: culinary arts, cultural heritage management, video-game design, etc. The uncertainty regarding visas, encourages students to consider competing destinations.

In all of these, national governments and politicians should be briefed and encouraged to recognize the relevance of Spain as a leading educational destination, a fact that deserves the efforts and support of all public institutions.

At a time when Spain is seeking to develop industries which will help increase its GDP and boost the flow of incoming foreign funds, it would be unwise to neglect a market which has been extremely successful at achieving both of those goals. While this country will likely remain an appealing destination, there is and will continue 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.

Among 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 the three groups of students. There is currently no way for researchers to access accurate spending figures. It would also be important to determine place of origin for the more than 220,000 individuals attending all programs.

²³ Alvaro Escribano, Director of the Carlos III International School at Universidad Carlos III de Madrid. Personal communication, March 2, 2017

Mapping the data between the origins and destination of students 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, shared data on satisfaction surveys would help address issues and enhance the quality of the programs – e.g., in their evaluations, 94.55% of international Erasmus students state they leave satisfied or very satisfied with their experience²⁴, but it would be useful to have specific data across the three cohorts. The three organizations that contributed the information for this study (APUNE, EDUESPAÑA and SEPIE) should continue to promote data-gathering processes for their member institutions, and persist in their efforts to collaborate in order to facilitate future editions of this report.

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"²⁵. 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 excellent educational destination for visiting students, and contribute to exploring Spain's potential for other international cohorts such as those who would complete their entire degree 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. December 13, 2017

²⁴ José Manuel González Canino, Director de la Unidad de Educación Superior, SEPIE. Personal communication, May 31, 2017

²⁵ 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