

SOCIO-ECONOMICS

Introduction

This section describes the economic environment that could be affected by the proposed action and its alternatives, along with an estimate of what those effects might be. The focus is on the economic relationship of the Flathead National Forest to the economy in and around the Forest and the extent of the economic influence relative to goods and services provided by the Forest. Emphasis will be placed on those components most likely to be affected by the proposed action and its alternatives as were determined through the scoping process and internal information gathering.

Differences Between the DEIS and FEIS

This Socio-Economics section in the FEIS differs from the same section in the DEIS in that analysis for the new Alternative F was included. Some rearrangement of paragraphs occurred to create a more logical flow of ideas. A paragraph analyzing the effects of the No Action Alternative was added. A more detailed application of the PLATA software for financial analysis of the alternatives was used to reflect three different timber sales in the years 2004 to 2006 instead of a single timber sale in the first year.

Information Sources

Information for this section was gathered primarily from the Research and Analysis Bureau of the Montana Department of Labor and Industry and the Bureau of Business and Economic Research at the University of Montana. The U.S. Census Bureau provided population data. Economic efficiency inputs were derived from costs and timber stumpage prices in the PLATA software databases that were constructed specifically for the Flathead National Forest.

The effects of the proposed action and its alternatives on income and employment from the harvesting and processing of timber were determined with the assistance of the Micro IM-PLAN economic impact software package (Alward et al. 1989). It is a personal computer program that constructs regional input-output accounts and models. It contains software modules for estimating direct, indirect, and induced effects of changes in final demand for commodities. The model uses technical coefficients (e.g., production functions) from the national input-output model developed by the U.S. Department of Commerce. County level data in the model are based on the 1993 Regional Economic Information System survey from the U.S. Department of Commerce (Alward 1994). These are the latest data available to the Flathead National Forest at this geographic level.

Analysis Area

The proposed action and associated alternatives are located within the economic influence zone of Flathead County, Montana. Economic influences resulting from this proposal would primarily impact Flathead County with adjacent counties being affected to a substantially lesser degree. The designation of Flathead County as the short-term primary area of effects was based on the multiple criteria suggested in the Forest Service Economic and Social Analysis Handbook (Forest Service Handbook 1901.17, USDA Forest Service 1988). Criteria include the location of the economic center, the wood-processing facilities, residences of the forest products industry workforce, and the center of spending for retail and wholesale goods and services.

The Flathead National Forest is an important part of the Northern Continental Divide Ecosystem, which covers most of northwest Montana. This area has substantial economic value on a regional, national, and international scale when recreation, tourism, wildlife, and aesthetic values are considered along with a substantial timber management program. However, it is beyond the scope of this analysis to evaluate markets for all these resources because they have not been identified as central economic issues in respect to the proposed action. The proposed action and the associated alternatives would primarily affect economics as they relate to the timber industry.

Affected Environment

The Economy

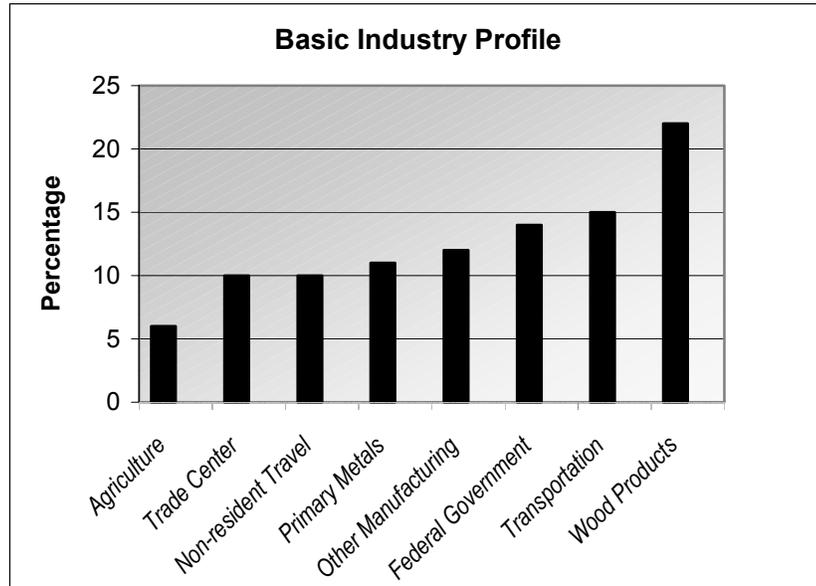
Flathead County's economy is described in terms of industry composition, economic diversity, economic dependence, employment and wages, and other trends affecting the economy. As the proposed action and alternatives primarily feature the management of timber resources and recreational activities, an emphasis is placed on describing the local economy from these perspectives.

Local Industries

Industry Profile

The economic base is the portion of the local economy that involves the exporting of goods and importing of dollars into the area (Hoover and Giarratani 1984). It is the driving force for state and local economies. Basic industries are relatively diversified in Flathead County, but were still headed by the wood products industry as recently as 1999. Although reliance on this industry has declined over the past decade, about 22 percent of the labor income in the basic economy is still attributed to the wood product industry (Figure 3-10). Agriculture is the smallest sector of the economic base, contributing 6 percent. The remaining 62 percent is distributed more or less evenly between the remaining sectors.

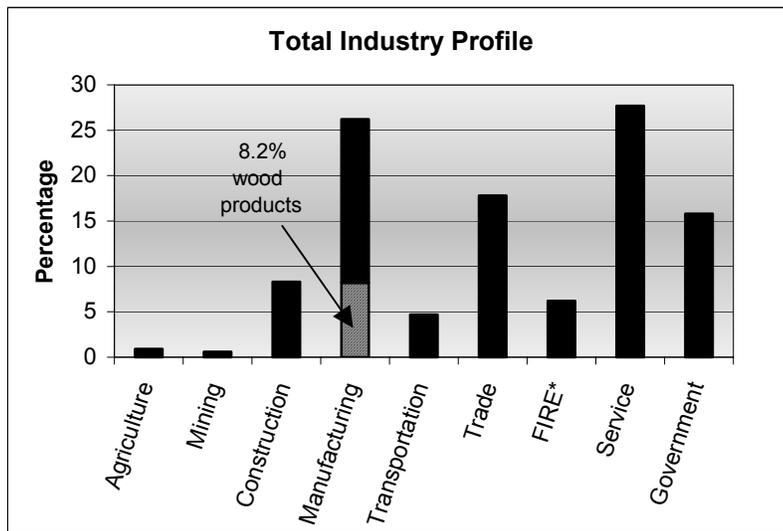
Figure 3-11. Basic Industry Sector Profile, Flathead County, 1999 (% of total)



Source: Bureau of Economic Analysis, U.S. Department of Commerce (2002).

When looking at the total economy, as sectored by the Montana Department of Labor, the services industry becomes the largest sector followed by trade, manufacturing, and government (Figure 3-11). Tourism spending is primarily in the services and trade sectors. Agriculture and mining labor income combined is 1.6 percent, making it the smallest portion of the total economy. In this type of sectoring, wood products is included in the manufacturing sector of the total economy and makes up 45 percent of that sector or 8.2 percent of the total industry income in the County.

Figure 3-12. Total Industry Sector Profile, Flathead County, 1999 (% of total)



*Finance, Insurance, Real Estate

Source: Research and Analysis Bureau, Montana Department of Labor and Industry, 2003

Diversity/Dependency

It is generally believed that economic diversity is a positive attribute of a regional economy. A diverse economy is resilient, which means it is not dependent on any one single industry and has the ability to adapt to change (Haynes 1999). Flathead County is generally thought to have a relatively diverse economy. A recent analysis of Montana counties using the Shannon-Weaver entropy indices found Flathead County to be the most economically diverse county in Montana (USDA Forest Service 2001). Diversity also typically increases with population, and Flathead County is the fourth most populous county in Montana. The number of industry sectors is also a common indicator of diversity. A review of Micro IMPLAN model (Alward et al. 1989), an economic impact model, shows Flathead County to have more economic sectors in all but two Montana counties. This indicator supports the assumption that Flathead County is diverse and is not likely to be especially vulnerable to external economic forces.

In the past, Flathead County’s economy was not so diverse. At one time, over 40 percent of the basic economy was attributed to the wood products industry. However, recent data show that today, only about 22 percent of the basic economy and 8.5 percent of the total economy is derived from the wood products industry (Figures 3-10 and 3-11). This decline is primarily due to the rapid growth in other sectors of the economy such as tourism and construction rather than large declines in the wood products industry.

Current Employment

Civilian Labor Workforce

The last U.S. Census taken determined Flathead County has one of the fastest-growing populations in Montana, which may increase the number of individuals available for work. The population increased 25.8 percent from 1990 to 2000 (Montana Department of Labor and Industry 2003). The civilian labor force in the Flathead Valley has been steadily increasing by an average of 791 additional workers each year over the last 20 years (Montana Department of Labor and Industry 2003). In the last couple years labor force numbers have increased little and are currently at 40,363 for 2002 (Montana Department of Labor and Industry 2003).

Income

Montana is currently ranked 50th in the country for its per capita personal income (PCPI) (Montana Department of Labor and Industry 2003). In 2000, Flathead County had a PCPI of \$23,142/year, ranking it 11th out of 56 counties in Montana. This PCPI was 103 percent of the state average, \$22,518, and 79 percent of the national average, \$29,469. The 2000 PCPI reflected a 5.7 percent increase for Flathead County workers since 1999.

Per capita income alone is not an adequate measure of economic fitness. The cost of living in an area must also be considered (Power 1990). Until recently, the cost of living has been equaled to or above that of the national average, but current data indicate a reversing trend. Recent information released by the Kalispell Chamber of Commerce shows that Flathead County's overall cost of living is 2.5 percent less than the national average for the fourth quarter of 2002 (U.S. Chamber of Commerce 2002).

Job Growth Rate

Although income growth in Flathead County and Montana has been lagging behind the national average, job growth has been substantial. Positive job growth has occurred in every year from 1991 through 2000 in Flathead County. During this period almost 15,000 jobs were created for an increase of 42 percent, or an average of more than 1400 jobs per year and an average annual growth rate in excess of four percent. This is considerably ahead of the State growth rate and all but a few of the other counties in Montana (U.S. Dept. Commerce 2002).

Unemployment

Average annual unemployment rates in Flathead County for the past several years fluctuated considerably from as high as 9.2 percent in 1991 to as low as 5.9 percent in 2001 (the last year statistics are available). However, the annual unemployment rate has been on a steady decline since 1995. Although this is still above the Montana rate of 4.6 percent and the national rate of 4.8 percent, it is still the lowest rate experienced by Flathead County for the past 30 years (Montana Department of Labor and Industry 2003).

Monthly unemployment rates show that Flathead County remains reliant on seasonal employment. This is not surprising because most of industries in the county have some degree of seasonality such as agriculture, construction, lumber and wood processing, tourism and federal government (e.g., U.S. Forest Service and National Park Service). Recent monthly employment statistics are beginning to show more stability, suggesting that seasonal employment may not be as prevalent as it once was.

Economic Trends

Polzin (2003) indicates Flathead County has been one of the fastest growing counties in Montana. There has been substantial volatility as growth rates of economic indicators such as non-farm labor income have fluctuated from one year to the next. Recent instability between 1998 and 1999 reflects the Columbia Falls Aluminum Plant wage settlement. Growth is predicted to slow with the forecast calling for moderate growth in the future presuming that aluminum production resumes and “high-tech” manufacturing stabilizes. Volatility is expected to continue and may cause yearly figures to be far above or below average (Polzin 2003).

Polzin (2003) further articulates Montana’s economy has been impacted by the September 11th, 2001 attacks and the national recession to a considerably lesser amount than the national average. Montana’s economy is concentrated in areas such as agriculture, mining, wood products, and the federal government and are not as vulnerable to terrorist attacks or recessions as many areas of the national economy. Consumer sentiment in Montana also remained much higher than the national average following the declaration of the most recent recession in the spring of 2001 and the terrorist attacks of September 11, 2001.

Industries Directly Relevant to the Project

Timber

Historical Production and Capacity – Historically, timber harvest from National Forest System land in Montana peaked at 800 million board feet at the end of the 1960s (Keegan, et al. 2003). Since then timber harvest on National Forest System land has experienced numerous peaks and valleys, but has generally been declining since the early 1990s. In 2000 and 2001 timber harvest dropped to approximately 100 million board feet or slightly greater than 10 percent of the past peak levels (Keegan, et al. 2003).

Since 1980, Flathead County has had the largest wood products manufacturing industry of any county in Montana (Keegan, personal communication). Since 1976, the county’s *capacity* to process saw timber has varied from a high of 395 million board feet in 1983 to its current low of 265 million board feet. The actual amount of sawtimber processed since 1976 has varied from a low of 185 million board feet in 1982 to a high of 332 million board feet in 1988. Processing facilities utilization capacity has varied from a low of 51 percent in 1982 to a high of 97 percent in 1999. The year 2000, the last year for which there are data, was at 94 percent capacity. The plywood industry in Montana is presently at 93 percent of plant capacity. County level information on the plywood industry is generally not available because of data disclosure constraints (Keegan 2001).

Outlook – The 2003 outlook for the timber industry in Montana indicates limited improvement. In 2001 virtually all segments of the industry experienced lower product prices, with lumber continuing its extreme volatility. Declines in production, sales, and employment can be attributed to a combination of the national and global economic recessions, September 11th 2001 terrorist attacks, the expiration of the Canadian softwood lumber agreement, a high-valued U.S. dollar, continued low federal harvests, and high energy costs. Wildland fires have also impacted the timber industry, but to a lesser degree than other events.

Recent wildland fires caused a relatively minor decline in Montana’s wood products industry, and high fire hazard conditions across most of the state still pose a threat. Dealing with existing fuel hazard conditions has the potential to create economic benefits for this industry and thousands of other Montanans who rely on our forests for recreation and tourism-related income (Keegan 2002). Forest management regimes that focus on recovering merchantable timber as a means to reduce hazardous fuels may help to sustain the wood products industry. Forestry services have also seen some benefit from recent wildland fires. Rehabilitation efforts have employed hundreds of local individuals and small contractors during and after the wildland fires.

Canadian lumber producers continue to increase lumber production in spite of recent tariffs placed on lumber sent to the United States (Exhibit H-3). The tariffs were expected to curb Canadian imports and give U.S. producers a stronger foothold in the market. They appear to have had little effect as the overall lumber production in Canada is up 1.9 percent and no reduction in their production is expected. This will continue to keep domestic lumber prices low.

Tourism

Non-resident tourism is one of the most important industries in the local economy. Approximately 2 million people a year visit Glacier National Park alone with most of the visitors coming from outside the area. Many of the people visiting Glacier National Park also visit the Flathead National Forest. Some people come to visit the Flathead National Forest directly, or come to experience many of the other attractions in the Flathead Valley. The economy benefits from these visitors to the extent they spend money locally for goods and services such as lodging, meals, retail goods, and miscellaneous services. This spending generates employment, income for local citizens, and revenues to support local government. Central to tourism is the quality of the natural surroundings in which people visit and recreate. Big game hunting is the largest non-resident tourism use in the Logan Creek area.

Payments to Counties from Flathead National Forest Programs

Revenues from National Forest programs are distributed to counties annually in accordance with several Federal acts. Historically, the greatest source of funds to counties has been the Twenty-five Percent Fund Act, which pays counties 25 percent of the gross revenues generated from activities on national forests. Timber sales are the greatest source of revenue sharing in Flathead County, but revenues from other programs such as ski resorts also contribute. However, the recent enactment of the Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106-393) has changed the revenue distribution. Due to declining Forest Service timber revenues in the west, Congress enacted this act to allow

electing counties to base their Twenty-five Percent Fund payments on an average of the highest three years payments from 1986 to 1999. If elected, counties would receive the newly calculated payment instead of what would have been normally received under the Twenty-five Percent Fund Act. This would provide level payments over the election period regardless of what the Forest revenues were for the present period. All counties receiving payments based on Flathead National Forest programs have elected the new option. This election will remain in effect through 2006.

The Payment in Lieu of Taxes Act (PILT), also distributes funds to counties based on the amount of federal land in each county. PILT payments are made to local governments to supplement other receipt-sharing programs such as the Twenty-five Percent Fund. PILT payments may be used for any government purpose; they are not limited for use in roads and schools. Generally, the more Twenty-five Percent Funds received, the less would be the PILT payments. However, the formula is complex, varies from county to county, and will not be explained in the document. A complete explanation of the PILT provisions and revenue sharing can be found in Schuster, 1995 and 1996.

Environmental Consequences

Direct and Indirect Effects of the No Action Alternative (Alternative A)

Alternative A, the no action alternative, would not harvest any timber or propose to conduct any other activities. Therefore, Alternative A would not serve to generate any substantial additional direct employment or income in the local economy.

An effect of the no action alternative is an increased hazard of large-scale wildland fires occurring as compared to implementation of an action alternative. If a single or multiple large wildland fires were to burn in the analysis area, a short-term improvement in employment and income would occur as fire suppression activities require large amounts of labor, equipment, and material. Many of these resources could be supplied locally. The amount of resources required for fire suppression varies greatly on the size, location, time of year, and proximity of the fire to values at risk (such as private property). Please see the Fire and Fuels section above for a discussion regarding the relative hazard of wildland fires from the various alternatives.

Direct and Indirect Effects of Alternatives B, C, D, E, and F

Employment and Income

Although the proposed activities could have slight economic effects on adjacent counties, as explained in the affected area above, it is assumed most of the effects would occur in Flathead County.

Vegetation Management

Implementation of the action alternatives would create a varying number of new jobs, both directly and indirectly related to timber harvest proposed by the alternatives (Table 3-98). Total direct and indirect wage income over a 10-year period is also depicted in Table 3-98. Direct jobs are those directly related to the wood products industry, such as logging or milling. Indirect jobs support the wood products industry, such as retail sales of petroleum products and supplying insurance. The Flathead County economy currently has 40,000 jobs and is growing at the recent rate of 800 jobs per year (Montana Department of Labor and Industry 2003). The Flathead County economy had a total annual wage income of \$812 million in 2001 and grew at an average of \$41 million per year from 1991 through 2001 (Montana Department of Labor and Industry 2003). Of all the action alternatives, implementation of Alternative B would create the most jobs and would generate the most income, as shown in Table 3-98. The Preferred Alternative (Alternative F) would generate an amount of jobs and income in the middle when compared to the other action alternatives.

Table 3-98. Summary of Jobs Created and Income Generated by Timber Harvest from Implementation of the Alternatives (over approximately a 10-year period).

Economic Parameter	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F
Estimated Timber to be Harvested (million board feet)	0	59	34	38	54	43
Direct Jobs (number of job years)	0	502	291	321	462	366
Indirect Jobs (number of job years)	0	703	408	450	648	512
Total Jobs (number of job years)	0	1205	699	771	1110	878
Direct and Indirect Wage Income (millions of dollars)	0	\$22.3	\$13.0	\$14.3	\$20.6	\$16.3

The creation of income and employment from after-sale activities such as slash disposal and reforestation is included in the above figures. Additional employment and income would be generated by activities such as road reclamation, thinning, riparian revegetation, and wildlife habitat treatments. The greater the activity, the more income and employment would be generated. The degree of activity for each alternative is discussed in Chapter 2. The specific amount of employment and income potential generated from these proposed activities was not estimated due to the lack of available data, but can be viewed as minor in relation to the total workforce in the area.

Payments to Counties from Flathead National Forest Programs

Because all counties have elected to receive even-payments for any timber harvested on National Forest System lands under Public Law 106-393, changes in Forest Service revenues would have no effect through 2006 on payments-to-counties. Although Forest Service revenues change from alternative to alternative in this proposal, payments-to-counties, including PILT payments, would not change. It is assumed the revenue-generating parts of the proposed project would be completed by the end of 2006. Therefore, the proposed project would have no effect on payments to counties.

Economic Efficiency Analysis

The economic efficiency of each action alternative was analyzed using the present net value (PNV) of revenues and costs anticipated during the life of the project (until regeneration surveys are completed in 10 years). PNV can be viewed as the lump sum of money the decision maker would have in hand as a result of committing forest resources to a particular alternative. The following assumptions were used in the PNV analysis:

- a) This analysis determines the net economic returns of various alternatives based on amenity resource costs and benefits which can easily be measured in dollar terms. Other resources that are more difficult to assign a dollar value (e.g., wildlife, water, air) were not considered.
- b) Net values were determined for the year 2003. Future monetary values were discounted four percent per year. The harvest schedules for each alternative were distributed over the years 2004 through 2006.
- c) The only revenues and costs are those related to the sale of timber and timber sale preparation, implementation, administration, and post-sale treatments. A complete list of revenues and costs by alternative are presented in Exhibit N-4. Revenue and cost data were developed specifically for this project and reflect current levels for this geographic area.
- d) Timber prices were estimated using a Forest Service computer model called PLATA (Jones et al., 2002) that uses sale data specific for the Flathead National Forest. These timber prices were then used in the same model for economic analysis to determine revenues, costs, PNV, and revenue/cost ratios.

The following table shows a summary of the volume offered, total PNV cost, total PNV revenue, PNV, and Revenue/Cost ratio. Documentation for the calculations of the values presented in the table are found in Exhibit N-5.

Table 3-99. Summary of Discounted Costs and Revenues for the Project Period

Economic Parameter	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F
Timber Volume (MMBF)	0	59	34	38	54	43
Total PNV Cost	-\$825,000	-\$3,292,700	-\$2,517,280	-\$2,323,900	-\$3,193,910	-\$2,518,020
Total PNV Revenue	0	\$11,115,900	\$6,306,920	\$6,885,520	\$10,250,220	\$7,846,180
Present Net Value	-\$825,000	\$7,823,200	\$3,789,640	\$4,561,620	\$7,056,310	\$5,328,160
Revenue / Cost Ratio	0	3.38	2.51	2.96	3.21	3.12

Examination of total PNV shows that alternatives with the largest timber volumes harvested tend to generate the highest return. In addition to less total volume, the alternatives to the Proposed Action also averaged less volume per acre of area proposed for harvest. Costs for road construction, road maintenance, reforestation, and other projects did not vary greatly between alternatives. Alternative B, the Proposed Action, realizes the greatest monetary return with Alternative C showing the least. Alternative F, the Preferred Alternative, shows a PNV in the mid-range of the other alternatives.

The approach of long term implementation of an ecosystem plan on a large watershed scale, such as was conducted in this analysis, has its costs. Much of the revenue generation and expenditures do not take place soon after the decision is made, as is the case with traditional timber sale planning. By planning timber sale activities and associated costs far in to the future, discounting to current values makes the project alternatives less economically attractive in the near term. We feel net public benefits would increase in the long run with the implementation of a restoration alternative that results in healthier forests that are able to better withstand potential damaging agents such as fire, insects, and disease.

REGULATORY FRAMEWORK AND CONSISTENCY

Forest Plan direction is to provide a sustained yield of timber products that is cost effective and responsive to the needs of the local economy (USDA Forest Service, 1985). Alternative A would not be consistent with this Forest Plan direction. All action alternatives offer varying levels of timber harvest and would be consistent with being responsive to the needs of the local economy.

Civil Rights and Environmental Justice

None of the action alternatives are expected to negatively affect the civil rights of consumers, minority groups, low-income groups, women, or Indian tribes. Subsistence activities would not be disproportionately reduced for any of the identified groups. The Flathead Indian Reservation is 80 miles from the project area. The effect of the action alternatives on wildlife

that may be used for subsistence is discussed in the wildlife section of this chapter. No environmental health hazards are expected to result from implementation of any alternative. Income levels in Flathead and Lincoln Counties are average for the state of Montana (Exhibit N-2), and this project should not disproportionately affect one income group over another.

This project is in compliance with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Environmental Justice issues were considered in all steps of the NEPA process, including public participation, alternative development, determining the affected environment, project design, and analysis of environmental consequences. At no step were minority, low-income, or tribal populations negatively affected by any of the proposed actions in any of the alternatives.