

# U.S. Travel and Tourism Satellite Account for 1998–2018

By Connor Franks and Sarah Osborne

The travel and tourism industry—as measured by the real output of goods and services sold directly to visitors—increased 4.2 percent in 2018, according to the most recent statistics from the Travel and Tourism Satellite Account (TTSA) published by the Bureau of Economic Analysis (BEA). This is an acceleration from the 2.3 percent growth in 2017. These new statistics show growth in the travel and tourism industry for the last 9 years. Employment in the travel and tourism industry grew more slowly than real output, growing 1.5 percent in 2018.

Other highlights from the TTSA include:

- Real output increased 4.2 percent in 2018. This growth was driven by increases in domestic passenger air transportation, gasoline, and traveler accommodations.
- Overall growth accelerated from the 2.3 percent growth in 2017. The drivers of the acceleration were increased growth in gasoline, food and beverage services, and domestic passenger air transportation.
- Prices for tourism goods and services increased 2.9 percent in 2018. Driving this increase was an increase in gasoline and domestic and international passenger air transportation services.

These TTSA statistics incorporated newly available source data from BEA Industry Economic Accounts (IEAs) and National Income and Product Accounts (NIPAs) and several methodological improvements that were incorporated in the comprehensive update of the IEAs. These statistics also incorporated the most recent annual update to the IEAs that was released October 29<sup>th</sup>, 2019. The incorporation of the annual update allowed this release of the TTSA to contain the full suite of products for 2018 as well as revised estimates for the full set of accounts from 1998–2017.

The complete set of detailed annual statistics for 1998 through 2018 are available on the BEA [website](#).

The remainder of this article includes a discussion of trends in travel and tourism output and prices, tourism value added, and employment. The final section discusses changes in methodology in this update.

## Trends in Output and Prices

### Real output

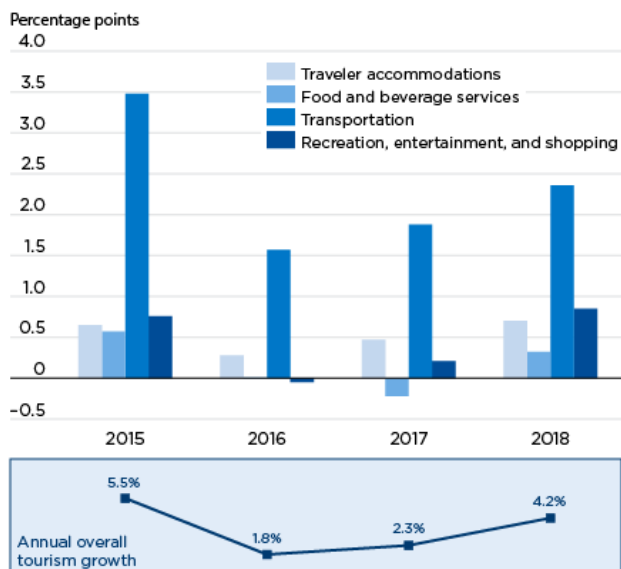
Real direct output—the value of the tourism industry’s goods and services sold directly to visitors—increased 4.2 percent in 2018. The main contributors to the growth were domestic passenger air transportation services, which increased 6.6 percent in 2018 after increasing 4.4 percent in 2017. Also contributing to the growth was gasoline, which increased 7.7 percent in 2018, and traveler accommodations, which increased 3.4 percent in 2018. Food and beverage services increased 2.4 percent, and passenger water transportation services increased 14.2 percent (table A and chart 1).

**Table A. Annual Growth, Contributions to Growth, and Levels of Real Output by Tourism Commodity in 2015–2018**

Commodity	Annual growth rates (percent change from preceding period)				Contributions (percentage points)				Real output (millions of chained (2012) dollars)			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
<b>All tourism goods and services</b>	<b>5.5</b>	<b>1.8</b>	<b>2.3</b>	<b>4.2</b>	<b>5.46</b>	<b>1.81</b>	<b>2.35</b>	<b>4.22</b>	<b>977,236</b>	<b>994,951</b>	<b>1,018,286</b>	<b>1,061,271</b>
Traveler accommodations	3.3	1.3	2.3	3.4	0.65	0.28	0.47	0.70	178,852	181,261	185,405	191,786
Food and beverage services	4.3	0.1	-1.6	2.4	0.57	0.01	-0.22	0.32	120,992	121,110	119,204	122,105
Transportation	8.2	3.8	4.5	5.4	3.48	1.57	1.88	2.36	447,630	464,508	485,397	511,814
Passenger air transportation	6.8	1.7	4.5	4.6	1.33	0.34	0.87	0.91	193,499	196,798	205,623	215,167
Domestic passenger air transportation services	4.2	2.3	4.4	6.6	0.63	0.34	0.64	0.97	142,908	146,227	152,674	162,697
International passenger air transportation services	14.6	-0.1	4.7	-1.1	0.70	0.00	0.23	-0.05	50,596	50,553	52,935	52,360
All other transportation-related commodities	-6.1	-0.1	10.5	13.0	2.15	1.23	1.01	1.45	214,376	214,119	236,505	267,244
Passenger rail transportation services	-0.3	0.4	2.1	-0.1	0.00	0.00	0.00	0.00	2,226	2,234	2,280	2,277
Passenger water transportation services	-2.1	-0.5	3.7	14.2	-0.04	-0.01	0.06	0.23	15,163	15,092	15,655	17,873
Intercity bus services	-1.8	-3.0	0.2	0.9	0.00	0.00	0.00	0.00	1,321	1,281	1,283	1,295
Intercity charter bus services	4.2	-1.6	2.8	10.0	0.01	0.00	0.01	0.02	2,387	2,349	2,415	2,657
Local bus and other transportation services	4.7	13.6	10.1	3.0	0.02	0.07	0.06	0.02	4,603	5,229	5,755	5,928
Taxicab services	2.7	-4.9	-1.9	-8.0	0.02	-0.03	-0.01	-0.04	5,161	4,908	4,817	4,432
Scenic and sightseeing transportation services	5.9	-1.0	4.4	3.9	0.02	0.00	0.02	0.01	3,130	3,098	3,233	3,358
Automotive rental and leasing	10.1	12.2	3.0	4.6	0.31	0.37	0.09	0.15	30,314	34,003	35,013	36,634
Other vehicle rental and leasing	4.9	1.1	4.0	10.3	0.00	0.00	0.00	0.01	620	627	652	719
Automotive repair services	5.3	8.1	2.8	1.9	0.06	0.09	0.03	0.02	10,587	11,443	11,758	11,977
Parking	7.2	-1.7	5.9	1.7	0.02	0.00	0.02	0.00	2,320	2,281	2,416	2,457
Highway tolls	6.8	3.5	-0.1	1.1	0.01	0.00	0.00	0.00	801	829	828	837
Travel arrangement and reservation services	5.7	4.2	11.5	4.7	0.24	0.18	0.51	0.22	40,960	42,687	47,609	49,843
Gasoline	14.4	6.2	2.3	7.7	1.48	0.56	0.22	0.80	136,303	144,715	148,078	159,449
Recreation, entertainment, and shopping	3.2	-0.2	0.9	3.6	0.76	-0.05	0.21	0.85	210,918	210,510	212,339	220,063
Recreation and entertainment	2.3	2.5	2.2	4.3	0.24	0.26	0.23	0.46	89,330	91,570	93,546	97,523
Motion pictures and performing arts	3.4	0.6	0.6	4.4	0.06	0.01	0.01	0.09	17,642	17,742	17,857	18,638
Spectator sports	1.8	7.8	-0.2	8.8	0.01	0.04	0.00	0.04	3,967	4,275	4,267	4,643
Participant sports	0.3	6.0	5.4	3.8	0.00	0.08	0.08	0.06	12,504	13,258	13,974	14,507
Gambling	2.7	1.8	2.1	1.9	0.14	0.10	0.11	0.10	48,423	49,318	50,335	51,283
All other recreation and entertainment	1.7	2.5	2.2	11.4	0.02	0.04	0.03	0.17	13,682	14,023	14,332	15,966
Shopping	3.8	-2.3	-0.2	3.1	0.52	-0.31	-0.03	0.39	134,366	131,279	131,010	135,087

The growth of real direct output accelerated in 2018 from a 2.3 percent increase in 2017. The acceleration was led by gasoline, which accelerated from 2.3 percent growth in 2017 to 7.7 percent growth in 2018. Also contributing to the acceleration of real direct output was domestic air passenger transportation services, which accelerated from 4.4 percent growth to 6.6 percent growth. Traveler accommodations and food and beverage services were also significant contributors.

**Chart 1. Contributions to Annual Growth in Real Tourism Output in 2015–2018**



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## Prices

Tourism goods and services prices increased 2.9 percent in 2018. The growth was led by strong price growth in gasoline and domestic and international passenger air transportation services. Gasoline prices accelerated from a 13.1 percent increase in 2017 to a 13.5 percent increase in 2018. Domestic passenger air transportation services accelerated from 0.7 percent growth in 2017 to 1.8 percent growth in 2018, and international passenger air transportation services prices turned up from a 0.3 percent decrease in 2017 to a 4.8 percent increase in 2018 (table B and chart 2).

**Table B. Annual Growth, Contributions to Growth, and Levels of Chain-Type Price Indexes for Tourism Commodities in 2015–2018**

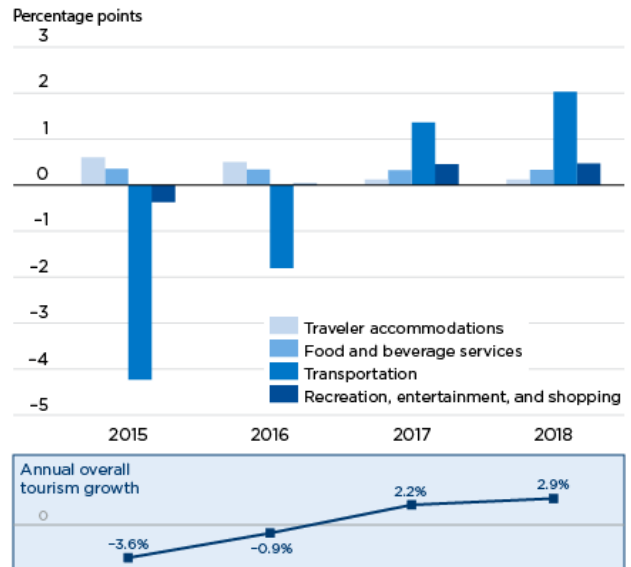
Commodity	Annual growth rates (percent change from preceding period)				Contributions (percentage points)				Price Indexes (index number, 2012=100)			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
<b>All tourism goods and services</b>	<b>-3.6</b>	<b>-0.9</b>	<b>2.2</b>	<b>2.9</b>	<b>-3.65</b>	<b>-0.93</b>	<b>2.25</b>	<b>2.95</b>	<b>98.4</b>	<b>97.5</b>	<b>99.7</b>	<b>102.6</b>
Traveler accommodations	3.1	2.5	0.6	0.6	0.60	0.50	0.12	0.12	108.5	111.2	111.9	112.5
Food and beverage services	2.7	2.5	2.3	2.5	0.35	0.34	0.32	0.33	107.5	110.2	112.7	115.6
Transportation	-9.5	-4.2	3.2	4.7	-4.23	-1.80	1.36	2.03	90.9	87.1	89.9	94.1
Passenger air transportation	-3.7	-2.8	0.5	2.5	-0.73	-0.56	0.09	0.50	99.5	96.7	97.1	99.6
Domestic passenger air transportation services	-2.9	-2.3	0.7	1.8	-0.43	-0.34	0.11	0.27	99.9	97.6	98.3	100.1
International passenger air transportation services	-6.0	-4.2	-0.3	4.8	-0.30	-0.22	-0.02	0.23	98.3	94.1	93.8	98.4
All other transportation-related commodities	-14.2	-5.5	5.7	6.5	-3.50	-1.24	1.27	1.53	84.2	79.6	84.2	89.6
Passenger rail transportation services	-1.0	2.2	3.3	0.3	0.00	0.01	0.01	0.00	98.1	100.2	103.6	103.8
Passenger water transportation services	-0.1	3.6	0.9	0.3	0.00	0.06	0.02	0.00	100.4	104.0	105.0	105.3
Intercity bus services	-0.1	3.6	0.9	0.3	0.00	0.00	0.00	0.00	100.4	104.1	105.0	105.2
Intercity charter bus services	-0.1	3.6	0.8	0.3	0.00	0.01	0.00	0.00	100.5	104.1	105.0	105.3
Local bus and other transportation services	2.2	1.7	1.7	1.8	0.01	0.01	0.01	0.01	107.9	109.7	111.6	113.5
Taxicab services	2.1	1.7	1.8	1.7	0.01	0.01	0.01	0.01	107.8	109.7	111.6	113.5
Scenic and sightseeing transportation services	2.3	2.4	2.6	2.4	0.01	0.01	0.01	0.01	105.3	107.8	110.6	113.2
Automotive rental and leasing	-7.9	-7.5	0.4	2.2	-0.25	-0.24	0.01	0.07	99.0	91.6	91.9	94.0
Other vehicle rental and leasing	0.0	2.5	-2.2	-1.0	0.00	0.00	0.00	0.00	103.2	105.8	103.5	102.4
Automotive repair services	1.6	1.6	1.9	1.9	0.02	0.02	0.02	0.02	104.8	106.5	108.5	110.5
Parking	2.6	2.8	2.5	2.3	0.01	0.01	0.01	0.01	108.8	111.8	114.6	117.2
Highway tolls	2.6	2.7	2.5	2.3	0.00	0.00	0.00	0.00	108.8	111.8	114.6	117.2
Travel arrangement and reservation services	0.6	-0.1	-0.2	0.5	0.03	0.00	-0.01	0.02	101.6	101.5	101.3	101.9
Gasoline	-27.1	-11.4	13.1	13.5	-3.32	-1.12	1.18	1.37	68.0	60.2	68.1	77.3
Recreation, entertainment, and shopping	-1.5	0.1	1.9	2.0	-0.37	0.03	0.45	0.47	100.0	100.1	102.1	104.1
Recreation and entertainment	1.1	1.9	2.3	2.1	0.11	0.20	0.24	0.23	104.0	105.9	108.3	110.6
Motion pictures and performing arts	2.2	3.6	2.6	2.1	0.04	0.07	0.05	0.04	105.3	109.1	111.8	114.2
Spectator sports	7.1	3.3	2.3	1.8	0.03	0.02	0.01	0.01	113.2	117.0	119.6	121.8
Participant sports	0.6	1.6	2.3	2.9	0.01	0.02	0.03	0.04	103.7	105.4	107.8	110.9
Gambling	0.1	1.3	2.1	2.4	0.01	0.07	0.11	0.13	103.2	104.5	106.8	109.4
All other recreation and entertainment	1.8	1.6	2.3	0.6	0.03	0.02	0.03	0.01	102.5	104.2	106.6	107.2
Shopping	-3.5	-1.3	1.6	1.9	-0.48	-0.17	0.21	0.24	97.1	95.9	97.4	99.3

Prices for the travel and tourism industry accelerated in 2018 from a 2.2 percent increase in 2017 to a 2.9 percent increase in 2018. Domestic and international air passenger transportation services and gasoline were both contributors to the acceleration in 2018.

## Total output

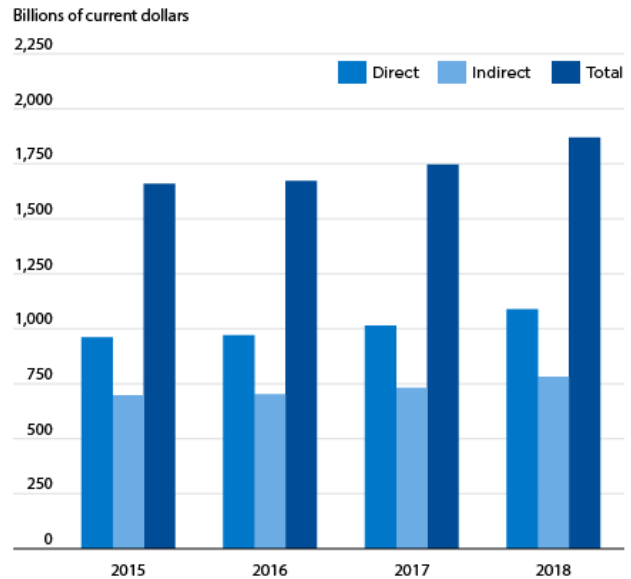
Total tourism-related nominal output increased to \$1.87 trillion in 2018, a 7.1 percent increase from \$1.75 trillion in 2017. In 2018, total output consisted of \$1.09 trillion in direct tourism output and \$781.5 billion in indirect tourism output. The 1.72 ratio of total output to direct output in 2018 means every dollar of direct tourism output produced required an additional 72 cents of indirect tourism output (chart 3).

**Chart 2. Contributions to Annual Growth in the Chain-Type Price Index for Tourism Goods and Services in 2015-2018**



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**Chart 3. Total Tourism-Related Output in 2015-2018**



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## Tourism Value Added and Employment

Value added and employment are presented by industry in the TTSA and facilitate analysis of the travel and tourism estimates in an industry dimension.

### Value added

A sector's value added measures its contribution to gross domestic product (GDP). In 2018, travel and tourism's share of GDP was 2.9 percent. The share of GDP peaked in 2000 at 3.1 percent. In 2004, the share started a decline until 2010 at 2.5 percent. From 2010 to 2015, the share rose every year to 2.8 percent, and the share reached 2.9 percent in 2018 (table C). Travel and tourism's share of GDP remains larger than many significant industries, such as agriculture, mining, or utilities.

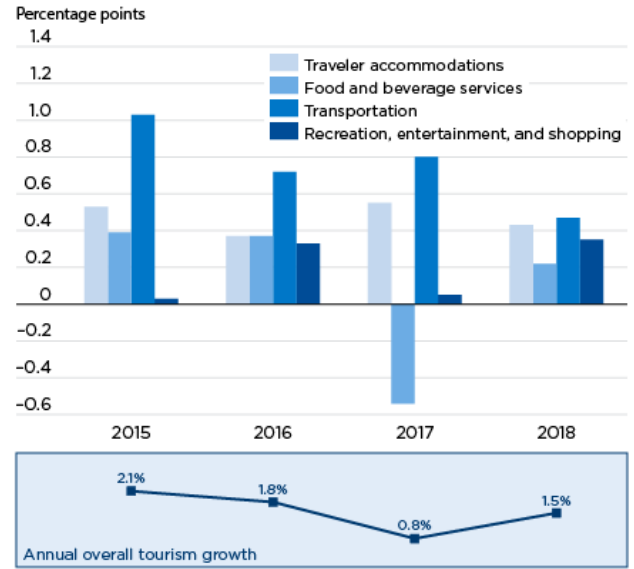
**Table C. Travel and Tourism as a Share of Gross Domestic Product in 2008–2018**

Year	Billions of dollars		Percent
	Gross domestic product (GDP)	Tourism value added	Tourism value added as a share of GDP
2008	14,713	399	2.66
2009	14,449	372	2.54
2010	14,992	392	2.52
2011	15,543	419	2.60
2012	16,197	435	2.69
2013	16,785	466	2.78
2014	17,527	489	2.79
2015	18,225	525	2.88
2016	18,715	539	2.88
2017	19,519	563	2.88
2018	20,580	597	2.90

### Direct employment

Direct tourism employment includes jobs that involve producing goods and services that are sold directly to visitors. Airline pilots, hotel clerks, and travel agents are examples of such positions. Overall, direct employment increased 1.5 percent in 2018, or by 90,000 jobs. This was driven by growth in employment for traveler accommodations, food services and drinking places, and participant sports. Traveler accommodations added 25,000 jobs, food services and drinking places added 13,000 jobs, and participant sports added 14,000 jobs (chart 4 and table D).

**Chart 4. Contributions to Annual Growth in Direct Tourism Employment in 2015–2018**



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**Table D. Annual Growth, Contributions to Growth, and Levels of Direct Employment by Tourism Industry in 2015–2018**

Commodity	Annual growth rates (percent change from preceding period)				Contributions (percentage points)				Direct employment (thousands)			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
<b>All tourism industries</b>	<b>2.1</b>	<b>1.8</b>	<b>0.8</b>	<b>1.5</b>	<b>2.09</b>	<b>1.77</b>	<b>0.79</b>	<b>1.54</b>	<b>5688</b>	<b>5789</b>	<b>5835</b>	<b>5925</b>
Traveler accommodations	2.1	1.4	2.1	1.7	0.53	0.37	0.55	0.43	1460	1481	1513	1538
Vacation Home Rentals	-5.0	-3.9	-1.8	-2.3	-0.01	-0.01	0.00	-0.01	14	13	13	13
Food services and drinking places	1.3	1.3	-1.9	0.8	0.39	0.37	-0.54	0.22	1662	1684	1652	1665
Transportation	4.7	3.2	3.5	2.0	1.03	0.72	0.80	0.47	1271	1312	1358	1385
Air transportation services	4.2	1.8	5.5	2.2	0.38	0.17	0.51	0.21	530	540	569	582
All other transportation-related industries	5.1	4.2	2.1	1.9	0.65	0.54	0.28	0.25	741	772	789	803
Rail transportation services	6.7	-3.1	-2.7	-4.3	0.01	-0.01	0.00	-0.01	10	10	9	9
Water transportation services	-2.7	3.3	2.1	6.6	-0.02	0.02	0.01	0.04	37	39	39	42
Interurban bus transportation	1.7	-0.9	2.0	-2.6	0.01	0.00	0.01	-0.01	18	18	19	18
Interurban charter bus transportation	-2.5	1.6	-0.3	-1.9	-0.01	0.01	0.00	-0.01	19	19	19	19
Urban transit systems and other transportation	12.6	6.9	6.5	-1.5	0.11	0.07	0.07	-0.02	55	59	63	62
Taxi service	-7.8	-8.3	-13.2	-6.6	-0.01	-0.01	-0.02	-0.01	8	7	7	6
Scenic and sightseeing transportation services	2.7	3.2	1.4	0.2	0.01	0.02	0.01	0.00	27	27	28	28
Automotive equipment rental and leasing	3.8	2.6	1.6	2.1	0.06	0.04	0.03	0.04	98	100	102	104



Commodity	Annual growth rates (percent change from preceding period)				Contributions (percentage points)				Direct employment (thousands)			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Automotive repair services	4.6	4.1	0.2	0.2	0.06	0.05	0.00	0.00	73	76	76	76
Parking lots and garages	8.3	-0.7	2.0	3.2	0.05	0.00	0.01	0.02	36	36	36	38
Toll highways	2.4	8.5	6.5	3.2	0.00	0.01	0.01	0.00	4	5	5	5
Travel arrangement and reservation services	3.3	6.5	1.1	0.1	0.11	0.21	0.04	0.00	184	196	198	199
Petroleum refineries	9.2	4.8	0.7	0.5	0.01	0.01	0.00	0.00	9	9	9	9
Gasoline service stations	9.5	4.8	4.3	6.0	0.25	0.14	0.13	0.18	163	171	178	189
Recreation, entertainment, and shopping	0.2	1.8	0.3	2.0	0.03	0.33	0.05	0.35	1038	1057	1060	1081
Recreation and entertainment	-2.4	4.9	3.1	4.2	-0.22	0.44	0.28	0.40	511	536	552	575
Motion pictures and performing arts	-0.1	3.5	-3.0	4.2	0.00	0.03	-0.03	0.04	56	58	56	59
Spectator sports	1.2	4.8	1.7	8.1	0.01	0.03	0.01	0.06	40	42	42	46
Participant sports	-1.1	8.5	4.5	5.7	-0.04	0.33	0.19	0.24	220	238	249	263
Gambling	-6.8	0.2	5.2	-0.2	-0.17	0.00	0.12	0.00	130	131	137	137
All other recreation and entertainment	-1.0	3.6	-0.2	5.1	-0.01	0.04	0.00	0.06	65	67	67	71
Shopping	2.8	-1.2	-2.6	-0.5	0.25	-0.11	-0.23	-0.04	528	521	508	505
Industries producing nondurable PCE commodities, excluding petroleum refineries	3.2	-1.4	-2.2	-0.7	0.08	-0.03	-0.05	-0.02	136	135	132	131
Retail trade services, excluding gasoline service stations	2.6	-1.1	-2.7	-0.4	0.18	-0.08	-0.18	-0.03	391	387	376	375
All other industries	2.8	-0.1	-1.5	1.7	0.12	-0.01	-0.06	0.07	242	242	239	242
All other industries, excluding Wholesale trade and transportation services	-0.3	-0.6	-2.1	2.1	0.00	-0.01	-0.03	0.03	81	80	79	80
Wholesale trade and transportation services	4.4	0.1	-1.2	1.5	0.12	0.00	-0.03	0.04	162	162	160	162

PCE

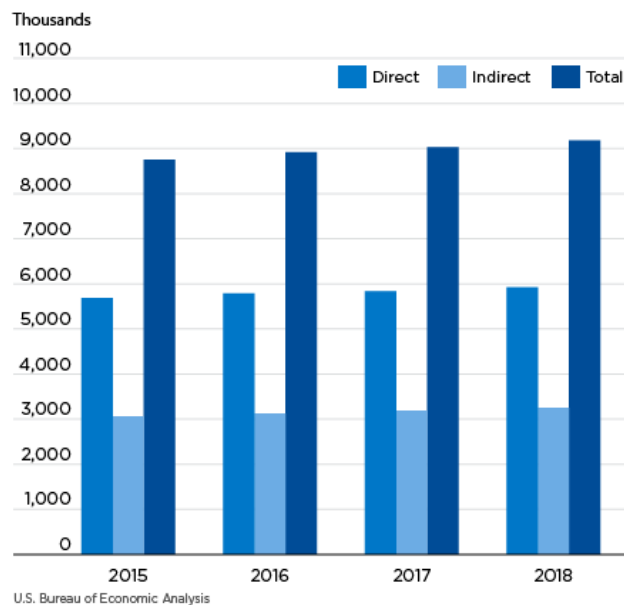
Personal consumption expenditures

## Total employment

Total tourism-related employment (the sum of direct and indirect jobs) increased from 9.0 million jobs in 2017 to 9.2 million jobs in 2018. The 9.2 million jobs were comprised of 5.9 million direct tourism jobs and 3.3 million indirect tourism jobs (chart 5). Indirect tourism jobs consist of jobs related to the

production of goods and services that supply the tourism industry, such as refinery workers producing jet fuel. The updated statistics indicate that for every 100 jobs supported directly from travel and tourism, an additional 55 jobs are needed to support the industry.

**Chart 5. Total Tourism-Related Employment in 2015-2018**



## Methodological Improvements

These revised and newly available travel and tourism statistics primarily reflect the incorporation of the 2018 comprehensive update of the IEAs, released on November 1<sup>st</sup>, 2018.<sup>1</sup> This comprehensive update incorporated updated definitions and classifications as well as statistical changes, including improved methodologies and newly available and revised source data. Combined with new and revised travel- and tourism-specific source data, these improvements allow the travel and tourism accounts to more accurately capture the dynamics of this sector. Comprehensive updates, which occur every 5 years, go beyond annual updates by introducing improvements to the entire IEA time series. Major changes introduced with this latest update include the following:

- Full integration of the 2012 benchmark Input-Output Accounts and the annual IEAs.
- Updated industry and commodity definitions consistent with the 2012 North American Industry Classification System.
- Updated wage and salary employment multipliers from the BEA Regional Input-Output Modeling System II program, which are used to measure total employment.

## Key Terms

The following key terms are used to describe the Travel and Tourism Satellite Account.

**Domestic tourism.** Travel-related expenditures by U.S. residents traveling within the United States. It comprises travel by resident households, business travel, and travel by government employees.

**Inbound tourism.** Travel-related expenditures by nonresidents traveling within the United States and expenditures by nonresidents on international transportation purchased from U.S. providers. These expenditures exclude expenditures for travel to study in the United States and for medical reasons.<sup>1</sup>

**Tourism commodities.** Goods and services that are typically purchased by visitors, such as airline passenger transportation, hotel accommodations, and meals.<sup>2</sup>

**Tourism employment.** Total tourism-related employment consists of direct tourism employment plus indirect tourism employment. Direct tourism employment comprises all jobs where the workers are engaged in the production of direct tourism output (for example, hotel staff and airline pilots), and indirect tourism employment comprises all jobs where the workers are engaged in the production of indirect tourism output (for example, workers producing hotel toiletries and delivering fuel to airlines).

**Tourism output.** Total tourism-related output consists of direct tourism output and indirect tourism output. Direct tourism output comprises all domestically produced goods and services purchased by travelers (for example, traveler accommodations and passenger air transportation), and indirect tourism output comprises all output required to support the production of direct tourism output (for example, toiletries for hotel guests and fuel for airplanes).

**Visitor.** A person who travels outside of his or her usual environment (more than 50–100 miles from the area of normal, everyday activities) for less than a year or who stays overnight in a hotel or motel.<sup>3</sup> The visitor may travel for pleasure or business (private sector or government). Visitors exclude travelers who expect to be compensated at the location of their visit (such as migrant workers, persons traveling to new assignments, and diplomatic and military personnel traveling to and from their duty stations and their home countries).

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1. For more information, see Thomas F. Howells III, Edward T. Morgan, and Casey Ross, “Improved Estimates of the Industry Economic Accounts,” *Survey of Current Business* 98 (December 2018).