

Jobs and Income

Economic Contributions in 2016

At A Glance



Plumas National Forest

In 2016, the Plumas National Forest supported:

- An estimated **1,670 jobs** (annual average of part time, full time, temporary and seasonal), and
- Around **\$80,538,000** of **labor income** in local communities.



For More Information:

[Economics for Planning website](https://www.fs.fed.us/emc/economics/index.shtml)
(<https://www.fs.fed.us/emc/economics/index.shtml>)



How do National Forests and Grasslands Contribute to Economies?

National Forests and Grasslands provide multiple benefits to the American people and to local communities. They provide clean air and water, preserve cultural resources, and conserve lands for the enjoyment of present and future generations.

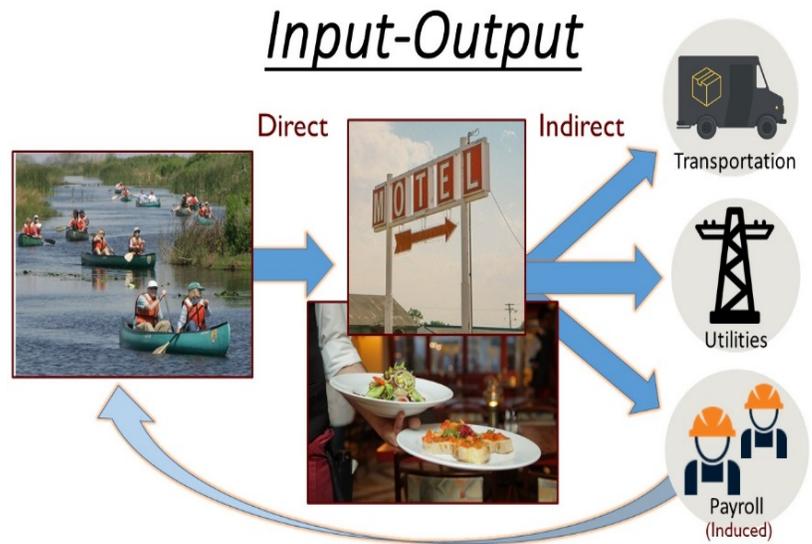
They also support local economies through recreation, timber, energy, minerals, and livestock grazing. In addition, counties with national forests or grasslands receive funds to support schools, road maintenance, and stewardship projects. The Forest Service also invests in such things as the construction and maintenance of infrastructure, environmental restoration, and forest health. In 2016, the sum of these activities on the Plumas National Forest supported approximately 1,670 local jobs and \$80,538,000 in local labor income.

Why Report Jobs and Income?

Residents and local government officials in surrounding communities have interest in how management of the National Forests and Grasslands affects local economies.

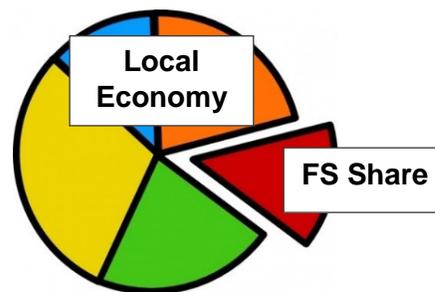
Analysis Methods: How a contribution analysis is constructed

- 1 A software and data package called [IMPLAN](http://www.implan.com) (www.implan.com) is used to characterize the structure of the local economy and how the different pieces of the economy interact (an "Input-Output" model).



- 2 Forest Service data for Program outputs from the Plumas National Forest is added to the model: recreation (including fish and wildlife related), livestock grazing, forest products, energy, minerals, payments to states, and the Forest Service budget.

- 3 The model then estimates the economic links between natural resource management on the Plumas National Forest and local jobs and income.



Resource Management Outputs from Forest Service Lands

National Forests and Grasslands are managed for multiple uses. Table 1 shows the Program outputs which were used to estimate the tie between management actions and economic activity in communities around the Plumas National Forest.

Table 1: Forest Service Resource Outputs by Program for the Plumas National Forest during 2016 (for data sources, see page 8).

Program	Activity	Units of Measure	Output in 2016
Recreation	Wildlife and Fish - Locals	Visits	47,118
		Expenditures (Thousands of \$2016)	\$1,466
	Non-residents	Visits	23,207
		Expenditures (Thousands of \$2016)	\$2,463
	Downhill ski/snowboarding - Locals	Visits	0
		Expenditures (Thousands of \$2016)	\$0
	Non-residents	Visits	0
		Expenditures (Thousands of \$2016)	\$0
	All Other Rec Activities - Locals	Visits	188,289
		Expenditures (Thousands of \$2016)	\$5,710
	Non-residents	Visits	101,386
		Expenditures (Thousands of \$2016)	\$9,884
Grazing	Cattle, Horses, Sheep, Goats	AUMs	32,314
Timber	Sawtimber	CCF	46,633
	Fuelwood	CCF	22,633
	Pulp, Poles, All Other	CCF	7
Value of Minerals & Energy Produced	Energy (coal, oil, gas, geothermal)	(Thousands of \$2016)	\$0
	Minerals	(Thousands of \$2016)	\$2
Payments to States/Counties	25% fund, Secure Rural Schools, Royalties.	(Thousands of \$2016)	\$3,379
	Payments in Lieu of [property] Taxes	(Thousands of \$2016)	\$567

Job Contributions by Program

Jobs supported by the National Forests and Grasslands are often in small, rural communities and are therefore an important contribution to economic and social sustainability. Employment is the estimate of average annual full-time, part-time, temporary, and seasonal jobs. In 2016, the Plumas National Forest supported an estimated 1,670 jobs in the local area. Direct job contributions come from economic activity associated with a Forest Service Program. Secondary job contributions are the ripples of economic activity stimulated by the direct economic activity. Total job contributions are the sum of direct and secondary contributions.

Table 2: Direct and Total jobs supported by the Plumas National Forest in 2016.

Program	Direct Jobs (Avg Annual)	Total Jobs (Avg Annual)
Recreation by Local Visitors	50	70
Recreation by Non-Local Visitors	100	150
Minerals and Energy	0	0
Forest Products	220	460
Livestock Grazing	30	110
FS Resource Mgt Investments	600	830
Payments to States/Counties	40	60



The estimates for Recreation (including wildlife related), Minerals & Energy, Forest Products, and Livestock Grazing estimates include the jobs supported by these programs in the private sector. Non-local recreation visitors bring new money into the economy. Local recreationists spend money that is already counted in the economic statistics for the area so they are tracked independently.

Forest Service Resource Management Investments capture the spending of the National Forest or Grassland's budget on such things as infrastructure construction and maintenance, ecosystem restoration, fuels treatments, salaries, etc.

The Payments to States/Counties estimates the jobs supported by local government investment in such things as roads and schools via funding from programs like the 25% Fund, Payments in Lieu of Taxes and minerals royalties.

NOTE: What is a "job"? **One "job" does not always equal one person.** The job estimates reported here represent the average annual SUM of portions of jobs - part time, full time, seasonal and temporary – that are supported by management of the Plumas National Forest.

Keeping the Focus Local

Labor Income is directly associated with local jobs and business owners. Other measures of income such as Household Income and Total Income include things like investments, rents, and transfer payments that are not tied to Forest Service management decisions so they are not reported here.

As direct and secondary contributions ripple through the economy, Labor Income is supported in a wide variety of sectors not directly affected by resource management decisions.

Labor Income Contributions by Major Program

Labor income is the value of wages, salaries and benefits for wage earners plus income to local business owners. In 2016 Plumas National Forest contributed an estimated \$80,538,000 in labor income to the local area, with 86% going to wages and benefits for local wage earners and 14% going to local business proprietors and partnerships.

Table 3: Direct and Total Labor Income supported by the Plumas National Forest in 2016.

Program	Direct Labor Income (Annual, 1,000 \$2016)	Total Labor Income (Annual, 1,000 \$2016)
Recreation by Local Visitors	\$1,576	\$2,544
Recreation by Non-Local Visitors	\$3,230	\$5,332
Minerals and Energy	\$0	\$0
Forest Products	\$12,007	\$23,662
Livestock Grazing	\$251	\$3,533
FS Resource Mgt Investments	\$31,447	\$42,037
Payments to States/Counties	\$2,446	\$3,429



Job and Labor Income Contributions by Major Economic Sector

Jobs and labor income supported by the National Forests and Grasslands are spread across many local economic sectors. Note that sectors that have the highest employment may not generate the highest labor income and vice versa. Jobs and income are important, but there is a range of other benefits from the national forests and grasslands.

Table 4: Total Jobs and Labor Income supported by the Plumas National Forest in 2016 with local economic area of influence totals for context.

Major Economic Sector	FS Supported Jobs (Avg. annual)	FS Supported Labor Income (1,000 \$2016)	Area of Influence Jobs (Avg. annual)	Area of Influence Labor Income (1,000 \$2016)
Total	1,670	\$80,538	2,090,883	\$121,145,393
FS Percent of Area of Influence	0.1%	0.1%		
Accommodation & Food Servs	160	\$4,541	165,075	\$4,408,030
Admin, Waste Mgt & Rem Servs	60	\$1,859	135,526	\$4,748,905
Agriculture	230	\$8,895	53,111	\$2,096,882
Arts, Entertainment, and Rec	30	\$636	46,408	\$1,368,413
Construction	20	\$1,009	126,507	\$7,779,564
Private Educational Services	10	\$357	27,023	\$842,541
Finance & Insurance	30	\$2,173	94,289	\$5,800,789
Health Care & Social Assistance	80	\$5,060	240,399	\$14,995,771
Information	10	\$771	23,068	\$1,844,461
Local, State, & National Gov't	470	\$27,791	358,928	\$36,035,454
Manufacturing	110	\$6,347	84,890	\$5,767,729
Mining	0	\$22	7,355	\$209,902
Mgt of Companies	10	\$1,130	19,451	\$1,955,736
Other Services	50	\$2,316	124,361	\$5,537,434
Prof, Scientific, & Tech Services	180	\$7,889	146,789	\$10,805,586
Real Estate & Rental & Leasing	40	\$798	99,111	\$1,747,128
Retail Trade	110	\$3,782	74,312	\$3,688,684
Transportation & Warehousing	40	\$2,226	197,888	\$6,869,697
Utilities	0	\$265	5,070	\$803,912
Wholesale Trade	40	\$2,670	61,323	\$3,838,777

Additional Information

Contact Us:

For general inquiries, [contact the Washington Office EMC social scientists and economists: \(socioeconomics@fs.fed.us\)](mailto:socioeconomics@fs.fed.us).

For local inquiries, please see the [list of regional social science and economics contacts](https://www.fs.fed.us/emc/economics/contactus.shtml) (<https://www.fs.fed.us/emc/economics/contactus.shtml>).

Useful Links:

Additional information on economic contributions and benefits to people is available on the [Economics for Planning website](http://www.fs.fed.us/emc/economics/index.shtml) (<http://www.fs.fed.us/emc/economics/index.shtml>).

- General information about the use of economics in the Forest Service.
- At a Glance reports and Story Maps for all national forests and grasslands covering Jobs and Income and Benefits to People.
- [Frequently Asked Questions](#) and a [Glossary](#) are also available.

[The National Visitor Use Monitoring Program](https://www.fs.fed.us/recreation/programs/nvum/) has detailed information on recreation visitation (<https://www.fs.fed.us/recreation/programs/nvum/>).

[The “Headwaters Economics” website](http://www.headwaterseconomics.org/) (<http://www.headwaterseconomics.org/>) maintains several useful reports including [National Forest Socioeconomic Indicators](http://www.headwaterseconomics.org/tools/forest-indicators) (www.headwaterseconomics.org/tools/forest-indicators) - area profiles that can be consulted for a deeper dive into the social and economic characteristics of the area. There are also reports which include important information for consideration of outreach and effects to Environmental Justice populations.

Data Sources:

- Recreation data are from the [National Visitor Use Monitoring Survey](https://www.fs.fed.us/recreation/programs/nvum/) (<https://www.fs.fed.us/recreation/programs/nvum/>), Round 4.
- Grazing Animal Unit Months (AUM) data are found in the [Rangeland Management Reports](https://www.fs.fed.us/rangeland-management/reports/index.shtml) (<https://www.fs.fed.us/rangeland-management/reports/index.shtml>)
- Timber Harvest data are found in the [Forest Service Forest Management Cut and Sold Reports](https://www.fs.fed.us/forestmanagement/products/cut-sold/index.shtml) (<https://www.fs.fed.us/forestmanagement/products/cut-sold/index.shtml>)
- Minerals and Energy Revenues are reported by the [Office of Natural Resources Revenue](https://www.onrr.gov/) (<https://www.onrr.gov/>)
- Federal Revenues which are returned to the States and Counties are found on the [Payments to States website](https://www.fs.usda.gov/pts) (<https://www.fs.usda.gov/pts>) and [Payments in Lieu of Taxes website](https://www.doi.gov/pilt/) (<https://www.doi.gov/pilt/>)