



The Economic Impact of International Students in Hawaii – 2018 Update



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

Table of Contents

I. INTRODUCTION	1
II. 2018 HAWAII INTERNATIONAL EDUCATION SURVEY– ECONOMIC IMPACT ANALYSIS	2
III. OUTCOMES OF THE 2018 INTERNATIONAL EDUCATION SURVEY	6
IV. CONCLUSIONS	11
APPENDIX I – 2018 Hawaii International Education Survey	12
APPENDIX II – List of the Educational Institutions Surveyed	16
APPENDIX III – Total Economic Impact of International Students within the University of Hawaii System on the State’s Economy	19

This report was produced by the Research and Economic Analysis Division (READ) of the Department of Business, Economic Development & Tourism (DBEDT) in collaboration with the Study Educational Hawaii Consortium. This report was produced under the direction of the Economic Research Administrator Dr. Eugene Tian by Joseph Roos and Leonid Bak.

EXECUTIVE SUMMARY

The *2018 Hawaii International Education Survey* (IES) collected data for the calendar year of 2017 regarding the number of international students, the program length and expenditure amounts of these students and estimated the contribution to the state's economy. This report also examined the country of origin of international students and their relative ranking.

This report is an update of previous reports published in 2009, 2015, 2016, and 2017. The 2009 report had 24 responses from educational institutions, representing a total of approximately 13,000 international students. The 2015 report had 35 responses, representing approximately 10,100 international students. The 2016 report had 31 responses, representing a total of nearly 12,200 students. The 2017 report had 27 responses, representing 10,800 international students. The 2018 IES received responses from 34 of Hawaii's educational institutions, covering data for the 2017 calendar year. The responding institutions for the current survey represented 12,916 international students. Caution should be used when comparing this year's survey with previous years due to a varying number of responses and methodology.

The 2017 direct spending of international students in the State of Hawaii was an estimated \$241.5 million. This amount included tuition and fees plus living expenses. Based on this direct impact, the total economic impacts of international student expenditures for 2017 were as follows:

- \$497.5 million in economic output generated, including direct, indirect, and induced effects.
- \$38.2 million in state taxes generated.
- \$219.8 million in household income generated.
- 5,264 jobs were supported by international student spending.

The overall average annual per student spending was \$18,697, including living expenses and tuition and fees across all programs for calendar year 2017.

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 comprising 29.9 percent of the total. Japan was followed by the Republic of Korea with 11.2 percent, China with 6.4 percent (including Hong Kong and Macau), Switzerland with 6.2 percent, and the Philippines with 1.8 percent.

It is important to note that the economic impact estimates do not include contributions from educational travel to Hawaii from foreign-based educational institutions. The estimates also do not include educational travel covering school excursions and other types of education-related travel from Japan, China, Taiwan, and Republic of Korea, and its economic impact. Finally, the estimates do not include contributions from exchange students attending Hawaii's public schools (under the Hawaii Department of Education).

I. INTRODUCTION

This report is based on the annual *Hawaii International Education Survey* (IES), which is a collaboration between the Study Hawaii Consortium and the State of Hawaii's Department of Business, Economic Development, & Tourism (DBEDT). The goal is to provide an annual benchmark to measure the economic impact and number of international students studying in Hawaii. This annual survey is sent to schools in Hawaii that host international students.

As with previous surveys, the current 2018 IES was conducted online and requested Hawaii's educational institutions to provide the following data:

- The number of international students enrolled in various programs during the 2017 calendar year.
- The length of academic programs for international students.
- The tuition and fees paid by international students.
- The country of origin for the international student population.

The questionnaire is listed in Appendix I.

This report is divided into four sections; after Section I Introduction, Section II examines the direct, indirect, and induced impacts of international student spending on Hawaii's economy and the results of the 2018 IES. Section III analyzes outcomes of the 2018 IES, such as specifics on student spending, financial aid, and countries of origin. This section also provides a summary of results from previous surveys. Finally, Section IV concludes by summarizing the survey results.

II. 2018 HAWAII INTERNATIONAL EDUCATION SURVEY– ECONOMIC IMPACT ANALYSIS

The estimate of the economic impact of international students studying in the State of Hawaii was calculated based on the results of the 2018 IES, conducted in the first quarter of 2018. Caution should be used when comparing the current survey results with previous survey results due to variation in the survey respondents and methodology.

Data Collection and Sources. The current survey was administered online. The sampling frame consisted of 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 of the online survey are available in Appendix I and the list of the institutions the survey was sent to is in Appendix II.

The survey asked educational institutions to report the number of international students and the estimated expenses for tuition/fees and living expenses incurred by international students for calendar year 2017. The educational institutions were also asked the level and type of study programs for international students (e.g. middle and high schools students, undergraduate students, non-degree seeking students, etc.).

Responses were received from 34 educational institutions in Hawaii, for a response rate of 55 percent. The institutions responding to the 2018 IES accounted for 12,916 international students for the 2017 calendar year, representing a majority of Hawaii's international students. Generally, the schools that did not reply to the survey were either trade schools, with a very low number of international students, or institutions which did not host international students for the current survey year.

Methodology. The analysis presents two different estimates:

- 1) **Direct Impact:** This is an estimate of the direct dollar amount spent in Hawaii by international 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 effects of international student expenditures on output, household income, state tax revenue, and jobs.

1. Direct Economic Impact. The methodology to measure the direct impact of international students studying in Hawaii was based on the reported data provided by each respective institution. The calculation aggregated the tuition/fees plus living expenses minus the financial assistance awarded for all the institutions that responded to the survey. Non-responses were not included in the total and, therefore, the estimates are on the conservative side. The formula for calculating the direct economic impact of international students studying in Hawaii is:

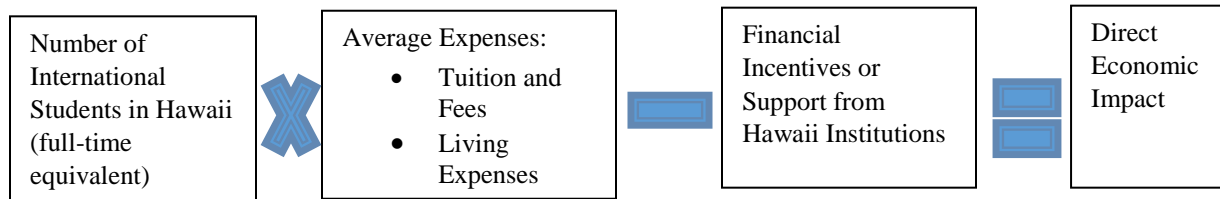


Table 1 presents a summary account of the different types of international students in Hawaii and the amount spent on tuition and fees plus living expenses. These categories show the direct economic impact of international student spending on the state's economy.

Similar to previous surveys, the 2018 IES showed that the majority of international students came to Hawaii to enroll in short-term academic programs, English language programs, or other academic exchange programs at the undergraduate level or lower. The number of short-term international students was 7,224 or 56 percent of the total. Generally, students enrolled in these short-term programs were not working towards a degree. The long-term category included students enrolled full-time for two semesters (fall and spring); tuition and living expenses were calculated based on the assumption that students were enrolled for two semesters. The number of full-time students was estimated based on the number of international students recorded by the survey respondents. In addition to the university level, this category also includes international students enrolled full-time at the middle and high school level. The number of long-term students was 5,692, which comprised about 44.0 percent of all international students reported in the survey results.

**Table 1: Direct Economic Impact of International Students in Hawaii – Summary
Results of the 2018 Hawaii International Education Survey**

Category	Number of Students	Spending by International Students on		Total
		Tuition & Fees	Living Expenses	
Long-Term Students	5,692	\$ 72,869,527	\$ 112,200,840	\$ 185,070,367
Middle/high school students	230	5,345,584	3,315,000	8,660,584
Degree-seeking undergraduate students	4,829	46,308,730	97,777,679	144,086,409
Degree-seeking graduate students	633	21,215,213	11,108,161	32,323,374
Short-Term Students	7,224	\$ 34,933,154	\$ 21,487,025	\$ 56,420,179
Non-degree-seeking undergraduate students	848	10,910,208	5,970,816	16,881,024
Non-degree-seeking graduate students	20	722,320	350,000	1,072,320
Short-term training program students/professionals	5,377	22,062,733	12,628,958	34,691,691
Students in summer/winter camps	902	1,237,893	1,841,805	3,079,698
Visiting scholars/teachers	77	0	\$695,446	\$695,446
Total	12,916	\$ 107,802,681	\$ 133,687,865	\$ 241,490,546

Source: DBEDT, 2018 IES

2. Total Economic Impacts. The total economic impacts for the state included the direct, indirect and induced impacts. The multipliers used for this calculation are from *The Hawaii State Input-Output Study: 2012 Benchmark Report*.¹ Type II final demand multipliers were used, which include direct, indirect, and induced effects.

¹ DBEDT. 2016. The Hawaii State Input-Output Study: 2012 Benchmark Report. August.

The following formula was used to calculate the total economic impact and the number of jobs supported by international students in Hawaii for calendar year 2017:

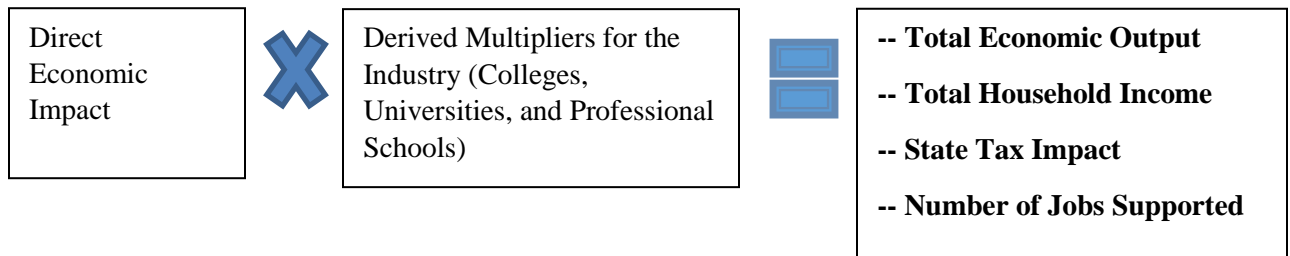


Table 2 summarizes the findings and shows the economic impact of international students studying in Hawaii.

Table 2: Total Economic Impact of International Students in Hawaii, 2017

Direct Spending (from Table 1)		\$241,490,546
	Final Demand Multiplier (Type II)	Economic Impact (Type II)
Total Output Generated	2.06	\$497,470,525
Total Household Income Generated	0.91	\$219,756,397
Total State Taxes Generated	0.158	\$38,155,506
Total Jobs Supported	21.8 (per \$million)	5,264

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

The ***total output generated*** is an estimate of the total dollar change in output for all industries in the state, resulting from the inflow of money spent by international students in Hawaii. Based on this analysis, the total output generated by international student spending for calendar year 2017 was an estimated \$497.5 million.

Total household income generated refers to the estimated household earnings that can be attributed to international students studying in the state. Hawaii households earned an estimated total of \$219.8 million generated from international students for calendar year 2017.

The ***total state taxes generated*** line shows the estimated state tax revenue that can be attributed to international students studying in Hawaii. An estimated \$38.2 million in state taxes was generated by international student spending in the state for calendar year 2017.

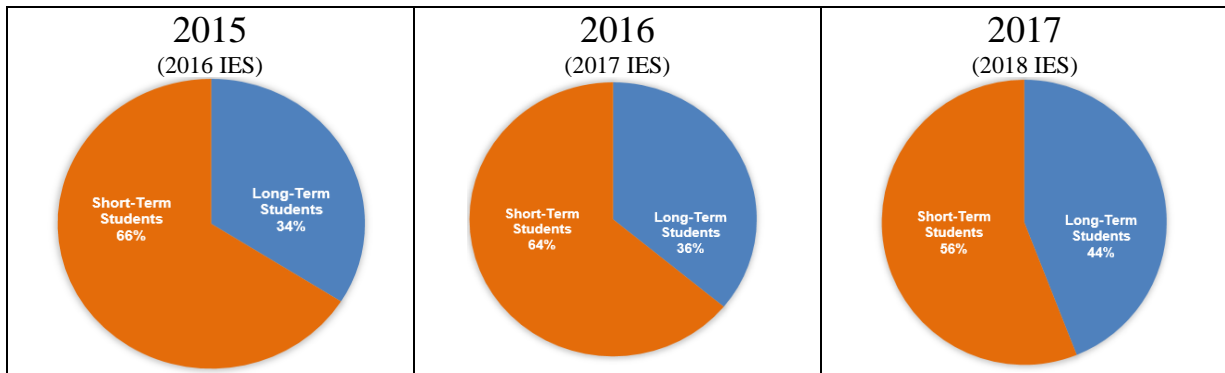
The last line of the table shows the ***total number of jobs supported*** by international students studying in Hawaii. Given an estimated direct economic impact of \$241.5 million for calendar year 2017, 5,264 jobs were supported. As noted above, these estimates are based on the Type II multiplier, which includes direct, indirect, and induced effects.

III. OUTCOMES OF THE 2018 INTERNATIONAL EDUCATION SURVEY

Data comparisons

Figure 1 below highlights the results of the 2018 IES by the program length and compares these with the two previous survey results. It is important to note that the data was collected for the previous year of the survey year. The 2018 IES measured 2017 data and showed a higher share of students enrolled in long-term programs, with 44 percent compared with 36 percent and 34 percent for the two previous respective surveys.

Figure 1. Categories of International Students in Hawaii



Source: DBEDT: respective years of IES

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.² 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 was higher in 2017 than the short-term student impact, even though the number of students in short-term programs was higher. However, in addition to spending, short-term programs contribute significantly to Hawaii's economy because they serve as a bridge for students to transition into long-term degree programs.

² The Economic Impact of International Students in Hawaii, 2015 (DBEDT)

**Table 3. Spending by International Students in Hawaii by Program Length:
2017 Calendar Year**

Category	Long-Term Programs	Short-Term Programs
Number of Students	5,692	7,224
Total Spending (\$)	\$185,070,367	\$56,420,179
Living Expenses (\$)	\$112,200,840	\$21,487,025
Tuition and Fees (\$)	\$72,869,527	\$34,933,154
Average Annual Spending Per Student (\$)	\$32,514	\$7,810

Source: DBEDT, 2018 IES

Spending per student. The overall average annual spending per student for calendar year 2017 was \$18,697, including both long-term and short-term students. As shown in table 3, the average annual spending for long-term students was \$32,514 (\$19,712 for living and \$12,802 for tuition/fees) and short-term students was \$7,810 (\$2,974 for living expenses and \$4,836 for tuition/fees). Table 4 below shows the direct impact (total spending by international students) and total economic impacts on the economy of the State of Hawaii for the current survey and the two previous surveys of the IES.

Table 4. Summary of Economic Impacts: 2015, 2016, and 2017

	2015 (2016 IES)	2016 (2017 IES)	2017 (2018 IES)
Total Direct Spending	\$301,912,747	225,316,831	\$241,490,546
Output Multiplier	2.15	2.15	2.06
Earnings Multiplier	0.85	0.85	0.91
State Tax Multiplier	0.143	0.143	0.158
Employment Multiplier (jobs per \$m)	25.1	22.6	21.8
Total Output Generated	\$649,112,406	\$484,431,187	\$497,470,525
Total Income Generated	\$256,625,835	\$191,519,307	\$219,756,397
Total State Taxes Generated	\$43,535,818	\$32,287,902	\$38,155,506
Total Jobs Supported	7,590	5,093	5,264

Source: DBEDT, IES respective years

Financial aid to International students and net spending per student. Financial aid and other resources are used as an incentive to attract international students. The total financial aid for international students for calendar year 2017 was \$679,511, which was slightly below the \$684,052 estimate for the previous year. It is important to note that these are scholarships and grants offered by the institutions and do not include RA/TA assistance. Generally, international students are eligible only for merit aid provided by the host institutions. However, students who are U.S. permanent residents 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.

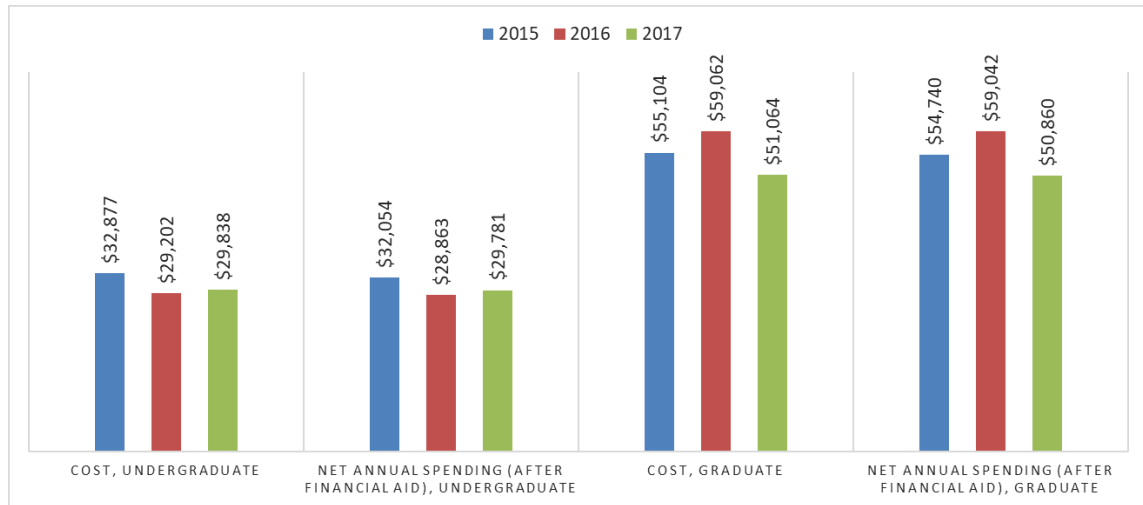
At the ***undergraduate level*** for calendar year 2017, average annual fees for a full-time international student in Hawaii was \$29,838. These figures are after the average annual financial assistance was subtracted, which reduced the total cost per student by approximately \$57 annually (Figure 2). The average tuition amount included community colleges, which generally had lower tuition than the four-year universities.

At the ***graduate level*** for calendar year 2017, average annual fees for a full-time graduate or professional international student in Hawaii was \$51,064. These figures were after the financial assistance was subtracted, which reduced the total cost per student by approximately \$204 annually (this does not include RA/TA assistance).

At the ***middle and high school*** level for calendar year 2017, average annual fees averaged \$37,655 per year after financial assistance was subtracted. The total financial aid in this category was \$233,000, or an average annual amount of \$1,013 per student.

Increasing financial aid resources could boost competition among educational institutions in attracting international students. In addition to attracting students, financial aid is an effective tool to retain quality students.

Figure 2. Impact of Financial Aid to International Students



Source: DBEDT: respective years of IES

Countries and places of origin of international students in Hawaii

Table 5 lists the top 25 countries and places of origin of international students for 2017. Japan remains the top country of origin for Hawaii's international students, comprising 29.9 percent of the total. Japan was followed by the Republic of Korea with 11.2 percent, China (including Hong Kong and Macao) with 6.4 percent, Switzerland with 6.2 percent, and the Philippines with 1.8 percent.

Table 5. Places of Origin of International Students in Hawaii in 2017

Rank	Country/Place	No. of Students	% of Total
1	Japan	3,863	29.9%
2	Republic of Korea	1,452	11.2%
3	China (including Hong Kong, Macao)	825	6.4%
4	Switzerland	798	6.2%
5	Philippines	233	1.8%
6	Taiwan	211	1.6%
7	Germany	198	1.5%
8	Canada	157	1.2%
9	Tonga	154	1.2%
10	Brazil	153	1.2%
11	Thailand	98	0.8%
12	Western Samoa	86	0.7%
13	Vietnam	80	0.6%
14	Norway	74	0.6%
15	Sweden	72	0.6%
16	New Zealand	66	0.5%
17	France	65	0.5%
18	Mongolia	58	0.4%
19	Italy	57	0.4%
20	Fiji	56	0.4%
21	French Polynesia	52	0.4%
22	Indonesia	51	0.4%
23	Spain	48	0.4%
24	Australia	47	0.4%
25	United Kingdom	42	0.3%

Source: DBEDT, 2018 IES

In comparing with the 2017 report, the order of the top three positions remained the same: Japan, Republic of Korea, and China. On the other hand, two notable downward trends were Brazil, which held the 5th position two years ago and Saudi Arabia, which disappeared from the top 25 ranking altogether. Brazil's decline can partially be attributed to the end of Brazil's Scientific Mobility Program and Saudi Arabia's decline can partially be attributed to shifts in the country's eligibility requirements for Saudi Arabia's scholarship program.³ In addition to

³ Baer, J. 2018. Fall 2017 International Student Enrollment Hot Topics Survey. IIE Center for Academic Mobility Research and Impact November.

Japan, the Republic of Korea and China, other Asian countries including the Philippines, Taiwan, Thailand, and Vietnam maintained firm rankings. Switzerland, Germany, Norway, Sweden, and France were the highest-ranking European countries.

VI. CONCLUSIONS

The data presented in this report were the results of the *2018 Hawaii International Education Survey*. DBEDT received responses from 34 of Hawaii's educational institutions with international students. The total direct economic impact of international students for the 2017 calendar year was an estimated \$241.5 million. This amount included tuition and fees plus living expenses.

In addition to the direct impact, other economic benefits of international students for the 2017 calendar year were:

- \$497.5 million added to the state's total economic output, including direct, indirect, and induced effects.
- \$38.2 million in state taxes was generated.
- \$219.8 million in household earnings can be attributed to international students.
- 5,264 jobs were supported by international student spending.

The overall average annual per student spending was \$18,697, including living expenses and tuition and fees across all programs in 2017.

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, and Republic of 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 is an area for future research. Furthermore, this report did not cover exchange students in Hawaii's public schools (under the Hawaii Department of Education).

Hawaii's educational institutions hosted a diverse group of students from all over the globe, with an estimated 12,916 international students. In addition to their annual expenditures, international students are the leaders of tomorrow that will bridge Hawaii with the global economy.

**APPENDIX I: 2018 Hawaii International Education Survey
(calendar year 2017 data)**

International Education Online Survey

Department of Business, Economic Development & Tourism

1. CONTACT INFORMATION

Name

Company/Institution

Address

City

State, Zip Code

Email

Phone Number

2 through 5. ENROLLMENT

Please choose the most applicable category or categories, then provide the number of enrollment:

	Fall 2017	Spring 2017	Summer 2017
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. Please indicate the length of the program in days from spring through fall 2017 for the following categories of students. If multiple programs were run, please report the total number of days for that category of program. If you need to clarify your answer, you may do so in question 12.

	Number of enrollment	Length of Program (days)
Short-term training program students/professionals		
Students in summer/winter camps		
Visiting scholars/teachers		

7. Please indicate the number of International family members accompanying students/trainees (via invitation letter from your institution). _____

8. Please indicate the cost of tuition and fees for the following categories of international students & scholars. Please specify the time period (e.g. per week, per month, per x-week term, per year).

	Cost of tuition & 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		

9. Please indicate the cost of living for the following categories of international students & scholars. Please specify the time period (e.g. per week, per month, per x-week term, per year).

	Cost of living	
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: For the period from January through December 2017, please indicate the lump sum amount of financial assistance through tuition waivers, scholarships, and any other financial assistance to INTERNATIONAL students/scholars in US Dollars.

	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, Spring, Summer, Fall)

	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	
Kazakhstan	
Kenya	
Kiribati	
Republic of Korea	
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)	

APPENDIX II: 2018 Hawaii International Education Survey (calendar year 2017 data). List of the Educational Institutions Surveyed

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. Mauna Loa Helicopters	Flight School	73-310 U'u Street Kailua-Kona, HI, 96740
Language Schools		
2. Academia Language School	Language School	1600 Kapiolani Blvd. Suite 1215 Honolulu, HI, 96814
3. EF International Language Schools, Inc.	Language Schools	EF International Language Schools, Inc. Honolulu, HI, 96815
4. ELS Language Centers/Honolulu	Language Schools	Hawai'i Pacific University Honolulu, HI, 96813
5. Institute of Intensive English, Ltd.	Language School	2155 Kalakaua Avenue, Suite 700 Honolulu, HI, 96815
6. Intercultural Communications College	Language Schools	810 Richards Street Honolulu, HI, 96813
7. Hawaii English Language Program	Language School	1395 Lower Campus Rd, MC 13-1 Honolulu, HI, 96822
8. Global Village Hawaii	Language Schools	1440 Kapiolani Blvd. Honolulu, HI, 96814
9. Maui Language Institute	Language School	310 W Kaahumanu Ave. Kahului, HI 96732
Massage/Beauty/Cosmetology/Alternative Medicine		
10. Hawaii Massage Academy	Massage School	1750 Kalakaua Ave Suite 3004 Honolulu, HI, 96826
11. Institute of Clinical Acupuncture and Oriental Medicine	Alternative Medicine	100 North Beretania Street, Suite 203 B Honolulu, HI, 96817
12. Makana Esthetics Wellness Academy	Beauty School	1168 Waimanu Honolulu, HI, 96814
13. Med-Assist School of Hawaii	Alternative Medicine	345 Queen St. Honolulu, HI, 96813
Primary/Secondary Schools		
14. Asia Pacific International School	Secondary School	54-230 Kamehameha Hwy Hauula, HI 96717
15. Haleakala Waldorf School	Secondary School	4160 Lower Kula Rd Kula, HI, 96790
16. Hanalani Schools	Secondary School	Admissions Office Mililani, HI, 96789
17. Hawaii Baptist Academy	Secondary School	2429 Pali Highway Honolulu, HI, 96817
18. Hawaiian Mission Academy	Primary/Secondary School	1415 Makiki Street Honolulu, HI, 96814

19. Hongwanji Mission School	Secondary School	1728 Pali Highway Honolulu, HI, 96813
20. Honolulu Waldorf School	Primary/Secondary School	350 Ulua Street Honolulu, HI, 96821
21. Iolani School	Secondary School	563 Kamoku Street Honolulu, HI, 96826
22. Island Pacific Academy – Upper School	Secondary School	909 Haumea Street Kapolei, HI, 96707
23. Island School	Secondary School	3-1875 Kaumualii Hwy Lihue, HI, 96766
24. Kaimuki Christian School	Secondary School	1117 Koko Head Avenue Honolulu, HI
25. La Pietra Hawaii School for Girls	Secondary School	2933 Poni Moi Road Honolulu, HI, 96815
26. Makua Lani Christian Academy	Secondary School	74-4966 Kealaka'a Street Kailua-Kona, HI, 96740
27. Maryknoll School	Secondary School	1526 Alexander Street Honolulu, HI, 96822
28. Maui Preparatory Academy	Secondary School	4910 Honoapiilani Hwy Lahaina, HI, 96761
29. Le Jardin Academy	Secondary School	917 Kalaniana'ole Highway Kailua, HI, 96734
30. Punahou School	Primary/Secondary School	1601 Punahou Street Honolulu, HI, 96822
31. Sacred Hearts Academy	Secondary School	3253 Waialae Avenue Honolulu, HI, 96816
32. Saint Francis School	Secondary School	2707 Pamoia Road Honolulu, HI, 96822
33. Saint Louis School	Secondary School	3142 Waialae Avenue Honolulu, HI, 96816
34. Seabury Hall	Secondary School	480 Olinda Road Makawao, HI, 96768
35. St. Joseph School of Hilo	Secondary School	1000 Ululani St. Hilo, HI, 96720
36. Star of the Sea	Primary/Secondary School	4469 Malia Street Honolulu, HI, 96821
37. The St. Andrew's Schools	Secondary School	224 Queen Emma Square Honolulu, HI, 96813
38. Trinity Christian School	Secondary School	1110 A Kailua Road Kailua, HI, 96734
39. Mid-Pacific Institute	Primary/Secondary School	2445 Kaala Street Honolulu, HI, 96822
Post-secondary Institutions – University/College		
40. Argosy University/Honolulu	University/college –online	1001 Bishop Street Honolulu, HI, 96813
41. Brigham Young University-Hawaii	University/college	55-220 Kulanui Street Laie, HI, 96762
42. Central Pacific College	University/college	1833 Kalakaua Ave. Suite 510 Honolulu, HI, 96815
43. Chaminade University of Honolulu	University/college	3140 Waialae Avenue Honolulu, HI, 96816

44. Hawai'i Pacific University	University/college	1164 Bishop St, Honolulu Honolulu, HI, 96813
45. Hawaii Tokai International College	University/College	91-971 Farrington Highway Kapolei, HI, 96707
46. International Mid Pac College	University/College	1311 Kapiolani Blvd. 200-5 Honolulu, HI, 96814
47. Wayland Baptist University – HI	University/College	95-1091 Mililani, HI, 96789
University of Hawaii System		
48. Hawaii Community College	University/College	200 W.Kawili St. Hilo, HI, 96720
49. UH Center at West Hawaii	University/College	81-964 Halekii St. Kealahou, HI, 96750
50. Kapi`olani Community College	University/College	4303 Diamond Head Road Honolulu, HI, 96816
51. Kauai Community College - University of Hawaii	University/College	Kauai Community College - University of Hawaii Lihue, HI, 96766
52. Leeward Community College	University/College	96-045 Ala Ike Pearl City, HI, 96782
53. University of Hawai'i--West O'ahu	University/College	91-1001 Farrington Hwy Kapolei, HI, 96707
54. Honolulu Community College	University/College	874 Dillingham Blvd. Honolulu, HI, 96817
55. University of Hawaii at Hilo	University/College	University of Hawaii at Hilo Hilo, HI, 96720
56. University of Hawaii at Manoa	University/College	University of Hawaii at Manoa, OVCAA/OIEP/ISS Honolulu, HI, 96822
57. University of Hawaii at Manoa - Outreach College-UHM	University/College	Outreach College Honolulu, HI, 96822
58. University of Hawaii Maui College	University/College	University of Hawaii Maui College Kahului, HI, 96732
59. Windward Community College	University/College	45-720 Kealahala Road Kaneohe, HI, 96744
60. University of Hawaii John A Burns School of Medicine	Medical School	651 Ilalo St, Honolulu, HI, 96813
Educational Exchange Programs		
61. Japan-America Institute of Management Science (JAAMS)	Educational Exchange	JAAMS 6660 Hawaii Kai Drive Honolulu , HI , 96825
62. Travel Institute of the Pacific	Educational Exchange	1314 South King Street, Suite 1164 Honolulu , HI , 96814

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

- 1. Direct Economic Impact.** Table AIII.1 presents a summary of the direct impact of University of Hawaii's international students to the state's economy. It is based on international student expenditures for tuition/fees and living expenses. The table includes the contributions of long-term and short-term students and is categorized by the type of program.

Table AIII.1: Direct Economic Impact of International Students for the University of Hawaii System, 2017

Category of International Students	Number of Students	Spending by International Students:		Total
		Tuition & Fees	Living Expenses	
<i>Long-Term Students</i>	1,863	\$40,155,274	\$31,041,184	\$71,196,458
Degree-seeking undergraduate students	1,319	20,616,529	21,519,130	42,135,659
Degree-seeking graduate students	544	19,538,745	9,522,054	29,060,799
<i>Short-Term Students</i>	2,401	\$21,642,177	\$9,470,523	\$31,112,700
Non-degree seeking undergraduate students	335	4,951,191	3,286,676	8,237,867
Non-degree seeking graduate students	20	722,320	350,000	1,072,320
Short-term training program students/professionals	1,607	15,557,916	4,504,561	20,062,477
Students in summer/winter camps	362	410,750	633,840	1,044,590
Visiting scholars/teachers	77	0	695,446	695,446
<i>Total</i>	4,264	\$61,797,451	\$40,511,707	\$102,309,158

Source: DBEDT, 2018 Hawaii IES

The above figures are aggregated from the following University of Hawaii related institutions: Hawaii Community College, Kapiolani Community College, Kauai Community College, Leeward Community College, Maui Language Institute at Maui College, UH-HELP, UH-Hilo, UH-Manoa, UH-Outreach, UH-West Oahu, and John A. Burns School of Medicine.

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* (August 2016). Type II final demand multipliers were used, which include direct, indirect, and induced effects.

Tables AIII.2 summarizes the results and shows the economic impact of international students studying at various campuses across the University of Hawaii System. The ***total output generated*** is an estimate of the total dollar change in output in all industries in the state, resulting from international student expenditures (living expenses and tuition/fees) attending the University of Hawaii. For calendar year 2017, the total output generated by international students for the University of Hawaii System was estimated at \$210.8 million (Type II multiplier).

Table AIII.2: Economic Impact of International Students within the University of Hawaii System on the State's Economy

	Final Demand Multiplier (Type II)	Economic Impact (Type II)
Total Output Generated	2.06	\$210,756,865
Total Household Income Generated	0.91	\$93,101,334
Total State Taxes Generated	0.158	\$16,164,847
Total Number of Jobs (2017)	21.8 (per \$million)	2,230

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

Total household income generated refers to the estimated household earnings that can be attributed to international students studying within the University of Hawaii system. Hawaii households earned an estimated \$93.1 million generated from University of Hawaii's international students for calendar year 2017.

The ***total state taxes generated*** line shows the estimated tax revenue that can be attributed to international students studying within the University of Hawaii system. An estimated \$16.2 million in state taxes was generated by University of Hawaii's international student spending for calendar year 2017.

The last line of the table shows the ***total number of jobs supported*** by international students studying within the University of Hawaii system. Given an estimated direct economic impact of \$102.3 million for calendar year 2017, 2,230 jobs were supported. As noted above, these estimates are based on the Type II multiplier, which includes direct, indirect, and induced effects.