

# The Economic Impact of International Students in Hawaii – 2016 Update





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Department of Business, Economic Development & Tourism Research and Economic Analysis Division

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#### **EXECUTIVE SUMMARY**

The **2016 Hawaii International Education Survey** collected data during the academic year 2015/16 regarding the number of foreign students, the program length, the amount of money they spent in the state, and the country of origin of the international students to estimate how international students contribute to the local economy of the state.

This survey was a follow up to earlier surveys, conducted in 2009 and 2015. In 2009, 24 institutions responded, representing a total of approximately 13,000 foreign students. In 2015, 35 institutions responded, representing approximately 10,100 international students. The current survey received responses from 31 institutions, representing a total of nearly 12,200 students. Caution should be used when comparing the three surveys due to the different mix of schools, students, and changes in how schools report on the programs reflected in these surveys.

The total direct economic impact of Hawaii's international students in 2016 was estimated at \$301.9 million. This estimate includes the total living expenses and institutional tuition and fees. In addition to the direct impact, other economic benefits of international students for the 2015/16 academic year included:

- \$649 million added to the state's total economic output, including direct, indirect, and induced effects.
- \$43 million in state taxes was generated from the total economic output.
- \$256 million in household earnings can be attributed to foreign students.
- 7,590 jobs were supported by foreign student spending.

The average annual spending amount per student across all study programs in Hawaii was \$24,760 in 2015/16, including living expenses and tuition and fees.

It is important to note that the above amounts do not include contributions from educational travel to Hawaii from foreign based educational institutions. Educational travel covering school excursions and other types of education-related travel from Japan, China, Taiwan, and South Korea, and its economic impact will be evaluated in a separate report. Furthermore, this report does not cover contributions from exchange students attending Hawaii's public schools (under the Hawaii Department of Education).

Hawaii hosted international students from all over the globe. Japan remains the top country of origin for Hawaii's international students, with 4,927 students studying in Hawaii in 2015/16, or about 40 percent of all of Hawaii's foreign students. Japan was followed by South Korea with 1,087 students (8.9 percent), Switzerland with 815 students (6.7 percent), China with 737 (6 percent), and Brazil with 335 students (2.7 percent).

The survey results showed Hawaii has ample institutional capacity to host international students. The schools with the most capacity reported reaching their capacity either between 3 to 5 years (about 13 percent of all possible students) or in more than 5 years (about 74 percent of all possible international students). The group with the highest capacity represents Hawaii's largest institutions, with the ability to host foreign students estimated at 12,500 students. This

is well above the reported current level of about 6,200 foreign students for 2015/16. The survey results showed the total capacity for all institutions in Hawaii is approximately 17,000 international students.

#### I. INTRODUCTION

Hawaii has traditionally been a magnet for foreign tourists as well as students. However, while Hawaii remains a top destination for tourists, it has lost its competitive position as a destination for international students<sup>1</sup>.

This declining overall trend for foreign students coming to Hawaii has also been confirmed in the most recent results by the Institute on International Education – Open Doors. The *2015 Open Doors* report ranks Hawaii at number 39 out of 50 states and notes that the number of foreign students in Hawaii has declined by 8 percent<sup>2</sup>.

However, while the *Open Doors* report only focuses on students attending post-secondary schools registered for degree programs, the *2016 Hawaii International Education Survey* (IES) is more comprehensive, analyzing every available school that hosts international students in Hawaii across every possible educational and exchange program.

The IES was a follow up to earlier surveys conducted in 2009 and 2015, and it was conducted with the goal to analyze the trends of international students studying in Hawaii and to estimate its economic impact on the state.

As with the surveys conducted in 2009 and 2015, the 2016 IES collected data from the educational institutions regarding the following:

- The number of international students enrolled in various programs during the 2015/16 academic year.
- The length of academic programs international students participated in.
- The tuition and fees paid by international students.
- The country of origin for the international student population.
- In addition to these data requirements, the 2016 IES also asked the schools to estimate their capacity at hosting international students and how soon they would expect to reach their capacity.

The 2016 IES was conducted online; questions asked in the online survey are available in Appendix I.

This report is divided into four section; after Section I Introduction, Section II examines the direct and indirect impacts of international student spending on Hawaii's economy and the results of the 2016 IES. Section III analyzes outcomes of the 2016 IES, such as specifics on student spending, financial aid, and countries of origin. This section also compares the current survey with the outcomes of the earlier surveys, where possible. In this section, a new analysis on institutional capacity in Hawaii is also included. Finally, Section IV concludes by summarizing the survey results.

<sup>&</sup>lt;sup>1</sup> The Economic Impact of International Students in Hawaii, 2015 (DBEDT)

<sup>&</sup>lt;sup>2</sup> Institute on International Education – Open Doors, 2015; <a href="http://www.iie.org/Research-and-Publications/Open-Doors">http://www.iie.org/Research-and-Publications/Open-Doors</a>

## II. 2016 HAWAII INTERNATIONAL EDUCATION SURVEY- ECONOMIC IMPACT ANALYSIS

The estimate of the economic impact of foreign students studying in the State of Hawaii was calculated based on the results of the 2016 IES, conducted by DBEDT between December 2015 and April 2016. The 2016 IES was a follow up to similar surveys conducted in 2009 and 2015. However, caution should be used when comparing the current survey results to previous survey results due to the fact that the respondent mix of schools has varied over the years.

**Data Collection and Sources**. The 2016 survey was administered online. The sample frame consisted of 90 educational institutions located in Hawaii and identified by the U.S. Department of Homeland Security's (DHS) database called SEVIS (Student and Exchange Visitor Information System). The questions asked in the online survey are available in Appendix I and the list of the institutions surveyed is available in the Appendix II.

The survey asked educational institutions to report the number of international students and the estimated expenses for tuition, books and fees incurred by these students. The educational institutions were also asked the level and type of study programs their international students participated in during the 2015/16 academic year (e.g. middle and high schools students, undergraduate students, non-degree seeking students, etc.). Finally, the survey asked the institutions to estimate their capacity to host international students and how soon they expect to reach it.

DBEDT received responses from 31 educational institutions in Hawaii, for a response rate of 34.4 percent. However, the institutions responding to the 2016 IES accounted for 12,194 international students during the 2015/16 academic year, suggesting that these institutions likely represent the majority of international students. A majority of the schools that did not reply to the survey were either trade schools with a very low number of foreign students or institutions, which have applied to host foreign students, but have yet to enroll any foreign students.

The economic impact calculations presented in this study are a conservative estimate and the actual economic benefit to the State of Hawaii could possibly higher.

**Methodology.** The analysis presents two different estimates:

- 1) Direct Impact: This is an estimate of the direct dollar amount spent in Hawaii by foreign students including tuition, fees, and living expenses.
- 2) Direct + Indirect + Induced Impact: This is the direct impact plus the indirect and induced impacts, including the ripple effect of foreign student expenditures on jobs, tax revenues, and household income.

**1. Direct Economic Impact.** In order to measure the direct impact of foreign students studying in Hawaii, an estimate must be derived for their tuition/fees plus living expenses minus the financial assistance they receive. The formula to calculate the direct economic impact of foreign students studying in Hawaii is:

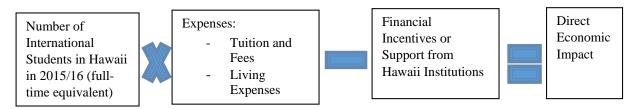


Table 1 presents a summary account of the different types of foreign students in Hawaii and how much they spent on tuition and fees and on living expenses. These categories show the direct economic impact of the students on the state.

Unlike the 2015 survey, the 2016 IES showed that the majority of foreign students come to Hawaii to enroll in short-term academic programs, English language programs, or other academic exchange programs at the undergraduate level or lower. Generally, students enrolled in these short-term programs are not working towards a degree. Compared with previous surveys, the difference in the results was probably due to an increase in the number of students participating in short-term programs, as well as variation due to a different mix of respondent schools and how these schools classify their programs. The long-term category also included middle/high school students. The number of long-term students was 4,206, which was about 34 percent of all foreign students reported in the survey results.

Table 1: Direct Economic Impact of International Students in Hawaii – Summary Results of the 2016 Hawaii International Education Survey

otal
676,545
7,500
51,877
7,168
36,202
5,875
945
3,535
047
801
,

Source: DBEDT, 2016 IES

**2. Total Economic Impact and Number of Jobs Supported**. The total economic impact for the State included both the direct, indirect and induced impacts. The multipliers used for this calculation are taken from *The Hawaii State Input-Output Study: 2012 Benchmark Report* (March 2016). Type II final demand multipliers were used, which include direct, indirect, and induced effects.

The following formula was used to calculate the total economic impact and the number of jobs supported by foreign students in Hawaii for 2015/16:

Direct Economic Impact



Derived Multipliers for the Industry (Colleges, Universities, and Professional Schools)



- -- Total Economic Output
- -- Total Household Income
- -- Fiscal Impact
- -- Number of Jobs Supported

Table 2 summarizes the findings and shows the economic impact of foreign students studying in Hawaii.

Table 2: Total Economic Impact of International Students in Hawaii, 2015/16

Direct Impact (total spending from Table 1)		\$301,912,747
	Final Demand Multiplier (Type II)	Economic Impact (Type II)
<b>Total Output Generated</b>	2.15	\$649,112,406
<b>Total Income Generated</b>	0.85	\$256,625,835
<b>Total State Taxes Generated</b>	0.141	\$43,535,818
<b>Total Number of Annual Jobs (2014)</b>	25.14 (per \$million)	7,590

Source: DBEDT, calculations are based on the *Hawaii State Input-Output Study:2012 Benchmark Report* (March 2016)

The first line of the table shows the *total number of jobs supported* by foreign students studying in Hawaii (Type II multiplier). Given an estimated economic impact of \$301.9 million in 2015/16, 7,590 jobs were supported.

In addition to the number of jobs supported by the foreign students in the state, the *total state taxes generated* line shows the estimated tax revenue that can be attributed to foreign students studying in Hawaii. More than \$43.5 million has been generated by the foreign students in the state in 2015/16.

**Total household income generated** refers to the estimated household earnings that can be attributed to foreign students studying in the State. Hawaii households earned an estimated total of \$256.6 million, generated from international students during the 2015/16 school year.

Finally, *total output generated* points to the total dollar change in output in all industries in the state, resulting from the inflow of money spent by foreign students in Hawaii. Total output generated by international students in Hawaii was estimated at more than \$649.1 million.

#### III. OUTCOMES OF THE 2016 INTERNATIONAL EDUCATION SURVEY

Data comparisons (2009, 2015, and 2016 surveys). Due to variation in the respondent schools and changes to the survey design over the years, caution should be used when comparing the results of the 2009, 2015, and 2016 surveys. In 2009, 24 institution responded, representing a total of approximately 13,000 foreign students. In 2015, 35 institutions responded, representing approximately 10,100 international students. In 2016, 31 institutions responded accounting for nearly 12,200 foreign students in Hawaii. Therefore, while the results for the various years are presented as a reference, it is not possible to draw firm conclusions on trends due to the variance in survey respondents for each respective year.

The 2016 IES showed a larger proportion of students in short-term programs, compared with long-term, degree programs. The 2016 results vary from the 2015 results, which showed a higher share of students in long-term programs (degree-seeking students). From an economic development perspective, long-term students have a greater impact on the state's economy because they spend more on an average annual basis than short-term students.<sup>3</sup>

Figure 1 below highlights the results of the 2016 IES by category of students and compares them to the previous surveys:

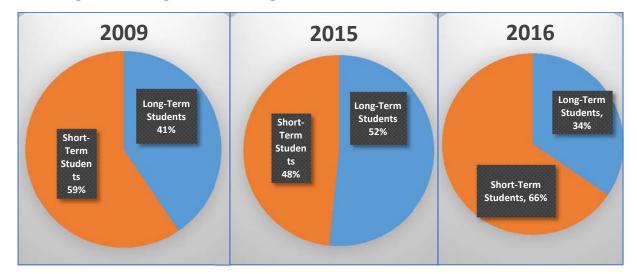


Figure 1. Categories of Foreign Students in Hawaii, 2009, 2015, and 2016

Source: DBEDT: 2009 IES, 2015 IES, and 2016 IES

Long-term students, seeking a degree, bring in more revenue for educational institutions. Their spending has a stronger ripple effect as these students pay rent, buy groceries, and spend on other items for a longer time than short-term students.

As shown in Table 3, the long-term student impact on the local economy is significantly higher in 2015/16 than the short-term student impact, even though the number of students in short-term programs is significantly higher. However, in addition to spending, short-term programs contribute significantly to Hawaii because they serve as a bridge for students to transition into long-term, degree programs.

<sup>&</sup>lt;sup>3</sup> The Economic Impact of International Students in Hawaii, 2015 (DBEDT)

Table 3. Spending by International Students in Hawaii by Program Length: 2015/16 Academic Year

Category	Long-Term Programs	Short-Term Programs
Number of Students	4,206	7,988
Average Length of the Program (days)	365+	91
Total Spending (\$)	\$160,676,545	\$141,236,202
Living Expenses (\$)	\$81,256,577	\$77,843,968
Tuition and Fees (\$)	\$79,419,968	\$63,392,235
Weighted Average Annual Spending by Student (\$)	\$38,924	\$17,511

Source: DBEDT, 2016 IES

Table 4 below evaluates direct impact (total spending by foreign students) and total economic impacts to the economy of the State of Hawaii for the three IESs (2009, 2015, and 2016).

Table 4. Summary Economic Impacts – 2009, 2015, and 2016 IES

	2009	2015	2016
Total Direct Spending	\$165,411,453	\$205,103,035	\$301,912,747
Output Multiplier*	2.16	2.16	2.15
Earnings*	0.9	0.9	0.85
State Tax*	0.141	0.141	0.1442
Employment*	24.9	24.9	25.14
Total Output Generated	\$357,288,738	\$443,022,555	\$649,112,406
<b>Total Income Generated</b>	\$148,870,308	\$184,592,731	\$256,625,835
Total State Taxes Generated	\$23,323,015	\$28,919,528	\$43,535,818
<b>Total Jobs Generated</b>	\$4,119	\$5,107	\$7,590

Source: DBEDT, 2009 IES, 2015 IES, 2016 IES

<sup>\*</sup>multipliers used in previous reports differ from 2016, which is based on new report of *Hawaii State Input-Output Study:2012 Benchmark Report* (March 2016)

Figure 2 below compares the results of the 2015 and 2016 IES, with the 2016 survey showing higher spending. .

Spending 2016 Spending 2015 \$350,000,000 \$300,000,000 \$250,000,000 \$141,236,202 \$200,000,000 \$35,284,824 \$150,000,000 \$100,000,000 \$169,818,211 \$160,676,545 \$50,000,000 \$0 ■ Long-Term Students ■ Short-Term Students

Figure 2: Total Spending by International Students in Hawaii, 2015 and 2016

Source: DBEDT, 2015 and 2016 IES

Additionally, the comparison in Figure 3 (below) shows more short-term students reported in 2016 with a higher average spending per student. Again, due to the fact that some of the respondent institutions changed how they chose to classify their students between the two surveys (for example, degree-seeking versus temporary non-degree students), the comparison of figures between years is for reference only rather than drawing overall conclusions.

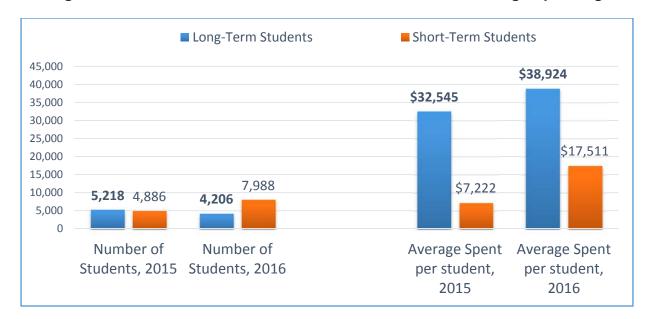


Figure 3: Number of International Students in Hawaii and Average Spending

Source: DBEDT, 2015 and 2016 IES

**Spending per student**. The overall average annual spending per student in 2015/16 was \$24,760, including living expenses and tuition and fees. This estimate accounted for both student's participation and differences in short-term and long-term programs.

**Spending per student by category.** Total cost to attend schools by international students working towards a degree at the *undergraduate level* in 2016 was a weighted average of \$32,877 (or about \$19,900 for living expense and about \$13,000 for tuition and fees).

There were also significant differences in net spending by international students between the two periods (2015 IES and 2016 IES) due to lower financial aid resources available to them in 2016. In 2015, full-time undergraduate international students were able to reduce their net expenses to an annual average of \$28,581 per student (from \$36,761). However, financial aid resources reported by the institutions in 2016 were lower and this decreased the average net spending by students in this category by about \$800 to \$32,054 (from \$32,877). As with previous sections, it should be noted that some of the differences may be due to differences in reporting or a change in the mix of the respondents from previous years.

At the *graduate level*, in 2016, average fees for a full-time graduate or professional international student in Hawaii totaled \$55,104 (or for \$16,095 living expenses and \$39,009 for tuition and fees).

The survey results show that graduate students had less financial aid resources in 2016 than in 2015. Net spending by foreign students increased to \$54,740 in 2016, with financial aid reducing the costs only slightly from \$55,104. In 2014/15, financial aid reduced net spending on education in Hawaii to \$48,361.

Average fees for international students in Hawaii at the *middle and high school* level totaled about \$56,290 per year (approximately \$32,665 for living expenses and \$23,625 in tuition and fees). The 2016 IES showed a decrease in the number of students at the middle and high school

level from 320 in 2015 down to 287 in 2016. However, many institutions in this category did not respond to the survey, so it is difficult to draw conclusions for this category of students.

Net spending per student and financial aid to foreign students. As mentioned above, financial aid and other resources are used as an incentive to attract foreign students. However, the reported financial aid available for international students was less than in the 2014/15 survey. Most often, international students are eligible only for merit aid provided by the host institutions (although students who are U.S. permanent residents – those with green cards – are also eligible for federal financial aid, in addition to any available institutional aid). At most institutions, financial aid is only provided for long-term students, those who are taking classes for credit and are working towards completion of requirements for a degree. Increasing financial aid resources could boost competition among educational institutions to attract international students. In addition to assistance, financial aid is an effective tool to attract and retain quality students.



Figure 4. Impact of Financial Aid to Foreign Students, 2008/09, 2014/15, and 2015/16

Source: DBEDT, 2016 IES Update, 2015 IES, 2009 IES

Countries of origin of international students in Hawaii in 2015/16. Japan remained the top country of origin for Hawaii's international students, with 4,927 students studying in Hawaii in 2015/16, or about 40 percent of Hawaii's foreign students. Japan was followed by South Korea with 1,087 students (8.9 percent), Switzerland with 815 students (6.7 percent), China with 737

(6 percent), and Brazil with 335 students (2.7 percent).

Table 5 lists the top 25 countries of origin of international students. Students from the top 25 countries listed in Table 4 accounted for about 80 percent of all foreign students in Hawaii in 2015/16.

Table 5. Countries of Origin of International Students in Hawaii, 2015/16

Rank	Country	Number of Students
1	Japan	4,927
2	South Korea	1,087
3	Switzerland	815
4	China (including HK, Macao)	737
5	Brazil	335
6	Taiwan	269
7	Germany	178
8	Philippines	150
9	Norway	144
10	Canada	134
11	France	125
12	Vietnam	110
13	Micronesia	93
14	Sweden	82
15	Thailand	79
16	Saudi Arabia	75
17	Australia	66
18	Marshall Islands	66
19	Spain	59
20	Samoa	56
21	Indonesia	53
22	UK	45
23	Fiji	44
24	Mexico	38
25	Denmark	37

Source: DBEDT, 2016 IES

In contrast to the 2016 IES, the *Open Door 2015* report only lists the top five countries and is based on a different sample of students (only those enrolled for credit, i.e. long-term students). Furthermore, the *Open Door* report lists Japan, South Korea, China, Norway, and Germany in the top 5 for Hawaii. These results are different from DBEDT's 2016 IES data due to the fact that DBEDT sent the survey to all educational and exchange programs, not just programs that cater to degree-seeking-students. For example, a large number of the Swiss students come to Hawaii for short educational and exchange programs, whereas most Chinese and Norwegian students come to Hawaii for longer degree programs.

#### Institutional Capacity to Host International Students in Hawaii

In addition to data requests from the previous surveys, 2016 IES also asked educational institutions in Hawaii for their estimates of capacity for hosting international students.

Figure 5 provides an overview of capacity to host international students in Hawaii across all educational institutions, based on their responses and estimates.

14000 8 7 12000 6 10000 Years to Reach Capacity Number of Students 8000 6000 4000 2 2000 1 0 0 Institutions Grouped by Capacity

Figure 5. Hawaii Educational Institutions' Capacity for Hosting International Students

Source: DBEDT, 2016 IES

The aggregate capacity for all institutions in Hawaii – according to responses – is approximately 17,000 international students, given the sample of 31 schools that replied to the survey. This shows that institutions responsible for hosting the largest group of students responded that it would take longer than 5 years to reach their capacity, which is estimated to be at least at around 12,500 students, hosted by eight of the largest schools in the state. Combined, these schools currently host about 6,200 international students.

Time to Reach

Hosting Capacity, Number of Students

As shown in table 6 below, educational institutions in Hawaii can be separated into four groups by hosting capacity: those at capacity currently; institutions expecting to reach capacity in near term (1 to 3 years); institutions expecting to reach capacity in more medium-term (3 to 5 years); and institutions not expecting to reach capacity soon (those institutions, which do not expect to reach capacity within at least the next 5 years).

Table 6. Institutional Capacity for International Students in Hawaii

Reported Hosting Capacity by Institutions, Number of Students	Time to Reach Capacity for a Group of Institutions
100	0 (at capacity now)
2,200	1 – 3 years
2,100	3 – 5 years
12,350	More than 5 years

Source: DBEDT, 2016 IES

A very small number of institutions hosting a small number of international students reported that they are at or close to reaching their capacity.

Still, there are two groups of institutions, together accounting for about 4,500 students, reporting that they would reach their capacity between 1 and 5 years. These 2 groups of institutions were almost evenly split. One group of 13 schools, hosting about 2,200 students, estimated that it would take them between 1 and 3 years to reach capacity. The group that estimated their capacity to host about 2,100 foreign students reported that they would reach their capacity between 3 to 5 years.

#### VI. CONCLUSIONS

The data presented in this report were the results of the **2016 Hawaii International Education Survey**. DBEDT received responses from 31 of Hawaii's educational institutions with foreign students. The total direct economic impact of international students for the 2016 survey (2015/16 academic year) was an estimated \$301.9 million. This amount included tuition and fees plus living expenses. This is a conservative estimate and this amount covered international students at 31 educational institutions in Hawaii that responded to the 2016 IES.

In addition to the direct impact, other economic benefits of international students for the 2015/16 period included:

- \$649 million added to the state's total economic output, including direct, indirect, and induced effects.
- \$43 million in state taxes is generated from the total economic output.
- \$256 million in household earnings can be attributed to foreign students.
- 7,590 jobs were supported by foreign student spending.

The total number of long-term students, studying in Hawaii for a degree in 2016 was 4,206. The overall average annual per student spending was \$24,760, including living expenses and tuition and fees across all programs in 2016.

The amounts above do not include contributions from foreign schools to Hawaii, such as school excursions and other education-related travel. These education-related trips from high schools and colleges in Japan, China, Taiwan, South Korea are an important contribution to Hawaii's economy. However, as of this writing, comprehensive data was not available and the effects of education-related travel will be evaluated separately. Furthermore, this report did not cover exchange students in Hawaii's public school system (under the Hawaii Department of Education).

Hawaii's educational institutions hosted a diverse group of students from all over the globe. Japan remains the top country of origin for Hawaii's international students, with 4,927 students studying in Hawaii in 2015/16, or about 40 percent of all of Hawaii's foreign students. Japan was followed by South Korea with 1,087 students (8.9 percent), Switzerland with 815 students (6.7 percent), China with 737 (6 percent), and Brazil with 335 students (2.7 percent).

The results showed Hawaii's educational institutions have ample capacity to attract more international students. Schools that had the most capacity reported reaching their capacity either between 3 to 5 years or in more than 5 years (accounting for the vast majority of students, 74 percent of all possible international students). The group that reported reaching capacity in more than 5 years represented Hawaii's largest institutions, with the ability to host foreign students estimated at least at 12,500 students. This is well above their reported actual hosting about 6,200 foreign students in these institutions in 2015/16. The aggregate capacity for all institutions in Hawaii was approximately 17,000 foreign students, based on the sample of 31 schools that replied to the survey.

#### APPENDIX I: 2016 Hawaii International Education Survey

## **International Education Survey**

Department of Business, Economic Development & Tourism

Decembe	er, 2015		
1. CONTACT INFORMATION			
Contact name			
Position title & Office			
Institution			
Address			
City			
State			
Zip code			
Telephone/Fax			
Email			
2 - 5. ENROLLMENT			
Please choose the most applicable category or cat		1	
	Spring 2015	Summer 201	.5 Fall 2015
Total enrollment			
INTERNATIONAL Students			
Middle/high school students			
Degree-seeking undergraduate students			
Non-degree-seeking undergraduate students			
Degree-seeking graduate students			
Non-degree seeking graduate students			
6. Number of INTERNATIONAL students enrolled be attached sheet if more than one)	etween Spring 20	015 to Fall 201	6 (Please use the
		Number of	Length of
		enrollment	Program
			(days)
Short-term training program students/profession	als		
Students in summer/winter camps			
Visiting scholars/teachers			
7. Number of INTERNATIONAL family members ac letters from your institution)	ccompanying stu	dents/trainees	(via invitation

**8. FINANCIAL SUMMARY:** Please indicate the  $\underline{\textbf{cost of living}}$  for the following categories of international students & scholars.

**9**. Please specify time period (e.g. per week, per month, per x-week term, per year)

	Cost of living	Tuition and fees
Middle/high school students		
Degree-seeking undergraduate students		
Non-degree-seeking undergraduate students		
Degree-seeking graduate students		
Non-degree-seeking graduate students		
Short-term training program		
students/professionals		
Students in summer/winter camps		
Visiting scholars/teachers		

10. FINANCIAL ASSISTANCE: Lump sum amount of financial assistance through tuition waivers, scholarships, and any other financial assistance to INTERNATIONAL students/scholars

	Dollar amount
Middle/high school students	
Degree-seeking undergraduate students	
Non-degree-seeking undergraduate students	
Degree-seeking graduate students	
Non-degree-seeking graduate students	
Short-term training program students/professionals	
Students in summer/winter camps	
Visiting scholars/teachers	

11 -13. PLACE OF ORIGIN (for each semester, Sp
Number of
students
American Samoa
Argentina
Australia
Belgium
Brazil
Cambodia
Canada
Chile
China, PRC
China, Hong Kong
China, Macao
Colombia
Costa Rica
Czech Republic
Denmark
Ecuador
Egypt
Fiji
Finland
France
French Polynesia
Germany
Greece
Hungary
India
Indonesia
Iraq Ireland
Israel
Italy
Japan
Jordan
Kazakstan
Kenya
Kiribati
Korea, South
Laos
Lebanon
Lithuania
Malaysia
Marshall Islands
Mexico
Micronesia
Mongolia
Morocco
Nepal
Netherlands

New Zealand
Nicaragua
Norway
Pakistan
Palau
Peru
Philippines
Poland
Portugal
Romania
Russia
Saudi Arabia
Singapore
Slovakia
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Taiwan
Thailand
Turkey
Ukraine
United Kingdom
Uruguay
Venezuela
Vietnam
Western Samoa
Other (Please Specify)

- 14. What is your current capacity for international students? (estimates ok).
- 15. Based on your projected growth in international student enrollment, what is your estimated timeframe to reach that capacity?

1 to 3 years 3 to 5 years More than 5 years

16. Please use this section if you need to clarify any of your previous responses

#### **WORKSHEET ATTACHMENT**

Number of INTERNATIONAL students enrolled in short-term training programs between Spring 2015 to Fall 2015

Program name	Number of	Length of
	enrollment	Program (days)

# APPENDIX II: 2016 Hawaii International Education Survey – List of the Educational Institutions Surveyed (31 out of 90 received, 34.4% response rate)

The list is based on the US Department of Homeland Security's (DHS) database called SEVIS (Student and Exchange Visitor Information System):

Flight Schools				
1. Above It All, Inc	Flight School	73-300 U'u Street Kailua-Kona, HI, 96740		
2. Anderson Aviation	Flight School	100 Kaulele Place Honolulu, HI, 96819		
3. Mauna Loa Helicopters	Flight School	73-310 U'u Street Kailua-Kona, HI, 96740		
4. Moore Air, Inc.	Flight School	90 Nakolo Place Honolulu, HI, 96819		
	Language Scho	ools		
5. Academia Language School	Language School	1600 Kapiolani Blvd. Suite 1215 Honolulu, HI, 96814		
6. American Renaissance Academy	Language School	Building #1 Lexington Ave. Kapolei, HI, 96707		
7. EF International Language Schools, Inc.	Language Schools	EF International Language Schools, Inc. Honolulu, HI, 96815		
8. ELS Language Centers/Honolulu	Language Schools	Hawai'i Pacific University Honolulu, HI, 96813		
9. Institute of Intensive English, Ltd.	Language School	2155 Kalakaua Avenue, Suite 700 Honolulu, HI, 96815		
10. Intercultural Communications College	Language Schools	810 Richards Street Honolulu, HI, 96813		
11. International Mid Pac College	Language Schools	1311 Kapiolani Blvd. 200-5 Honolulu, HI, 96814		
12. Hawaii English Language Program	Language School	1395 Lower Campus Rd, MC 13-1 Honolulu, HI, 96822		
13. Global Village Hawaii	Language Schools	1440 Kapiolani Blvd. Honolulu, HI, 96814		
Massage/Beau	Massage/Beauty/Cosmetology/Alternative Medicine			
14. Aisen Shiatsu School Inc.	Massage school	1314 South King St. Ste. 601 Honolulu, HI, 96814		
15. Elite Massage Academy LLC	Massage school	1050 Ala Moana Blvd. Honolulu, HI, 96814		
16. Hawaii College of Oriental Medicine	Alternative Medicine	180 Kinoole Street, Suite 301 Hilo, HI, 96720		

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17. Hawaii Healing Arts	Alternative	407 Uluniu Street Second Floor	
College	Medicine	Kailua, HI, 96734	
40 TT T	M 0.1 1	1750 W 1 1 A G 1: 2004	
18. Hawaii Massage Academy	Massage School	1750 Kalakaua Ave Suite 3004	
10.77		Honolulu, HI, 96826	
19. Hawaii Cosmetology	Cosmetology	1750 Kalakaua Ave Suite 3104	
Academy		Honolulu, HI, 96826	
20. Hawaii Massage Academy -	Beauty School	1750 Kalakaua Ave Suite 2103	
Les Salon De Beaute		Honolulu, HI, 96826	
21. HONOLULU NAIL	Beauty School	438 HOBRON LANE STE 207/208	
ACADEMY, LLC		HONOLULU, HI, 96815	
22. Institute of Clinical	Alternative	100 North Beretania Street, Suite 203 B	
Acupuncture and Oriental	Medicine	Honolulu, HI, 96817	
Medicine			
23. Makana Esthetics Wellness	Beauty School	1168 Waimanu	
Academy		Honolulu, HI, 96814	
24. Maui School of Therapeutic	Massage School	1043 Makawao Avenue, Suite 207	
Massage		Makawao, HI, 96768	
25. Med-Assist School of	Alternative	345 Queen St.	
Hawaii	Medicine	Honolulu, HI, 96813	
26. PAFMO HAWAII, INC	Beauty/Massage	1441 Kapiolani Blvd. #377	
	School	Honolulu, HI, 96814	
MOE ACADEMY OF			
AESTHETICS & MASSAGE			
27. Spa Luna, Llc	Beauty School	70 E. Kaahumanu Ave, Ste B-8	
		Kahului, HI, 96732	
28. World Medicine Institute	Alternative	1073 Hind Iuka Drive	
	Medicine	Honolulu, HI, 96821	
_			
Primary/Secondary School			
29. Haleakala Waldorf School	Secondary School	4160 Lower Kula Rd	
	J	Kula, HI, 96790	
30. Haleakala Waldorf High	Secondary School	38 Kaluanui Rd	
School		Makawao, HI, 96768	
2011001		1.2	
31. Hanahau`oli School	Secondary School	1922 Makiki St.	
	2011001	Honolulu, HI, 96822	
32. Hanalani Schools	Secondary School		
	Secondary School	Admissions Office	
	Secondary School	Admissions Office Mililani, HI, 96789	
33 Howai'i Propagatory	·	Mililani, HI, 96789	
33. Hawai'i Preparatory	Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road	
33. Hawai'i Preparatory Academy	·	Mililani, HI, 96789	
Academy	Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743	
	·	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743 2429 Pali Highway	
Academy	Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743	
Academy	Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743 2429 Pali Highway	
Academy  34. Hawaii Baptist Academy  35. Saint Anthony Junior	Secondary School Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743  2429 Pali Highway Honolulu, HI, 96817  1618 Lower Main Street	
Academy  34. Hawaii Baptist Academy  35. Saint Anthony Junior Senior High School	Secondary School  Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743 2429 Pali Highway Honolulu, HI, 96817	
Academy  34. Hawaii Baptist Academy  35. Saint Anthony Junior	Secondary School Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743  2429 Pali Highway Honolulu, HI, 96817  1618 Lower Main Street Wailuku, HI, 96793 1438 Pensacola Street	
Academy  34. Hawaii Baptist Academy  35. Saint Anthony Junior Senior High School  36. Hawaiian Mission Academy	Secondary School  Secondary School  Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743  2429 Pali Highway Honolulu, HI, 96817  1618 Lower Main Street Wailuku, HI, 96793 1438 Pensacola Street Honolulu, HI, 96822	
Academy  34. Hawaii Baptist Academy  35. Saint Anthony Junior Senior High School	Secondary School  Secondary School	Mililani, HI, 96789 65-1692 Kohala Mountain Road Kamuela, HI, 96743  2429 Pali Highway Honolulu, HI, 96817  1618 Lower Main Street Wailuku, HI, 96793 1438 Pensacola Street	

38. Hongwanji Mission School	Secondary School 1728 Pali Highway Honolulu, HI, 96813		
39. Honolulu Waldorf School	Primary/Secondary	350 Ulua Street	
37. Honordia Waldoff School	School	Honolulu, HI, 96821	
40. Honolulu Waldorf	Secondary School	5257 Kalanianaole Highway	
School/High School	becondary believe	Honolulu, HI, 96821	
41. Iolani School	Secondary School	563 Kamoku Street	
41. Iolani School	becondury behoof	Honolulu, HI, 96826	
42. Island Pacific Academy –	Secondary School	909 Haumea Street	
Upper School	becommany believe	Kapolei, HI, 96707	
43. Island School	Secondary School	3-1875 Kaumualii Hwy	
		Lihue, HI, 96766	
44. La Pietra Hawaii School for	Secondary School	2933 Poni Moi Road	
Girls		Honolulu, HI, 96815	
		<i>, ,</i>	
45. Lutheran High School of	Secondary School	1404 University Avenue	
Hawaii	·	Honolulu, HI, 96822	
46. Makua Lani Christian	Secondary School	74-4966 Kealaka'a Street	
Academy		Kailua-Kona, HI, 96740	
47. Maryknoll School	Secondary School	1526 Alexander Street	
		Honolulu, HI, 96822	
48. Maui Preparatory Academy	Secondary School	4910 Honoapiilani Hwy	
		Lahaina, HI, 96761	
49. Pacific Buddhist Academy	Secondary School	1710 Pali Highway	
		Honolulu, HI, 96813	
50. Parker School	Secondary School	65-1224 Lindsey Road	
		Kamuela, HI, 96743	
51. Le Jardin Academy	Secondary School	917 Kalanianaole Highway	
70 Y Y N A 1	D' 1 1	Kailua, HI, 96734	
52. Le Jardin Academy – Jr.	Primary school	1004 Kailua Road	
School	Canandam, Cabaal	Kailua, HI, 97634	
53. Punahou School	Secondary School	1601 Punahou Street	
54. Sacred Hearts Academy	Secondary School	Honolulu, HI, 96822 3253 Waialae Avenue	
54. Sacred Hearts Academy	Secondary School	Honolulu, HI, 96816	
55. Saint Francis School	Secondary School	2707 Pamoa Road	
23. Saint Francis School	Secondary School	Honolulu, HI, 96822	
56. Saint Louis School	Secondary School	3142 Waialae Avenue	
Same Boals School	20011dai j boliooi	Honolulu, HI, 96816	
57. Seabury Hall	Secondary School	480 Olinda Road	
<u>, , , , , , , , , , , , , , , , , , , </u>	J 25 3110 01	Makawao, HI, 96768	
58. St. Joseph School of Hilo	Secondary School	1000 Ululani St.	
		Hilo, HI, 96720	
59. Star of the Sea	Primary/Secondary	4469 Malia Street	
	School	Honolulu, HI, 96821	
60. The St. Andrew's Schools	Secondary School	224 Queen Emma Square	
		Honolulu, HI, 96813	
61. Trinity Christian School	Secondary School	1110 A Kailua Road	
	<b>,</b>	Kailua, HI, 96734	
62. Mid-Pacific Institute	Primary/Secondary	2445 Kaala Street	
	School	Honolulu, HI, 96822	

Post-secondary Institutions – University/College			
63. Argosy University/Honolulu	University/ college –online	1001 Bishop Street Honolulu, HI, 96813	
64. Brigham Young University- Hawaii	University/college	55-220 Kulanui Street Laie, HI, 96762	
65. Central Pacific College	University/college	1833 Kalakaua Ave. Suite 510 Honolulu, HI, 96815	
66. Chaminade University of Honolulu	University/college	3140 Waialae Avenue Honolulu, HI, 96816	
67. Hawai'i Pacific University	University/college	Honolulu, HI, 96813	
68. Hawaii Tokai International College	University/College	91-971 Farrington Highway Kapolei, HI, 96707	
69. International Mid Pac College	University/College	1311 Kapiolani Blvd. 200-5 Honolulu, HI, 96814	
70. New Hope Christian College Hawaii	University/College	290 Sand Island Access Road Honolulu, HI, 96819	
71. Remnant University	University/College	745 Fort Street, #2001 Honolulu, HI, 96813	
72. University of Southern California	University/College	Rossier - Hawaii 6660 Hawaii Kai Drive Honolulu, HI, 96825	
73. University of The Nations – Kona	University/College	75-5851 Kuakini Hwy #434 Kailua Kona, HI, 96740	
74. Wayland Baptist University – HI	University/College	95-1091 Mililani, HI, 96789	
	<b>University of Hawaii</b>	System	
75. Hawaii Community College	University/College	200 W.Kawili St. Hilo, HI, 96720	
76. UH Center at West Hawaii	University/College	81-964 Halekii St. Kealakekua, HI, 96750	
77. Kapi`olani Community College	University/College	4303 Diamond Head Road Honolulu, HI, 96816	
78. Kauai Community College - University of Hawaii	University/College	Kauai Community College - University of Hawaii Lihue, HI, 96766	
79. Leeward Community College	University/College	96-045 Ala Ike Pearl City, HI, 96782	
80. University of Hawai'iWest O'ahu	University/College	91-1001 Farrington Hwy Kapolei, HI, 96707	
81. University of Hawaii - Honolulu Community College	University/College	874 Dillingham Blvd. Honolulu, HI, 96817	
82. University of Hawaii at Hilo	University/College	University of Hawaii at Hilo Hilo, HI, 96720	
83. University of Hawaii at Manoa	University/College	University of Hawaii at Manoa, OVCAA/OIEP/ISS Honolulu, HI, 96822	

84. University of Hawaii at Manoa - Outreach College- UHM	University/College	Outreach College Honolulu, HI, 96822	
85. University of Hawaii Maui College	University/College	University of Hawaii Maui College Kahului, HI, 96732	
86. Windward Community	University/College	45-720 Keaahala Road	
College		Kaneohe, HI, 96744	
Educational Exchange Programs			
	T 1 1	1.17.40	
87. Japan-America Institute of	Educational	JAIMS	
87. Japan-America Institute of Management Science	Educational Exchange	JAIMS 6660 Hawaii Kai Drive	
		6660 Hawaii Kai Drive	
Management Science	Exchange	6660 Hawaii Kai Drive Honolulu , HI , 96825	
Management Science  88. The Center for Asia-Pacific	Exchange  Educational	6660 Hawaii Kai Drive Honolulu , HI , 96825 1616 Makiki Street	
Management Science  88. The Center for Asia-Pacific Exchange ("CAPE")	Exchange  Educational Exchange	6660 Hawaii Kai Drive Honolulu , HI , 96825 1616 Makiki Street Honolulu , HI , 96822	
Management Science  88. The Center for Asia-Pacific Exchange ("CAPE")  89. Travel Institute of the	Exchange  Educational  Exchange  Educational	6660 Hawaii Kai Drive Honolulu , HI , 96825 1616 Makiki Street Honolulu , HI , 96822 1314 South King Street, Suite 1164	

## APPENDIX III: Economic Impact of International Students in the University of Hawaii System on the State of Hawaii's Economy

Table AIII.1 presents a summary account of the contribution of different types of international students hosted by the University of Hawaii system colleges and universities on the State of Hawaii's economy. It is based on how much they spent on tuition and fees and on living expenses. The categories identified in the table show the direct economic impact of foreign students on the state's economy.

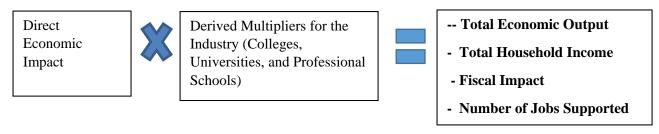
Table AllI.1: Direct Economic Impact of International Students in Hawaii – Colleges and Universities in the University of Hawaii System

Category of International Students	Number of Students	Spending by International Students on:		Total
		Tuition & Fees	Living Expenses	
Long-Term Students	2,021	\$49,071,818	\$34,480,048	\$83,551,866
Degree-seeking undergraduate students	1,367	\$19,353,594	\$24,070,386	\$43,423,980
Degree-seeking graduate students	654	\$29,718,224	\$10,409,662	\$40,127,886
Short-Term Students	2,550	\$23,769,958	\$24,708,312	\$48,478,270
Non-degree seeking undergraduate students	966	\$18,426,005	\$15,746,368	\$34,172,373
Non-degree seeking graduate students	66	\$1,476,555	\$1,322,390	\$2,798,945
Short-term training program students/professionals	1,380	\$3,834,768	\$7,035,587	\$10,870,355
Students in summer/winter camps	20	\$32,630	\$26,217	\$58,847
Visiting scholars/teachers	118		\$577,751	\$577,751
Total	4,571	\$72,841,776	\$59,188,360	\$132,030,136

Source: DBEDT, 2016 Hawaii IES

**2. Total Economic Impact and Number of Jobs Supported**. The total economic impact for the State included both the direct, indirect and induced impacts. The multipliers used for this calculation are taken from *The Hawaii State Input-Output Study: 2012 Benchmark Report* (March 2016). Type II final demand multipliers were used, which include direct, indirect, and induced effects.

The following formula was used to calculate the total economic impact and the number of jobs supported by foreign students in Hawaii for 2015/16:



Tables 2 summarizes the findings and shows the economic impact of international students studying at various campuses across the University of Hawaii System. The first line of the table shows the *total number of jobs supported* by foreign students studying at the University of Hawaii System colleges and universities (Type II multiplier). In 2015/16, given an estimated economic impact of \$132 million, 3,319 jobs were supported.

Table AllI.2: Total Economic Impact of International Students at the University of Hawaii System, 2015/16

	Final Demand Multiplier (Type II)	Economic Impact (Type II)
<b>Total Output Generated</b>	2.15	\$283,864,793
<b>Total Household Income Generated</b>	0.85	\$112,225,616
<b>Total State Taxes Generated</b>	0.1442	\$19,038,746
Total Number of Jobs (2016)	25.14 (per \$million)	3,319

Source: DBEDT, calculations are based on the Hawaii State Input-Output Study: 2012 Benchmark Report (March 2016)

In addition to the number of jobs supported by the foreign students in colleges and universities of the University of Hawaii system, the *total state taxes generated* line shows the estimated tax revenue of over \$19 million. *Total household income generated* refers to the estimated household earnings that can be attributed to foreign students. Hawaii households earned an estimated total of \$112.2 million. Finally, *total output generated* points to the total dollar change in output in all industries in the state. Total output generated by the international students at colleges and universities of the University of Hawaii System is estimated at nearly \$284 million.