

Tourism and Hawaii Economy

October 3, 2023

DBEDT Research Division

This brief presents contributions of tourism to Hawaii economy, estimated using the economic relationships reflected in the 2017 State of Hawaii Input-Output (IO) model. In estimating the impacts using the IO model, “direct and indirect” impact measures the impact of visitor expenditure through all firms that contributed, directly or indirectly, to goods and services sold to visitors, while “induced” impact measures the additional impact generated through the increased household income and spending after the initial impacts. Estimation of impacts on GDP and jobs are based on the latest GDP and job data from the U.S. Bureau of Economic Analysis (BEA) at the time of release and subject to change when the Hawaii GDP and job data from BEA are revised.

Table 1. Total visitor related expenditure (\$M), 2017-2022 ¹

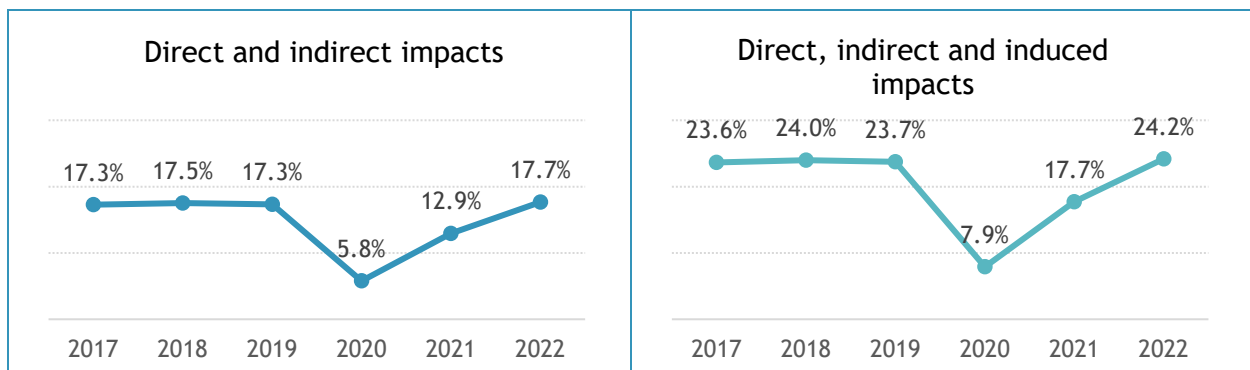
2017	2018	2019	2020	2021	2022
19,081	20,144	20,460	6,174	15,199	22,569

¹ Besides expenditure by visitors by air and cruise ship, it includes supplemental business expenditure and other estimated spending in Hawaii by overseas airlines and cruise lines.

Table 2. Impacts of total visitor-related expenditure on Hawaii economy, 2022

	Output (\$M)	GDP (\$M)	Tax (\$M)	Labor Income (\$M)	Total Jobs	W&S Jobs
Direct and indirect impact	31,158	17,858	2,072	10,042	172,115	136,534
Direct, indirect & induced impact	42,192	24,449	2,613	13,506	229,318	179,095

Figure 1. Contribution of tourism to Hawaii GDP, 2017-2022 ¹



¹ The percentages were calculated using the revised GDP data from BEA for 2017-2022, released on Sep 29, 2023

Table 3. Contribution of tourism to Hawaii GDP, statewide and by county

Year	Statewide	Honolulu	Maui	Kauai	Hawaii
<i>Direct and indirect impacts</i>					
Contribution to the area's GDP (\$M)					
2017	15,098	9,356	2,871	1,175	1,697
2018	15,940	9,877	3,031	1,240	1,791
2019	16,189	10,032	3,078	1,260	1,819
2020	4,886	3,027	929	380	549
2021	12,027	7,453	2,287	936	1,352
2022	17,858	11,066	3,396	1,390	2,007
Percentage of the area's GDP					
2017	17.3%	14.3%	29.6%	30.7%	20.1%
2018	17.5%	14.7%	29.0%	29.8%	20.5%
2019	17.3%	14.8%	28.3%	29.1%	20.2%
2020	5.8%	4.9%	10.6%	10.3%	6.6%
2021	12.9%	11.1%	22.1%	22.4%	14.7%
2022 ¹	17.7%				
<i>Direct, indirect and induced impacts</i>					
Contribution to the area's GDP (\$M)					
2017	20,671	13,347	3,683	1,456	2,186
2018	21,823	14,091	3,888	1,537	2,307
2019	22,165	14,311	3,949	1,561	2,343
2020	6,689	4,319	1,192	471	707
2021	16,466	10,632	2,934	1,160	1,741
2022	24,449	15,787	4,356	1,722	2,585
Percentage of the area's GDP					
2017	23.6%	20.5%	38.0%	38.1%	25.8%
2018	24.0%	21.0%	37.2%	36.9%	26.5%
2019	23.7%	21.1%	36.3%	36.0%	26.0%
2020	7.9%	7.0%	13.6%	12.7%	8.5%
2021	17.7%	15.8%	28.3%	27.8%	19.0%
2022 ¹	24.2%				

¹The percentages for the State were calculated using the 2017-2022 data released on Sep 29, 2023. The percentages for counties were calculated using the data released in Dec. 2022 and subject to revision in Dec. 2023.

Table 4. Contribution of tourism to total jobs, statewide and by county

Year	Statewide	Honolulu	Maui	Kauai	Hawaii
<i>Direct and indirect impacts</i>					
Contribution to the area's jobs					
2017	172,860	100,295	34,891	15,158	22,516
2018	176,279	102,353	35,551	15,428	22,948
2019	172,962	100,497	34,853	15,108	22,504
2020	50,429	29,322	10,154	4,396	6,558
2021	119,953	69,793	24,133	10,438	15,590
2022	172,115	100,209	34,600	14,948	22,358
Percentage of the area's jobs					
2017	18.8%	15.2%	32.1%	33.0%	20.9%
2018	19.1%	15.5%	32.2%	33.0%	21.1%
2019	18.9%	15.6%	30.9%	31.7%	20.7%
2020	6.2%	5.0%	10.9%	10.8%	6.6%
2021	13.9%	11.6%	23.6%	24.3%	14.9%
2022 ¹	19.0%				
<i>Direct, indirect and induced impacts</i>					
Contribution to the area's jobs					
2017	229,704	139,267	43,542	18,233	28,662
2018	234,378	142,187	44,382	18,570	29,239
2019	230,091	139,669	43,527	18,197	28,698
2020	67,122	40,768	12,685	5,299	8,370
2021	159,740	97,076	30,159	12,588	19,917
2022	229,318	139,437	43,253	18,039	28,589
Percentage of the area's jobs					
2017	24.9%	21.1%	40.1%	39.7%	26.7%
2018	25.4%	21.6%	40.2%	39.7%	26.8%
2019	25.2%	21.7%	38.6%	38.1%	26.4%
2020	8.2%	7.0%	13.6%	13.0%	8.4%
2021	18.6%	16.2%	29.5%	29.4%	19.0%
2022 ¹	25.4%				

¹The percentages for the State were calculated using the 2017-2022 data released on Sep 29, 2023. The percentages for counties were calculated using the data released in Dec. 2022 and subject to revision in Dec. 2023.

Table 5. Direct and indirect contribution of tourism to Hawaii economy by sector, 2022

Sector	Output (\$M)	GDP (\$M)	Tax (\$M)	Labor Income (\$M)	Total Jobs	W&S Jobs
Total	31,158	17,858	2,072	10,042	172,115	136,534
Accommodation	8,361	3,957	883	2,145	26,957	25,840
Transportation	4,707	2,815	138	1,258	16,889	13,121
Real estate and rentals	3,603	2,528	184	442	8,426	3,272
Retail trade	3,031	1,991	198	1,121	27,173	21,538
Eating and drinking	2,717	1,286	178	1,027	26,584	25,017
Business services	2,059	1,219	152	1,063	18,151	14,590
Professional services	819	500	62	439	5,975	3,024
State and local gov't	761	627	27	548	6,100	6,100
Arts and entertainment	759	619	53	421	13,258	7,224
Mining and construction	658	329	46	278	2,709	2,059
Utilities	551	345	22	108	679	617
Wholesale trade	508	291	12	152	1,842	1,534
Information	421	192	17	82	910	734
Other manufacturing	387	93	4	43	678	450
Finance and insurance	378	173	17	98	1,485	841
Other services	363	164	21	176	4,387	2,478
Federal government	357	328	16	293	2,558	2,558
Educational services	239	199	20	171	4,085	3,219
Health services	224	119	17	110	1,292	1,082
Food processing	184	47	3	36	799	720
Agriculture	72	36	2	30	1,179	517

Figure 2. Hawaii GDP by sector, reclassified with tourism, 2022

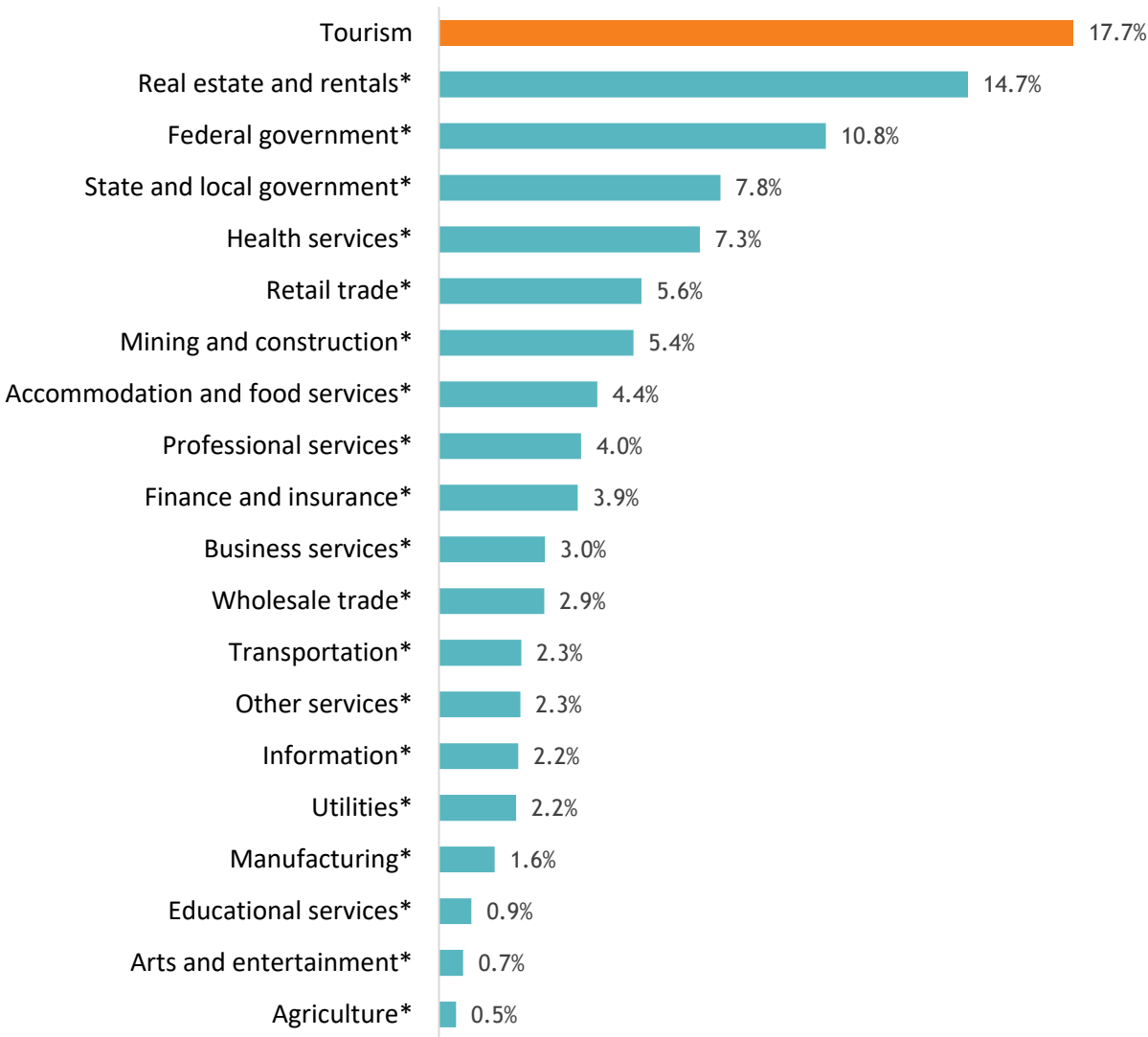
Methodology

Tourism is not defined in the standard industry classifications. To estimate the role of tourism in Hawaii GDP, GDP of tourism was estimated as follows and the original sectors were redefined to exclude the portion contributed by tourism.

Step 1: estimate contribution of tourism to each sector’s GDP using the 2017 Hawaii Input-Output model.

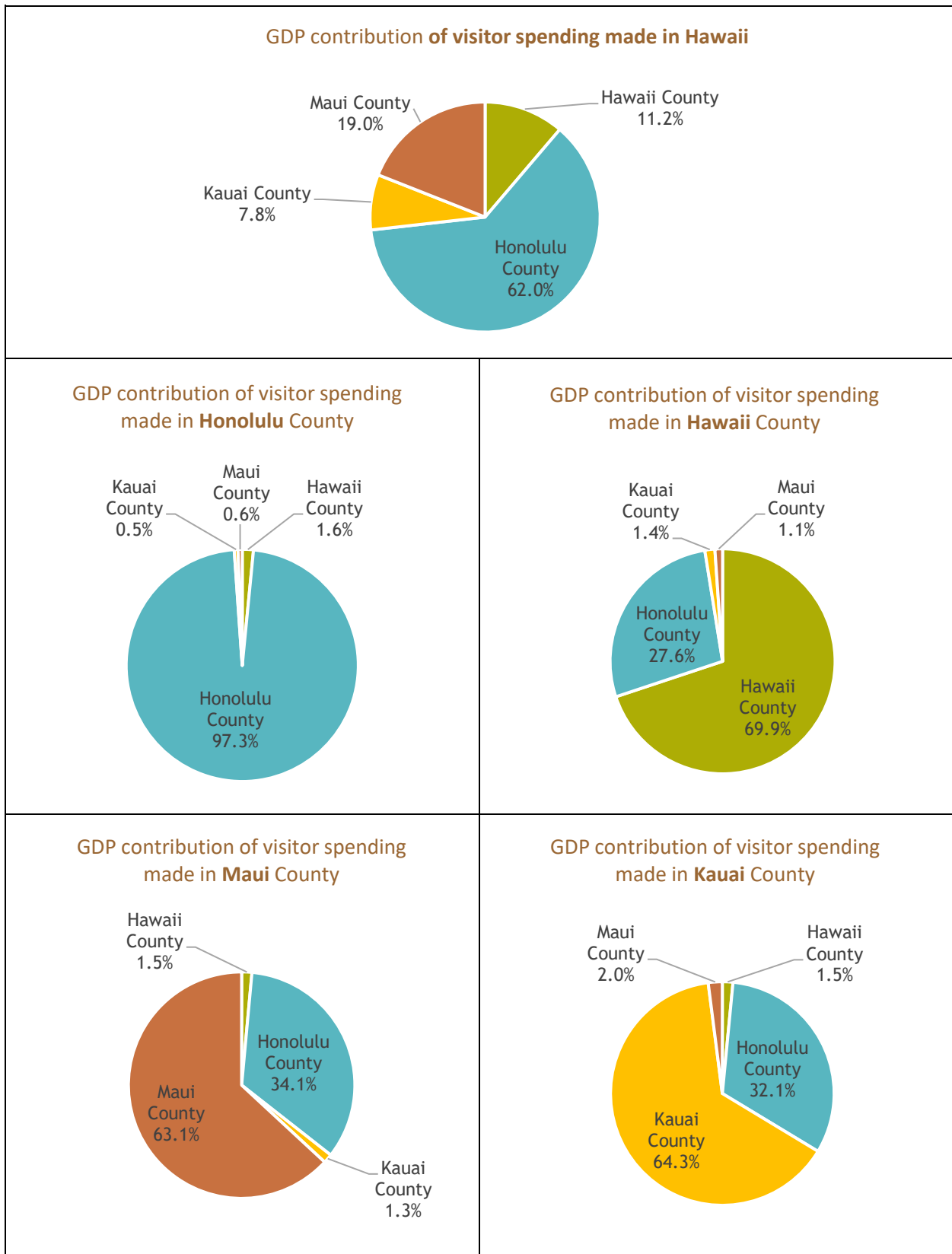
Step 2: estimate GDP of tourism sector as the sum of each sector’s GDP generated by tourism

Step 3: re-estimate GDP of other sectors without tourism portion



* non-tourism portion only (GDP generated by tourism was subtracted from the sector’s original GDP measure)

Figure 3. GDP contribution of visitor spending by counties benefited



Estimated impacts of \$1 billion visitor spending in 2022

Table A-1. Estimated impacts of \$1 billion visitor spending in 2022 on Hawaii economy
(Direct and indirect impacts)

Sector	Output (\$M)	GDP (\$M)	Tax (\$M)	Labor Income (\$M)	Total Jobs	W&S Jobs
Total	1,380.6	791.3	91.8	444.9	7,626	6,050
Accommodation	370.5	175.3	39.1	95.1	1,194	1,145
Transportation	208.6	124.7	6.1	55.8	748	581
Real estate and rentals	159.6	112.0	8.2	19.6	373	145
Retail trade	134.3	88.2	8.8	49.7	1,204	954
Eating and drinking	120.4	57.0	7.9	45.5	1,178	1,108
Business services	91.2	54.0	6.7	47.1	804	646
Professional services	36.3	22.2	2.7	19.5	265	134
State and local gov't	33.7	27.8	1.2	24.3	270	270
Arts and entertainment	33.6	27.4	2.4	18.7	587	320
Mining and construction	29.1	14.6	2.0	12.3	120	91
Utilities	24.4	15.3	1.0	4.8	30	27
Wholesale trade	22.5	12.9	0.5	6.7	82	68
Information	18.7	8.5	0.8	3.6	40	33
Other manufacturing	17.1	4.1	0.2	1.9	30	20
Finance and insurance	16.7	7.7	0.8	4.3	66	37
Other services	16.1	7.3	0.9	7.8	194	110
Federal government	15.8	14.5	0.7	13.0	113	113
Educational services	10.6	8.8	0.9	7.6	181	143
Health services	9.9	5.3	0.7	4.9	57	48
Food processing	8.2	2.1	0.2	1.6	35	32
Agriculture	3.2	1.6	0.1	1.3	52	23

Table A-2. Estimated impacts of \$1 billion visitor spending in 2022 on Hawaii economy
(Direct, indirect and induced impacts)

Sector	Output (\$M)	GDP (\$M)	Tax (\$M)	Labor Income (\$M)	Total Jobs	W&S Jobs
Total	1,869.5	1,083.3	115.8	598.5	10,161	7,936
Accommodation	386.8	183.0	40.8	99.2	1,247	1,195
Real estate and rentals	284.6	203.7	11.7	27.4	535	187
Transportation	228.1	135.9	6.8	61.5	849	646
Retail trade	166.0	109.0	10.8	61.4	1,488	1,180
Eating and drinking	144.0	68.1	9.4	54.4	1,409	1,326
Business services	112.7	68.2	8.4	59.4	1,020	818
Health services	76.4	41.7	5.4	38.5	513	439
Professional services	53.4	32.4	4.0	27.9	390	191
State and local gov't	45.9	37.8	1.6	33.1	368	368
Finance and insurance	45.7	21.9	2.3	12.1	187	103
Wholesale trade	42.7	24.5	1.0	12.8	155	129
Other services	42.1	18.2	2.1	20.0	425	259
Mining and construction	38.7	19.3	2.7	16.3	159	121
Information	37.9	17.5	1.5	7.5	82	67
Arts and entertainment	37.1	30.3	2.6	20.6	648	353
Utilities	35.9	22.6	1.4	7.0	45	41
Other manufacturing	33.4	7.8	0.3	3.4	50	34
Federal government	23.8	21.8	1.1	19.5	170	170
Educational services	15.9	13.3	1.3	11.4	272	214
Food processing	13.0	3.3	0.2	2.5	56	51
Agriculture	5.5	2.9	0.2	2.5	92	43