Social and Economic Effects Analysis

Introduction

This section describes the Forests' Social and Economic environment and the potential effects of implementing the various alternatives of the Land and Resource Management Plan. Because of its nature, this subject area is organized differently from other resource areas.

Laws and Regulations

The USDA Forest Service is subject to a variety of laws and regulations for the management of natural resources. These laws and regulations also provide guidance to help the Forest Service fulfill its obligations to the local communities in which National Forests and Grasslands reside. The following is a list of important legal and administrative policy areas to be considered when describing economic and social effects of management actions on local communities.

- The Twenty-Five Percent Fund Act (1908) requires the Secretary of the Treasury to allocate 25% of all fiscal year national forest receipts to the State (or Territory) where the national forest is situated. The distributed funds are to be expended as the State or Territory legislature may prescribe for the public schools or public roads of the county or counties where the national forest is located.
- The National Environmental Policy Act of 1969 (NEPA) requires that consequences to the human environment be analyzed and disclosed. The extent to which these environmental factors are analyzed and discussed is related to the nature of public comments received during the public involvement process, from initial scoping through the preparation of the Final Environmental Impact Statement (FEIS).
- The Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 as amended by the National Forest Management Act (NFMA) of 1976 requires that renewable resource programs be based on a comprehensive assessment of present and anticipated uses. The demand for and supply of renewable resources must be determined through an analysis of environmental and economic impacts. Local community impacts as well as economic cost-efficiency considerations must be considered when revising a forest plan.
- The Payments in Lieu of Taxes Act of 1976 (PILT) authorizes compensation to counties in lieu of property taxes that cannot be levied against federal lands within the counties' jurisdiction.
- Executive Order 12898 requires that planning alternatives be assessed for environmental justice concerns to determine whether or not any of the alternatives disproportionately affect minority and/or low-income populations.
- The Secure Rural Schools and Community Self-Determination Act of 2000 (SRSCS) specifies how states and counties will be compensated for impacts associated with visitors to National Forest System lands.

These laws and other guidelines outline the need for the Chequamegon-Nicolet National Forests to analyze and consider the economic and social effects of the Land and Resource Management Plan on local communities.

The 25% Fund and PILT payments are important sources of revenue for local counties. Recently, Langlade County adopted the Secure Rural Schools and Community Self-Determination Act of 2000 option for payment instead of the 25% Fund or PILT. These revenue sources will be discussed later in this section.

Land Ownership

To better understand the potential impact of the CNNF on local communities, it is necessary to understand the composition of land ownership within the Forests, the distribution of National Forest land in local counties, as well as general land ownership patterns in Wisconsin.

Wisconsin has approximately 35 million acres of land (not counting water bodies). The federal government owns nearly 3 million acres of this total. State, County, and National Forest lands comprise the majority of public lands in northern Wisconsin. State forest lands total approximately 493,000 acres, or about 1.3 % of the total state land base, 2.9% of the state's forest land, 5.3% of the state's commercial forest land, and 12.5% of the public commercial forest land in Northern Forest Region (NFR) of northern Wisconsin (Barish 1995). The Northern Forest Region is the interface between the southern deciduous forests and the northern boreal spruce-fir forests. In Wisconsin, Polk, Barron, Rusk, Taylor, Lincoln, Langlade, and Oconto counties form the NFR's southern boundary.

Twenty-eight counties administer 2.3 million acres of county forests in Wisconsin. County forests in the Northern Forest Region total approximately 1.8 million acres, or about 5.1% of the total state land base, 11.6% of the forest land in the state, 21.3% of the commercial forest land in the Northern Forest Region, and 50.6% of the publicly owned commercial forest land in the Northern Forest Region (Barish 1995).

Table 3-82 displays the ownership of public and tribal lands within the 11 northern counties that contain National Forest land. These counties comprise part of the Northern Wisconsin Economic Impact Area (NWEIA) for economic analysis that will be discussed later in this section.

The Chequamegon-Nicolet National Forests administer approximately 1,520,000 acres. This constitutes approximately 4.4% of the total state land base, 9.9% of the forest land in Wisconsin, 15.5% of the commercial forest land in the Northern Forest Region, and 36.7% of the publicly owned forest land in the Northern Forest Region.

The percentage of National Forest land within each county ranges from a low of 2% in Oneida County to a high of 53% in Forest County. On average, National Forest lands comprise about 21% of the 11 counties that contain National Forest land (USDA FS 1998g). State and county-owned lands comprise about 15% of the land base within these counties (Barish 1995).

The percent of National Forest land in a county is important both socially and economically. 25% Fund, PILT, or SRSCS payments to each county are directly related to the amount of National Forest Land contained within them.

Table 3-82. Ownership of Public and Tribal Lands Within Northern Wisconsin Counties as of 1998 [1]

County	County Acres	NF Acres	Percentage of County Lands in These Ownerships					
			National Forest	State Lands	County Lands	Tribal Lands	Other Federal	Total Percent
Ashland	668,096	180,630	27.0	2.0	5.0	8.0	3.0	45.0
Bayfield	944,896	270,145	29.0	2.0	18.0	1.0	1.0	52.0
Florence	312,384	85,030	27.0	4.0	12.0	0.0	0.0	43.0
Forest	649,024	344,030	53.0	0.5	2.0	2.0	0.0	58.0
Langlade	558,528	32,247	6.0	3.0	23.0	0.0	0.0	32.0
Oconto	638,784	141,353	22.0	1.0	7.0	0.0	0.0	30.0
Oneida	719,808	12,980	2.0	11.0	11.0	0.1	0.0	24.0
Price	801,728	150,676	19.0	4.0	11.0	0.0	0.0	34.0
Sawyer	804,160	126,685	16.0	11.0	14.0	6.0	0.3	47.0
Taylor	624,000	123,913	20.0	1.0	3.0	0.0	0.0	24.0
Vilas	558,592	54,536	10.0	27.0	1.0	5.5	0.0	44.0
Total / Avg	7,280,000	1,520,425	21.0	5.0	10.0	2.0	0.4	38.0

[1] *Source of information: Chequamegon-Nicolet NF Gen. Assessment for Lands and Land Ownership, 1998*

The CNNF is composed of four separate contiguous units: the Nicolet National Forest is approximately 662,000 acres; the Washburn and Great Divide Ranger Districts are approximately 576,000 acres; the Medford Ranger District is approximately 124,000 acres; and the Park Falls Ranger District is approximately 157,000 acres. The average National Forest ownership within these units is 77%. The two largest National Forest units are the largest contiguous areas of public land in Wisconsin. The largest state-owned property is the Northern Highland-American Legion State Forest at 221,788 acres. The largest county property is the Douglas County Forest at 268,000 acres (Barish 1995).

Private land parcels are scattered within the boundaries of the National Forests. Over 1,200 geographically separate inholdings exist within the CNNFs' boundaries. The greatest number and acreage of inholdings occur within the Nicolet National Forest. To further illustrate the landowner composition, Table 3-83 displays acres of non-National Forest land inholdings within the boundaries of contiguous units of the Forests.

Table 3-83. Land Inholdings Within the Boundaries of the Contiguous Units of the Chequamegon-Nicolet National Forest as of 1998[1]

Land Unit [2]	Acres Within Boundary of Unit	Number of Separate Non-NF Parcels	Acres of Non-NF Parcels	% of Unit in Non-NF Parcels	Perimeter Miles of Non-NF Parcels
Nicolet NF	964,971	587	303,082	31	2,595
Medford RD	167,347	95	43,434	26	381
Park Falls RD	178,803	111	21,640	12	328
Great Divide & Washburn R.D's	679,114	421	102,654	15	1,287
Total [3]	1,990,235	1,214	470,810	23.7	4,591

[1] *Source of information: Chequamegon-Nicolet NF General Assessment for Lands and Landownership, 1998*

[2] *The Chequamegon-Nicolet NF have four separate contiguous land units*

[3] *Includes interior boundary lines and the proclamation boundary*

Affected Environment

In order to clarify the effects that the CNNF Land and Resource Management Plan (LMP or Forest Plan) may have on the local communities, the economic and social issues have been organized into several 'Indicators'. These indicators are specific items that can be used to assess the health and economic and/or social stability of communities that are to some degree dependent on the CNNF and its resources. The following section defines these indicators.

Economic Indicators

Indicator #1- 25% Fund, PILT

Laws and regulations passed by Congress require the Forest Service to compensate counties with National Forests or Grasslands within their boundaries for lost tax revenue. This indicator consists of the payments that are made by the Forest Service in compliance with these laws and regulations. Payments are analyzed by alternative and the effects of the different alternatives on the payments to counties are illustrated.

Indicator #2- Income and Employment by EIA (by CNNF Resource Program)

For this indicator, an analysis was performed using the IMPLAN model (described shortly) to better understand the economic effects that Forest Plan alternatives might have on local communities. This analysis looked at the income and employment that can be generated from the Forests' Resource Programs. These measurements were evaluated and presented by alternative.

Indicator #3- Income and Employment by EIA (by major Industry and Sector)

This indicator used the same economic analysis model as Indicator #2 to understand the effects that the CNNF could have on local communities. However, the income and employment that can be generated from the Forests' resources were analyzed in terms of effects by local major industries. This information was also evaluated and presented by alternative.

Indicator #4- PNV

An important factor in assessing the economic effects of each of the alternatives is to consider their efficiencies in producing net public benefits (economic efficiency) and monetary returns to the government (financial efficiency). Present Net Value (PNV), the sum of discounted revenues and costs, is used as a measure of these efficiencies. Comparing the PNV calculations provides a relative measure of these efficiencies among the alternatives.

Social Indicators

Indicator #1- Change in Forest Access

There have been no specific studies on the social or economic effects directly resulting from changes in forest access for All Terrain Vehicles (ATVs) and other Off-Road Vehicles (ORVs). However, public comment and a study presented by Pam Jakes in 1996 have identified motorized vs. non-motorized activities as one of the more important

issues for the CNNF. This qualitative narration discusses the potential increases and decreases of motorized and non-motorized opportunities on the Forests by alternative.

Indicator #2- Impact on the Tradition of White-tail Deer Hunting

No study has been conducted which focuses specifically on qualifying the impact of the CNNFs' Forest Plan on local cultural traditions. However, anthropologist Richard Nelson discusses the importance of the tradition of hunting white-tailed deer in Wisconsin in his book, *Heart and Blood* (1997). This indicator addresses the possible impact of the CNNF Forest Plan on Wisconsin's deer herd and the resulting effects on this local tradition.

Indicator #3- Community Change due to Change in Demographics

Information on second home ownership and retirement populations are specifically discussed together in relation to the CNNF Plan alternatives and their possible effects.

Alternative 1 vs. 'Current Management'

The following discussions often compare Alternatives 2-9 and the Selected Alternative (the action alternatives) to 'Current Management' and to Alternative 1 (the 'No Action' Alternative). No Action alternatives are sometimes the same as, or very similar to, the 'current management' situation, but this is not always the case. On the Chequamegon-Nicolet National Forests this similarity is not true in some resource areas, partially due to issues driving the Purpose and Need of this revision, and partially due to budgetary realities. Therefore, Alternative 1 is data that would be accurate if the Forests continued to follow the guidelines set out by the 1986 Chequamegon and Nicolet Forests Plans. The term 'Current Management' captures what is actually happening in terms of forest management on the combined Forests.

Background of Economic Analysis and Environment

Economic Dependency

Every economy has one or more economic engines that provide residents with jobs and income. Area jobs and income depend on the size and vitality of these engines. Breaking down employment into basic industries, indirect basic industries, and local resident service industries helps characterize the economic dependency of the planning area.

Basic industries bring money in from outside the area by exporting goods and services, or selling them to non-residents. Manufacturing and retailing are the major export industries in the planning area.

Indirect basic industries commonly include local suppliers of goods and services to basic industries. Wholesale trade and trucking businesses are also examples of indirect basic industries.

Local resident service industries provide services such as groceries and medical care.

The economic indicators in the effects section of this document assess the economic dependency of local communities on CNNF resources and services as part of their economic make-up. These indicators will be addressed in more detail later.

Shannon-Weaver Diversity Index

Economic diversity of a community is one indicator of economic dependency. Economic diversity is defined as "the presence in an area of a great number of different types of industries" or "the extent to which the economic activity of a region is distributed among a number of categories" (IMI 2003). This diversity index is designed to give the analyst a better understanding of the economic health of an area. According to the index, the diversity of the local economy increases as the diversity index value approaches 1.0.

While this is a useful tool to get a quick glance at one measure of economic health, using this index as the only source of economic diversity information could be problematic. For example, if a county has a very high diversity index value of 0.96 it could be assumed that this is a very stable and sustainable economy. However, upon further investigation it is discovered that this county's various industries include a lumber mill, a veneer factory, several logging camps, and a paper mill. All of these industries rely on the same resource—lumber—which could leave this county vulnerable to fluctuations in the logging industry overall. Therefore, while the Shannon-Weaver diversity index is a useful tool for a quick glance at an area's economic health, it should not be the only source of information used for a complete analysis.

Figure 3-84 displays the diversity index values by county in the Northern Wisconsin Economic Impact Area (NWEIA) – counties containing CNNF lands or immediately adjacent to the CNNF. This figure assists in the understanding of the economic situation of the affected environment of the CNNF Land and Resource Management Plan.

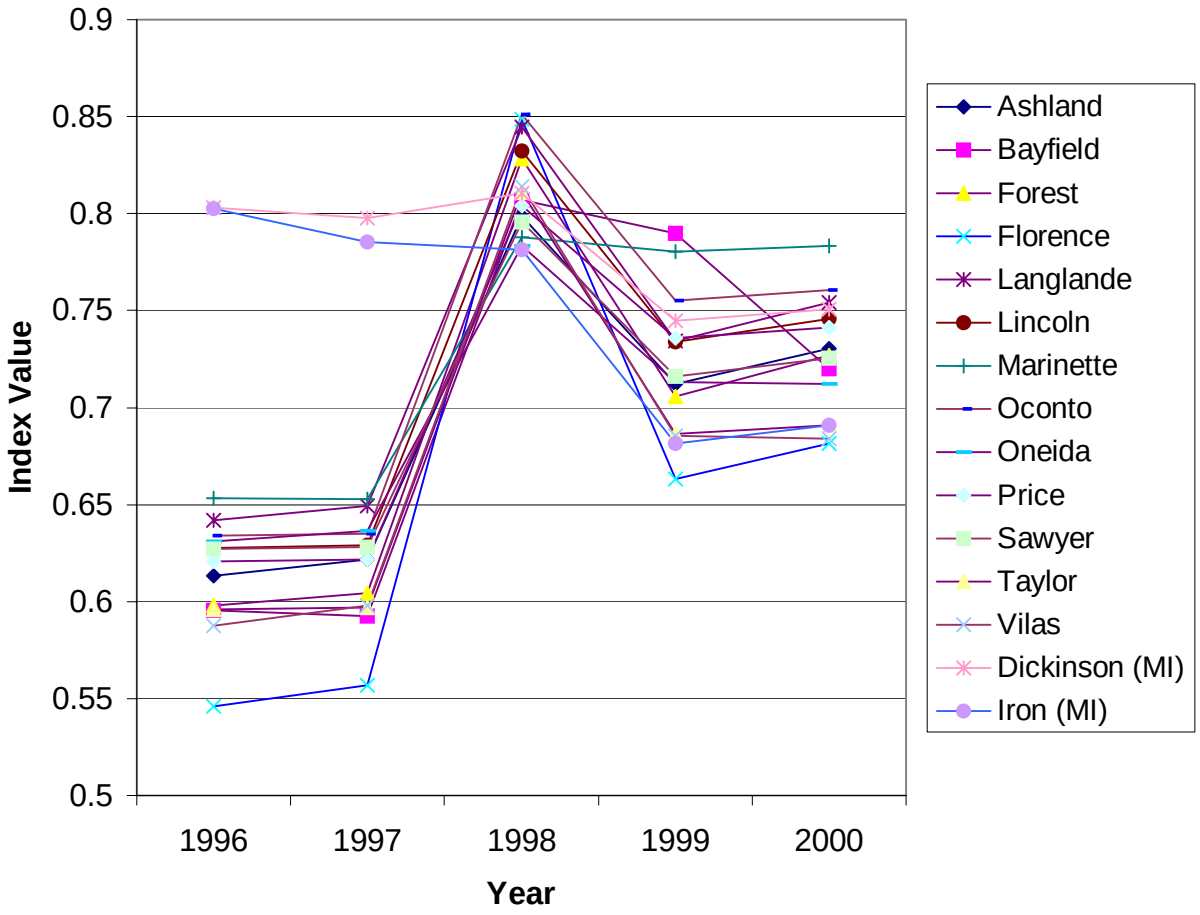

Figure 3-84. Shannon-Weaver Economic Diversity Index, Northern Wisconsin Economic Impact Area (NWEIA)

Financial and Economic Efficiency

Financial and Economic Efficiency are different methods of determining the economic health of an area. Financial efficiency is how well the dollars invested produce financial benefits, focusing on only those benefits that produce actual dollar transactions (e.g. amount of timber volume produced). Financial efficiency is analysis in which the objective is to choose between alternative investments, balancing monetary costs against monetary benefits. Economic efficiency is how well the dollars invested produce benefits to society, including those benefits that do not generate actual dollar transactions (i.e. wildlife viewing, swimming, walking in the woods). In this analysis, financial and economic efficiency will be included in the comparison of alternatives. For more details see 'Economic Indicator #4-Present Net Value' later in this section.

Economic Analysis

The economic analysis of the CNNF delineates three individual Economic Impact Areas (EIAs) for use in the IMPLAN economic impact model. IMPLAN (IMpact analysis for PLANning) is a static model based on historic data which is used here to provide

estimates of economic impacts of CNNF activities on the three EIAs. Being a static model, it is not responsive to changes in national markets, interest rates, inflation, and other changes outside the economic impact areas. IMPLAN's primary values are in modeling the relationships between Forest outputs and EIA employment and income, and in displaying relative differences in these impacts among the alternatives.

The Chequamegon-Nicolet National Forests (CNNF or "Forests") are located in parts of 11 northern Wisconsin counties. These and other counties in Minnesota, Wisconsin, and Michigan—areas impacted economically by actions taken on the CNNF—are the building blocks for the economic impact areas mentioned above. These areas are different enough in their economic structure that they require individualized IMPLAN model parameters in order to estimate the impact in each area. The three EIAs are summarized below:

- Impacts from Forest-related tourism expenditures occur primarily within local counties that contain CNNF land and counties immediately adjacent to the Forests (**Northern Wisconsin Economic Impact Area – NWEIA**).
- Some CNNF timber is processed within the NWEIA, but large portions are transported to and processed in the Fox and Wisconsin River Valleys (**Wisconsin Paper and Pulp Economic Impact Area – WPPEIA**) and the Duluth-Superior area (**Northern Minnesota Economic Impact Area – NMEIA**). Both of these areas contain large urban economies that required separate modeling.

County-level employment data, revenues and expenditures from the Forests' timber sales and recreation program, and other CNNF program expenditures and employment data have been incorporated into the IMPLAN model. Economic dependency is analyzed by dividing employment into the three categories described earlier - basic industries, indirect basic industries, and local resident service industries. Manufacturing, retail sales, and education/health/and social services are the three leading providers of jobs and income within the Northern Wisconsin Economic Impact Area (NWEIA).

Data Background (MetaData)

Timber Sales Revenue and Expenditure Data

Information on timber stumpage values was obtained from the Forests' timber sales records. Five different categories of timber products (softwood sawtimber, softwood pulpwood, hardwood sawtimber, hardwood pulpwood, and aspen pulpwood) are harvested from the Chequamegon-Nicolet National Forests and processed by various sectors (distribution estimate details are available in the IMPLAN Spreadsheet Tool). Stumpage values were determined for each of these categories. Direct information on the shipped value of finished timber products for all processing sectors was not available. The IMPLAN model was used to derive these production values.

The three modeled EIAs have a diverse mix of timber processing firms: all 18 of the different types of timber processing sectors can be found within the EIAs. The IMPLAN model was used to estimate employment in the lumber and wood products industry. The model estimated that pulp and paper mills are by far the largest employer, with over 28,000 employees in the WPPEIA, 4,400 in the NWEIA, and another 4,300 in the NMEIA. Millwork is the next largest employer with over 6,300 employees in the WPPEIA and another 3,700 in the NWEIA.

Recreation & Wildlife/Fish Revenue and Expenditure Data

Visitors to Wisconsin's National Forests engage in a variety of activities that often cross boundary lines between public and private lands. Consequently, spending patterns for visitors to the Forests can be reliably represented by a general tourism / recreation visitor spending pattern for northern Wisconsin.

A Professor in the Department of Park, Recreation and Tourism Resources at Michigan State University found that tourist spending patterns are strongly correlated with lodging choices (MSU 2003). Following this observation, several northern Wisconsin tourist surveys were used to build general spending profiles (varying by type of lodging for recreationists on the Forests). General expenditure profiles, by type of lodging, were used in the northern Wisconsin model when more specific studies were not available. Mountain biking and snowmobiling studies were used to model expenditures for visitors engaging in these specific activities.

Recreation use is measured in "recreation visitor days" or RVDs (one 12-hour visit by one person). The tourism studies used either days or nights as the unit of measure. RVDs were multiplied by assigned values according to specifications provided in the research paper, "Resource Pricing and Valuation Procedures for the Recommended 1990 RPA Program." This guidance was used for calculations for total spending by each alternative.

The U.S. Fish & Wildlife Service periodically conducts a national survey (by state) to obtain data on recreation expenditures for hunting, fishing, and other wildlife-related recreation. The agency's Inventory and Monitoring Institute organized these expenditure profiles for use in IMPLAN. Expenditures were collected on a "per trip" basis, but converted to a person-day basis for use in IMPLAN. Wisconsin expenditure profiles for non-resident hunting and fishing in the State were also used for estimating impacts from wildlife-related recreation. Expenditures were run through the model for the three categories of recreation discussed above. Only non-local recreation expenditures (tourism exports) are considered for impact analysis.

Forest Expenditures and Employment Data

The Forests applied budget constraints to every alternative for the purposes of the IMPLAN analysis. Budget constraints were used to estimate total Forest expenditures, some of which have local economic effects. Total Forest obligations by budget object code for Fiscal Year 1999 were obtained from the National Finance Center through the agency's Inventory and Monitoring Institute. Total Forest obligations were used to estimate how the budget would be spent. Forest Service employment was estimated based on an examination of historical Forest Service obligations.

Salary and non-salary portions of impacts were analyzed separately to better estimate total impacts from Forest Service spending. Non-salary expenditures were determined by using the budget object code information noted above. This profile was run through the model for non-salary expenditures. Sales to the Federal Government are treated in the same manner as exports.

Salary impacts result when Forest employees spend their earnings locally. IMPLAN includes a profile of personal consumption expenditures for several income categories. The average compensation for a CNNF employee fell in the range of $40,000-$49,999. Americans typically spend about 67% of their total salary plus benefits. Therefore, 67% of total Forest Service salaries were considered within IMPLAN.

Impacts to local economies were estimated by analyzing effects on employment and labor income figures. Employment is expressed in number of jobs (seasonal, year-round/full-time, or part-time). The number of jobs is calculated by averaging monthly employment data from state sources over one year. Labor income includes both employee compensation (pay plus benefits) and proprietors' income (self-employed profits). The NWEIA, WPPEIA, and NMEIA economic impact area models were used to determine employment and income consequences of CNNF management choices in each of the alternatives.

Economic Environment

The existing economic environment that the CNNF contributes to is described here to help readers understand the possible economic effects that Plan alternatives could have on local communities. The following tables and narratives are measurements used to assess the current economic environment.

Housing

Table 3-84 compares the number of 1990 and 2000 owner occupied homes by county and value. Significant housing number and value changes took place within the 15 counties of the Northern Wisconsin Economic Impact Area (NWEIA) during the 1990-2000 decade. The number of owner-occupied homes increased from approximately 58,000 in 1990 to 70,900 in 2000, an increase of approximately 22%.

Table 3-84. Number of Owner Occupied Homes, Calendar Years 1990 & 2000, by County and Value [1]

County	Number of Owner Occupied Units		Value and Number of 1990 homes for Owner Occupied Units (with percent)												Value and Number of 2000 homes for Owner Occupied Units (with percent)											
			<50 M^2		50-100 M		100-150 M		150-200 M		200-300 M		300 M+		<50 M^2		50-100 M		100-150 M		150-200 M		200-300 M		300 M+	
	1990	**2000**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Ashland	2,847	2,992	2,148	75.4	630	22.1	59	2.1	7	0.3	3	0.1	0	0.0	1,029	34.4	1,501	50.2	261	8.7	125	4.2	56	1.9	20	0.7
Bayfield	2,155	2,624	1,291	59.9	755	35.0	84	3.9	15	0.7	9	0.4	1	0.0	458	17.5	1,141	43.5	526	20.0	235	9.0	173	6.6	91	3.4
Florence	804	1,142	462	57.5	292	36.3	39	4.9	7	0.9	3	0.4	1	0.1	301	26.4	432	37.8	233	20.4	105	9.2	52	4.6	19	1.7
Forest	1,636	2,167	1,168	71.4	436	26.7	25	1.5	5	0.3	2	0.1	0	0.0	496	22.9	1,047	48.3	353	16.3	137	6.3	118	5.4	16	0.7
Langlade	3,888	4,613	2,828	72.7	978	25.2	71	1.8	9	0.2	2	0.1	0	0.0	1,304	28.3	2,256	48.9	633	13.7	274	5.9	112	2.4	34	0.7
Lincoln	4,920	6,139	3,073	62.5	1,720	35.0	102	20.7	19	0.4	5	0.1	1	0.0	606	9.9	3,272	53.3	1,446	23.6	528	8.6	234	3.8	53	0.8
Marinette	7,694	9,158	4,984	64.8	2,470	32.1	194	2.5	25	0.3	15	0.2	3	0.0	2,487	27.2	4,497	49.1	1,334	14.6	513	5.6	273	3.0	54	0.6
Oconto	5,400	7,428	3,322	61.5	1,882	34.9	160	3.0	20	0.4	11	0.2	5	0.1	1,021	13.7	3,335	44.9	1,727	23.2	814	11.0	434	5.8	97	1.4
Oneida	7,069	9,141	3,197	45.2	3,168	44.8	466	6.6	148	2.1	68	1.0	22	0.3	647	7.1	3,595	39.3	2,224	24.3	1,152	12.6	1,039	11.4	484	5.3
Price	2,584	2,893	1,683	65.1	840	32.5	46	1.8	10	0.4	4	0.2	1	0.0	840	29.0	1,370	47.4	427	14.8	157	5.4	82	2.8	17	0.5
Sawyer	2,546	3,309	1,296	50.9	1,055	41.4	136	5.3	37	1.4	18	0.7	4	0.2	566	17.1	1,206	36.4	658	19.9	398	12.0	342	10.3	139	4.2
Taylor	2,517	3,048	1,545	61.4	918	36.5	46	1.8	5	0.2	2	0.1	1	0.0	599	19.7	1,706	56.0	537	17.6	127	4.2	61	2.0	18	0.6
Vials	4,024	5,530	1,421	35.3	2,040	50.7	386	9.6	121	3.0	41	1.0	15	0.4	274	5.0	1,840	33.3	1,411	25.5	792	14.3	733	13.3	480	8.7
Dickinson (MI)	6,633	7,259	4,105	61.9	2,207	33.3	241	3.6	54	0.8	23	0.3	3	0.0	2,232	30.7	3,260	44.9	998	13.7	428	5.9	232	3.2	109	1.5
Iron (MI)	3,301	3,470	2,704	81.9	542	16.4	31	0.9	12	0.4	9	0.3	3	0.1	1,858	53.5	1,115	32.1	290	8.4	108	3.1	73	2.1	26	0.7
Total/Average	58,015	70,913	35,227	60.7	19,933	34.5	2,086	3.6	494	0.8	215	0.4	60	0.1	14,718	20.8	31,573	44.5	13,058	18.4	5,893	8.3	4,014	5.7	1,657	2.3

[1] *Source of information: 2000 U.S. Census Data*

The home value percentage changes shown in Table 3-84 are likely attributable to increasing property values in both the lower and upper price ranges and, to some degree, increased wealth that enables some people to construct homes in the higher price ranges.

Table 3-85 provides mortgage status and monthly owner costs for the year 2000. Approximately 44% of the 15-county NWEIA homeowners do not have home mortgages. Approximately 52% of the homeowners have average monthly home mortgage costs from $300 to $1,500. The monthly median mortgage cost is $758.

Table 3-85. Number of Housing Units, Calendar Year 2000, by Mortgage Rate, and by County [1]

County	Owners with a Mortgage		< $300		$300-$499		$500-$699		$700-$999		$1,000-$1,499		$1,500-$1,999		> $2,000		Median Monthly Costs	Owners without a Mortgage	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	$	#	%
Ashland	1,693	56.6	18	0.6	287	9.6	540	18	498	16.6	303	10.1	35	1.2	12	0.4	701	1,299	43.4
Bayfield	1,378	52.5	16	0.6	201	7.7	459	17.5	398	15.2	227	8.7	50	1.9	27	1	708	1,246	47.5
Florence	597	52.3	2	0.2	103	9	164	14.4	175	15.3	132	11.6	21	1.8	0	0	754	545	47.7
Forest	1,141	52.7	40	1.8	315	14.5	312	14.4	316	14.6	123	5.7	24	1.1	11	0.5	638	1,026	47.3
Langlade	2,698	58.5	49	1.1	471	10.2	876	19	799	17.3	414	9	73	1.6	16	0.3	689	1,915	41.5
Lincoln	3,710	60.4	2	0	318	5.2	840	13.7	1,340	21.8	972	15.8	177	2.9	61	1	843	2,429	39.6
Marinette	5,505	60.1	66	0.7	760	8.3	1,598	17.4	1,788	19.5	984	10.7	207	2.3	102	1.1	746	3,653	39.9
Oconto	4,666	62.8	24	0.3	485	6.5	1,054	14.2	1,426	19.2	1,338	18	263	3.5	76	1	853	2,762	37.2
Oneida	5,246	57.4	60	0.7	579	6.3	1,154	12.6	1,717	18.8	1,219	13.3	317	3.5	200	2.2	826	3,895	42.6
Price	1,554	53.7	24	0.8	207	7.2	425	14.7	575	19.9	258	8.9	51	1.8	14	0.5	750	1,339	46.3
Sawyer	1,742	52.6	66	2	370	11.2	479	14.5	436	13.2	280	8.5	87	2.6	24	0.7	680	1,567	47.4
Taylor	1,683	55.2	26	0.9	170	5.6	440	14.4	575	18.9	376	12.3	76	2.5	20	0.7	797	1,365	44.8
Vilas	2,838	51.3	52	0.9	376	6.8	713	12.9	924	16.7	552	10	130	2.4	91	1.6	776	2,692	48.7
Dickinson (MI)	4,049	55.8	92	1.3	750	10.3	1,192	16.4	1,117	15.4	629	8.7	187	2.6	82	1.1	698	3,210	44.2
Iron (MI)	1,459	42	80	2.3	464	13.4	474	13.7	288	8.3	121	3.5	30	0.9	2	0.1	563	2,011	58
Total / Average	39,959	56.3	617	0.9	5,856	8.3	10,720	15.1	12,372	17.4	7,928	11.2	1,728	2.4	738	1	758 [2]	30,954	43.6

[1] *Source of information: 2000 U.S. Census Data. Average percentages include homeowners without a mortgage.*

[2] *Weighted average*

Table 3-86 displays the number of renter-occupied housing units and the gross rent paid for the year 2000. There were nearly 25,000 rental units within the 15-county area in 2000. Approximately 10% of the area renters did not pay cash rent. Approximately 63% of the area renters have gross rent costs from $300 to $749. The monthly median rent cost is about $400.

Table 3-86. Gross Rent for Renter-Occupied Units, Calendar Year 2000 [1]

County	Renter Occupied Units	< $200		$200-$299		$300-$499		$500-$749		$750-$999		$1,000-$1,499		> $1,500		Median Monthly Rent	No Cash Rent	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	$	#	%
Ashland	1,902	252	13.2	349	18.3	802	42.2	320	16.8	32	1.7	0	0	7	0.4	372	140	7.4
Bayfield	955	124	13	131	13.7	370	38.7	160	16.8	27	2.8	5	0.5	0	0	369	138	14.5
Florence	273	44	16.1	17	6.2	121	44.3	52	19	5	1.8	0	0	0	0	385	34	12.5
Forest	806	140	17.4	138	17.1	271	33.6	104	12.9	0	0	2	0.2	0	0	325	151	18.7
Langlade	1,678	175	10.4	175	10.4	656	39.1	371	22.1	50	3	18	1.1	12	0.7	405	221	13.2
Lincoln	2,379	175	7.4	270	11.3	1,054	44.3	580	24.4	77	3.2	53	2.2	8	0.3	433	162	6.8
Marinette	3,384	344	10.2	464	13.7	1,428	42.2	668	19.7	61	1.8	31	0.9	21	0.6	400	367	10.8
Oconto	2,113	205	9.7	184	8.7	840	39.8	546	25.8	63	3	8	0.4	2	0.1	429	265	12.5
Oneida	2,943	137	4.7	299	10.2	1,158	39.2	926	31.5	109	3.7	14	0.5	4	0.1	460	296	10.1
Price	1,099	92	8.4	172	15.7	460	41.9	185	16.8	46	4.2	11	1	23	2.1	404	110	10
Sawyer	1,363	213	15.6	231	16.9	457	33.5	292	21.4	34	2.5	0	0	0	0	386	136	10
Taylor	1,291	120	9.3	206	16	535	41.4	284	22	23	1.8	5	0.4	2	0.2	405	116	9
Vilas	1,537	128	8.3	189	12.3	518	33.7	434	28.2	73	4.7	13	0.8	0	0	434	182	11.8
Dickinson (MI)	2,190	218	10	266	12.1	1,005	45.9	465	21.2	36	1.6	59	2.7	20	0.9	417	121	5.5
Iron (MI)	957	126	13.2	150	15.7	443	46.3	78	8.2	10	1	2	0.2	0	0	346	148	15.5
Total / Average	24,870	2,493	10	3,241	13	10,118	40.7	5,465	22	646	2.6	221	0.9	99	0.4	409 [2]	2,587	10.4

[1] *Source of information: 2000 U.S. Census Data. Renter occupied unit numbers include renters who do not pay cash.*

[2] *Weighted average*

Current Distribution of Jobs across Sectors

County employment data displayed in Tables 3-87 and 3-88 were obtained from Wisconsin and Michigan 1990 and 2000 Census Data for the 15-county Northern Wisconsin Economic Impact Area (NWEIA). A comparison of the 1990 and 2000 data reveals the total number of jobs in the area increased by about 20% during the decade. Every county in the NWEIA experienced an increase in job numbers from 1990 to 2000. Florence and Forest Counties were on the low end, with job numbers increasing 1.5% and 2.6%, respectively. Marinette, Oconto, and Oneida Counties were on the high end, with job numbers increasing by 13.7%, 10.4%, and 11.1%, respectively. These counties had the following shares of the 2000 job market: 1.6% (Florence), 2.7% (Forest), 13.4% (Marinette), 11.7% (Oconto), and 11.4% (Oneida).

The data comparison also shows that manufacturing (24.5% for 1990 and 21.3% for 2000); education, health, and social services (16.2% in 1990 and 19.5% in 2000); and retail trade businesses (18.5% in 1990 and 12.2% in 2000) continue to provide the majority of jobs within the 15-county area.

The number of manufacturing jobs in the area increased by about 1,400 from 1990 to 2000. Nonetheless, manufacturing jobs as a percentage of the area job market actually decreased by over 3% during that time. Jobs in retail trade businesses dropped by nearly 4,800 from 1990 to 2000, decreasing its percentage share of the area job market by over 6%. Jobs in agriculture and forestry decreased by nearly 1,600 jobs, dropping its percentage share of the area job market from about 7% in 1990 to 5% in 2000. The education, health, and social services fields increased by over 9,000 jobs, increasing their percentage share of the job market by approximately 7%.

Jobs in the miscellaneous category (i.e. jobs in information, arts, entertainment, recreation, accommodations, food services, and other services) are not shown in the tables. These types of jobs increased by over 14,000 from 1990 to 2000, thereby increasing this category's share of the job market from 6.2% in 1990 to 15% in 2000. The jobs in the miscellaneous category are all indicators of the tourism industry.

A specific study into the effects of the CNNF on tourism has not been conducted for this revision of the Forest Plan. However, given the large increase in 'miscellaneous' jobs and the fact that the Wisconsin Department of Tourism reports that from 1993 to 2002 the 13 Wisconsin counties included in the NWEIA experienced an average of 140% increase in tourism activities (WI Dept. Tourism 2003), it is likely that tourism is strongly gaining in its portion of the job market in and around the CNNF.

It is not possible to make an accurate comparison of changes in miscellaneous category jobs from 1990 to 2000 because of the many different sectors included in the category. As a result, miscellaneous jobs are included only in the 'Total' category of Tables 3-87 and 3-88 (see table footnotes). However, between 1990 and 2000 the miscellaneous category doubled in its share of the job market in the NWEIA from 6.2% to 15%, suggesting that tourism has become increasingly important in the local economy. The CNNF Economic Analysis focuses only on recreation activities that are produced on CNNF lands and not those supplemental activities (i.e. hotels, restaurants, etc) that make up the full 'tourism' revenue category.

Table 3-87. Employment by Major Industry and County, Calendar Year 1990 [1]

County	Agriculture Forestry, & Mining [2]		Construc-tion		Manu-facturing		Whole-sale trade		Retail Trade		Transp., Commuc's, & Pub. Utilities		Finance, Insurance, & Real Estate		Prof. Services [3]		Education, Health, & Soc. Serv's		Public Admin.		Total # of Jobs/ cty. [4]
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
Ashland	306	4.6	262	4	1,390	21	207	3.1	1,180	17.8	381	5.8	274	4.1	349	5.3	1,460	22	394	6	6,628
Bayfield	386	6.6	425	7.3	786	14	90	1.6	1,113	19.2	376	6.5	227	3.9	324	5.6	1,151	19.8	435	7.5	5,814
Florence	783	4.7	191	9.8	467	24	55	2.8	343	17.6	138	7.1	62	3.2	60	3.1	318	16.3	94	4.8	1,955
Forest	199	6.2	174	5.4	881	27	53	1.7	553	17.1	239	7.4	80	2.5	147	4.6	499	15.5	205	6.4	3,227
Langlade	939	11	555	6.7	1,671	20	383	4.7	1,559	19	601	7.3	258	3.1	289	3.5	1,234	15	224	2.7	8,226
Lincoln	669	5.4	606	4.9	3,804	31	384	3.1	2,006	16.2	710	5.8	726	5.9	680	5.5	1,684	13.6	400	3.2	12,363
Marinette	973	5.7	863	5	5,623	33	421	2.5	3,217	18.7	854	5	633	3.7	613	3.6	2,494	14.5	531	3.1	17,221
Oconto	1,426	11	785	6	4,122	31	415	3.2	1,945	14.8	820	6.3	434	3.3	509	3.9	1,693	12.9	326	2.5	13,113
Oneida	422	3	1,013	7.3	2,265	16	320	2.3	3,064	22	768	5.5	566	4.1	740	5.3	2,860	20.5	715	5.1	13,958
Price	527	7.8	271	4	2,615	39	134	2	941	14	279	4.2	228	3.4	305	4.5	917	13.6	198	3	6,725
Sawyer	270	5.2	429	8.2	778	15	110	2.1	1,105	21.1	270	5.2	215	4.1	236	4.5	881	16.9	367	7	5,231
Taylor	1,525	18	339	3.9	2,662	31	337	3.9	1,176	13.5	458	5.3	269	3.1	277	3.2	1,070	12.3	164	1.9	8,716
Vilas	223	3.1	780	11	640	9	163	2.3	1,852	26	326	4.6	374	5.2	357	5	1,205	16.9	346	4.9	7,129
Dickinson (MI)	234	2.1	1,135	10	2,527	22	380	3.4	2,327	20.6	747	6.6	413	3.7	554	4.9	2,026	17.9	340	3	11,301
Iron (MI)	200	4.4	471	10	686	15	103	2.3	920	20.2	187	4.1	165	3.6	243	5.3	889	19.5	295	6.5	4,552
Total # of jobs by Major Industry	9,082		8,299		30,917		3,555		23,301		7,154		4,924		5,683		20,381		5,034		126,159

[1] Source of information: 1990 U.S. Census Data

[2] Includes agriculture, forestry, fisheries, and mining

[3] Includes business & repair services, personal services, entertainment, and recreation services

[4] Total figures include jobs classified as 'Miscellaneous' which are comprised of the following: Information, Arts, Entertainment, Recreation, Accommodations, Food Services and Other Services

Table 3-88. Employment by Major Industry and County, Calendar Year 2000[1]

County	Agriculture, Forestry, & Mining [2]		Con-struction		Manu-facturing		Wholesale Trade		Retail-Trade		Transp., Ware-house, & Utilities		Finance, Insurance & Real Estate		Prof. Svcs[3]		Educat. Health Soc. Svc's		Public Admin.		Total # Jobs for Each Cty.[4]
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
Ashland	352	4.5	476	6.1	1,336	17.1	99	1.3	822	10.5	338	4.3	283	3.6	356	4.6	2015	25.8	432	5.5	7,810
Bayfield	407	6	694	10	616	9.1	139	2.1	715	10.6	315	4.7	301	4.5	292	4.3	1,510	22.4	522	7.7	6,749
Florence	112	4.8	236	10	508	21.6	49	2.1	228	9.7	112	4.8	82	3.5	83	3.5	481	20.4	113	4.8	2,353
Forest	303	7.5	303	7.5	669	16.5	57	1.4	402	9.9	256	6.3	119	2.9	136	3.4	755	18.7	300	7.4	4,044
Langlade	797	8.2	752	7.8	2,032	20.9	351	3.6	1,273	13.1	475	4.9	346	3.6	307	3.2	1,602	16.5	318	3.3	9,703
Lincoln	518	3.6	951	6.5	4,280	29.5	379	2.6	1,839	12.7	593	4.1	975	6.7	473	3.3	2,450	16.9	571	3.9	14,530
Marinette	800	3.9	1,137	5.6	6,017	29.6	408	2	2,410	11.9	853	4.2	749	3.7	629	3.1	4,015	19.7	571	2.8	20,336
Oconto	1,112	6.3	1,346	7.6	5,126	29	463	2.6	1,517	8.6	1263	7.1	733	4.1	730	4.1	2,723	15.4	531	3	17,680
Oneida	526	3.1	1,455	8.5	2,080	12.1	425	2.5	2,815	16.4	689	4	636	3.7	898	5.2	3,953	23	861	5	17,199
Price	501	6.7	344	4.6	2,382	32	111	1.5	715	9.6	303	4.1	230	3.1	274	3.7	1,462	19.7	276	3.7	7,436
Sawyer	287	4	729	10	847	11.8	127	1.8	938	13	270	3.8	323	4.5	393	5.5	1,245	17.3	403	5.6	7,199
Taylor	1,120	11.4	555	5.6	2,959	30.1	167	1.7	1,074	10.9	447	4.5	385	3.9	229	2.3	1,533	15.6	230	2.3	9,836
Vilas	231	2.5	1,107	12	643	6.9	264	2.8	1,457	15.7	324	3.5	425	4.6	489	5.3	1,666	18	521	5.6	9,268
Dickinson (MI)	215	1.7	920	7.4	2,341	18.9	419	3.4	1,691	13.7	726	5.9	468	3.8	510	4.1	2,856	23.1	475	3.8	12,362
Iron (MI)	214	4.3	374	7.5	493	9.9	131	2.6	641	12.8	228	4.6	217	4.3	220	4.4	1,227	24.6	339	6.8	4,994
Total # of jobs by Major Industry	7,495		11,379		32,329		3,589		18,537		7,192		6,272		6,019		29,493		6,463		151,499

[1] *Source of information: 2000 U.S. Census Data.*

[2] *Includes agriculture, forestry, fishing, hunting, and mining*

[3] *Includes professional, scientific, management, administrative, and waste management services*

[4] *Total figures include jobs classified as 'Miscellaneous' which is comprised of the following: information, arts, entertainment, recreation, accommodation and food services, and other services*

Table 3-89 compares county unemployment rates within the NWEIA for calendar years 1990 and 2000. Average unemployment rates across the NWEIA dropped from 7.8% in 1990 to 3.8% in 2000, a 51% decrease in unemployment rates. Unemployment rates for Forest and Sawyer Counties both dropped about 7%, a decrease of more than 60%.

Table 3-89. County Unemployment Rates for 1990 and 2000[1]

County	1990		2000	
	Number [2]	Percent	Number [2]	Percent
Ashland	710	9.7	692	5.3
Bayfield	574	9	629	5.3
Florence	159	7.5	143	3.5
Forest	398	11	335	4.3
Langlade	558	6.4	595	3.6
Lincoln	874	6.6	816	3.5
Marinette	1,383	7.4	1,166	3.4
Oconto	1,030	7.3	724	2.6
Oneida	952	6.4	1,112	3.8
Price	398	5.6	450	3.6
Sawyer	690	11.7	510	4
Taylor	607	6.5	535	3.6
Vilas	591	7.7	601	3.5
Dickinson (MI)	655	5.5	730	3.4
Iron (MI)	500	9.9	521	4.8
Total # / Wt. Avg %	10,079	7.8	9,559	3.8

[1] *Source of information: 1990 and 2000 U.S. Census Data.*

[2] *Number of unemployed*

Table 3-90 compares 1990 and 2000 county per capita income levels. Average per capita income across the NWEIA improved dramatically from 1990 to 2000, increasing by over $7,000 (an increase of approximately 69%). Forest and Sawyer Counties both experienced a per capita income increase of over $8,000 (a 97% increase for Forest County and a 91% increase for Sawyer County).

Table 3-90. County Per Capita Income for 1990 and 2000[1]

County	1990		2000	
	Population	Per Capita Income	Population	Per Capita Income
Ashland	16,307	$9,661	16,866	$16,069
Bayfield	14,008	$9,933	15,013	$16,407
Florence	4,590	$10,352	5,088	$18,328
Forest	8,776	$8,339	10,024	$16,451
Langlade	19,505	$10,172	20,740	$16,960
Lincoln	26,993	$11,282	29,641	$17,940
Marinette	40,548	$10,420	43,384	$17,492
Oconto	30,226	$10,375	35,634	$19,016
Oneida	31,679	$11,681	36,776	$19,746
Price	15,600	$10,564	15,822	$17,837
Sawyer	14,181	$9,232	16,196	$17,634
Taylor	18,901	$10,452	19,680	$17,570
Vilas	17,707	$10,866	21,033	$18,361
Dickinson (MI)	26,831	$12,338	27,472	$18,516
Iron (MI)	13,175	$9,077	13,138	$16,506
Total # / Wt. Avg. $	299,027	$10,577	326,507	$17,908

[1] *Source of information: 1990 and 2000 U.S. Census Data.*

Background of Social Analysis and Environment

Social Analysis

In order to perform required assessment of the social impacts of the Forest Plan on local communities, a study was performed to better understand the social aspects of the communities surrounding the CNNF (the Affected Environment). This analysis of the social environment was conducted at the North Central Forest Experiment Station and identified 15 "functional communities" (Jakes et al. 1998b) in and near the Forests' boundaries. By identifying these communities and interviewing representatives of these areas, Forest managers have a better understanding of the concerns of local communities and can take those concerns into consideration when making management decisions. The resulting community profiles are summarized below.

Other indicators that can describe the social setting of the CNNF are State, county, and National Forest ownership patterns, as well as area population, racial components, housing, and transportation data. This information was collected for the 15 functional communities identified by the North Central Forest Experiment Station (Jakes et al. 1998b) and the 15 counties in the Northern Wisconsin Economic Impact Area (NWEIA) that was defined for use in the economic analysis section of this chapter.

Social Environment

Community Profiles

The following community information was obtained from: "*People of Northern Wisconsin—Social Assessment of the Chequamegon-Nicolet National Forest,*" by Pam Jakes, principle author.

Key informant interviews were conducted in September and October of 1996 to develop functional community analyses for the Chequamegon-Nicolet National Forests Plan Revision. Selected interviewees provided their impressions, opinions, and perceptions of how they and their neighbors related to the Forests. The assessment described past, present, and potential social conditions for the various communities.

People who live on or near the Chequamegon-Nicolet National Forests were analyzed as functional groups. The economic, political, community, and cultural conditions of the study area shape the functional groups.

Functional community boundaries were delineated based on how people related to and used the Chequamegon-Nicolet National Forests. A functional community was identified as an area where people's perceptions and use of the Forests were similar or compatible, and, by extension, different from those of neighboring communities. A profile was developed for the following 15 functional communities: Ashland, Drummond, Eagle River, Florence, Gilman, Glidden, Hayward, Lakewood, Land O' Lakes, Laona, Long Lake, Medford, Park Falls, Phillips, and Washburn. Profiles include descriptions of the community as a whole, and the community's relationship to forest resources, public lands, and National Forest policies.

Ashland

The community of **Ashland** lies on the south shore of Lake Superior. Key informants stated the lake helps define the character of the community and provides a quality of life not found in many places. The area provides many opportunities for outdoor recreation

(e.g., canoeing, fishing, boating, etc.) with Lake Superior and the Apostle Islands on its "doorstep," along with many remote inland lakes, undeveloped riparian areas, and large areas of intact forest. Ashland is a regional hub for commerce, education, shopping, and medical needs. Compared to the rest of northern Wisconsin, the community has a higher than average per capita income. Key informants reported that few people are moving into the city of Ashland, preferring instead to live in the outlying, more rural settings. Some fear that an increase in tourism and seasonal homes in Bayfield will drive home prices and taxes up in Ashland.

Community members use the area's natural resources for economic gain (logging, bough collecting, etc.) and for personal enjoyment (recreation). Ashland residents recognize a certain spiritual connection to the area's natural resources, particularly Lake Superior. They want to "keep public lands in public hands."

The following subjects were identified as issues by Ashland residents: (1) future employment; (2) effects of industry and land use on water quality; (3) logging practices and harvest levels, e.g., clearcutting; (4) conflicts between motorized and non-motorized uses; (5) a concern that the Chequamegon-Nicolet NFs are biased towards motorized uses; (6) concerns about land use planning and getting residents more involved in the process; (7) more industry, not tourism, to insure economic prosperity; (8) high taxes; (9) too much residential and commercial development; (10) parking fees on National Forest land; (11) local vs. national interests concerning management of the National Forests; (12) closures to motorized uses on the CNNF; (13) conflicts between the road regulations of the CNNF and local townships; (14) concerns over balancing local forest product needs with aesthetic experiences of forest visitors; (15) desire that the Forest Plan emphasize forest management practices that sustain local employment opportunities; (16) Forest management should emphasize the reservation of bio-reserves; (17) concern that the Great Lakes area national forests are viewed as the primary source of timber now that the Pacific Northwest forests are in decline; (18) provision for forest structural integrity and biodiversity with sustainable forestry practices; and (19) concerns about the effects of mineral exploration and mining in northern Wisconsin.

Drummond

The community of **Drummond** primarily views itself as a forest- and lake-based recreation and tourism area. The school district and churches provide the foundation for community social interaction. Drummond experienced a moderate population increase from 1980 to 1990 with new residents primarily attracted to the area's natural resources and recreation opportunities. Area residents feel connections to the area's lands and waters. They enjoy hunting, fishing, water sports, and winter sports. They want to maintain their quality of life by maintaining the quality of their environment (clean water and healthy forests).

Forestry and forest products play a key role in the Drummond economy. The community has one sawmill and one wood product manufacturing company. 50% of the area's employment is forest-related and 50% is recreation and tourism-related. Area residents understand the important economic impacts of federal, State, county, and private forests on the local community as well as how these forests affect the viability of forest-dependent occupations.

The following subjects were identified as issues by Drummond respondents: (1) increasing land prices preventing moderate income families from moving into or staying in the area; (2) local politics and law enforcement; (3) increasing population, new home development, and "outside money" causing an increase in taxes; (4) increasing juvenile

crime and drug use; (5) sound management decisions and stricter enforcement of regulations to prevent misuse of the area's natural resources; (6) outboard motor and snowmobile pollution on area lakes; (7) conflicting viewpoints between farmers and those who are economically dependent on recreation, tourism, and/or forestry; (8) conflicting viewpoints on land use practice between locals and new residents; (9) development on Spider Lake and the South Shore of Lake Superior; and (10) public lands and resources being converted to private ownership and management.

Eagle River

Eagle River residents define the "great north woods experience" in terms of its lakes and rivers. Eagle River is a tourism-dependent community; tourism is the number one source of income. Many new residents have moved to the area to start businesses that support the expanding tourist trade.

The next leading sources of income are forest product-related jobs. There are several area mills and manufacturing businesses that depend on raw materials from area forests. A natural resources education center, "Trees for Tomorrow," is located in Eagle River. The influx of new residents into Eagle River has produced a diverse population. The community represents a broad range of values on many social, economic, and ecological issues. Residents generally support a growth in tourism but they do not want to see the level and type of development that has occurred in the Minocqua area.

Eagle River has important social and economic ties to area forests and public land management. Campgrounds on the Eagle River-Florence Ranger District have more visitors than other campgrounds on the Chequamegon-Nicolet National Forests. Access to area lakes on public lands is important to local residents. Many area resorts promote access to the Forests' trails and other facilities as part of their vacation packages.

The following subjects were identified as issues by Eagle River residents: (1) sufficient opportunity for residents to influence decisions regarding the recreational development and management of the CNNF; (2) high cost of lake shore property; (3) uncontrolled off-road/off-trail access for ATVs (like on the Chequamegon under the 1986 Forest Plan); (4) declining national forest recreation budgets; (5) meeting the needs of an increasing variety of visitors, e.g., older wealthy tourists with motor homes vs. tent campers; (6) the role of township and/or county-level zoning in the development of future Forest Plans; (7) incompatible demands for recreation opportunities and activities, e.g., jet skis and ATVs vs. silent sports; and (8) increasing the involvement of local people in the Forests' management decisions.

Florence

Since many Florence residents work north of the Wisconsin border, much of the growth and prosperity of **Florence** is tied to the community of Iron Mountain, Michigan. Community members value the low population density of the area and are aware of the trade-offs between solitude and area economic diversity and health. A recent influx of new residents has brought some new issues and a broader array of values. Despite the fact that there are different viewpoints on many issues, there does not seem to be much polarization in the community. Florence residents, in general, feel that the area is the silent sports capital of northern Wisconsin. Canoeing, fishing, and hunting are very popular activities. Many local residents use large tracts of forest industry land for their recreational pursuits. Local people are very proud of the Brule, Pine, and Popple "wild rivers." Despite the popularity of silent sports, snowmobiling is very popular. Community

residents see a need for timber harvesting and are accustomed to the presence of logging on large forest industry lands in the area.

Although the community is fairly dependent on natural resources and is home to the Florence Natural Resource Center, Florence residents do not seem to feel as strong a tie to the Chequamegon-Nicolet National Forests as some of the other functional communities.

The following subjects were identified as issues by Florence residents: (1) high property taxes; (2) public lands and resources being converted to private ownership and management; (3) need to find new ways for the National Forests to share income with local communities; (4) potential impacts of mineral development on area resources; (5) the role the Forests will play in mineral development; (6) how land development along the Brule River may impact access and the quality of the river experience; (7) maintaining a minimum level of access to the Chequamegon-Nicolet NFs; and (8) supporting road closures to protect the health and productivity of the land.

Gilman

Gilman is a small close-knit agricultural community in southwest Taylor County. The community is very proud of its schools and the accomplishments of local students. Key informants indicate that there is a high degree of interpersonal communication between residents, and people frequently support each other and work together. They feel that the small size of the community lends itself to a "family-oriented atmosphere" that is not usually possible in larger towns. Many residents make a daily commute to Medford for employment. Farm-related winter layoffs provide some difficulties for the local economy. Some new and returning residents have been moving to Gilman, but overall the population is reported to be in decline.

Although the community supports some small-scale logging and forest product collection, the primary links to area forests and public lands are recreational. Gilman is generally not regarded as a significant tourist area, but it does receive some visitation from campers on the National Forests who come to town for church and other local services. Area residents enjoy the use of public lands for hunting, fishing, horseback riding, snowmobiling, and ATV riding.

The following subjects were identified as issues by Gilman residents: (1) youth leaving the area because of a lack of employment opportunities; (2) declining population and increasing property taxes to maintain the present high quality of the school system; (3) maintaining the economic health of local industries; (4) general opposition to road and trail closures on the Chequamegon-Nicolet NFs; (5) concerns about impacts of potential decreases in allowable timber harvest levels on local timber operators; (6) economic and environmental concerns associated with potential area mining operations; (7) conflicts between motorized and non motorized uses and the different values of local people and non-local visitors; (8) increased frequency of property sales and consequent changes in land use; and (9) potential forest management changes that can affect area residents who rely on the Forests' resources and/or income generated by recreation activity.

Glidden

Glidden is located on the edge of the Chequamegon-Nicolet NFs. The community lost most of its forest industry and logging jobs in recent decades but is now beginning to diversify its economy with small industry and other businesses. Some former residents

who left Glidden years ago to seek employment elsewhere are now returning to retire or take advantage of the upswing in the local economy.

Glidden has strong ties to the area's forests and public lands because they provide both recreational and economic opportunities. The community is not an important summer vacation destination because it lacks quality lakes and rivers for water-oriented recreation. However, it enjoys a significant influx of winter visitors who use the area's extensive network of snowmobile trails. In addition, some people gather moss and boughs for a local craft-supply industry.

The following subjects were identified as issues by Glidden residents: (1) providing for economic diversity and keeping the community on an upswing; (2) maintaining characteristics that contribute to a high quality of life, e.g., low population density and quality recreation opportunities; and (3) encouraging new local businesses without burdening them with excessively high taxes.

Hayward

Hayward's wooded setting and numerous lakes make it a very attractive place to live and visit. The Hayward area is a destination for many tourists and seasonal residents, as well as home for permanent residents seeking a change from big city life. Although the community supports successful forest product-related businesses like Louisiana-Pacific and Johnson Timber, it is mostly dependent on recreation and tourism for its livelihood. Key informants consider Hayward to be a full employment community, meaning that the economy of the area is not dependent on the seasons or the availability of various natural resources. Tourism and recreation in and around Hayward are year-round industry.

Part of the Hayward atmosphere is its emphasis on promoting silent sports such as cross-country skiing, mountain biking, and viewing wildlife. Local events such as the American Birkebeiner Cross-Country Ski Race and the Chequamegon Fat Tire Fest Mountain Bike Race have made Hayward an international recreation destination for over 20 years. Hayward's population has been growing in recent years as people take advantage of new business opportunities and the quality of the natural environment.

The vitality of Hayward is dependent on the surrounding lakes and forests. The local economy provides many natural resource-dependent employment opportunities. The Chequamegon-Nicolet National Forests are an important part of Hayward's recreational and economic picture. The number of area lakes strongly relates to the influx of new residents and the number of annual visitors. Key informants feel that National Forests' timber harvesting provides only a small percentage of the wood products used by local industries. Logging also occurs on private industrial forestland, State and county lands, Native American lands, and small private holdings.

The following subjects were identified as issues by Hayward residents: (1) loss of some small local businesses; (2) property values in the community of Hayward remain the same while outlying lakeshore properties increase; (3) need for a comprehensive long-range management plan to manage rapid growth; (4) retailer competition; (5) concerns about loggers purchasing "natural lands" for consumptive use then reselling them after harvest; (6) permanent loss of habitat and aesthetic changes as a result of increasing residential development; (7) conflicts between user groups, such as motorized and non-motorized recreation activities; and (8) timber harvesting issues, such as cutting vs. not cutting, and types of timber harvesting methods.

Lakewood

Lakes and forests surround the community of **Lakewood**. The community has become increasingly dependent on recreation and tourism in recent years, and less dependent on timber harvesting and other natural resource consumptive uses. The population of the Lakewood area is on the rise as more people move there to retire or start new businesses and take advantage of a quieter, slower pace of life (compared to the urban areas most of them come from). The influx of new residents has brought new members and new ideas to some community boards and committees. The Townships of Lakewood, Townsend, and Mountain have a joint Chamber of Commerce that fosters a high level of inter-community involvement to promote the area as a tourist destination. The Lakewood area is a favorite summer destination for boating and fishing, fall hunting, and both motorized and non-motorized winter activities. Interviewees said that Lakewood residents generally do not need to travel outside of the area for church, daily shopping, automotive services, and health care.

A major portion of Lakewood's tourism economy is based on the availability and accessibility of the surrounding forests and public lands. The management and care of area natural resources must remain a high priority to ensure Lakewood's continued growth and prosperity. Lakewood's economy is at least partially dependent on people who utilize the community's services when recreating on the Chequamegon-Nicolet NFs (hunting, fishing, camping, boating, etc.).

The following subjects were identified as issues by Lakewood residents: (1) environmental impacts associated with mineral exploration and extraction; (2) need for a comprehensive long-range management plan to provide improved zoning and manage rapid growth; (3) water consumption by local industry; (4) quality health care, especially for an aging population; (5) adopting new ideas to address the changes resulting from an influx of new residents; (6) property tax increases that have resulted from expensive new seasonal and permanent homes; (7) impacts on small timber operators from potential decreases in the allowable timber harvest on National Forest land; (8) local poverty in Oconto County; (9) land use changes, the availability of land, and access to public lands and waters; (10) conflicts about the "appropriate use" of motorized vehicles; (11) preserving old growth on the Chequamegon-Nicolet NFs; and (12) aesthetics and safety concerns due to overcrowding during the deer hunting season ("a sea of orange").

Land O' Lakes

Land O' Lakes is starting the transition from a wood products and forest industry dependent community to a service community for retirees and second homeowners. Many Land O' Lakes residents who work in forest industry or related areas need to travel to distant places for employment. Absentee landowners who own second homes are becoming predominant in the area.

The community's population is diverse and continues to change. Like many small communities, Land O' Lakes residents take a lot of pride in their local schools and are generally opposed to consolidating with other nearby community school systems. The Land O' Lakes area has various amenities expected by vacationers, including improved roads, gas stations, restaurants, and other businesses. Some long-time area residents feel that the wealthier absentee landowners need some "educating" about forest use. They feel that the new residents do not understand the history and tradition of the community and how the permanent residents benefit from good forest management.

The Land O' Lakes community still has some strong ties to the raw materials and recreation offered by the area's forests. The logging and forest industry emphasis is shifting from public to private land. However, many long-time residents worry that new absentee landowners will not practice the type of stewardship they identify with public land management agencies, resulting in a decrease in wildlife game species such as white-tailed deer and ruffed grouse. Many residents attribute their high quality of life to living near the Chequamegon-Nicolet National Forests, but are critical of the fact that less timber has been sold in recent years.

The following subjects were identified as issues by Land O' Lakes residents: (1) counties and local townships receiving less money (25% Funds and payments in lieu of tax money) because less timber is being cut on national forest land; (2) timber sales on the CNNF are too large and expensive for the small business loggers to acquire; (3) recreation activity use conflicts, especially illegal ATV use on National Forest lands and trails; (4) the inability of Forest managers to adequately maintain and monitor trail systems with declining budgets and changing management priorities; (5) extensive National Forest/township road systems are a drain on community budgets; (6) need for planned local community development to lessen impacts on local resources; (7) a better definition of the CNNF's role in sustaining the health of local communities; (8) the CNNF should be managed as forests, not parks; (9) a need for the Forests to determine how to maintain populations of wildlife game species if aspen stands are not going to be cut; and (10) a need to balance the demand for a variety of recreation opportunities on national forest land.

Laona

Laona and the surrounding area have several businesses that process local forest resources. Local schools and churches provide social interaction opportunities for area residents. The school district covers a large area that includes many small remote towns. Medical and dental facilities and everyday goods and services are available in the community and immediate area. Crandon, which is the Forest County seat, provides many needed goods and services for Laona residents.

Laona has been experiencing a modest population growth in recent years. Many of the new residents are retirees and younger people (some former residents) who are leaving the large cities for a more tranquil lifestyle. There are many opportunities for recreation activities such as hunting and fishing. With the area's resources and recreation opportunities so close at hand, many people take advantage of the opportunity to go hunting or fishing after work. Large tracts of public and private lands are available for recreation activities such as hunting and snowmobiling.

Area residents are very concerned about how local area natural resources are managed and protected. Local people are starting to appreciate and take advantage of the increasing tourist trade, but are concerned about the potential downside of rapid growth and influx of second homeowners that some other northern Wisconsin communities have experienced.

Many residents make their living entirely from the surrounding public and private forests. Several local forest product industries have very strong economic ties to the surrounding National Forest and private forestlands. These businesses base many of their management decisions on the continued level of available National Forest timber. Recreation and tourist-based businesses are also affected by National Forest management decisions such as road closures and other use restrictions.

The following subjects were identified as issues: (1) counties and local townships receiving less money (25% Funds and payments in lieu of tax money) because less timber is being cut on National Forest land; (2) the Chequamegon-Nicolet NFs do not return enough money to the local communities for the amount of land they own; (3) concerns regarding the ability to maintain the high quality of community schools; (4) increasing property taxes; (5) decreasing National Forest timber harvest levels; (6) user conflicts such as sportsmen vs. Native American hunting and fishing rights, and motorized vs. non motorized recreation activities; (7) ATV use not being allowed on the Nicolet National Forest (very few places for locals to operated their ATVs); (8) the possible effect of the Crandon mine on property values, taxes, water quality, etc; (9) increasing recreation activity use levels and possible impacts on the quality of recreation experiences; (10) population declines and increases—will young people leave the area for job prospects elsewhere, or will an influx of second homeowners and vacationers lead to increased population as happened in Lakewood; and (11) forest health problems such as gypsy moth defoliation.

Long Lake

Many **Long Lake** area residents feel the recent economic decline in their community is directly related to lower timber harvest levels on the Chequamegon-Nicolet National Forests. Presently there are only about two timber industry jobs in the Long Lake area compared to a high of about 60 in the 1960s. The population has declined as people look elsewhere for jobs. Several years ago the community lost its school to area consolidation, a move seen by many as the "last nail in the coffin" for the town's viability. There are few opportunities to diversify the local economy with tourism because the area does not have the large deep lakes that attract visitors.

The people of Long Lake had stronger ties to the surrounding National Forest lands when the Forests were seen as a source of wood products for their livelihood. Area loggers were dependent on National Forest timber sales for job opportunities. Many residents feel the Forest Service did not protect water resources and generate a sustained yield of forest products as it promised when the lands were first acquired by the federal government. Many of these people were self-employed woods workers who continue to see the National Forest as source of income. Some loggers still find work on National Forest and private land timber sales in the area, but many of them have left the community for work elsewhere. The remaining residents have emotional ties to the surrounding forests. They enjoy the isolation, scenic beauty, and recreation activities the area offers and believe these amenities enhance their quality of life.

The following subjects were identified as issues by Long Lake residents: (1) the Chequamegon-Nicolet National Forests should honor the harvest levels proposed in 1986 Forest Plans because those levels would maintain local forest industries and wildlife game species populations; (2) National Forest timber sales are too large and expensive for the small business loggers to acquire; (3) area residents feel that they should not have to pay user fees for national forest products and activities that should be free to all taxpayers; (4) maintaining the extensive National Forest/township road systems is a drain on county budgets; (5) effects of the Crandon mine on water quality and the Chequamegon-Nicolet NFs' role in preventing negative environmental impacts from the mine; (6) maintenance of National Forest access to traditional use areas; (7) reduced federal payments to Counties and local townships (25% Funds and payments in lieu of taxes) because less timber is being cut on the National Forests; and (8) the local community should be more involved in planning and decision-making for the Forests.

Medford

Medford prides itself on being a neat, quiet, family-oriented community. Medford is the county seat and a regional service center for Taylor County, providing employment, shopping, medical, and legal services, as well as social opportunities. Some key informants estimate the city's population doubles during the workday.

Recent population growth has expanded public schools and played a role in establishing several national retail, lodging, and food service establishments. Many young professionals have moved to the Medford area to fill middle management positions with large corporations, hospitals, clinics, the school district, or government. These new residents have taken active roles in the community, helping to create a more progressive atmosphere. The area's natural resources were mentioned as being a strong factor in peoples' decisions to locate in the Medford area.

As a "gateway to the North Woods," Medford recognizes the social and economic importance of recreation and tourism. Many travelers on Highway 13 stop in Medford en route to their destination for food, lodging and other services. The community has strong ties to National Forest-based tourism. Some small scale, family-owned and operated timber processing operations rely on the availability of National Forest timber sales for their livelihood. In addition, agriculture plays an important role in the character and economy of the area, accounting for approximately one-third of the Taylor County area economy.

The following subjects were identified as issues by Medford area residents: (1) there should be more local input in CNNF management decisions that affect local resource users; (2) land use changes and additional access restrictions to public lands and waters; (3) negative visual impacts from clearcutting on surrounding area public and private forest lands; (4) the availability and condition of natural resources should be dictated by demand; (5) the lack of tax money from public lands; (6) property tax increases associated with new, expensive home construction that drives up property values; (7) high taxes relative to area income levels; (8) insufficient tax revenue to support the infrastructure needs of townships with a high percentage of public land; (9) potential impacts of mineral exploration and extraction on the natural environment as well as impacts of these activities on employment and economic gain; (10) resource user conflicts, especially motorized vs. non-motorized uses; (11) aquatic vegetation and water level management on the Mondeaux Flowage; (12) reduced timber sales on National Forests leading to fewer 25% Fund dollars available for use by local governments for road maintenance; (13) National Forest timber sales that are still being offered are too large and expensive for the small business loggers to acquire; (14) need for construction of more schools to accommodate a growing population; and (15) improvement of local health care facilities to be on a par with facilities in the larger regional cities.

Park Falls

Park Falls provides opportunities for its residents to work and play in the North Woods. Residents feel they have a "hometown" quality of life that makes Park Falls a unique place to live. Many new residents are retirees; there are few young people moving into the area, Community leaders are concerned that Park Falls will suffer if young people continue to leave the area in search of job opportunities elsewhere. Young and old alike are recognized as socially healthy for the area, but younger new residents are needed for the community to continue to prosper.

Park Falls' residents are very knowledgeable about the surrounding public and private forest lands and have a particular interest in how the Chequamegon-Nicolet NFs are managed. The economic stability of the community is dependent on the financial health of the local paper mill. Forest-based tourism adds some diversity to a mill-dependent economy. The area's recreation opportunities make the area popular with visitors year-round. Much of the recreation activity is motorized (ATVs and snowmobiles). Hunting is a major recreation activity that generates significant dollars from visitor spending. Both the Chequamegon-Nicolet NFs Headquarters and the Park Falls Ranger District Offices have a strong influence on the local community. The Forest Service is a major employer and many of the agency's employees are community leaders.

The following subjects were identified as issues by Park Falls residents (1) diversification of the local economy and the Forest Service's role in that diversification; (2) continued access to local National Forest recreation areas; (3) the importance of National Forest timber harvest levels for some Park Falls forest resource-dependent families; (4) effects of decreased aspen harvesting on game species populations; (5) maintenance costs for Forest Service/Township roads; (6) potential quality of life impacts from mineral development and the Forest Service's environmental protection role with respect to mineral development; and (7) the effect of growing recreation demands on the National Forests' ability to meet multiple-use management responsibilities.

Phillips

The growth and prosperity of **Phillips** is attributable to its diverse economy and strong commitment to the economic health of area businesses and industries. Many of Phillips' new residents are retirees, but the community has also seen an influx of younger workers to meet industry demands for skilled labor. The healthy economic climate of the area has resulted in an expanded airport, a growing and innovative school system, a new public library, and strong financial support for these improvements by local industries. Although some area families are employed in the logging and wood products industry, and a few people operate resorts, National Forest management does not seem to have significant impacts on the community as a whole.

Phillips has fairly strong ties to the Flambeau River State Forest and other nearby State lands. The community does not have as strong a tie to National Forest lands because access to the CNNF is somewhat more difficult. Phillips looks to the State and federal lands primarily for recreation opportunities. However, water-based activities on a string of community lakes are probably Phillips' first recreational priority.

The following subjects were identified as issues by Phillips residents: (1) need for a comprehensive planning process to manage growth and promote continued economic development opportunities; (2) how to manage or control pressure to develop Phillips into a major recreational area; and (3) need to support needed services (like schools, library, and airport) without burdening community residents with high property taxes.

Washburn

Washburn is largely a bedroom community for residents who work in the highly developed tourist/resort economy of Bayfield to the north or the economically diverse economy of Ashland to the south. Its relatively low population density, combined with its access to beautiful and varied natural areas and diverse recreation opportunities, provide a high quality of life for Washburn residents. The community is blessed with a range of recreation opportunities from boating on Lake Superior to horseback and ATV riding on the nearby Chequamegon Forest.

Washburn has strong ties to the surrounding forests and public lands—particularly for recreation opportunities. Although Lake Superior is a magnet for water-based recreation, local residents particularly value the area's inland lakes, trails, and camping facilities. Although a few area residents depend on National Forest timber resources for their livelihood, most residents view the Chequamegon-Nicolet NFs as an important place to enjoy recreation activities such as snowmobiling, ATV use, horseback riding, and berry picking.

The following subjects were identified as issues by Washburn residents: (1) community resentment at having to pay day-use fees on National Forest land for activities that should be free to all tax paying citizens; (2) motorized vs. non-motorized recreation activities (snowmobilers, ATV users, cross-country skiers, horseback riders, and hikers); (3) need to control community growth and development to maintain valuable resources and natural features that contribute to a high quality of life; (4) meet the demand for additional and more diverse services without burdening community residents with high property taxes; and (5) educate the public about National Forest activities and increase opportunities for community residents to be more involved in National Forest management.

The Jakes et al (1998a) study illustrates a series of issues and concerns from communities that are affected in various ways by the CNNF Forest Plan and alternatives. While the Forest Service has the ability to influence many of the issues identified by community residents (i.e. ATV use on National Forest lands), other issues (i.e. high taxes) are beyond its control.

Public involvement is an important part of the Forest Plan revision process. Throughout the planning process, public involvement activities helped shape planning criteria, management prescriptions, forestwide and management area standards and guidelines, Forest goals and objectives, and the range and content of Forest Plan alternatives. In addition to the Jakes study mentioned earlier, open houses, meetings, newsletters, and news releases have informed the public about the progress of the revision and provided opportunities for public involvement in the decision-making process. For more information on the public involvement process see Appendix A of the FEIS.

Population

Average Wisconsin population density increased by 11.74% from 1980-2000. On average, the population density of the 15-county Northern Wisconsin Economic Impact Area (Ashland, Bayfield, Florence, Forest, Langlade, Lincoln, Marinette, Oconto, Oneida, Price, Sawyer, Taylor, and Vilas Counties in Wisconsin; and Dickinson and Iron Counties in Michigan) increased by less than 10 people per square mile.

For each county within the NWEIA, Table 3-91 displays county populations for 1990, 1995, and 2000 as well as population projections for 2005 to 2020. These county population increases ranged from a low of 1.4% for Price County to a high of 18.8 % for Vilas County. Florence, Forest, Oconto, Oneida, Sawyer, and Vilas Counties all experienced double digit population percent increases (approximately 10%-16% increases). Michigan county population changes were positive (+2.3%) for Dickinson County and negative (-0.3%) for Iron County.

Table 3-91. Existing Population (Calendar Years 1990 to 2000), Population Projections (2005to 2020) by County[1]

County	Year						
	1990	1995	2000	2005	2010	2015	2020
Ashland	16,307	16,440	16,866	17,120	17,461	17,803	18,108
Bayfield	14,008	14,557	15,013	15,432	15,830	16,129	16,315
Florence	4,590	5,211	5,088	5,220	5,348	5,410	5,444
Forest	8,776	8,980	10,024	10,182	10,350	10,448	10,465
Langlade	19,505	20,300	20,740	21,165	21,616	21,986	22,244
Lincoln	26,993	28,243	29,641	30,018	30,511	30,885	31,232
Marinette	40,548	41,837	43,384	43,875	44,557	45,024	45,251
Oconto	30,226	31,594	35,641	97,720	39,670	41,385	43,018
Oneida	31,679	33,563	36,776	37,515	38,284	38,846	39,254
Price	15,600	15,668	15,822	15,797	15,831	15,791	15,728
Sawyer	14,181	15,000	16,196	16,923	17,633	18,133	18,391
Taylor	18,901	19,325	19,680	19,793	19,998	20,254	20,459
Vilas	17,707	18,987	21,033	21,532	22,009	22,240	22,271
Dickinson (MI)	26,831	27,200	27,472	27,500	27,700	27,900	28,100
Iron (MI)	13,175	13,100	13,138	12,300	11,900	11,600	11,200
Totals	299,027	310,005	326,514	392,092	338,698	343,834	347,480

[1]*Wisconsin and Michigan data was from the U.S. Census. Updated Wisconsin county population projections were obtained from the Demographic Services Center, Wisconsin Department of Administration, October 21, 2003, which were also based on U.S. Census data.*

Environmental Justice

All federal actions, including forest plan revision environmental impact statements, are required by Executive Order 12898 to address questions of equity and fairness in resource decision making. This section considers and analyzes potentially disproportionate effects on minority and low-income communities. Principals for considering environmental justice are outlined in "Environmental Justice Guidance," under the National Environmental Policy Act, Council on Environmental Quality, 1997.

Tables 3-92 and 3-93 provide demographic data for identifying potential communities of concern. Six separate racial components were identified: White, African American, American Indian and Alaska Native, Asian and Pacific Islander, Hispanic or Latino, and Other. In 2000, approximately 95% of the 15-county NWEIA was white. Native Americans made up the second most significant racial component, with an average of just over 3% of the area's population. Changes in the racial components of the total area population within the 15-county area were relatively small during the 1990 to 2000 time period.

Table 3-92. Total Population and Racial Components by County, Calendar Years 1990 & 2000[1]

County	Total Population		White		Black or African American		American Indian and Alaska Native		Asian and Pacific Islander		Other Races		Hispanic or Latino	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Ashland	16,307	16,866	14,749	14,690	17	36	1,478	1,745	46	61	17	49	106	188
Bayfield	14,008	15,013	12,707	13,280	29	20	1,240	1,409	24	42	8	39	50	91
Florence	4,590	5,088	4,562	4,995	4	8	14	22	4	15	6	7	11	23
Forest	8,776	10,024	7,842	8,607	127	118	780	1,133	14	21	13	23	30	108
Langlade	19,505	20,740	19,291	20,311	13	31	137	113	22	62	42	42	104	171
Lincoln	26,993	29,641	26,712	28,977	84	123	96	130	78	124	23	86	118	243
Marinette	40,548	43,384	40,280	42,550	8	100	150	215	63	128	47	91	156	325
Oconto	30,226	35,634	29,926	34,836	18	48	212	277	36	77	34	84	107	240
Oneida	31,679	36,776	31,320	35,934	58	121	223	242	56	126	22	77	90	244
Price	15,600	15,822	15,479	15,541	7	215	77	242	27	1,540	10	288	59	967
Sawyer	14,181	16,196	11,962	13,236	18	51	2,167	2,603	15	51	19	56	101	145
Taylor	18,901	19,680	18,807	19,427	2	17	39	37	44	46	9	37	42	127
Vilas	17,707	21,033	16,116	18,865	9	43	1,534	1,909	38	40	10	39	61	181
Dickinson (MI)	26,831	27,472	26,532	26,909	23	32	135	142	106	117	35	39	116	187
Iron (MI)	13,175	13,138	13,028	12,649	4	164	102	245	32	44	9	52	67	84
Total	299,027	326,507	289,313	310,807	421	1,127	8,384	10,464	605	2,494	304	1,009	1,218	3,324

[1] *Source of information: 2000 U.S. Census Data*

Table 3-93. Racial Components as Percent of Total Population by County, Calendar Years 1990 & 2000[1]

County	Total Population		Percentage											
			White		Black or African American		American Indian and Alaska Native		Asian and Pacific Islander		Other Races		Hispanic or Latino	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Ashland	16,307	16,866	90.4	87.1	0.1	0.2	9	10.3	0.3	0.3	0.1	0.3	0.6	1.1
Bayfield	14,008	15,013	90.7	88.5	0.2	0.1	8.8	9.4	0.1	0.3	0.1	0.3	0.3	0.6
Florence	4,590	5,088	99.4	98.2	0.1	0.2	0.3	0.4	0.1	0.3	0.1	0.1	0.2	0.5
Forest	8,776	10,024	89.3	85.9	1.4	1.2	8.9	11.3	0.2	0.2	0.1	0.2	0.3	1.1
Langlade	19,505	20,740	98.9	97.9	0.1	0.1	0.7	0.5	0.1	0.3	0.2	0.2	0.5	0.8
Lincoln	26,993	29,641	98.9	97.8	0.3	0.4	0.3	0.4	0.3	0.4	0.1	0.3	0.4	0.8
Marinette	40,548	43,384	99.3	98.1	0.02	0.2	0.4	0.5	0.1	0.3	0.1	0.2	0.4	0.7
Oconto	30,226	35,634	99	97.8	0.1	0.1	0.7	0.8	0.1	0.2	0.1	0.2	0.3	0.7
Oneida	31,679	36,776	98.8	97.7	0.2	0.3	0.7	0.7	0.2	0.3	0.1	0.2	0.3	0.7
Price	15,600	15,822	99.2	98.2	0.1	0.1	0.5	0.6	0.1	0.3	0.1	0.1	0.3	0.7
Sawyer	14,181	16,196	84.3	81.7	0.1	0.3	15.2	16.1	0.1	0.3	0.1	0.3	0.7	0.9
Taylor	18,901	19,680	99.5	98.7	0.01	0.1	0.2	0.2	0.2	0.2	0.04	0.2	0.2	0.6
Vilas	17,707	21,033	91	89.7	0.05	0.2	8.6	9.1	0.2	0.2	0.05	0.2	0.3	0.9
Dickinson (MI)	26,831	27,472	98.9	98.0	0.1	0.1	0.5	0.5	0.4	0.4	0.1	0.1	0.4	0.7
Iron (MI)	13,175	13,138	98.9	96.3	0.03	1.1	0.8	1.0	0.2	0.2	0.1	0.2	0.5	0.6
Totals [2]	299,027	326,507	96.7	95.2	0.1	0.3	2.8	3.2	0.2	0.7	0.1	0.3	0.4	1.0

[1] *Source of information: 2000 U.S. Census Data*

[2] *Average percentages are total racial component populations divided by the total 1990 and 2000 area populations.*

National forest system lands are managed in consultation with American Indian rights and programs as interpreted by court decisions, congressional law, and in executive orders and other actions of the President and executive branch. The Chequamegon-Nicolet National Forests: (1) maintain government to government relationships with federally recognized tribes; (2) implement Forest Service programs and activities honoring Indian treaty rights, and fulfill legally mandated trust responsibilities; (3) administer programs and activities to address and be sensitive to traditional Native religious beliefs and practices; (4) recognize federal treaty and trust responsibility through the "Memorandum of Understanding Regarding Tribal—USDA-Forest Service Relations on National Forest Lands within the Territories Ceded in Treaties of 1836, 1837, and 1842"; and (5) provide research, transfer of technology, and technical assistance to Indian governments (USDA FS 1997c).

Housing

The average total housing density for Wisconsin increased by approximately 32% from 1990 to 2000. Table 3-94 shows total housing and seasonal, recreational, and occasional use housing density changes in the 15 Northern Wisconsin Economic Impact Area (NWEIA) counties. An increase in density means more housing units per acre.

In counties where there was an increase in the number and density of seasonal, recreational, and occasional use homes, the number of newly constructed homes for seasonal, recreational, or occasional use exceeded the number of such homes that were converted to permanent dwellings (Table 3-94). Counties where there was a decrease in the number and density of seasonal, recreational, and occasional use homes had more of these types of homes converted to permanent dwellings than those that were newly constructed.

Table 3-94. Number of Housing Units by County, Calendar Years 1990 & 2000[1]

County	Total Number of Housing Units		Number of Occupied Housing Units				Number and % of Vacant Housing Units				Number and % of Seasonal, Recreation, or Occasional Use Units [2]			
	1990	2000	1990		2000		1990		2000		1990		2000	
	#	#	#	%	#	%	#	%	#	%	#	%	#	%
Ashland	8,371	8,883	6,255	74.7	6,718	75.6	2,116	25.3	2,165	24.4	1,442	17.2	1,646	18.5
Bayfield	10,918	11,640	5,515	50.5	6,207	53.3	5,403	49.5	5,433	46.7	4,430	40.6	4,922	42.3
Florence	3,775	4,239	1,755	46.5	2,133	50.3	2,020	53.5	2,106	49.7	1,860	49.3	1,959	46.2
Forest	7,203	8,322	3,290	45.7	4,043	48.6	3,913	54.3	4,279	51.4	3,576	49.6	3,856	46.3
Langlade	10,825	11,187	7,563	69.9	8,452	75.6	3,262	30.1	2,735	24.4	2,594	24	2,158	19.3
Lincoln	13,256	14,681	10,159	76.6	11,721	79.8	3,097	23.4	2,960	20.2	2,521	19	1,949	13.3
Marinette	25,650	26,260	15,542	60.6	17,585	67	10,108	39.4	8,675	33	8,532	33.3	7,586	28.9
Oconto	18,832	19,812	11,283	59.9	13,979	70.6	7,549	40.1	5,833	29.4	6,666	35.4	4,837	24.4
Oneida	24,173	26,627	12,666	50.3	15,333	57.6	12,507	49.7	11,294	42.4	11,263	44.7	10,429	39.2
Price	9,052	9,574	6,054	66.9	6,564	68.6	2,998	33.1	3,010	31.4	2,378	26.3	2,519	26.3
Sawyer	13,025	13,722	5,569	42.8	6,640	48.6	7,456	57.2	7,082	51.6	6,824	52.4	6,658	48.5
Taylor	7,710	8,595	6,692	86.8	7,529	87.6	1,018	13.2	1,066	12.4	674	8.7	704	8.2
Vilas	20,225	22,397	7,294	36.1	9,066	40.5	12,931	63.9	13,331	59.5	11,632	57.5	12,587	56.2
Dickinson (MI)	12,902	13,702	10,633	82.4	11,386	83.1	2,269	17.6	2,316	16.9	1,689	13.1	1,574	11.5
Iron (MI)	9,039	8,772	5,655	62.6	5,748	65.5	3,384	37.4	3,024	34.5	2,584	28.6	2,377	27.1
Total / Average	194,956	208,413	115,925	59.5	133,104	63.9	80,031	41.1	75,309	36.1	68,665	35.2	65,761	31.5

[1] *Source of information: 2000 U.S. Census Data*

[2] *The number of seasonal, recreational, and occasional use housing units is also included in the vacant housing unit totals.*

Transportation Network

A network of U.S. and state highways provides the primary means of access to various places within the Chequamegon-Nicolet National Forests. Passenger railroad service is not available to any northern Wisconsin location and airlines deliver few visitors to the Forests.

The following highways provide the primary north-south and east-west vehicle access routes to the Chequamegon-Nicolet National Forests:

- U.S. 2 is, for the most part, a two-lane highway that runs from Superior through the Washburn Ranger District to Ashland, east from Ashland through the Bad River Indian Reservation to Hurley at the Michigan border, and on over to Florence on the northeast corner of the Forests. U.S. 2 is part of the "Lake Superior Circle Tour."
- U.S. 8 is a major two-lane highway across the northern half of Wisconsin that provides an east-west travel route mainly for visitor traffic from the Twin Cities area in Minnesota. Highway 8 passes between the Medford and Park Falls Ranger Districts, skirts Rhinelander, and crosses the northern portion of the Lakewood-Laona Ranger District.
- State Highway 13 (between U.S. 29 and U.S. 2) is a two-lane route used mainly by visitors from southern Wisconsin and the Twin Cities area traveling to destinations on the Chequamegon Forest (especially the Medford and Park Falls Districts). Highway 13 passes around the southern tip of Lake Superior's Chequamegon Bay on the way to Washburn and Bayfield.
- State Highway 17 is an important two-lane road from Rhinelander to Eagle River and portions of the Eagle River-Florence Ranger District. Highway 17, from Eagle River to the Michigan border, is very scenic with lakes and wooded shorelines. A Highway 17 bypass around Rhinelander is currently under construction.
- U.S. 29 is one of central Wisconsin's major east-west highways and is one leg of an important Twin Cities access route to parts of the Forests (using State Highway 13 or U.S. 51 from U.S. 29). This highway has recently been,fully upgraded to four-lanes between Chippewa Falls and Wausau. The portion of the highway from Interstate 94 to Chippewa Falls is now being reconstructed to accommodate four lanes of traffic.
- State Highway 32 (between U.S. 29 and U.S. 45) is an important access route to the Nicolet Forest for visitors from Green Bay and other points in east-central and southern Wisconsin. State 32 is a very scenic route that goes through the heart of the Lakewood-Laona Ranger District and on through the southeast part of the Eagle River-Florence District.
- U.S. 45 (from U.S. 29 through Antigo, Three Lakes, and Eagle River to the Michigan border) provides access to the Nicolet Forest for visitors from the eastern and southern parts of Wisconsin.
- State Highway 47 (from Rhinelander to State Highway 70 at Minocqua/Woodruff) parallels the Wisconsin River from Rhinelander to Lake Tomahawk and handles some eastern and southern Wisconsin visitor traffic heading for the Chequamegon Forest.
- U.S. 51 is a major north-south route that handles the bulk of the traffic that comes from the Madison, Milwaukee, and Chicago areas to the Chequamegon Forest. U.S. 51 is four lanes to just north of U.S. Highway 8, after which it is a heavily traveled two-lane highway. U.S. 51 ends in Hurley, just short of the Michigan State line. Twin Cities visitors can access the Nicolet Forest by following U.S. Highways 29, 51, and 8.

- U.S. 63 (between U.S. 8 at Turtle Lake and U.S. 2 west of Ashland) follows the scenic Namekagon River from U.S. 53 to Cable. U.S. 63 is an important travel route for some Twin Cities area visitors traveling to the Hayward area (Great Divide Ranger District) or north to the Washburn and Bayfield areas.
- State Highway 64 is an east-west two-lane road that skirts the southern districts of the Forests. The most important segments of the highway, for national forest access purposes, are from Medford west to the Medford Ranger District, and from Antigo east to the southern end of the Lakewood-Laona Ranger District.
- State Highway 70 is an important east-west two-lane road that provides direct access to both State and National Forest land. State Highway 70 is a very scenic route that parallels a portion of the North Fork of the Flambeau River and goes by numerous lakes as it passes through parts to the Northern Highlands-American Legion State Forest and the Park Falls and Eagle River-Florence Ranger Districts of the Chequamegon-Nicolet National Forests.
- State Highway 77 (the portion from Hayward to Mellen) provides direct access to the central part of the Great Divide Ranger District and is designated the "Great Divide National Scenic Highway."
- State Highway 139 (the portion from U.S. 8 to the Michigan border) provides north-south visitor access to the Florence portion of the Eagle River-Florence Ranger District.

Economic Effects Analysis

Indicator #1- 25% Fund, PILT

Payments to Counties

The fiscal condition of local governments in a tourism- and resource management-based economy is influenced by their proximity to a national forest. Increased costs typically associated with proximity to national forests include a higher demand for law enforcement, fire protection, road maintenance and construction, sewer and water systems, and various social services. Although they cannot be readily quantified, public land-related tourism and resource management can create a sizeable financial burden on local governments.

There are three types of payment that can be made each year to local governments to partially offset funding shortfalls from untaxed national forest lands. These payments are based in the following laws: the Payments in Lieu of Taxes (PILT) Act of 1976, the Twenty-Five Percent Fund of 1908 (25% Fund), and the Secure Rural Schools and Community Self-Determination Act of 2000 (SRSCS).

The Payments in Lieu of Taxes (PILT) Act of 1976 authorizes the Bureau of Land Management to make payments to states on behalf of counties that contain federal lands such as national forests. The PILT program provides a per acre payment based on annual congressional appropriations and a formula that incorporates population, income from other payments (such as the 25% Fund), and other factors. Only those acres that were on the tax roles when the lands were originally acquired by the federal government—known as entitlement acres—are subject to PILT payments. The decline in PILT payments to local counties during the 1990s was in part due to increasing 25% Fund payments during the same time. See Figure 3-85 for Total Forest PILT Payments for fiscal years (FYs) 1992-2001 and Figure 3-86 for 2001 PILT payments.

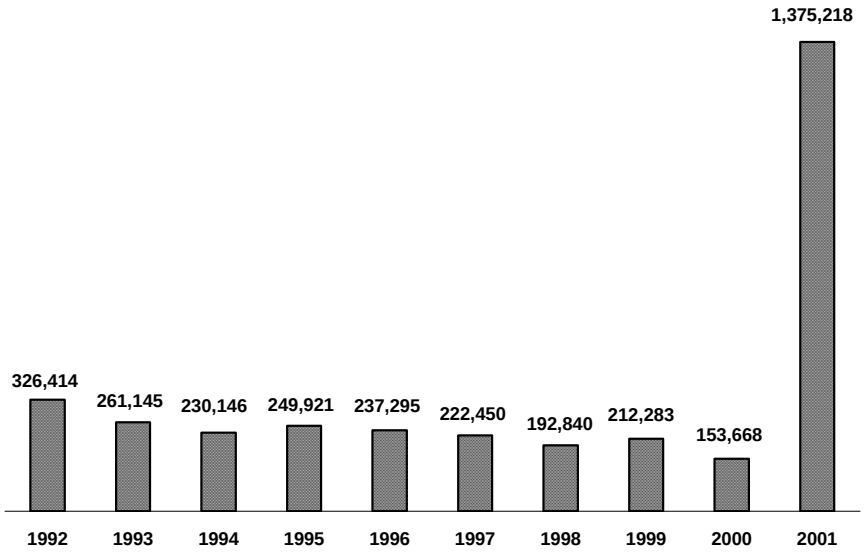

Figure 3-85. Total PILT Payments ($) – FY's 1992-2001 CHENI NF

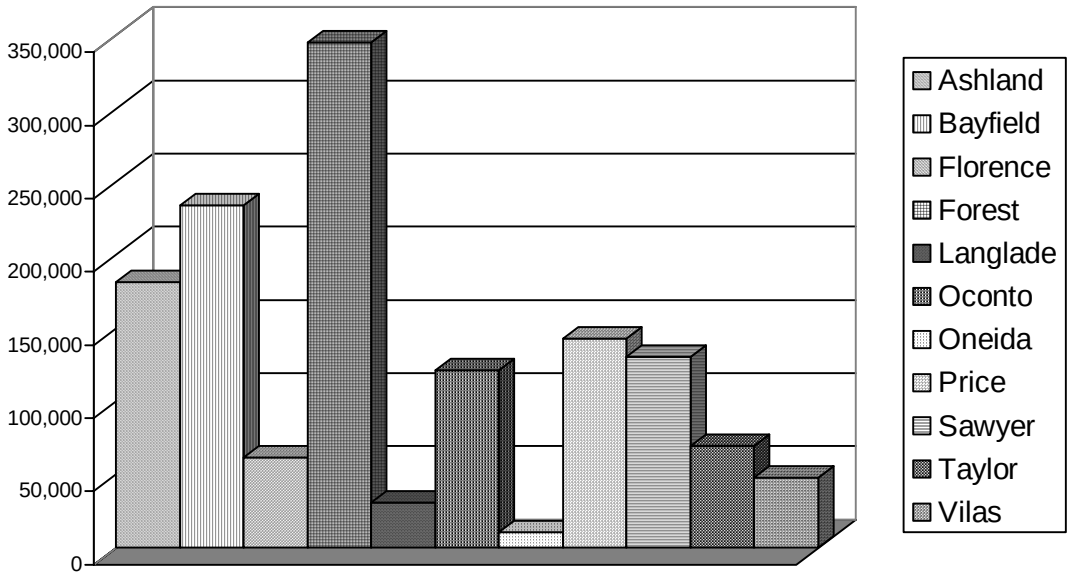

Figure 3-86. PILT Payments ($) by County – FY 2001

The 25% Fund (1908) authorizes the Forest Service to pay those counties that contain national forest land 25% of the annual net revenues derived from timber sales, special use permit fees, and leases for minerals, oil, and gas. The 25% Fund monies are apportioned to specific counties based on the percentage of national forest land located in that county. Payments can be used by the counties for school needs or for road maintenance and construction. Annual fluctuations in 25% Fund payments are mostly attributable to variations in the volume and price of timber harvested every year. The value of harvested timber products during the past decade has more than doubled, leading to increases in 25% Fund payments. See Figure 3-87 for Total Forest 25% Fund Payments, 1992-2001 and Figure 3-88 for 25% Fund Payments by County for FY 2001. Individual county PILT and 25% Fund payment amounts for 1992 to 2001 are available in the project file.

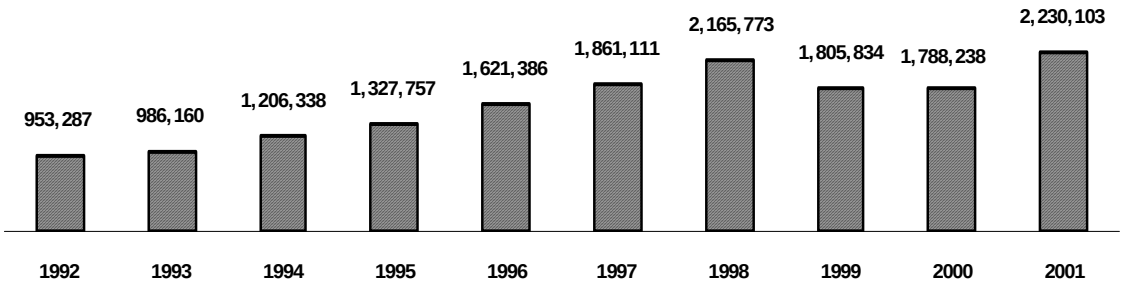

Figure 3-87. Total 25% Payments ($) – FY's 1992-2001 CHENI NF

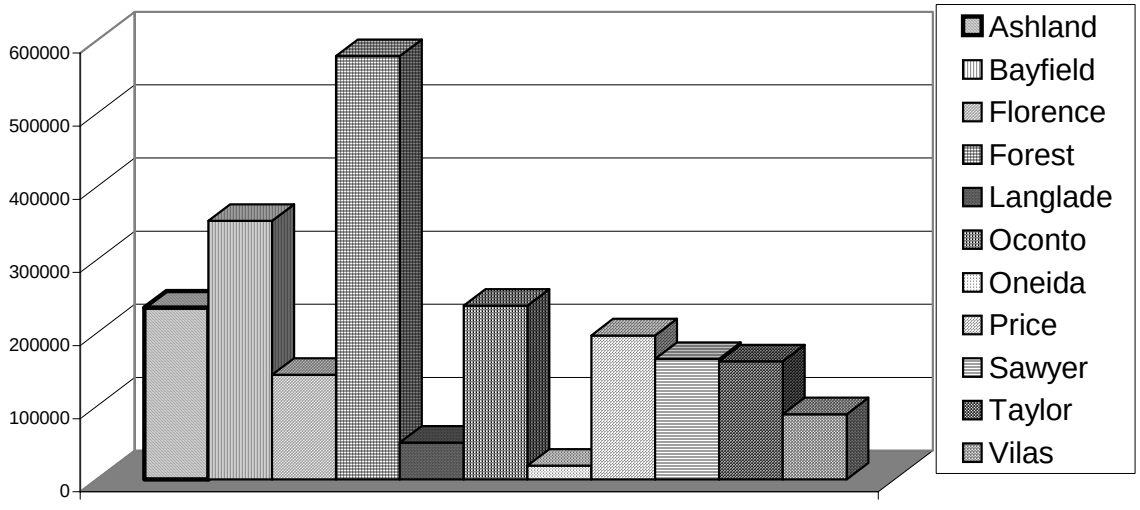

Figure 3-88. 25% Payments ($) by County – FY 2001

The Secure Rural Schools and Community Self-Determination Act of 2000 (SRSCS) provides counties with an additional payment option. The new law offers counties an opportunity to receive annual payments that do not fluctuate with national forest revenues. Under this option, payments are no longer directly tied to uses and revenues that change annually. The new "full payment amount" is based on an average of the three highest 25% Fund payments that the counties received from 1986-1999. This option provides stable payments, but removes the opportunity to receive higher payments if annual receipts should be higher.

If a county chooses the traditional 25% Fund payment, its share of the state's payment is applied toward roads and schools, as in the past. However, if a county chooses the full payment amount (SRSCS), its options vary depending on the amount of money received. If the county receives less than $100,000 it can choose to reserve 15-20% of the payment for special projects, or it can apply the entire amount to roads and schools. If the county receives more than $100,000 it must reserve 15-20% for special projects—or return that amount to the federal treasury. Except Langlade County, all of the counties that contain national forest land have opted to retain the traditional payment method. Langlade County recently decided to implement the full payment method. Since Langlade only recently switched to SRSCS, there is no data currently available to show the SRSCS payments.

Payments to Counties by Alternative

As mentioned earlier, federal law requires that a portion of current or historical revenues from national forests be returned to the states and counties where the revenues were received. These payments are used for maintaining schools and roads. For the purposes of this analysis it was assumed that 25% of all national forest revenues would be returned to the local impact area, and that the local governments would spend these funds 50% for schools and 50% for roads. The IMPLAN model then translates these expenditures into local jobs and income.

Table 3-95 shows the FY 2001 25% Fund payments, broken out by resource program, and the estimated 25% Fund payments in FY 2012 by alternative, assuming the Forest Plan is fully funded and timber outputs are at projected ASQ levels. The level of estimated payments to counties in FY 2012 is highest for Alternative 1 ($2.48 million), and lowest for Alternative 4 and the Selected Alternative ($2.08 million).

However, when compared to the current 25% Fund amount (FY 2001), the estimated potential increase in county payments ranges from $275,000 (Alternative 4 and Selected Alternative) to $675,000 (Alternative 1). This is because current management is not fully funded at the levels specified in the Forest Plans. The analysis therefore shows that there is the potential for increased Forest revenues, and as a result, increased 25% Fund payments to counties, in all alternatives if the 2004 Forest Plan is fully funded.

Between the draft and the final versions of the EIS there was a correction made to the Recreation revenues generated by the CNNF that are subject to 25% Fund payments. In 1996 Congress passed the '1996 Appropriations Bill', which created the 'Recreation Fee Demo' program. Under this program, money generated from recreation areas and activities are returned to those areas to be used for the maintenance and improvement of recreation opportunities. Therefore, the monies of the Recreation Fee Demo program are not subject to the 25% Fund program. Those recreation revenues that are subject to 25% Fund use are included in Table 3-95.

Table 3-95. CHENI NF 25% Fund Payments to Counties that Have National Forest Land

Resource Program	Current 25% Fund Amount (FY 2001)	25% Fund Payment Levels by Alternative in FY 2012 (Millions of $)								
		1	2	3	4	5	6	7	9	Selected
Recreation [1]	$0.02	$0.02	$0.02	$0.02	$0.02	$0.02	$0.02	$0.02	$0.02	$0.02
Wildlife & Fish										
Timber	$7.10	$9.80	$9.00	$8.30	$8.20	$8.80	$8.70	$8.70	$8.90	$8.20
Minerals										
Soil, Water, & Air										
Protection	$0.10	$0.10	$0.10	$0.10	$0.10	$0.10	$0.10	$0.10	$0.10	$0.10
Total Revenues	$7.220	$9.920	$9.120	$8.420	$8.320	$8.920	$8.820	$8.820	$9.020	$8.320
25% of Revenues	$1.805	$2.480	$2.280	$2.105	$2.080	$2.230	$2.205	$2.205	$2.255	$2.080

[1] *The 'Recreation' program includes; Rec. Residences, Concessionaires (campgrounds and others), and Rec. Special Use Permits*

Land Ownership

The Chequamegon-Nicolet National Forests administer approximately 10% of the forestland in Wisconsin. The percentage of National Forest ownership ranges from a low of 2% in Oneida County to a high of 53% in Forest County, as shown in Table 3-82. Federal ownership of lands has been raised as a local tax base issue. Some landowners and local government officials have the perception that public land ownership has a significant negative effect on a county's or township's ability to raise tax revenues.

According to Dr. Hinman's research paper, "Public Land and Local Government Tax Impacts in Wisconsin" (2001), public landownership costs are borne by all state taxpayers (Hinman, 2001). Past economic research results reveal that federal payments and state aid programs adequately compensate local governments (counties, municipalities, and school districts) for public land ownership that reduces the tax base. Recent analytical results from the Wisconsin Department of Revenue confirm this observation. Dr. Hinman's analysis shows that state-shared revenues and school equalization aids always rise to offset a loss in tax base revenue when public land management agencies like the Forest Service acquire lands. People who reside in counties with significant amounts of public land do not pay higher property taxes to support public land management programs (Hinman, 2001).

Indicator #2- Income and Employment by Economic Impact Area (by CNNF Resource Program)

Economic Impact Areas

Economic effects to local counties were estimated using three economic input-output models developed with IMPLAN Professional 2.0. IMPLAN is software for personal computers that is used to develop economic input-output models. It uses national input-output tables from the Bureau of Economic Analysis, secondary county-level economic data from a variety of public sources, and proprietary procedures to perform its analysis. All models were developed using 1999 information, the most recent data available at the time of model development.

The complexity of recreation/tourism and timber harvest/processing in northern Wisconsin required the development of separate economic models, mentioned above, for each of three Economic Impact Areas impacted economically by management on the

CNNF. Most of the impacts resulting from tourism expenditures occur locally in rural counties that contain portions of the Chequamegon-Nicolet National Forests. Large cities and urban areas were excluded so that smaller economies, where most of the impact will occur, would not be overshadowed in the economic models. Other considerations, such as generally recognized functional economies, supply-based regions, resident concepts of "local", and contiguous counties were also factored into model areas. The Northern Wisconsin Economic Impact Area (NWEIA) includes the following counties:

- Ashland, Bayfield, Forest, Florence, Langlade, Lincoln, Marinette, Oconto, Oneida, Price, Sawyer, Taylor, and Vilas Counties in Wisconsin; and Dickinson and Iron Counties in Michigan

Modeling the economic impacts of timber harvest and processing required two additional models. Some of the CNNF harvest is processed within the Northern Wisconsin Economic Impact Area, but a large proportion of national forest timber is hauled to the Fox River and Wisconsin River Valleys, the world's largest pulp- and paper-manufacturing center. Another significant proportion of the harvest is transported to pulp mills in the Duluth/Superior area. Both of these areas include large urban economies that needed separate models. The Wisconsin Pulp and Paper Economic Impact Area (WPPEIA) includes the following Wisconsin counties:

- Brown, Calumet, Marathon, Outagamie, Portage, Shawano, Waupaca, Winnebago, and Wood

The Northern Minnesota Economic Impact Area (NMEIA) is the same one used for estimating impacts for the Minnesota National Forests. It includes the following counties:

- Aitkin, Beltrami, Carlton, Cass, Clearwater, Cook, Crow Wing, Hubbard, Itasca, Koochiching, Lake, and St. Louis Counties in Minnesota; and Douglas County in Wisconsin

Economic Contributions of the CNNF

The following employment and income narrative addresses the role CNNF outputs play in making economic contributions to area economies in the form of jobs and income.

Tables 3-96 and 3-97 display 1996 and 2002 timber product output data for the CNNF and other ownerships within the 11 counties that contain National Forest land. The total CNNF timber volume outputs for 1996 and 2002 are within 1% of each other and constitute about 16% of the timber volume output for the 11-county area. The Forests' timber volume contribution is the lowest of the four ownership categories. However, when the private landowner's contribution is excluded, the Forests contribute nearly one-third of the combined output for the CNNF, Other Public, and Forest Industry.

Table 3-96. 1996 Volume of Timber Outputs by County and Landowner[1]

County	Ownership / Timber Output Volume [2]									
	Chequamegon-Nicolet NF		Other Public		Forest Industry		Other Private		All Ownership	
	Volume	%	Volume	%	Volume	%	Volume	%	Volume	%
Ashland	3,070	36.20%	1,047	12.4	1,088	12.8	3,268	38.6	8,473	100.00%
Bayfield	4,076	20.80%	3,823	19.5	2,798	14.3	8,859	45.3	19,556	100.00%
Florence	1,041	13.00%	426	5.3	3,982	49.6	2,581	32.1	8,029	100.00%
Forest	4,709	30.70%	25	0.2	4,820	31.4	5,809	37.8	15,363	100.00%
Langlade	247	1.60%	4,344	28.2	2,273	14.8	8,528	55.4	15,392	100.00%
Oconto	2,033	21.70%	721	7.7	0	0	6,613	70.6	9,368	100.00%
Oneida	370	2.40%	5,238	33.3	6,783	43.1	3,332	21.2	15,722	100.00%
Price	2,518	18.00%	2,940	21.1	3,445	24.7	5,050	36.2	13,953	100.00%
Sawyer	870	4.80%	4,224	23.4	1,865	10.3	11,115	61.5	18,074	100.00%
Taylor	1,498	16.50%	138	1.5	451	5	6,969	77	9,055	100.00%
Vilas	2,598	16.70%	6,618	42.4	2	< 0.1	6,372	40.9	15,591	100.00%
Totals	23,030	15.5%[3]	29,544	19.9% [3]	27,507	18.5%[3]	68,496	46.1%[3]	148,576	100.00%

[1] Timber product output data was obtained from the USDA-Forest Service, North Central Research Station, Forest Inventory and Analysis Section.

[2] Volume is in units of 1,000 cubic feet (MCF)

[3] Percentage of the All Ownership volume total

Table 3-97. 2002 Volume of Timber Output by County and Landowner[1]

County	Ownership / Timber Output Volume [2]									
	Chequamegon-Nicolet NF		Other Public		Forest Industry		Other Private		All Ownership	
	Volume	%	Volume	%	Volume	%	Volume	%	Volume	%
Ashland	3,492	31.80%	1,261	11.5	1,318	12	4,908	44.7	10,978	100.00%
Bayfield	4,901	22.90%	3,693	17.2	2,729	12.7	10,133	47.2	21,456	100.00%
Florence	898	13.00%	350	5.1	3,275	47.3	2,397	34.6	6,920	100.00%
Forest	4,282	29.60%	24	0.2	3,974	27.5	6,171	42.7	14,451	100.00%
Langlade	0	0.00%	4,371	53.7	2,314	28.4	1,453	17.9	8,138	100.00%
Oconto	1,331	20.00%	476	7.2	0	0	4,858	72.9	6,665	100.00%
Oneida	278	2.00%	4,799	33.6	6,219	43.5	2,995	21	14,291	100.00%
Price	2,547	19.20%	2,475	18.6	3,093	23.3	5,187	39	13,302	100.00%
Sawyer	1,183	6.10%	4,393	22.5	1,936	9.9	12,051	61.6	19,562	100.00%
Taylor	1,443	15.80%	98	1.1	453	5	7,124	78.1	9,119	100.00%
Vilas	2,893	25.30%	3,806	33.3	2	< 0.1	4,739	41.4	11,440	100.00%
Totals	23,248	17.1%[3]	25,746	18.9%[3]	25,313	18.6%[3]	62,016	45.5%[3]	136,322	100.00%

[1] Timber product output data was obtained from the USDA-Forest Service, North Central Research Station, Forest Inventory and Analysis Section.

[2] Volume is in units of 1,000 cubic feet (MCF)

[3] Percentage of All Ownership volume total

Employment levels and labor income are the measures used to display impacts of CNNF management on local economies. The Chequamegon-Nicolet National Forests contribute jobs and income to the planning area through various resource management programs like timber and recreation. Employment is expressed in jobs, which can be seasonal or year-round, and full-time or part-time. The number of jobs is computed by averaging monthly employment data from state sources over one year. The income measure used was labor income expressed in 1999 dollars. Labor income includes both employee compensation (pay plus benefits) and proprietors' income (e.g., profits by self-employed). Table 3-98 displays the estimated current Chequamegon-Nicolet National Forests contributions to economic impact area economies by resource program.

Table 3-98. Current CHENI NF Contributions to Economic Impact Area Economics by Resource Program

Resource Program	Northern Wisconsin EIA		Wisconsin Pulp and Paper EIA		Northern Minnesota EIA	
	Number of jobs	Labor Income ($millions)	Number of jobs	Labor Income ($millions)	Number of jobs	Labor Income ($millions)
Recreation	1,200	22.2				
Wildlife and Fish	1,300	24.3				
Timber	12,200	433.3	11,200	532.3	1,300	41.6
Payments to States/Counties	20	1.0				
Forest Service Expenditures	400	18.4				
Total Forest Management Related Jobs and Income	15,100	498.9	11,200	532.3	1,300	41.6

Source: CNNF economic data outputs from IMPLAN. EIS tables A. and B.
Number of jobs are rounded to the nearest 100, if the number is under 100, it is rounded to the nearest 10.

Employment and Income

Direct and indirect effects on economic impact area jobs and income are primarily generated by changes in Forest timber revenues, recreational use that generates revenues, and national forest expenditures (payments for salaries, equipment, contracts, etc.). An increase in recreation visits or timber product outputs may mean an increase in area jobs and income. An increase in one area (e.g., recreation visits) and a decrease in another area (e.g., timber outputs) may result in a shifting of jobs from one industry to another.

The potential effects of the alternatives on area employment and income were estimated using the IMPLAN input-output model (see the "Economic Analysis" section under "Background of Economic Analysis and Environment"). IMPLAN input-output analysis considers direct, indirect, and induced effects; e.g., direct income to the timber industry from timber volume produced on the Forests, and indirect income to related commercial and service industries. The values in the following narrative represent the sum of direct, indirect, and induced employment and income changes attributable to the Forests under each of the alternatives.

Tables 3-99 and 3-100 display, by alternative, estimated economic impact area (EIA) CNNF employment and income contribution levels in the year 2012 (approximate end of the first decade of implementation for the 2004 Forest Plan assuming funding at full Plan levels). For each alternative, the tables display employment and income levels that are attributable to CNNF resource programs as well as how job and income levels might change from 2001 levels (base year). The jobs and income attributable to the CNNF in 2001 are based on actual management activity levels, while those estimated for 2012 are based on the assumption of full Plan level funding. These funding assumptions provide a constant, non-arbitrary assumption for a relative comparison of the effects of alternatives in 2012 and display the potential for change from the Forests' current operational levels.

The Wisconsin Pulp and Paper (WPPEIA) and the Northern Minnesota (NMEIA) Economic Impact Areas only display jobs and income related to national forest timber outputs. These two areas were modeled to determine how many jobs and how much income is attributable to volumes of CNNF timber processed within their borders.

The Chequamegon-Nicolet National Forests are entirely located within the 15-county NWEIA. NWEIA displays job and income levels that relate to the Forests' basic resource

programs (recreation, wildlife and fish, and timber), payments to states/counties, and Forest Service expenditures.

Forest timber outputs currently contribute over 24,000 jobs and over one billion dollars in income to the three EIAs. The timber resource program accounts for approximately 81% of CNNF job contributions and 87% of CNNF income contributions within the NWEIA. Recreation and wildlife and fish programs together account for about 17% of CNNF job contributions and 9% of CNNF income contributions within the area. The Forests' use levels for recreation and wildlife and fish programs, and consequently job and income levels, either do not vary or only vary slightly by alternative.

Alternatives 1 and 2 have the greatest potential impact on NWEIA job and income levels by the year 2012, the approximate end of the first decade of Plan implementation (Tables 3-99 and 3-100). Total jobs and income contributed by Alternative 1 increase by about 33% from current levels. Alternative 2 job and income levels both increase from current levels by about 18%. Alternatives 3, 4, and the Selected Alternative have the lowest impact on current NWEIA job and income levels at the end of the first decade. Alternative 3 provides for about a 9% increase in both jobs and income. Alternative 4 and the Selected Alternative result in an estimated potential 5% increase for both jobs and income from current levels.

Wisconsin Pulp and Paper EIA job and income levels could increase fairly significantly for all of the alternatives (Tables 3-99 and 3-100). Compared to current management levels, job number and income level increases (attributable to national forest resource program contributions) range from a low of 20.5% for Alternative 3 to a high of about 33% for Alternatives 1 and 2.

Northern Minnesota EIA job and income levels decrease from current levels despite assumed small to moderate increases in most of the CNNF timber products (for all of the alternatives) that are processed within the area (Tables 3-99 and 3-100). Softwood sawtimber volume (processed within the NMEIA) is the only product predicted to decrease. During the next decade the Minnesota market is expected to further shift from a sawtimber to a pulpwood emphasis. Forest Service economists indicate that this shift will decrease NMEIA jobs and income despite increased timber products from the CNNF. Both area jobs and income decrease about 23% in Alternative 1, the smallest decrease of all alternatives. The Selected Alternative provides the largest decrease in NMEIA jobs and income at –30.7% and –32.5% respectively.

Table 3-99. Employment Changes by Economic Impact Area, Forest Service Resource Program and Alternative

Northern Wisconsin Economic Impact Area										
Resource Program	**Alternatives in 2012 levels**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Recreation	1,200	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Wildlife and Fish	1,300	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Timber	12,200	16,900	14,800	13,500	12,900	14,400	14,100	13,900	14,000	12,800
Payments to States/Counties	20	30	30	30	20	30	30	30	30	20
Forest Service Expenditures	400	400	400	400	400	400	400	400	400	400
Total Forest Management	15,100	20,000	17,900	16,600	16,000	17,500	17,200	17,000	17,200	15,900
Percent Change from Current Management	0	32.4	18.5	9.9	5.9	15.8	13.9	11.9	13.9	5.2
Wisconsin Pulp and Paper Economic Impact Area										
Resource Program	**Alternatives in 2012 levels**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Recreation										
Wildlife and Fish										
Timber	11,200	14,900	14,900	13,500	13,700	14,100	14,400	14,000	14,400	14,000
Payments to States/Counties										
Forest Service Expenditures										
Total Forest Management	11,200	14,900	14,900	13,500	13,700	14,100	14,400	14,000	14,400	14,000
Percent Change from Current Management	0	33	33	20.5	22.3	25.8	28.5	25	28.5	25
Northern Minnesota Economic Impact Area										
Resource Program	**Alternatives in 2012 levels**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Recreation										
Wildlife and Fish										
Timber	1,300	1000	900	900	800	900	900	900	900	900
Payments to States/Counties										
Forest Service Expenditures										
Total Forest Management	1,300	1000	900	900	800	900	900	900	900	900
Percent Change from Current Management	0	-23	-30.7	-30.7	-38.4	-30.7	-30.7	-30.7	-30.7	-30.7

Source: CNNF economic data outputs from IMPLAN. EIS tables A. and B.

Numbers rounded to the nearest 100, if under 100 then rounded to the nearest 10.

Table 3-100. Income Changes by Economic Impact Area, Forest Service Resource Program and Alternative (in millions of dollars)

Northern Wisconsin Economic Impact Area										
Resource Program	**Alternative (in millions of dollars)**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Recreation	22.2	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
Wildlife and Fish	24.3	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Timber	433.0	595.1	520.8	476.0	455.4	506.2	498.2	489.4	495.9	451.6
Payments to States/Counties	1.0	1.3	1.2	1.1	1.1	1.2	1.2	1.1	1.2	1.1
Forest Service Expenditures	18.4	18.4	20.3	17.7	17.3	18.8	18.8	18.3	19.4	19.4
Total Forest Management	498.9	664.4	591.9	544.4	523.4	575.8	567.8	558.5	566.1	521.7
Percent Change from Current Management	0.0	33.2	18.7	9.1	4.9	15.4	13.8	11.9	13.5	4.6

Wisconsin Pulp & Paper Economic Impact Area										
Resource Program	**Alternative (in millions of dollars)**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Recreation										
Wildlife and Fish										
Timber	532.3	708.0	709.6	641.4	652.7	670.1	680.3	665.6	684.2	661.4
Payments to States/Counties										
Forest Service Expenditures										
Total Forest Management	532.3	708.0	709.6	641.4	652.7	670.1	680.3	665.6	684.2	661.4
Percent Change from Current Management	0.0	33.0	33.3	20.5	22.6	25.9	27.8	25.1	28.5	24.3

Northern Minnesota Economic Impact Area										
Resource Program	**Alternative (in millions of dollars)**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Recreation										
Wildlife and Fish										
Timber	41.6	32.2	30.4	28.5	27.8	29.8	30.0	29.1	29.3	28.1
Payments to States/Counties										
Forest Service Expenditures										
Total Forest Management	41.6	32.2	30.4	28.5	27.8	29.8	30.0	29.1	29.3	28.1
Percent Change from Current Management	0.0	-22.6	-26.8	-31.4	-28.3	-28.3	27.9	-29.9	29.6	-32.5

Source: CNNF economic data outputs from IMPLAN. EIS tables A. and B.

Indicator #3- Income and Employment by EIA (by Major Industry and Sector)

As in Indicator #2, this data was analyzed using the IMPLAN program for the three Economic Impact Areas. However, instead of using CNNF Resource Programs as the analysis categories, CNNF Job and Income Contributions by major industries in the Economic Impact Areas were analyzed. This measurement is important because it illustrates how goods and services generated by the CNNF Resource Programs incorporate themselves into the larger scope of industry.

Table 3-101 displays the current CNNF contributions to local 'Major Industries'. It is important to note while looking at the following data that in addition to providing the most jobs and income, timber-related jobs tend to be in the manufacturing sector. Therefore, they tend to provide higher pay than recreation-related jobs, most of which are primarily in the service and retail sectors.

Table 3-101. Current CNNF Job and Income Contributions to Economic Impact Area Economics by Major Industry

Major Industry	Northern Wisconsin EIA		Wisconsin Pulp and Paper EIA		Northern Minnesota EIA	
	Number of jobs	Labor Income ($millions)	Number of jobs	Labor Income ($millions)	Number of jobs	Labor Income ($millions)
Agriculture	80	1.2	40	0.6	0	0.1
Mining	0	0.0	0	0.0	0	0.0
Construction	200	7.5	200	11.1	20	0.8
Manufacturing	7,800	316.6	5,800	350.8	800	25.9
Transportation, communication, & Utilities	700	24.8	800	39.0	70	2.9
Wholesale Trade	600	23.1	700	33.1	80	3.3
Retail Trade	2,500	38.0	1,300	23.4	100	2.1
Finance, Insurance, & Real Estate	300	9.1	400	15.7	40	1.2
Services	2,600	57.4	1,800	54.8	200	4.9
Government (Fed, State, Local)	400	20.3	60	0.3	10	0.6
Miscellaneous	50	0.5	40	0.4	0	0.0
Total Forest Management Related Jobs and Income	15,100	498.7	11,200	532.3	1,300	41.8

Source: CNNF economic data outputs from IMPLAN. EIS tables C. and D.
Number of jobs are rounded to the nearest 100, it is rounded to the nearest 10.

Tables 3-102 and 3-103 display the same job, income, and percentage level totals that are displayed in Tables 3-99 and 3-100 in the Indicator #2 section. However, employment changes in Tables 3-102 and 3-103 are displayed by major industries instead of the Forests' resource programs.

All three EIAs show that manufacturing, services, and retail trade are the leading major industries in providing jobs and income attributable to CNNF outputs. Employment changes in NWEIA and WPPEIA follow the same general pattern as above with Alternatives 1 and 2 providing the largest potential increases in manufacturing, service, and retail trade jobs and income. Alternatives 3, 4, and the Selected Alternative provide the smallest increases in jobs and income related to these industries. The NMEIA follows the same general pattern as it did in Tables 3-99 and 3-100, with Alternatives 1 and 2 showing the least amount of jobs and income decrease while Alternative 4 and the Selected Alternative show the largest decrease.

Table 3-102. Employment Changes by Economic Impact Area, Major Industry and Alternative

Northern Wisconsin Economic Impact Area										
Industry	**Alternative**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Agriculture	80	100	90	80	80	90	90	80	90	80
Mining	0	0	0	0	0	0	0	0	0	0
Construction	200	200	200	200	200	200	200	200	200	200
Manufacturing	7,800	10,900	9,500	8,700	8,300	9,200	9,000	8,900	9,000	8,300
Transportation, Communication, & Utilities	700	900	800	700	700	800	800	800	800	700
Wholesale trade	600	800	700	600	600	700	700	700	700	600
Retail trade	2,500	3,200	3,000	2,700	2,600	2,800	2,700	2,700	2,700	2,600
Finance, Insurance, & Real Estate	300	400	400	400	300	400	400	400	400	300
Services	2,600	3,200	3,000	2,800	2,700	2,900	2,900	2,800	2,900	2,700
Government (Fed, State, & Local)	400	400	400	400	400	400	400	400	400	400
Miscellaneous	50	70	60	60	60	60	60	60	60	60
Total Forest Management	15,100	20,000	17,900	16,600	16,000	17,500	17,200	17,000	17,200	15,900
Percent Change from Current Management	0.0	32.4	18.5	9.9	5.9	15.8	13.9	12.5	13.9	5.3

Wisconsin Pulp and Paper Economic Impact Area										
Industry	**Alternative**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Agriculture	40	50	50	50	50	50	50	50	50	50
Mining	0	0	0	0	0	0	0	0	0	0
Construction	200	300	300	300	300	300	300	300	300	300
Manufacturing	5,800	7,700	7,700	7,000	7,100	7,300	7,400	7,300	7,500	7,200
Transportation, Communication, & Utilities	800	1,100	1,100	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Wholesale trade	700	1,000	1,000	900	900	900	900	900	900	900
Retail trade	1,300	1,700	1,700	1,600	1,600	1,600	1,700	1,600	1,700	1,600
Finance, Insurance, & Real Estate	400	600	600	500	500	500	600	500	600	500
Services	1,800	2,400	2,400	2,200	2,200	2,300	2,300	2,300	2,300	2,300
Government (Fed, State, & Local)	60	80	80	70	70	80	80	80	80	80
Miscellaneous	40	50	50	50	50	50	50	50	50	50
Total Forest Management	11,200	14,900	15,000	13,500	13,800	14,100	14,400	14,000	14,400	14,000
Percent Change from Current Management	0.0	33.0	33.0	20.5	23.2	25.9	28.5	25.0	28.5	25.0

Northern Minnesota Economic Impact Area										
Industry	**Alternative**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Agriculture	0	0	0	0	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0	0	0	0
Construction	20	20	20	10	10	20	20	20	20	10
Manufacturing	800	600	500	500	500	500	500	500	500	500
Transportation, Communication, & Utilities	70	50	50	50	50	50	50	50	50	50
Wholesale trade	80	60	50	50	50	50	50	50	50	50
Retail trade	100	90	90	80	80	80	80	80	80	80
Finance, Insurance, & Real Estate	40	30	30	20	20	30	30	20	20	20
Services	200	100	100	100	100	100	100	100	100	100
Government (Fed, State, & Local)	10	10	10	10	10	10	10	10	10	10
Miscellaneous	0	0	0	0	0	0	0	0	0	0
Total Forest Management	1,300	1,000	900	900	800	900	900	900	900	900
Percent Change from Current Management	0.0	-23.1	-30.7	-30.7	-30.7	-30.7	-30.7	-30.7	-30.7	-30.7

Source: CNNF economic data outputs from IMPLAN. EIS tables A. and B.

Numbers rounded to the nearest 100, if under 100 then rounded to the nearest 10.

Table 3-103. Income Changes by Economic Impact Area, Major Industry, and Alternative (in millions of dollars)

Northern Wisconsin Economic Impact Area										
Industry	**Alternative (in millions of dollars)**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Agriculture	1.2	1.5	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.3
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction	7.5	9.9	8.9	8.2	8.0	8.7	8.6	8.5	8.6	7.9
Manufacturing	316.6	434.9	381.0	348.6	333.6	370.5	364.6	358.3	363.0	331.0
Transportation, Communication, & Utilities	24.8	32.8	29.2	26.9	25.9	28.4	28.0	27.6	27.9	25.7
Wholesale trade	23.1	30.8	27.4	25.3	24.3	26.7	26.3	25.9	26.2	24.2
Retail trade	38.0	46.6	43.3	41.1	40.1	42.5	42.2	41.7	42.1	40.0
Finance, Insurance, & Real Estate	9.1	12.1	10.8	9.9	9.6	10.5	10.4	10.2	10.3	9.5
Services	57.4	72.9	66.3	61.9	60.0	64.8	64.1	63.2	63.9	59.8
Government (Fed, State, & Local)	20.3	21.9	22.9	20.4	19.9	21.5	21.5	21.0	21.9	21.6
Miscellaneous	0.5	0.7	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5
Total Forest Management	498.7	664.2	591.7	544.2	523.2	575.6	567.6	558.0	565.9	521.5
Percent Change from Current Management	0.0	33.2	18.7	9.1	4.9	15.4	13.8	11.9	13.5	4.6

Wisconsin Pulp and Paper Economic Impact Area										
Industry	**Alternative (in millions of dollars)**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Agriculture	0.6	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction	11.1	14.9	14.9	13.5	13.7	14.1	14.3	14.0	14.4	13.9
Manufacturing	350.8	466.4	467.6	422.6	430.2	441.5	448.3	438.6	450.8	435.8
Transportation, Communication, & Utilities	39.0	51.9	52.0	47.0	47.8	49.1	49.9	48.8	50.1	48.5
Wholesale trade	33.1	44.1	44.2	39.9	40.6	41.7	42.4	41.4	42.6	41.2
Retail trade	23.4	31.1	31.1	28.1	28.6	29.4	29.9	29.2	30.0	29.0
Finance, Insurance, & Real Estate	15.7	20.9	20.9	18.9	19.2	19.7	20.0	19.6	20.2	19.5
Services	54.8	72.9	73.0	66.0	67.2	69.0	70.0	68.5	70.4	68.1
Government (Fed, State, & Local)	3.3	4.4	4.4	4.0	4.0	4.2	4.2	4.1	4.2	4.1
Miscellaneous	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total Forest Management	532.3	708.0	709.6	641.4	652.7	670.1	680.3	665.6	684.2	661.4
Percent Change from Current Management	0.0	33.0	33.3	20.5	22.6	25.9	27.8	25.1	28.5	24.3

Northern Minnesota Economic Impact Area										
Industry	**Alternative (in millions of dollars)**									
	Current Management	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**SA**
Agriculture	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Manufacturing	25.9	19.9	18.8	17.7	17.2	18.4	18.6	18.0	18.1	17.4
Transportation, Communication, & Utilities	2.9	2.3	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0
Wholesale trade	3.3	2.5	2.4	2.2	2.2	2.3	2.3	2.3	2.3	2.2
Retail trade	2.1	1.6	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.4
Finance, Insurance, & Real Estate	1.2	0.9	0.9	0.8	0.8	0.9	0.9	0.8	0.8	0.8
Services	4.9	3.8	3.6	3.4	3.3	3.5	3.6	3.5	3.5	3.3
Government (Fed, State, & Local)	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.4
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Forest Management	41.8	32.4	30.6	28.7	28.0	30.0	30.2	29.3	29.5	28.3
Percent Change from Current Management	0.0	-22.6	-26.8	-31.4	-33.1	-28.3	-27.9	-29.9	-29.6	-32.5

Source: CNNF economic data outputs from IMPLAN. EIS tables A. and B.

Timber Outputs

The EIA job and income figures cited in Tables 3-99, 3-100, 3-102, and 3-103 are based on management area allocation and timber volume output figures developed for the SPECTRUM Model (also utilized in the IMPLAN Model). SPECTRUM optimizes Management Area prescriptions and allocation, and schedules activities and outputs. SPECTRUM chooses among alternative solutions given a set of constraints and an objective such as maximizing income or timber volume.

The models did not determine the specific number of area jobs or income directly attributable to designation of management areas that restrict or prohibit timber harvesting. The following analysis describes some general economic directional effects (increase, decrease, no change) related to changes in management area (MA) allocation and timber harvesting within the Northern Wisconsin EIA.

MAs are areas that are based on existing/potential species composition, existing/potential landscape patterns, Threatened, Endangered, and Sensitive species needs, and location. Each of the alternatives consists of a different arrangement of management areas on the ground. The differences in the economic effects of the alternatives can be described in terms of the arrangement or allocation of the MAs.

As discussed earlier in this section, Alternative 1 and 'Current Management' are not the same (see Alternative 1 vs. 'Current Management' in the "Affected Environment" section of this analysis). When compared to the Current Management situation, all alternatives show an increase in timber-related jobs and incomes. However, when Alternatives 2-9 and the Selected Alternative are compared to Alternative 1 (which is based on the directions of both 1986 Forest Plans), the opportunity for jobs and employment decreases. In part, this is due to the allocation of:

- Alternative Management Areas (AMAs; MA 2B, 3B, and 4B);
- MA 5B-Proposed Wilderness areas;
- MA 6A-Semi-Primitive Non-Motorized (SPNM), Low Disturbance;
- MA 8D-Wild, Scenic, and Recreational Rivers;
- MA 8E- Research Natural Areas;
- MA 8F-Special Management Areas; and
- MA 8G-Old Growth & Natural Feature Complexes.

Scenic and recreational river corridors and AMAs have limitations on timber harvesting, while the other MAs described above either prohibit or strictly limit timber harvesting. The availability of commercial quantities of special forest products is also limited, but this is expected to have only very minimal effects on jobs and income. The allocation to various MAs is displayed in Table 3-104 by alternative.

Table 3-104. Management Areas Allocations

Management Area (MA)	Alternatives (Acres [1])								
	1	2	3	4	5	6	7	9	Selected
MA 2B: Uneven-Aged Northern Hardwoods: Interior Forest	0	23,000	454,000	234,000	130,000	142,000	143,000	282,000	209,000
MA 3B: Even-Aged Hardwoods:Oak-Pine	0	2,000	24,000	6,000	2,000	6,000	11,000	12,000	11,000
MA 4B: Conifer: Natural Pine-Oak	0	17,000	65,000	50,000	17,000	20,000	30,000	53,000	30,000
MA 5: Wilderness	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000
MA 5B: Proposed Wilderness	0	6,000	8,000	45,000	12,000	23,000	18,000	12,000	12,000
MA 6A: Semi-Primitive Non-Motorized: Little to no Disturbance [2]	0	3,000 [2]	45,000 [2]	66,000 [2]	11,000 [2]	11,000 [2]	25,000 [2]	6,000 [2]	9,000 [2]
1986 MA Goal 6: Semi-Primitive Non-Motorized	69,000[3]	0	0	0	0	0	0	0	0
MA 8D: Wild, Scenic & Recreation Rivers	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000
MA 8E: Research Natural Areas	3,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
MA 8F: Special Management Areas	13,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000
MA 8G: Old Growth & Natural Feature Complexes	68,000	86,000	91,000	93,000	86,000	91,000	93,000	93,000	86,000

[1] Acres are rounded to the nearest 1,000

[2] Timber harvesting is normally not permitted in Management Area 6A.

[3] It is difficult to compare 1986 Goal 6 areas with proposed MA 6A areas because of different management prescriptions and harvest activities..

Management Areas 2B, 3B, and 4B are called Alternative Management Areas (AMAs). They provide relatively continuous large patch conditions (thousands of acres) and have specific timber harvesting restrictions and requirements. Management Area 4C (Surrogate Pine Barrens) is also called an Alternative Management Area. However, timber harvest is not expected to be reduced in those areas.

Reduced timber harvesting within Alternative Management Areas will have negative impacts on the opportunity for increased NWEIA jobs, income, and county 25% Fund payments. Impacts are proportional to the number of acres allocated as AMAs. Alternatives 3, 9, and 4 have the most AMA acres and the highest possible economic impacts on opportunities for area timber outputs (Table 3-104). Alternatives 1, 2, and 5 (0 acres, 42,000 acres, and 149,000 acres, respectively) have the lowest AMA acres and lower economic impacts on possible opportunities for area timber outputs.

MA 8D-Wild, Scenic, and Recreational River corridors protect the values of free-flowing rivers identified as eligible for federal designation as Wild, Scenic or Recreational Rivers. MA 8D designations result in some timber harvesting prohibitions and restrictions on approximately 41,000 acres across the alternatives, with an associated decrease in potential timber outputs (Table 3-104). Decreases in timber outputs may be offset somewhat by an increase in visitors who participate in non-motorized forms of recreation within river corridors (for more information see “Social Effects, Indicator #1-Forest Access”). Each alternative has about the same impact on area jobs, income, and 25% Fund payments when considering effects from MA 8D designations.

In MA 5B (Proposed Wilderness), MA 6A (Semi-Primitive Non-Motorized), MA 8E (Research Natural Areas), MA 8F (Special Management Areas), and MA 8G (Old Growth & Natural Feature Complexes) designations, natural ecological processes and natural disturbance regimes shape the landscape. Vegetation composition is determined by natural ecological processes rather than human-caused activities. Timber harvesting (with some infrequent exceptions) is either restricted or prohibited.

Impacts are proportional to the number of acres allocated to these management designations. Alternatives 3 and 4 have the most acreage allocations to Management Areas 5B, 6A, 8E, 8F, and 8G and therefore the most related economic impacts on area timber outputs. Alternatives 1 and 2 have the lowest number of acres reserved for these types of management and protection (Table 3-104).

Indicator #4- Present Net Value (PNV)

Financial and Economic Efficiency

The National Forest Management Act (36 CFR Ch. II, 7-1-90ed. 219.3) planning regulations require Forest plans to maximize net public benefits. Net public benefits are defined as the overall value to the nation of all outputs and positive effects (benefits) minus all Forest Service inputs and negative effects (costs) associated with producing primary benefits (whether they can be quantitatively valued or not). The planning regulations also require the consideration of economic efficiency in the maximization of net public benefits.

Economic efficiency (Table 3-105) defines how well the dollars invested produce benefits to society, including benefits which are not included in market valuations (actual dollar transactions do not occur). These non-market benefits, such as biological diversity, species viability, solitude, and visual experiences, are components of net public benefits. While they do not have an established market price to evaluate, the agency's cost of achieving such non-market outputs is included in both the economic and financial analyses.

Market valued benefits were considered in both economic and financial efficiency analyses. The Washington Office staff developed recreation activity economic values for the 1990 Resources Planning Act Program. The R-9 Regional Economist recently updated these values for use in today's analyses. Timber resource economic market values were based on actual revenues from the Forests.

Table 3-105. Economic Efficiency of CHENI NF Alternatives

Assigned Values / Costs / PNV	Alternatives (Values are in Thousands of Dollars)								
	1	2	3	4	5	6	7	9	Selected
Assigned Value PNV's[2]	$2,820,818	$2,820,818	$2,820,818	$2,820,818	$2,820,818	$2,820,818	$2,820,818	$2,820,818	$2,820,818
Mkt. Cost & Revenue-PNV's	(-$167,555)	(-$253,813)	(-$229,412)	(-$225,306)	(-$233,900)	(-$235,423)	(-$231,173)	(-$254,525)	(-$245,559)
Economic Present Net Values [1]	$2,653,263	$2,567,005	$2,591,406	$2,595,512	$2,586,918	$2,585,395	$2,589,645	$2,566,293	$2,575,259

[1]Economic Present Net Values (PNV) describe the economic efficiency of the alternatives. The economic PNV for each alternative was calculated by discounting the total annual assigned values for non-market activities such as hunting and fishing (fees are not collected) over a 100-year period at a rate of 4% per year. The market cost and revenue PNV totals (negative dollar totals) were added to the assigned value (non-market revenue) PNV totals to determine the economic PNV (economic efficiency) of the alternatives.

[2]Assigned values were calculated for the following non-market recreation activity categories: (1) Camping, picnicking, swimming; (2) Mechanized travel and viewing scenery; (3) Hiking, horseback riding, and water travel; (4) Winter sports; (5) Resorts; (6) Other recreation; (7) Fishing; and (8) Non-consumptive wildlife uses. Present recreation activity use levels were based on a CNNF 1997 recreation resources inventory. Future increases in use were based on "Projections of Outdoor Recreation Participation to 2050," by Bowker, English, and Cordell. Dollar values were assigned to the above-listed activities for the 1990 Resources Planning Act (RPA) Program (see Resource Pricing and Valuation Procedures for the Recommended 1990 RPA Program). The 1990 RPA assigned values were inflated to 2002 values by using an inflation value of 1.3246 (http://www.jsc.nasa.gov/bu2/inflateGDP.html).

Financial efficiency (Table 3-106) is similar to economic efficiency, but only activities that generate revenues are considered in the analysis. Campsite fee collections and timber sale receipts are examples of these revenues. Financial efficiency is further defined by how well the dollars invested in each alternative produce revenues to the agency.

Present Net Value (PNV) is the measure used to assess economic and financial efficiency. PNV is defined as the sum of discounted revenues and costs. The PNV analysis includes activities that have monetary values, and some activities that have non-market (assigned) values as noted above. All monetary values are expressed in constant dollars with no allowance for inflation. A 4% annual discount rate over a 100-year period is used to calculate PNV totals. A lower PNV is the economic trade-off or opportunity cost of achieving that alternative compared to the most financially or economically efficient solution (Table 3-106).

Table 3-106. Financial Efficiency of CHENI NF Alternatives

Revenues / Costs / PNV	Alternatives (Values are in Thousands of Dollars)								
	1	2	3	4	5	6	7	9	Selected
First Decade Program Revenues	$104,961	$97,710	$90,770	$89,454	$95,436	$94,760	$93,956	$95,130	$93,930
First Decade Program Costs	$217,971	$232,460	$208,317	$204,438	$217,998	$218,585	$213,712	$223,890	$223,969
First Decade Net Revenues	(-$113,010)	(-$134,750)	(-$117,547)	(-$114,984)	(-$122,562)	(-$123,825)	(-$119,756)	(-$128,760)	(-$130,039)
Market Cost & Revenue PNV's [1]	(-$167,555)	(-$253,813)	(-$229,412)	(-$225,306)	(-$233,900)	(-$235,423)	(-$231,173)	(-$254,525)	(-$245,559)

[1]*Present Net Values (PNV) for market costs and revenues describe the financial efficiency of the alternatives. The PNV for each alternative was calculated by discounting the Forest's net revenues (the annual differences between estimated program revenues and estimated program costs) over a 100-year period at a rate of 4% per year.*

Market cost and revenue PNVs are negative for all alternatives, varying from negative $167,555,000 for Alternative 1 to negative $254,525,000 for Alternative 9 (see Table 3-106). Alternatives that have the highest PNVs have the best combinations of low costs and high revenues. The economic PNV (total public benefits, including assigned values, minus market-priced costs and revenues) is positive for all of the alternatives at the estimated budget levels. The net totals have a narrow range of values that vary from a low of $2,566,293,000 for Alternative 9 to a high of $2,653,263,000 for Alternative 1 (see Table 3-105). There is only about a 3% difference between the lowest and highest economic PNVs. Each alternative has large economic PNVs, indicating that all the alternatives produce significant public benefits (benefits that include activities that generate actual revenues and activities that have assigned values). The analysis indicates that non-market amenities are by far the primary source of public benefits.

Social Effects Analysis

Indicator #1- Change in Forest Access

The SPECTRUM and IMPLAN models did not determine the specific number of jobs or amount of area income attributable to changing ATV/ORV use opportunities. In addition, the models were not able to illustrate a relationship between local income and jobs and some of the changes in ATV/ORV access called for in Alternatives 2-9 and the Selected Alternative (i.e. opening the Nicolet Forest to ATV/ORV use and the designation of management areas that restrict motorized access). Therefore, due to the unavailability of quantifiable data, the following section describes some general economic directional effects (increase, decrease, no change) related to the above-mentioned changes within the Northern Wisconsin EIA.

Motorized vehicles, including ATVs and other ORVs, are not permitted in MA 5 (Designated Wilderness), MA 5B (Potential Wilderness), MA 6A (Semi-Primitive Non-Motorized Low Disturbance), MA 6B (Semi-Primitive Non-Motorized Moderate Disturbance), and Non-Motorized with Full Vegetation Management (NM). Allocation of these management areas could lead to possible ATV/ORV recreation-related decreases in area jobs and income (compared to the predicted job and income levels in Alternative 1) if their designation disrupts existing or potential ATV/ORV recreation opportunities. However, opening the Nicolet land base to motorized activities could cause ATV-related jobs and income to shift to the eastern side of the Forests (i.e. Nicolet), thus possibly making any net loss in jobs or income negligible. With the new opportunities for ATVs on the Nicolet there could also be a social shift toward more participation in motorized activities by people living near the Nicolet land base.

While increasing opportunities for ATV use on the Nicolet National Forest are likely to benefit motorized activities in that area, there could be negative effects on non-motorized recreational uses of the Forest. Some sites traditionally used by visitors for non-motorized activities might be subject to use by motorized recreationists in the future.

Table 3-107 shows the allocation of management areas that are closed to motorized vehicles.

Table 3-107. Acres of Management Area Designations that do not Allow Motorized Activity

Management Area (MA)	Alternatives (Acres[1])								
	1	2	3	4	5	6	7	9	Selected
MA 5: Wilderness	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000
MA 5B: Wilderness Study Areas	0	6,000	8,000	56,000	15,000	29,000	26,000	16,000	16,000
1986 MA Goal 6: Semi-Primitive Non-Motorized[2]	69,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MA 6A: Semi-Primitive Non-Motorized: Little to no Disturbance	0	11,000	65,000	92,000	20,000	20,000	42,000	15,000	20,000
MA 6B: Moderate Disturbance	0	56,000	108,000	83,000	56,000	48,000	73,000	81,000	48,000
Non-Motorized with Full Vegetation Management (NM)	8,000	33,000	62,000	67,000	65,000	111,000	93,000	78,000	43,000
Total	**121,000**	**150,000**	**287,000**	**342,000**	**200,000**	**252,000**	**278,000**	**234,000**	**171,000**

[1] *Acres are rounded to the nearest 1,000*

[2] *Alternative 1 includes 65,000 acres of semi-primitive natural areas where timber harvesting is permitted in some cases*

Alternatives 3 and 4 have the highest combined acreage allocations to Management Areas 5, 5B, 6A, 6B, and NM. Therefore, these alternatives have the greatest potential economic and social impacts related to motorized and non-motorized access when compared to the current condition. Alternatives 1 and 2 have the least amount of designated non-motorized areas and would have the fewest economic and social impacts compared to the current management situation. Alternative 1 is identical to the current management situation in this regard.

On the Chequamegon, Alternative 1 (following current 1986 Forest Plans' guidelines) permits ATVs to travel cross-country (off-trail/off-road), on the Forest road system, and on designated trails, except where specific trails and roads are closed to such use. ATV and other off-trail/off-road vehicle uses are prohibited on the Nicolet Forest. In addition, in Alternative 1 there is no proposition for any construction of new ATV or ORV trails.

Alternative 1 (current ATV/ORV use situation) maintains local economic conditions with respect to jobs and income generated by these activities.

Of the remaining alternatives, Alternatives 2, 9, and the Selected Alternative provide the most new opportunities for ATV use (Table 3-108). ATV trails will be open all year except during spring break-up. In Alternatives 2-9, Forest roads and trails will be considered closed to ATV and other ORV use unless signed and posted open. Alternative 1 maintains current management situation (i.e. roads on the Chequamegon are open unless posted closed). In the Selected Alternative, ATV use will be permitted on all system roads on the Chequamegon that are currently open to ATVs except those closed by project level decisions. On the Nicolet side of the Forests, ATV use will be permitted on designated Forest roads to supplement the existing 300-mile network of town-designated ATV routes. The Forest Service will work with local townships and citizens to determine which roads will be designated as ATV routes (for more information see the 'Access and Recreation Opportunities' section of this chapter).

All alternatives, except Alternative 1, prohibit ATV off-road/off-trail travel on the Chequamegon and Nicolet Forests. In addition, they also eliminate the existing ATV 'play area' or 'intensive use area' located on the Washburn Ranger District.

Overall, Alternatives 2, 9, and the Selected Alternative offer the most potential for an increase in jobs and income related to increased Forest ATV program expenditures (law enforcement and trail construction), and increased visitation and spending by people who desire motorized forms of recreation access for hunting, fishing, camping, and viewing scenery, and wildlife. Alternatives 1, 4, and 3 offer the least potential for increasing recreation-related jobs and income associated with ATV use on the Forests (Table 3-108).

Table 3-108. Miles of Existing and New ATV Trails by Alternative

	Alternatives								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**Selected**
Miles of Existing Trails:									
Chequamegon	284	284	284	284	284	284	284	284	284
Maximum New ATV Trails (mi):									
Chequamegon	0	110	20	0	50	50	50	110	100
Nicolet	0	180	20	0	85	85	50	180	85
Maximum Total Miles ATV Trails:									
Chequamegon	284	394	304	284	334	334	334	394	384
Nicolet	0	180	20	0	85	85	50	180	85
Maximum Miles: Forestwide	284	574	324	284	419	419	384	574	469

Indicator #2- Impact on cultural tradition of deer hunting due to forest management

There is a general understanding of the cultural importance of hunting for the local communities within and surrounding the Chequamegon-Nicolet National Forests. There has been no study conducted that can assess this impact, but anthropologist Richard Nelson describes the relationship between humans and whitetail deer in his book, *Heart and Blood: Living with Deer in America* (1997). In it he describes his adventures in Wisconsin as he joined a hunting group on Opening Day of the deer season:

> "I doubt there is any place that deer hunting involves so much ritual is it does in this state,…. One of every three Wisconsin males over the age of 12 hunts deer and 46 percent of the state's households (in the late 1980's) have at least one hunter in residence,….These figures, however impressive, give little sense of the cultural and emotional weight of deer hunting among Wisconsin's people. Schools in many towns avoid rampant truancy by officially dismissing students when deer season begins….For the same reason, factories, stores, construction projects and a whole range of other businesses close their doors and despite fanaticism over football in these parts, games scheduled during the hunting season are played before half-empty stands."

This narrative illustrates the large cultural connection between Wisconsin natives and the deer-hunting season. Due to the large deer population numbers in the State, the proposed alternatives will not have an effect on the deer levels in the short term. The deer population is currently at what could be called 'beyond habitat restrictions' and any habitat management applied by the Forest Service would have minimal effects.

Hunting pressures, deer feeding policies in the State and in local communities, and winter severity are likely to have more significant long-term impacts on herd numbers than any of the CNNF plan revision alternatives. The alternatives are not expected to alter deer-herd populations significantly beyond their normal range.

Indicator #3- Community alteration due to changes in demographics

In the NWEIA, employment and jobs have been moving away from more traditional resource extraction (i.e. timber harvesting) toward recreation and service-centered employment (see Jakes et al. 1998a for more details). Population increases within the 15-county Northern Wisconsin Economic Impact Area (NWEIA), from 1990 to 2000, ranged from a low of 1.4% for Price County to a high of 18.8% for Vilas County (for specific information see Table 3-91). Most of the projected area population increases result from immigration.

People moving to places in northern Wisconsin near or within the Chequamegon-Nicolet National Forests are doing so mostly for amenity reasons (rural forested environment, low population density, presence of lakes and rivers, visual quality, recreation opportunities, etc.). One of the most significant immigration factors is the number of retirees moving into areas like Vilas County, where over 50% of the homes are used for seasonal, recreational, or other occasional uses. Many people, especially retirees, are converting their seasonal or recreational use homes into permanent homes for year-round use (Table 3-109). Some counties like Oconto County may also be experiencing a population increase because of their proximity to thriving cities like Green Bay. Many Oconto County residents commute to Green Bay for employment.

Table 3-109. Seasonal and Permanent Housing Trends for the NWEIA

County	Total Number of Housing Units		Number and % of Seasonal, Recreation, or Occasional Use Units				Number of Occupied Housing Units			
	1990	2000	1990		2000		1990		2000	
	#	#	#	%	#	%	#	%	#	%
Ashland	8,371	8,883	1,442	17.2	1,646	18.5	6,255	74.7	6,718	75.6
Bayfield	10,918	11,640	4,430	40.6	4,922	42.3	5,515	50.5	6,207	53.3
Florence	3,775	4,239	1,860	49.3	1,959	46.2	1,755	46.5	2,133	50.3
Forest	7,203	8,322	3,576	49.6	3,856	46.3	3,290	45.7	4,043	48.6
Langlade	10,825	11,187	2,594	24	2,158	19.3	7,563	69.9	8,452	75.6
Lincoln	13,256	14,681	2,521	19	1,949	13.3	10,159	76.6	11,721	79.8
Marinette	25,650	26,260	8,532	33.3	7,586	28.9	15,542	60.6	17,585	67
Oconto	18,832	19,812	6,666	35.4	4,837	24.4	11,283	59.9	13,979	70.6
Oneida	24,173	26,627	11,263	44.7	10,429	39.2	12,666	50.3	15,333	57.6
Price	9,052	9,574	2,378	26.3	2,519	26.3	6,054	66.9	6,564	68.6
Sawyer	13,025	13,722	6,824	52.4	6,658	48.5	5,569	42.8	6,640	48.6
Taylor	7,710	8,595	674	8.7	704	8.2	6,692	86.8	7,529	87.6
Vilas	20,225	22,397	11,632	57.5	12,587	56.2	7,294	36.1	9,066	40.5
Dickinson (MI)	12,902	13,702	1,689	13.1	1,574	11.5	10,633	82.4	11,386	83.1
Iron (MI)	9,039	8,772	2,584	28.6	2,377	27.1	5,655	62.6	5,748	65.5
Total / Average	194,956	208,413	68,665	35.2	65,761	31.5	115,925	59.5	133,104	63.9

[1] *Source of information: 2000 U.S. Census Data*

One of the main issues identified by Jakes et al. (1998a) was that the values of 'tourists' and 'locals' are increasingly divergent. Many communities that have traditionally been resource extraction-oriented are now experiencing a change in demographics toward retired and recreation-oriented populations (Table 3-110). Often, the new residents have a much different vision for the community than long-time residents. None of the alternatives presented in this FEIS would significantly alter area amenities to the degree to which general or retiree immigration would be measurably affected.

Table 3-110. Population of persons 65+ in the NWEIA [1]

County	Total Population 65+		% change between 1990 and 2000
	1990	2000	
Ashland	2,905	2,684	-7.60%
Bayfield	2,470	2,479	0.36%
Florence	771	890	13.40%
Forest	1,656	1,934	14.40%
Langlade	3,695	3,900	5.26%
Lincoln	4,375	4,899	10.70%
Marinette	7,144	7,641	6.50%
Oconto	4,980	5,484	9.19%
Oneida	5,721	6,927	17.41%
Price	3,038	2,933	-3.46%
Sawyer	2,738	2,942	6.93%
Taylor	2,872	2,985	3.79%
Vilas	4,051	4,910	17.49%
Dickinson (MI)	4,908	4,938	0.61%
Iron (MI)	3,566	3,255	-8.72%
Total / Average %	56,880	60,801	5.75%

[1] *Data from U.S. Census 1990 and 2000*

Cumulative Effects

Determining cumulative effects involves identifying the incremental impacts of Forest Service actions that add to other past, present and reasonably foreseeable future actions. Analyzing cumulative environmental consequences of the 2004 Forest Plan and alternatives requires delineation of the cause and effect relationships between proposed actions and the resources, ecosystems, and human communities of concern.

Socio-economic changes within the three economic impact areas (EIAs) are caused by actions initiated by individuals, businesses, governments, and other organizations. During the next decade, thousands of decisions made by individuals and by people within the above organizations will affect such things as EIA employment, income, population, and housing. Economic impact area cumulative impacts are more affected by external business decisions than by Forest Plan decisions.

Cumulative economic effects related to the Chequamegon-Nicolet National Forests' resource management programs are difficult to predict. Most of the variables shaping the economic environment are beyond the control of the Forest Service. Other recreation and timber suppliers (State, counties, private landowners, and private industry) also play important roles in providing jobs, income, and community cohesion within the three EIAs. The Forests' recreation and timber management policies, combined with the effects of decisions and actions taken by those of other agencies, private industry, and private landowners, will affect the overall regional recreation opportunities and timber supplies.

Employment and Income

Table 3-111 displays estimated employment and labor income cumulative economic impacts for all three economic impact areas for FY 2012. The first two columns present area jobs and income totals for base year 2002 and the portions of the base year

attributable to the use and management of the Forests (i.e. the current management situation). The next column projects area jobs and income totals to 2012 (beyond CNNF economic contributions). The last set of columns display, by alternative, the contribution of the CNNF to area jobs and income in 2012. The table shows that the NWEIA is more dependent on the CNNF for jobs and income than the other two EIAs.

Table 3-111 shows the current Forest contribution is 8.1% of the NWEIA jobs. The projected contributions for the alternatives range from 9.9% in Alternative 1 to 7.9% in Alternative 4 and the Selected Alternative. The NWEIA current contributed income level percentage is estimated at 10.6%. The projections range from 12.3% for Alternative 1 to 9.7% for Alternative 4 and the Selected Alternative.

The CNNF is currently contributing 1.9% of WPPEIA jobs and 2.5% of the area's $24.7 billion dollar income level through management activities. The projected employment contributions made by the CNNF range from 2.1% in Alternative 3 to 2.4% in Alternative 2. Projected income ranges from 2.9% for Alternatives 1 and 2 to 2.6% for Alternatives 3 and 4.

Table 3-111 also shows that the current management situation on the CNNF contributes 0.4% of the NMEIA jobs and 0.5% of the area's projected $9.9 billion dollar income level. Despite the assumed increases of almost all CNNF timber species-products processed within the area (when compared to the current management situation), CNNF job and income contributions to NMEIA are expected to decrease because of a predicted shift in market emphasis from round wood to pulpwood. The projected effect on CNNF-contributed NMEIA jobs is 0.3% for all alternatives, except Alternative 4, which is projected at 0.2%. The overall contributions of the CNNF to income is 0.3% for all alternatives.

Table 3-111. Employment and Labor Income Cumulative Economic Impacts, 2012

Northern Wisconsin Economic Impact Area												
Economic Indicator	2002		2012 Area Totals	Chequamegon-Nicolet National Forest Portion of Jobs & Income in 2012								
	Area Totals	Forest Portion		1	2	3	4	5	6	7	9	SA
Employment												
Total # Jobs	187,000	15,100	202,000	20,000	17,900	16,600	16,000	17,500	17,200	17,000	17,200	16,000
% of Area Total	100.00%	8.10%	100.00%	9.90%	8.90%	8.20%	7.90%	8.60%	8.50%	8.40%	8.50%	7.90%
Labor Income												
Total Income (million $)	4,691.00	$498.50	$5,392.00	$664.20	$591.70	$544.20	$523.20	$575.60	$575.60	$558.30	$565.90	$521.50
% of Area Total	100.00%	10.60%	100.00%	12.30%	11.00%	10.10%	9.70%	10.70%	10.70%	10.40%	10.50%	9.70%

Wisconsin Pulp and Paper Economic Impact Area

Economic Indicator	2002		2012 Area Totals	Chequamegon-Nicolet National Forest Portion of Jobs & Income in 2012								
	Area Totals	Forest Portion		1	2	3	4	5	6	7	9	SA
Employment												
Total # Jobs	590,000	11,200	637,000	14,900	15,000	13,500	13,800	14,100	14,400	14,000	14,400	14,000
% of Area Total	100.00%	1.90%	100.00%	2.30%	2.40%	2.10%	2.20%	2.20%	2.30%	2.20%	2.30%	2.20%
Labor Income												
Total Income (million $)	$21,467.00	$532.30	$24,676.00	$708.00	$709.60	$641.40	$652.70	$670.10	$680.30	$665.60	$684.20	$661.40
% of Area Total	100.00%	2.50%	100.00%	2.90%	2.90%	2.60%	2.60%	2.70%	2.80%	2.70%	2.80%	2.70%

Northern Minnesota Economic Impact Area

Economic Indicator	2002		2012 Area Totals	Chequamegon-Nicolet National Forest Portion of Jobs & Income in 2012								
	Area Totals	Forest Portion		1	2	3	4	5	6	7	9	SA
Employment												
Total # Jobs	301,000	1,300	326,000	1000	900	900	800	900	900	900	900	900
% of Area Total	100.00%	0.40%	100.00%	0.30%	0.30%	0.30%	0.20%	0.30%	0.30%	0.30%	0.30%	0.30%
Labor Income												
Total Income (million $)	$8,592.00	$41.80	$9,896.00	$32.40	$30.60	$28.70	$28.00	$30.00	$30.20	$29.30	$29.50	$28.30
% of Area Total	100.00%	0.50%	100.00%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%

Source: CNNF economic data outputs from IMPLAN. EIS tables A. and B.

Job numbers rounded to the nearest 100, if under 100 then rounded to the nearest 10.

Population

Population increases within the 15-county Northern Wisconsin Economic Impact Area (NWEIA) from 1990-2000 ranged from a low of 1.4% for Price County to a high of 18.8% for Vilas County (Table 3-91). Most of the projected area population increases result from immigration. Area amenities are the basic driver for continuing immigration and population growth in northern Wisconsin counties. People moving to communities near or within the Chequamegon-Nicolet National Forests are doing so mostly because of the amenities offered by the communities (rural forested environment, low population density, presence of lakes and rivers, visual quality, recreation opportunities, etc.). For more details see County Profiles in the 'Background of Social Analysis and Environment' section of this document (Jakes et al. 1998b).

One of the most significant immigration factors is the number of retirees moving into areas like Vilas County, where over 50% of the homes are used for seasonal, recreational, or other occasional uses. Many people are converting their seasonal or recreational use homes to year-round use when they retire and move into them on a permanent basis (see "Social Analysis, Indicator #3" for more details). Proximity to thriving urban centers may also lead to population increases. Oconto County, for example, is growing rapidly, with many residents commuting to Green Bay for employment. None of the alternatives would

significantly alter area amenities to have any kind of measurable impact on area population levels or on retiree immigration.

Projected employment and income changes over the next decade could influence some population increase within the NWEIA. Tables 3-99 and 3-100 display a range of projected job and income levels that result from CNNF contributions to the area economy for Alternatives 1-9 and the Selected Alternative. Compared to current levels, Alternatives 1 and 2 have the highest projected potential for job and income increases, thus the strongest possibilities of effecting some population increase from employment-related immigration. Alternatives 3, 4, and the Selected Alternative have the lowest projected job and income changes, thus having less potential for effecting the smallest population changes from employment-related immigration.

Environmental Justice

The 'Background of Social Analysis and Environment' section displays 1990-2000 county racial component population and percentage changes for the NWEIA (Table 3-91). Racial component information is derived from 1990 and 2000 census data. The following racial classifications are displayed: African American, American Indian and Alaska Native, Asian and Pacific Islander, Hispanic or Latino, and Other. Combined non-white racial component populations increased from 3.7% of the 1990 population to 5.6% of the 2000 population. Native Americans are by far the most numerous non-white racial component with a population of approximately 10,500 in the 15-county area, more than three times the population of the next highest non-white racial component. All of the Forest Plan alternatives reconcile many legal requirements and executive orders while recognizing the rights of American Indian tribes.

America is becoming a more culturally diverse nation. Approximately 86% of today's immigrants are from countries outside of Europe. Projections indicate that racial/ethnic minorities will account for 90% of the population growth and 50% of the overall U.S. population by the year 2050 (USDA FS 1999).

There is no indication that the 2004 Forest Plan or any of the alternatives will adversely or disproportionately affect American Indians, other racial minorities, or low-income groups.

Housing

A wide range of affordable housing exists within the NWEIA for people who desire to move into the area for amenity or employment reasons. The 2000 Census indicates that 23% of the area homes are valued at $50,000 or less, 44% are in the $50,000-$100,000 price range, 18% are in the $100,000-$150,000 price range, and 18% are valued over $150,000. The median monthly cost for an owner-occupied home averages $735 per month. The median monthly gross rent for a renter-occupied home averages approximately $400 per month. None of the alternatives have any measurable impact on the availability of affordable housing, new and pre-built home values, home mortgage costs, or rental unit costs. Other factors such as rising lakeshore property values, immigration of high-income retirees, and conversion of seasonal and/or recreational use homes for year-round occupancy will likely result in continued increases in property values and somewhat less affordable housing for some low-income families within the 15-county area.

Transportation

None of the alternatives result in a need for additional high volume traffic highways, or measurably impact the condition of existing north-south and east-west vehicular access routes to the Forests. Manageable increases in tourist, local resident, and commuter traffic are expected over the next decade. In addition, there are no significant differences among the alternatives for total road density upper limits on the Forests.

Management Area Allocation Changes

Management area (MA) allocation changes provide the focus for a number of potential cumulative effects. The allocation of MA 5B (Potential Wilderness), MA 6A and 6B (Semi-Primitive Non-Motorized areas), and Non-Motorized with Full Vegetation Management (NM) areas may contribute to a decrease in visitation and use of ATVs and ORVs on the Forests. Decreased visitation may lead to related decreases in area jobs and income in Alternatives 2-9 and the Selected Alternative compared to Alternative 1. However, the construction of new ATV trails and designation of new ATV routes on the Nicolet land base could shift ATV use and related jobs and income to the eastern side of the Forests, making any overall loss of jobs and income negligible. See the 'Social Analysis, Indicator #1-Access to Forest' section for MA acreage figures and other impacts related to NWEIA motorized and non-motorized recreation opportunities.

The allocation of Alternative Management Areas (MAs 2B, 3B, and 4B), MA 5B (Potential Wilderness areas), MA 6A (Semi-Primitive Non-Motorized areas), and ecological reference areas (MAs 8E, 8F, 8G) are expected to decrease the area's timber volume potential somewhat. This will result in a reduced area job and income level potential compared to the potential level of outputs estimated for Alternative 1. However, when compared to the current management situation, there is a potential for an increase in jobs and income for all alternatives. See the 'Economic Analysis, Indicator #2- Income and Employment by EIA (by CNNF Resource Program)' section for MA acreage figures and other impacts related to NWEIA timber volume, jobs, and income.

MA allocations that increase employment and income over current levels could influence some population increase within the NWEIA. Alternatives 1 and 2 have the highest projected potential job and income increases compared to current levels. Therefore, the possibility that the population would increase due to employment-related immigration is highest under these alternatives. Alternatives 3, 4, and the Selected Alternative have the lowest projected potential job and income changes, thus are less likely to influence changes in the area's employment-related immigration. Area population increases could potentially result in a small increased demand for housing within the NWEIA.

Local counties within the NWEIA are more dependent on CNNF timber and recreation outputs than are counties within the other two EIAs. The alternatives show that the total number of CNNF jobs as a percentage of NWEIA employment levels varies from 7.9% to 9.9%, while the percentage of income contributed to area totals varies from 9.7% to 12.3% in the NWEIA. Management Area allocations in Alternatives 2-9 and the Selected Alternative decrease timber and recreation outputs relative to Alternative 1. When compared to the current management situation, there is an overall potential increase in CNNF contributed jobs and income for the NWIEA and the WPPEIA. For the NMEIA, however, there is an estimated decrease in contributed jobs and income.