A Profile of Industries that Include Travel & Tourism

Selected Geographies:

Yellowstone County, MT

Benchmark Geographies:

U.S.

Produced by
Headwaters Economics'
Economic Profile System (EPS)
https://headwaterseconomics.org/eps
September 27, 2018

Travel & Tourism

Yellowstone County, MT

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See https://headwaterseconomics.org/eps for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.

HEADWATERS ECONOMICS

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Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.

FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE

www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Travel & Tourism

Yellowstone County, MT

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See https://headwaterseconomics.org/eps.

Travel & Tourism

Yellowstone County, MT

Travel & Tourism Sectors

	Yellowstone County, MT	U.S.
Total Private Employment, 2016	70,372	126,752,238
Travel & Tourism Related	13,120	19,977,824
Retail Trade	2,005	3,466,865
Gasoline Stations	617	947,656
Clothing & Accessory Stores	795	1,738,095
Misc. Store Retailers	593	781,114
Passenger Transportation	237	495,505
Air Transportation	237	466,440
Scenic & Sightseeing Transport	0	29,065
Arts, Entertainment, & Recreation	1,775	2,311,437
Performing Arts & Spectator Sports	201	503,751
Museums, Parks, & Historic Sites	74	151,270
Amusement, Gambling, & Rec.	1,500	1,656,416
Accommodation & Food	9,103	13,704,017
Accommodation	1,356	2,067,377
Food Services & Drinking Places	7,747	11,636,640
Non-Travel & Tourism	57,252	106,774,414
Percent of Total		
Travel & Tourism Related	18.6%	15.8%
Retail Trade	2.8%	2.7%
Gasoline Stations	0.9%	0.7%
Clothing & Accessory Stores	1.1%	1.4%
Misc. Store Retailers	0.8%	0.6%
Passenger Transportation	0.3%	0.4%
Air Transportation	0.3%	0.4%
Scenic & Sightseeing Transport	0.0%	0.0%
Arts, Entertainment, & Recreation	2.5%	1.8%
Performing Arts & Spectator Sports	0.3%	0.4%
Museums, Parks, & Historic Sites	0.1%	0.1%
Amusement, Gambling, & Rec.	2.1%	1.3%
Accommodation & Food	12.9%	10.8%
Accommodation	1.9%	1.6%
Food Services & Drinking Places	11.0%	9.2%
Non-Travel & Tourism	81.4%	84.2%

The major industry categories (retail trade; passenger transportation; arts, entertainment, and recreation; and accommodation and food) in the table above are the sum of the sub-categories underneath them and as shown here do not represent NAICS codes. The data does not include employment in government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are indicated with tildes (~).

Data Sources: U.S. Department of Commerce. 2018. Census Bureau, County Business Patterns, Washington, D.C.

Travel & Tourism

Yellowstone County, MT

Travel & Tourism Sectors

What do we measure on this page?

This page describes the number of jobs (full- and part-time) and the share of total jobs in industries that include travel and tourism.

Travel and Tourism: Sectors that provide goods and services to visitors as well as to the local population. These industries are Retail Trade, Passenger Transportation, Arts & Entertainment & Recreation, and Accommodation & Food Services.[1]

The exact proportion of jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, is not known without additional research such as surveys. Some researchers refer to these sectors as “tourism-sensitive.” They could also be called “travel and tourism-potential sectors” because they have the potential of being influenced by expenditures by non-locals. In this report, they are referred to as "industries that include travel and tourism."

There is no single industrial classification for travel and tourism under the North American Industrial Classification System (NAICS). However, there are sectors that provide goods and services to visitors to a local economy. We reviewed the published literature to discern how others identified industries that are part of travel and tourism.[2] These industries (identified by 3-digit NAICS codes in parentheses[3]) include:

Retail Trade: Gasoline Stations (447), Clothing and Accessory Stores (448), Miscellaneous Store Retailers (453; includes Gift, Novelty, and Souvenir)

Passenger Transportation: Air Transportation (481), Scenic and Sightseeing Transportation (487)

Arts, Entertainment, and Recreation: Performing Arts and Spectator Sports (711); Museums, Parks, and Historical Sites (712; includes National Parks, Conservation Areas); Amusement, Gambling, and Recreation (713; includes Golf Courses, Alpine and Cross Country Skiing Facilities)

Accommodation and Food: Accommodation (721; includes ski resorts, hotels, casino hotels, campgrounds, guest ranches), Food Services and Drinking Places (722)

Data on this page were obtained from the U.S. Census Bureau’s County Business Patterns (CBP) series. Compared to other sources, CBP has fewer data gaps (instances when the federal government will not release data to protect confidentiality of individual businesses). It also includes both full- and part-time employment. However, CBP data do not include employment in government, agriculture, railroads, or the self-employed. Also, CBP data are based on mid-March employment and do not account for seasonal fluctuations. For these reasons, the data are most useful for showing long-term trends, displaying differences between places, and showing relationships between sectors over time.

Why is it important?

The information on this page is useful for explaining whether sectors that are likely to be associated with travel or tourism exist within the selected location. Travel and tourism related sectors are often a larger component of overall employment in locations where visitors spend money on hotels, restaurants, ski resorts, gift shops, and other expenses associated with recreation.[4, 5]

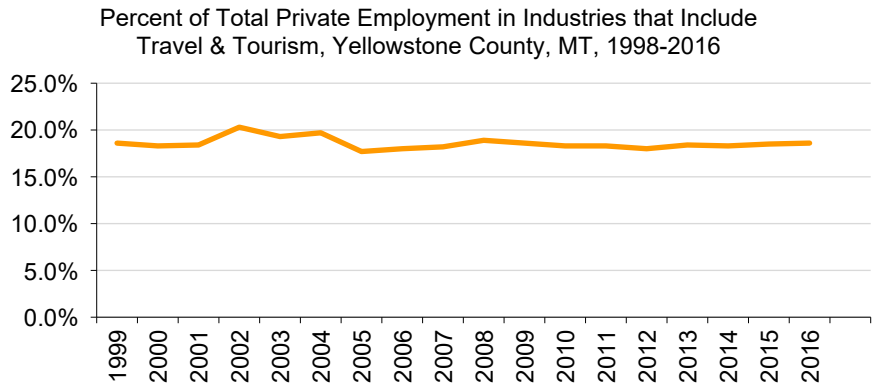
While the information in this report is not an exact measure of the size of the travel and tourism sectors, it can be used to understand whether travel and tourism-related economic activity is present, how it has changed over time, and whether there are differences between locations.

Travel & Tourism

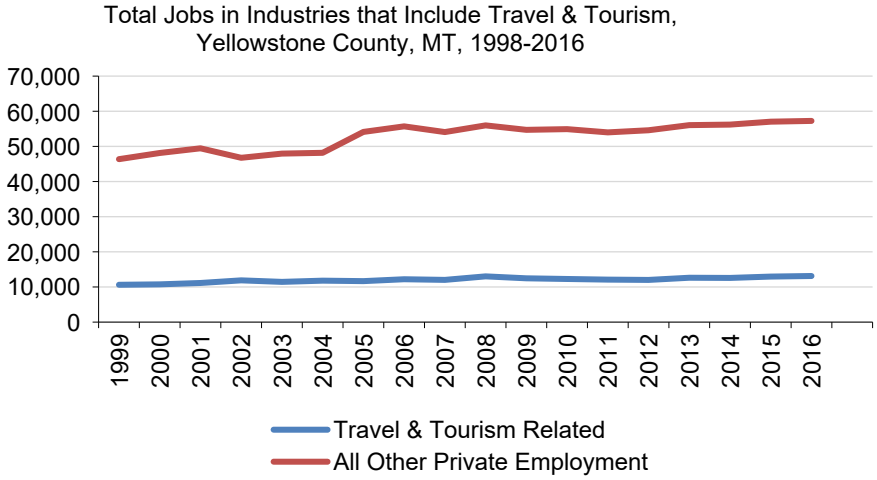
Yellowstone County, MT

Travel & Tourism Employment Trends

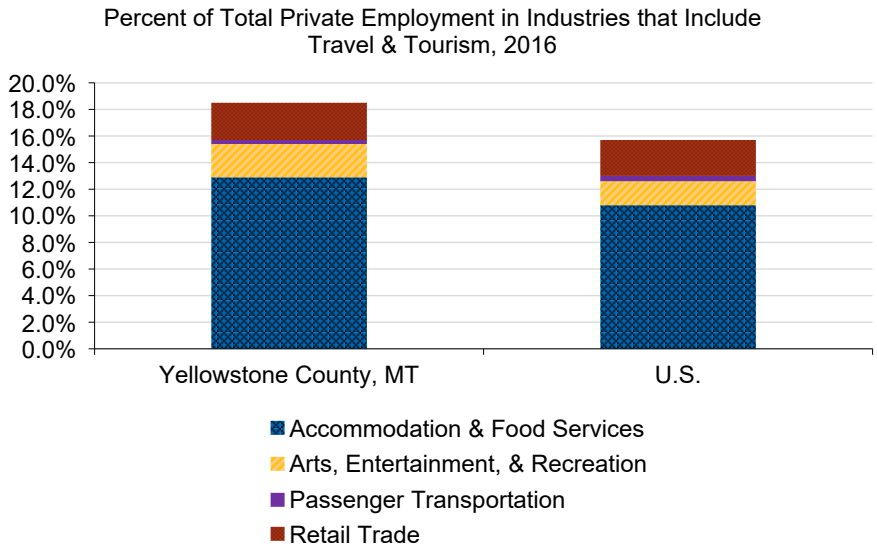
- In 1998, travel & tourism represented 19% of total employment. By 2016, travel & tourism represented 19% of total employment.



- From 1998 to 2016, travel & tourism employment grew from 10,221 to 13,120 jobs, a 28.4% increase.
- From 1998 to 2016, non-travel & tourism employment grew from 43,626 to 57,252 jobs, a 31.2% increase.



- In 2016, Yellowstone County, MT had the largest percent of total travel & tourism employment (18.6%), and U.S. had the smallest (15.8%).



Data Sources: U.S. Department of Commerce. 2018. Census Bureau, County Business Patterns, Washington, D.C.

Travel & Tourism Employment Trends

What do we measure on this page?

This page describes trends in industries that include travel and tourism as a percent of all jobs and compares industries containing travel and tourism to the rest of the economy. It also shows jobs in industries that include travel and tourism as a percent of total employment.

Importantly, the charts on this page show the size of sectors that generally contain travel and tourism as components. The share of the sectors that corresponds to travel and tourism activities will vary among locations.

It may be useful to supplement the information in this report with surveys and data from: 1) state tourism offices, which sometimes track indicators such as tourism employment, hotel receipts, bed taxes, etc.; 2) local Chambers of Commerce and tourism promotion groups; and 3) visitor information from land management agencies including the U.S. Forest Service,[6] Bureau of Land Management, Fish & Wildlife Service, and National Park Service offices. In addition, it may be useful to supplement published statistics with computer models such as IMPLAN.[7]

The top two charts on this page start in 1998 because that is the year the U.S. Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS). The major industry categories (Retail Trade; Passenger Transportation; Arts, Entertainment, & Recreation; and Accommodation & Food Services) in the bottom chart are the sum of the sub-categories from the initial page of this report and as shown here do not represent NAICS codes.

Why is it important?

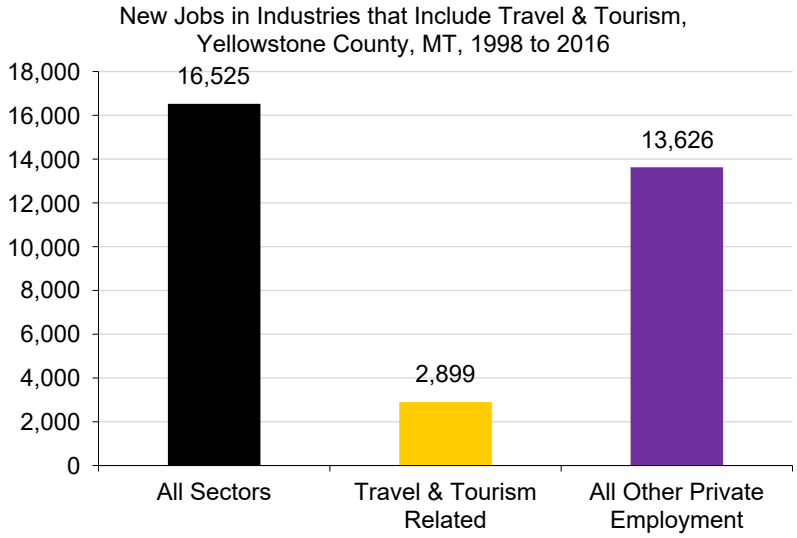
This information is useful to understand whether sectors that are likely to be associated with travel and tourism are growing or declining. It is less useful as a measure of the absolute size of employment in travel and tourism. A detailed knowledge, obtained through surveys and other means, is required to determine the proportion of a sector's employment that is due to local expenditures versus expenditures from visitors.[8, 9]

In some locations, travel and tourism are significant drivers of the economy. This can be true for "resort" economies but also for areas that have abundant natural and social amenities, and offer recreational opportunities.[10] In some of these places, travel and tourism-related employment is growing faster than overall employment.[4] While pleasure travel and recreation are important economic activities in and of themselves, they also stimulate other forms of economic development when people move families and businesses to communities they first visited as tourists.

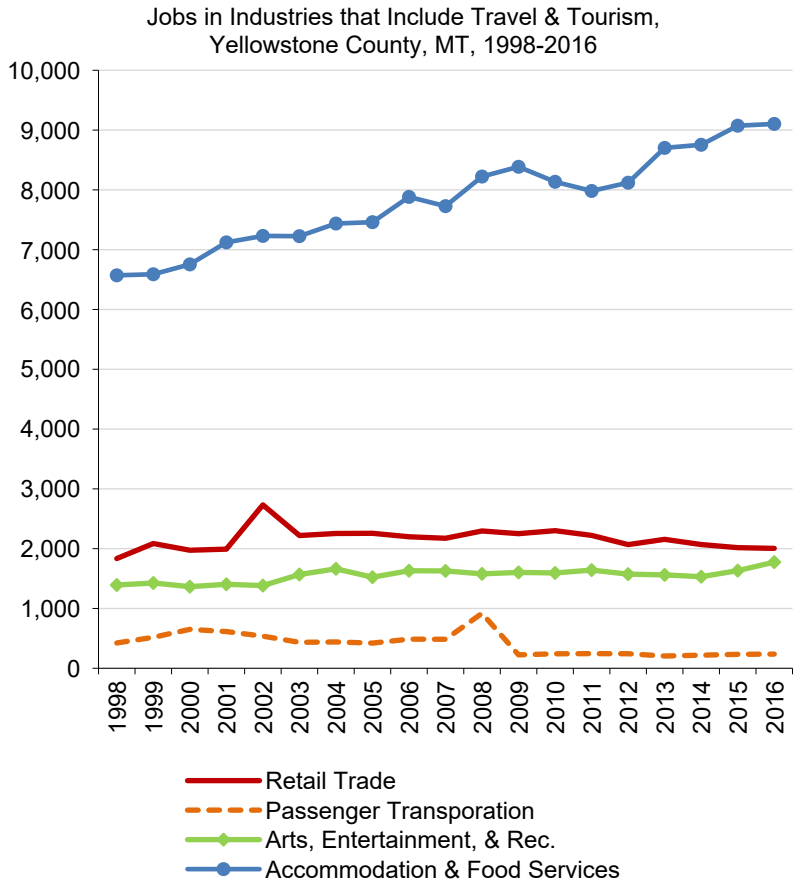
The EPS Public Land Amenities report provides additional information about amenity-led migration: https://headwaterseconomics.org/eps.

Travel & Tourism Employment Trends (cont.)

- From 1998 to 2016, travel & tourism employment grew by 2,899 jobs.
- From 1998 to 2016, non-travel & tourism employment grew by 13,626 jobs.



- From 1998 to 2016, retail trade grew from 1,835 to 2,005 jobs, a 9.3% increase.
- From 1998 to 2016, passenger transportation shrank from 423 to 237 jobs, a 44% decrease.
- From 1998 to 2016, arts, entertainment, and recreation grew from 1,392 to 1,775 jobs, a 27.5% increase.
- From 1998 to 2016, accommodation and food services grew from 6,571 to 9,103 jobs, a 38.5% increase.



Data Sources: U.S. Department of Commerce. 2018. Census Bureau, County Business Patterns, Washington, D.C.

Travel & Tourism Employment Trends (cont.)

What do we measure on this page?

This page compares employment in sectors that include travel and tourism to other sectors and compares how the various industries that include travel and tourism have changed over time.

The charts on this page start in 1998 because that is the year the U.S. Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS). The major industry categories (Retail Trade; Passenger Transportation; Arts, Entertainment, & Recreation; and Accommodation & Food Services) in the bottom chart are the sum of the sub-categories from the initial page of this report and as shown here do not represent NAICS codes.

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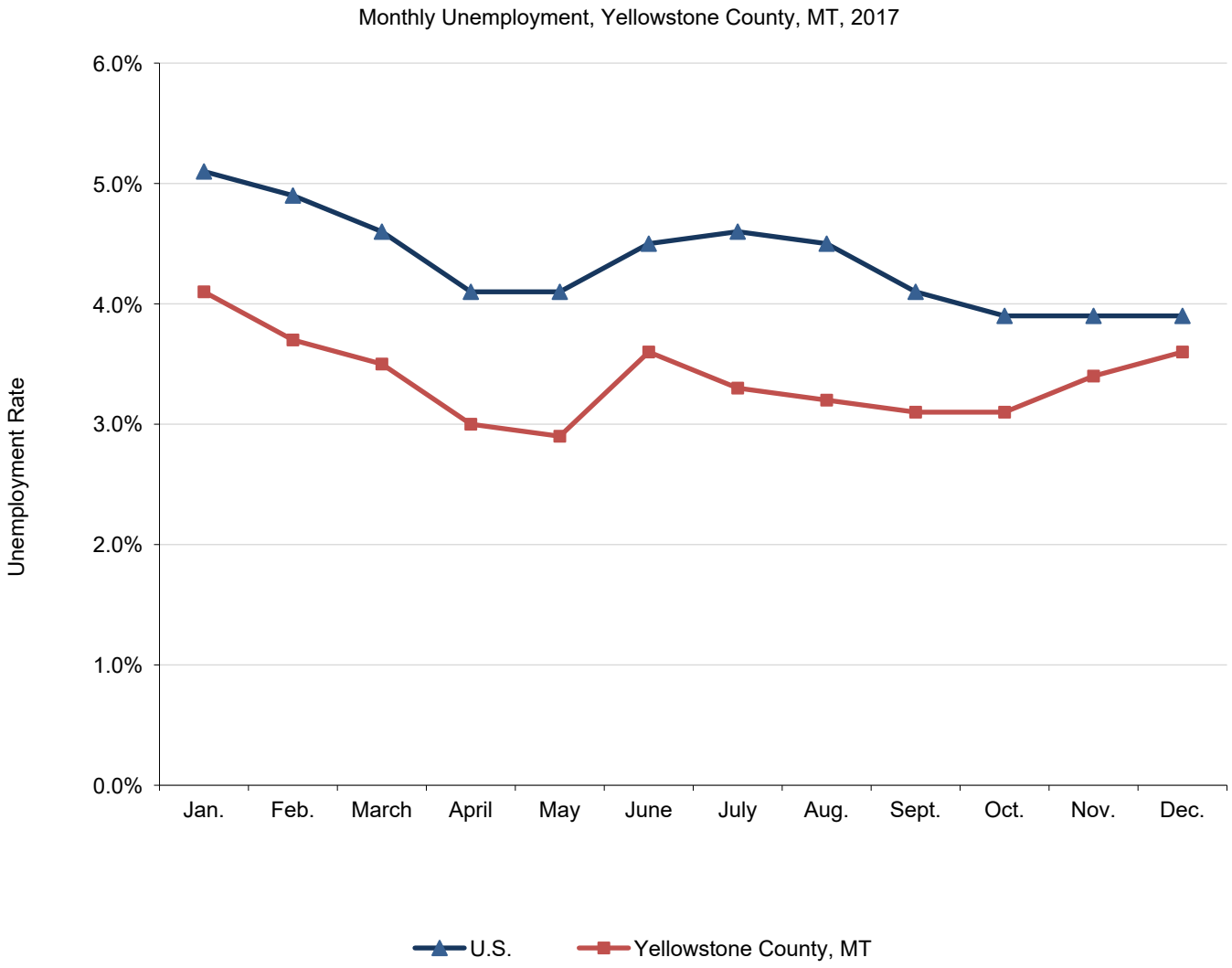
In some locations, travel and tourism are significant drivers of the economy. This can be true for "resort" economies but also for areas that have abundant natural and social amenities, and offer recreational opportunities.[10, 11] In some of these places, travel and tourism-related employment is growing faster than overall employment. While pleasure travel and recreation are important economic activities in and of themselves, they also stimulate other forms of economic development when people move families and businesses to communities they first visited as tourists.

The EPS Public Land Amenities report provides additional information about amenity-led migration: https://headwaterseconomics.org/eps.

Seasonality of Unemployment



- In 2017, Yellowstone County, MT had the most change in unemployment (biggest absolute value of difference between min and max), and U.S. had the least (smallest absolute value of difference between min and max).

Data Sources: U.S. Department of Labor. 2018. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.

Seasonality of Unemployment

What do we measure on this page?

This page describes differences in the seasonality of unemployment, which occurs when people are unemployed at times of the year when demand for labor is lower than usual. Tourism is often associated with seasonal unemployment since work is only available for part(s) of the year when visitation is high.

This page uses data from the Bureau of Labor Statistics to show the change in month-to-month unemployment.[12]

Unemployed people are those who are jobless, available for work, and looking for jobs.

People with full- or part-time jobs are considered employed, and those people who are neither employed nor unemployed are not considered to be in the labor force.

Note: If many locations are selected, it may be difficult to read the figure on this page.

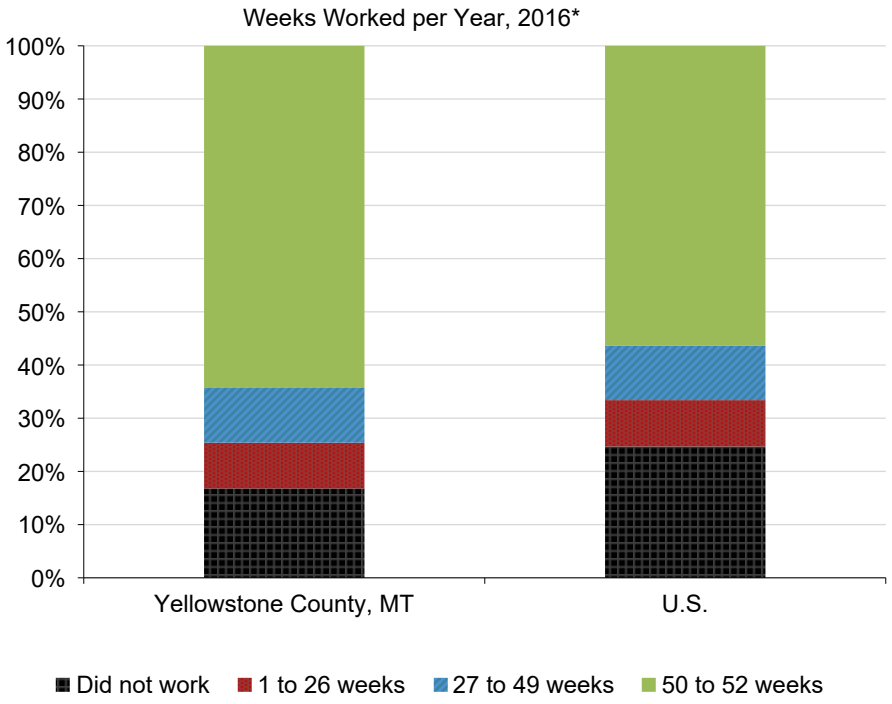
Why is it important?

Unemployment rate fluctuations reflect the hiring and layoff patterns that can accompany tourism due to visitation changes in winter holidays and summer vacations. It is possible that some seasonal workers may not live in the location selected and therefore are not accounted in the unemployment figures. Seasonal unemployment also occurs in places that have a relatively high concentration in construction, fishing, and agriculture sectors.

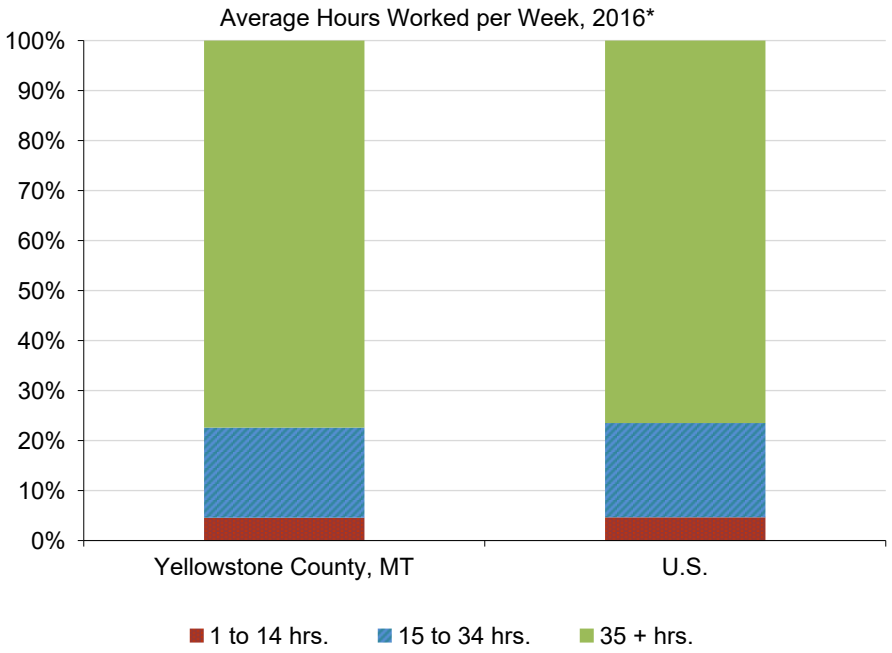
The EPS Socioeconomic Measures report provides further analysis of long-term trends in unemployment: https://headwaterseconomics.org/eps.

Part-Time Employment

- In 2016, 25.4 percent of workers in Yellowstone County, MT worked less than 40 weeks over the course of the year, compared to 33.4 percent for the U.S..



- In 2016, 18.8 percent of workers in Yellowstone County, MT worked less than 35 hours per week on average, compared to 17.7 percent for the the U.S..



* ACS 5-year estimates used. 2016 represents average characteristics from 2012-2016.

Data Sources: U.S. Department of Commerce. 2017. Census Bureau, American Community Survey Office, Washington, D.C.

Part-Time Employment

What do we measure on this page?

This page describes part-time work, which can be more common in tourism-related industries.

The U.S. Census Bureau provides two standard measures of part-time work: weeks worked per year and average hours worked per week. The Census reports these data for the population of age 16 to 64.

Why is it important?

Places that rely economically on tourism can have higher rates of part-time workers. While part-time work along is not a measure of tourism, it can be used to complement other data in this report and from elsewhere to evaluate the nature and extent of tourism activities in the selected locations.[7]

Travel & Tourism

Yellowstone County, MT

Wages and Employment

	Yellowstone County, MT	U.S.
All Sectors, 2016 (2017 $s)	$46,030	$54,747
Private	$45,285	$54,639
Travel & Tourism	$19,767	$24,522
Retail Trade	$23,767	$23,044
Gasoline Stations	$24,116	$21,271
Clothing & Accessories	$19,262	$22,231
Misc. Store Retailers	$27,147	$26,339
Passenger Transportation	$43,257	$82,813
Air Transportation	$43,257	$86,281
Scenic & Sightseeing	$0	$33,043
Arts, Entertainment, & Rec.	$19,665	$37,579
Performing Arts & Spectator Sports	$29,756	$90,177
Museums, Parks, & Historic Sites	$23,947	$34,620
Amusement, Gambling, & Rec.	$17,886	$22,516
Accommodations & Food	$18,288	$20,452
Accommodation	$23,274	$30,854
Food Services & Drinking Places	$17,309	$18,675
Non-Travel & Tourism	$50,909	$60,330
Government	$52,280	$55,359

This table shows wage data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits; the major industry categories (retail trade, passenger transportation; arts, entertainment, and recreation; and accommodation and food) are the sum of the sub-categories underneath them and as shown here do not represent NAICS codes.

Percent of Total Employment

	Yellowstone County, MT	U.S.
Private, 2016	89.4%	84.9%
Travel & Tourism	16.9%	13.5%
Retail Trade	2.8%	2.2%
Gasoline Stations	0.9%	0.6%
Clothing & Accessories	0.8%	0.9%
Misc. Store Retailers	1.0%	0.6%
Passenger Transportation	0.3%	0.4%
Air Transportation	0.3%	0.3%
Scenic & Sightseeing	0.0%	0.0%
Arts, Entertainment, & Rec.	2.5%	1.6%
Performing Arts & Spectator Sports	0.3%	0.3%
Museums, Parks, & Historic Sites	0.1%	0.1%
Amusement, Gambling, & Rec.	2.1%	1.1%
Accommodations & Food	11.3%	9.4%
Accommodation	1.9%	1.4%
Food Services & Drinking Places	9.4%	8.0%
Non-Travel & Tourism	71.9%	71.4%
Government, 2016	10.6%	15.1%

Data Sources: U.S. Department of Labor. 2017. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

Wages and Employment

What do we measure on this page?

This page describes wages (in real terms) from employment in industries that include travel and tourism, including sub-sectors, compared to wages from employment in all non-travel-and-tourism sectors combined. It also describes the percent of jobs in each category. These are shown together to illustrate the relative wage levels in industries that include travel and tourism, and how many people are employed in each sub-sector.

The primary purpose of this page is to compare the average annual wages between sectors and to investigate the relative number of people employed in high- and low-wage sectors.

Travel and Tourism: Sectors that provide goods and services to visitors as well as to the local population. These industries are Retail Trade, Passenger Transportation, Arts & Entertainment & Recreation, and Accommodation & Food Services. The exact proportion of jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, is not known without additional research such as surveys. Some researchers refer to these sectors as “travel and tourism-potential sectors” because they have the potential of being influenced by expenditures by non-locals. In this report, they are referred to as “industries that include travel and tourism.”

The tables use wage and employment data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.[13, 14]

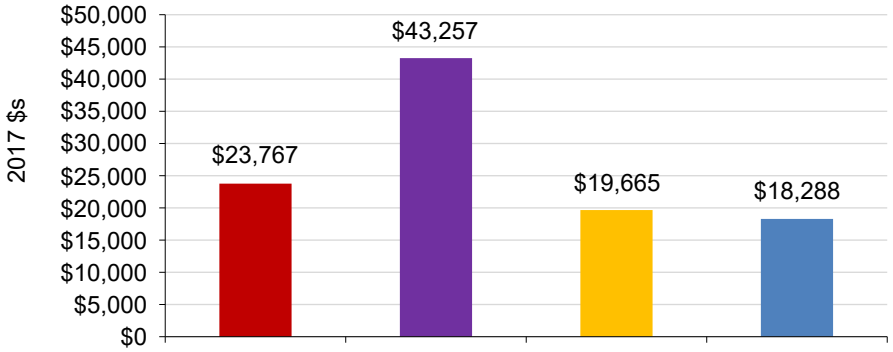
Why is it important?

Industries that contain travel and tourism often pay relatively low wages, though this varies by industry sub-sector and by location. Some important issues to consider are how travel and tourism related industry wages compare to wages in other sectors, whether some components of travel- and tourism-related industries pay higher wages than others, and whether there are significant wage differences between locations.[15, 16] When comparing wage levels, it is also useful to remember that many travel and tourism related jobs are seasonal and/or part-time.

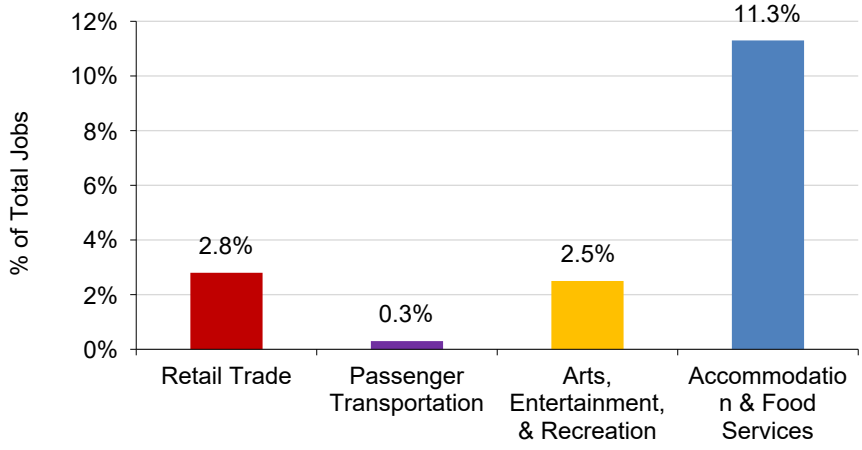
Wages and Employment (cont.)

- In 2016, travel & tourism sector average wages, from highest to lowest, were: passenger transportation ($43,257); retail trade ($23,767); arts, entertainment, & recreation ($19,665); and accommodation & food services ($18,288).

Avg. Annual Wages and Percent of Total Jobs in Industries that Include Travel & Tourism, Yellowstone County, MT, 2016

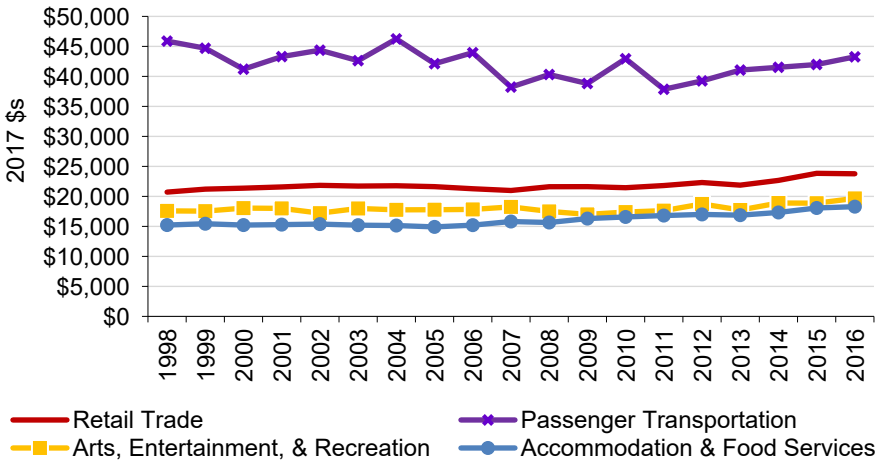


- In 2016, travel & tourism sector percent of total employment, from highest to lowest, were: accommodation & food services (11.3%); retail trade (2.8%); arts, entertainment, & recreation (2.5%); and passenger transportation (0.3%).



- From 1998 to 2016, the three industry sectors that include travel & tourism with the greatest change in average wages (in real terms) were: Accommodation & Food Services ($15,223 to $18,288, a 20% increase), Retail Trade ($20,713 to $23,767, a 15% increase), and Arts, Entertainment, & Recreation ($17,583 to $19,665, a 12% increase).

Avg. Annual Wages in Industries that Include Travel & Tourism, Yellowstone County, MT, 1998-2016



Data Sources: U.S. Department of Labor. 2017. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

Wages and Employment (cont.)

What do we measure on this page?

This page describes average wages (in real terms) and employment levels in industries that include travel and tourism. It also shows average wage trends (in real terms) for industries that include travel and tourism.

The chart *Avg. Annual Wages and Percent of Total Jobs in Industries that Include Travel & Tourism* describes how many people are working in relatively high- and low-wage travel and tourism related industries. The chart *Avg. Annual Wages in Industries that Include Travel & Tourism* is useful for comparing wage trends by sector.

The charts use wage and employment data from the Bureau of Labor Statistics, which does not report data for proprietors or the value of benefits and uses slightly different industry categories than those shown on the initial pages of this report.[13, 14] As a result, the percent-of-employment values may not exactly match values derived from County Business Patterns that are reported on previous pages. The bottom chart on this page starts in 1998 to be consistent with the start date of figures on earlier pages of this report.

The major industry categories (Retail Trade; Passenger Transportation; Arts, Entertainment, and Recreation; and Accommodation and Food Services) are the sum of the sub-categories from the previous page of this report and as shown here do not represent NAICS codes.

If your report results in significant undisclosed data, other sources for travel and tourism wage data include the state-level Bureau of Labor Statistics' Quarterly Census of Employment and Wages https://www.bls.gov/cew/; the Bureau of Labor Statistics' Occupational Outlook Handbook, which has detailed industry earnings and wages data at the national level https://www.bls.gov/ooh/; and the County Business Patterns database, which reports industry-level employment and payroll and can be used to estimate earnings https://www.census.gov/programs-surveys/cbp.html.

Why is it important?

While industries that include travel and tourism often pay relatively low wages, wages and the number of people employed can vary greatly among travel and tourism related industries.

The trend data on this page can be useful for understanding whether wages in sectors that are likely to be associated with travel and tourism have changed over time.

Travel & Tourism

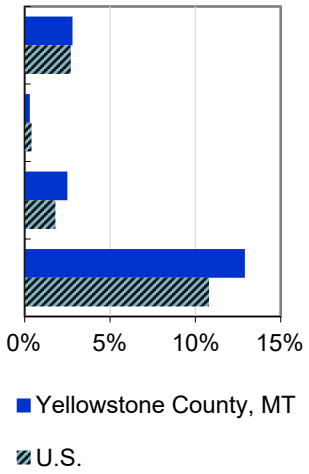
Yellowstone County, MT

Comparisons

Industries Including Travel and Tourism, 2016	Employment Share: Yellowstone County, MT	Employment Share: U.S.	Location Quotient
Retail Trade	2.8%	2.7%	1.0
Passenger Transportation	0.3%	0.4%	0.8
Arts, Entertainment, & Recreation	2.5%	1.8%	1.4
Accommodation & Food	12.9%	10.8%	1.2

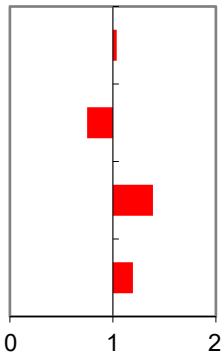
Employment Share

Yellowstone County, MT vs. U.S.



Location Quotient

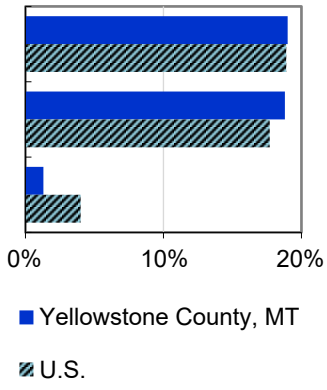
Yellowstone County, MT vs. U.S.



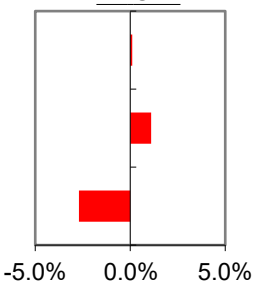
Other Possible Measures of the Presence of Travel and Tourism

Indicators of Seasonal Work and Housing , 2016*	Yellowstone County, MT	U.S.	Diff.
Part-Time Work (less than 50 weeks per year)	19.0%	18.9%	0.1%
Part-Time Work (less than 35 hours per week)	18.8%	17.7%	1.1%
Second Homes	1.3%	4.0%	-2.7%

Yellowstone County, MT vs. U.S.



Difference in Percent, Yellowstone County, MT vs. U.S.



* ACS 5-year estimates used. 2016 represents average characteristics from 2012-2016.

Data Sources: U.S. Department of Commerce. 2018. Census Bureau, County Business Patterns, Washington, D.C.; U.S. Department of Commerce. 2017. Census Bureau, American Community Survey Office, Washington, D.C.

Comparisons

What do we measure on this page?

This page describes whether the region is specialized in travel and tourism related employment. The chart illustrates the difference between the selected location(s) and the selected benchmark area.[17] (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.)

Location Quotient[18]: A ratio that compares an industry's share of total employment in a region to the benchmark. More precisely, it is the percent of local employment in a sector divided by the percent employment in the same sector in the benchmark area. In other words, it is a ratio that measures specialization using the benchmark area for comparison. A location quotient of more than 1.0 means the local area is more specialized in that sector relative to the benchmark area. A location quotient of less than 1.0 means it is less specialized.[19]

Another way to think about location quotients is as a measure of whether a place produces enough goods or services from an industry to satisfy local demand for those goods or services. Results above or below the 1.0 standard indicate the degree to which a place may import or export a good or service. Although there is no precise cutoff, location quotients above 2.0 indicate a strong industry concentration (and that an area is likely exporting goods or services) and those less than 0.5 indicate a weak industry concentration (and that an area is likely importing goods or services).

Second Homes: The number of second homes is not available as a single variable from the U.S. Census Bureau. We have calculated second homes as a percent of total homes as follows: seasonally occupied homes (Census SF1 H005005) are added to other vacant homes (Census SF1 H005007) and then divided by total homes. By this definition, second homes do not include homes that are vacant because they are for rent or sale.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.[20]

Why is it important?

Locations with economies that focus on travel and tourism may have a competitive advantages,[21, 22] but can also be sensitive to business cycles and other changes (for example, a rise in fuel costs) that affect pleasure travel and recreation spending. Natural amenities such as public lands can increase travel and tourism activities, benefiting local communities and in some cases diversify rural economies that have historically been tied to commodity production.[5, 23, 24] The growth of travel and tourism activities is also associated with in-migration that can lead to business relocation and new business development across a range of business sectors.[25]

A few caveats: (1) A large location quotient for a particular sector does not necessarily mean that sector is a significant contributor to the economy. (2) LQs greater than 1.0 only suggest potential export capacity when compared to the benchmark area and do not take into account local demand. Local demand may be greater than average, and therefore all goods and services may be consumed locally (i.e., not exported). (3) LQs can change from year to year. (4) LQs can vary when one uses income or wage data rather than employment.

Comparisons Over Time

- From 1998 to 2016, Yellowstone County, MT had the fastest rate of change in travel & tourism employment, and Yellowstone County, MT had the slowest.

Data Sources: U.S. Department of Commerce. 2018. Census Bureau, County Business Patterns, Washington, D.C.

Comparisons Over Time

What do we measure on this page?

This page describes the change in travel and tourism employment for all selected locations and the benchmark area.[17] The information is indexed (1998=100) so that data from locations with different-sized economies can be compared. Indexing makes it easier to understand the relative rate of growth or decline of mining employment over time.

Index: Indexed numbers are compared with a base value. In the line chart, employment in 1998 is the base value and is set to 100. The employment values for subsequent years are expressed as 100 times the ratio to the base value. The indexing used in the line chart enables easier comparisons between locations over time. (If many locations are selected, it may be difficult to read the figure on this page.)

The chart begins in 1998 because that is the year the Census Bureau and County Business Patterns shifted to using the new North American Industrial Classification System (NAICS).

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses data from the U.S. Department of Commerce to estimate these data gaps.[20]

Why is it important?

This information is useful to understand whether sectors likely to be associated with travel and tourism are growing or declining. These data do not measure the absolute size of employment in travel and tourism. Detailed knowledge, obtained through surveys and other means, is required to determine the proportion of a sector's employment that is due to local expenditures versus expenditures from visitors.

Not all locations have attracted or lost travel- and tourism-related employment at the same rate.[26] An index makes it clear where the rate of travel-and-tourism-related growth or decline has been the fastest. Lines above 100 indicate positive absolute growth while those below 100 show absolute decline. The steeper the curve, the faster the rate of change.

It may be helpful to look for large year-to-year rises or dips to identify rapid employment changes. If the reasons behind these fluctuations are not evident, it may be helpful to talk with regional experts or local residents to learn more about what caused abrupt changes.

Locations with economies that focus on travel and tourism may have competitive advantages,[21, 22] but can also be sensitive to business cycles and other changes (for example, a rise in fuel costs) that affect pleasure travel and recreation spending. Natural amenities such as public lands can increase travel and tourism activities, benefiting local communities and in some cases diversify rural economies that have historically been tied to commodity production.[5, 23, 24] The growth of travel and tourism activities is also associated with in-migration that can lead to business relocation and new business development across a range of business sectors.[25]

Travel & Tourism

Yellowstone County, MT

Data Sources & Methods

The EPS Travel & Tourism report uses national statistics from public government sources. All data used in EPS can be readily verified with original sources:

- **County Business Patterns**
  Census Bureau, U.S. Department of Commerce
  https://www.census.gov/programs-surveys/cbp.html
  Contacts
  https://www.census.gov/about/contact-us.html

- **Quarterly Census of Employment and Wages**
  Bureau of Labor Statistics, U.S. Department of Labor
  https://www.bls.gov/cew
  Contacts
  https://www.bls.gov/bls/contact.htm

- **American Community Survey**
  U.S. Census Bureau, U.S. Department of Commerce
  https://www.census.gov/programs-surveys/acs/
  https://www.census.gov/acs/www/data/data-tables-and-tools/index.php
  Contacts
  https://www.census.gov/about/contact-us.html

- **Local Area Unemployment Statistics**
  Bureau of Labor Statistics, U.S. Department of Labor
  https://www.bls.gov/lau/
  Contacts
  https://www.bls.gov/bls/contact.htm

EPS core approaches
EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking—comparing smaller areas such as counties to larger regions, states, and the nation—to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Data Limitations
Much of the data in this report were obtained from the U.S. Census Bureau's County Business Patterns (CBP) series. Compared to other sources, CBP has fewer data gaps (instances when the federal government will not release data to protect confidentiality of individual businesses). It also includes both full- and part-time employment.

However, CBP data do not include employment in government, agriculture, railroads, or the self-employed. Also, CBP data are based on mid-March employment and do not account for seasonal fluctuations. Since March is a "shoulder" season for several tourism activities, CBP may underrepresent employment in industries associated with tourism. Despite these limitations, the data are most useful for showing long-term trends, displaying differences between places, and showing relationships between sectors over time.

Adjusting dollar figures for inflation
Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation
Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated in italics in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at https://headwaterseconomics.org/eps.

Endnotes

1 - In 2018 the Dept. of Commerce for the first time developed statistics illustrating the economic impact of outdoor recreation in the United States. See the Bureau of Economic Analysis's Outdoor Recreation Satellite Account at https://www.bea.gov/data/special-topics/outdoor-recreation.

2 - The Federal Reserve Bank of Kansas City has defined travel and tourism as consisting of hotels, air travel, and amusement and recreation services. See Wilkerson CR. 2003. Travel and Tourism: An Overlooked Industry in the U.S. and Tenth District. Economic Review. QIII(2003):45-71. https://www.kansascityfed.org/publicat/econrev/PDF/3q03wilk.pdf Wilkerson points out that travel- and tourism-related sectors outperformed the nation, including during recessions.

3 - The list of NAICS codes associated with travel and tourism were obtained from Marcouiller DW and Xia X. 2008. Distribution of Income from Tourism-Sensitive Employment. Tourism Economics 14(3):545-565. http://journals.sagepub.com/doi/abs/10.5367/000000008785633622?journalCode=teua. For a similar definition of travel and tourism, see Wilkerson C. 2003. Travel and Tourism: An Overlooked Industry in the U.S. and Tenth District. Federal Reserve Bank of Kansas City Economic Review. QIII(2003):45-71. https://www.kansascityfed.org/publicat/econrev/PDF/3q03wilk.pdf.

4 - It is estimated that outdoor recreation alone generates $887 billion in consumer spending annually and 7.6 million jobs. Outdoor Industry Association. 2018. Advocacy: Outdoor Recreation Economy. https://outdoorindustry.org/advocacy/.

5 - Allen T, D Kary, and R Southwick. 2017. The Economic Contributions of Outdoor Recreation. Boulder, CO: Outdoor Industry Association. https://outdoorindustry.org/wp-content/uploads/2015/03/OIA_Recreation_Economy_Contributions_Technical_Report_2017-08-24.pdf.

6 - The Forest Service collects information on visitor satisfaction and use. Annual summary reports and individual forest and grassland reports are available from https://www.fs.fed.us/recreation/programs/nvum.

7 - Stynes DJ and White EM. 2006. Reflections on Measuring Recreation and Travel Spending. Journal of Travel Research. 45:8-16. See http://journals.sagepub.com/doi/10.1177/0047287506288873.

8 - The U.S. Census Bureau conducts an Economic Census every five years for selected industries. Users can search the Economic Census for information on the number of establishments, sales, employees, and payroll, for selected industries. https://www.census.gov/programs-surveys/economic-census.html.

9 - The U.S. Department of Commerce developed the U.S. Travel and Tourism Satellite Accounts to estimate the proportion of every sector in the economy that is attributable to travel and tourism at the national level. This information is useful for detecting sectors that have a higher potential to serve the needs of visitors. The resulting ratios should not be applied to local economies. https://www.bea.gov/data/special-topics/travel-and-tourism.

Endnotes

10 - Almost half the U.S. population participated in an outdoor activity at least once in 2017. Outdoor Foundation. 2018. Outdoor Participation Report 2018. Washington, DC: Outdoor Foundation. https://outdoorindustry.org/resource/2018-outdoor-participation-report/.

11 - For detailed information on how the government measures unemployment, see https://www.bls.gov/cps/.

12 - For an overview of how the Bureau of Labor Statistics treats employment, see https://www.bls.gov/bls/employment.htm.

13 - For an overview of how the Bureau of Labor Statistics treats pay and benefits, see https://www.bls.gov/bls/wages.htm.

14 - Employment and wage estimates are also available from the Bureau of Labor Statistics for more than 800 occupations. Looking at travel and tourism by occupation, rather than by sector or industry, is helpful because wages can vary dramatically across occupations. For more information, see https://www.bls.gov/oes/.

15 - The EPS Socioeconomic Measures report provides additional information about wages in non-travel-and-tourism industries. https://headwaterseconomics.org/eps.

16 - The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).

17 - LQ = (ei/e) divided by (Ei/E)
Where: ei = Local employment in industry i; e = Total local employment; Ei = U.S. employment in industry i; E = Total U.S. employment.

18 - A succinct definition of a location quotient is offered by Indiana Business Research Center at IU's Kelley School of Business. http://www.incontext.indiana.edu/2006/march/1.asp.

19 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at https://headwaterseconomics.org/eps.

20 - Reeder RJ and Brown DM. 2005. Recreation, Tourism, and Rural Well-Being. USDA Economic Research Service Economic Research Report No. 7. https://www.ers.usda.gov/webdocs/publications/46126/15112_err7_1_.pdf?v=41056 Reeder and Brown found that counties dependent on tourism have: double the rate of employment growth compared to non-tourism-dependent counties, significantly higher levels of income and earnings per job, higher rates of population growth, lower rates of poverty, higher rates of education, better access to health care, but more expensive housing and higher rates of crime.

Endnotes

21 - English DBK, Marcouiller DW, and Cordell HK. 2000. Tourism Dependence in Rural America: Estimates and Effects. Society and Natural Resources 13(3):185-202. https://www.srs.fs.usda.gov/pubs/ja/ja_english004.pdf The study found that counties relatively dependent on tourism have higher growth in per capita income in comparison to non-dependent counties; less economic diversity; fewer manufacturing jobs, in particular in wood products sectors; more expensive housing; faster population growth; and higher levels of education. They also found that average household income in tourism-dependent counties was about the same as in non-dependent counties.

22 - For a review of literature on economic diversity, see Sterling A. 1998. On the Economics and Analysis of Diversity. Electronic Working Papers Series, No. 28. University of Sussex, Brighton, UK. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.144.8865&rep=rep1&type=pdf.

23 - A useful book on the evolving competitive environment for rural areas is Galston WA and Baehler KJ. 1995. Rural Development in the United States: Connecting Theory, Practice, and Possibilities. Washington, DC: Island Press.

24 - Snepenger D, Johnson J, and Rasker R. 1994. Travel Stimulated Entrepreneurial Migration. Journal of Travel Research 34(1):40-44. http://journals.sagepub.com/doi/abs/10.1177/004728759503400105 Snepenger et al. found that tourism can stimulate permanent migration of entrepreneurs.

25 - The Economic Research Service of the U.S. Dept. of Agriculture has developed a widely-used classification system for identifying non-metropolitan recreation counties. See Johnson KM and Beale CL. 2002. Non-Metro Recreation Counties: Their Identification and Rapid Growth. Rural America 17(4):2-19. https://www.ers.usda.gov/webdocs/publications/46984/19347_ra174b_1_.pdf?v=41056.