

Society, Culture, and Economy

Introduction

The Modoc National Forest is located in portions of three northern California counties: Modoc, Lassen and Siskiyou. Table 1 reports the total county size in acres and the proportion of land base in the Modoc National Forest. Additionally, since the Modoc National Forest is bordered by Oregon to the north, two Oregon counties have important interactions with the Forest both socially and economically. Cities and towns in Lake and Klamath Counties serve as bedroom communities for people working and recreating on the Modoc National Forest, and also provide important shopping outlets for residents nearby the Forest to purchase goods and services. In addition, several Forest products harvested on the national Forest are processed by facilities located in those Oregon counties. Thus, both Lake and Klamath counties are included in the Modoc National Forest Study Area and can be included in the Modoc National Forest region area. (Wilson Draft, 2008).

Table 3-6. Acres of Modoc National Forest Lands, by County

County	Total Acres ¹	Modoc NF Acres ²	Percent of County
Modoc	2,689,920	1,378,994	83%
Lassen	3,020,800	156,375	9%
Siskiyou	4,062,080	128,032	8%

¹ Total acres calculated as total square miles in the county multiplied by 640 acres per square mile. Total square miles reported in <http://en.wikipedia.org>.

² Source: USDA Forest Service FS-383, January 2008

In relation to some of the more metropolitan counties in California, the counties in the Modoc Study Area are very rural. Thus, interactions between the Forest and local communities are likely to be very important for the social and economic well-being of the area. The three California counties (Modoc, Lassen, and Siskiyou) are very different in terms of proximity to the Forest, demographics, economic base and tax structure than the Oregon counties (Lake and Klamath). Nonetheless, the Oregon counties provide important services for residents of the local area and resource production on the Forest (Wilson Draft, 2008).

Population and Demographics

Historical Background

People have lived in the Modoc National Forest (MDF) region for thousands of years. (See Cultural Resources, Chapter 3)

Today people in the MDF Region derive their livelihood in diverse ways. Ranching is still an important component of the community, and many of the families that are ranching today have historic roots in the area. Many of the American Indian families are also descended from historic families. The Forest currently has active logging, mining and recreation use. Exploration is occurring for geothermal, wind and hydroelectric resources. Permits are also issued for grazing, firewood cutting and other special uses.

Current Population and Growth Trends

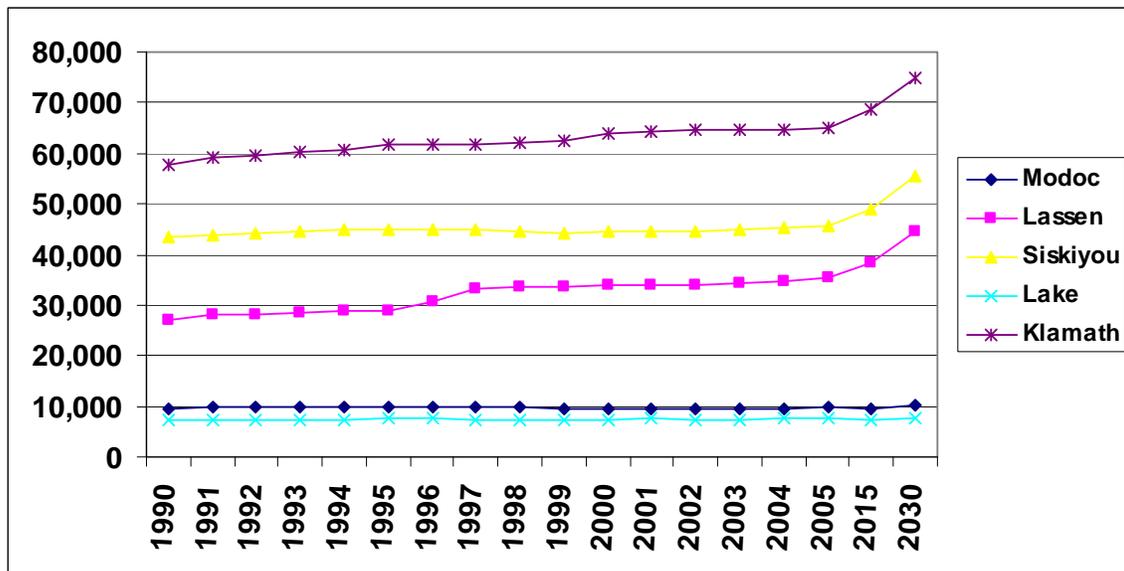
Population, age and racial distributions of counties are important socioeconomic considerations in land management planning. The following sections highlight demographic trends in the five-county study area. Population forecasts provide a projection of future population levels, which may help to indicate whether there may be the potential for increased pressures for uses and recreational opportunities on the Modoc National Forest. Age distributions provide insights into the socioeconomic dynamic in the local area in terms of assessing the proportion of individuals in the working age group versus retirees and minors who typically use local services in different ways. Similarly, the racial composition of the local area may affect the cultural and heritage uses of public lands (Wilson Draft, 2008).

Population

The following section highlights trends and considerations of the five counties surrounding the Modoc National Forest. Population projections predict what the population levels may be in the future. These numbers help to indicate whether there is the potential for increased pressures for uses and recreational opportunities on the national Forests. Future population demands may increase the desire for different travel management patterns dependent upon desired uses, recreational opportunities and values (Cordell and Overdeest, 2001). Population increases may lead to conflicts over Forest uses, travel management, recreation activities and values; these are conflicts that Forest Service managers may have to contend with and attempt to balance in land management decisions (Wilson Draft, 2008).

Figure 3-1 reports the population in the five-county area from 1990 to 2005, along with projections out to 2030. In recent years populations have remained relatively stable; Modoc and Lake Counties have experienced minimal population growth, while Klamath, Siskiyou and Lassen Counties have had slow, but steady, growth since 1990. There have been no sharp increases or decreases in population to suggest significant changes in the economic or social structure of the counties. Growth rates in each county are very slow; and Modoc, Lassen, and Lake Counties all experienced negative growth during some of the years. (Wilson Draft, 2008)

Figure 3-1. Population Estimates ¹ and Projections ² for Modoc National Forest Study Area Counties



¹ Population estimates for California counties provided by the Center for Economic Development, CSU Chico. Population estimates for Oregon counties provided by the Oregon Employment Department.

² Population forecasts for California counties provided by the Center for Economic Development, CSU Chico. Population forecasts for Oregon counties provided by the Oregon Office of Economic Analysis.

Some rural areas in California and Oregon have seen substantial population growth in recent years due to the attraction of nearby natural amenities. Many retirees have left more congested areas to be closer to the visual and recreational amenities offered by National Forest System (NFS) lands. In the case of the Modoc National Forest, nearby counties have been experiencing slow growth. This is likely due to the remoteness of the area and immense distance from metropolitan centers. Furthermore, retirees often demand medical services not readily available in Modoc County, which may be a cause of the slower population growth in that County (Wilson Draft, 2008).

Age Distribution of the Population

The age distribution of the local population can have various influences over the demands for, and participation in, activities on national Forests. Different age groups are likely to participate in different natural resource-based activities. The median age in each county of this region is higher than the median age for their respective states (Table 3-7). This suggests that residents in the Modoc National Forest study area are older than residents in more metropolitan areas of California and Oregon. This is likely due to there not being adequate job opportunities in the area to draw a younger demographic. (Wilson Draft, 2008).

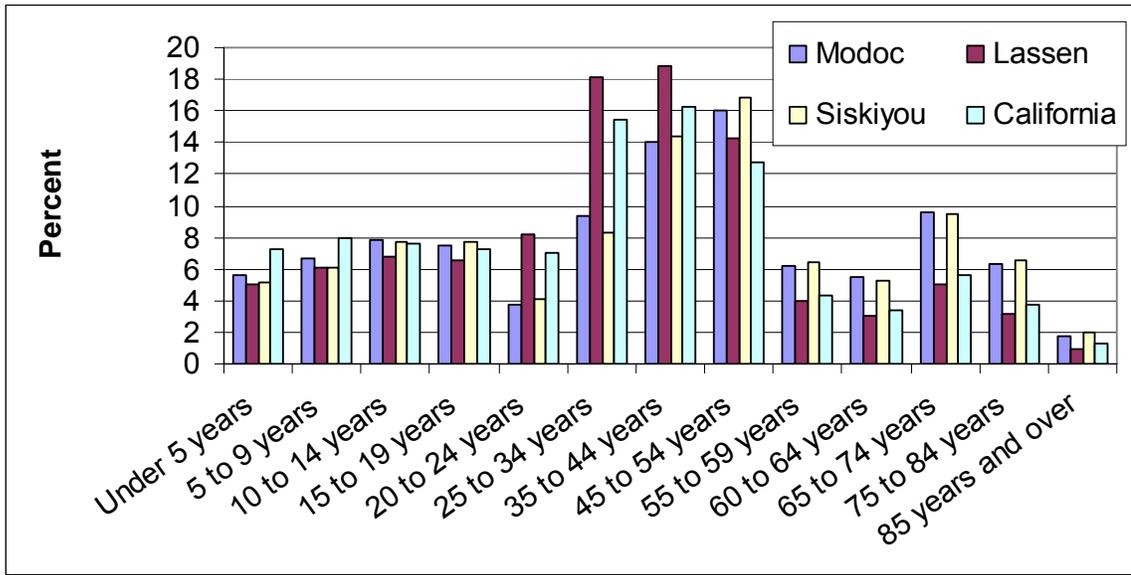
Table 3-7. Median Age by State and County

State of California	33.3
Modoc County	41.8
Lassen County	34.6
Siskiyou County	43.0
State of Oregon	36.3
Lake County	42.7
Klamath County	38.2

Source: US Census 2000

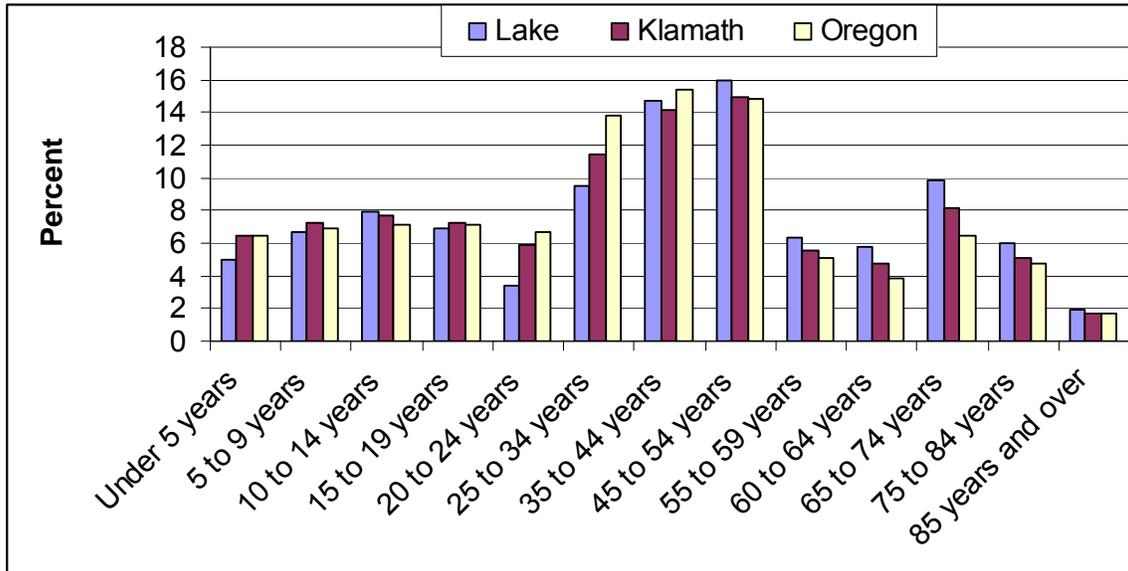
In terms of the distribution of age groups, all counties in the Modoc National Forest study area are predominantly middle aged. Figures 3-2 and 3-3 report the age distribution for California and Oregon Counties respectively. In all counties there is a slight decline in the percentage of residents in the 15- to 19-year old age group and the 20- to 24-year old age group. This is likely due to the lack of higher education facilities in the immediate vicinity of the Modoc National Forest, and lack of employment opportunities for laborers in that age group. Most individuals in each county lie within the 25- to 54-year old age group; suggesting that the majority of residents in the study area are of working age and likely dependent on their employment status to support themselves. Those areas with an older population typically have a higher percentage of retirees, and are thus less dependent on local employment conditions due to the influence of transfer payments from outside the local region. Modoc and Siskiyou Counties in California, and Lake County, Oregon have a substantial proportion of individuals over the age of 65, more so than the states as a whole. (Wilson Draft, 2008)

Figure 3-2. Age Distribution in California, by County



Source: US Census 2000

Figure 3-3. Age Distribution in Oregon, by County



Source: US Census 2000

Ethnicity

Table 3-5 reports the racial distribution for the five-county analysis area. The vast majority (86 percent) of residents around the Modoc National Forest are Caucasian. This is a very different ethnic composition than the state average for both California and Oregon. Table 3-8 reports the racial percentages for the five counties in the analysis area and their respective states. California is a more ethnically diverse state than Oregon. Oregon’s population is nearly 87 percent

Caucasian, where California is just under 60 percent. Over 34 percent of California’s population comes from a Hispanic origin versus 8 percent in Oregon. At the county level, all counties have a higher percentage of Caucasian residents than their respective states. Of the five counties, Lassen is the most ethnically diverse with nearly 20 percent of the population being something other than Caucasian. The Modoc National Forest region has had large American Indian population. In the five county area, American Indians and Pacific Islanders make up 3.8 percent of the total population. At the individual county level, Modoc and Klamath counties have the highest proportions of American Indians, both at 4.2 percent (Wilson Draft, 2008).

Table 3-8. Racial Percentages of Total Population by County and State, Census 2000

	Total Population	White	Black/ African-American	Am. Ind. & Alaska Native	Asian/ Pacific Islander	Other Race	Hispanic Origin (of any race) ¹
California	33,871,648	59.5	6.7	1	11.2	16.8	32.4
Modoc	9,449	85.9	0.7	4.2	0.7	5.7	11.5
Lassen	33,828	80.8	8.8	3.3	1.1	3.2	13.8
Siskiyou	44,301	87.1	1.3	3.9	1.3	2.8	7.6
Oregon	3,421,399	86.6	1.6	1.3	3.2	4.2	8
Lake	7,422	91	0.1	2.4	0.8	3.2	5.4
Klamath	63,775	87.3	0.6	4.2	0.9	3.4	7.8

Source: US Census 2000

¹ People of Hispanic origin may identify with any race (<http://www.census.gov/population/www/socdemo/compraceho.html>). Because of this, summing the ethnic distribution in an area often results in a sum of greater than 100%; this is the case in Table 4

American Indian Rights and Interests: Affected Environment

Laws Pertaining to American Indian Tribes

Laws pertaining to the rights of Federally recognized American Indian tribes acknowledge that these tribes have specific rights and interests, many unlike those accorded to other governments. An important distinction in U.S. law is that Federally recognized American Indian tribes are not a special interest group; they are sovereign governments distinct from Federal and state governments. This legal standing confers government-to-government relations between the Federal Government and each Federally recognized tribe. Powers that Federal laws do not expressly limit remain inherent powers of individual tribes. Reservations, rancherias, and Indian colonies all make up “Indian Country” as defined in the 1948 Indian Country Statute. American Indian governments have jurisdiction and authority over resources on Indian Country lands. On lands outside Indian Country, rights reserved for tribal governments may include rights to hunt and fish; rights to gather traditional plants, mushrooms, and lichens; and rights to water.

Federal policy for tribes emphasizes self-determination and government-to-government relationships. Table 3-9 lists major laws that shape how the Federal Government supports tribal self-determination interests and government-to-government consultation. In addition, a long tradition of case law has defined reserved rights for American Indians, including water rights and trust responsibility of the Federal Government, among others (Getches et al. 1998).

Table 3-9. Federal Laws Relevant to American Indian Concerns Regarding National Forest Management

Law	Purpose
National Environmental Policy Act of 1969	Requires consideration of effects on cultural values and diversity.
American Indian Religious Freedom Act of 1978, as amended in 1994	Protects Indian religious practices and access to sacred sites.
Federal Land Policy and Management Act of 1976	Coordinates with Indian tribes to inventory, plan, and manage resources of value to tribes.
National Historic Preservation Act of 1976	Accounts for impacts of management on prehistoric and historic sites.
Archeological Resources Protection Act of 1979, as amended in 1992	Protects archeological resources and requires that affected tribes be notified if archeological studies might harm or destroy culturally or spiritually important sites.
American Indian Graves Protection and Repatriation Act of 1990	Requires consultation with tribes about disposition of American Indian remains, funerary objects, and other cultural relics.

American Indian groups exert influences at national, regional, and local levels. For this Draft Environmental Impact Statement (DEIS), their influence is most pronounced at the local level. There are six Indian tribes and communities residing in or near the Modoc National Forest. Indian people make up approximately 3.8 percent of the total population within the Modoc National Forest region. This is high compared to the statewide average, which is .5 percent. The Forest Service consults with Federally recognized tribes, non-recognized tribes, organizations, and individuals to comply with the laws displayed in Table 3-9.

American Indians and the Modoc National Forest

The six Federally recognized tribes of concern for this analysis area are as follows (the tribes of origin for each separate entity are stated in parentheses):

1. Alturas Indian Rancheria, California (Pit River)
2. Cedarville Rancheria, California (Northern Paiute)
3. Fort Bidwell Indian Community, California (Northern Paiute)
4. Susanville Indian Rancheria, California (Pit River)
5. Pit River Tribe, California
6. Klamath Tribes, Oregon (Klamath, Modoc and Yahooskin)

There are also two unrecognized tribes in the area: (1) the Shasta Tribe and (2) the Confederate Bands of Shasta and Upper Klamath River Indians (Skye, 2008). The American Indian Indians living in or around the Modoc National Forest live throughout the five county area and have a significant ongoing interest in the management of the Forest.

Special Lands and Associated Activities

Contemporary American Indian uses of the Forest include cultural and spiritual events, food gathering, collection of medicinal plants, and the collection of basketry materials (<http://www.fs.fed.us/r5/modoc/about/modoc-history>). Several places on the Forest serve as traditional cultural properties; seven of which are listed the National Register of Historic Places (NRHP). Many more may be considered for listing in the future. Additionally, there are several

species of plants on the Forest that have been identified as culturally significant by local American Indian groups (Skye, 2008).

Often, important places to local American Indians are those that supply native foods or provide a spiritual connection to the land. Harvesting of native foods is very important to local tribes. Modoc National Forest lands provide wild plums, berries, bulbs, and many other food sources vital to their diet. Traditional food sources serve to regulate health conditions of many American Indians (Martinez, 2008). For example, a diet of traditional food sources is believed to aid in the regulation of blood pressure. As American Indians have been forced to get away from traditional foods, negative health effects have been encountered; diabetes is one chronic condition affecting many American Indians forced away from traditional foods (Martinez, 2008). Thus, the availability of Federal lands for food harvesting is an important issue to tribes in the Modoc National Forest study area.

Local tribes may use Modoc National Forest lands for a variety of activities. Certain sites on the Forest serve as a social gathering place for tribal communities, allowing them opportunities for spiritual rejuvenation, hunting, fishing, harvesting a variety of wild crops, food processing, construction and trade of arts and crafts, education, and preservation of family ties (Allison, 1994). Allison (1994) concludes that access to areas that provide different cultural and economic functions are “fundamental to the integrity of the social system and to continuity of cultural values.” The Modoc National Forest may serve as an outlet for such activities, helping local tribes to maintain social and cultural bonds (Wilson Draft, 2008).

Importance of National Forest Lands and Resources to American Indian People

American Indians have a spiritual connection to the environment and native landscapes. Maintaining this type of relationship with the lands managed by the Modoc National Forest is important to local tribes for passing along knowledge to future generations.

Familiar landscapes can be both cultural and natural to tribes in the Modoc study area, and may serve a symbolic cultural function (Allison, 1994). Such cultural functions may be influenced by the management of the Modoc National Forest. Areas of “major cultural importance” exist in Klamath, Lake and Modoc Counties (Allison, 1994). Maintaining access to such places is important for many local American Indians. Changes to the natural landscape may affect access as well as the occurrence of traditional activities with which local tribes may identify themselves. (Wilson Draft, 2008).

The Pit River Tribal Council was advised by the Modoc National Forest about the Travel Management Guidelines during a scheduled consultation held on Wednesday, 3 September 2008.

¹ Irvin Brown, Tribal Councilman-*Kosealekte* Alternate, stated during the meeting that the plan was acceptable provided that road closures not impede tribal members from accessing sacred sites or traditional cultural properties. ²

Environmental Consequences for American Indian Population

Tribes are likely to continue to use Forest resources for cultural, spiritual and medicinal purposes; and local American Indians consider it very important to be able to maintain the ability to make use of Forest resources in traditional ways. Please see the Environmental Justice piece in this section for further elaboration of effects on American Indian Populations. Also appendix O.

¹ Modoc National Forest, Tribal Relations Program, “Government-to-Government Consultation Standard Form” [Wednesday, 3 September 2008].

² Ibid.

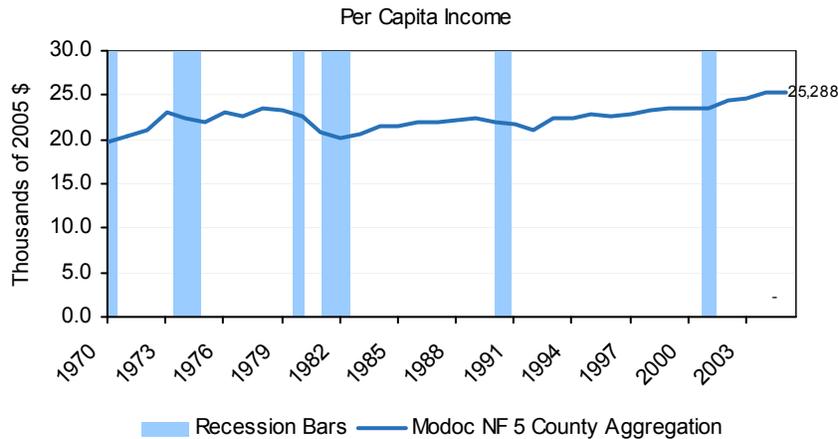
Employment and Income: Environmental Consequences

Per Capita Income

Per capita income is often used as a measure of economic performance, but it should be combined with changes in earnings per job for a realistic picture of economic health:

Since total personal income includes income from 401(k) plans as well as other non-labor income sources like transfer payments, dividends, and rent, it is possible for per capita income to rise, even if the average wage per job declines over time. In other words, non-labor sources of income can cause per capita income to rise, even if people are earning less per job.

Figure 3-4. Per Capita Income for the Modoc Five-County Area



Per capita income, adjusted for inflation, has risen from \$19,752 in 1970 to \$25,288 in 2005. In 2005, per capita income in Modoc NF Five-county Aggregation (\$25,288) was lower than the state (\$36,511) and the nation (\$34,471).

All three of the California counties fall below the poverty line, and Modoc County ranks in the top five most impoverished counties, as measured by individuals below the poverty line.

Table 3-10 reports the number of individuals below the poverty level and poverty rates for the five counties in the study area and their respective states in 2000 and 2005. All counties have poverty rates higher than that of the states. Poverty rates in all counties except Lassen increased from 2000 to 2005. As of 2005, Modoc and Klamath counties have the highest poverty rates in the local region at just over 20 percent. Such poverty rates suggest that a substantial proportion of the existing population should be considered as a low-income group.

Table 3-10. Poverty Status by State and County, 2000 and 2005

State or County	2005		2000	
	Number	Percent	Number	Percent
California	4,669,056	13.3%	4,304,909	12.7%
Modoc County	1,853	20.4%	1,772	19.7%
Lassen County	4,280	16.9%	4,312	17.5%
Siskiyou County	7,771	17.5%	7,235	16.7%
Oregon	497,318	14.1%	361,280	10.6%

State or County	2005		2000	
	Visitors	%	Visitors	%
Lake County	1,305	18.1%	1,134	15.2%
Klamath County	13,062	20.3%	9,072	14.3%

Source: US Census Bureau, Small Area Income and Poverty Estimates

The Forest supports employment opportunities from which local residents may generate income. This includes direct employment for the Federal agencies and the harvest of products from the Forest. Although the numbers may appear to be low when compared to the national levels, the effects to an individual or family may be profound if altered.

National Visitor Use Monitoring (NVUM)

The National Visitor Use Monitoring (NVUM) program provides reliable information about recreation visitors to National Forest System-managed lands at the national, regional, and Forest levels. Information about the quantity and quality of recreation visits is required for national Forest plans, Executive Order 12862 (Setting Customer Service Standards), and implementation of the National Recreation Agenda. To improve public service, the agency’s Strategic and Annual Performance Plans require measuring trends in user satisfaction and use levels. NVUM information assists Congress, Forest Service leaders, and program managers in making sound decisions that best serve the public and protect valuable natural resources by providing science based, reliable information about the type, quantity, quality and location of recreation use on public lands. The information collected is also important to external customers including state agencies and private industry. NVUM methodology and analysis is explained in detail in the research paper entitled Forest Service National Visitor Use Monitoring Process: Research Method Documentation (English et al. 2002) (www.fs.fed.us/recreation/programs/nvum).

The Modoc National Forest participated in the National Visitor Use Monitoring (NVUM) project from October 2004 through September 2005. There were approximately 107,960 national Forest visits on Modoc National Forest during fiscal year 2005. The full Modoc National Forest NVUM report is available from the Natural Resource Information System (NRIS) Human Dimensions Module and can be found in the project record.

Table 3-11 presents participation rates by activity for the Modoc National Forest during the NVUM survey period. The Total Activity Participation (%) column of the table presents the participation rates by activity. Participation rates will exceed 100 percent since visitors can participate in multiple activities. The Percent as Main Activity column presents the participation rates in terms of primary activity.

Table 3-11. Activity Participation on Modoc National Forest (NVUM FY2005 data)

Activity	Activity Emphasis for Road & Trail Use	Total Activity Participation (%) *	Percent as Main Activity (%) **
Snowmobiling	Motorized	1.3%	0.2%
Driving for Pleasure	Motorized	41.5%	17.9%
OHV Use	Motorized	16.9%	0.8%
Other Motorized Activity	Motorized	0.0%	0.0%
Motorized Subtotal			18.86%
Hiking and Walking	Non-motorized	20.3%	2.0%
Bicycling	Non-motorized	1.1%	0.0%
Other Non-motorized	Non-motorized	3.2%	0.2%
Cross-country Skiing	Non-motorized	0.6%	0.4%

Activity	Activity Emphasis for Road & Trail Use	Total Activity Participation (%) *	Percent as Main Activity (%) **
Backpacking	Non-motorized	2.8%	0.6%
Horseback Riding	Non-motorized	0.9%	0.0%
Non-motorized Subtotal			3.3%
Downhill Skiing	Other	0.3%	0.3%
Fishing	Other	47.4%	34.0%
Viewing Natural Features	Other	67.4%	23.1%
Relaxing	Other	57.7%	11.7%
Motorized Water Activities	Other	1.5%	0.0%
Hunting	Other	3.1%	2.6%
Non-motorized Water	Other	2.0%	0.1%
Developed Camping	Other	10.7%	5.5%
Primitive Camping	Other	4.5%	0.2%
Picnicking	Other	24.5%	8.1%
Viewing Wildlife	Other	0.0%	0.0%
Sightseeing	Other	51.0%	5.6%
No Activity Reported	Other	2.5%	3.2%
Resort Use	Other	0.8%	0.6%
Visiting Historic Sites	Other	4.7%	0.9%
Nature Study	Other	3.4%	0.9%
Gathering Forest Products	Other	5.7%	4.1%
Nature Center Activities	Other	3.1%	0.0%
Other Subtotal			100.9%
Total			123.0%

* Survey respondents could select multiple activities, so this column may total more than 100%.

* The number in this column is the percent of survey respondents who indicated participation in this activity.

** Survey respondents were asked to select just one of their activities as their main reason for the Forest visit. Some respondents selected more than one, so this column may total more than 100%.

** The number in this column is the percent of survey respondents who indicated this activity was their main activity.

The primary activity participation rates (Percent as Main Activity) displayed in Table 3-11 were used to estimate use by activity emphasis. The emphasis areas were grouped into those emphasizing non-motorized, motorized, and other activities. Motorized activities were those that used motor vehicles on Forest Service roads and trails. Non-motorized activities still used the Forest’s roads and trails, but on foot or by non-motorized transportation such as cross-country skis or bicycles. All other activities are all the other Forest-based activities measured by the NVUM survey that didn’t use roads or trails to pursue their primary activity. Examples of “other” are downhill skiing, motorized water activities, etc. Motor vehicles may have been used to reach a destination or participate in the activity, but it was not the primary emphasis of the visit. The most popular activities on the Modoc National Forest are fishing, viewing natural features, driving for pleasure, and relaxing.

Table 3-12 displays the number of visits for these activities. The number of visits is based on the primary purpose for the visit (Percent as Main Activity) displayed in Table 3-11 and the total number of visits of 107,960 reported in the Modoc National Forest NVUM report. Users were determined to be either local or non-local based on the miles from the user’s residence to the Forest boundary. If the user reported living within 50 miles of the Forest boundary, he or she is

considered local; if over 50 miles, he or she is considered non-local. It is critically important to distinguish between local and non-local spending as only non-locals bring new money and new economic stimulus into the local community. Local spending is already accounted for in the study area base data. It is impossible to predict how locals would have spent money if they didn't have local recreation opportunities on the national Forest, but it is a safe guess that much of that money would not have been lost to the local economy. People tend to substitute other local recreation activities or change the time or place for continuing the same activity rather than traveling long distances and incurring high costs to do the same activity. The table indicates the most popular non-motorized use is hiking and walking, followed by backpacking. The most popular motorized use is driving for pleasure, followed by OHV use. Table 3-12 indicates that non-local visitors spend more per visit than local visitors primarily because of overnight lodging expenditures. Motorized day use expenditures are generally higher than for non-motorized activities, but non-local overnight visitors engaged in non-motorized activities generally expend more than non-local motorized users (except for snowmobiling). Snowmobilers spend the most per visit, especially non-local visitors.

Table 3-12. Number of Visits, by Activity

	Non-local Day Use	Non-local Overnight	Local Day use	Local Overnight	Non-Primary
Non-motorized					
Hiking & Walking	68	132	624	49	40
Bicycling	0	0	0	0	0
Other Non-motorized	8	16	74	6	5
Cross-country Skiing	14	43	91	7	2
Backpacking	0	43	0	67	4
Horseback Riding	0	0	0	0	0
Motorized					
Snowmobiling	6	7	33	5	5
Driving for Pleasure	449	544	6,204	214	721
OHV Use	36	64	166	49	11
Other Motorized Activity	0	0	0	0	0
Other					
Fishing	1,641	3,114	7,105	1,313	568
Hunting	55	242	676	266	34
Viewing Wildlife	0	0	0	0	0
Motorized Water Activities	0	0	0	0	0
Non-motorized Water	349	506	4,653	189	597
Downhill Skiing	17	28	53	8	3
Developed Camping	22	761	32	719	117
Primitive Camping	0	16	0	25	2
Resort Use	There are no NVUM estimates for trip type segment shares for these activities				
Picnicking					
Viewing Natural Features					
Visiting Historic Sites					
Nature Center Activities					
Nature Study					

	Non-local Day Use	Non-local Overnight	Local Day use	Local Overnight	Non-Primary
Relaxing					
Gathering Forest Products					
Sightseeing					
No Activity Reported					
Subtotal	1,700	4,008	10,202	3,265	879

Table 3-13. Expenditures per visit

	Non-local Day Use	Non-local Overnight	Local Day use	Local Overnight	Non-Primary
Non-motorized					
Hiking/Walking	\$17.62	\$106.96	\$11.11	\$39.55	\$7.41
Bicycling	17.62	106.96	11.11	39.55	7.41
Other Non-motorized	17.62	106.96	11.11	39.55	7.41
Cross-country Skiing	18.93	119.64	14.78	87.39	13.60
Backpacking	0.00	19.09	0.00	24.10	0.00
Horseback Riding	17.62	106.96	11.11	39.55	7.41
Motorized					
Snowmobiling	49.09	128.80	29.57	68.93	28.33
Driving for Pleasure	17.62	66.54	13.33	42.73	10.00
OHV Use	28.57	64.80	19.00	48.50	14.62
Other Motorized Activity	28.57	64.80	19.00	48.50	14.62
Other					
Fishing	21.00	95.65	20.00	48.00	20.00
Hunting	38.10	116.32	30.00	79.47	25.50
Viewing Wildlife	20.80	82.59	10.80	53.75	10.00
Motorized Water Activities	18.52	70.36	15.00	49.20	12.41
Non-motorized Water	18.52	70.36	15.00	49.20	12.41
Downhill Skiing	36.36	117.93	25.24	89.13	27.89
Developed Camping	0.00	50.36	0.00	41.29	0.00
Primitive Camping	0.00	19.09	0.00	24.10	0.00
Resort Use	18.52	70.36	15.00	49.20	12.41
Picnicking	18.52	70.36	15.00	49.20	12.41
Viewing Natural Features	18.52	70.36	15.00	49.20	12.41
Visiting Historic Sites	18.52	70.36	15.00	49.20	12.41
Nature Center Activities	18.52	70.36	15.00	49.20	12.41
Nature Study	18.52	70.36	15.00	49.20	12.41
Relaxing	18.52	70.36	15.00	49.20	12.41
Gathering Forest Products	18.52	70.36	15.00	49.20	12.41
Sightseeing	18.52	70.36	15.00	49.20	12.41
No Activity Reported	18.52	70.36	15.00	49.20	12.41

Economic Effects Analysis Procedures

Economic effects can be categorized as direct, indirect and induced. Direct effects are changes directly associated with spending by a recreation visitor. Indirect and induced effects are the multiplier effects resulting from subsequent rounds of spending in the local economy. Input-output analysis was used to estimate the direct, indirect, and induced employment and labor income effects stemming from motorized and non-motorized use. Input-output analysis (Hewings 1985) is a means of examining relationships within an economy both between businesses as well as between businesses and final consumers. It captures all monetary market transactions for consumption in a given time period. The resulting mathematical representation allows one to examine the effect of a change in one or several economic activities on an entire economy. This examination is called impact analysis. Input-output analysis requires the identification of an economic impact area. The economic area that surrounds the Modoc National Forest used for this jobs and income analysis was three counties in Northern California and two in Oregon surrounding the Modoc National Forest. The counties included in California are Siskiyou, Lassen, and Modoc. The counties included in Oregon are Klamath and Lake.

The IMPLAN Pro input-output modeling system and 2006 IMPLAN data (the most recent data available) were used to develop the input-output model for this analysis (IMPLAN Professional 2004). IMPLAN translates changes in final demand for goods and services into resulting changes in economic effects, such as labor income and employment of the affected area's economy. For the economic impact area, employment and labor income estimates that were attributable to all current recreation use (wildlife and non-wildlife activities), motorized, non-motorized and other activities for the Modoc National Forest were generated.

The expenditure and use information collected by the NVUM survey are crucial elements in the economic analysis. As reported earlier, the NVUM survey collects use and expenditure information for various activity types. The expenditure information is collected by twelve activity groups within four trip segments (non-local overnight trips, non-local day trips, local day trips and local overnight trips) (Stynes and White 2005; Stynes and White 2006). The reported spending for each of the spending categories is allocated to the appropriate industry within the IMPLAN model (the allocation process, also referred to as "bridging," was conducted by the USDA Forest Service, Planning Analysis Group in Fort Collins, CO). The bridged IMPLAN files were used to estimate economic effects (e.g., employment and labor income) related to changes in spending (i.e., changes in spending – technically referred to as changes in final demand - are caused by changes in use).

Estimated Economic Effects

Estimated economic effects (full and part-time jobs and labor income) are presented. Estimated economic effects are displayed in the following ways:

- Direct, indirect and induced employment, and labor income response coefficients by activity type (jobs and labor income per 1,000 visits); and
- Estimated employment and labor income by motorized and non-motorized activity types.

Response Coefficients by Activity Type

Table 3-10 displays the estimated employment and labor income response coefficients (employment and labor income per 1,000 visits) by local and non-local activity types. The response coefficients indicate the number of full and part-time jobs and dollars of labor income per thousand visits by activity type. The response coefficients are useful in (1) understanding the economic effects tied to a given use level; (2) understanding projected employment effects for

various use scenarios (sensitivity analysis); and 3) understanding the differences in employment effects by activity type. The response coefficients displayed in Table 3 -14 along with the visits presented in Table 3-8 were used to estimate the economic effects for local and non-local use by activity type.

Table 3-14 indicates the following: First, economic effects tied to local visitation generate lower employment and labor income effects. This is a result of local visitors spending less per visit in comparison to non-local visitors (see Table 3-9). Second, economic effects vary widely by motorized and non-motorized activity types. The lowest employment effect is tied to local hiking and walking, bicycling, other non-motorized, and horseback riding activities (Note: The economic effects are identical for these categories since they share the same spending profile). Third, the largest economic effect is associated with non-local cross-country skiing, but is followed fairly closely by non-local snowmobiling. In general, economic effects vary by the amount of spending and by the type of activity, but it cannot be generalized that motorized or non-motorized activities contribute more or less to the local economy on a per-visit basis. It is also important to be careful with the use of response coefficients. They reflect an economic structure that is a snapshot in time; that is, they are not applicable to visitation numbers that are dramatically different from current recreation levels. If recreation activities or visits were to change radically, there would be a structural shift in the economy as spending patterns changed, and these response coefficients would no longer reflect underlying economic processes.

Table 3-14. Employment and Labor Income Response Coefficients, by Activity Type

		Employment (Jobs per 1,000 Party-Trips)		Labor Income (2006 dollars) (\$ per 1,000 Party-Trips)	
		Direct Effects	Indirect & Induced Effects	Direct Effects	Indirect & Induced Effects
Non-motorized Use					
Hiking & Walking, Bicycling, Horseback Riding, Other Non- motorized	Local Day	0.175	0.057	\$4,050	\$1,658
	Local OVN	0.755	0.241	15,684	7,372
	Non-Local Day	0.347	0.101	7,831	2,797
	Non-Local OVN	1.598	0.473	33,486	13,970
	NP	0.175	0.057	4,050	1,658
Backpacking	Local Day			0	0
	Local OVN	0.629	0.221	14,578	6,775
	Non-Local Day			0	0
	Non-Local OVN	0.744	0.241	17,226	7,136
	NP	0.629	0.221	14,578	6,775
Motorized Use					
OHV Use	Local Day	0.370	0.121	8,575	3,602
	Local OVN	0.641	0.211	14,347	6,417
	Non-Local Day	0.425	0.139	9,917	4,113
	Non-Local OVN	1.069	0.351	23,907	10,693
	NP	0.370	0.121	8,575	3,602
Driving	Local Day	0.192	0.059	4,411	1,718
	Local OVN	0.842	0.242	16,582	7,287
	Non-Local Day	0.275	0.085	6,323	2,463

		Employment (Jobs per 1,000 Party-Trips)		Labor Income (2006 dollars) (\$ per 1,000 Party-Trips)	
		Direct Effects	Indirect & Induced Effects	Direct Effects	Indirect & Induced Effects
Snowmobile	Non-Local OVN	1.403	0.403	\$27,638	\$12,145
	NP	0.192	0.059	4,411	1,718
	Local Day	0.529	0.173	12,403	5,122
	Local OVN	1.553	0.449	30,386	13,519
	Non-Local Day	0.829	0.264	19,128	7,637
	Non-Local OVN	2.589	0.748	50,644	22,533
	NP	0.529	0.173	12,403	5,122
Cross-Country Ski	Local Day	0.342	0.100	6,755	2,968
	Local OVN	1.638	0.490	32,853	14,907
	Non-Local Day	0.491	0.144	9,686	4,255
	Non-Local OVN	2.729	0.816	54,747	24,845
	NP	0.342	0.100	6,755	2,968
All Other Use					
All Other Activities*	Local Day	0.280	0.098	7,643	2,668
	Local OVN	0.852	0.326	25,501	8,942
	Non-Local Day	0.465	0.149	11,329	4,105
	Non-Local OVN	1.390	0.493	38,997	13,416
	NP	0.280	0.098	7,643	2,668

*All Other Activities includes Developed Camping, Primitive Camping, Resort Use, Picnicking, Viewing Natural Features, Visiting Historic Sites, Nature Center Activities, Nature Study, Relaxing, Fishing, Hunting, Motorized Water Activities, Non-motorized Water, Downhill Skiing, Gathering Forest Products, Viewing Wildlife, Sightseeing, and No Activity Reported.

Motorized and Non-motorized Use

Table 3-15 displays the estimated employment and labor income effects for current use levels reported by NVUM for local and non-local non-motorized and motorized activities. Table 3-15 expresses these employment and labor income effects as a percent of total employment and income for each activity. In general, the estimated economic effects are a function of the number of visits and the dollars spent locally by the visitors. For example, non-local users typically spend more money per visit than local users. Also, activities that draw more users would be responsible for more economic activity in comparison to activities that draw fewer users, holding constant spending per visit. Given that the analysis is dependent on visitation and expenditure estimates, any changes to these estimates affect the estimated jobs and labor income.

Table 3 -15 indicates that approximately one total average annual jobs in the five-county area (direct, indirect and induced, full-time, temporary, and part-time) and \$21,019 total labor income (direct, indirect and induced) are attributable to non-motorized visitation on the Modoc National Forest. The two largest activities among those in the table are hiking and walking and cross-country skiing, together these account for about 1.8 percent of the jobs and 1.5 percent of the income generated from the activities analyzed. These activities account for about one job and provided \$17,025 in labor income to the five county area.

Motorized activities were responsible for approximately three total jobs (direct, indirect and induced) and \$78,608 total labor income (direct, indirect and induced). The two largest motorized uses are OHV Use and driving for pleasure. These two activities contribute about 8.3 percent of

the jobs from the activities in the table, and provide about 6.2 percent of the labor income. Together these two activities contribute three jobs and provide about \$77,118 in labor income to the area.

“All Other Activities” (see Table 3-7 for a list) are significant economic contributors for the activities studied. They provide 34 jobs, or 89 percent of the jobs from the activities analyzed. Labor income is about \$252,838, or 90 percent of the income generated by these activities.

Table 3-15 shows that about 2 percent of the jobs provided from these activities are from non-motorized use, 9 percent from motorized use and 90 percent from “Other Activities.” The contributions to labor income are 2 percent non-motorized use, 7 percent motorized use and 90 percent from “Other Activities.”

Table 3-15. Employment and Labor Income Effects by Activity Type

	Employment (full- & part-time jobs)		Labor Income (2008 dollars)	
	Direct	Indirect & Induced	Direct	Indirect & Induced
Non-Motorized Use				
Backpacking - Local	<0.1	<0.1	\$1,004	\$467
Non-local	<0.1	<0.1	776	321
Hiking and Walking - Local	<0.1	<0.1	3,403	1,441
Non-local	<0.1	<0.1	5,115	2,101
Horseback Riding - Local	<0.1	<0.1	<0.1	<0.1
Non-local	<0.1	<0.1	<0.1	<0.1
Bicycling - Local	<0.1	<0.1	<0.1	<0.1
Non-local	<0.1	<0.1	<0.1	<0.1
Cross-country Skiing - Local	<0.1	<0.1	862	382
Non-local	<0.1	<0.1	2,561	160
Other Non-motorized - Local	<0.1	<0.1	402	170
Non-local	<0.1	<0.1	605	248
Total Non-motorized	1	<0.1	\$14,729	\$6,291
Subtotal		1		\$21,019
	Employment (full- & part-time jobs)		Labor Income (2008 dollars)	
	Direct	Indirect & Induced	Direct	Indirect & Induced
Motorized Use				
OHV Use - Local	0.1	<0.1	\$2,197.9	\$943
Non-local	0.1	<0.1	1,951.4	861
Driving for Pleasure - Local	1.4	0.4	32,006	12,653
Non-local	0.9	0.3	18,516	7,990
Snowmobiling - Local	<0.1	<0.1	567	239
Non-local	<0.1	<0.1	477	207
Other Motorized Activity - Local	<0.1	<0.1	0	0

	Employment (full- & part-time jobs)		Labor Income (2008 dollars)	
	Direct	Indirect & Induced	Direct	Indirect & Induced
Non-local	<0.1	<0.1	0	0
Total Motorized	2	1	\$55,716	\$22,893
Subtotal	3		\$78,608	
	Employment (full- & part-time jobs)		Labor Income (2008 dollars)	
	Direct	Indirect & Induced	Direct	Indirect & Induced
All Other Use				
All Other Activities - Local	11	4.10	\$332,448	\$116,280
Non-local	14	5	394,580	136,559
Total Other	25	9	\$727,028	\$252,839
Subtotal	34		\$979,866	
Grand Total	28	10	\$797,472	\$282,022
Grand subtotal	38		\$1,079,494	

Table 3-16. Percent of Total Employment and Labor Income Effects, by Activity Type

	Employment (% of full- & part-time jobs)		Labor Income (2008 dollars) (% of Total Income)	
	Direct	Indirect & Induced	Direct	Indirect & Induced
Non-Motorized Use				
Backpacking - Local	0.1%	0.0%	0.1%	0.0%
Non-local	0.1%	0.0%	0.1%	0.0%
Hiking and Walking - Local	0.4%	0.1%	0.3%	0.1%
Non-local	0.6%	0.2%	0.5%	0.2%
Horseback Riding - Local	0.0%	0.0%	0.0%	0.0%
Non-local	0.0%	0.0%	0.0%	0.0%
Bicycling - Local	0.0%	0.0%	0.0%	0.0%
Non-local	0.0%	0.0%	0.0%	0.0%
Cross-country Skiing - Local	0.1%	0.0%	0.1%	0.0%
Non-local	0.3%	0.1%	0.2%	0.1%
Other Non-motorized - Local	0.0%	0.0%	0.0%	0.0%
Non-local	0.1%	0.0%	0.1%	0.0%
Total Non-motorized	1.7%	0.5%	1.4%	0.6%

	Employment (% of full & part-time jobs)		Labor Income (2008 dollars) % of Total Income	
	Direct	Indirect & Induced	Direct	Indirect & Induced
Motorized Use				
OHV Use - Local	0.2%	0.1%	0.2%	0.1%
Non-local	0.2%	0.1%	0.2%	0.1%
Driving for Pleasure - Local	3.6%	1.1%	3.0%	1.2%
Non-local	2.3%	0.7%	1.7%	0.7%
Snowmobiling - Local	0.1%	0.0%	0.1%	0.0%
Non-local	0.1%	0.0%	0.0%	0.0%
Other Motorized Activity - Local	0.0%	0.0%	0.0%	0.0%
Non-local	0.0%	0.0%	0.0%	0.0%
Total Motorized	6.5%	2.0%	5.2%	2.1%
All Other Use				
All Other Activities - Local	29.6%	10.8%	30.8%	10.8%
Non-local	36.2%	12.7%	36.6%	12.7%
Total Other	65.8%	23.4%	67.3%	23.4%
Totals	74.1%	25.9%	73.9%	26.1%
		100.0%		100.0%

Table 3-17. Total Employment and Labor Income Effects

		Employment Effects	Labor Income
		(Full- and part-time jobs)	(2008 dollars)
Total Non-Motorized Use	Local	0.2	\$2,460.00
	Non-Local	0.4	3,830.80
Total Motorized Use	Local	1.5	13,834.80
	Non-Local	1.0	9,057.80
Total All Other Use	Local	11.3	116,279.80
	Non-Local	13.8	136,558.70
Total	Local	13.0	132,574.60
	Non-Local	15.2	149,447.30
Total for Area		28.3	\$282,021.90

Table 3-18. Percent of Total Area Employment and Total Area Labor Income Effects

		Employment Effects	Labor Income
		(full- and part- time jobs)	(2008 dollars)
Total Non-Motorized Use	Local	0.000%	0.000%
	Non-Local	0.001%	0.000%
Total Motorized Use	Local	0.003%	0.002%
	Non-Local	0.002%	0.001%
Total All Other Use	Local	0.021%	0.016%
	Non-Local	0.026%	0.019%
	Total Use	0.054%	0.040%

Table 3-18 shows the relationship of jobs and income generated from all recreation activities studied compared to total jobs and income in the five-county area. All of the recreation jobs together only account for about 0.05 percent of the total jobs in the area, and the income generated is about 0.04 percent of the total labor income in the area studied.

Direct, Indirect and Cumulative Economic Effects

The employment and labor income effects stemming from current motorized and non-motorized activities occurring on the Modoc National Forest were estimated. The economic effects of all other types of recreation combined on the Modoc NF have also been reported for comparison purposes. Economic effects tied to motorized and non-motorized activities were estimated to address the economic impact issue tied directly to travel management. Also, the marginal economic effects (employment and labor income effects per 1,000 visits) of motorized and non-motorized use are provided. The marginal effects (also called “response coefficients”) are useful for performing sensitivity analyses of various management alternatives.

Direct and Indirect Effects: If the prohibition of cross-country travel is implemented (Alternative 2, 3, 4 and 5), it may discourage OHV use on the Forest. This could result in a loss of OHV expenditures across the region. However, even if 100% of OHV use ceased on the Forest, this loss is not considered to be economically significant since it results in the loss of .1 job or approximately \$5,000 total labor income and a total annual total revenue to the region of approximately \$11,000. The addition of roads to the system (Alternative 3, 4 and 5) may appeal to users who recreate by driving for pleasure. Changes to the existing system in the form of increased Mixed Use (Alternatives 2 and 5) may appeal to OHV users because it allows for a more continuous loop recreation experience. The overall historical recreation use is very low on the Modoc, and under any alternative the capacity for motorized recreation is very high compared to expected demand.

Cumulative Effects: Based on the data collected from IMPLAN, it is apparent that recreation use generates very little to the overall economy of the region. Also, based on historic data and our best estimates, the Forest assumes that use will not change dramatically in the future because of this project. It is also assumed, that under all action alternatives, levels of use would be relatively static; although the use patterns may change. For example, even though cross-country travel is prohibited in all of the action alternatives, the same levels of use would simply become more concentrated on the roads.

Modoc National Forest is an isolated Forest and although it is possible that use may increase by non-local users because of more restrictive regulations on their local Forest, it is unlikely that it would increase to any significant degree.

Based on the current numbers and these assumptions, the economic effects of this project across all of the alternatives will be insignificant to the economy of the region.

Attitudes, Beliefs, and Values

Modoc National Forest held several open houses which were designed to help the public better understand the project and to gather information and input that could be used to help create alternatives to the Proposed Action. During these open houses and from the scoping letters received on the Proposed Action (Alternative 2) two major perspectives emerged.

One group perceived this action as restrictive in nature. There were three themes expressed by this group: 1) do not close down the Forest 2) add all of the unauthorized roads to the system and 3) expand Mixed Use on Level 3 roads. Several individuals commented on specific roads that they use and have used historically which they would like to have added to the NFTS. There was a feeling of “ownership” of the Forest and the comments received reflected resentment at being restricted on what the public feels are their public lands. There were comments made during the meetings that reflected fear and resentment over not being able to use the lands in the way they were accustomed; such as to make a living or for family recreation.

Another group of commentors expressed the desire to see the Forest be more restrictive and protective of the resources. Almost universally, these commentors asked that we review our entire NFTS and reduce it to a size that is within our means to maintain. There was also a strong emphasis from this group for “quiet use” recreation opportunities and a need to maintain and expand roadless and Wilderness areas.

These concerns captured during the scoping process are documented in the significant issues described in Chapter 1. All five of the significant issues are directly tied to these two major perspectives.

Direct, Indirect and Cumulative Social Effects

Social effects can be difficult to measure because each individual may be affected differently by the same action depending upon their experience and perspective. For example, American Indians use Forest products and landscapes to maintain their cultural heritage, and the local ranching communities have historical ties with the Forest’s resources for production purposes. Alternatively, the recreational opportunities supported by the Modoc NF have implications for the leisure activities participated in by many local residents. Hunting and fishing opportunities are just two of the many activities supported by the Forest that many individuals routinely participate in. There is also a contingent of people using the Forest for motorized recreation in the form of off-highway vehicles (OHVs) and motorcycles. (Wilson Draft, 2008).

Direct and Indirect Effects: If the prohibition of cross-country travel is implemented (Alternative 2, 3, 4 and 5), it may negatively impact OHV users on the Forest. This action may also affect the very young and the very old by preventing them from participating in activities that require strenuous walking for access. This same action may enhance the recreation opportunity for users wishing to experience a “quiet use” form of recreation. What positively affects one faction of users may negatively affect the other. This may cause resentment between user groups but because of the low number of users on the Forest, it is unlikely that this will occur. The addition of roads to the system (Alternative 3, 4 and 5) may appeal to users who recreate by driving for pleasure. Conversely, this may negatively affect “quiet use” users. Again the social implication is that there may be conflict between the groups. Changes to the existing system in the form of increased Mixed Use (Alternatives 2 and 5) may appeal to OHV users because it allows for a more continuous loop recreation experience and not appeal to “quiet users” for the same reason.

Cumulative Effects: Based on historic data and our best estimates, the Forest assumes that use will not change dramatically in the future because of this project. It is also assumed, that under all action alternatives, levels of use would be relatively static; although the use patterns may change. For example, even though cross-country travel is prohibited in all of the action alternatives, the same levels of use would simply become more concentrated on the roads.

Modoc National Forest is an isolated Forest and although it is possible that use may increase by non-local users because of more restrictive regulations on their local Forest, it is unlikely that it would increase to any significant degree.

Based on the current numbers and these assumptions, the possibility of conflict between user groups is probably the most constant cumulative effect socially and may be present regardless of which alternative is chosen. However, based on current and predicted use on the Forest being so low, it is unlikely that such conflict would occur.

Forest Service Budget Projections

Roads

The roads on the Forest are gradually deteriorating due to surfacing being worn out or pushed off the edge of the roads, and by the occurrence of vegetation encroachment. Some of the roads are being encroached upon by brush; and unless the brush is cleared, the roads will eventually become impassable. Drainage concerns are currently being addressed and will continue to be addressed, so environmental degradation associated with erosion is not occurring due to lack of maintenance. There is the possibility that in some cases vegetation encroachment may result in less sight distance for drivers, which may result in a safety concern over time (Parkinson, 2008).

Table 3-19. Construction and Maintenance Budget, by Fiscal Year

Fiscal Year	Road	Trail
FY04	\$814,000	\$89,000
FY05	\$359,000	\$58,000
FY06	\$459,000	\$49,000
FY07	\$800,000	\$29,000
FY08	\$779,000	\$39,000

Projection for fiscal year 2009 is \$688,000 for roads and \$39,000 for trails. It is predicted that the next five years will have similar numbers (Parkinson, 2008).

Timber sale operators perform maintenance on Forest roads each year. This figure will most likely remain at current levels or possibly go up if timber sale and biomass volumes increase.

The majority of the roads on the Forest are maintenance level 2 and do not get regular maintenance unless erosion or damage is occurring.

Forest Budget Effects

Alternative 1 and Alternative 3 do not add any roads to the existing system and continue current management. Therefore the cost for maintenance will remain constant or very similar over the next 5 years. In Alternative 2, 4 and 5 between 286 and 336 miles of road will be added to the system. These roads will be brought in as Level 2 roads and will require no maintenance and we currently do not maintain level 2 roads. Therefore the cost of maintenance will remain constant if

predictions are accurate. Prohibition of cross-country travel and changes in mixed use or season of use are not expected to affect the Forest Budget.

Environmental Justice

As stated in Executive Order 12898, it is required that all Federal actions consider the potential of disproportionate effects on minority and low-income populations in the local region. The principles of environmental justice require agencies to address the equity and fairness implications associated with Federal land management actions. The Council on Environmental Quality (CEQ) (1997) provides the following definitions in order to provide guidance with the compliance of environmental justice requirements:

- “Minority population: Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis...”
- “Low-income population: Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or American Indians), where either type of group experiences common conditions of environmental exposure or effect.”

The five county region which makes up the Modoc National Forest has a large low income and American Indian population compared to the rest of California. Because the existing road system will remain in place on the Forest, it is unlikely that there would be a disproportionate effect on American Indian and low-income populations. The prohibition of cross-country travel may affect the American Indian population by limiting access to areas commonly used for traditional use. This is especially true for the very old and the very young that may not be physically able to participate in these activities if restricted to non-motorized travel. However, the tribes are guaranteed this right under law and the Forest Supervisor will also work with the tribes to ensure access outside of the Travel Management process. Low income users will most likely not be disproportionately affected by this project. Permitted use, such as firewood collection, will still be allowed and therefore should not adversely affect those who rely on this as an income source. The addition of roads to the NFTS will allow for more extensive travel across the Forest. Therefore, Alternatives 2, 4 and 5 would benefit anyone who uses roads for recreation or employment on the Forest. Changes to the existing system in the form of mixed use or seasonal closures will probably not affect either group.