

# National Forest Socioeconomic Indicators

## Combined County Region

### Selected Geographies:

Fresno County, CA; Tulare County, CA; Kern County, CA

### Benchmark Geography:

U.S.

### Report Date:

June 30, 2018

## Headwaters Economics

### National Forest Socioeconomic Indicators

The National Forest Socioeconomic Indicators reporting tool makes socioeconomic data accessible and useful for Forest Service planning. The reporting tool is free and an ideal solution for Forest NEPA project documentation at all levels, from forest plans to categorical exclusions to large landscapes. The tool delivers county and Forest-level socioeconomic indicators that are defensible (accurate, relevant, and reliable) and establish appropriate context for monitoring National Forest contributions and impacts on surrounding communities.

For more detailed reports, try these other tools by Headwaters Economics:

#### Populations at Risk

Populations at risk are more likely to experience adverse social, health, and economic outcomes due to their race, age, gender, poverty status, and other socioeconomic measures.

##### **Free and easy-to-use**

Quickly create reports of current socioeconomic data in convenient formats, including Excel and PDF.

##### **Available nation-wide**

Build reports for geographies from states to census tracts. Aggregate multiple geographies into custom study areas.

##### **Updated continuously**

Make use of reliable, published government data. The Populations at Risk report always shows the latest available data and trends.

[headwaterseconomics.org/par](https://headwaterseconomics.org/par)

#### Economic Profile System

The Economic Profile System (EPS) generates reports on a range of topics including local economics, demographics, and income sources while providing historic context and trends.

##### **Free and easy-to-use**

Like Populations at Risk, EPS is free, updated continuously, and easy-to-use.

##### **Integrates federal data sources**

Access data from many sources, including the Census, Bureau of Economic Analysis, Labor Statistics, and others.

##### **Widely used**

For more than a decade, EPS has been used by researchers, economic developers, grant writers, elected officials, cities, planners, federal agencies, reporters, and others.

[headwaterseconomics.org/eps](https://headwaterseconomics.org/eps)

# National Forest Socioeconomic Indicators

## County Region

### Table of Contents

---

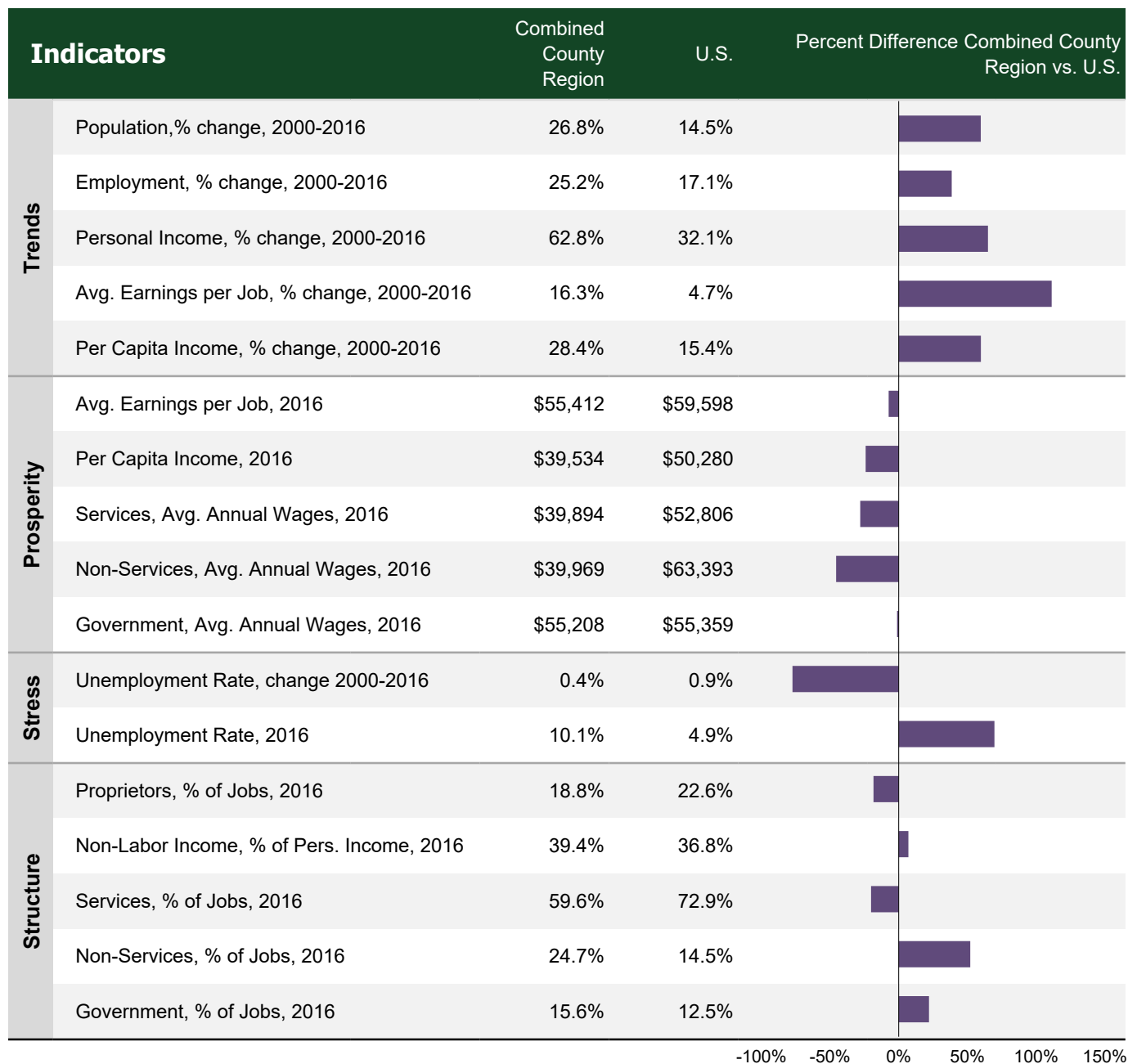
Region Benchmarks	1
County Benchmarks	2
Trends in Population, Employment, and Personal Income	3
Components of Population Change	4
Employment by Industry	5
Average Earnings per Job and Per Capita Income	6
Non-Labor Income	7
Unemployment Rate	8
Families in Poverty	9
Households Receiving Public Assistance	10
Race and Ethnicity	11
Federal Land Payments by Geography of Origin	12
Literature Cited	13

*Click the links above for quick access to report sections.*

# National Forest Socioeconomic Indicators

## Combined County Region

### Region Benchmarks



- Combined County Region is most different from the U.S. in population, % change, 2000-2016, population, % change, 2000-2016, and population, % change, 2000-2016.

CITATION: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2018. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; U.S. Department of Labor. 2017. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.

# National Forest Socioeconomic Indicators

## Combined County Region

### Region Benchmarks

#### What do we measure on this page?

This page shows a quick comparison for indicators of economic performance that highlight how the region differs from the selected benchmark geography.

The percent, or relative, difference between the selected geography and the benchmark is calculated by dividing the difference between the values by the arithmetic mean of the values.

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

#### Why is it important?

These indicators can be analyzed to get a comprehensive view of the economy.

When considering the benefits of growth, it is important to distinguish between standard of living (such as earnings per job and per capita income) and quality of life (such as leisure time, crime rate, and sense of well-being).

In some cases it may be appropriate to compare a local economy to the U.S. economy. In most cases, however, it will be more useful to compare county or regional economies with other similar county or regional economies. For example, if the region being analyzed is rural, it should be compared to similar regions because comparing against the U.S. will include data from large metropolitan areas.

# National Forest Socioeconomic Indicators

## Combined County Region

### County Benchmarks

Indicators	Fresno County, CA	Tulare County, CA	Kern County, CA	Combined County Region	U.S.
Population, 2016	979,915	460,437	884,788	2,325,140	323,127,513
<b>Trends</b>					
Population % change, 1970-2016	136.2%	143.4%	167.4%	148.7%	58.6%
Employment % change, 1970-2016	171.3%	154.6%	194.7%	176.1%	112.2%
Personal Income % change, 1970-2016	284.7%	302.2%	298.0%	292.8%	201.1%
<b>Prosperity</b>					
Unemployment rate, 2017	8.6%	10.4%	9.3%	9.2%	4.4%
Average earnings per job, 2016 (2017 \$s)	\$53,736	\$52,463	\$58,905	\$55,412	\$59,598
Per capita income, 2016 (2017 \$s)	\$40,943	\$38,509	\$38,506	\$39,534	\$50,280
<b>Economy</b>					
Non-Labor % of personal income, 2016	41.7%	40.2%	36.4%	39.4%	36.8%
Services % of employment, 2016	64.8%	53.2%	56.7%	59.6%	72.9%
Government % of employment, 2016	14.8%	16.0%	16.5%	15.6%	12.5%
<b>Use Sectors*</b>					
Timber % of private employment, 2016	0.5%	~1.6%	~0.2%	~0.6%	0.6%
Mining % of private employment, 2016	0.1%	0.0%	4.1%	1.5%	0.5%
Fossil fuels (oil, gas, & coal), 2016	~0.1%	~0.0%	~3.6%	~1.3%	0.4%
Other mining, 2016	~0.0%	~0.0%	~1.7%	~0.6%	0.3%
Agriculture % of employment, 2016	3.9%	7.7%	4.6%	4.9%	1.4%
Travel & Tourism % of priv. emp., 2016	17.1%	15.1%	~17.9%	~17.0%	15.8%
<b>Federal Land</b>					
Federal Land % total land ownership	39.7%	50.3%	29.7%	38.1%	28.2%
Forest Service %	25.6%	28.9%	7.3%	18.6%	8.4%
BLM %	4.4%	4.6%	16.4%	9.6%	10.6%
Park Service %	9.3%	16.5%	0.0%	7.1%	3.4%
Military %	0.1%	0.0%	5.5%	2.4%	1.0%
Other %	0.4%	0.4%	0.5%	0.4%	4.9%
Fed. payments % of gov. revenue, 2012	0.8%	1.0%	0.3%	0.6%	
<b>Development</b>					
Residential land area % change, 2000-2010	20.3%	31.0%	33.3%	27.0%	12.3%
Wildland-Urban Interface % developed, 2010	33.8%	15.4%	16.1%	22.7%	16.3%

Estimates for data that were not disclosed are indicated with tildes (~) and gray text.

\*Data for timber, mining, and travel and tourism-related are from County Business Patterns which excludes proprietors. Data for agriculture are from Bureau of Economic Analysis which includes proprietors.

# National Forest Socioeconomic Indicators

## Combined County Region

### County Benchmarks

#### What do we measure on this page?

This page shows a quick comparison for indicators of economic performance and land characteristics. The table allows you to compare performance and characteristics between counties that make up the region and selected benchmark geography.

Trends: Refers to general indicators of economic well-being (population, employment, and real personal income) measured over time.

Prosperity: Refers to common indicators of individual well-being or hardship (unemployment, average earnings per job, and per capita income).

Economy: Refers to three significant areas of the economy: non-labor income (e.g., government transfer payments, and investment and retirement income), and services and government employment.

Use Sectors: Refers to components of the economy (commodity sectors including timber, mining and agriculture, and industries that include travel and tourism) that have the potential for being associated with the use of public lands.

Federal Land: Refers to the amount and type of federal land ownership, and the dependence of county governments on payments related to federal lands. NPS = National Park Service; FS = Forest Service; BLM = Bureau of Land Management; FWS = Fish and Wildlife Service.

Development: Refers to the residential development of private lands, including the wildland-urban interface. The wildland-urban interface data are available and reported only for the 11 western public lands states (not including Alaska and Hawaii).

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses a standardized method to estimate these data gaps.<sup>1,2</sup> Estimated values are indicated with tildes (~) and gray text.

#### Why is it important?

Land management actions may affect areas differently, depending on demographics, the makeup of the economy, and land use characteristics.

Use of this table is to explore similarities and differences within the counties that make up the region.

# National Forest Socioeconomic Indicators

## Combined County Region

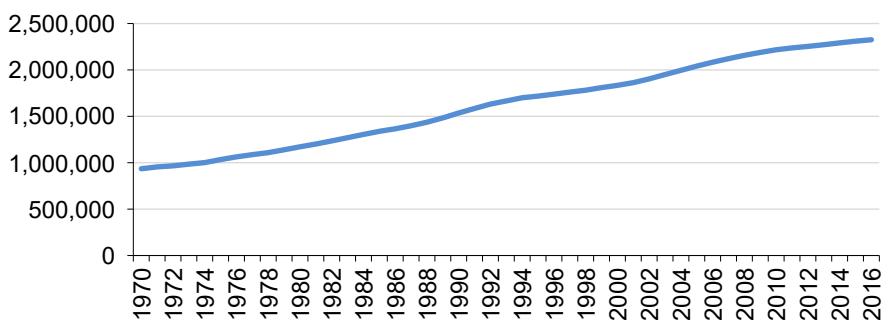
### Trends in Population, Employment, and Personal Income

	1970	1980	1990	2000	2016	Change 2000-2016
Population	934,945	1,171,512	1,535,899	1,833,718	2,325,140	491,422
Employment (full & part-time jobs)	400,426	597,349	737,206	882,638	1,105,453	222,815
Personal Income (thous. of 2017 \$s)	23,398,764	36,713,806	46,904,391	56,454,519	91,921,050	35,466,531

Population and personal income are reported by place of residence, and employment by place of work on this page.

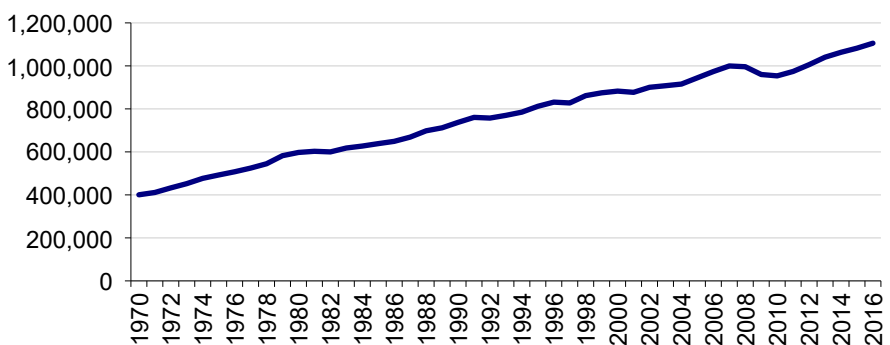
#### Population Trends, Combined County Region

- From 1970 to 2016, population grew from 934,945 to 2,325,140 people, a 149% increase.



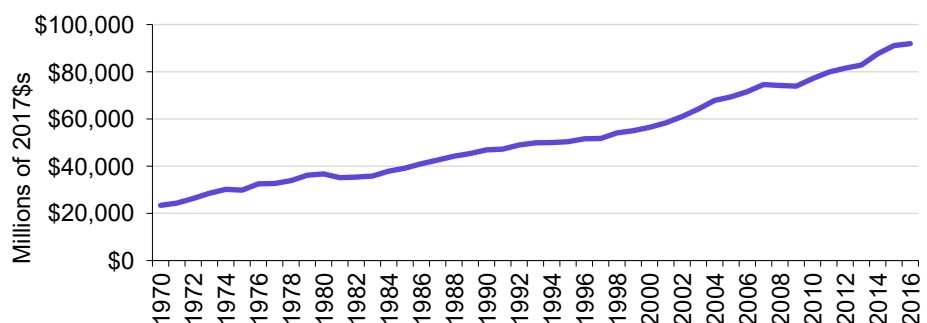
#### Employment Trends, Combined County Region

- From 1970 to 2016, employment grew from 400,426 to 1,105,453, a 176% increase.



#### Personal Income Trends, Combined County Region

- From 1970 to 2016, personal income grew from \$23,398.8 million to \$91,921.1 million, (in real terms), a 293% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.



# National Forest Socioeconomic Indicators

## Combined County Region

### Trends in Population, Employment, and Personal Income

#### What do we measure on this page?

This page describes trends in population, employment, and real personal income.

Population: The total number of people by place of residence.

Employment: All full and part-time workers, wage and salary jobs (employees), and proprietors (the self-employed) reported by place of work.

Personal Income: Income from wage and salary employment and proprietors' income (labor earnings), as well as non-labor income (dividends, interest, and rent, and transfer payments) reported by place of residence. All income figures in this report are shown in real terms (i.e., adjusted for inflation). Subsequent sections of this report define labor earnings and non-labor income in more detail.

#### Why is it important?

Long-term, steady growth of population, employment, and real personal income is generally an indication of a healthy, prosperous economy. Erratic growth, no-growth, or long-term decline in these indicators are generally an indication of a struggling economy.

Growth can benefit the general population of a place, especially by providing economic opportunities, but it can also stress communities, and lead to income stratification. When considering the benefits of growth, it is important to distinguish between standard of living (such as earnings per job and per capita income) and quality of life (such as leisure time, crime rate, and sense of well-being).

# National Forest Socioeconomic Indicators

## Combined County Region

### Components of Population Change

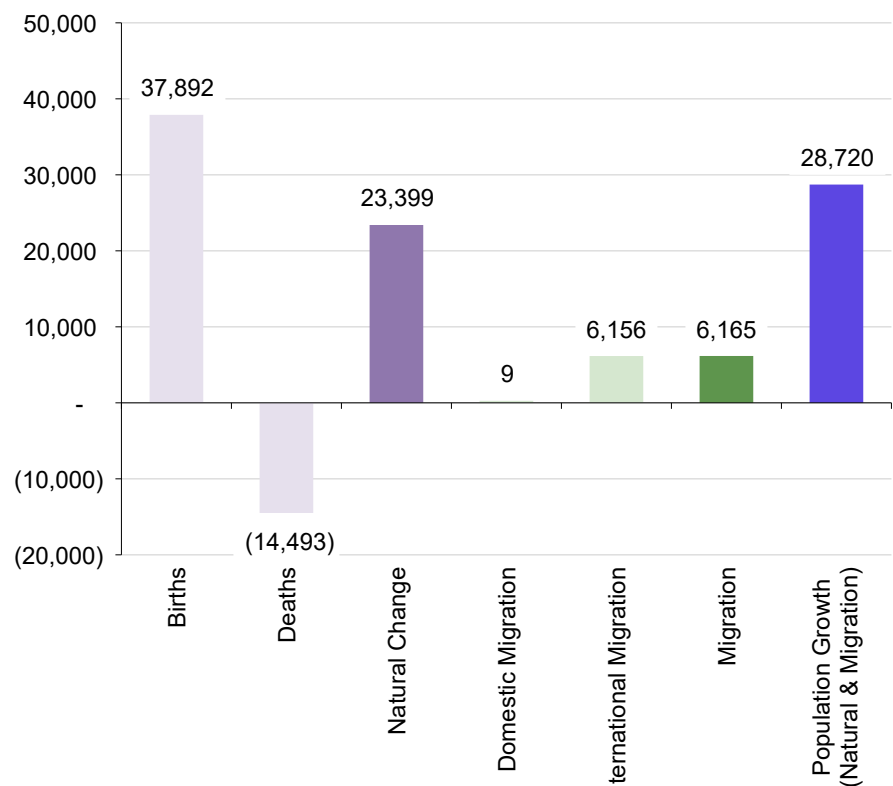
	Change 2000-2017
Population Growth, 2000-2017	513,311
Average Annual Population Change (Natural Change & Net Migration)	28,720
From Natural Change	23,399
Births	37,892
Deaths	14,493
From Net Migration	6,165
International Migration	6,156
Domestic Migration	9
From Residual	-844

#### Percent of Population Growth, 2000-2017

Natural Change	77.0%
Net Migration	20.3%
Residual	2.8%

Average Annual Components of Population Change, Combined County Region, 2000-2017

- From 2000 to 2017, population grew by 513,311 people, a 28% increase.
- From 2000 to 2017, natural change contributed to 77% of population growth.
- From 2000 to 2017, migration contributed to 20% of population growth.



The Census Bureau makes a minor statistical correction, called a "residual" which is shown in the table above, but omitted from the figure. Because of this correction, natural change plus net migration may not add to total population change in the figure.

# National Forest Socioeconomic Indicators

## Combined County Region

### Components of Population Change

#### What do we measure on this page?

This page describes various components of population change and total population growth (or decline). Total population growth (or decline) is the sum of natural change (births & deaths) and migration (international & domestic).

The Bureau of the Census makes a minor statistical correction, called a "residual." This is defined by the Bureau of the Census as resulting from "two parts of the estimates process: 1) the application of national population controls to state and county population estimates and 2) the incorporation of accepted challenges and special censuses into the population estimates. The residual represents change in the population that cannot be attributed to any specific demographic component of population change."

#### Why is it important?

It is useful to understand the components of population change because it offers insight into the causes of growth or decline and it helps highlight important areas of inquiry. For example, if a large portion of population growth is from immigration, it would be helpful to understand what the drivers are behind this trend, including whether people are moving to the area for jobs, quality of life, or both. If a large portion of population decline is from out-migration, it would similarly be important to understand the reasons, including the loss of employment in specific industries, youth leaving for education or new opportunities, and elderly people leaving for better medical facilities.<sup>3, 4</sup>

# National Forest Socioeconomic Indicators

## Combined County Region

### Employment by Industry

	2001	2005	2010	2016	Change 2010-2016
Total Employment (number of jobs)	876,956	944,592	953,505	1,105,453	151,948
Non-services related	~255,503	258,281	241,076	273,348	32,272
Farm	67,129	55,802	52,949	53,864	915
Forestry, fishing, & ag. services	~78,201	75,512	82,924	102,534	19,610
Mining (including fossil fuels)	~10,176	10,119	12,570	12,432	-138
Construction	46,693	62,853	41,453	48,867	7,414
Manufacturing	53,304	53,995	51,180	55,651	4,471
Services related	471,115	528,963	549,003	659,233	110,230
Utilities	3,149	3,521	4,249	4,338	89
Wholesale trade	25,303	27,659	28,242	35,339	7,097
Retail trade	90,594	99,248	93,110	110,675	17,565
Transportation and warehousing	26,526	30,430	31,119	40,857	9,738
Information	10,398	9,835	8,997	8,454	-543
Finance and insurance	28,335	30,566	34,107	33,982	-125
Real estate and rental and leasing	23,064	30,690	32,392	36,223	3,831
Professional and technical services	32,218	37,879	40,602	41,503	901
Management of companies and enterprises	8,178	7,046	6,538	6,595	57
Administrative and waste services	38,505	47,600	49,276	61,712	12,436
Educational services	6,648	8,656	10,897	10,661	-236
Health care and social assistance	71,564	79,948	90,353	124,778	34,425
Arts, entertainment, and recreation	9,851	10,705	11,699	12,927	1,228
Accommodation and food services	49,318	53,289	55,619	68,541	12,922
Other services, except public administration	47,464	51,891	51,803	62,648	10,845
Government	153,171	157,348	163,426	172,872	9,446

					% Change 2010-2016
Total Employment					15.9%
Non-services related	~29.1%	27.3%	25.3%	24.7%	13.4%
Farm	7.7%	5.9%	5.6%	4.9%	1.7%
Forestry, fishing, & ag. services	~8.9%	8.0%	8.7%	9.3%	23.6%
Mining (including fossil fuels)	~1.2%	1.1%	1.3%	1.1%	-1.1%
Construction	5.3%	6.7%	4.3%	4.4%	17.9%
Manufacturing	6.1%	5.7%	5.4%	5.0%	8.7%
Services related	53.7%	56.0%	57.6%	59.6%	20.1%
Utilities	0.4%	0.4%	0.4%	0.4%	2.1%
Wholesale trade	2.9%	2.9%	3.0%	3.2%	25.1%
Retail trade	10.3%	10.5%	9.8%	10.0%	18.9%
Transportation and warehousing	3.0%	3.2%	3.3%	3.7%	31.3%
Information	1.2%	1.0%	0.9%	0.8%	-6.0%
Finance and insurance	3.2%	3.2%	3.6%	3.1%	-0.4%
Real estate and rental and leasing	2.6%	3.2%	3.4%	3.3%	11.8%
Professional and technical services	3.7%	4.0%	4.3%	3.8%	2.2%
Management of companies and enterprises	0.9%	0.7%	0.7%	0.6%	0.9%
Administrative and waste services	4.4%	5.0%	5.2%	5.6%	25.2%
Educational services	0.8%	0.9%	1.1%	1.0%	-2.2%
Health care and social assistance	8.2%	8.5%	9.5%	11.3%	38.1%
Arts, entertainment, and recreation	1.1%	1.1%	1.2%	1.2%	10.5%
Accommodation and food services	5.6%	5.6%	5.8%	6.2%	23.2%
Other services, except public administration	5.4%	5.5%	5.4%	5.7%	20.9%
Government	17.5%	16.7%	17.1%	15.6%	5.8%

All employment data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~) and gray text.

Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

# USFS Socioeconomic Measures

## Combined County Region

### Employment by Industry

#### What do we measure on this page?

This page describes recent employment change by industry from 2001 to 2008. Industries are organized according to three major categories: non-services related, services related, and government. Employment includes wage and salary jobs and proprietors. The employment data are organized according to the North American Industrial Classification System (NAICS) and reported by place of work.<sup>5</sup>

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses a standardized method to estimate these data gaps. Estimated values are indicated with tildes (~) and gray text.<sup>1,2</sup>

#### Why is it important?

In most geographies the majority of new job growth in recent years has taken place in services related industries.<sup>6, 10</sup>

Services related industries encompass a wide variety of high and low-wage occupations ranging from jobs in accommodation and food services to professional and technical services.

It can be useful to ask what factors are driving a shift in industry makeup and competitive position. It may be the case that the economic role and contribution of public lands have changed along with broader economic shifts in many geographies.<sup>7, 8, 9</sup>

The terms non-services related and services related are not terms used by the U.S. Department of Commerce. They are used in these pages to help organize the information into easy-to-understand categories.<sup>11</sup>

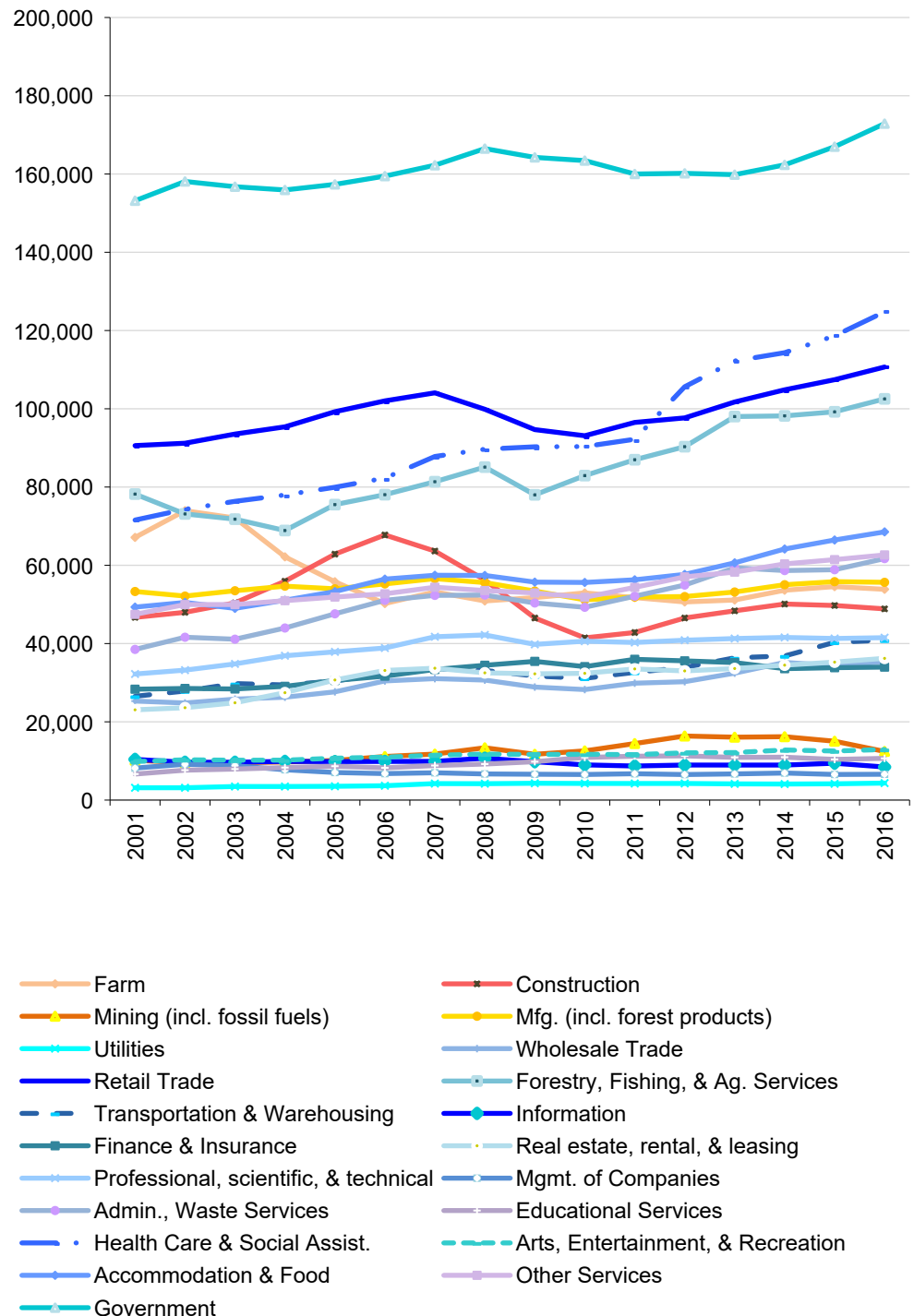
# National Forest Socioeconomic Indicators

## Combined County Region

### Employment by Industry

Employment by Industry, Combined County Region

- In 2016 the three industry sectors with the largest number of jobs were government (172,872 jobs), health care and social assistance (124,778 jobs), and retail trade (110,675 jobs).
- From 2001 to 2016, the three industry sectors that added the most new jobs were health care and social assistance (53,214 new jobs), administrative and waste services (23,207 new jobs), and retail trade (20,081 new jobs).



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

### Employment by Industry

#### What do we measure on this page?

This page describes recent employment change by industry from 2001 to 2008. Industries are organized according to three major categories: non-services related, services related, and government. Employment includes wage and salary jobs and proprietors. The employment data are organized according to the North American Industrial Classification System (NAICS) and reported by place of work.<sup>5</sup>

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses a standardized method to estimate these data gaps. Estimated values are indicated with tildes (~) and gray text.<sup>1,2</sup>

#### Why is it important?

In most geographies the majority of new job growth in recent years has taken place in services related industries.<sup>6, 10</sup>

Services related industries encompass a wide variety of high and low-wage occupations ranging from jobs in accommodation and food services to professional and technical services.

It can be useful to ask what factors are driving a shift in industry makeup and competitive position. It may be the case that the economic role and contribution of public lands have changed along with broader economic shifts in many geographies.<sup>7, 8, 9</sup>

The terms non-services related and services related are not terms used by the U.S. Department of Commerce. They are used in these pages to help organize the information into easy-to-understand categories.<sup>11</sup>

# National Forest Socioeconomic Indicators

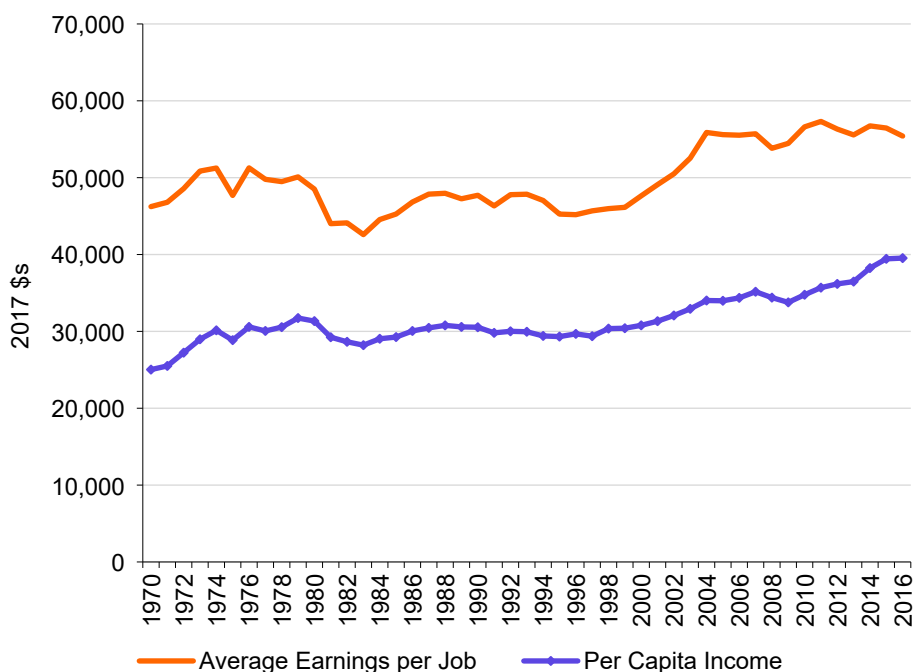
## Combined County Region

### Average Earnings per Job and Per Capita Income

	1970	1980	1990	2000	2016	Change 2000-2016
Average Earnings per Job, 2017 \$s	\$46,234	\$48,515	\$47,707	\$47,633	\$55,412	\$7,779
Per Capita Income, 2017 \$s	\$25,027	\$31,339	\$30,539	\$30,787	\$39,534	\$8,747
<b>Percent Change</b>						% Change 2000-2016
Average Earnings per Job						16.3%
Per Capita Income						28.4%

Average Earnings per Job & Per Capita Income, Combined County Region

- From 1970 to 2016, average earnings per job grew from \$46,234 to \$55,412 (in real terms), a 20% increase.
- From 1970 to 2016, per capita income grew from \$25,027 to \$39,534 (in real terms), a 58% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.



### Average Earnings per Job and Per Capita Income

#### What do we measure on this page?

This page describes how average earnings per job and per capita income (in real terms) have changed over time.

Average Earnings per Job: This is a measure of the compensation of the average job. It is total earnings divided by total employment. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included.

Per Capita Income: This is a measure of income per person. It is total personal income (from labor and non-labor sources) divided by total population.

#### Why is it important?

Average earnings per job is an indicator of the quality of local employment. A higher average earnings per job indicates that there are relatively more high-wage occupations. It can be useful to consider earnings against local cost of living indicators.<sup>12, 13</sup>

There are a number of reasons why average earnings per job may decline. These include: 1) more part-time and/or seasonal workers entering the workforce; 2) a rise in low-wage industries, such as tourism-related sectors; 3) a decline of high-wage industries, such as manufacturing; 4) more lower-paid workers entering the workforce; 5) the presence of a university with increasing an enrollment of relatively low-wage students; 6) an influx of workers with low education levels that are paid less; 7) the in-migration of semi-retired workers who work part-time and/or seasonally; and 8) an influx of people who move to an area for quality of life rather than profit-maximizing reasons.<sup>14</sup>

Per capita income is considered one of the most important measures of economic well-being. However, this measure can be misleading. Per capita income is total personal income divided by population. Because total personal income includes non-labor income sources (dividends, interest, rent and transfer payments), it is possible for per capita income to be relatively high due to the presence of retirees and people with investment income.<sup>15</sup> And because per capita income is calculated using total population and not the labor force as in average earnings per job, it is possible for per capita income to be relatively low when there are a disproportionate number of children and/or elderly people in the population.

# National Forest Socioeconomic Indicators

## Combined County Region

### Non-labor Income

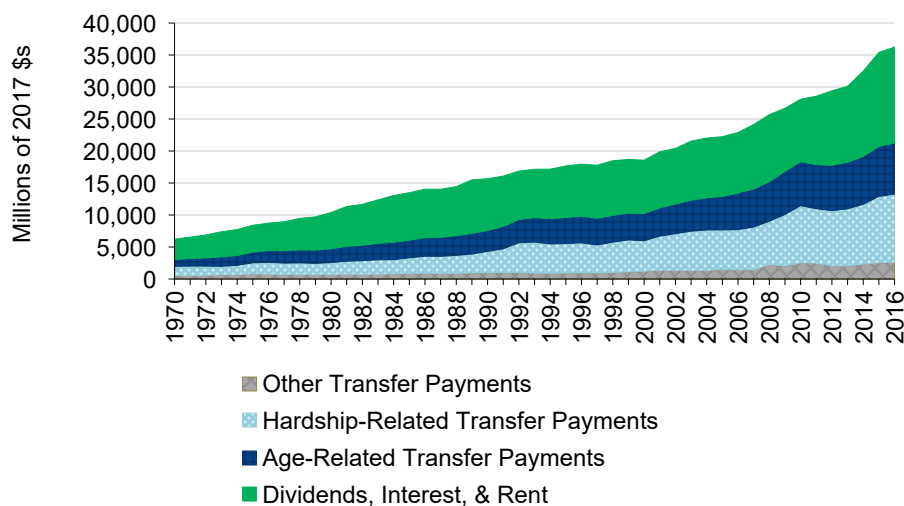
	Fresno County, CA	Tulare County, CA	Kern County, CA	Combined County Region	U.S.
Total Personal Income (thous. of 2017 \$s)	40,120,538	17,731,151	34,069,361	91,921,050	16,246,945,757
Total Non-Labor Income	16,720,259	7,127,354	12,391,917	36,239,530	5,970,923,535
Dividends, Interest, Rent	6,921,352	2,708,490	5,368,306	14,998,148	3,144,457,507
Age-Related Transfer Payments	3,432,894	1,485,994	3,045,213	7,964,101	1,584,924,889
Social Security	1,852,554	825,402	1,636,694	4,314,649	915,295,895
Medicare	1,580,341	660,592	1,408,520	3,649,452	669,628,994
Hardship-Related Payments	5,233,236	2,441,537	2,972,965	10,647,738	892,238,651
Medicaid	3,550,877	1,611,521	1,618,405	6,780,802	586,560,432
Income maintenance ("welfare")	1,455,145	703,339	1,111,180	3,269,664	273,241,048
Unemployment ins. compensation	227,214	126,676	243,381	597,272	32,437,171
Other Transfer Payments	1,132,777	491,333	1,005,433	2,629,543	349,302,487
Veterans benefits	224,542	94,828	239,378	558,748	109,352,166
Education and training assistance	285,016	113,051	195,070	593,138	65,677,869
All other, incl. Workers' comp.	623,218	283,453	570,985	1,477,657	174,272,453

### Percent of Total Personal Income

Total Non-Labor Income	41.7%	40.2%	36.4%	39.4%	36.8%
Dividends, Interest, Rent	17.3%	15.3%	15.8%	16.3%	19.4%
Age-Related Transfer Payments	8.6%	8.4%	8.9%	8.7%	9.8%
Social Security	4.6%	4.7%	4.8%	4.7%	5.6%
Medicare	3.9%	3.7%	4.1%	4.0%	4.1%
Hardship-Related Payments	13.0%	13.8%	8.7%	11.6%	5.5%
Medicaid	8.9%	9.1%	4.8%	7.4%	3.6%
Income maintenance ("welfare")	3.6%	4.0%	3.3%	3.6%	1.7%
Unemployment ins. compensation	0.6%	0.7%	0.7%	0.6%	0.2%
Other Transfer Payments	2.8%	2.8%	3.0%	2.9%	2.1%
Veterans benefits	0.6%	0.5%	0.7%	0.6%	0.7%
Education and training assistance	0.7%	0.6%	0.6%	0.6%	0.4%
All other, incl. Workers' comp.	1.6%	1.6%	1.7%	1.6%	1.1%

### Components of Non-Labor Income, Combined County Region

- From 1970 to 2016, dividends, interest, and rent grew from \$3,195 million to \$14,998 million, an increase of 369 percent.
- From 1970 to 2016, age-related transfer payments grew from \$1,051 million to \$7,964 million, an increase of 658 percent.
- From 1970 to 2016, income maintenance transfer payments grew from \$1,447 million to \$10,648 million, an increase of 636 percent.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

# National Forest Socioeconomic Indicators

## Combined County Region

### Non-labor Income

#### What do we measure on this page?

This page describes the components of non-labor income, how they have changed over time (in real terms).

Dividends, Interest, and Rent: This includes personal dividend income, personal interest income, and rental income of persons with capital consumption adjustment that are sometimes referred to as "investment income" or "property income."

Age-Related Transfer Payments: This measures Medicare and Social Security benefits.

Hardship-Related Transfer Payments: These payments are associated with poverty and include Medicaid, Food Stamps (SNAP), Supplemental Security Income (SSI), Unemployment Insurance, and other income maintenance benefits.

Other Transfer Payments: All other components of transfer payments not identified in age and hardship-related categories including veterans benefits, education and training, Workers' Compensation Insurance, railroad retirement and disability, other government retirement and disability, and other receipts of individuals and non-profits.

#### Why is it important?

In some geographies, non-labor income has grown rapidly over the last three decades, while in others it has not. Also, some geographies are more dependent on non-labor sources of income than others.<sup>15, 16</sup>

Because non-labor income is often so significant, it is important to understand component details. Some places may rely more on investment income, others on retirement benefits, and still others on welfare-related income streams. The table shows absolute values and percent of total non-labor income, while the figure shows key long-term trends.

Some important metrics include the largest components of non-labor income, whether non-labor income is growing, which components are growing the fastest, whether investment earnings are significant and growing, and whether age-related components of transfer payments are significant and growing. Also worth considering is whether the growth in non-labor income stems from new investment and age-related income and whether poverty-related components of transfer payments are significant and growing.<sup>17, 18</sup>

If age-related transfer payments are significant and growing, it may be important to consider whether public lands resources are meeting the needs of an aging population. If poverty-related transfer payments are significant and growing, it may be important to consider whether there are environmental justice issues related to public lands management.

Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.

# National Forest Socioeconomic Indicators

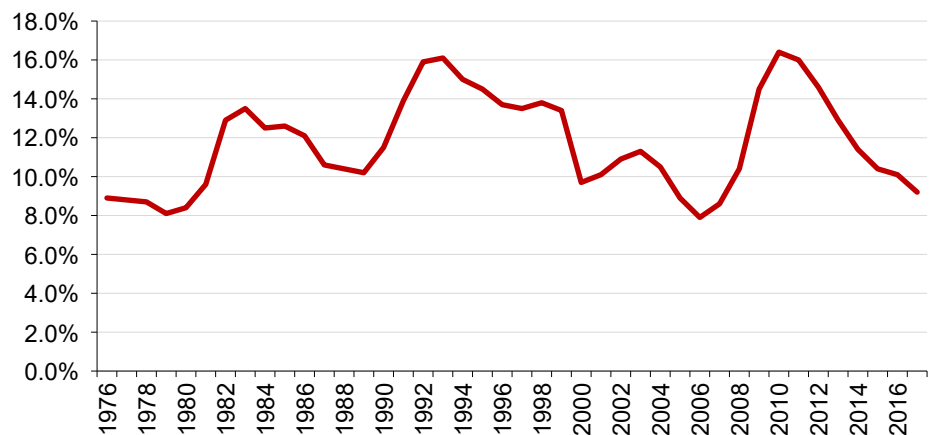
## Combined County Region

### Unemployment Rate

	1976	1990	2000	2010	2017	Change 2010-2017
Unemployment Rate (Average Annual)	8.9%	11.5%	9.7%	16.4%	9.2%	-7.2%

#### Unemployment Rate (Average Annual), Combined County Region

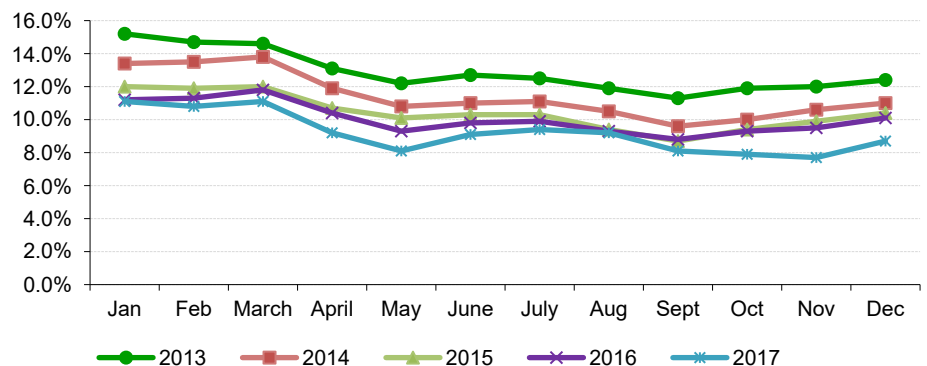
- Since 1976, the annual unemployment rate ranged from a low of 7.9% in 2006 to a high of 16.4% in 2010.



	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2013	15.2%	14.7%	14.6%	13.1%	12.2%	12.7%	12.5%	11.9%	11.3%	11.9%	12.0%	12.4%
2014	13.4%	13.5%	13.8%	11.9%	10.8%	11.0%	11.1%	10.5%	9.6%	10.0%	10.6%	11.0%
2015	12.0%	11.9%	12.0%	10.7%	10.1%	10.3%	10.3%	9.4%	8.7%	9.4%	9.9%	10.4%
2016	11.2%	11.3%	11.8%	10.4%	9.3%	9.8%	9.9%	9.3%	8.8%	9.3%	9.5%	10.1%
2017	11.1%	10.8%	11.1%	9.2%	8.1%	9.1%	9.4%	9.2%	8.1%	7.9%	7.7%	8.7%

#### Unemployment Rate (Monthly), Combined County Region

- The lowest monthly unemployment rate was Nov of 2017. The highest monthly unemployment rate was Jan of 2013.



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

### Unemployment Rate

#### What do we measure on this page?

This page describes the average annual unemployment rate and the seasonality of the unemployment rate over time.

The figure Average Annual Unemployment Rate shows the rate of unemployment since 1990. The figure Seasonal Unemployment Rate shows the rate of unemployment for the last five years, for each month of the year. This figure is useful to see if there are higher rates of unemployment during certain months of the year, and whether this has changed over time.

Unemployment Rate: The number of people who are jobless, looking for jobs, and available for work divided by the labor force.

Data begin in 1990 because prior to that the Bureau of Labor Statistics used a different method to calculate the unemployment rate.

#### Why is it important?

The rate of unemployment is an important indicator of economic well-being.<sup>19</sup> This figure can go up during national recessions and/or when more localized economies are affected by area downturns. There can also be significant seasonal variations in unemployment.

It is important to know how the unemployment rate has changed over time<sup>20</sup>, whether there are periods of the year where the rate is higher or lower, and if this seasonality of unemployment has changed over time. Geographies that are heavily dependent on the tourism industry, for example, may show higher rates of unemployment during Spring and Fall "shoulder seasons." Places that rely heavily on the construction industry, for example, may have lower unemployment rates during the non-winter months.

As the economy of a place diversifies, it can become more resilient and less affected by downturns and rising unemployment rates. This is particularly true of places that are able to attract in-migration, retain manufacturing, and support a high-tech economy.<sup>21</sup>

Public land agencies sometimes provide seasonal employment and may have an effect on the local rate of unemployment.

# National Forest Socioeconomic Indicators

## Combined County Region

### Families in Poverty

	Fresno County, CA	Tulare County, CA	Kern County, CA	Combined County Region	U.S.
Total families for whom poverty status is determined, 2016*	217,545	104,581	196,707	518,833	77,608,829
Families in poverty	48,247	24,595	37,850	110,692	8,543,087
Families with children in poverty	40,330	20,831	31,148	92,309	6,482,468
Single mother families in poverty	20,465	8,645	16,679	45,789	3,877,343

#### Percent of Total, 2016\*

Families in poverty	22.2%	23.5%	19.2%	21.3%	11.0%
Families with children in poverty	18.5%	19.9%	15.8%	17.8%	8.4%
Single mother families in poverty	9.4%	8.3%	8.5%	8.8%	5.0%

#### Change in Percentage Points, 2010\*-2016\*

For example, if the value is 3% in 2010\* and 4.5% in 2016\*, the reported change in percentage points is 1.5.

Families in poverty	4.5	4.6	2.4	3.7	0.9
Families with children in poverty	2.9	3.4	1.3	2.4	0.5
Single mother families in poverty	1.7	1.4	1.0	1.4	0.2

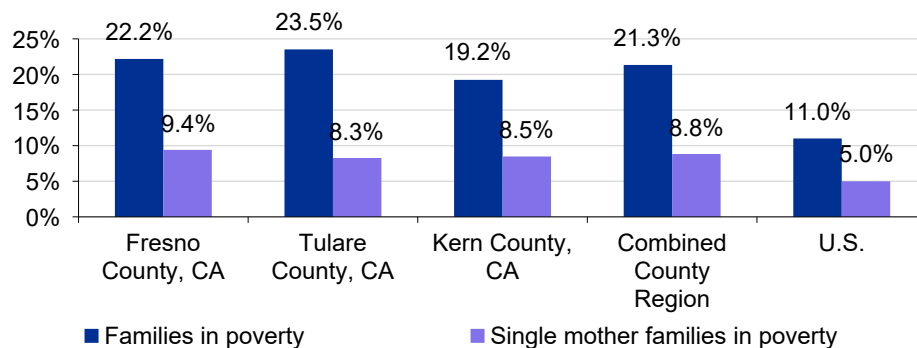
**High Reliability:** Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

**Medium Reliability:** Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

**Low Reliability:** Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

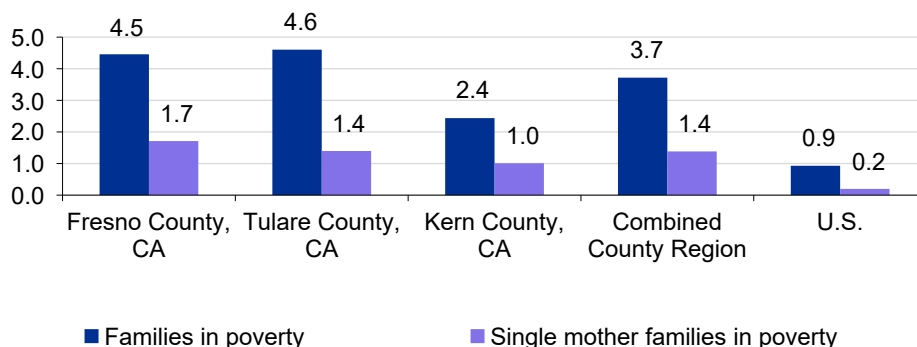
#### Families in Poverty, Percent of Total, 2016\*

- Fresno County, CA has the largest share of single mother families in poverty (9.4%).



#### Families in Poverty, Change in Percentage Points, 2010\*-2016\*

- The largest change in the share of single mother families in poverty occurred in Fresno County, CA, which went from 7.7% to 9.4%.



\* ACS 5-year estimates used. 2016 represents average characteristics from 2012-2016; 2010 represents 2006-2010.

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

# National Forest Socioeconomic Indicators

## Combined County Region

### Families in Poverty

#### What do we measure on this page?

This page describes the number of families living below the poverty line, and separately reports families with children and single mother families with children.

The Census defines a family as a group of two or more people who reside together and who are related by birth, marriage, or adoption.

The Census Bureau uses a set of income thresholds that vary by family size and composition to define who is poor. If the total income for a family or an unrelated individual falls below the relevant poverty threshold, then the family or an unrelated individual is classified as being "below the poverty level."

#### Why is it important?

Families in poverty may lack the resources to meet their basic needs. Their challenges cross the spectrum of food, housing, health care, education, vulnerability to natural disasters, and emotional stress.

To save money, families with low incomes often have to make lifestyle compromises such as unhealthy foods, less food, substandard housing, or delayed medical care.<sup>22</sup>

Lack of financial resources makes families in poverty more vulnerable to natural disasters. This is due to inadequate housing, social exclusion, and an inability to re-locate or evacuate.<sup>21, 23, 24</sup>

Inadequate shelter exposes occupants to increased risk from storms, floods, fire, and temperature extremes.<sup>23</sup> Households with low incomes are more likely to have unhealthy housing such as leaks, mold, or rodents.<sup>24</sup>

The expense of running fans, air conditioners, and heaters makes low-income people hesitant to mitigate the temperature of their living spaces.<sup>22, 23</sup> Furthermore, those in high-crime areas may not want to open their windows.<sup>23</sup>

Families in poverty are disproportionately affected by higher food prices, which are expected to rise in response to climate change.<sup>22</sup>

Children in poor families, on average, receive fewer years of education compared to children in wealthier families.<sup>25, 26</sup>

Low-income residents are less likely to have adequate property insurance, so they may bear an even greater burden from property damage due to natural hazards.<sup>23</sup>

Living in poverty can lead to a lack of personal control over potentially hazardous situations such as increased air pollution or flooding. Impoverished families may be less likely to take proactive measures to prevent harm.<sup>24</sup>

CHANGES IN BOUNDARIES: Data describing change over time can be misleading when geographic boundaries have changed.

The Census provides documentation about changes in boundaries at this site: [www.census.gov/geo/reference/boundary-changes.html](http://www.census.gov/geo/reference/boundary-changes.html)

Find more reports like this at [headwaterseconomics.org/par](http://headwaterseconomics.org/par)

Study Guide | Page 9

# National Forest Socioeconomic Indicators

## Combined County Region

### Households Receiving Public Assistance

	Fresno County, CA	Tulare County, CA	Kern County, CA	Combined County Region	U.S.
Total Households, 2016*	299,456	134,153	262,337	695,946	117,716,237
Households receiving:					
Supplemental Security Income (SSI)	26,387	10,900	19,974	57,261	6,355,071
Cash public assistance income	25,211	13,963	17,250	56,424	3,147,577
Food Stamp/SNAP	62,108	31,373	44,561	138,042	15,360,951

#### Percent of Total, 2016\*

Supplemental Security Income (SSI)	8.8%	8.1%	7.6%	8.2%	5.4%
Cash public assistance income	8.4%	10.4%	6.6%	8.1%	2.7%
Food Stamp/SNAP	20.7%	23.4%	17.0%	19.8%	13.0%

#### Change in Percentage Points, 2010\*-2016\*

For example, if the value is 3% in 2010\* and 4.5% in 2016\*, the reported change in percentage points is 1.5.

Supplemental Security Income (SSI)	1.0	1.2	0.8	1.0	1.3
Cash public assistance income	1.5	3.5	0.6	1.5	0.2
Food Stamp/SNAP	7.6	7.7	5.9	7.0	3.8

#### Median Household Income (MHI), 2016\*

(2017 \$s)	\$46,928	\$43,688	\$50,834	na	\$56,484
Change in MHI, 2010*-2016* (2017 \$s)	-\$5,259	-\$5,601	-\$2,094	na	-\$1,867

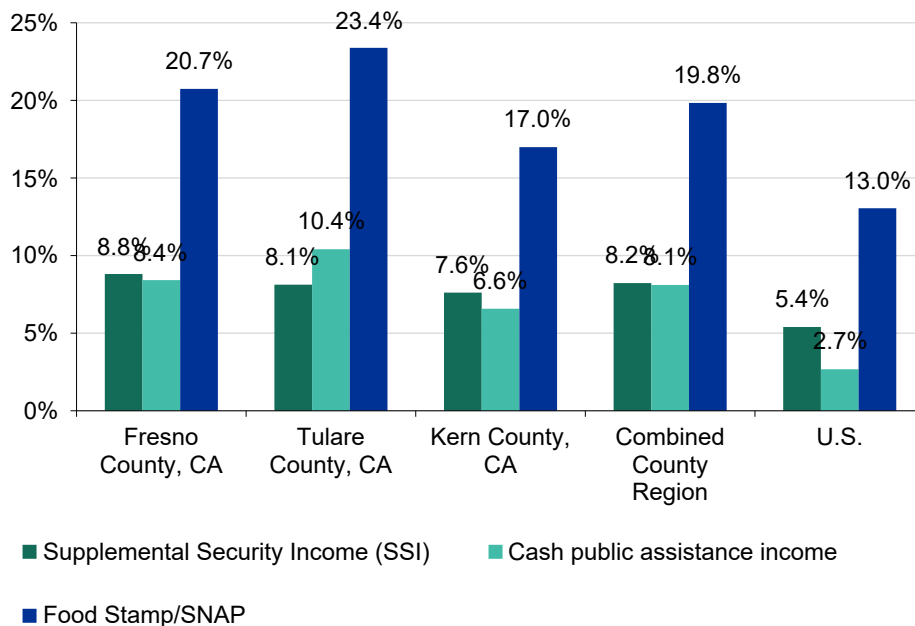
**High Reliability:** Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

**Medium Reliability:** Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

**Low Reliability:** Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

#### Percent of Households Receiving Earnings, by Source, 2016\*

- Fresno County, CA has the largest share of households receiving Supplemental Security Income (8.8%).
- Tulare County, CA has the largest share of households receiving cash public assistance (10.4%).
- Tulare County, CA has the largest share of households receiving Food Stamps/SNAP (23.4%).



\* ACS 5-year estimates used. 2016 represents average characteristics from 2012-2016; 2010 represents 2006-2010.

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



### Households Receiving Public Assistance

#### What do we measure on this page?

This page describes the number of households receiving public assistance.

Supplemental Security Income, or SSI, provides financial assistance to people with limited income who are aged, blind, or disabled. Unlike Social Security benefits, which are determined by the recipient's lifetime earnings, SSI benefits are not based on prior work.<sup>27</sup>

Cash public assistance can be from the Federal program, Temporary Assistance for Needy Families (TANF), or various state-level cash assistance programs. It does not include separate payments received for hospital or other medical care (vendor payments) or SSI or noncash benefits such as the Supplemental Nutrition Assistance Program.

The Supplemental Nutrition Assistance Program, or SNAP, (formerly known as food stamps), provides benefits to those who are unemployed, have no or low incomes, are elderly, are disabled with low incomes, or are homeless. The income threshold for SNAP varies with household size and other factors. SNAP benefits can be used to purchase grocery items such as breads, cereals, fruits, vegetables, meats, and dairy products.<sup>28</sup>

Median income can be used to identify areas of high or low income, but care should be taken to consider regional differences in cost of living.

#### Why is it important?

The number of households receiving public assistance are indicative of households living in poverty or with insufficient resources.

In 2011, families receiving public assistance spent 77 percent of their household budget to meet the basic necessities of housing, food, and transportation.<sup>29</sup>

Payments associated with economic hardship are associated with lower household income and educational attainment, higher poverty and unemployment. They are often high in communities that are losing population.<sup>15</sup>

# National Forest Socioeconomic Indicators

## Combined County Region

### Race & Ethnicity

	Fresno County, CA	Tulare County, CA	Kern County, CA	Combined County Region	U.S.
Total Population, 2016*	963,160	455,769	871,337	2,290,266	318,558,162
White alone	593,119	363,181	647,832	1,604,132	233,657,078
All other races	370,041	92,588	223,505	686,134	84,901,084
Black or African American	48,434	7,261	48,264	103,959	40,241,818
American Indian	10,034	5,847	10,051	25,932	2,597,817
Other races	311,573	79,480	165,190	556,243	42,061,449
Hispanic ethnicity	501,136	287,144	449,747	1,238,027	55,199,107
Non-Hispanic ethnicity	462,024	168,625	421,590	1,052,239	263,359,055

#### Percent of Total, 2016\*

White alone	61.6%	79.7%	74.3%	70.0%	73.3%
All other races	38.4%	20.3%	25.7%	30.0%	26.7%
Black or African American	5.0%	1.6%	5.5%	4.5%	12.6%
American Indian	1.0%	1.3%	1.2%	1.1%	0.8%
Other races	32.3%	17.4%	19.0%	24.3%	13.2%
Hispanic ethnicity	52.0%	63.0%	51.6%	54.1%	17.3%
Non-Hispanic ethnicity	48.0%	37.0%	48.4%	45.9%	82.7%

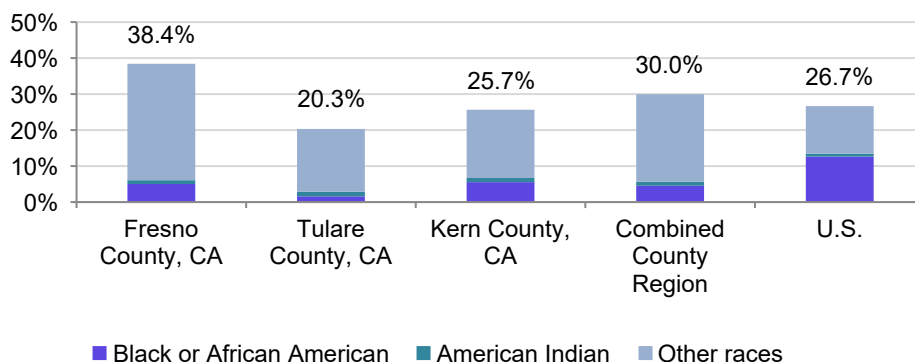
**High Reliability:** Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.

**Medium Reliability:** Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.

**Low Reliability:** Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

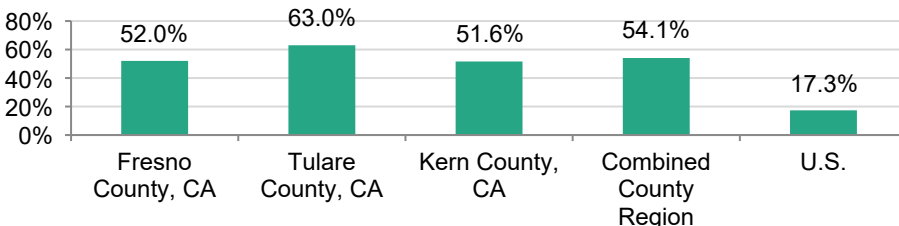
#### Non-White Population by Race, Percent of Total, 2016\*

- Fresno County, CA has the largest share of non-whites (38.4%).



#### Hispanic Population, Percent of Total, 2016\*

- Tulare County, CA has the largest share of hispanics (63.0%).



\* ACS 5-year estimates used. 2016 represents average characteristics from 2012-2016; 2010 represents 2006-2010.

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

# National Forest Socioeconomic Indicators

## Combined County Region

### Race & Ethnicity

#### What do we measure on this page?

Race is self-identified by Census respondents who choose the race or races with which they most closely identify. Included in "Other Races" are "Asian," "Native Hawaiian or Other Pacific Islander," and respondents providing write-in entries such as multiracial, mixed, or interracial.

Ethnicity has two categories: Hispanic or Latino, and Non-Hispanic or Latino. The federal government considers race and Hispanic origin to be two separate and distinct concepts. Hispanics and Latinos may be of any race.

#### Why is it important?

Race and ethnicity are strongly correlated with disparities in health, exposure to environmental pollution, and vulnerability to natural hazards.<sup>22</sup>

Research consistently has found race-based environmental inequities across many variables, including the tendency for minority populations to live closer to noxious facilities and Superfund sites, and to be exposed to pollution at greater rates than whites.<sup>22, 30</sup>

Many health outcomes are closely related to the local environment. Minority communities often have less access to parks and nutritious food, and are more likely to live in substandard housing.<sup>22</sup>

Minorities tend to be particularly vulnerable to disasters and extreme heat events. This is due to language skills, housing patterns, quality of housing, community isolation, and cultural barriers.<sup>31, 32</sup>

Blacks and Hispanics, two segments of the population that are currently experiencing poorer health outcomes, are an increasing percentage of the US population.<sup>22, 33</sup>

Research has identified measurable disparities in health outcomes between various minority and ethnic communities.

Across races, the rates of preventable hospitalizations are highest among black and Hispanic populations. Preventable hospital visits often reflect inadequate access to primary care. These types of hospital visits are also costly and inefficient for the health care system.<sup>25</sup>

Relative to other ethnicities and races, Hispanics and blacks are less likely to have health insurance, but rates of uninsured are dropping for both groups.<sup>34</sup>

Compared to other races, blacks have higher rates of infant mortality, homicide, heart disease, stroke, and heat-related deaths.<sup>25</sup>

Hispanics have higher rates of diabetes and asthma.<sup>25</sup>

American Indians have a distinct pattern of health effects different from blacks and Hispanics. Native populations are less likely to have electricity than the general population.<sup>23</sup> They have high rates of infant mortality, suicide and homicide, and nearly twice the rate of motor vehicle deaths than the U.S. average.<sup>25</sup>

CHANGES IN BOUNDARIES: Data describing change over time can be misleading when geographic boundaries have changed.

The Census provides documentation about changes in boundaries at this site: [www.census.gov/geo/reference/boundary-changes.html](http://www.census.gov/geo/reference/boundary-changes.html)

Find more reports like this at [headwaterseconomics.org/eps](http://headwaterseconomics.org/eps)

Study Guide | Page 11

# National Forest Socioeconomic Indicators

## Combined County Region

### Federal Land Payments by Geography of Origin

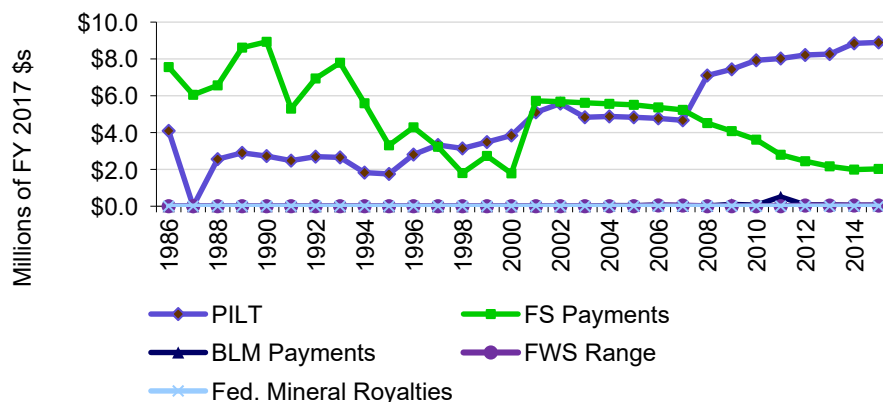
	Fresno County, CA	Tulare County, CA	Kern County, CA	Combined County Region	U.S.
Total Federal Land Payments to State and Local Gov., FY 2015 (FY 2017 \$s)	4,197,636	3,811,251	3,006,907	11,015,794	2,698,185,253
PILT	2,869,315	3,282,689	2,744,597	8,896,601	452,187,916
Forest Service Payments	1,305,606	515,638	205,550	2,026,794	286,609,926
BLM Payments	22,714	3,508	29,669	55,891	51,543,901
USFWS Refuge Payments	0	9,416	27,091	36,507	17,902,580
Federal Mineral Royalties	0	0	0	0	1,889,940,931

#### Percent of Total

PILT	68.4%	86.1%	91.3%	80.8%	16.8%
Forest Service Payments	31.1%	13.5%	6.8%	18.4%	10.6%
BLM Payments	0.5%	0.1%	1.0%	0.5%	1.9%
USFWS Refuge Payments	0.0%	0.2%	0.9%	0.3%	0.7%
Federal Mineral Royalties	0.0%	0.0%	0.0%	0.0%	70.0%

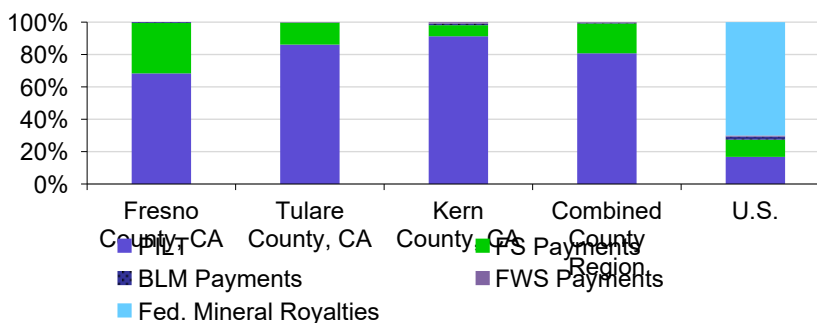
#### Components of Fed. Land Payments per FY, Combined County Region

- From FY 1986 to FY 2015, Forest Service revenue sharing payments shrank from \$7,557,557 to \$2,026,794, a decrease of 73 percent.
- From FY 1986 to FY 2015, BLM revenue sharing payments grew from \$0 to \$55,891.



#### Components of Fed. Land Payments, FY 2015

- In FY 2015, PILT made up the largest percent of federal land payments in Combined County Region (80.8%), and Federal Mineral Royalties made up the smallest (0%).



Data Sources: U.S. Department of Interior. 2016. Payments in Lieu of Taxes (PILT), , Washington, D.C.; U.S. Department of Agriculture. 2016. Forest Service, , Washington, D.C.; U.S. Department of Interior. 2016. Bureau of Land Management, , Washington, D.C.; U.S. Department of Interior. 2016. U.S. Fish and Wildlife Service, , Washington, D.C.; U.S. Department of Interior. 2016. Office of Natural Resources Revenue, , Washington, D.C.

# National Forest Socioeconomic Indicators

## Combined County Region

### Federal Land Payments by Geography of Origin

#### What do we measure on this page?

**Federal land payments:** These are federal payments that compensate state and local governments for non-taxable federal lands within their borders. Payments are funded by federal appropriations (e.g., PILT) and from receipts received by federal agencies from activities on federal public lands (e.g., timber, grazing, and minerals).

**Payments in Lieu of Taxes (PILT):** These payments compensate county governments for non-taxable federal lands within their borders. PILT is based on a maximum per-acre payment reduced by the sum of all revenue sharing payments and subject to a population cap.

**Forest Service Revenue Sharing:** These are payments based on USFS receipts and must be used for county roads and local schools. Payments include the 25% Fund, Secure Rural Schools & Community Self-Determination Act, and Bankhead-Jones Forest Grasslands.

**BLM Revenue Sharing:** The BLM shares a portion of receipts generated on public lands with state and local governments, including grazing fees through the Taylor Grazing Act and timber receipts generated on Oregon and California (O & C) grant lands.

**USFWS Refuge:** These payments share a portion of receipts from National Wildlife Refuges and other areas managed by the USFWS directly with the counties in which they are located.

**Federal Mineral Royalties:** These payments are distributed to state governments by the U.S. Office of Natural Resources Revenue. States may share, at their discretion, a portion of revenues with the local governments where royalties were generated.

**Federal Fiscal Year:** FY refers to the federal fiscal year that begins on October 1 and ends September 30.

#### Why is it important?

State and local government cannot tax federally owned lands the way they would if the land were privately owned. A number of federal programs exist to compensate county governments for the presence of federal lands. These programs can represent a significant portion of local government revenue in rural counties with large federal land holdings.<sup>35, 36</sup>

Before 1976, federal payments were linked directly to receipts generated on public lands. Congress funded PILT with appropriations beginning in 1977 in recognition of the volatility and inadequacy of federal revenue sharing programs. PILT was intended to stabilize and increase federal land payments to county governments. More recently, the Secure Rural Schools and Community Self-Determination Act of 2000 (SRS) decoupled USFS payments from commercial receipts. SRS received broad support because it addressed several major concerns around receipt-based programs--volatility, the payment, and the incentives provided to counties by linking federal land payments directly to extractive uses of public lands.

PILT and SRS each received a significant increase in federal appropriations in FY 2008 through the Emergency Economic Stabilization Act of 2008. Despite the increased appropriations, SRS is authorized only through FY 2011, PILT only through FY 2012, and federal budget concerns are creating uncertainty for the future of both.<sup>37</sup>

**Data Limitations:** Local government distributions of federal land payments may be underreported due to data limitations from USFWS, ONRR, and some states that make discretionary distributions of mineral royalties and some BLM payments. USFWS data limitations are relatively insignificant at the federal level, but may be important to specific local governments with significant USFWS acreage. Federal mineral royalties represent a more significant omission in states that share a portion of royalties with local governments.

Data Sources: U.S. Department of Interior. 2016. Payments in Lieu of Taxes (PILT), Washington, D.C.; U.S. Department of Agriculture. 2016. Forest Service, Washington, D.C.; U.S. Department of Interior. 2016. Bureau of Land Management, Washington, D.C.; U.S. Department of Interior. 2016. U.S. Fish and Wildlife Service, Washington, D.C.; U.S. Department of Interior. 2016. Office of Natural Resources Revenue, Washington, D.C.

# National Forest Socioeconomic Indicators

## Combined County Region

### Literature Cited

---

- 1 - Headwaters Economics. 2010. Regional Economic Information System (REIS) Data Compilation and Disclosure Estimation Process. See [headwaterseconomics.org/wphw/wp-content/uploads/REIS\\_Documentation.pdf](http://headwaterseconomics.org/wphw/wp-content/uploads/REIS_Documentation.pdf).
- 2 - Headwaters Economics. 2010. County Business Patterns (CBP) Data Compilation and Disclosure Estimation Process. See [headwaterseconomics.org/wphw/wp-content/uploads/CBP\\_Documentation.pdf](http://headwaterseconomics.org/wphw/wp-content/uploads/CBP_Documentation.pdf).
- 3 - For a glossary of U.S. Census Bureau terms, see: [www.census.gov/popest/about/terms.html](http://www.census.gov/popest/about/terms.html).
- 4 - U.S. Census Bureau Population Estimates Methodology: [www.census.gov/popest/methodology/index.html](http://www.census.gov/popest/methodology/index.html).
- 5 - The employment data are organized according to the North American Industrial Classification System (NAICS) and reported by place of work. For online SIC and NAICS manuals and definitions of industry codes, see: [bls.gov/bls/NAICS.htm](http://bls.gov/bls/NAICS.htm)
- 6 - The definitions of the service sectors can be found in the online NAICS manual available at: [census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007](http://census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007).
- 7 - For a review of the role of public lands amenities and transportation in economic development, see: McGranahan D. 1999. Natural Amenities Drive Rural Population Change. U.S. Dept. of Agricultural, Economic Research Service, Agricultural Economic Report No. 781. [http://www.ers.usda.gov/webdocs/publications/aer781/13201\\_aer781.pdf](http://www.ers.usda.gov/webdocs/publications/aer781/13201_aer781.pdf).
- 8 - To read more about the attraction of highly skilled service workers to places with amenities and quality of life (referred to by some as the "Creative Class"), see: McGranahan DA and Wojan TR. 2007. The Creative Class: A Key to Rural Growth. U.S. Dept. of Agriculture, Economic Research Service. Amber Waves 5(2): 16-21. <http://ageconsearch.umn.edu/bitstream/125533/2/Creative.pdf>.
- 9 - For an overview of how historical changes in employment have affected rural America, see: Whitenar LA and McGranahan DA. 2003. Rural America: Opportunities and Challenges. U.S. Dept. of Agriculture, Economic Research Service. Amber Waves 1(1): 14-21. [https://www.agclassroom.org/teen/ars\\_pdf/social/amber/rural\\_america.pdf](https://www.agclassroom.org/teen/ars_pdf/social/amber/rural_america.pdf).
- 10 - According to projections by the U.S. Department of Labor, from 2008 through 2018 "goods-producing" employment in the U.S. (mining, construction, and manufacturing) will not grow. By 2018, goods-producing sectors will account for 12.9 percent of all jobs, down from 14.2 percent in 2008. In contrast, "service-producing" sectors are expected to account for 96 percent of the growth in new jobs. The fastest growing are projected to be professional and business services, health care, and social assistance. See: Bartsch KJ. 2009. The Employment Projections for 2008-18. Monthly Labor Review 132(11): 3-10 at <http://stats.bls.gov/opub/mlr/2009/11/art1full.pdf>. See also <http://stats.bls.gov/opub/mlr/2012/01/art1full.pdf> for 2010-2020 projections.
- 11 - For additional online manuals and definitions of industry codes, see: <http://www.census.gov/eos/www/naics/>.
- 12 - The Monthly Labor Review Online, published by the Bureau of Labor Statistics, contains several issues related to explaining earnings and wages by industry, sex, and educational achievement. See <http://www.bls.gov/opub/mlr/>.
- 13 - For a comprehensive cost of living index see: <http://livingwage.mit.edu/>.

# National Forest Socioeconomic Indicators

## Combined County Region

### Literature Cited (cont.)

---

- 14 - For an example of why average earnings per job may decline, one study has recently documented that workers would accept lower wages in order to live closer to environmental amenities. See: Schmidt L and Courant PN. 2006. Sometimes Close is Good Enough: The Value of Nearby Environmental Amenities. *Journal of Regional Science* 46(5): 931-951.
- 15 - Lawson M, Rasker R, and Gude P. 2014. The Importance of Non-labor Income: An Analysis of Socioeconomic Performance in Western Counties by Type of Non-labor Income. *The Journal of Regional Analysis & Policy* 44(2): 175-190. [headwaterseconomics.org/wphw/wp-content/uploads/non-labor-manuscript.pdf](http://headwaterseconomics.org/wphw/wp-content/uploads/non-labor-manuscript.pdf).
- 16 - For a glossary of terms used by the Bureau of Economic Analysis, see: [bea.gov/regional/definitions](http://bea.gov/regional/definitions).
- 17 - For U.S. Census Bureau population age data, see: [census.gov/population/age/](http://census.gov/population/age/)
- 18 - On the aging of the population and distribution of the elderly, see also: Frey WH. 2007. Mapping the Growth of Older America. *Living Cities Census Series 2000*. Washington, D.C.: The Brookings Institution. [https://www.brookings.edu/wp-content/uploads/2016/06/0612demographics\\_frey.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/0612demographics_frey.pdf).
- 19 - For more information on unemployment, see related Bureau of Labor Statistics resources at <http://www.bls.gov/lau/>.
- 20 - For more information on business cycles, see the National Bureau of Economic Research at [nber.org](http://nber.org).
- 21 - For research findings on economic resiliency, see: Chapple K and Lester TW. 2010. The resilient regional labor market? The U.S. case. *Cambridge Journal of Regions, Economy and Society* 3:85-104.
- 22 - County of Los Angeles Public Health. 2013. Health Atlas for the City of Los Angeles. <http://healthyplan.la/wordpress/wp-content/uploads/2013/10/Health-Atlas-for-the-City-of-Los-Angeles-July-2013-FINAL-SMALL.pdf>.
- 23 - Wilkinson RG and Marmot MG, eds. 2003. *Social Determinants of Health: The Solid Facts*. Copenhagen, Denmark: World Health Organization. [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0005/98438/e81384.pdf](http://www.euro.who.int/__data/assets/pdf_file/0005/98438/e81384.pdf).
- 24 - Fothergill A and Peek LA. 2004. Poverty and disasters in the United States: A review of recent sociological findings. *Natural Hazards* 32(1): 89-110.
- 25 - Centers for Disease Control and Prevention. 2011. CDC Health Disparities and Inequalities Report — United States, 2011. *Morbidity and Mortality Weekly Report (Supplement / Vol. 60)*. <http://www.cdc.gov/mmwr/pdf/other/su6001.pdf>.
- 26 - North Carolina Institute of Medicine, Prevention for the Health of North Carolina: Prevention Action Plan (October 2009): Chapter 11 Socioeconomic Determinants of Health. <http://www.nciom.org/publications/?prevention>
- 27 - U.S. Social Security Administration. 2016. Understanding Supplemental Security Income (SSI) Overview - 2016 Edition. <https://www.ssa.gov/ssi/text-over-ussi.htm>.
- 28 - USDA Food and Nutrition Service. Supplemental Nutrition Assistance Program, last modified March 14, 2016. <http://www.fns.usda.gov/snap/facts-about-snap>.
- 29 - Foster AC and Hawk WR. 2013. Spending patterns of families receiving means-tested government assistance. *Beyond the Numbers* 2(26). <http://www.bls.gov/opub/btn/volume-2/spending-patterns-of-families-receiving-means-tested-government-assistance.htm>.

# National Forest Socioeconomic Indicators

## Combined County Region

### Literature Cited (cont.)

---

- 30 - Ringquist EJ. 2005. Assessing evidence of environmental inequities: A meta-analysis. *Journal of Policy Analysis and Management* 24(2): 223-247.
- 31 - Fothergill A, Maestas EGM, and Darlington JD. 1999. Race, ethnicity and disasters in the United States: A review of the literature. *Disasters* 23(2): 156-173.
- 32 - Cooley H, Moore E, Heberger M, and Allen L. 2012. *Social Vulnerability to Climate Change in California*. Sacramento, CA: California Energy Commission Pub. # CEC-500-2012-013.
- 33 - Colby SL and Ortman JM. 2015. *Projections of the Size and Composition of the US Population: 2014 to 2060*. Washington, D.C.: U.S. Census Bureau.  
<https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>.
- 34 - Smith JC and Medalia C. 2015. *Health Insurance Coverage in the United States: 2014*. Washington, D.C.: U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-253.pdf>.
- 35 - *An Inquiry into Selected Aspects of Revenue Sharing on Federal Lands*. 2002. A report to The Forest County Payments Committee, Washington, D.C. by Research Unit 4802 - Economic Aspects of Forest Management on Public Lands, Rocky Mountain Research Station, USDA Forest Service, Missoula, MT.
- 36 - Gorte RW, Corn ML, and Vincent CH. 1999. *Federal Land Management Agencies' Permanently Appropriated Accounts*. Washington, D.C.: Congressional Research Service Report RL30335.
- 37 - Trends in federal land payments are closely tied to commodity extraction on public lands. For more on the economic importance (in terms of jobs and income) of these activities, see Headwaters Economics' county payments research: [headwaterseconomics.org/county-payments/county-payments-research/](http://headwaterseconomics.org/county-payments/county-payments-research/).