

# ECONOMICS

## Introduction

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This section presents a description of the economic environment that could be potentially 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 within and around the Forest and the economic influence of goods and services the Forest provides. Emphasis would be placed on those components of the economy identified throughout the scoping process, mainly through public comments concerned with: employment and income in the local area; the loss of raw materials that would normally go to the wood products industry; federal funds to communities; and road management.

## Information Sources

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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. Population data were provided by the U.S. Census Bureau. 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.

## Affected Environment

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No key issues associated directly to economics were identified, although issues involving the amount of timber harvested are closely related and other issues such as motorized access and quality of the environment are somewhat related.

The following effects indicators were used to focus the economic analysis and disclose relevant environmental effects. The economic environment is also described in terms of these indicators:

- Effects on Job Growth and Rate of Growth
- Effects on Unemployment Rate
- Effects on Income and Wages
- Effects on Cost of Living
- Effects on Economic Dependency and Diversity
- Effects on Economic Trends
- Effects on Revenue Sharing
- Effects on Local Economic Development Objectives.

## The Economic Community

The Flathead National Forest includes parts of six Montana counties: Flathead, Lincoln, Lake, Missoula, Powell, and Lewis and Clark. About three-fourths of the area of the forest is in Flathead County. However, most of the economic effects of Forest programs and projects occur in Flathead County. The forest has lesser effects in Lake County and only minimal effects in the other four counties. However, the economic impact area can vary and is systematically determined for each proposed project or program (see below).

The economic setting in the area of influence is described in terms of industry composition, economic diversity, economic dependence, employment and income, and other trends affecting the economy. As the proposed action features the management of the timber resource an emphasis is placed on describing the existing timber industry and the past and present role of the Flathead National Forest in that industry.

The Flathead National Forest is an important part of the Northern Continental Divide Ecosystem, which covers most of northwest Montana. This area has significant economic value on a regional, national, and international scale when recreation and tourism, wildlife, and aesthetic values are considered along with a significant 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 significant economic issues in respect to the proposed action. The emphasis is on the economic effects that the proposed action and the alternatives would have on the timber industry and economic communities that would be primarily affected. Of similar concern are the economic consequences of alternative road management proposals.

## Analysis Area

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The proposed action and its alternatives are located in the economic influence area of Flathead County, Montana. Although a small amount of the proposed activities might occur in Lincoln or Lake Counties, most of the economic effects would be felt in Flathead County. The designation of Flathead County as the affected area was based on the multiple criteria suggested in the Forest Service *Economic and Social Analysis Handbook* (FSH 1909.17) and (USDA Forest Service 1988). Criteria include the location of the economic center, wood processing facilities, residences of the forest products industry workforce, and the center of spending for retail and wholesale goods and services.

A discussion of the reasoning used in selecting the economic impact area is included as Exhibit N-1 in the Project Record.

# Environmental Consequences

## The Economy

### Industry Profile

When looking at the entire economy (all industries) as sectored by the U.S. Department of Commerce (Bureau of Economic Analysis 2004) the following picture arises (refer to Table 3-130). The services industry is the largest industry followed by trade, manufacturing, and government. Agriculture is fairly insignificant at 1.1% of the total economy. In this type of sectoring, tourism, which is deemed important to the Flathead area, is not considered an industry by itself, and tourism spending is primarily in the services and trade industries. Future expectations of these industries are discussed in the “Economic Trends” section of this chapter. The wood products industry is included in “Manufacturing”.

The economic profile for Flathead County is similar to the state of Montana for most industries (following table). However, there are a few exceptions. The manufacturing industry is more than twice the state percentage and is the highest rate of any county in the state. This is presently dominated by the wood products industry, which will be discussed later in this analysis. Government, which includes federal, state, and local government is substantially smaller in Flathead County than it is in the state as a whole. Agriculture and mining are an insignificant part of the total income generated in both Flathead County and the state of Montana. However, agriculture varies greatly from year to year depending on weather and market conditions. All other industries are very similar (U.S. Department of Commerce 2004).

**Table 3-130: Total Industry Sector Profile – Flathead County and Montana**

PERCENT OF TOTAL LABOR INCOME - 2000		
INDUSTRY	FLATHEAD COUNTY	MONTANA
Agriculture	1.1%	2.6%
Mining	0.6%	2.5%
Construction	10.7%	7.5%
Manufacturing	15.4%	7.2%
Transportation and Utilities	6.8%	7.9%
Trade	15.7%	16.3%
F.I.R.E*	6.5%	6.2%
Services	28.7%	27.9%
Government	14.5%	21.9%

\*Finance, Insurance, and Real Estate

However, when looking at the economic base, i.e. that portion of the economy that involves the importing of dollars, and is the source of the derivative part of the economy, a different picture arises. Manufacturing (including wood products, primary metals, and other manufacturing) accounts for about 45 percent of the economic base. The largest single component in 2002 was still the wood products industry (last year of available data). As shown in the

following table, about 22% of labor income in the basic economy is attributed to the wood products industry which has remained relatively constant since 1999. However, it has gradually declined over the past decade. Other basic industries of significance include transportation (13%), federal government (15%), other manufacturing (13%), primary metals (10%), and trade center (13%). Agriculture and other related industries comprise only 5% of the basic economy (USDC 2001). The primary metals industry, which consists almost totally of the Columbia Falls Aluminum Plant, has declined significantly since 1999 when the plant temporarily halted the production of aluminum. However, the 2000 data does not include recent events at the Columbia Falls Aluminum Company. Between 1995 and 2000, growth in nonresident travel and selected manufacturing (including high tech manufacturing) were the largest contributors to the growth in the basic sectors. (Polzin 2004).

**Table 3-131: Basic Industry Sector Profile – Flathead County**

<b>Industry</b>	<b>Percent of Total Labor Income - 2002</b>
Agriculture	5.0%
Trade Center	13.0%
Nonresident Travel	9.0%
Primary Metals	10.0%
Other Manufacturing	13.0%
Federal Government	15.0%
Transportation	13.0%
Wood Products	22.0%

**Effects on industry profile** - All of the action alternatives would likely increase the wood products industry and manufacturing sector more than other sectors therefore increasing their percentage of the total economy. The increase would depend largely on how much substitute timber volume would be milled if the action alternatives were not implemented. Depending on which alternative is implemented, the change could vary from insignificant to somewhat measurable if the local timber industry is able to absorb the additional timber volume. See the sections below for actual estimates of changes in employment and income.

## ***Industry Trends***

### **Employment**

#### **Job Growth Rate**

Although wage and income growth in Flathead County and Montana have been lagging, job growth has been significant. Positive job growth has occurred in every year from 1991 through 2001 in Flathead County. During this period over 15,000 jobs have been created for an increase of 46 percent, or an average of more than 1,500 jobs per year and an average annual growth rate in excess of 4 percent. This is significantly ahead of the Montana growth rate as well as all but a few of the other counties in Montana (U.S. Department of Commerce 2004).

## Effects on Job Growth Rate

In excess of 900 total job years (Tables 3-133, 3-134 and 3-135) could be created from timber harvesting and processing, reforestation, and road decommissioning from the action alternatives. However, the short term effects on the job growth rate could be reduced if (1) there is a labor shortage and labor is drawn from one industry to another and (2) the project is spread out over the entire contract period or if all of the timber that would normally have been sold as part of the regular Forest program was not sold. This is not predictable at the present.

## Unemployment

Related to job growth is the unemployment rate. Flathead County has historically the highest unemployment rate among the larger counties of Montana. The annual unemployment rate for Flathead County for the year 2003 was 6.0 percent. Although this is still above the Montana rate of 4.4 percent it is one of the lowest rates experienced by Flathead County for the past 30 years. In general, the unemployment rate for Flathead County has been steadily decreasing since 1991 when it was over 9 percent. Along with a lower annual average rate, the monthly rates have shown much more stability. In 2003, the highest monthly rate was 7.3% in December (which is significantly higher than the 6.1% from December of 2002) and the lowest was 5.0% in July. This suggests that seasonal employment is not as prevalent as it once was although it is still greater than the state average. The unemployment rates for Flathead County track quite closely with the State of Montana but rates in the winter months are relatively higher therefore suggesting a higher percentage of seasonal employment (Montana Department of Labor and Industry 2004).

## Effects on Unemployment Rate

An addition of up to over 900 job/years (Tables 3-133, 3-134 and 3-135) could have a measurable effect on the unemployment rate. History shows that the unemployed workforce in Flathead County stays a relatively constant percentage of the total workforce, compared to surrounding counties. New jobs tend to be filled from new arrivals or by people with different jobs, etc. who are eventually replaced by recent immigrants. If all the new jobs were filled from the present workforce, which is highly unlikely, and the new jobs (900+) are spread over 4 years (225 jobs per year) the unemployment rate would decline by a maximum of one half of one percent. However, the most likely effect would be much smaller. We have previously discussed the potential effects of the timber industries ability to change or defer timber flows which greatly complicates the prediction process.

## Income

### Components of Total Personal Income and Trends

Total personal income (TPI), includes the earnings (wages and salaries, other labor income, and proprietor's income); dividends, interest, and rent; and transfer payments<sup>1</sup> received by the

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<sup>1</sup> Transfer payments are income payments to persons for which no current services are performed. They are payments by government and business to individuals. Examples are social security, medicare, government

residents of Flathead County. In 2001, earnings were 59.1 percent of TPI (compared with 59.1 percent in 1991); dividends, interest, and rent were 25.6 percent (compared with 25.2 percent in 1991); and transfer payments were 15.2 percent (compared with 15.8 percent in 1991). From 1991 to 2001, earnings increased on average 6.3 percent each year; dividends, interest, and rent increased on average 6.5 percent; and transfer payments increased on average 6.0 percent (U.S. Department of Commerce 2002).

### **Per Capita Personal Income**

In 2001, Flathead County had a per capita personal income (PCPI) of \$24,801. This PCPI ranked 10th in the State, and was 103 percent of the State average of \$24,044, and 82 percent of the national average, \$30,413. This is a slight improvement from the recent past when it was the lowest it has been, as a percent of national PCPI since 1969. In 1991, the PCPI of Flathead was \$16,762 and ranked 18th in the State. The 1991-2001 of average annual growth rate for Flathead County of PCPI was 6.3 percent. The average annual growth rate for the State was 3.9 percent and for the nation was 4.3 percent (U.S. Department of Commerce 2004).

### **Total Personal Income**

In 2001, Flathead County had a total personal income (TPI) of \$1.9 billion. This TPI ranked 4th in the State and accounted for 8.7 percent of the State total. In 1991, the TPI of Flathead was \$1.0 billion and ranked 4th in the State. The average annual growth rate of TPI over the past 10 years was 6.3 percent. The average annual growth rate for the State was 5.0 percent and for the nation was 5.5 percent. However, as mentioned above, the per capita income has not significantly gained as a percent of the national per capita income because the population in Flathead County has increased at a rate significantly higher than the national rate (U.S. Department of Commerce 2002).

### **Wages**

Annual wages of employees are another indicator of economic well being of a region. Year 1999 and 2000 data shows that Montana has the lowest average annual pay of any state in the U.S. In the year 2000, wages in Montana were only 67% of the U.S. average. From 1999 to 2000 Montana wages increased by 4.4%, which was higher than approximately one-third of the states in the U.S. but was still below the U.S. average increase of 5.9% (U.S. Department of Labor 2002a). U.S. wage growth averages exceeded Montana averages in every industry category except mining and government. Montana wage rates for the top employing industries in the Flathead County area (services, trade, and manufacturing) significantly lagged U.S. growth rates for wages. (U.S. Department of Labor 2002b)

### **Effects on Personal Income and Wages**

Personal income or wage income effects would be similar to the changes in job growth rate explained above. The effects can be extremely variable depending on the outcomes, but not significant. Per capita income would increase only if the incomes from the new jobs created

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retirement, worker's compensation, and income maintenance (e.g., AFDC and food stamps).

are higher than the average incomes of the existing jobs in the county. This should be the case as wages in the wood products industry are usually higher than most other wages in the county. However, even in the most favorable event, the increase would be minimal because the wage rates are not significantly higher and the total number of new jobs are a small percent of the workforce. However, at the household and individual level, income could increase substantially.

### **Cost of Living**

Per Capita income alone is not an adequate measure of economic well being. The cost of living in an area must also be considered (Power 1990). The relative cost of living in the Flathead Valley is not well understood by many. Public opinion surveys conducted in the past indicate that many people identify the “cost of living” as one of the reasons they relocated to the Flathead Valley.

This has led many people to perceive the cost of living to be low. However, cost of living indices provided by the American Chamber of Commerce Researchers Association (ACCRA) indicate the cost of living in the Kalispell area in the third quarter of 2003 is approximately 98 percent of the national average. Utilities is the highest component at 108 percent and housing the lowest at 86 percent. Groceries, health care, and miscellaneous goods and services all exceed the national average. Transportation is slightly less than the national average. (American Chamber of Commerce 2002).

### **Effects on Cost of Living**

There should be no measurable effects to the cost of living resulting from the proposed project. An increase in wood products manufacturing would not affect the price of wood products whose prices are determined in a regional or national market. The maximum increase in wood products from the proposed project is insignificant when compared to the regional or national market. Additional jobs and income should not have a measurable effect on consumer goods as they are also priced in a regional market and the increase in jobs and wages is insignificant. However, if a significant number of the new jobs are filled by people from outside the region and create a rapid corresponding increase in population there could be an additional increase in housing costs.

### **Diversity/Dependency**

It is generally believed that *economic diversity* is a positive attribute of a regional economy. A diverse economy is economically resilient which means it has the ability to adapt to change (Haynes et al. 1999). *Dependency* refers to a community’s dependence on a single or small group of industries for its survival. Communities that are highly dependent are not usually diverse and are frequently vulnerable to changes occurring in its major industries. Flathead County is thought to have a relatively diverse economy. A recent analysis (2000) of Montana counties using the Shannon-Weaver entropy indices found Flathead County to be the most diverse county in Montana (USDA Forest Service 2002). Diversity also usually 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 the IMPLAN

economic impact model shows Flathead County to have the third most economic sectors in Montana. All of the above indicators suggest that the economy of Flathead County is very diverse and likely not relatively vulnerable to external forces.

In the past it was thought that Flathead County was highly dependent upon the wood products industry, which at one time comprised over 40% of the basic economy. However, the most recent data shows that approximately 22% of the economy is attributable the wood products industry (Table 3-131). This decline is due primarily to the rapid growth of other sectors of the economy, while the wood products industry declined slightly. The transportation industry, which accounts for approximately 13% of the economy, also includes communications and public utilities and is very diversified and normally not greatly effected by Forest Service management decisions. All other industries each account for less than 13% of the Flathead County economy.

### **Effects on Economic Dependency and Diversity**

If we consider the local economy to be “dependent” on the wood products industry the proposed project has the potential to make the local economy even more dependent – it would not make it less dependent. The same should hold true for diversity. However, the maximum potential increase is relatively small and should not have any negative effects on the overall health of the economy in terms of both dependency and diversity.

### **Economic Trends**

Wood products and aluminum refining have traditionally been the largest components of Flathead County’s economic base. Together they were primarily responsible for the growth in the 1970s and the sharp decline between 1979 and 1982. From its trough in the early 1980s, the wood processing industry in Flathead County expanded significantly to become the states largest timber-processing center – a position it still retains.

Non-resident travel has generally been the Flathead’s most rapidly growing basic industry in the 1980’s and 1990s and continues to grow. High technology manufacturing, led by Semitool, also grew at a significant pace.

As elsewhere, construction, health care, and business services accounted for much of the income growth for the past decade. The following synopsis of the recent past and predictions for the future of Flathead County, has been provided by The University of Montana’s *Bureau of Business and Economic Research* (BBER) as follows:

Overall, Flathead County has been one of the fastest growing counties in the state. There has been significant volatility in the recent past as the growth rates have vacillated from one year to the next. The large increase in 1998, and the subsequent decline in 1999, were caused by the large back wages payment to Columbia Falls Aluminum Company workers. The forecasts call for moderate growth in the future, but they incorporate some resumption of aluminum production and stability in “high tech” manufacturing. Significant changes in either of these important industries could dramatically alter the forecasts (*Polzin 2002*).

The BBER goes on to predict growth rates in non-farm labor income from 2001 to 2006 varying from a low of 1.2% in 2002 to a high of 2.5% in 2004 and 2005. This is very similar to the prediction for the state of Montana as a whole.

### **Effects on Economic Trends**

The proposed project has the potential to have a measurable effect on economic trends depending on how regional processing facilities elect how to program their future harvesting. However, there are so many other economic factors effecting the local economy that potential changes in timber harvest would probably be masked by these other changes and probably be difficult to measure. The proposed project should not cause any adverse pressure on present trends.

### **The Timber Industry**

#### **Historical Production and Capacity**

Historically, timber harvest from National Forest System land in Montana peaked at greater than 800 million board feet at the end of the 1960s. In the period 2000, 2001 the timber harvest dropped to the general vicinity of 100 million board feet or slightly greater than 10% of the past peak level (USDA Forest Service 2004).

In 1998, of the 293 million board feet of timber delivered to processing facilities in Flathead County, approximately 38 million board feet, or less than 13%, came from National Forest system land (Keegan et al. 2001).

Since 1980, Flathead County has had the largest wood products manufacturing industry of any county in Montana. Since 1976, the county's capacity to process saw timber has varied from a low of 265 million board feet (Scribner rule) at the present to a high of 395 million board feet in 1983. Actual saw timber 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% in 1982 to a high of 97% in 1999. The year 2000, the last year for which there is data, was at 94% of capacity. The plywood industry in Montana is presently at 93% of plant capacity. County level information on the plywood industry is generally not available because of data disclosure constraints (Keegan et al. 2001).

The percentage of milling capacity that is actually used or remains available for use affects the demand for logs and is a variable effecting log prices, which in turn, affects the quantity of logs supplied to mills.

#### **Timber Industry Outlook**

After very low levels during the first six months of 2003, wood products prices increased substantially in the last half of 2003. Plywood prices reached all-time highs, and lumber prices reached their highest level since early 2000. The upward surge in prices was attributable to a number of factors including, high domestic lumber consumption, a weaker U.S. dollar with less imports, and increased foreign demand.

Montana mills did not benefit fully from the high prices, with forest closures due to wildfires and court decisions creating log shortages and curtailments at numerous mills. Two major mills have closed since 2002 – Stimson’s plywood plant in Libby closed in December 2002, citing poor markets, and Louisiana Pacific’s Belgrade sawmill was shut down in August 2003 as part of a company-wide restructuring plan.

The estimated total sales value of the state’s primary wood and paper products in 2003 was \$970 million, nearly the same as in 2002. Despite the high prices in the second half of the year, the mill closures mentioned above as well as other production cut backs led to reduced production, employment and wages for the year.

While lumber prices dropped in late December 2003, a number of factors point to moderately good prices well into 2004. Interest rates should remain low and domestic wood products consumption is expected to remain high. Also, the U.S. dollar should weaken somewhat more in 2004, and a potential agreement with Canada setting quotas on softwood lumber imports is possible. Both events could positively impact lumber prices. On the negative side, uncertainty over log supply remains a major and perhaps growing issue. Most of the major processors expect overall operating conditions to be the same as, or better than 2001.

Recent trends in employment in the Montana wood products industry have shown a gradual and steady decline. For example, from January 2000 to December 2001, employment went from 4,556 workers to 4,027 workers, a 12 percent reduction. This includes production workers at all timber processing and wood residue processing facilities. Production workers account for 40 to 50 percent of the total workers in Montana’s forest products industry (BBER 2002). Therefore, it could be reasonably assumed that the total reduction in workers in the total forest products industry, which also includes logging, transportation, reforestation etc., is more than twice the loss shown for just the wood products industry.

At the end of 2003 estimated total employment in the wood products industry was about 9,000 workers, down nearly 4.5 percent from the previous year, and worker earnings were also down about 5 percent. Lumber production in the state was slightly more than 1.11 billion board feet, down from 1.14 billion board feet in 2002. Contrary to conditions in the housing industry the log home industry experienced its third straight year of weaker sales. Before this time, this industry had been growing consistently since the early 1970s.

Because of a decade-long decrease in federal timber harvest, timber availability remains a major issue for Montana’s forest products industry even as wood products markets improve in the longer-term. Salvaged timber from burned areas could increase the volume of available timber. The Forest Service has proposed substantial salvage operations. Recent work done by the University of Montana researchers indicates that millions of acres of timberlands in the state are in need of ecosystem and fire hazard treatment and could provide – as a profitable by-product – a sustainable flow of timber considerably above current harvest levels (Keegan et al. 2002).

### **Flathead National Forest Timber Sale Program**

The Flathead National Forest previously provided over 40% of the timber processed by the Flathead County wood products industry (USDA Forest Service 1985). This has greatly

diminished over the past decade. The proposed action alternatives would offer for sale approximately 35 to 56 million board feet of timber; perhaps in several separate timber sales to be sold in FY 2005.

The following table is an attempt to put the proposed project in perspective with the recent timber sale program history. The table shows that since 1995 the Flathead NF has offered for sale a high of 40 million board feet of timber in 1996 and 2001, and a low of 8 million in 1999 with a mean of 24 million board feet from 1995 through 2003. The timber harvested from the Flathead NF has followed the same general pattern. The timber under contract for the Flathead NF reached a high of 44 million board feet in 1997 and a low of 7 million in 2000. (USDA Forest Service 2002)

**Table 3-132: Flathead National Forest Timber Sale Program Information (mmbf)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	Mean
Timber Offered	17	40	32	16	8	20	40	29	13	24
Timber Harvested	22	18	22	34	14	9	6	7	38	19
Timber under Contract	17	35	44	26	11	7	18	65	41	29

Aside from the fires in 2003, the forecast for the near future was for the Flathead National Forest to sell from 20 to 25 million board feet per year. An important question in estimating the economic effects of the proposed project on the local timber industry and economy in general is what the timber harvest would be if the proposed project was not implemented. It is obvious that the timber to be offered under the proposed action could not be made up with other sales. It is also assumed that the planned green sales of 20 to 25 million board feet per year will be deferred for a few years if the proposed action is implemented.

## **Effects of Alternatives on Employment and Income**

### **Timber Harvesting**

The activity of timber harvesting, as proposed, has the potential to create a substantial amount of employment and income. These effects are both direct – workers employed in the forest products industry and government, and indirect – jobs and income created from the local spending of the forest products industry and government and the spending of industry's and government employees. The effects on employment and income have the potential to affect the other economic variables such as economic structure, unemployment, and wages.

These effects could be minimal in the short-run as it is possible that salvaged timber would, at least in part, replace timber that would otherwise have been harvested - which might be harvested at an unspecified later date. Another uncertainty is how the timber already under contract to be harvested will be handled. In any case it is difficult to predict the short-range effects not knowing what will happen in the timber market.

Although the proposed activities could have slight economic effects on adjacent counties, as previously explained, it is assumed that most of the effects would occur in Flathead County. This would depend on who purchases the timber sales. There is one major processor in

northern Lincoln County that is a potential purchaser. If that processor purchases any of the sales the effects would tend to flow in that direction.

Recent analysis in northwest Montana (USDA Forest Service 2001) shows that the harvesting and processing of one million board feet (MMBF) of timber generates a total of approximately 15 job years<sup>2</sup> and \$355 thousand in employee compensation (Exhibit N-2). This includes both direct and indirect jobs<sup>3</sup> and employee compensation. These jobs and income include direct jobs and income in logging, wood processing, transportation and the Forest Service; jobs supporting these industries; and jobs and income generated from the spending of the workers in the preceding industries. Table 3-133 is a summary of the maximum potential effects to total employment and employee compensation in Flathead County from the harvest and processing of timber from the proposed project assuming there is no substitute timber to the proposed project.

**Table 3-133: Employment and Income from Timber Harvest and Processing**

Alternative	Jobs/Year	Employee Comp (MMS)
B	748	\$17.5
C	641	\$12.6
D	768	\$17.9
E	852	\$19.9

The above shows that Alternative E, which harvests the most timber, generates the most job years (852) and employee compensation (\$19.9 million). Alternative C, harvests the least timber (35.4 MMBF) and generates the least job years (641) and employee compensation (\$12.6 million).

All alternatives will spend approximately the same amount of money on artificial regeneration (\$790,000 to \$952,000). This will produce between 52 to 62 job years and \$296,000 to \$355,000 in employee compensation (following table). A few additional jobs and income will be generated from weed management activities associated with the timber harvest.

**Table 3-134: Employment and Income from Reforestation Proposal**

Alternative	Acres of Tree Planting	Total Cost of Planting	Total Jobs from Planting	Total Income from Planting
B	1354	\$876,000	57	\$324,500
C	1221	\$790,000	52	\$296,000
D	1462	\$946,000	62	\$352,500
E	1472	\$952,000	62	\$355,000

In addition to the jobs and income generated by timber harvesting and planting, there would be jobs and income also generated by associated timber management activities. These include

<sup>2</sup> A job year is a job that lasts the equivalent of one year. For example 10 job years could be 10 jobs for one year or one job for 10 years or any combination thereof.

<sup>3</sup> A job can be full-time or part-time, seasonal or permanent. It is not a “full-time equivalent”.

slash disposal, site preparation, and subsequent surveys, monitoring and analysis. History shows that there is a good chance that a significant amount of the economic effects of reforestation activities could occur outside of the Flathead County area, depending on the origin of planting contractors and crews.

These potential jobs and income described above would be spread over approximately a four-year period from 2005 to 2009.

### **Road Management**

The extent of road “decommissioning” varies from a high of 69 miles in Alternatives C and D to no decommissioning in Alternative A (following table).

**Table 3-135: Employment and Income From Road Decommissioning Proposals**

<b>Alternative</b>	<b>Miles to be Decommissioned</b>	<b>Total Cost of Decom. (M\$)</b>	<b>Total Jobs from Decom.</b>	<b>Total Inc from Decom (M\$)</b>
B	49	\$343,000	6	\$102,250
C	69	\$483,000	8	\$143,500
D	69	\$483,000	8	\$143,500
E	49	\$343,000	6	\$102,250

As can be seen in the above table, road decommissioning is not a very labor intensive activity producing only from six to eight total jobs with the action alternatives. This estimate is based on analysis done on other projects in northwest Montana (USDA Forest Service 2001 and Exhibit N-3).

### **Revenue Sharing from Flathead National Forest Programs**

Revenues from National Forest programs are distributed to counties annually in accordance with several Federal acts. Historically, the 25% Fund Act has been the greatest source of funds. However, the recent enactment of the Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106-393) has significantly changed the revenue distribution. The Payment in Lieu of Taxes Act (PILT), also distributes funds to counties based on the amount of federal land in each county. This amount is normally reduced by other certain payments (including 25% funds) paid in the prior year. The PILT fund program is administered by the Bureau of Land Management.

Under the Twenty-five Percent Fund Program, 25% of all funds generated from certain National Forest programs are paid to the state in which national forest system lands are located. The funds generated by each Forest are distributed to each county in which the Forest is located in proportion to the amount of Forest land in each county. The location of the project within a particular Forest generating the revenue does not matter.

The amount distributed from the Twenty-five Percent Fund is based on certain receipts, including special use fees, recreation fees, minerals returns, grazing fees, and timber sales. In Montana two-thirds of the dollars received go to the counties’ general fund for road

maintenance, while the remaining one-third goes to public schools. For the Flathead National Forest, timber sale receipts have historically composed about 85% of the Twenty-five Percent Fund payments returned to counties. The following table shows how the payments have been distributed to Flathead National Forest counties (arising from all National Forests within those counties) in the past 5 years, with fixed payment projection from 2001-2006.

**Table 3-136: Distribution of Twenty-five Percent Fund Payments (thousand \$)**

Year	Flathead	Lake	L and C	Lincoln	Missoula	Powell	Total
1997	\$636	\$48	\$380	\$3,388	\$545	\$318	\$5,315
1998	\$909	\$72	\$566	\$3,651	\$613	\$394	\$6,205
1999	\$506	\$39	\$216	\$4,008	\$297	\$186	\$5,252
2000	\$361	\$24	\$211	\$3,181	\$264	\$155	\$4,196
2001-6	\$1,481	\$118	\$417	\$5,586	\$695	\$450	\$8,747

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 25% funds received, the less would be the PILT payments. However, the formula is complex, and 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.

Due to declining Forest Service timber revenues in the west, Congress enacted the Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106-393) to supplement the Twenty-five Percent Fund Act. This allowed 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. As can be seen in Table 3-136, this election will make a substantial difference in payments.

Effects of Proposal on Revenue Sharing - As all counties have made the election for even-payments 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 2004. Future monetary values were discounted four percent per year. The harvest schedules for each alternative were distributed over the years 2005 through 2007.
- 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 3-137. Summary of Discounted Costs and Revenues for the Project Period**

<b>Economic Parameter</b>	<b>Alt. A</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Alt. E</b>
Timber Volume (MMBF)	0	49	35	50	56
Total PNV Cost	0	-\$2,288,040	-\$2,299,720	-\$2,668,240	-\$2,421,730
Total PNV Revenue	0	\$3,991,370	\$2,797,950	\$4,455,910	\$5,057,590
Present Net Value	0	\$1,703,330	\$498,230	\$1,787,670	\$2,635,860
Revenue / Cost Ratio	0	1.74	1.22	1.67	2.09

Examination of total PNV shows that alternatives with the largest timber volumes harvested tend to generate the highest return. Costs for road construction, road maintenance, reforestation, and other projects did not vary greatly between alternatives. Alternative E realizes the greatest monetary return with Alternative C showing the least. Alternative B, the Proposed Action, shows a PNV in the mid-range of the other alternatives. Alternatives B and D have about the same amount of timber salvage but Alternative B shows a greater PNV due to less costs associated with road decommissioning.

### **Local Economic Development Objectives**

The economic development objectives for Flathead County are documented in Comprehensive Economic Development Strategy (CEDS) – Flathead County, Montana, 2002 (Flathead County, Montana Board of Commissioners, 2002). These objectives were developed by a team of interested citizens, subjected to intensive public review through public meetings etc. and endorsed by the Flathead County Board of Commissioners. Objectives involved subject areas such as quality of life, business development environment, education, housing, physical infrastructure, and the improvement of communications technology. Specific goals and objectives stated for natural resources in Flathead County include improving the viability of the natural resource based industries.

Effects on Local Economic Development Objectives - These objectives were reviewed to determine consistency, or otherwise, with the proposed action and alternatives. It was determined that the proposed action and action alternatives appear to be substantially consistent with the County economic development strategy. The no-action alternative would generally not contribute toward implementing the CEDS.

### **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-6), 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.