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National Summary

# Forest Management Program Annual Report

Fiscal Year 1996

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## Message From the Deputy Chief

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Dear National Forest Owner:

Here is the *Forest Management Program Annual Report* (formerly known as the *Timber Sale Program Annual Report*) for fiscal year (FY) 1996. This marks the eighth year the Forest Service has published this document, which is largely a summary of data compiled by the Timber Sale Program Information Reporting System (TSPIRS). Although this year's report has a new name and, to some degree, a new organizational structure, it contains essentially the same information it provided in previous years. Specifically, the report documents selected forest management program accomplishments, estimates various program-related economic effects, and sets forth the revenues that were received and expenditures that were incurred as a consequence of the program.

This year's report discusses, at some length, the changes that have been occurring in the Forest Service's forest management program. These changes include the dramatic decline in the amount of national forest timber being offered, sold, and harvested each year; and the ongoing shift in program priorities from an emphasis on sales designed to help meet the Nation's demand for wood—called "timber commodity" purpose sales—to an emphasis on sales designed to help attain various land management objectives that require working with the existing vegetation—called "forest stewardship" purpose sales.

This year's report shows that the changes that have been occurring in our forest management program have had a profound effect on the program's economics. Indeed, in FY 1996, while the timber commodity purpose component continued to be profitable—yielding a net revenue of roughly \$77.6 million—for the first time since we have reported such information, expenditures for the program as a whole exceeded revenues for the program as a whole by \$14.7 million. This pattern can be expected to continue as we place more and more emphasis on using timber sales as a management tool for achieving objectives other than fiber production. This does not mean, however, that the Forest Service should stop making timber sales. Selling timber is an established part of our congressionally mandated mission. Furthermore, our experience indicates that timber sales are often the "least net cost" method of attaining many management objectives that require working with the existing vegetation—for example, improving forest health and reducing forest fuels. This is because the alternatives (for example, prescribed burning, use of chemical herbicides, and mechanical treatments such as "cut-and-leave") generate no revenues to help offset their application costs.

The changes that have been occurring in our forest management program prompted us, late in FY 1996, to launch a comprehensive reinvention initiative aimed at identifying and evaluating new and innovative ways of addressing the many pressing vegetative management needs that exist on

the national forests in a more effective and efficient manner. A brief review of this initiative is contained in this report. Additionally, because the changes that have been occurring are fundamental, we have come to feel it is time to reexamine the types of information being reported by TSPIRS. The system was developed in the mid-1980's when the focus of our forest management activities was still largely on providing fiber to help meet the Nation's demand for wood. As circumstances have changed, the information that TSPIRS is currently reporting has become increasingly less relevant for program management and oversight purposes.

In closing, we offer this report with the hope that you will find it informative and that it will help to deepen your understanding of the results and complexities associated with managing diverse forest ecosystems.

ROBERT C. JOSLIN  
Deputy Chief  
National Forest System

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# Preface

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This report is produced each year to provide Congress and the public with accomplishment, economic, and financial information about the Forest Service's forest management program. The format of this year's report is somewhat different, but the information provided is essentially the same as in previous years. After an Executive Summary highlighting significant observations and findings, the body of the report is organized into four main chapters, as follows:

- **Review of the Timber Sale Program Information Reporting System (TSPIRS) and Fiscal Year (FY) 1996 Changes.** This chapter describes the origin and structure of TSPIRS and briefly explains what each part of the reporting system is intended to do. Except for the discussion of any procedural changes implemented during the reporting year, the reader who is already familiar with TSPIRS may want to skip this material.
- **Highlights of the FY 1996 Forest Management Program.** This chapter documents significant accomplishments of the forest management program and highlights program-related issues, initiatives, or concerns that were of special interest during the reporting year. This year's report discusses the changes that have been taking place within the forest management program, the reinvention effort that was launched during the fiscal year, and the agency's final accomplishments under the now expired salvage rider.
- **Economic Effects of the FY 1996 Forest Management Program.** This chapter displays the economic effects—both direct and indirect—of the forest management program during the reporting year. Consistent with past practice, essentially three types of economic effects are documented: the employment effects, the Regional income and Federal income tax effects, and the present net value (PNV) of the estimated resource effects.
- **Financial Results of the FY 1996 Forest Management Program.** This chapter displays the revenues received and expenses incurred because of the forest management program during the reporting year. Consistent with past practice, revenue and cost relationships are examined by program component as well as for the program as a whole. This year's report also includes an analysis of past revenue, cost, and net revenue (that is, profit) trends.

Most of the data presented in this report have been aggregated to the national level; however, several appendices provide more detailed information by Region; forest; and, in some instances, State. Besides the main chapters and appendices, the report includes a glossary of important technical terms, a map showing the boundaries of all administrative Regions and national forests, and instructions on how to secure additional information.

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# Executive Summary

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The Forest Service administers approximately 192 million acres of public land—187 million acres designated as national forests and 4 million acres designated as national grasslands. This report provides important information about the agency's forest management program activities in fiscal year 1996. Key points discussed in the report include the following:

- In FY 1996, after several years of decline, the size of the national forest timber sale program showed signs of stabilizing. Both the volume offered and volume sold increased slightly over FY 1995; while the volume harvested showed a modest decline. Specific accomplishments were:
  - Volume offered = 4.02 billion board feet (BBF)
  - Volume sold = 3.38 BBF
  - Volume harvested = 3.72 BBF
- In FY 1996, the volume of national forest timber harvested for timber commodity purposes continued to fall, while the volume harvested for forest stewardship purposes continued to grow; the volume harvested for personal use purposes was unchanged from FY 1995. The specific proportions were:
  - Timber commodity = 58 percent
  - Forest stewardship = 35 percent
  - Personal use = 7 percent
- Of the total volume of timber harvested for stewardship purposes in FY 1996, the vast majority was removed for the following reasons:
  - Forest ecosystem health = 72.8 percent
  - Wildlife habitat management = 10.5 percent
  - Threatened and endangered species habitat management = 6.6 percent
- Other important accomplishments directly attributable to the FY 1996 forest management program were:
  - Seedlings produced = 63.2 million
  - Seed produced = 16,700 pounds
  - Acres harvested = 473,127
  - Acres regenerated = 362,915
  - Acres treated for timber stand improvement = 259,653
  - Free-use firewood provided = 24 million board feet
  - Christmas trees sold = 301,512
  - Other nonconvertible products sold = \$1.9 million
  - Families served through personal use sales = 176,500
  - Miles of existing forest roads reconstructed = 2,503
  - Miles of new forest roads constructed = 417
  - Miles of forest roads obliterated = 1,440

- In FY 1996, other important accomplishments were indirectly attributable to the forest management program in the sense that they were funded by means of Knutson-Vandenberg (K-V) or Brush Disposal funds collected from timber purchasers. These were as follows:

**Wildlife and Fish:**

- Acres of habitat restored or enhanced = 168,500
- Habitat improvement structures built = 25,300
- Miles of habitat restored or enhanced = 489

**Range:**

- Acres of forage improvement = 8,300
- Forage improvement structures built = 271

**Soil and Water:**

- Acres of resource improvement made = 9,100

**Fuels Management:**

- Acres treated = 165,800

- In FY 1996, the forest management program continued to evolve. Significant changes over the last few years included:
  - The dramatic decline in timber harvest
  - The continuing shift in program priorities
  - The continuing shift away from clearcutting
  - The continuing shift in products being removed

These changes have had a profound effect on program profitability.

- Because of the changes that have been occurring within the forest management program, a comprehensive effort to “reinvent” the program was launched in FY 1996. The basic objective of this initiative is to enhance vegetative management on the national forests by identifying, evaluating, and ultimately implementing new and innovative ways of doing business more efficiently and effectively.
- In FY 1996, the provisions of the controversial Emergency Salvage Timber Sales Program expired. Accomplishments during the duration of the program were:
  - Volume offered = 4.6 BBF
  - Volume sold = 3.8 BBF

Both of these volumes were in compliance with the commitment the Secretary of Agriculture made to Congress on June 29, 1995, to deliver 4.5 BBF of salvage timber, plus or minus 25 percent.

- In FY 1996, the harvest of national forest timber directly or indirectly created the following economic effects:
  - Local community jobs = 61,396
  - Regional income = \$2.2 billion
  - Federal income tax receipts = \$331.6 million

- In FY 1996, the net present value of the long-term economic benefits and costs expected to result from the harvesting of national forest timber was estimated to be \$387.0 million.
- In FY 1996, the various components of the forest management program produced the following net revenues:
  - Timber commodity = +\$77.6 million
  - Forest stewardship = -\$55.0 million
  - Personal use = -\$37.3 million
- In FY 1996, all components of the national forest timber sale program, considered in combination, yielded a final net revenue of -\$14.7 million. This represents the first time since the inception of TSPIRS that the program as a whole failed to produce a profit.
- The reasons for the altered economics of the forest management program are many and varied. On the revenue side, substantially less volume is being sold than in the past. Also, the timber now being sold is significantly different from the timber typically sold in previous years—now consisting more of salvage than of green material, and more of nonsawtimber than of sawtimber. In part these changes are a consequence of the continuing shift in program emphasis from timber commodity to forest stewardship purpose sales. On the cost side, the open decision-making process and high environmental standards the agency observes when making timber sales have undoubtedly added to program costs. Other factors contributing to higher costs include: (1) the diseconomies associated with operating a smaller sized program, (2) the increasing importance of relatively fixed program costs, (3) the actions being taken to minimize conflict, (4) the disappearance of the timber pipeline, and (5) the shrinking volume under contract.
- In FY 1996, as mandated by law, \$240.4 million, or 39 percent of gross receipts earned, was returned to the States and counties where national forest timber had been harvested—for use in benefiting local schools and roads. Payments to those States and counties impacted by the northern spotted owl accounted for over half (56 percent) of these payments.

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# Review of the Timber Sale Program Information Reporting System and Fiscal Year 1996 Changes

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Most of the information presented in this report was compiled by the Timber Sale Program Information Reporting System (TSPIRS). Accordingly, it is appropriate to briefly describe the origin, structure, and objectives of this reporting tool. The reader who is already familiar with TSPIRS may want to skip ahead to the subsection that discusses any procedural changes implemented during the reporting year.

## Review of TSPIRS

The Timber Sale Program Information Reporting System was developed in response to congressional direction contained in the Conference Committee Report on the 1985 Interior Appropriations Bill. The impetus for this direction was concern over below-cost sales and the desire to have better information on the benefits and costs of selling national forest timber. The system was “pilot-tested” during fiscal years (FY’s) 1987 and 1988, and was officially implemented in FY 1989. It consists of three “accounts,” each of which is described below.

## The Financial Account

The TSPIRS financial account displays in the format of an annual financial statement—the revenues, expenses, and resultant net revenues (that is, revenues minus expenses) that were associated with the harvesting of national forest timber in a given year. It has been designed to apply “generally accepted accounting principles” (GAAP) and was jointly developed by the Forest Service and General Accounting Office (GAO).

Separate financial accounts are developed by forest, by Region, and for the Forest Service as a whole. Additionally, at each administrative level, revenues, expenses, and net revenues are separately reported for three distinct components of the overall sales program. These components are as follows:

- **Timber Commodity Purpose Sales**—This component includes sales made primarily to supply timber in response to society’s demand for wood.
- **Forest Stewardship Purpose Sales**—This component includes sales made primarily to help achieve desired ecological conditions or to attain some nontimber resource objective that requires manipulating the existing vegetation—for example, improving forest health or reducing forest fuels.
- **Personal Use Purpose Sales**—This group includes sales made primarily to supply firewood, Christmas trees, and other miscellaneous forest products to individuals for their own consumption.

The revenues that are recognized in the financial account include actual stumpage receipts, purchaser road credits established as purchasers complete construction or reconstruction of needed access roads, purchaser deposits for such things as road maintenance and brush disposal (called associated charges), and any interest or penalty payments that are assessed.

The expenses that are recognized in the financial account fall into four broad categories:

- **Direct Timber Sale Expenses**—Included are the costs of such activities as sale preparation and harvest administration.
- **Direct Timber Program Expenses**—Included are the costs of such activities as transportation planning, silvicultural examinations, and the reforestation of cutover areas.
- **Indirect Timber Sale Expenses**—The primary expense included here is the cost of dealing with appeals and litigation.
- **Indirect Timber Program Expenses**—Included are any costs of a general administrative nature, that is, the portion of line management and program support costs that is properly chargeable to the timber program.

To better match annual sale-related revenues to annual sale-related expenses, expenses that are long-term investments—that is, expenses that will benefit future sale-related activities as well as those being conducted in the reporting year—are placed into one of three pools and are redistributed back to a particular year based on preestablished formulas. This method of accounting is called “accrual” accounting, and it differs from “obligations-based” or “cash-flow” accounting.

The following three cost pools are recognized by TSPIRS.

- **Sale Activity Pool**—This pool includes those costs directly associated with the preparation of timber sales. The costs placed in it are expensed using the ratio of volume harvested to volume harvested plus volume under contract.
- **Growth Activity Pool**—This pool includes those costs associated with growing timber over an entire rotation. The costs placed in it are expensed using the ratio of volume harvested to the total growing stock volume on suitable lands.
- **Depreciation Pool**—This pool includes those costs associated with roads and facilities. The costs placed in it are depreciated over predetermined periods of time set to approximate each asset’s anticipated useful life.

The method that TSPIRS uses to pool certain costs and to subsequently write them off in later years is consistent with GAAP as prescribed by such authoritative bodies as the Federal Accounting Standards Advisory Board (FASAB).

Over the years, considerable debate has surrounded the question of whether or not the 25 percent of timber sale receipts that must, by law, be returned to the States and counties for use in supporting local schools and roads—that is, “payments to States”—should be counted as a timber program cost.<sup>1</sup> Some have argued that because the original intent of these payments was to substitute for the property taxes that private landowners would pay, they should be treated as a cost. The Forest Service, however, has consistently maintained that these payments are not a program cost but a redistribution of income that occurs outside the agency’s normal financial activity. Congressional treatment of payments to States for those counties impacted by the reduced harvesting needed to ensure habitat protection for the northern spotted owl supports this position. Accordingly, while payments to States for FY 1996 are documented in this report, they are not treated as a timber program cost.

## The Economic Account

The TSPIRS economic account displays the long-term benefits and costs expected from a given year’s timber harvesting activities. The economic account’s information complements the data in the financial account in three ways:

- By considering future effects, not just immediate effects
- By recognizing effects on all resource values, not just timber-related effects
- By examining “economic” effects, not just “financial” effects

All of the preceding distinctions merit brief clarification. The basic idea in the first distinction is that the financial account uses a single year as its frame of reference—that is, the year during which the timber harvesting operations being evaluated were actually conducted—while the economic account considers a timeframe that is infinite in length. As for the second distinction, in the financial account, only timber program effects are documented, while the economic account considers how timber harvesting affects all resource programs—that is, recreation, wildlife, fisheries, grazing, soils, and water. Finally, the third distinction refers to the fact that the financial account examines only actual receipts and expenditures while the economic account, where appropriate, uses state-of-the-art nonmarket analysis techniques to quantify relevant resource effects that cannot be evaluated by other means.

The economic account is constructed by performing what is called a “with-and-without” analysis. Initially, relevant resource effects are estimated under the assumption that a particular year’s timber harvesting operations are indeed conducted. Next, these same resource effects are estimated using the assumption that no timber harvesting occurred. Lastly, the marginal or incremental output changes attributable to timber harvesting are evaluated. As alluded to above, these output changes may be immediate

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<sup>1</sup> Payments were originally authorized through legislation enacted on May 23, 1908. (Ch. 192, 35 Stat. 251, as amended; 16 U.S.C. 500, 16 U.S.C. 553, 31 U.S.C. 534)

or delayed (that is, experienced now or experienced later). Additionally, the changes may be either positive (for example, increased recreation and decreased sedimentation) or negative (for example, decreased recreation and increased sedimentation.) Once the relevant output effects have been expressed in physical terms—for example, animal unit months (AUM's) in the case of grazing, or visitor-days (RVD's) in the case of recreation—they are re-expressed as monetary equivalents. The unit values employed to make these conversions are taken from the best available information sources, which may be site-specific research studies, values used in RPA planning, or values set forth in forest plans.

To facilitate direct comparisons between monetary values occurring at different points in time, the economic account discounts the values of all anticipated output changes, positive as well as negative, back to the desired base year using a 4-percent real rate of interest. The present value of the negative output changes is then deducted from the present value of the positive output changes to determine the present value of the benefits. As a last step, the present value of any costs, including road costs, that will have to be incurred to realize the projected benefits is subtracted from the present value of the benefits themselves to derive two present net value (PNV) figures—one that considers timber resource effects only and one that considers effects on all resources, including timber.

Conceptually, when the PNV considering all resource effects is positive, this indicates that at the assumed rate of interest, the timber harvesting investments that were made during the year in question were economically justified, because the present value of the expected long-term benefits exceeded the present value of the expected long-term costs. This fact illustrates one of the complexities of the below-cost sale controversy—namely, that of selecting the criteria by which to determine if a below-cost situation exists. It is not uncommon for forests to have a negative net revenue in the financial account of TSPIRS and yet have a positive PNV in the economic account.

#### The Employment, Income, and Program Level Account

The TSPIRS employment, income, and program level account displays the employment, income, and Federal income tax benefits attributable to a given year's timber harvesting activities; it also documents certain key timber program accomplishments. Like the financial account, its frame of reference is a single year—the year in which the harvesting operations being reported upon were actually conducted. Despite this similarity, however, the information contained in the account complements the data presented in the other TSPIRS accounts in the following two ways:

- By recognizing certain important social and economic impacts not captured in the other accounts
- By providing a more complete description of what is really accomplished with timber program expenditures

Because of these differences, inclusion of the account strengthens TSPIRS and enables the reporting system, in the aggregate, to more fully portray the net public benefit that results from each year's forest management program.

The employment and income figures shown in the account are developed using IMPLAN or some other suitable input-output model, and the implied Federal income tax changes are computed as a percentage of the estimated income effects. While the last measure may require no explanation, some clarification of the other measures seems appropriate.

The account's employment figures use National Income and Product Account conventions to depict the average number of full- and part-time employees. Additionally, they indicate not only the employment directly attributable to the national forest timber program but also any relevant indirect and induced employment effects. Direct effects capture the initial economic consequences that result from some Forest Service action—for example, additional sawmill production stimulated by national forest timber sales. Indirect effects capture the additional economic consequences that occur as supplying industries respond to the changed input requirements of the directly impacted industries—for example, increased purchases of fuel, trucks, and equipment by sawmills so they can process national forest timber. Finally, induced effects capture the added economic consequences that result from adjustments in household spending that are attributable to changes in either the original industries or their suppliers—for example, increased purchases by any new workers hired by sawmills or their suppliers because of the processing of national forest timber.

The account's income figures indicate what is called "total Regional factor income," and they consist of essentially three types of income. These are as follows:

- **Employee Compensation**—Included are wages, salaries, and supplements to wages and salaries (for example, employer contributions to employee health benefit and retirement plans).
- **Proprietor's Income**—Included is the income of sole proprietorships, partnerships, and tax-exempt cooperatives.
- **Other Factor Income**—Included are such things as rental income, interest and dividend earnings, and corporate profits.

As with employment, the income figures reported in TSPIRS as being attributable to the forest management program include the direct, indirect, and induced effects. The Federal income tax consequences are determined by taking 15 percent of the estimated income figures.

The program accomplishments reported in TSPIRS include more than the three measures typically stressed—that is, volume offered, volume sold and awarded, and volume harvested. Specifically, the account also presents data on: the area of land impacted by harvesting activities; the volume of free-use firewood produced; the number of Christmas trees cut; the value of other "nonconvertible products" produced (for example, cones, boughs, and ferns); the area of land regenerated through planting, seeding, or by natural means; the area of land on which timber stand improvement activities were conducted (for example, release, weeding, pruning, and precommercial thinning); and the mileage of timber access roads constructed or reconstructed by means of either appropriated moneys or purchaser road credits.

## **Fiscal Year 1996 Changes**

In FY 1996, no significant changes were made in any of the three TSPIRS accounts. The financial account reforms that were initiated last year were completed. These reforms aimed at improving the treatment of Reforestation and Timber Stand Improvement (TSI) costs and involved establishing an Immature Timber Asset Account into which these costs could be capitalized for however long it took, on average, for the timber on specific forests to reach harvestable size.

Looking to the future, new adjustments to TSPIRS may well be warranted. In a very basic sense, given the changes that have been occurring in the underlying objectives of the Forest Service's forest management program, one can question the continued relevancy of much of the information now being compiled by TSPIRS. The reporting system was developed back in the mid 1980's when, arguably, the primary goal of the agency's forest management program was to supply timber to help meet the Nation's demand for wood. Today, however, timber sales are increasingly being made to achieve management objectives other than fiber production—for example, improving forest health or reducing forest fuels. At present, TSPIRS largely reflects the old management paradigm, not the new.

Regarding the three different TSPIRS accounts, since mid-1995 the Federal Accounting Standards Advisory Board (FASAB), the entity primarily responsible for establishing GAAP for the Federal sector, has promulgated a broad array of new accounting standards. The Forest Service is presently studying these new standards to assess their potential implications for the financial account. Concerning the economic as well as the employment, income, and program level accounts, there is some evidence which suggests that these, like the financial account, should be modified as to permit displaying information by program component. This change would make it possible to answer such questions as Does the stewardship component of a forest's timber sale program have a positive PNV in the economic account even though it is below cost in the financial account? At present, TSPIRS cannot answer such questions.

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# Highlights of the Fiscal Year 1996 Forest Management Program

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This section of the report documents selected accomplishments of the forest management program for fiscal year (FY) 1996. It also highlights various issues and initiatives that were of special interest during the year. Topics highlighted include the changes occurring within the forest management program, the status of a new Forest Service initiative to find better ways of achieving national forest vegetative management goals, and the agency's final accomplishments under the controversial salvage rider (that is, P.L. 104-19).

## Significant Program Accomplishments

A national summary of major accomplishments directly attributable to the forest management program in FY 1996 is presented in table 1.<sup>1</sup> Detailed information concerning the accomplishments of specific Regions and forests is provided in Appendix A. In this review of program accomplishments, the traditional measures of volume offered, volume sold, and volume harvested are described first, then an array of other accomplishment indicators are discussed.

## Volumes Offered, Sold, and Harvested

During FY 1996, 4.0 billion board feet (BBF) of national forest timber was offered for sale, 3.4 BBF was sold, and 3.7 BBF was harvested (table 1). By comparison to FY 1995, the offer and sold volumes were up slightly, while the harvest volume showed a modest decline. These figures suggest that the size of the national forest timber sales program may be stabilizing at an output level of around 4.0 BBF annually.

Of the total harvest volume, 58 percent (2.1 BBF) was associated with timber commodity purpose sales, 35 percent (1.3 BBF) with forest stewardship purpose sales, and 7 percent (.3 BBF) with personal use purpose sales (figure 1).

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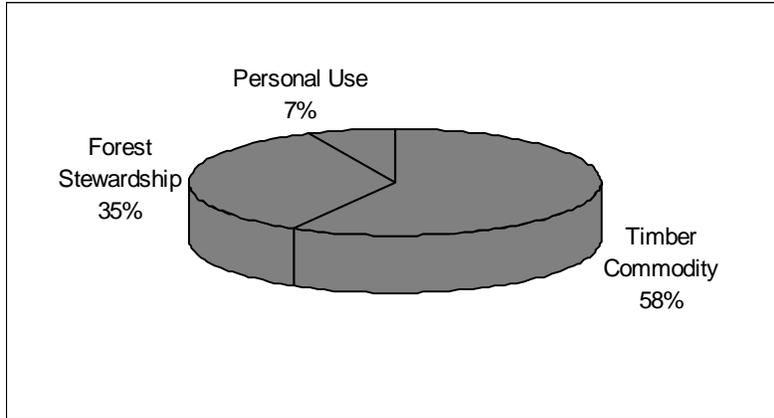
<sup>1</sup> Much of the information in table 1 was extracted from various national databases maintained by the Forest Service. In this regard, be aware that every year a few forests have not entered all their latest accomplishment figures into these databases before the information needed for reporting purposes is extracted. Accordingly, although the omissions are eventually corrected, the possibility arises that some specific Regions and forests will report different, and generally more accurate, end-of-year accomplishment figures than those presented in national reports like TSPIRS.

**Table 1.** Selected Forest Management Program Accomplishments During FY 1996

<b>Accomplishment Measure</b>	<b>Level</b>
<b>Timber Information</b>	
Timber Offered for Sale (MMBF)	4,015
Timber Sold and Awarded (MMBF)	3,384
Timber Harvested (MMBF)	
Sawtimber	2,178
Roundwood	905
Firewood (commercial and personal use)	266
Other	376
Total	3,725
Total Area Harvested (acres)	473,127
Free Use Firewood Provided (MMBF)	24
Nonconvertible Forest Products Removed	
Christmas Trees (number of trees)	301,512
Other (value in thousands of dollars)	1,921
Regeneration Treatments (acres)	362,915
Timber Stand Improvement Treatments (acres)	259,653
Total Area Regenerated/Improved (acres)	622,568
Seedlings Produced (number of seedlings)	63,200,000
Seed Produced (pounds)	16,700
<b>Forest Road Information</b>	
Road Construction (miles)	
Appropriated Construction	0
Purchaser Credit Construction	417
Total Construction	417
Road Reconstruction (miles)	
Appropriated Reconstruction	202
Purchaser Credit Reconstruction	2,301
Total Reconstruction	2,503
Road Obliteration (miles)	1,440
Net Change in Road Mileage (miles)	-1,023

Stewardship purpose sales are made for a variety of different reasons. For reporting purposes, these have been defined as follows:

- **Forest Ecosystem Health**—Includes projects, or parts of projects, the primary objective of which is any of the following: (1) promoting long-term forest ecosystem health through forest pest and fuels management; (2) preventing resource losses and ecosystem damage from catastrophic events, such as fire and windstorms; (3) keeping forest ecosystems within



**Figure 1.** Proportion of FY 1996 Harvest Volume Associated with Different Harvest Objectives

their historic range of variability; or (4) reducing reforestation and site rehabilitation costs after catastrophic events.

- **Recreation/Visual/Cultural Resource Enhancement**—Includes projects, or parts of projects, the primary objective of which is any of the following: (1) removing hazard trees around recreation or cultural resource areas; (2) opening desired vistas; or (3) regenerating specific species (for example, aspen) to create landscape variety.
- **Wildlife Habitat Management**—Includes projects, or parts of projects, the primary objective of which is to create and/or perpetuate habitat conditions favorable to certain species of wildlife. Illustrative would be a project that seeks to stimulate mast production by controlling competition in oak stands.
- **Fisheries Habitat Management and Watershed Improvement**—Includes projects, or parts of projects, the primary objective of which is either of the following: (1) creating and/or perpetuating desirable fisheries habitat; or (2) managing watersheds to attain specific objectives such as increased soil stability, higher water quality, or improved control over water yields. Illustrative would be a project that uses vegetative manipulation to influence rates of snow melt.
- **Threatened and Endangered Species Habitat Management**—Includes projects, or parts of projects, the primary objective of which is to create and/or maintain suitable habitat for threatened or endangered species. Illustrative would be projects undertaken to create and/or preserve vegetative patterns conducive to late successional or riparian species such as the northern goshawk or Pacific fisher.
- **Range Resource Enhancement**—Includes projects, or parts of projects, the primary objective of which is to improve the range resource for use by

domestic livestock. Illustrative would be a project that creates openings to improve the production of forage for cattle.

- **Nontimber Products**—Includes projects, or parts of projects, the primary objective of which is to implement a stewardship objective through the commercial sale of nontimber products such as posts, poles, firewood, and Christmas trees.
- **Other**—Includes projects, or parts of projects, the primary objective of which is to implement a stewardship objective that cannot be classified into any other stewardship purpose category. Illustrative would be a project intended to clear right-of-way for a general purpose forest administration road.

In FY 1996, the specific land management goals that were addressed through stewardship harvesting are shown in table 2. As the table indicates, the most important reason for stewardship harvesting was the desire to promote forest ecosystem health—which accounted for 73 percent of the total volume harvested for stewardship purposes. Other significant motives were the desire to create or manage habitat for wildlife or threatened and endangered species, which accounted for roughly 10 percent and 7 percent of the total stewardship volume, respectively.

Other Direct Program Accomplishments

The other direct program accomplishments documented in table 1 are discussed in the following section.

- **Acres Harvested, Regenerated, and Improved**—In FY 1996, harvesting operations were conducted on 473,127 acres of national forest land. This includes those areas impacted by various partial cutting systems that may have removed very few trees per acre. Usage of clearcutting, as documented later in this report, continued to decline—at least in terms of

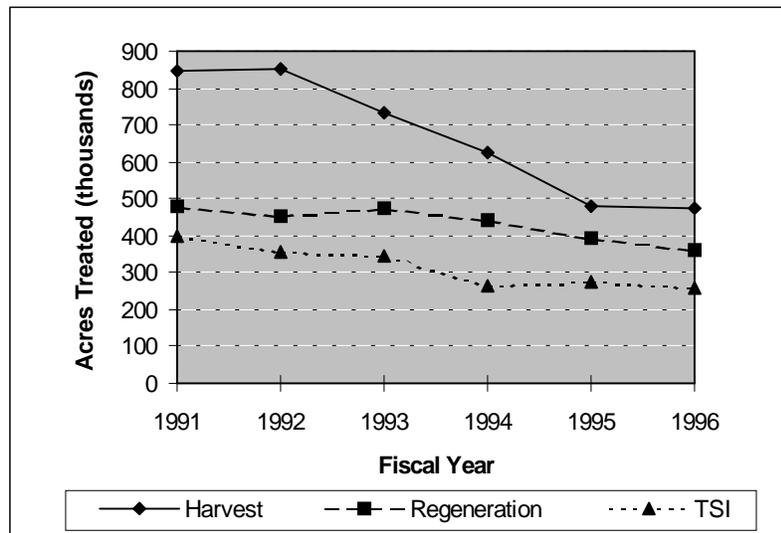
**Table 2.** Distribution of Harvest Volume by Stewardship Purpose Goal, FY 1996

Stewardship Purpose Goal	Harvest Volume (MMBF)	Proportion of Harvest (percent)
Forest Ecosystem Health	923.7	72.8
Recreation/Visual/Cultural Resource Enhancement	51.9	4.1
Wildlife Habitat Management	132.6	10.5
Fisheries Habitat Mgmt./Watershed Improvement	11.4	0.9
T&E Species Habitat Management	84.3	6.6
Range Resource Enhancement	.6	0.0
Nontimber Products	24.9	2.0
Other	38.9	3.1
<b>Totals</b>	<b>1,268.3</b>	<b>100.0</b>

the actual acreage harvested in this manner. A total of 362,915 acres were regenerated, and 259,653 acres received some type of timber stand improvement treatment. Regeneration activities, such as the spreading of seeds and the planting of seedlings, are intended to reestablish stands of trees following harvest. Timber stand improvement activities, such as thinning and pruning, are intended to increase growth and improve the quality of the residual trees.

The number of acres harvested, regenerated, or subject to some type of timber stand improvement treatment changed relatively little between FY 1995 and FY 1996, but over the last several years all three types of activity have been declining (figure 2). The most dramatic reduction has been in the number of acres of national forest land impacted by harvesting.

- **Free-Use Firewood**—In FY 1996, approximately 24 MMBF of “free-use” firewood was removed from the national forests (table 1). Free-use firewood, as its name implies, is firewood that is given away without charge to individuals for their personal use. Firewood is provided at no charge only when it has been determined that this action is in the Federal Government’s best interest. To illustrate, there may be a pocket of insect- or disease-infested timber on a remote section of a national forest that is too small to justify conducting a salvage sale—and yet managers want to remove the material before the infection spreads. In this case, making the wood available without charge provides an incentive for people to carry it away at little direct cost to the government.



Note: Prepared using data in previous Timber Sale Program Annual Reports

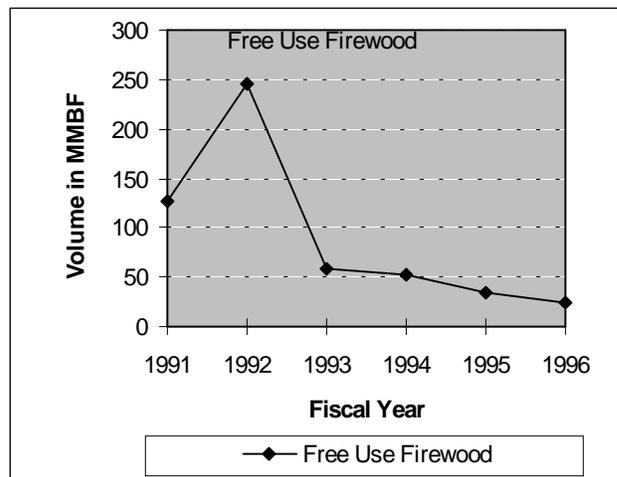
**Figure 2.** Trends in Area of National Forest Land Affected by Harvesting, Regeneration, and Timber Stand Improvement Treatments

The volume of free-use firewood provided off the national forests increased between FY 1991 and 1992, dropped markedly between FY 1992 and 1993, and has been declining gradually ever since (figure 3).

- **Christmas Trees and Other Nonconvertible Products**—In FY 1996, 301,512 Christmas trees were provided from the national forests. The value of the other nonconvertible products sold (for example, boughs, cones, nuts, and mushrooms), expressed in terms of constant FY 1996 dollars, was approximately \$1.9 million (table 1). This latter measure probably understates the actual value of the nonconvertible products being provided annually. In recent years, the demand for such products has grown rapidly, and the Forest Service is still struggling to ensure that they are properly managed.

The number of Christmas trees provided in FY 1996 was up compared with FY 1995, thereby reversing a downward trend that had existed for several years (figure 4). The value of the other nonconvertible products sold also rose slightly, thereby perpetuating an upward trend that extends back to FY 1992.

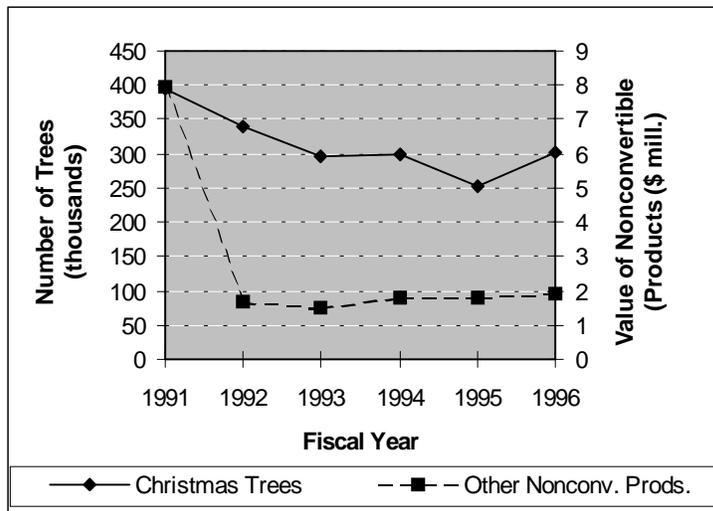
- **Road Construction and Reconstruction**—In FY 1996, 417 miles of new timber-related roads were constructed and 2,503 miles of existing roads were reconstructed (table 1). In terms of financing, the bulk of the construction and reconstruction activity was accomplished through the use of purchaser credits. Indeed, all new construction and 92 percent of all reconstruction was financed by this means. In a somewhat different vein, 1,440 miles of road were obliterated during the year. Obliterating a road means restoring the land to a condition suitable for producing vegetation.



*Note: Prepared using data in previous Timber Sale Program Annual Reports*

**Figure 3.** Trend in the Amount of Free-Use Firewood Being Provided Annually Off National Forest Lands

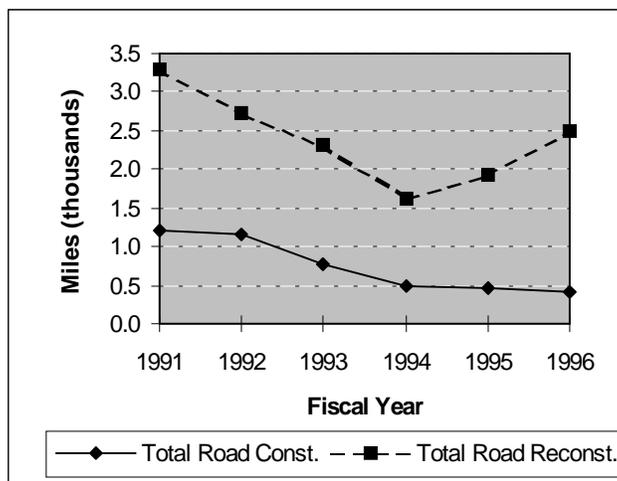
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Note: Prepared using data in previous Timber Sale Program Annual Reports

**Figure 4.** Trends in Number of Christmas Trees and Value of Other Nonconvertible Products Being Obtained Annually Off National Forest Lands

As figure 5 shows, construction of new timber-related roads has been declining for several years; but reconstruction of existing roads has increased in each of the last 2 years. Periodic reconstruction is important in terms of preventing some of the environmental problems that can materialize when roads are allowed to deteriorate—for example, accelerated erosion and an increased risk of mudslides.



Note: Prepared using data in previous Timber Sale Program Annual Reports

**Figure 5.** Trends in the Mileage of Roads Being Constructed or Reconstructed Annually on National Forest Lands

Indirect Program  
Accomplishments

- **Seedling Production**—In FY 1996, Forest Service nurseries, considering both bareroot and container stock, produced a total of 63.2 million seedlings—down 29 percent from FY 1995.<sup>2</sup> Production levels have been declining since FY 1991 as a result of reduced timber harvests, shifting emphasis towards intermediate treatments, and increased reliance on natural regeneration as a means of achieving reforestation objectives.
- **Seed Production**—In FY 1996, Forest Service seed extractories produced a total of 16,700 pounds of seed—down about 31 percent from FY 1995 levels.<sup>3</sup> Seed production levels are highly variable from year to year, reflecting the unique characteristics of individual plant species and the periodicity of good seed crops in each species.

In FY 1996, a number other important resource management accomplishments were indirectly attributable to the agency's forest management program in that these accomplishments were funded by means of either Knutson-Vandenberg (K-V) or Brush Disposal (BD) funds collected from timber purchasers.<sup>4</sup> Among these accomplishments were the following:<sup>5</sup>

- **Wildlife and Fish**
  - Acres of wildlife and fish habitat restored or enhanced = 168,500
  - Habitat improvement structures installed = 25,288
  - Miles of fish habitat restored or enhanced = 488.9
- **Range**
  - Acres of forage improvement = 8,300
  - Forage improvement structures installed = 271
- **Soil and Water**
  - Acres of resource improvements = 9,100

<sup>2</sup> USDA Forest Service. 1997. *Reforestation and Timber Stand Improvement Report: National Summary for FY 1996*. Reports 2400-D and 2400-W. 47p.

<sup>3</sup> USDA Forest Service. 1997. *Reforestation and Timber Stand Improvement Report: National Summary for FY 1996*. Reports 2400-D and 2400-W. 47p.

<sup>4</sup> The collection of K-V funds is authorized by the Knutson-Vandenberg Act of 1930 (PL 71-319). Originally, these funds were intended to be used to reforest cutover lands, but in 1976 the National Forest Management Act (PL 94-588) provided they could also be used for "protecting and improving the future productivity of the renewable resources" on sale areas, including "sale area improvement operations, maintenance and construction, reforestation, and wildlife habitat management." The collection of BD funds is authorized by the Brush Disposal Act of 1916 (PL 64-190). These BD funds can be used to cover the costs of doing actual brush disposal work, to rent or purchase equipment needed for brush disposal purposes, to do supplemental fire protection in lieu of actual disposal, and to fight fires that result from brush disposal activities.

<sup>5</sup> USDA Forest Service. 1997. *Report of the Forest Service for FY 1996*. 161p. See table 1 of appendix.

- Fuels Management
  - Acres treated = 165,800

## Forest Management Program Continues To Evolve

Today's national forest timber sales program differs dramatically from the program that existed only a decade ago. The changes that have occurred, and that are continuing to occur, are attributable to many factors including: (1) evolving administrative and judicial interpretations of agency legal requirements, (2) advances in our scientific understanding of how ecosystems work, and (3) shifting public attitudes concerning what are the most appropriate uses of the national forests.

The objective here is to briefly describe the major changes that have occurred within the Forest Service's timber sales program. The specific changes that will be highlighted are: the trend in program size, the trend in harvest objectives, the trend in harvest methods, and the trend in the types of products being removed. These examples are by no means exhaustive, but they do illustrate the types of changes that have been occurring.

### Trend in Program Size

Whether measured in terms of volume offered, volume sold, or volume harvested, the size of the national forest timber sales program has fallen markedly in recent years. Specifically, between FY 1989 and FY 1996:

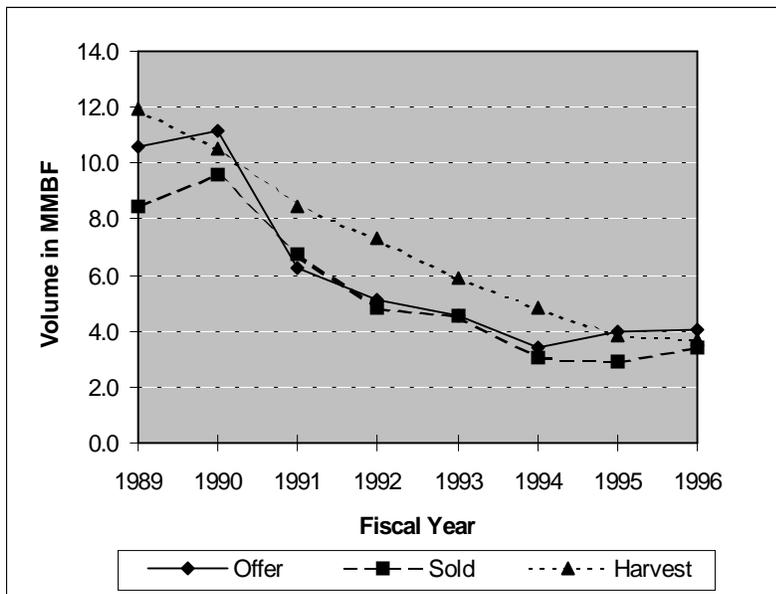
- The volume of timber being offered dropped from 11.1 to 4.0 BBF—a decline of 64 percent.
- The volume of timber being sold dropped from 8.5 to 3.4 BBF—a decline of 60 percent.
- The volume of timber being harvested dropped from 12.0 to 3.7 BBF—a decline of 69 percent (figure 6).

The amount of timber offered, sold, and harvested has been relatively constant for the last 2 years, suggesting that the size of the sales program may be stabilizing at a new output level of around 4.0 BBF annually (figure 6). If this indeed occurs, the current program's output levels will approximate those characteristic of the early 1950's.

### Trend in Harvest Objectives

As suggested by the sale purpose codes that were made a part of TSPIRS in FY 1993, national forest timber is sold and harvested for essentially three reasons. These are as follows:

- To provide timber in response to the Nation's demand for wood—called "timber commodity" purpose sales
- To help achieve various land management objectives that require manipulating the existing vegetation (for example, improving forest health, reducing forest fuels, and creating desired wildlife habitat)—called "forest stewardship" purpose sales
- To provide firewood, posts, Christmas trees, and other forest products to individuals for their own consumption—called "personal use" purpose sales



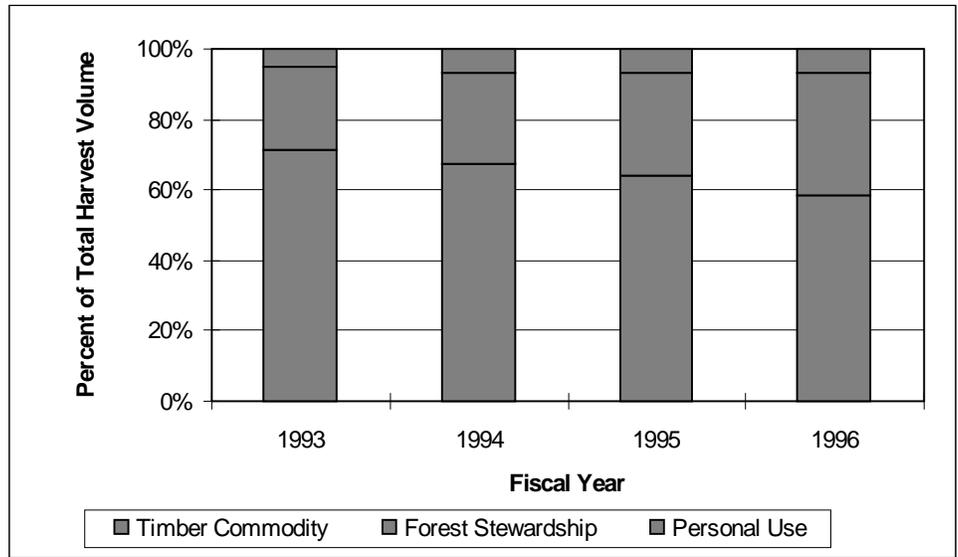
Source: Prior year TSPIRS reports

**Figure 6.** Trend in Size of the National Forest Timber Sales Program

In the past, the vast majority of sales were for timber commodity purposes. Today, however, more and more sales are being made to advance forest stewardship objectives. The shift that has occurred just since the three different sale purpose codes were first recognized, is depicted in figure 7. As the figure shows, the size of the timber commodity component has dropped from 71 to 58 percent of harvest volume, the size of the forest stewardship component has grown from 24 to 35 percent, and the size of the personal use component has been relatively stable.

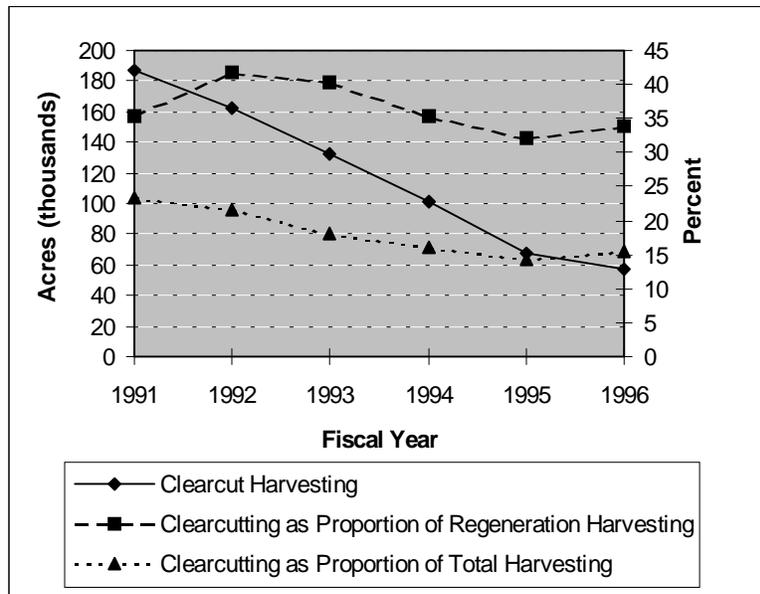
#### Trend in Harvest Methods

In the past, because the economics tended to be favorable, clearcutting was used to harvest national forest timber, whenever the silvicultural conditions allowed. Over time, however, this method of harvesting became increasingly controversial; and as a result, in FY 1992, a policy decision was made to deemphasize use of this practice. Since that time, the acreage of national forest land harvested by this means has steadily fallen—from 162,664 acres in FY 1992 to 56,617 acres in FY 1996, a decline of almost 65 percent (figure 8). This decline in usage cannot be entirely explained by the fact that the national forest timber sales program has been shrinking in size. Although up somewhat in FY 1996 compared with FY 1995, usage of clearcutting in relative terms has also fallen since FY 1992, when the policy against clearcutting was adopted. Specifically, between FY 1992 and FY 1996, clearcutting as a proportion of all regeneration harvesting declined from 42 to 34 percent; and clearcutting as a percentage of all timber harvesting fell from 22 to 16 percent.



Source: Prior year TSPIRS reports

**Figure 7.** Trend in Size of Different Components of the National Forest Timber Sales Program



Source: Prior year TRACS-SILVA reports

**Figure 8.** Trend in Use of Clearcut Harvesting

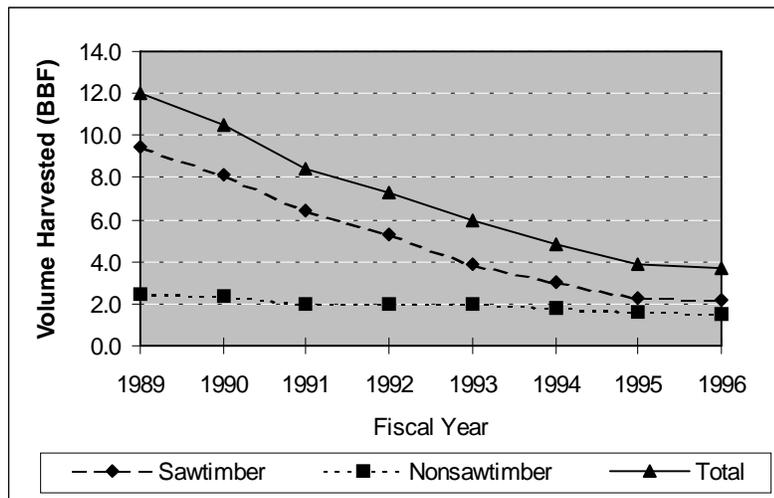
Trend in Type of Products Being Removed

The types of timber products being removed from national forest lands today are, in two important respects, substantially different from those typically removed in the past. One difference relates to the mix of sawtimber- and nonsawtimber-sized material being harvested. In the past, considerable emphasis was placed on converting mature or overmature stands to young, rapidly growing stands. Consequently, a relatively high percentage of harvest volume tended to be sawtimber-sized trees. Today, more emphasis is being placed on partial cutting and on using timber harvesting as a tool to improve forest health and reduce forest fuels. Consequently, smaller sized trees now make up a greater proportion of the harvest mix. Indeed, as figure 9 shows, nonsawtimber volume constituted only 20 percent of the total harvest in FY 1989—but it now accounts for fully half the program.

The second difference in the type of products being sold and harvested relates to the balance between green and salvage material. As figure 10 indicates, in FY 1989 salvage volume was only about 20 percent of all offer volume; but it now represents fully half the program. Indeed, this figure shows that virtually all of the recent decline in the size of the national forest timber sales program has occurred within the program's green component.

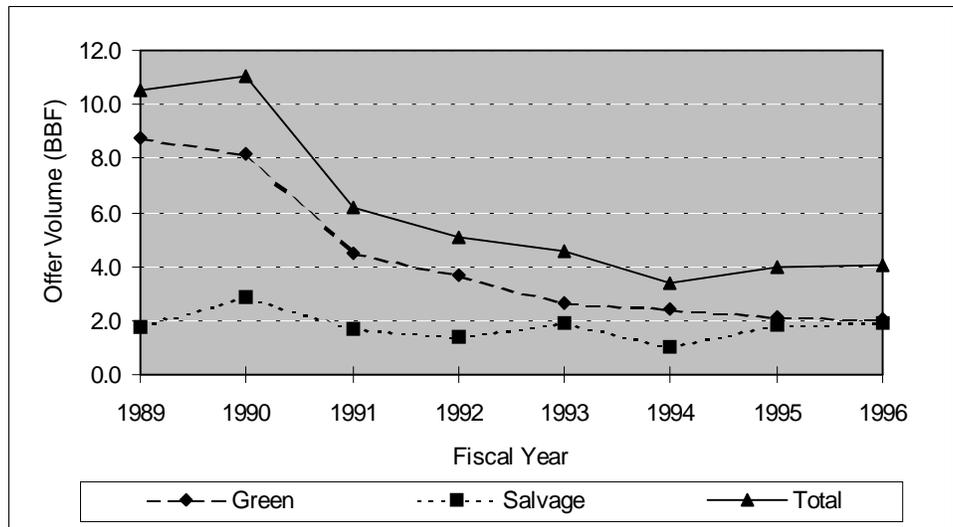
Implications

The implications of the changes discussed above, and of others occurring within the national forest timber sales program, have been wide ranging and are ecological, economic, and social in nature. No attempt is made here to explore these implications in a systematic manner. Suffice it to say that some of these implications (for example, the effects on required staffing levels and skill mixes and on collections for various special accounts such as the Knutson-Vandenberg (K-V) Fund) have been of concern mainly to the Forest Service; while others (for example, the effects on payments to States, on the economies of local communities traditionally dependent on the



Source: Prior year TSPIRS reports

Figure 9. Trend in Amount of Sawtimber vs. Nonsawtimber in Harvest Mix



Source: FM Staff records

**Figure 10.** Trend in Amount of Green vs. Salvage Volume in Offer Mix

processing of national forest timber, on the burden for satisfying the Nation's demand for wood fiber, and on the rate of growth in national forest growing stock inventories) are of much more widespread interest.

One implication that will be examined later in this report pertains to the effect of the preceding changes, as well as other changes, on the overall profitability of the national forest timber sales program. As will be shown, the preceding changes have generally all operated to dramatically reduce the profitability of the Forest Service's timber sale activities. Whether or not one sees this result as good or bad will likely depend on one's view as to the proper role of the national forests, but there can be no doubt that this outcome was largely unavoidable given the changes that have been occurring within the national forest timber program.

## Reinvention Effort Launched

Over the past several years, there has been increasing interest in having the Forest Service use administrative tools other than the normal timber sale contract as a way to manage national forest vegetation. Much of this interest has arisen at the local level. The reasons for this growing interest include the following:

- Concerns over forest health and biomass build-up problems have been growing in some areas.
- As noted in the preceding section, the national forest timber sale program has changed substantially in the last decade. Among other changes, there have been: (1) the substantial reduction in the volume, value, and level of economic activity associated with the program; and (2) the shift in

program objectives from producing timber products to using timber harvesting as a means of achieving broader ecosystem management objectives.

- A number of local community groups have sought consensus on the vegetative treatments needed to achieve forest and related ecosystem health and provide economic support for local communities. In instances where consensus has been achieved, groups have sometimes been frustrated by their subsequent inability to implement these actions on the ground.
- There is a growing interest in “sustainable communities,” which implies a reasonable level of certainty about proposed vegetative treatments.
- There has been a lack of appropriated funds to do needed forest and related ecosystem management work.

The causes of these changes are complex and varied and not directly related to the vegetative-management instruments the Forest Service uses. Many believe, however, that to effectively manage national forest vegetation in the future the agency will need more tools than just the standard timber sale and service contracts.

#### Evaluation of Other Vegetative Management Tools

In the Interior Appropriations Acts for FY’s 1991, 1992, and 1993, Congress granted the Forest Service temporary authority to experiment with land management services contracts. Such contracts, often called “stewardship contracts,” exhibit several distinguishing characteristics: they are multiyear procurements, they are multifunction procurements, and they permit the use of timber sale revenues to offset the costs of the land management services that contractors provide. By making it possible for an array of services to be performed by a single provider, stewardship contracts can help to improve program efficiency by minimizing contract preparation and administration costs.

The results of these stewardship “pilots” were discussed in a June 21, 1994, report to Congress.<sup>6</sup> Very briefly, it was concluded that such contracts could be an extremely useful land management tool but that a number of important issues needed to be resolved. These issues included: (1) the effect on payments to States, (2) the effect on the competitive position of small business firms, and (3) the existing legal constraints on multiyear funding.

In 1996, Under Secretary of Agriculture James R. Lyons asked the Forest Service to renew the search for innovative ways of managing national forest vegetation in an ecosystem context. The immediate result was a national scoping session held in Washington, DC, on October 30–31, 1996. This session was attended by a diverse group of environmental, community, industry, and State and Federal agency representatives. The workshop was facilitated by the Pinchot Institute for Conservation, which had been involved in carrying out a series of Regional workshops on stewardship contracting. The objectives of the workshop were: (1) to identify new and

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<sup>6</sup> Lynn, Bob et al. 1994. *Land Management Services Contracting: A Report to Congress*. USDA Forest Service. Washington, DC. 24 p.

innovative options for achieving national forest vegetative management goals more efficiently, and (2) to identify any challenges and opportunities associated with those options. Discussions were guided by two underlying premises: (1) that a decision to manage national forest vegetation had already been made as part of the forest planning process, that is, issues of land-use allocation were already resolved; and (2) that existing legal authorities were not to be viewed as constraining.

A broad array of subjects was discussed during the 2-day session. Stewardship contracting received considerable attention. Other topics discussed included the selling of logs instead of stumpage, conservation credits, longer term sales in noncontroversial areas, and long-term leasing. A report summarizing the results of the scoping session was released on November 29, 1996. This report, prepared by Mary Mitsos of the Pinchot Institute for Conservation, is entitled *Improving Administrative Flexibility and Efficiency in the National Forest Timber Sale Program: Scoping Session Summary*. Copies may be obtained by visiting the Forest Service homepage ([www.fs.fed.us](http://www.fs.fed.us)).

The response to the workshop was generally positive. Collectively, the participants strongly indicated that the chances of successfully crafting a new approach to implementing vegetative management on the national forests would be maximized if the Forest Service worked in partnership with local communities, governments, and businesses.

#### What Has Happened as a Result of the Workshop

Since completion of the workshop, the Forest Service has been pursuing three courses of action intended to help identify and evaluate new ways of implementing needed vegetative management treatments. These are as follows:

- **Clarification of Current Contracting Authorities**—A team of representatives from the Washington Office Forest Management and Property and Procurement Staffs and the Office of General Council have prepared a paper that attempts to clarify the agency's current legal authorities under both the standard timber sale contract and service or procurement contracts. This task was undertaken because the Pinchot Institute, in the course of conducting its Regional workshops on stewardship contracting, found that there was considerable confusion, even within the agency, as to precisely what could and could not be done under existing authorities. It is hoped this new paper will resolve much of this confusion.
- **Reevaluation of Experiences With Stewardship Contracting**—As part of the current reinvention process, the Forest Service is reevaluating its experiences under the stewardship pilots Congress authorized in the early 1990's. The objective of this reevaluation is to see if any potentially significant insights were overlooked.
- **Pilot-Testing of New Procedures**—All Regions have been asked to nominate pilot-test projects for possible implementation starting in FY 1998. Consistent with the intent of the scoping session, the goal will be to evaluate new and innovative ways of increasing administrative flexibility and efficiency in the timber sale program. Pilots will be selected on the basis of: (1) their potential to generate new knowledge, (2) their potential

for application in a variety of situations, (3) the extent to which they enjoy support from entities outside the Forest Service, and (4) their ability to help address one or more of the Chief's resource priority areas. The proposed projects need not be implementable within existing legal authorities, but if they are not, the agency will have to work with Congress to secure any needed supplemental authorities for the duration of the test.

In addition to the preceding efforts, since the national scoping session, the Pinchot Institute has been working with a group of individuals—some of whom were workshop participants and others who were not—to address national forest stewardship issues. To date, this group has focused its efforts in two major areas: (1) facilitating and coordinating existing community-based stewardship efforts, and (2) evaluating the need for expanded Federal authorities to engage in stewardship contracting.

### **Salvage Sale Provisions of P.L. 104–19 Expire**

The Emergency Salvage Timber Sales Program, authorized by Section 2001 of the FY 1995 Rescissions Act, (Public Law 104–19), expired on December 31, 1996. Almost from its inception, this legislative measure proved extremely controversial. In large part, this controversy can be attributed to the fact that, in an effort to expedite the offering of salvage sales, the program: (1) relaxed several normal legislative requirements concerned mainly with the analysis of potential environmental effects, (2) restricted administrative appeals of proposed agency actions, and (3) constrained judicial review of agency decisions. Program proponents felt these procedural compromises were warranted because they believed increased salvage harvesting would help to improve forest health and reduce the risk of catastrophic losses from wildfires, insects, and disease. Program critics felt the compromises were unwarranted because they doubted that increased salvage logging would materially benefit forest health, and they believed the Forest Service's prior salvage activities were entirely adequate.

In response to the concerns of those opposed to increased salvage logging, on August 1, 1995, President Clinton instructed the administrative heads of the concerned Federal departments and agencies to “move forward expeditiously” to implement the timber related provisions of P.L. 104–19, but in so doing, to follow current environmental laws and programs “to the maximum extent allowed.”<sup>7</sup> To ensure that this would be the case, he further directed them to prepare and sign a Memorandum of Agreement (MOA) outlining how

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<sup>7</sup> See: Letter of August 1, 1995, to Secretaries of Agriculture, Interior, and Commerce, and to the Administrator of the Environmental Protection Agency, on the subject of “Implementing Timber-Related Provisions of Public Law 104–19.”

they intended to implement the law in an environmentally sound manner. This MOA was signed on August 9, 1995,<sup>8</sup> and among other things, it committed the signatories to: (1) comply with all existing environmental laws, except where expressly prohibited, (2) adhere to the standards and guidelines in applicable forest plans and in related conservation strategies like PACFISH, (3) involve the public early in the formulation of proposed salvage sales, (4) streamline consultation procedures under Section 7 of the Endangered Species Act, and (5) work together cooperatively and professionally.

The volumes of salvage timber that the agency offered and sold during the duration of the controversial program are shown, by time period and Region, in table 3. As the table indicates, between October 1, 1994 and

<sup>8</sup> See: *Memorandum of Agreement on Timber Salvage Related Activities Under Public Law 104-19* between the United States Department of Agriculture (USDA), the United States Department of Interior (USDI), the United States Department of Commerce (DOC), and the United States Environmental Protection Agency (EPA) dated August 9, 1995.

**Table 3.** Final Accomplishments Under the Emergency Salvage Timber Sales Program, by Time Period and Region

Region	FY 95		FY 96		1st Qtr. FY 97		Total	
	Offer	Sold	Offer	Sold	Offer	Sold	Offer	Sold
	MMBF							
R01	171	130	289	284	190	177	650	591
R02	34	30	55	41	7	17	96	88
R03	47	31	26	26	14	7	87	64
R04	325	254	245	198	41	55	611	507
R05	345	307	393	270	223	142	961	719
R06	539	280	576	567	300	272	1,415	1,119
R08	242	238	172	162	15	14	429	414
R09	116	98	147	134	23	40	286	272
R10	33	22	32	31	5	1	70	54
<b>Totals</b>	<b>1,852</b>	<b>1,390</b>	<b>1,936</b>	<b>1,712</b>	<b>818</b>	<b>723</b>	<b>4,606</b>	<b>3,825</b>

December 31, 1996,<sup>9</sup> a total of 4.6 BBF of salvage timber was offered Nationwide. This amount met, and indeed exceeded, the commitment the Secretary of Agriculture made to Congress on June 29, 1995, to deliver 4.5 BBF of salvage timber, plus or minus 25 percent.<sup>10</sup> The total volume sold was 3.8 BBF. There are three reasons for the discrepancy between the offer and sold volumes. First, 0.47 BBF received no bids because of deterioration and a reduction in wood chip markets. Secondly, 0.27 BBF was “offered” but not “awarded” before the program expired.<sup>11</sup> Lastly, 0.04 BBF went unsold for various technical reasons.

The total volume of salvage timber harvested during the duration of the rider was 2.8 BBF. In many respects this is not a particularly useful figure because some of the volume harvested while the rider was in effect was sold before FY 1995, and some of the volume sold while the rider was in effect is being harvested after its expiration.

Even though the provisions of the salvage rider have now expired, the Forest Service is continuing to cooperate with other Federal agencies to perpetuate some of the reforms that were agreed to in the August 9, 1995, MOA mentioned earlier.

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<sup>9</sup> The Emergency Salvage Timber Sales Program was actually not enacted until late in FY 1995 (July 25, 1995). Nonetheless, the Forest Service, in all its reports to Congress, has routinely shown the total volume of salvage timber offered and sold during the entire fiscal year.

<sup>10</sup> The Secretary, in his August 30, 1996, report to Congress, lowered his initial estimate of the amount of salvage timber that could be offered under the program to 3.8 BBF. This adjustment was made following the issuance, on July 2, 1996, of new direction that, among other things, instructed field managers to: (1) avoid roadless areas, (2) limit the cutting of green timber to the minimum necessary to achieve the relevant management goals, and (3) provide complete and careful documentation before entering stands deemed to be “imminently susceptible” to fire, insect, or disease attack. The reduced accomplishment projection was within the bounds of the original projection, and in any event the actual accomplishment was consistent with both commitments.

<sup>11</sup> For accomplishment reporting purposes, the Forest Service equates “offer” to the point in time when a sale is advertised as being available for purchase. “Award” does not occur until bids have been received and a purchaser selected.

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# Economic Effects of the Fiscal Year 1996 Forest Management Program

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This chapter describes the economic effects that were directly or indirectly attributable to the Forest Service's forest management program in fiscal year (FY) 1996. Three types of economic impacts are estimated: (1) effects on local employment, (2) effects on Regional income and Federal income tax receipts, and (3) the NPV (net present value) of all anticipated resource effects. The chapter's focus is on examining national level information, but some Regional- and forest-level data are presented. More detailed information about the economic impacts attributable to the forest management programs of specific Regions and forests may be found in Appendices A and B.

## Employment Effects

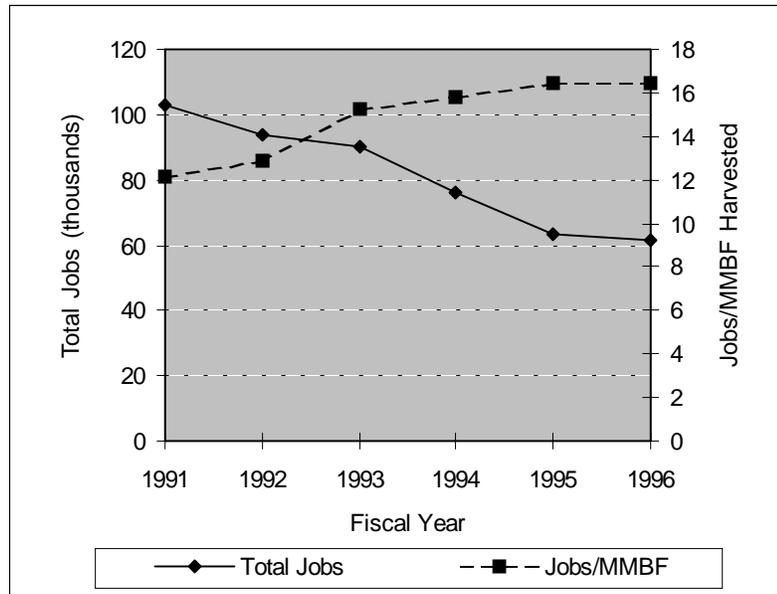
Nationwide, 61,396 jobs were directly or indirectly supported by the harvesting and processing of national forest timber in FY 1996. The number of supported jobs was highest in Region 8 (Southern)—15,484 jobs—and lowest in Region 3 (Southwestern)—972 jobs (table 4).

If the number of jobs is divided by the volume of timber harvested during the year (that is, 3,725 million board feet, or MMBF), the result indicates that from a national perspective, an average of 16.5 jobs were generated for every 1 MMBF of national forest timber cut.

As the size of the Forest Service's forest management program has declined, the total number of jobs being supported by the program has also dropped (figure 11). Specifically, supported employment has fallen from 103,151 jobs in FY 1991 to the 61,396 jobs reported in FY 1996—a decrease of 40 percent. This decrease has occurred even though the number of jobs being

**Table 4.** Number of Jobs Supported by the Forest Management Program in FY 1996, by Region

Region	Jobs
	(no.)
R01—Northern	14,100
R02—Rocky Mountain	1,842
R03—Southwestern	972
R04—Intermountain	4,289
R05—Pacific Southwest	6,050
R06—Pacific Northwest	10,618
R08—Southern	15,484
R09—Eastern	7,042
R10—Alaska	999
<b>Total</b>	<b>61,396</b>



Note: Prepared using data from previous Timber Sale Program Annual Reports

**Figure 11.** Trends in the Level of Employment Associated with National Forest Timber Harvest Activities

generated per MMBF of timber cut has actually increased over this period (figure 11). As discussed later in this chapter, declines in the level of employment supported by the harvesting and processing of national forest timber may, to some unknown degree, have been mitigated by increased harvesting from private forest lands.

## Income and Federal Income Tax Effects

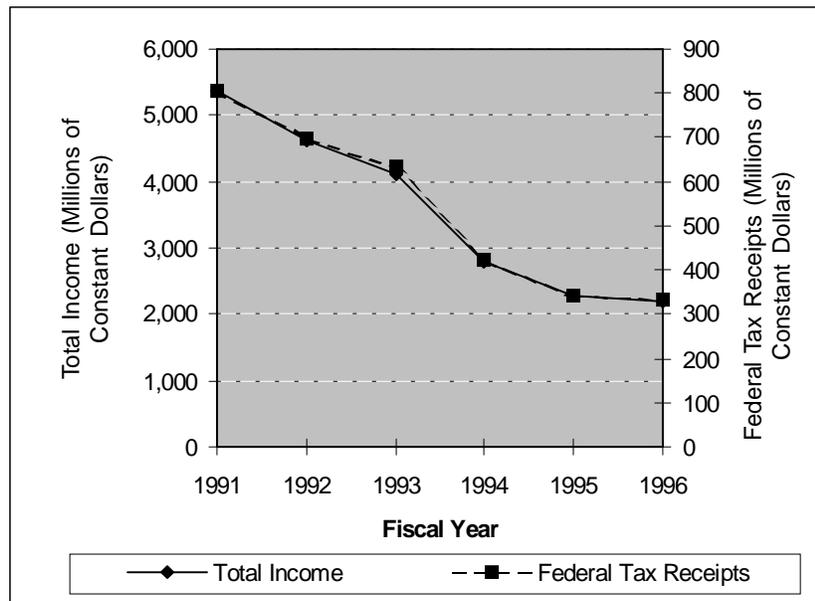
Nationwide, the total Regional income generated as a consequence of the forest management program in FY 1996 was estimated to be \$2.2 billion, and the increment in Federal tax revenues was \$331.6 million. The figures for specific Regions are shown in table 5.

As the size of the Forest Service's timber sales program has declined, so have the program's income and Federal income tax consequences (figure 12). Over the period from FY 1991 to FY 1996, the total income attributable to the program, in terms of constant FY 1996 dollars, has fallen from \$5.4 to \$2.2 billion—a decrease of 59 percent. Because of the direct linkage between income and Federal income tax receipts, the latter's decline has been just as dramatic in percentage terms. In terms of constant FY 1996 dollars, Federal tax receipts have fallen from about \$807 million in FY 1991 to around \$332 million in FY 1996 (figure 12).

While the levels of employment, income, and Federal income tax receipts associated with the harvesting and processing of national forest timber have, as noted above, been decreasing as the size of the national forest timber sales program has fallen, the possibility exists that the overall net effect on these variables has been lessened somewhat by increased harvesting from private forest lands. The 1993 Timber Assessment identified

**Table 5.** Income and Federal Tax Revenues Resulting from National Forest Timber Sales in FY 1996, by Region

Region	Income	Federal Tax
(000's of Dollars)		
R01 - Northern	431,100	64,663
R02 - Rocky Mountain	48,770	7,315
R03 - Southwestern	28,575	4,286
R04 - Intermountain	199,605	29,942
R05 - Pacific Southwest	284,350	42,650
R06 - Pacific Northwest	305,073	45,763
R08 - Southern	467,847	70,173
R09 - Eastern	388,329	58,251
R10 - Alaska	44,783	8,509
<b>Totals</b>	<b>2,198,432</b>	<b>331,552</b>



Note: Prepared using data from previous Timber Sale Program Annual Reports

**Figure 12.** Trends in the Income and Federal Tax Receipts Associated with National Forest Timber Harvest Activities

several potential market responses to lower Federal timber harvests. These included: (1) increased harvesting off private forest lands, especially in the South; and (2) increased imports, especially from Canada.<sup>1</sup> To the extent that market adjustments have been made through increased harvesting off

<sup>1</sup> Haynes, Richard W. et al. 1995; The 1993 RPA Timber Assessment Update. USDA Forest Service. Rocky Mountain Forest and Range Experiment Station. RM-GTR-259. Fort Collins, CO. 66 p.

private forest lands in the United States, domestic jobs, income, and tax receipts will have been preserved despite declines in Federal timber harvesting. However, to the extent that market adjustments have been made through increased imports, there will have been a net loss of jobs to the U.S. economy, and Regional incomes and Federal tax receipts will also have been adversely affected. No attempt is made here to estimate what the actual net effect of these market adjustments has been.

**Present Net Value of Estimated Resource Effects**

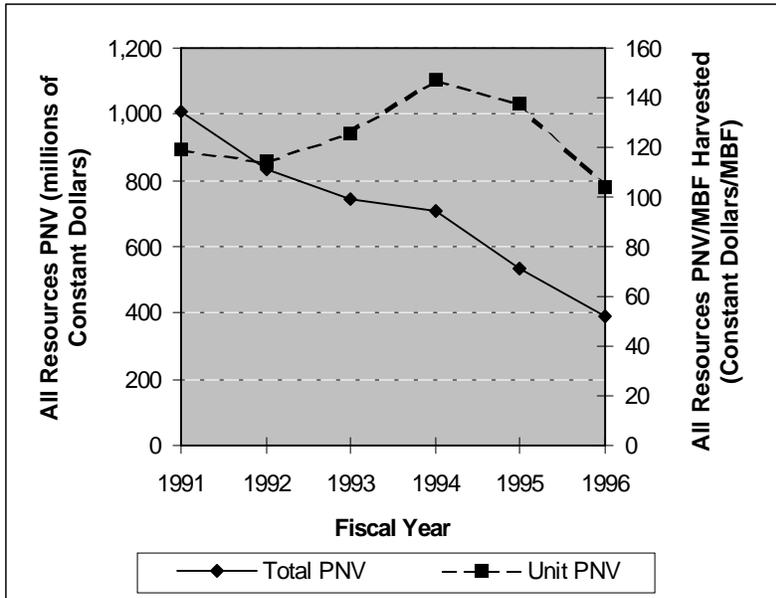
The economic account of the Timber Sale Program Information Reporting System (TSPIRS) indicates that for FY 1996, from a Nationwide perspective and considering all resource effects, the harvesting of national forest timber generated positive net benefits having an aggregate present value of \$387.0 million (table 6). Some \$340.3 million, or 88 percent of this amount, was due to the effects of timber harvesting on the timber resource itself; the

**Table 6.** National Summary of TSPIRS Economic Account for FY 1996

Description of Impact Indicator	Subtotals	Totals
(000's FY96 Dollars)		
Present Value of Benefits		
Positive Effects		
Timber	888,822	
Other Resources	<u>65,352</u>	
Total Positive Effects		954,174
Negative Effects		
Timber	0	
Other Resources	<u>3,121</u>	
Total Negative Effects		3,121
Net Present Value of Benefits <sup>1</sup>		
Timber	888,822	
Other Resources	<u>62,231</u>	
Total Net Present Value of Benefits		951,053
Present Value of Costs		
Timber	463,690	
Other Resources	15,533	
Roads	<u>84,787</u>	
Total Present Value of Costs		564,010
Present Net Values (PNV's)		
Timber Only <sup>2</sup>		340,345
All Resources (including timber)		387,044

<sup>1</sup>Positive effects less negative effects.

<sup>2</sup>Includes the deduction of road costs.



*Note: Prepared using data from prior Timber Sale Program Annual Reports*

**Figure 13.** Trends in the PNV's Associated with National Forest Timber Harvest Activities

remaining \$46.7 million, or 12 percent, was due to the estimated effects of timber harvesting on all other resource areas.

From a national perspective, as the size of the national forest timber sale program has declined, the PNV of the long-term-resource effects triggered by timber harvesting—that is, the all-resources PNV—has also declined. As figure 13 shows, this decline, when measured in terms of constant FY 1996 dollars, has been from roughly \$1,010 million in FY 1991 to approximately \$387 million in FY 1996—a drop of around 62 percent. In contrast to this downward trend, the PNV per MBF of timber harvested has not shown any consistent pattern over time. After increasing during FY's 1993 and 1994, it has decreased for the last 2 years in a row—dropping to a new low of \$104 per MBF (figure 13).

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# Financial Results of the Fiscal Year 1996 Forest Management Program

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This chapter highlights important findings from the financial account of the Timber Sale Program Information Reporting System (TSPIRS). Costs and revenues are examined first by program component and then for the forest management program as a whole. The focus is on describing national level results, but some Regional- and forest-level data are presented and discussed. More detailed information about the financial accounts of specific Regions and forests is contained in Appendices C and D.

## Revenues and Expenses by Program Component

The revenues and expenses associated with the different components of the Forest Service's overall forest management program in fiscal year (FY) 1996 are summarized in table 7. This table shows the following:

- **Timber Commodity Program Component**—The harvest of 2,138 million board feet (MMBF) produced a gross revenue of just under \$451.5 million. The combined direct and indirect costs of operating this component amounted to \$373.8 million, resulting in a net revenue of just over \$77.6 million.
- **Forest Stewardship Program Component**—The harvest of 1,268 MMBF produced a gross revenue of just over \$161.9 million. The combined direct and indirect costs of operating this component were \$216.9 million, resulting in a net revenue of just under -\$55.0 million.
- **Personal Use Program Component**—The harvest of 244 MMBF produced a gross revenue of just under \$5.2 million. The combined direct and indirect costs of operating this program component were about \$42.5 million, resulting in a net revenue of just over -\$37.3 million.

Traditionally, timber commodity purpose sales have been the focus of the so-called “below-cost” controversy. The data in Appendix C show that in FY 1996 only two Regions had negative financial account balances for this program component: R03 (Southwestern) and R10 (Alaska). Below the Regional level, 56 forests had negative financial account balances for timber commodity purpose sales.<sup>1</sup> These forests accounted for 23 percent of the total volume harvested for timber commodity purposes (Appendix C).

When considering the financial performance of the different forest management program components, it is important to remember the basic reasons why each type of sale is undertaken. These reasons influence how the various classes of sales are designed, including the types of timber marked for cutting. Because timber commodity purpose sales are intended to help

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<sup>1</sup> Sixteen of these forests had timber commodity purpose harvests of less than 1.0 MMBF during the year. Experience has shown that unit costs tend to be relatively high for such small-scale programs.

**Table 7.** Statement of Revenues and Expenses Associated With Different Components of the Forest Management Program in FY 1996<sup>1</sup>

Account Description	Timber Comm.	Forest Stew.	Pers. Use
<b>Volume Harvested (MMBF)</b>	<b>2,138</b>	<b>1,268</b>	<b>244</b>
		(000's of dollars)	
<b>Revenues</b>			
Timber Sale Receipts	396,584	139,917	4,627
Purchaser Road Credits	34,356	8,337	0
Associated Charges	19,159	13,279	567
Interest and Penalties	1,374	383	1
<b>Total Revenues</b>	<b>451,473</b>	<b>161,916</b>	<b>5,195</b>
<b>Expenses</b>			
Direct Expenses			
Timber Sale	286,040	161,095	34,283
Timber Program	46,396	29,272	0
<b>Total Direct Expenses</b>	<b>332,436</b>	<b>190,367</b>	<b>34,283</b>
Indirect Expenses			
Timber Sale	1,926	825	362
Timber Program	39,483	25,708	7,882
<b>Total Indirect Expenses</b>	<b>41,409</b>	<b>26,533</b>	<b>8,244</b>
<b>Total Expenses</b>	<b>373,845</b>	<b>216,900</b>	<b>42,527</b>
<b>Net Rev. (before extraord. losses)</b>	<b>+77,628</b>	<b>-54,984</b>	<b>-37,332</b>
<b>Extraordinary Losses</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Net Rev. (after extraord. losses)</b>	<b>+77,628</b>	<b>-54,984</b>	<b>-37,332</b>

<sup>1</sup>Data reflect the application of accrual accounting concepts.

meet the Nation's demand for wood, they typically include a significant amount of commercially valuable timber. This is not necessarily the case, however, for forest stewardship and personal use purpose sales. Stewardship sales are undertaken to help achieve a multitude of land management objectives that require manipulating the existing vegetation. While these sales are designed to yield a profit whenever circumstances allow, and indeed must include enough commercially valuable timber to interest prospective purchasers, in the last analysis most of the timber they contain is dictated by the management objectives to be achieved. Similarly, personal use purpose sales are undertaken to provide Christmas trees, firewood, and small quantities of other forest products to individuals for their own consumption; in other words, they are offered mainly as a public service, and as part of being a good neighbor—not to secure a profit.

The fact that many forest stewardship sales are below cost does not mean, as some have suggested, that such sales should no longer be used as a tool for helping to attain those management objectives that require manipulating the existing vegetation. A 1994 Forest Service study of 19 national forests from across the country found that, in many instances, it would cost more to accomplish desired vegetative management goals without timber

sales than with them.<sup>2</sup> This is primarily because the typical treatment alternatives—for example, prescribed burning, use of chemical herbicides, or cut and leave—do not generate any revenues to help offset their application costs. As a consequence, the net cost of using these alternatives, that is, the difference between the costs incurred and the revenues received, is often more than the net cost of making a timber sale. Additionally, it is worth noting that before a timber sale is selected as the best tool for attempting to achieve a stewardship goal, current Forest Service policy requires that an analysis be performed to determine that it would be the least net cost means of attaining the stated objective.

## Overall Revenues and Expenses

Table 8 shows the revenues and expenses associated with all aspects of the Forest Service's forest management program in FY 1996. As indicated, the

<sup>2</sup> See: Reyna, Nick and Prausa, Rick. 1994. *Evaluating the Use of Timber Harvest on 19 National Forests: An Exploratory Study of Below-Cost Timber Sale Issues and Changing Management Conditions*. USDA Forest Service. Washington, DC. 16 p.

**Table 8.** Statement of Revenues and Expenses Associated With Overall Forest Management Program in FY 1996<sup>1</sup>

Account Description	Amount
<b>Volume Harvested (BBF)</b>	<b>3.65</b>
	(000's of dollars)
<b>Revenues</b>	
Timber Sale Receipts	541,127
Purchaser Road Credits	42,694
Associated Charges	33,006
Interest and Penalties	1,758
<b>Total Revenues</b>	<b>618,585</b>
<b>Expenses</b>	
Direct Expenses	
Timber Sale	481,419
Timber Program	75,669
<b>Total Direct Expenses</b>	<b>557,088</b>
Indirect Expenses	
Timber Sale	3,113
Timber Program	73,073
<b>Total Indirect Expenses</b>	<b>76,186</b>
<b>Total Expenses</b>	<b>633,274</b>
<b>Net Rev. (before extraord. losses)</b>	<b>-14,689</b>
<b>Extraordinary Losses</b>	<b>0</b>
<b>Net Rev. (after extraord. losses)</b>	<b>-14,689</b>

<sup>1</sup>Data reflect the application of accrual accounting concepts.

harvest of 3.65 BBF<sup>3</sup> of timber produced a gross revenue of just under \$618.6 million. The combined direct and indirect costs of operating the program were approximately \$633.3 million, resulting in a net revenue of just under -\$14.7 million. This marks the first time since the inception of TSPIRS that the national forest timber sales program, viewed in its entirety, failed to yield a profit. Only three Regions were above cost for the program as a whole. These were: R04 (Intermountain), R08 (Southern), and R09 (Eastern) (Appendix D). Some of the key reasons for the declining profitability of the forest management program are discussed in the next section of this chapter.

As a result of the timber revenues earned in FY 1996, \$240.4 million was returned to the States and counties under the provisions of the 25-percent receipt-sharing program mentioned earlier. As noted at that time, these payments are, by law, used to benefit local schools and roads. In FY 1996, payments to States were actually almost 39 percent of gross timber sale receipts, not 25 percent. This is because such payments, on those 17 Pacific Northwest national forests where harvesting was reduced to protect habitat for the northern spotted owl, are based on past, not current, harvest levels.<sup>4</sup> In FY 1996, these so-called “spotted owl” payments were \$135.0 million, or over half (56 percent) of all timber-related payments to States.

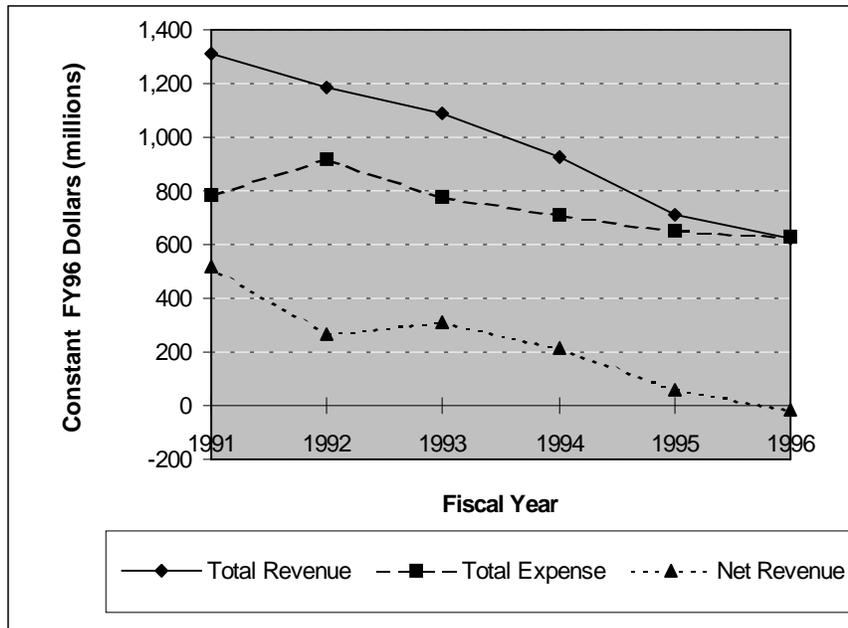
## Analysis of Financial Trends

Figure 14 shows how total timber-related revenues, expenses and net revenues, expressed in constant dollar terms, have changed over the period from FY 1991 to FY 1996. As indicated, total revenues and expenses have both declined since FY 1992, but revenues have fallen more rapidly than expenses thereby causing net revenues to drop. Figure 15 tells the same story using data on unit revenues and costs—that is, the average receipts and expenditures per thousand board feet (MBF) of national forest timber harvested. This figure shows that unit revenues have not kept pace with rising unit costs, and indeed, have declined during the last 2 years. The end result is that unit net revenue, the vertical distance between the two curves, has been shrinking over time.

The factors that underlie the revenues and costs associated with the national forest timber sales program, and thereby the program's profitability, are many and varied; and they run the gamut from relatively obvious to extremely complex. Some of these factors were discussed in last year's TSPIRS Report. By way of follow-up to that discussion, the remainder of this chapter seeks to further clarify some of the reasons why the profitability of the national forest timber sales program has been falling. The factors affecting timber program revenues are considered first, and then the factors driving timber program costs are examined. As was true of last year's report, the intent here is not to treat this topic exhaustively, but only to identify some of the key forces at play. Those desiring a more complete

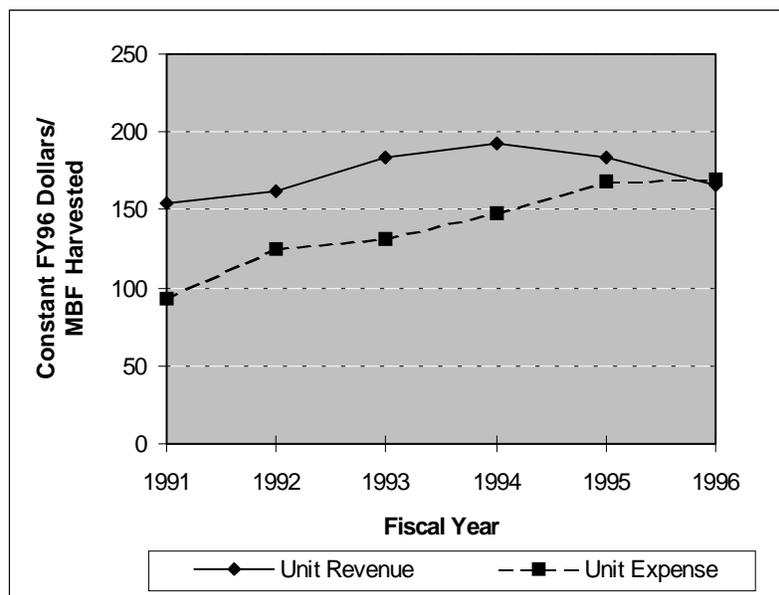
<sup>3</sup> The FY 1996 harvest volume reported in the financial account of TSPIRS was 0.07 BBF less than the harvest volume shown in the agency's Cut & Sold Report. While both figures are derived from the agency's Timber Sale Accounting (TSA) database, discrepancies sometimes occur because end-of-the-year rollups are made at different points in time.

<sup>4</sup> See the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).



Note: Prepared using data from previous Timber Sale Program Annual Reports

**Figure 14.** Trends in Timber Sale Revenues, Expenses, and Net Revenues



Note: Prepared using data from previous Timber Sale Program Annual Reports

**Figure 15.** Trends in Timber Sale Program Unit Revenues and Costs (Dollars/MBF)

## Factors Affecting Timber Program Revenues

treatment of this subject are referred to the two comprehensive study reports on timber cost efficiency that the Forest Service has published in recent years.<sup>5</sup>

The factors affecting timber program revenues have not been studied as extensively as the factors impacting program-related costs; nonetheless, some key reasons for the observed dropoff in revenues, both on a total and unit basis, are apparent. These include the following:

- **Decline in Program Size**—Undoubtedly the steady decline in the volume of national forest timber harvested each year is the most important reason for the dropoff in total timber sale revenues in recent years. After all, when less product is sold, other things being equal, less sales revenue is earned. Of course, in any given year, the prices that may be charged for national forest timber can either moderate or aggravate the effect of declining sales volume, and in FY 1996, as in FY 1995, weak end-product markets continued to hold average selling prices to relatively low levels.
- **Shift to Stewardship Purpose Sales**—Another factor that has worked to reduce timber program revenues, and thereby profits, is the continuing shift in program emphasis that was alluded to earlier in this report—that is, the shift from “timber commodity” to “forest stewardship” purpose sales.

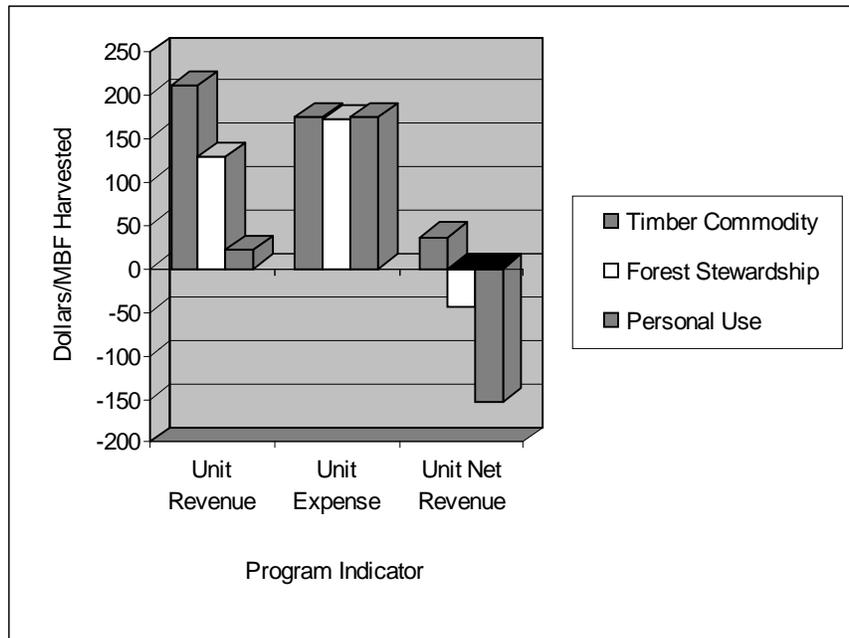
Figure 16 compares the financial performance of the different classes of national forest timber sales in terms of three selected program indicators: (1) unit revenue, (2) unit expense, and (3) unit net revenue. The unit values were computed by dividing each component’s total revenue, total expense, and total net revenue by its associated total harvest volume.

As the figure shows, average unit revenue varies substantially by program component—from a high of \$211 per MBF for timber commodity purpose sales to a low of \$21 per MBF for personal use purpose sales. These differences should not be surprising given that the different types of sales are undertaken for fundamentally different reasons and that these reasons can greatly influence the types of timber selected for sale. As was explained earlier, timber commodity purpose sales are intended to help meet the Nation’s demand for wood, and as a consequence, they must include a significant proportion of commercially valuable timber. This is not the case for forest stewardship purpose sales. Most of the timber included in stewardship sales is selected on the basis of the management objectives to be attained, not on the basis of commercial value.

Unlike the unit revenues, average unit expense is essentially constant across the different program components—ranging from a low of \$171 per MBF for forest stewardship purpose sales to a high of just \$175 per MBF for timber commodity purpose sales (figure 16). This result is somewhat puzzling given that the procedural requirements associated with personal use purpose sales tend to be much less complex than those associated

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<sup>5</sup> The study reports being referred to are: USDA Forest Service, 1993. *Timber Cost Efficiency Study—Final Report*. Washington, DC. 140 p.; and Liggett C. et al. 1995. *Timber Program Issues: A Technical Examination of Policy Options*. USDA Forest Service, Washington, DC, 301p.



**Figure 16.** Comparison of Timber Program Components in Terms of Selected Program Indicators

with timber commodity or forest stewardship purpose sales. The explanation lies in the fact that personal use sales produce very little volume, and this tends to make unit costs high.

Because the unit revenues are highly variable and the unit expenses virtually constant, the resultant average unit net revenues differ greatly by program component—ranging from a high of +\$36 per MBF for timber commodity purpose sales, to -\$43 per MBF for forest stewardship purpose sales, to a low of -\$153 per MBF for personal use purpose sales. This relationship is to be expected and, indeed, is traceable to the specific objectives of each class of sales. As decisions about sale design are made less and less on the basis of economic considerations (for example, what timber should be removed in light of current market needs?) and more and more on the basis of ecological considerations (for example, what timber should be removed to create certain desired habitat conditions?), it is only reasonable to expect that program profitability will suffer. This does not necessarily mean that the ongoing shift from timber commodity to forest stewardship purpose sales is undesirable, but it does suggest that, except possibly for timber commodity purpose sales, profitability may no longer be an appropriate measure for judging the performance of the Forest Service’s forest management activities.

- **Changing Nature of Products Being Sold**—A third factor that has been causing national forest timber sale revenues to decline, both on a total and unit basis, relates to the changing nature of the products being sold and harvested off National Forest System lands. As noted earlier in this report, compared with the past, the timber being removed from the national forests today includes: (1) more salvage as opposed to green volume,

and (2) more nonsawtimber as opposed to sawtimber volume. Both of these changes have adversely affected timber sale receipts. Generally, salvage timber is less valuable than green timber because it often has been damaged or has suffered deterioration. Similarly, nonsawtimber is typically less valuable than sawtimber because it cannot be manufactured into as broad an array of products, and it often contains a smaller amount of clear, high-grade wood.

Factors Affecting  
Timber Program Costs

Receipts are only one of the variables that determine the profitability of the Forest Service's forest management program; the other is costs. Accordingly, to understand why program profitability has been falling, it is also necessary to understand why costs, at least on a unit basis, have continued to rise even though the size of the timber sales program has dropped. Regrettably, there is no simple explanation. Many factors, only some of which are discussed below, have been operating so as to increase program costs.

- **Increasing Importance of Fixed Costs**—There are certain fixed costs associated with conducting the national forest timber sale program, for example, the expenses associated with the depreciation on existing facilities and roads and with general program administration. As the program has decreased in size, these costs have not changed commensurably. As a consequence, such costs have become an increasingly important proportion of the total cost mix and have had to be borne by fewer units of output. To illustrate, figure 17 shows how expenditures for general administration (GA) have changed over time as a percentage of all timber-related expenditures.<sup>6</sup> As indicated, in just the last 4 years, total

<sup>6</sup> As noted in the glossary, GA represents the cost of line management and program support that cannot be identified with specific programs. A proportionate amount of a forest's total GA is allocated to the timber program based on the estimated extent to which the program benefits from GA-type activities.

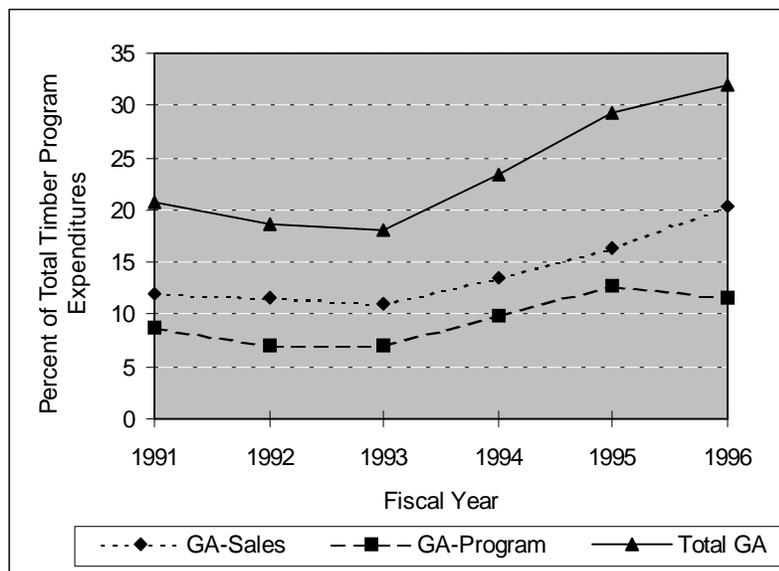


Figure 17. Trend in Timber Program GA Expenses

expenditures for GA have grown from under 20 percent of all timber program costs to almost one-third of these costs.

- **Diseconomies of Small-Scale Operations**—The efficiency studies that were mentioned earlier have shown that there are important economies of scale associated with various aspects of the timber program—for example, sale preparation, harvest administration, reforestation, and timber stand improvement. The existence of these scale economies means that the unit costs of conducting such activities tend to decrease as the scale at which they are conducted is increased. In recent years, however, just the opposite has been the case; the size of the timber program has been shrinking. The end result is that the unit costs of performing these activities have actually tended to increase.
- **Open Process and High Environmental Standards**—From a procedural standpoint, the Forest Service adheres to a very open process in planning timber sales; members of the public are allowed ample opportunities to express their views on any proposal. Additionally, the agency operates a legally mandated administrative appeals process that allows the public to challenge proposed decisions without having to resort to the courts. From a practice standpoint, the Forest Service carries out timber sales within the context of very stringent forest plan standards and guidelines designed to ensure protection of all important environmental values. These procedural and operational requirements are deemed essential and beneficial, but they do result in increased costs. The General Accounting Office (GAO), in comparing the timber sale programs of the Forest Service and Bureau of Land Management (BLM) in the Pacific Northwest to those of the States of Oregon and Washington, observed:

The federal agencies have a much longer and more complex planning process that involves the public at every stage of the process for timber sales. ... In addition, the state agencies do not provide for administrative appeals, whereas the federal agencies do.<sup>7</sup>

Similarly, Keegan et al., after conducting a study that compared the timber management costs on eight national forests in Montana and Idaho to the costs experienced by a broad range of other forest owners and managers (private industry, the Idaho Department of Lands, the Montana Department of Natural Resources and Conservation, and the Confederated Salish and Kootenai Tribes) concluded that:

Where organizational goals are complex, emphasizing non-commercial values as well as commercial harvests, then the costs of timber management increase. ... Even more important are the mandates and methods affecting various timber management operations. Agencies that operate within explicit legal and/or administrative directives and undertake formal environmental review and monitoring ... find these activities

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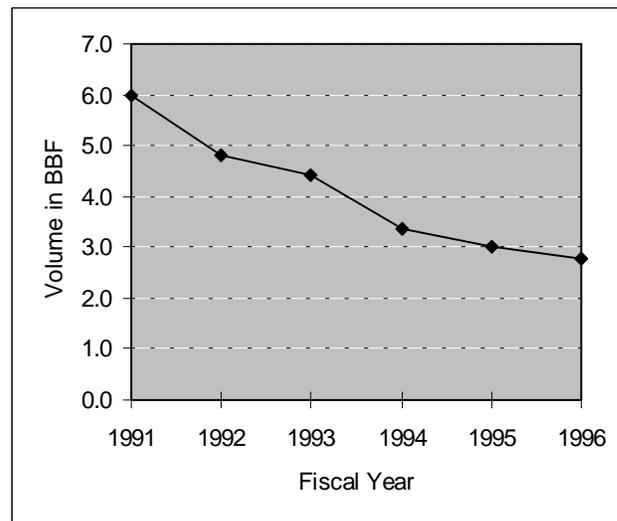
<sup>7</sup> General Accounting Office. 1996. *PUBLIC TIMBER—Federal and State Programs Differ Significantly in the Pacific Northwest*. GAO/RCED-96-108. 16 p. (See p.2.)

add substantial costs to their programs for managing timber resources.<sup>8</sup>

- **Conflict Avoidance Behavior**—In an effort to minimize the likelihood that proposed timber sales will be appealed or litigated, program managers on some national forests have consciously elected to adhere to certain procedures that likely make proposed projects less controversial, but also tend to increase costs. The following are illustrative of such practices: reducing the size of proposed sales; requiring more environmentally sensitive methods of logging (for example, helicopters); emphasizing thinnings as opposed to regeneration harvests; emphasizing pulpwood and other smaller products as opposed to sawtimber; and including nonsale activities that are favored by the public (for example, road obliteration) in sale proposals.
- **Disappearance of the Pipeline**—Pipeline volume represents advanced sale preparation for future years. For a period of time, as the national forest timber sale program became increasingly controversial, the Forest Service was able to keep its output levels up and its unit costs relatively low by drawing upon such volume. Eventually this cushion started to disappear (figure 18), however, and the impact of various factors on program costs could no longer be avoided.
- **Shrinking Volume Under Contract**—A key factor in determining the rate at which the “sale activity pool” of TSPIRS is written off is the “volume under contract.” (See Glossary) Volume under contract represents the amount of national forest timber purchasers have acquired but not yet harvested. In recent years, volume under contract has been declining

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<sup>8</sup> Keegan, Charles E. III et al. 1996. “Timber Management Costs: A Comparison Among Major Landowners in Idaho and Montana.” *Montana Business Quarterly* Vol. 34, no. 2: 9-14. (See p. 14.)



**Figure 18.** Trend in Pipeline Volume

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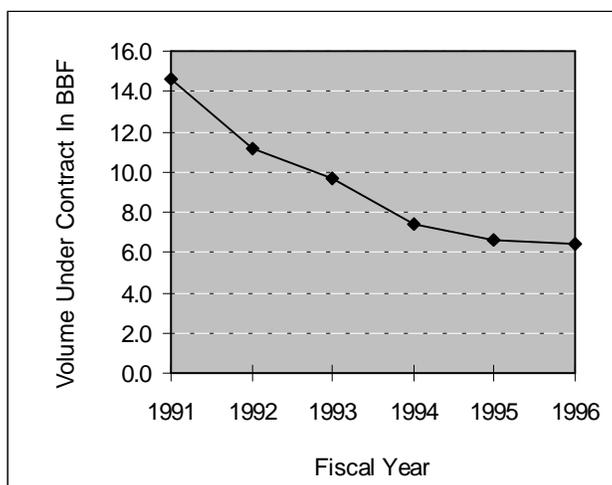


Figure 19. Trend in Volume Under Contract

(figure 19), and as a consequence, an increasing proportion of the sale activity pool's balance is being expensed each year.

#### Concluding Observation

The preceding analysis of timber-related revenues, expenses, and resultant net revenues indicates that the Forest Service has had some success in controlling timber program costs—for example, total expenditures, in constant dollar terms, have decreased since FY 1992 (figure 14), and unit costs, in constant dollar terms, were essentially unchanged between FY 1995 and FY 1996 (figure 15). Despite this success, however, the agency, as evidenced by the fact that the program as whole operated at a loss in FY 1996, has been unable to preserve the overall program's profitability. This suggests that as the forest management program has evolved from a large enterprise focused on fiber production to a small enterprise focused on forest and ecosystem health, it has also been transformed, perhaps unavoidably, from a profit-making to a net-cost endeavor. An uncertain variable in this equation is the agency's forest management reinvention initiative. If this initiative succeeds in finding new and innovative ways to accomplish national forest vegetative management goals more effectively and efficiently, it could restore the overall program's profitability. Although this possibility exists, it nonetheless seems clear that within the context of today's forest management program, profitability may no longer be as relevant a performance indicator as it once was.

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## USDA Forest Service Contact

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Please contact the Forest Service at the following address if you have questions about this report or desire additional information:

USDA Forest Service  
Attn.: Forest Management  
Stop 1105  
P.O. Box 96090  
Washington, DC 20090-1105

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# Glossary

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**Analysis and Documentation**—A category established to track the costs of completing environmental analysis and documentation of timber projects in compliance with the National Environmental Policy Act (NEPA).

**Appeals and Litigation**—A category established to track the costs of processing administrative appeals, of working on litigation related to timber projects, and of reworking projects to bring them into compliance with changed standards resulting from appeals and legal decisions. Not included are any investments (sunk costs) incurred in connection with proposed timber sales that are started but subsequently abandoned because of an appeal or judicial decision, or any foregone revenues or opportunity costs that are associated with such projects.

**BBF**—One billion board feet of timber volume. A board foot is a piece of wood 12 inches square and 1 inch thick.

**Benefits**—Goods and services that result from projects or programs. These goods and services may or may not be exchanged in markets. Timber, forage, and minerals are often said to be “commodity” benefits because they are typically sold to business to produce revenue. Recreation, water, and wildlife are often said to be “noncommodity” benefits because they are typically provided to individuals at little or no cost.

**Cost Pool**—An accounting mechanism for the collection of expenditure data in like categories; the purpose of pools is to better match, for a particular reporting year, costs against related income. In the Timber Sale Program Information Reporting System (TSPIRS), there are three types of cost pools that have been designed to conform to generally accepted accounting principles (GAAP). These are as follows:

1. *Sale Activity Pool*—This pool includes the costs of activities directly related to preparing timber for sale at auction. Funds obligated to these activities in any given year are added to the pool and annual expenses are calculated based on the following formula:

$$\text{Sale Activity Expense} = (\text{PBcy})(\text{Vh}/\text{Vh} + \text{Vuc})$$

Where:

    PBcy = pool balance in current year  
    Vh = volume harvested  
    Vuc = Volume under contract

2. *Growth Activity Pool*—This pool includes the costs of activities related to growing trees over a rotation period (that is, from reforestation to harvest). These expenses, such as reforestation and timber stand improvement costs, represent investments in the growth of trees. Funds obligated to these

activities are added to the pool and annual expenses are calculated based on the following formula:

$$\text{Growth Activity Expense} = (\text{PBcy}) \times (\text{Vh}/\text{GSv})$$

Where:

PBcy = pool balance in current year

Vh = volume harvested

GSv = growing stock volume on suitable lands

3. *Depreciation Pool*—This pool includes expenditures associated with roads and facilities. These types of costs are depreciated over predetermined periods of time that have been set to approximate their anticipated useful lives. Facilities, including buildings, are depreciated over a 30-year useful life. Road design and construction costs are capitalized and depreciated by component. The following schedules are used for each component:

Surfacing—10 years

Culverts—30 years

Bridges—50 years

Road prism costs, including the costs of excavation, are capitalized as a permanent land improvement and are not depreciable (assuming routine maintenance is performed to maintain the road contour). Regional and Washington Office transportation planning costs are expensed on an annual basis.

**Ecosystem Management**—The use of an ecological approach to achieve the multiple use management of national forests and grasslands by blending the needs of people and environmental values in such a way that national forests and grasslands represent diverse, healthy, productive, and sustainable ecosystems.

**Extraordinary Loss**—A loss that is both unusual and infrequent in occurrence. Unusual means that the loss was triggered by a highly abnormal event. Infrequent means that the loss was triggered by an event that would not reasonably be expected to occur again in the foreseeable future.

**Forest Stewardship Component**—That portion of the overall national forest timber sale program composed of sales, or parts of sales, in which the primary reason for harvesting timber is to achieve some forest plan stewardship objective that requires vegetative manipulation. Stated another way, it is that portion of the overall program composed of vegetative management projects that, even if timber could not be sold, would nonetheless be undertaken through some other means such as prescribed burning. Timber harvested under this component of the sales program may come off lands classified as either suitable or unsuitable for timber management purposes and may be obtained through either green or salvage sales. When timber harvesting is used to accomplish a stewardship objective that requires vegetative manipulation, it is generally the least net cost (that is, cost minus revenue) method of attaining the desired goal. Sales or parts of sales designed primarily to achieve forest stewardship objectives are coded

as (FS) in the Timber Sale Accounting System, and the appropriate percent of sale volume is recorded.

**General Administration (GA) Costs**—The cost of line management and program support that cannot be identified with specific programs. A proportionate amount of a forest's total GA is allocated to the timber program based on the estimated extent to which the program benefits from GA type activities.

**Generally Accepted Accounting Principles (GAAP)**—Conventions, rules, and procedures defining accepted accounting practice, including both broad guidelines and detailed procedures developed by the Federal Accounting Standards Advisory Board and the Accounting Principles Board of the American Institute of Certified Public Accountants.

**Growing Stock**—An estimate of the current merchantable volume of timber, in trees 5 or more inches in DBH (diameter at breast height), that is growing on lands classified as suitable for timber management. In any given year, the current growing stock volume is estimated by adjusting the baseline timber inventory information from the forest plan for any growth, mortality, and removals that have occurred since implementation of the plan. If more recent inventory information is available for the suitable land base, it is used and updated accordingly. The TSPIRS uses the growing stock volume at the beginning of the fiscal year to calculate the annual expenses to be charged to cost items in the "growth activity pool."

**Harvest Administration**—The cost of supervising, administering, guiding, assisting, controlling, and reporting a purchaser's harvest of contracted timber volume. Timber purchasers conduct harvest activities in compliance with timber sale contracts that contain provisions designed to protect or enhance the forest environment and nontimber resources. Typical harvest administration activities include scaling, check scaling, day-to-day contract administration, inspections of operations, rate determinations, breach actions, contract modifications, and report preparation.

**Knutson-Vandenberg (KV) Funds**—Funds collected from timber purchasers and subsequently used to conduct reforestation, timber stand improvement (TSI), and other resource improvements on national forest timber sale areas. Collection of the funds was authorized by Congress when it passed the Knutson-Vandenberg Act in 1930.

**MBF**—One thousand board feet of timber volume. A board foot is a piece of wood 12 inches square and 1 inch thick.

**MMBF**—One million board feet of timber volume. A board foot is a piece of wood 12 inches square and 1 inch thick.

**Multiple Use**—The management philosophy articulated by the Multiple Use—Sustained Yield Act of 1960. This law provides that the renewable resources of the national forests are to be managed in the combination that best meets the needs of the American people. It further stipulates that the Forest Service is to make judicious use of the land for some or all of these resources and related services over areas large enough to ensure that

sufficient latitude exists to subsequently adjust management to conform with changing needs and conditions.

**Obligations**—Funds (moneys) that the Federal Government has committed itself to expend (pay out) during a given fiscal year (FY). Funds are considered to be obligated when they are owed to a receiving party. On an obligation basis, expenditures are counted when the Government commits itself to payment, even though the actual cash transaction may not take place for some time.

**Payments to States**—The 25 percent share of the gross receipts from national forest timber sales that is, by law, returned to the States and counties where the timber was harvested and which is to be used to benefit local schools and roads. The original legislation authorizing such payments was passed in 1908, but Congress has at times modified the basic formula for determining payment amounts.

**Personal Use Component**—That portion of the overall national forest timber sale program composed of sales, or parts of sales, where the primary reason for harvesting timber is to provide firewood and other similar products to individuals for their own consumption. This component includes all free-use permits, paid permits, and sales involving less than or equal to the following quantities or values:

- Ten cords
- Five MBF of timber
- Three Christmas trees
- Twenty dollars worth of nonconvertible products (that is, products that cannot be converted to a board foot or cubic foot equivalent)

These permits and sales (with the exception of free-use) are coded as (PP) in the Timber Sale Accounting System.

**Present Net Value**—The difference between the discounted value of the economic benefits to which dollar values could be assigned and the discounted value of the economic costs. A 4-percent real discount rate is assumed in the construction of the economic account of TSPIRS.

**Purchaser Credit**—Credit earned by timber purchasers when they construct the roads needed to access national forest timber sales. The amount of credit earned is based on the value of the road as estimated by Forest Service engineers and is established in the timber sale contract. Earned purchaser credit may be used to pay stumpage charges above base rates, and TSPIRS treats such payments as timber sale revenue.

**Reforestation (also Regeneration)**—Treatments or activities that help to reestablish stands of trees after harvest. Typical activities include preparing the soil, controlling pests, and planting seeds or seedlings.

**Road Maintenance**—A cost category that includes expenditures made to maintain timber sale access roads that would otherwise deteriorate because of the timber purchaser's use of the roads. The funds needed to cover

these costs are collected from purchasers in accordance with terms specified in the timber sale contract.

**Sale Preparation**—A cost category that includes those expenditures associated with the timber-related field work needed to prepare timber sales and with preparing timber sale contracts.

**Salvage Sale**—A sale undertaken to remove dead, dying, or deteriorating trees before the timber becomes worthless for processing into wood products, and/or to prevent the spread of pests or pathogens and thereby promote healthy, vigorous forests.

**Sawtimber**—Trees of such size and quality they contain logs suitable for processing into lumber.

**Silvicultural Examination**—A cost category that includes the expenditures required to gather detailed, on-site field data concerning the timber resource within a small subdivision of a forested area. Such information is needed to assess management opportunities and set direction for the timber resource within the subdivision.

**Silviculture**—The art, science, and practice of controlling the establishment, growth, composition, health, and quality of woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

**Timber Commodity Component**—That portion of the overall national forest timber sale program composed of sales, or parts of sales, where the primary reason for harvesting timber is to help meet the Nation's demand for wood by providing wood fiber to the forest products industries. Timber harvested under this component of the sales program may only come off lands classified as suitable for timber management purposes, but it may be obtained through either green or salvage sales. Sales or parts of sales designed primarily to achieve timber commodity objectives are coded as (TC) in the Timber Sale Accounting System, and the appropriate percent of sale volume is recorded.

**Timber Stand Improvement (TSI)**—Noncommercial cutting and other treatments made to increase the growth and improve the quality of trees for timber uses. Treatments include thinning, pruning, weeding, prescribed burning, and fertilizing established stands of trees.

**Timber Sale Program Information Reporting System (TSPIRS)**—A reporting system jointly developed by the Forest Service and the U.S. General Accounting Office for the purpose of providing annual information on the financial, economic, and employment-related performance of the national forest timber sales program.

**Undepreciated Road Writeoff**—The net book value of the roads obliterated during the fiscal year.

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**Appendix A—Employment, Income,  
and Program Level Account by Region  
and Forest**

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**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 1 (Northern)**

Category Description	Idaho ID Panhandle	Idaho Clearnwater	Idaho Nez Perce	Idaho Subtotal <sup>2</sup>	Montana Beaverhead	Montana Bitterroot
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	3,040.0	1,090.0	1,220.0	5,350.0	390.0	490.0
2. Employment-Related Income (\$000) <sup>1</sup>	87,030.0	32,640.0	36,490.0	156,160.0	13,870.0	18,340.0
3. Federal Income Tax Generated (\$000)	13,054.0	4,896.0	5,474.0	23,424.0	2,080.0	2,751.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	75.4	31.8	20.6	127.8	8.4	10.8
2. Volume Sold and Awarded (MMBF)	43.0	49.4	30.5	122.8	6.3	6.1
3. Volume Harvested (MMBF)						
Sawtimber	72.5	19.0	33.5	125.1	4.5	6.3
Roundwood	3.2	3.5	2.9	9.6	3.3	0.4
Firewood	4.9	1.8	1.6	8.3	1.2	2.1
Other	0.1	0.7	0.3	1.1	0.0	0.4
<b>Total Harvest Volume</b>	<b>80.8</b>	<b>25.0</b>	<b>38.3</b>	<b>144.1</b>	<b>9.0</b>	<b>9.2</b>
4. Total Area Harvested (acres)	7,461.0	2,454.0	2,419.0	12,334.0	1,197.0	1,096.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	2,025.0	484.0	347.0	2,856.0	451.0	1,171.0
Other Products Removed (\$000)	39.0	0.0	1.0	40.0	0.0	0.0
7. Regeneration Treatment (acres)	7,615.0	3,624.0	3,085.0	14,324.0	691.0	1,154.0
8. Timber Stand Improvement (acres)	6,697.0	843.0	759.0	8,299.0	716.0	536.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	1.0	2.0	11.0	14.0	0.0	0.0
<b>Total Construction</b>	<b>1.0</b>	<b>2.0</b>	<b>11.0</b>	<b>14.0</b>	<b>0.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	24.0	0.0	24.0	6.0	0.0
Purchaser Credit Reconstruction	41.0	48.0	4.0	93.0	0.0	0.0
<b>Total Reconstruction</b>	<b>41.0</b>	<b>72.0</b>	<b>4.0</b>	<b>117.0</b>	<b>6.0</b>	<b>0.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Includes minor amounts from Washington State.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 1 (Northern)**

Category Description	Montana Custer	Montana Deerlodge	Montana Flathead	Montana Gallatin	Montana Helena	Montana Kootenai
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	100.0	150.0	730.0	280.0	210.0	4,190.0
2. Employment-Related Income (\$000) <sup>1</sup>	3,720.0	5,370.0	24,440.0	10,000.0	7,110.0	122,740.0
3. Federal Income Tax Generated (\$000)	558.0	805.0	3,666.0	1,500.0	1,066.0	18,411.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	4.3	10.4	29.0	4.2	18.2	121.4
2. Volume Sold and Awarded (MMBF)	4.5	8.0	40.1	4.2	18.1	125.3
3. Volume Harvested (MMBF)						
Sawtimber	1.9	2.7	12.5	4.0	3.4	54.5
Roundwood	0.1	0.8	0.4	0.3	0.7	31.9
Firewood	0.7	0.6	3.0	2.7	1.1	2.8
Other	0.0	0.4	2.1	0.0	0.0	10.7
<b>Total Harvest Volume</b>	<b>2.6</b>	<b>4.6</b>	<b>18.0</b>	<b>6.9</b>	<b>5.2</b>	<b>99.9</b>
4. Total Area Harvested (acres)	429.0	532.0	1,158.0	794.0	322.0	10,119.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	1,811.0	1,243.0	2,215.0	4,158.0	3,130.0	2,227.0
Other Products Removed (\$000)	0.0	0.0	1.0	2.0	0.0	9.0
7. Regeneration Treatment (acres)	1,028.0	702.0	2,005.0	1,140.0	309.0	7,451.0
8. Timber Stand Improvement (acres)	139.0	196.0	2,630.0	604.0	149.0	3,999.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	0.0	3.0	0.0	11.0	30.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>	<b>3.0</b>	<b>0.0</b>	<b>11.0</b>	<b>30.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	0.0	0.0	0.0	15.0
Purchaser Credit Reconstruction	8.0	13.0	67.0	0.0	14.0	300.0
<b>Total Reconstruction</b>	<b>8.0</b>	<b>13.0</b>	<b>67.0</b>	<b>0.0</b>	<b>14.0</b>	<b>315.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 1 (Northern)**

Category Description	Montana Lewis-Clark	Montana Lolo	Montana Subtotal <sup>2</sup>	Regional Office	Regional Totals
<b>I. Employment and Income Information</b>					
1. Timber-Related Employment (Jobs)	400.0	1,600.0	8,540.0	210.0	14,100.0
2. Employment-Related Income (\$000) <sup>1</sup>	13,390.0	47,570.0	266,550.0	8,390.0	431,100.0
3. Federal Income Tax Generated (\$000)	2,008.0	7,136.0	39,981.0	1,258.0	64,663.0
<b>II. Timber Program Information</b>					
1. Volume Offered (MMBF) <sup>1</sup>	11.2	49.8	267.8	0.0	395.6
2. Volume Sold and Awarded (MMBF)	10.8	23.7	247.1	0.0	369.9
3. Volume Harvested (MMBF)					
Sawtimber	7.7	25.1	122.6	0.0	247.7
Roundwood	0.5	1.2	39.5	0.0	49.1
Firewood	2.5	1.9	18.7	0.0	27.0
Other	0.1	4.1	17.9	0.0	19.0
<b>Total Harvest Volume</b>	<b>10.8</b>	<b>32.3</b>	<b>198.7</b>	<b>0.0</b>	<b>342.7</b>
4. Total Area Harvested (acres)	1,206.0	4,132.0	20,985.0	0.0	33,319.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products					
Christmas Trees Cut (trees)	9,478.0	2,857.0	28,741.0	0.0	31,597.0
Other Products Removed (\$000)	0.0	1.0	13.0	0.0	54.0
7. Regeneration Treatment (acres)	1,111.0	4,140.0	19,731.0	0.0	34,055.0
8. Timber Stand Improvement (acres)	261.0	1,209.0	10,439.0	0.0	18,738.0
<b>III. Forest Road Information</b>					
1. Road Construction (miles)					
Appropriated Construction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	3.0	7.0	54.0	0.0	68.0
<b>Total Construction</b>	<b>3.0</b>	<b>7.0</b>	<b>54.0</b>	<b>0.0</b>	<b>68.0</b>
2. Road Reconstruction (miles)					
Appropriated Reconstruction	0.0	5.0	26.0	0.0	50.0
Purchaser Credit Reconstruction	5.0	43.0	450.0	0.0	543.0
<b>Total Reconstruction</b>	<b>5.0</b>	<b>48.0</b>	<b>476.0</b>	<b>0.0</b>	<b>593.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Includes minor amounts from South Dakota.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 2 (Rocky Mountain)**

Category Description	Colorado Grd Mesa/U/G	Colorado Arapaho/Roots	Colorado Pike/San Isb	Colorado San J/Rio	Colorado White River	Colorado Subtotal
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	192.0	50.0	28.0	242.0	259.0	771.0
2. Employment-Related Income (\$000) <sup>1</sup>	5,036.0	1,356.0	771.0	7,041.0	7,581.0	21,785.0
3. Federal Income Tax Generated (\$000)	755.0	203.0	116.0	1,056.0	1,137.0	3,267.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	11.1	5.3	3.2	14.7	21.5	55.8
2. Volume Sold and Awarded (MMBF)	4.7	0.9	3.1	14.0	14.4	37.1
3. Volume Harvested (MMBF)						
Sawtimber	6.7	3.0	1.0	12.0	12.9	35.5
Roundwood	0.0	0.0	0.0	0.2	0.0	0.3
Firewood	2.8	0.7	2.6	5.9	1.5	13.5
Other	6.6	0.1	0.7	6.6	5.7	19.8
<b>Total Harvest Volume</b>	<b>16.1</b>	<b>3.8</b>	<b>4.3</b>	<b>24.7</b>	<b>20.2</b>	<b>69.1</b>
4. Total Area Harvested (acres)	2,579.0	447.0	786.0	6,616.0	1,926.0	12,354.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.6	0.0	0.6
6. Nonconvertible Products						
Christmas Trees Cut (trees)	2,305.0	5,928.0	6,214.0	3,623.0	42,452.0	60,522.0
Other Products Removed (\$000)	5.0	9.0	11.0	15.0	2.0	42.0
7. Regeneration Treatment (acres)	1,914.0	1,283.0	1,060.0	3,594.0	757.0	8,608.0
8. Timber Stand Improvement (acres)	56.0	1,056.0	895.0	465.0	179.0	2,651.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	3.0	0.0	0.0	1.0	0.0	5.0
<b>Total Construction</b>	<b>3.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.0</b>	<b>5.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	0.0	0.0	0.0	4.0	0.0	4.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>4.0</b>	<b>0.0</b>	<b>4.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 2 (Rocky Mountain)**

Category Description	Nebraska Nebraska <sup>2</sup>	S. Dakota Blk Hills <sup>2</sup>	Wyoming Big Horn	WY/CO Md Bow/Routt	Wyoming Shoshone
<b>I. Employment and Income Information</b>					
1. Timber-Related Employment (Jobs)	0.0	673.0	76.0	275.0	47.0
2. Employment-Related Income (\$000) <sup>1</sup>	0.0	15,914.0	1,743.0	8,097.0	1,231.0
3. Federal Income Tax Generated (\$000)	0.0	2,387.0	261.0	1,215.0	185.0
<b>II. Timber Program Information</b>					
1. Volume Offered (MMBF) <sup>1</sup>	0.0	54.4	4.7	30.4	10.0
2. Volume Sold and Awarded (MMBF)	0.0	20.4	2.9	15.5	6.6
3. Volume Harvested (MMBF)					
Sawtimber	0.0	47.5	5.2	15.7	2.2
Roundwood	0.0	0.0	0.1	0.0	0.0
Firewood	0.0	3.5	1.3	3.1	3.0
Other	0.0	1.6	0.3	1.2	0.7
<b>Total Harvest Volume</b>	<b>0.0</b>	<b>52.5</b>	<b>6.9</b>	<b>20.1</b>	<b>5.9</b>
4. Total Area Harvested (acres)	0.0	14,950.0	9.0	2,681.0	206.0
5. Free Use Firewood (MMBF)	0.0	0.3	0.0	0.0	0.0
6. Nonconvertible Products					
Christmas Trees Cut (trees)	120.0	7,902.0	1,915.0	3,859.0	3,102.0
Other Products Removed (\$000)	0.0	3.0	1.0	8.0	2.0
7. Regeneration Treatment (acres)	0.0	10,868.0	1,225.0	3,027.0	2,425.0
8. Timber Stand Improvement (acres)	0.0	8,605.0	622.0	2,588.0	605.0
<b>III. Forest Road Information</b>					
1. Road Construction (miles)					
Appropriated Construction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	5.0	0.0	7.0	1.0
<b>Total Construction</b>	<b>0.0</b>	<b>5.0</b>	<b>0.0</b>	<b>7.0</b>	<b>1.0</b>
2. Road Reconstruction (miles)					
Appropriated Reconstruction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	0.0	32.0	7.0	10.0	5.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>32.0</b>	<b>7.0</b>	<b>10.0</b>	<b>5.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 2 (Rocky Mountain)**

Category Description	Wyoming Subtotal	Regional Total
<b>I. Employment and Income Information</b>		
1. Timber-Related Employment (Jobs)	398.0	1,842.0
2. Employment-Related Income (\$000) <sup>1</sup>	11,071.0	48,770.0
3. Federal Income Tax Generated (\$000)	1,661.0	7,315.0
<b>II. Timber Program Information</b>		
1. Volume Offered (MMBF) <sup>1</sup>	45.2	155.4
2. Volume Sold and Awarded (MMBF)	25.0	82.5
3. Volume Harvested (MMBF)		
Sawtimber	23.1	106.1
Roundwood	0.1	0.4
Firewood	7.4	24.4
Other	2.2	23.5
<b>Total Harvest Volume</b>	<b>32.8</b>	<b>154.5</b>
4. Total Area Harvested (acres)	2,896.0	30,200.0
5. Free Use Firewood (MMBF)	0.0	0.9
6. Nonconvertible Products		
Christmas Trees Cut (trees)	8,876.0	77,420.0
Other Products Removed (\$000)	11.0	56.0
7. Regeneration Treatment (acres)	6,677.0	26,153.0
8. Timber Stand Improvement (acres)	3,815.0	15,071.0
<b>III. Forest Road Information</b>		
1. Road Construction (miles)		
Appropriated Construction	0.0	0.0
Purchaser Credit Construction	8.0	18.0
<b>Total Construction</b>	<b>8.0</b>	<b>18.0</b>
2. Road Reconstruction (miles)		
Appropriated Reconstruction	0.0	0.0
Purchaser Credit Reconstruction	22.0	58.0
<b>Total Reconstruction</b>	<b>22.0</b>	<b>58.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 3 (Southwestern)**

Category Description	Arizona Apache/Sit	Arizona Coconino	Arizona Coronado	Arizona Kaibab	Arizona Prescott	Arizona Tonto
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	265.0	176.0	12.0	121.0	25.0	49.0
2. Employment-Related Income (\$000) <sup>1</sup>	7,528.0	5,116.0	387.0	3,612.0	748.0	1,529.0
3. Federal Income Tax Generated (\$000)	1,129.0	767.0	58.0	542.0	112.0	229.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	6.9	6.8	0.3	1.9	1.9	2.4
2. Volume Sold and Awarded (MMBF)	8.1	6.8	0.1	2.2	2.2	1.7
3. Volume Harvested (MMBF)						
Sawtimber	5.9	3.3	0.0	1.6	0.0	0.0
Roundwood	1.1	-0.1	0.0	0.4	0.0	0.0
Firewood	6.0	6.8	0.2	2.9	2.2	1.7
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Harvest Volume</b>	<b>13.0</b>	<b>10.0</b>	<b>0.2</b>	<b>5.0</b>	<b>2.2</b>	<b>1.7</b>
4. Total Area Harvested (acres)	2,622.0	1,306.0	0.0	0.0	195.0	0.0
5. Free Use Firewood (MMBF)	1.9	0.8	0.3	0.1	0.0	0.3
6. Nonconvertible Products						
Christmas Trees Cut (trees)	2,374.0	2,796.0	552.0	3,104.0	42.0	0.0
Other Products Removed (\$000)	6.0	3.0	3.0	3.0	1.0	1.0
7. Regeneration Treatment (acres)	2,026.0	1,793.0	0.0	3,428.0	30.0	377.0
8. Timber Stand Improvement (acres)	2,533.0	558.0	0.0	984.0	10.0	0.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 3 (Southwestern)**

Category Description	Arizona	New Mexico					
	Subtotal	Carson	Cibola	Gila	Lincoln	Santa Fe	
<b>I. Employment and Income Information</b>							
1. Timber-Related Employment (Jobs)	648.0	113.0	27.0	67.0	30.0		87.0
2. Employment-Related Income (\$000) <sup>1</sup>	18,920.0	3,213.0	804.0	2,081.0	945.0		2,612.0
3. Federal Income Tax Generated (\$000)	2,837.0	482.0	121.0	312.0	142.0		392.0
<b>II. Timber Program Information</b>							
1. Volume Offered (MMBF) <sup>1</sup>	20.3	1.5	3.1	3.9	1.2		4.4
2. Volume Sold and Awarded (MMBF)	21.2	1.4	3.2	1.9	1.2		4.5
3. Volume Harvested (MMBF)							
Sawtimber	10.8	1.2	0.0	0.2	0.2		0.4
Roundwood	1.4	0.3	0.1	0.1	0.4		0.7
Firewood	19.7	1.1	2.0	1.5	0.8		5.2
Other	0.0	0.0	0.0	0.0	0.0		0.0
<b>Total Harvest Volume</b>	<b>32.0</b>	<b>2.7</b>	<b>2.1</b>	<b>1.8</b>	<b>1.3</b>		<b>6.3</b>
4. Total Area Harvested (acres)	4,123.0	67.0	0.0	0.0	0.0		0.0
5. Free Use Firewood (MMBF)	3.5	10.0	0.0	0.4	0.1		0.4
6. Nonconvertible Products							
Christmas Trees Cut (trees)	8,868.0	2,333.0	1,843.0	2,397.0	3,268.0		8,872.0
Other Products Removed (\$000)	17.0	2.0	7.0	0.0	1.0		23.0
7. Regeneration Treatment (acres)	7,654.0	9,346.0	141.0	1,694.0	512.0		644.0
8. Timber Stand Improvement (acres)	4,085.0	384.0	0.0	0.0	161.0		1,071.0
<b>III. Forest Road Information</b>							
1. Road Construction (miles)							
Appropriated Construction	0.0	0.0	0.0	0.0	0.0		0.0
Purchaser Credit Construction	0.0	0.0	0.0	0.0	0.0		0.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>
2. Road Reconstruction (miles)							
Appropriated Reconstruction	0.0	4.0	0.0	0.0	0.0		0.0
Purchaser Credit Reconstruction	0.0	0.0	0.0	0.0	0.0		0.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>4.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 3 (Southwestern)**

Category Description	New Mexico Subtotal	Regional Total
<b>I. Employment and Income Information</b>		
1. Timber-Related Employment (Jobs)	324.0	972.0
2. Employment-Related Income (\$000) <sup>1</sup>	9,655.0	28,575.0
3. Federal Income Tax Generated (\$000)	1,449.0	4,286.0
<b>II. Timber Program Information</b>		
1. Volume Offered (MMBF) <sup>1</sup>	14.1	34.3
2. Volume Sold and Awarded (MMBF)	12.2	33.4
3. Volume Harvested (MMBF)		
Sawtimber	2.0	12.9
Roundwood	1.7	3.1
Firewood	10.6	30.3
Other	0.0	0.0
<b>Total Harvest Volume</b>	<b>14.3</b>	<b>46.3</b>
4. Total Area Harvested (acres)	67.0	4,190.0
5. Free Use Firewood (MMBF)	11.0	14.4
6. Nonconvertible Products		
Christmas Trees Cut (trees)	18,713.0	27,581.0
Other Products Removed (\$000)	33.0	50.0
7. Regeneration Treatment (acres)	12,337.0	19,991.0
8. Timber Stand Improvement (acres)	1,616.0	5,701.0
<b>III. Forest Road Information</b>		
1. Road Construction (miles)		
Appropriated Construction	0.0	0.0
Purchaser Credit Construction	0.0	0.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)		
Appropriated Reconstruction	4.0	4.0
Purchaser Credit Reconstruction	0.0	0.0
<b>Total Reconstruction</b>	<b>4.0</b>	<b>4.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 4 (Intermountain)**

Category Description	Idaho Boise	Idaho Caribou	Idaho Payette	Idaho Salmon/Chal	Idaho Sawtooth	Idaho Targhee
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	1,845.0	117.0	1,014.0	226.0	115.0	105.0
2. Employment-Related Income (\$000) <sup>1</sup>	88,373.0	5,450.0	47,995.0	9,511.0	5,588.0	3,787.0
3. Federal Income Tax Generated (\$000)	13,256.0	818.0	7,199.0	1,427.0	838.0	568.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	64.6	13.5	105.1	11.4	22.7	8.4
2. Volume Sold and Awarded (MMBF)	59.8	8.1	99.7	11.9	18.7	7.7
3. Volume Harvested (MMBF)						
Sawtimber	104.1	6.4	49.8	8.5	5.6	1.3
Roundwood	0.1	0.1	1.8	1.2	1.3	0.5
Firewood	8.1	2.2	4.0	2.8	5.0	3.8
Other	0.0	0.0	1.3	0.0	0.0	0.1
<b>Total Harvest Volume</b>	<b>112.4</b>	<b>8.8</b>	<b>56.9</b>	<b>12.5</b>	<b>11.9</b>	<b>5.7</b>
4. Total Area Harvested (acres)	8,630.0	837.0	4,736.0	2,864.0	360.0	410.0
5. Free Use Firewood (MMBF)	0.0	0.1	0.0	1.3	0.0	0.8
6. Nonconvertible Products						
Christmas Trees Cut (trees)	2,791.0	3,980.0	979.0	1,323.0	1,912.0	4,105.0
Other Products Removed (\$000)	2.0	0.0	0.0	0.0	1.0	1.0
7. Regeneration Treatment (acres)	6,979.0	260.0	3,250.0	2,652.0	422.0	3,400.0
8. Timber Stand Improvement (acres)	6,564.0	226.0	1,286.0	685.0	96.0	693.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	5.0	2.0	15.0	0.0	0.0	0.0
<b>Total Construction</b>	<b>5.0</b>	<b>2.0</b>	<b>15.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	2.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	61.0	8.0	76.0	6.0	0.0	0.0
<b>Total Reconstruction</b>	<b>63.0</b>	<b>8.0</b>	<b>76.0</b>	<b>6.0</b>	<b>0.0</b>	<b>0.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 4 (Intermountain)**

Category Description	Idaho Subtotal	Nevada Toiy/Humb	Utah Ashley	Utah Dixie	Utah Fishlake	Utah Manti/LaSal
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	3,422.0	42.0	187.0	263.0	56.0	81.0
2. Employment-Related Income (\$000) <sup>1</sup>	160,704.0	1,634.0	8,568.0	12,131.0	2,573.0	3,759.0
3. Federal Income Tax Generated (\$000)	24,106.0	245.0	1,285.0	1,820.0	386.0	564.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	225.7	12.7	19.5	27.5	4.0	12.2
2. Volume Sold and Awarded (MMBF)	206.0	2.3	15.5	24.8	2.7	4.2
3. Volume Harvested (MMBF)	175.7	0.0	7.7	15.2	2.6	3.3
Sawtimber	5.1	0.0	1.9	0.1	0.1	0.0
Roundwood	25.9	2.6	3.3	2.2	0.8	1.1
Firewood	1.5	0.0	0.2	0.0	0.0	0.0
Other	<b>208.2</b>	<b>2.6</b>	<b>13.0</b>	<b>17.5</b>	<b>3.4</b>	<b>4.4</b>
4. Total Area Harvested (acres)	17,837.0	0.0	1,009.0	17,619.0	359.0	656.0
5. Free Use Firewood (MMBF)	2.1	0.0	0.4	0.4	0.0	0.0
6. Nonconvertible Products	15,090.0	4,067.0	4,087.0	6,269.0	7,130.0	2,406.0
Christmas Trees Cut (trees)	6.0	1.0	1.0	1.0	0.0	2.0
Other Products Removed (\$000)	16,963.0	0.0	8,918.0	2,650.0	108.0	91.0
7. Regeneration Treatment (acres)	9,550.0	0.0	500.0	3,396.0	321.0	127.0
8. Timber Stand Improvement (acres)						
<b>III. Forest Road Information</b>						
1. Road Construction (miles)	0.0	0.0	0.0	0.0	0.0	0.0
Appropriated Construction	21.0	0.0	0.0	9.0	0.0	0.0
Purchaser Credit Construction	<b>21.0</b>	<b>0.0</b>	<b>0.0</b>	<b>9.0</b>	<b>0.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)	2.0	0.0	0.0	0.0	0.0	0.0
Appropriated Reconstruction	151.0	0.0	0.0	24.0	0.0	3.0
Purchaser Credit Reconstruction	<b>153.0</b>	<b>0.0</b>	<b>0.0</b>	<b>24.0</b>	<b>0.0</b>	<b>3.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 4 (Intermountain)**

Category Description	Utah Uinta	Utah Wasat/Cache	Utah Subtotal	Wyoming Bri/Teton <sup>2</sup>	Regional Totals
<b>I. Employment and Income Information</b>					
1. Timber-Related Employment (Jobs)	39.0	103.0	729.0	96.0	4,289.0
2. Employment-Related Income (\$000) <sup>1</sup>	1,718.0	4,527.0	33,276.0	3,991.0	199,605.0
3. Federal Income Tax Generated (\$000)	258.0	679.0	4,992.0	599.0	29,942.0
<b>II. Timber Program Information</b>					
1. Volume Offered (MMBF) <sup>1</sup>	1.6	11.4	76.2	9.3	323.8
2. Volume Sold and Awarded (MMBF)	1.6	1.7	50.7	11.2	270.2
3. Volume Harvested (MMBF)					
Sawtimber	1.8	4.0	34.6	3.9	214.3
Roundwood	0.0	0.7	2.8	0.2	8.1
Firewood	0.4	1.0	8.8	3.6	40.9
Other	0.0	0.0	0.2	0.1	1.8
<b>Total Harvest Volume</b>	<b>2.3</b>	<b>5.7</b>	<b>46.4</b>	<b>7.8</b>	<b>265.0</b>
4. Total Area Harvested (acres)	205.0	229.0	20,077.0	0.0	37,914.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.8	0.1	3.1
6. Nonconvertible Products					
Christmas Trees Cut (trees)	1,501.0	1,647.0	23,040.0	2,411.0	44,608.0
Other Products Removed (\$000)	2.0	1.0	5.0	2.0	14.0
7. Regeneration Treatment (acres)	180.0	229.0	12,176.0	166.0	29,305.0
8. Timber Stand Improvement (acres)	110.0	700.0	5,154.0	0.0	14,704.0
<b>III. Forest Road Information</b>					
1. Road Construction (miles)					
Appropriated Construction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	3.0	12.0	0.0	33.0
<b>Total Construction</b>	<b>0.0</b>	<b>3.0</b>	<b>12.0</b>	<b>0.0</b>	<b>33.0</b>
2. Road Reconstruction (miles)					
Appropriated Reconstruction	0.0	0.0	0.0	0.0	2.0
Purchaser Credit Reconstruction	4.0	0.0	31.0	13.0	196.0
<b>Total Reconstruction</b>	<b>4.0</b>	<b>0.0</b>	<b>31.0</b>	<b>13.0</b>	<b>198.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 5 (Pacific Southwest)**

Category Description	California Angeles	California Cleveland	California Eldorado	California Inyo	California Klamath	California Lassen
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	10.0	10.0	200.0	50.0	510.0	1,020.0
2. Employment-Related Income (\$000) <sup>1</sup>	470.0	470.0	9,400.0	2,350.0	23,970.0	47,940.0
3. Federal Income Tax Generated (\$000)	70.0	70.0	1,410.0	350.0	3,600.0	7,190.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	0.4	0.2	40.3	5.8	54.6	97.0
2. Volume Sold and Awarded (MMBF)	0.3	0.2	13.8	3.9	39.6	74.6
3. Volume Harvested (MMBF)						
Sawtimber	0.0	0.0	11.9	3.1	33.3	37.7
Roundwood	0.0	0.0	0.0	0.0	0.1	0.2
Firewood	0.3	0.2	4.9	5.8	2.8	9.2
Other	0.0	0.0	3.6	0.0	8.7	46.0
<b>Total Harvest Volume</b>	<b>0.3</b>	<b>0.2</b>	<b>20.4</b>	<b>8.9</b>	<b>44.9</b>	<b>93.0</b>
4. Total Area Harvested (acres)	163.0	0.0	589.0	2,020.0	3,529.0	0.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	0.0	0.0	200.0	20.0	9,548.0	9,931.0
Other Products Removed (\$000)	4.0	1.0	1.0	0.0	14.0	1.0
7. Regeneration Treatment (acres)	268.0	0.0	3,180.0	154.0	3,170.0	1,817.0
8. Timber Stand Improvement (acres)	453.0	0.0	5,128.0	546.0	5,077.0	10,676.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	0.0	0.0	0.0	1.0	3.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	0.0	0.0	15.0	0.0
Purchaser Credit Reconstruction	0.0	0.0	2.0	0.0	58.0	13.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>	<b>0.0</b>	<b>73.0</b>	<b>13.0</b>

<sup>1</sup>“\$000” = thousands of dollars, and “MMBF” = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 5 (Pacific Southwest)**

Category Description	California Los Padres	California Mendocino	California Modoc	California Six Rivers	California Plumas	California San Bernardino
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	10.0	70.0	680.0	280.0	440.0	20.0
2. Employment-Related Income (\$000) <sup>1</sup>	470.0	3,290.0	31,960.0	13,160.0	20,680.0	940.0
3. Federal Income Tax Generated (\$000)	70.0	490.0	4,790.0	1,970.0	3,100.0	140.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	0.3	14.7	58.1	33.7.0	65.0	1.8
2. Volume Sold and Awarded (MMBF)	0.4	7.2	43.4	10.0.0	44.5	1.8
3. Volume Harvested (MMBF)						
Sawtimber	0.0	5.3	6.9	20.6	26.6	0.0
Roundwood	0.0	0.0	0.0	0.0	0.0	0.0
Firewood	0.5	0.7	2.4	1.8	5.7	1.6
Other	0.0	0.3	49.3	2.4	9.5	0.1
<b>Total Harvest Volume</b>	<b>0.5</b>	<b>6.4</b>	<b>58.6</b>	<b>24.8</b>	<b>41.8</b>	<b>1.6</b>
4. Total Area Harvested (acres)	0.0	7.0	1,901.0	0.0	4,209.0	0.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	0.0	1,924.0	895.0	3,738.0	8,375.0	0.0
Other Products Removed (\$000)	0.0	1.0	4.0	9.0	1.0	3.0
7. Regeneration Treatment (acres)	81.0	1,111.0	917.0	1,030.0	2,858.0	60.0
8. Timber Stand Improvement (acres)	110.0	3,206.0	1,368.0	4,187.0	2,354.0	127.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	0.0	1.0	5.0	3.0	0.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>5.0</b>	<b>3.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	1.0	0.0	20.0	0.0	0.0
Purchaser Credit Reconstruction	0.0	12.0	6.0	0.0	22.0	0.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>13.0</b>	<b>6.0</b>	<b>20.0</b>	<b>22.0</b>	<b>0.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 5 (Pacific Southwest)**

Category Description	California Sequoia	California Shasta Trin	California Sierra	California Stanislaus	California Tahoe
<b>I. Employment and Income Information</b>					
1. Timber-Related Employment (Jobs)	170.0	560.0	540.0	340.0	920.0
2. Employment-Related Income (\$000) <sup>1</sup>	7,990.0	26,320.0	25,380.0	15,980.0	43,240.0
3. Federal Income Tax Generated (\$000)	1,200.0	3,950.0	3,810.0	2,400.0	6,490.0
<b>II. Timber Program Information</b>					
1. Volume Offered (MMBF) <sup>1</sup>	15.2	65.9	34.6	34.8	85.1
2. Volume Sold and Awarded (MMBF)	10.0	52.7	19.1	39.8	41.6
3. Volume Harvested (MMBF)					
Sawtimber	11.8	24.5	39.5	19.4	81.0
Roundwood	0.0	0.0	0.0	0.0	0.0
Firewood	2.7	4.3	4.9	5.5	3.2
Other	2.2	21.5	4.6	7.7	-4.5
<b>Total Harvest Volume</b>	<b>16.7</b>	<b>50.3</b>	<b>49.0</b>	<b>32.6</b>	<b>79.7</b>
4. Total Area Harvested (acres)	360.0	5,972.0	2,204.0	3,734.0	11,266.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products					
Christmas Trees Cut (trees)	0.0	6,981.0	5,155.0	0.0	5,251.0
Other Products Removed (\$000)	0.0	3.0	0.0	0.0	0.0
7. Regeneration Treatment (acres)	1,007.0	2,052.0	3,026.0	2,505.0	6,981.0
8. Timber Stand Improvement (acres)	2,523.0	8,875.0	3,698.0	7,205.0	8,225.0
<b>III. Forest Road Information</b>					
1. Road Construction (miles)					
Appropriated Construction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	1.0	3.0	0.0	4.0	3.0
<b>Total Construction</b>	<b>1.0</b>	<b>3.0</b>	<b>0.0</b>	<b>4.0</b>	<b>3.0</b>
2. Road Reconstruction (miles)					
Appropriated Reconstruction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	28.0	26.0	50.0	29.0	45.0
<b>Total Reconstruction</b>	<b>28.0</b>	<b>26.0</b>	<b>50.0</b>	<b>29.0</b>	<b>45.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 5 (Pacific Southwest)**

Category Description	California BMU Lake Tahoe	Regional Total <sup>2</sup>
<b>I. Employment and Income Information</b>		
1. Timber-Related Employment (Jobs)	220.0	6,050.0
2. Employment-Related Income (\$000) <sup>1</sup>	10,340.0	284,350.0
3. Federal Income Tax Generated (\$000)	1,550.0	42,650.0
<b>II. Timber Program Information</b>		
1. Volume Offered (MMBF) <sup>1</sup>	2.8	610.2
2. Volume Sold and Awarded (MMBF)	6.4	409.4
3. Volume Harvested (MMBF)		
Sawtimber	13.6	335.0
Roundwood	0.1	0.5
Firewood	0.4	57.0
Other	4.4	155.8
<b>Total Harvest Volume</b>	<b>18.4</b>	<b>548.2</b>
4. Total Area Harvested (acres)		41,791.0
5. Free Use Firewood (MMBF)	5,837.0	0.0
6. Nonconvertible Products		
Christmas Trees Cut (trees)	0.0	52,018.0
Other Products Removed (\$000)	0.0	45.0
7. Regeneration Treatment (acres)	104.0	30,321.0
8. Timber Stand Improvement (acres)	263.0	64,021.0
<b>III. Forest Road Information</b>		
1. Road Construction (miles)		
Appropriated Construction	0.0	0.0
Purchaser Credit Construction	0.0	26.0
<b>Total Construction</b>	<b>0.0</b>	<b>26.0</b>
2. Road Reconstruction (miles)		
Appropriated Reconstruction	0.0	35.0
Purchaser Credit Reconstruction	0.0	292.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>327.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Regional totals also represent State totals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 6 (Pacific Northwest)**

Category Description	Oregon Deschutes	Oregon Fremont	Oregon Malhuer	Oregon Mt. Hood	Oregon Ochoco	Oregon Rogue River
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	731.0	317.0	476.0	513.0	368.0	307.0
2. Employment-Related Income (\$000) <sup>1</sup>	20,545.0	8,862.0	12,920.0	17,151.0	10,367.0	8,307.0
3. Federal Income Tax Generated (\$000)	3,082.0	1,329.0	1,938.0	2,573.0	1,555.0	1,246.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	100.7	34.6	80.9	63.6	38.9	26.6
2. Volume Sold and Awarded (MMBF)	90.0	32.3	49.5	48.4	29.8	22.2
3. Volume Harvested (MMBF)						
Sawtimber	26.9	12.0	32.4	21.9	14.1	17.3
Roundwood	-27.6	11.4	3.6	0.0	-0.6	0.0
Firewood	13.2	2.6	3.1	2.6	2.7	0.6
Other	46.2	1.8	7.9	2.5	3.8	2.4
<b>Total Harvest Volume</b>	<b>58.7</b>	<b>27.8</b>	<b>47.0</b>	<b>27.0</b>	<b>20.1</b>	<b>20.4</b>
4. Total Area Harvested (acres)	7,172.0	6,097.0	5,948.0	1,685.0	6,145.0	15,685.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	7,578.0	1,482.0	1,037.0	2,461.0	739.0	7,238.0
Other Products Removed (\$000)	93.0	8.0	2.0	189.0	2.0	5.0
7. Regeneration Treatment (acres)	9,542.0	3,762.0	11,681.0	4,758.0	5,056.0	2,164.0
8. Timber Stand Improvement (acres)	5,720.0	3,548.0	10,917.0	5,094.0	4,789.0	2,079.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	11.0	4.0	1.0	2.0	3.0
<b>Total Construction</b>	<b>0.0</b>	<b>11.0</b>	<b>4.0</b>	<b>1.0</b>	<b>2.0</b>	<b>3.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	9.0	2.0	11.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	1.0	14.0	35.0	134.0	16.0	3.0
<b>Total Reconstruction</b>	<b>10.0</b>	<b>16.0</b>	<b>45.0</b>	<b>134.0</b>	<b>16.0</b>	<b>3.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 6 (Pacific Northwest)**

Category Description	Oregon Siskiyou	Oregon Siuslaw	Oregon Umatilla	Oregon Umpqua	Oregon Walla/Wa/Whit	Oregon Willamette
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	900.0	404.0	533.0	953.0	391.0	866.0
2. Employment-Related Income (\$000) <sup>1</sup>	24,325.0	13,233.0	14,436.0	26,384.0	10,596.0	26,900.0
3. Federal Income Tax Generated (\$000)	3,649.0	1,985.0	2,165.0	3,958.0	1,589.0	4,035.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	28.4	28.3	44.7	48.0	53.1	89.8
2. Volume Sold and Awarded (MMBF)	46.4	26.4	36.2	58.4	59.8	124.5
3. Volume Harvested (MMBF)						
Sawtimber	51.7	19.2	36.0	52.9	24.7	47.3
Roundwood	0.4	0.0	2.1	0.1	-4.3	0.0
Firewood	0.8	0.9	7.3	0.8	8.5	1.1
Other	3.6	0.9	8.2	12.6	16.5	7.8
<b>Total Harvest Volume</b>	<b>56.5</b>	<b>21.0</b>	<b>53.7</b>	<b>66.4</b>	<b>45.3</b>	<b>56.2</b>
4. Total Area Harvested (acres)	1,177.0	256.0	4,381.0	1,860.0	4,237.0	2,131.0
5. Free Use Firewood (MMBF)	0.0	0.1	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	2,427.0	754.0	2,764.0	2,837.0	2,545.0	6,121.0
Other Products Removed (\$000)	133.0	145.0	18.0	25.0	19.0	101.0
7. Regeneration Treatment (acres)	963.0	332.0	8,776.0	2,421.0	13,481.0	3,986.0
8. Timber Stand Improvement (acres)	3,363.0	4,810.0	4,330.0	1,478.0	5,379.0	12,695.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	7.0	0.0	0.0	6.0	0.0	7.0
<b>Total Construction</b>	<b>7.0</b>	<b>0.0</b>	<b>0.0</b>	<b>6.0</b>	<b>0.0</b>	<b>7.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	0.0	0.0	6.0	0.0
Purchaser Credit Reconstruction	89.0	24.0	1.0	29.0	19.0	92.0
<b>Total Reconstruction</b>	<b>89.0</b>	<b>24.0</b>	<b>1.0</b>	<b>29.0</b>	<b>24.0</b>	<b>92.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 6 (Pacific Northwest)**

Category Description	Oregon Winema	Oregon Subtotal	Washington Giff Pinchot	Washington Mt. Baker/Sno	Washington Okanogan	Washington Olympic
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	772.0	7,531.0	147.0	401.0	326.0	301.0
2. Employment-Related Income (\$000) <sup>1</sup>	21,350.0	215,376.0	4,398.0	13,398.0	9,164.0	9,204.0
3. Federal Income Tax Generated (\$000)	3,203.0	32,307.0	660.0	2,010.0	1,375.0	1,381.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	37.7	675.3	59.8	10.1	11.0	11.0
2. Volume Sold and Awarded (MMBF)	73.0	696.8	48.8	27.8	18.7	18.1
3. Volume Harvested (MMBF)						
Sawtimber	35.3	391.8	7.9	8.4	16.0	15.6
Roundwood	5.0	-9.8	0.0	16.3	1.7	0.3
Firewood	3.0	47.2	2.8	1.1	1.7	1.1
Other	24.7	138.8	0.5	2.1	4.1	0.7
<b>Total Harvest Volume</b>	<b>68.0</b>	<b>568.0</b>	<b>11.3</b>	<b>27.8</b>	<b>23.5</b>	<b>17.7</b>
4. Total Area Harvested (acres)	21,609.0	78,383.0	90.0	40.0	2,801.0	817.0
5. Free Use Firewood (MMBF)	0.0	0.1	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	3,171.0	41,154.0	3,479.0	6,895.0	1,121.0	1,435.0
Other Products Removed (\$000)	260.0	1,000.0	383.0	4.0	0.0	56.0
7. Regeneration Treatment (acres)	5,821.0	72,743.0	1,801.0	658.0	4,762.0	90.0
8. Timber Stand Improvement (acres)	8,930.0	73,132.0	3,123.0	942.0	3,861.0	1,497.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	40.0	3.0	1.0	2.0	0.0
<b>Total Construction</b>	<b>0.0</b>	<b>40.0</b>	<b>3.0</b>	<b>1.0</b>	<b>2.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	27.0	0.0	2.0	0.0	0.0
Purchaser Credit Reconstruction	3.0	459.0	15.0	15.0	2.0	0.0
<b>Total Reconstruction</b>	<b>3.0</b>	<b>486.0</b>	<b>15.0</b>	<b>17.0</b>	<b>2.0</b>	<b>0.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 6 (Pacific Northwest)**

Category Description	Washington Wenatchee	Washington Colville	Washington Subtotal	Regional Total
<b>I. Employment and Income Information</b>				
1. Timber-Related Employment (Jobs)	1,147.0	765.0	3,087.0	10,618.0
2. Employment-Related Income (\$000) <sup>1</sup>	32,975.0	20,558.0	89,697.0	305,073.0
3. Federal Income Tax Generated (\$000)	4,946.0	3,084.0	13,456.0	45,763.0
<b>II. Timber Program Information</b>				
1. Volume Offered (MMBF) <sup>1</sup>	92.5	48.1	232.5	907.7
2. Volume Sold and Awarded (MMBF)	80.5	48.7	242.6	939.4
3. Volume Harvested (MMBF)				
Sawtimber	59.2	28.6	135.7	527.5
Roundwood	3.5	0.9	22.7	12.9
Firewood	4.1	3.5	14.3	61.5
Other	24.9	2.7	35.0	173.8
<b>Total Harvest Volume</b>	<b>91.7</b>	<b>35.7</b>	<b>207.7</b>	<b>775.7</b>
4. Total Area Harvested (acres)	13,569.0	3,452.0	20,769.0	99,152.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.1
6. Nonconvertible Products				
Christmas Trees Cut (trees)	7,376.0	1,027.0	21,333.0	62,487.0
Other Products Removed (\$000)	33.0	1.0	479.0	1,479.0
7. Regeneration Treatment (acres)	14,464.0	4,326.0	26,101.0	98,844.0
8. Timber Stand Improvement (acres)	1,274.0	1,785.0	12,482.0	85,614.0
<b>III. Forest Road Information</b>				
1. Road Construction (miles)				
Appropriated Construction	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	37.0	42.0	82.0
<b>Total Construction</b>	<b>0.0</b>	<b>37.0</b>	<b>42.0</b>	<b>82.0</b>
2. Road Reconstruction (miles)				
Appropriated Reconstruction	5.0	0.0	7.0	34.0
Purchaser Credit Reconstruction	0.0	64.0	96.0	555.0
<b>Total Reconstruction</b>	<b>5.0</b>	<b>64.0</b>	<b>103.0</b>	<b>589.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 8 (Southern)**

Category Description	Alabama NFS in AL <sup>2</sup>	AR/OK Ouachita	AR Ozark/St Fra	AR/OK Subtotal	Florida NFS in FL <sup>2</sup>	Georgia Chat/Ocon <sup>2</sup>
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	1,218.0	3,610.0	1,070.0	4,680.0	469.0	509.0
2. Employment-Related Income (\$000) <sup>1</sup>	39,023.0	121,020.0	25,628.0	146,648.0	14,467.0	17,177.0
3. Federal Income Tax Generated (\$000)	5,853.0	18,150.0	3,844.0	21,994.0	2,170.0	2,577.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	55.9	137.6	56.0	193.6	48.2	51.0
2. Volume Sold and Awarded (MMBF)	47.9	134.8	49.7	184.4	48.8	34.9
3. Volume Harvested (MMBF)						
Sawtimber	39.2	104.1	28.4	132.5	3.1	27.8
Roundwood	25.4	47.6	17.0	64.6	32.4	11.6
Firewood	0.5	0.5	0.6	1.1	0.3	0.6
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Harvest Volume</b>	<b>65.0</b>	<b>152.1</b>	<b>46.0</b>	<b>198.2</b>	<b>35.8</b>	<b>40.0</b>
4. Total Area Harvested (acres)	23,647.0	24,944.0	8,928.0	33,872.0	5,702.0	6,871.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	0.0	0.0	0.0	0.0	289.0	0.0
Other Products Removed (\$000)	1.0	0.0	15.0	16.0	20.0	1.0
7. Regeneration Treatment (acres)	3,969.0	12,898.0	3,213.0	16,111.0	5,903.0	2,477.0
8. Timber Stand Improvement (acres)	4,546.0	4,999.0	2,046.0	7,045.0	728.0	3,585.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	13.0	3.0	17.0	0.0	0.0
<b>Total Construction</b>	<b>0.0</b>	<b>13.0</b>	<b>3.0</b>	<b>17.0</b>	<b>0.0</b>	<b>0.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	9.0	9.0	10.0	0.0
Purchaser Credit Reconstruction	2.0	32.0	25.0	58.0	13.0	12.0
<b>Total Reconstruction</b>	<b>2.0</b>	<b>32.0</b>	<b>34.0</b>	<b>67.0</b>	<b>22.0</b>	<b>12.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 8 (Southern)**

Category Description	Kentucky Dan Boone <sup>2</sup>	Louisiana Kisatchie <sup>2</sup>	Mississippi NFS in MS <sup>2</sup>	N. Carolina NFS in NC <sup>2</sup>	S. Carolina Mar/Sumt <sup>2</sup>	Tennessee Cherokee <sup>2</sup>
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	490.0	980.0	2,318.0	687.0	541.0	593.0
2. Employment-Related Income (\$000) <sup>1</sup>	14,336.0	39,881.0	44,124.0	18,684.0	12,900.0	18,370.0
3. Federal Income Tax Generated (\$000)	2,150.0	5,982.0	6,618.0	2,803.0	1,935.0	2,756.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	19.2	51.8	136.5	30.4	41.6	19.4
2. Volume Sold and Awarded (MMBF)	22.8	52.0	112.7	23.5	43.3	12.6
3. Volume Harvested (MMBF)						
Sawtimber	16.3	28.1	121.0	16.5	15.2	6.8
Roundwood	2.4	44.0	89.0	13.0	21.8	3.9
Firewood	1.0	0.2	0.3	1.1	0.3	0.8
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Harvest Volume</b>	<b>19.8</b>	<b>72.4</b>	<b>210.3</b>	<b>30.6</b>	<b>37.3</b>	<b>11.6</b>
4. Total Area Harvested (acres)	156.0	14,668.0	18,301.0	3,005.0	5,901.0	806.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0	0.0	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	0.0	0.0	0.0	0.0	0.0	734.0
Other Products Removed (\$000)	3.0	0.0	2.0	112.0	15.0	12.0
7. Regeneration Treatment (acres)	2,757.0	1,984.0	8,129.0	3,391.0	3,050.0	1,773.0
8. Timber Stand Improvement (acres)	854.0	2,795.0	1,775.0	3,781.0	7,299.0	1,102.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	13.0	1.0	1.0	4.0	1.0	3.0
<b>Total Construction</b>	<b>13.0</b>	<b>1.0</b>	<b>1.0</b>	<b>4.0</b>	<b>1.0</b>	<b>3.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	6.0	0.0	6.0	6.0	0.0	1.0
Purchaser Credit Reconstruction	18.0	79.0	90.0	25.0	39.0	1.0
<b>Total Reconstruction</b>	<b>23.0</b>	<b>79.0</b>	<b>96.0</b>	<b>31.0</b>	<b>39.0</b>	<b>2.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 8 (Southern)**

Category Description	Texas NFS in TX <sup>2</sup>	Virginia GW/Jeff. <sup>2</sup>	Puerto Rico Caribbean <sup>2</sup>	Regional Totals
<b>I. Employment and Income Information</b>				
1. Timber-Related Employment (Jobs)	2,161.0	838.0	0.0	15,484.0
2. Employment-Related Income (\$000) <sup>1</sup>	77,443.0	24,794.0	0.0	467,847.0
3. Federal Income Tax Generated (\$000)	11,616.0	3,719.0	0.0	70,173.0
<b>II. Timber Program Information</b>				
1. Volume Offered (MMBF) <sup>1</sup>	61.3	34.3		743.2
2. Volume Sold and Awarded (MMBF)	62.6	32.7		678.2
3. Volume Harvested (MMBF)				
Sawtimber	53.4	16.1		475.9
Roundwood	35.4	17.0		360.6
Firewood	0.1	4.5		10.8
Other	0.0	0.0	0.0	0.0
<b>Total Harvest Volume</b>	<b>89.0</b>	<b>37.6</b>		<b>847.4</b>
4. Total Area Harvested (acres)	10,519.0	3,182.0		126,630.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.0
6. Nonconvertible Products				
Christmas Trees Cut (trees)	0.0	0.0		1,023.0
Other Products Removed (\$000)	0.0	7.0		187.0
7. Regeneration Treatment (acres)	1,156.0	3,464.0		54,164.0
8. Timber Stand Improvement (acres)	1,685.0	2,225.0		37,420.0
<b>III. Forest Road Information</b>				
1. Road Construction (miles)				
Appropriated Construction	0.0	0.0	0.0	0.0
Purchaser Credit Construction	5.0	7.0	0.0	52.0
<b>Total Construction</b>	<b>5.0</b>	<b>7.0</b>	<b>0.0</b>	<b>52.0</b>
2. Road Reconstruction (miles)				
Appropriated Reconstruction	5.0	1.0	0.0	42.0
Purchaser Credit Reconstruction	70.0	9.0	0.0	414.0
<b>Total Reconstruction</b>	<b>74.0</b>	<b>9.0</b>	<b>0.0</b>	<b>456.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 9 (Eastern)**

Category Description	Region 9 (Eastern)					Michigan Hiawatha
	Illinois Shawnee <sup>2</sup>	Indiana Hoosier <sup>2</sup>	Ohio Wayne <sup>2</sup>	Michigan Huron/Manist	Michigan Ottawa	
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	21.0	4.0	13.0	416.0	581.0	443.0
2. Employment-Related Income (\$000) <sup>1</sup>	867.0	217.0	592.0	23,066.0	28,707.0	29,717.0
3. Federal Income Tax Generated (\$000)	130.0	33.0	89.0	3,460.0	4,306.0	4,458.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	0.1	2.0	0.1	64.6	55.9	50.5
2. Volume Sold and Awarded (MMBF)	0.1	0.2	0.1	63.4	50.9	43.1
3. Volume Harvested (MMBF)						
Sawtimber	0.8	0.1	0.0	11.0	7.8	7.4
Roundwood	0.3	0.0	0.0	40.1	57.6	50.8
Firewood	0.1	0.0	0.1	0.8	0.0	0.1
Other	0.0	0.0	0.0	1.3	0.0	0.0
<b>Total Harvest Volume</b>	<b>1.2</b>	<b>0.2</b>	<b>0.1</b>	<b>53.2</b>	<b>65.5</b>	<b>58.3</b>
4. Total Area Harvested (acres)	52.0	0.0	0.0	6,679.0	10,755.0	12,813.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0	0.3	1.5	0.2
6. Nonconvertible Products						
Christmas Trees Cut (trees)	0.0	0.0	0.0	309.0	355.0	192.0
Other Products Removed (\$000)	0.0	0.0	0.0	0.0	4.0	5.0
7. Regeneration Treatment (acres)	199.0	0.0	99.0	3,757.0	6,743.0	8,133.0
8. Timber Stand Improvement (acres)	300.0	0.0	48.0	121.0	400.0	1,354.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	0.0	0.0	0.0	1.0	1.0	4.0
<b>Total Construction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>1.0</b>	<b>4.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	0.0	0.0	0.0	3.0	0.0	3.0
Purchaser Credit Reconstruction	0.0	0.0	0.0	4.0	0.0	15.0
<b>Total Reconstruction</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7.0</b>	<b>0.0</b>	<b>18.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 9 (Eastern)**

Category Description	Michigan Subtotals	Minnesota Chippewa	Minnesota Superior	Minnesota Subtotal	Missouri Mtk Twain <sup>2</sup>	New Hamp White Mtn <sup>2</sup>
<b>I. Employment and Income Information</b>						
1. Timber-Related Employment (Jobs)	1,440.0	486.0	935.0	1,421.0	789.0	386.0
2. Employment-Related Income (\$000) <sup>1</sup>	81,490.0	31,033.0	57,823.0	88,856.0	26,277.0	21,005.0
3. Federal Income Tax Generated (\$000)	12,224.0	4,655.0	8,673.0	13,328.0	3,942.0	3,151.0
<b>II. Timber Program Information</b>						
1. Volume Offered (MMBF) <sup>1</sup>	171.1	63.4	81.7	145.0	57.2	22.2
2. Volume Sold and Awarded (MMBF)	157.4	57.6	58.0	115.6	58.2	18.2
3. Volume Harvested (MMBF)						
Sawtimber	26.2	11.6	8.7	20.3	36.0	6.3
Roundwood	148.5	50.8	85.9	136.7	3.5	12.0
Firewood	0.9	0.0	0.0	0.0	8.5	0.1
Other	1.3	0.0	0.0	0.0	0.3	0.1
<b>Total Harvest Volume</b>	<b>176.9</b>	<b>62.3</b>	<b>94.7</b>	<b>157.0</b>	<b>48.2</b>	<b>18.5</b>
4. Total Area Harvested (acres)	30,247.0	6,306.0	8,938.0	15,244.0	16,771.0	2,541.0
5. Free Use Firewood (MMBF)	2.0	0.9	0.4	1.3	1.7	0.0
6. Nonconvertible Products						
Christmas Trees Cut (trees)	856.0	767.0	399.0	1,166.0	0.0	273.0
Other Products Removed (\$000)	9.0	3.0	2.0	5.0	0.0	1.0
7. Regeneration Treatment (acres)	18,633.0	4,618.0	9,945.0	14,563.0	8,097.0	1,817.0
8. Timber Stand Improvement (acres)	1,875.0	1,819.0	753.0	2,572.0	7,038.0	0.0
<b>III. Forest Road Information</b>						
1. Road Construction (miles)						
Appropriated Construction	0.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	6.0	2.0	2.0	4.0	0.0	1.0
<b>Total Construction</b>	<b>6.0</b>	<b>2.0</b>	<b>2.0</b>	<b>4.0</b>	<b>0.0</b>	<b>1.0</b>
2. Road Reconstruction (miles)						
Appropriated Reconstruction	6.0	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	19.0	1.0	0.0	1.0	53.0	3.0
<b>Total Reconstruction</b>	<b>25.0</b>	<b>1.0</b>	<b>0.0</b>	<b>1.0</b>	<b>53.0</b>	<b>3.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 9 (Eastern)**

Category Description	Pennsylvania Allegheny <sup>2</sup>	Vermont Green Mtn <sup>2</sup>	Wisconsin Chequamegon	Wisconsin Nicolet	Wisconsin Subtotals
<b>I. Employment and Income Information</b>					
1. Timber-Related Employment (Jobs)	789.0	76.0	979.0	807.0	1,786.0
2. Employment-Related Income (\$000) <sup>1</sup>	48,616.0	3,339.0	58,214.0	47,679.0	105,893.0
3. Federal Income Tax Generated (\$000)	7,292.0	501.0	8,732.0	7,152.0	15,884.0
<b>II. Timber Program Information</b>					
1. Volume Offered (MMBF) <sup>1</sup>	53.4	2.1	70.4	38.2	108.6
2. Volume Sold and Awarded (MMBF)	54.3	2.2	72.8	38.2	111.0
3. Volume Harvested (MMBF)					
Sawtimber	31.6	3.2	6.7	6.1	12.8
Roundwood	27.2	2.3	61.4	50.2	111.5
Firewood	0.8	0.1	0.3	0.9	1.2
Other	0.0	0.0	0.0	0.0	0.0
<b>Total Harvest Volume</b>	<b>59.6</b>	<b>5.6</b>	<b>68.3</b>	<b>57.2</b>	<b>125.5</b>
4. Total Area Harvested (acres)	6,043.0	1,422.0	9,275.0	10,022.0	19,297.0
5. Free Use Firewood (MMBF)	0.0	0.1	0.0	0.0	0.0
6. Nonconvertible Products					
Christmas Trees Cut (trees)	0.0	302.0	467.0	1,674.0	2,141.0
Other Products Removed (\$000)	0.0	3.0	12.0	5.0	17.0
7. Regeneration Treatment (acres)	5,467.0	751.0	3,764.0	2,473.0	6,237.0
8. Timber Stand Improvement (acres)	261.0	156.0	556.0	534.0	1,090.0
<b>III. Forest Road Information</b>					
1. Road Construction (miles)					
Appropriated Construction	0.0	0.0	0.0	0.0	0.0
Purchaser Credit Construction	2.0	0.0	2.0	2.0	4.0
<b>Total Construction</b>	<b>2.0</b>	<b>0.0</b>	<b>2.0</b>	<b>2.0</b>	<b>4.0</b>
2. Road Reconstruction (miles)					
Appropriated Reconstruction	1.0	0.0	0.0	0.0	0.0
Purchaser Credit Reconstruction	63.0	0.0	2.0	6.0	8.0
<b>Total Reconstruction</b>	<b>64.0</b>	<b>0.0</b>	<b>2.0</b>	<b>6.0</b>	<b>8.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 9 (Eastern)**

Category Description	W. Virginia Monongahela	Regional Totals
<b>I. Employment and Income Information</b>		
1. Timber-Related Employment (Jobs)	317.0	7,042.0
2. Employment-Related Income (\$000) <sup>1</sup>	11,177.0	388,329.0
3. Federal Income Tax Generated (\$000)	1,677.0	58,251.0
<b>II. Timber Program Information</b>		
1. Volume Offered (MMBF) <sup>1</sup>	15.2	577.0
2. Volume Sold and Awarded (MMBF)	12.2	529.6
3. Volume Harvested (MMBF)		
Sawtimber	22.5	159.7
Roundwood	5.5	447.5
Firewood	0.3	12.2
Other	0.0	1.8
<b>Total Harvest Volume</b>	<b>28.3</b>	<b>621.2</b>
4. Total Area Harvested (acres)	3,313.0	94,930.0
5. Free Use Firewood (MMBF)	0.0	5.1
6. Nonconvertible Products		
Christmas Trees Cut (trees)	20.0	4,758.0
Other Products Removed (\$000)	2.0	36.0
7. Regeneration Treatment (acres)	1,359.0	57,222.0
8. Timber Stand Improvement (acres)	888.0	14,228.0
<b>III. Forest Road Information</b>		
1. Road Construction (miles)		
Appropriated Construction	0.0	0.0
Purchaser Credit Construction	7.0	23.0
<b>Total Construction</b>	<b>7.0</b>	<b>23.0</b>
2. Road Reconstruction (miles)		
Appropriated Reconstruction	0.0	7.0
Purchaser Credit Reconstruction	10.0	157.0
<b>Total Reconstruction</b>	<b>10.0</b>	<b>164.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Figures for these forests also represent State subtotals.

**Employment, Income, and Program Level Account**  
for the Fiscal Year Ended September 30, 1996

**Region 10 (Alaska)**

Category Description	Alaska Tongass	Alaska Chugach	Regional Totals <sup>2</sup>
<b>I. Employment and Income Information</b>			
1. Timber-Related Employment (Jobs)	988.0	11.0	999.0
2. Employment-Related Income (\$000) <sup>1</sup>	44,303.0	480.0	44,783.0
3. Federal Income Tax Generated (\$000)	8,418.0	91.0	8,509.0
<b>II. Timber Program Information</b>			
1. Volume Offered (MMBF) <sup>1</sup>	266.0	2.2	268.2
2. Volume Sold and Awarded (MMBF)	69.3	2.7	72.0
3. Volume Harvested (MMBF)			
Sawtimber	97.4	1.3	98.7
Roundwood	22.5	0.0	22.5
Firewood	0.2	2.0	2.2
Other	0.1	0.0	0.1
<b>Total Harvest Volume</b>	<b>120.2</b>	<b>3.3</b>	<b>123.5</b>
4. Total Area Harvested (acres)	4,514.0	487.0	5,001.0
5. Free Use Firewood (MMBF)	0.0	0.0	0.0
6. Nonconvertible Products			
Christmas Trees Cut (trees)	20.0	0.0	20.0
Other Products Removed (\$000)	0.0	0.0	0.0
7. Regeneration Treatment (acres)	12,611.0	249.0	12,860.0
8. Timber Stand Improvement (acres)	4,127.0	29.0	4,156.0
<b>III. Forest Road Information</b>			
1. Road Construction (miles)			
Appropriated Construction	0.0	0.0	0.0
Purchaser Credit Construction	115.0	0.0	115.0
<b>Total Construction</b>	<b>115.0</b>	<b>0.0</b>	<b>115.0</b>
2. Road Reconstruction (miles)			
Appropriated Reconstruction	28.0	0.0	28.0
Purchaser Credit Reconstruction	86.0	0.0	86.0
<b>Total Reconstruction</b>	<b>115.0</b>	<b>0.0</b>	<b>115.0</b>

<sup>1</sup> "\$000" = thousands of dollars, and "MMBF" = millions of board feet.

<sup>2</sup> Regional totals also represent State totals.

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**Appendix B—Economic Account  
by Region and Forest**

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**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 1**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
ID	Idaho Panhandle	47,687	20,633	27,086	27,054
ID	Clearwater	14,719	8,603	5,930	6,116
ID	Nez Perce	7,994	9,300	-1,409	-1,307
<b>ID</b>	<b>State Subtotals</b>	<b>70,400</b>	<b>38,536</b>	<b>31,608</b>	<b>31,864</b>
MT	Beaverhead	1,708	1,297	411	411
MT	Bitterroot	1,135	2,229	-1,109	-1,094
MT	Custer	529	781	-365	-252
MT	Deerlodge	1,069	1,113	-44	-44
MT	Flathead	3,445	3,639	-219	-195
MT	Gallatin	928	1,210	-282	-282
MT	Helena	1,167	601	589	566
MT	Kootenai	11,749	6,862	4,887	4,887
MT	Lewis & Clark	2,067	1,351	756	717
MT	Lolo	7,554	7,698	-157	-144
<b>MT</b>	<b>State Subtotals</b>	<b>31,351</b>	<b>26,781</b>	<b>4,467</b>	<b>4,570</b>
<b>All</b>	<b>Regional Totals</b>	<b>101,750</b>	<b>65,316</b>	<b>36,075</b>	<b>36,434</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 2**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
CO	Grand Mesa/Unc/Gunnison	2,194	1,768	88	426
CO	Arapaho-Roosevelt	1,006	306	407	700
CO	Pike-San Isabel	429	337	66	92
CO	San Juan/Rio Grande	6,202	4,391	1,582	1,811
CO	White River	1,374	1,197	136	178
<b>CO</b>	<b>State Subtotals</b>	<b>11,205</b>	<b>7,999</b>	<b>2,279</b>	<b>3,206</b>
NE	Nebraska <sup>2,3</sup>	0	0	0	0
SD	Black Hills <sup>2</sup>	26,836	14,789	8,976	12,047
WY	Bighorn	1,019	921	-65	98
WY/CO	Medicine Bow/Routt	3,817	2,242	1,316	1,575
WY	Shoshone	259	304	-45	-45
<b>WY</b>	<b>State Subtotals</b>	<b>5,095</b>	<b>3,467</b>	<b>1,206</b>	<b>1,628</b>
<b>All</b>	<b>Regional Totals</b>	<b>43,136</b>	<b>26,255</b>	<b>12,461</b>	<b>16,881</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

<sup>2</sup> Forest figures represent State subtotals.

<sup>3</sup> There were no acres harvested on this forest in FY 1996.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 3**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
AZ	Apache-Sitgreaves	2,925	3,152	-412	-227
AZ	Coconino	2,520	1,631	-873	889
AZ	Coronado	85	251	-223	-166
AZ	Kaibab	11,337	3,366	-1,715	7,971
AZ	Prescott	304	407	-378	-103
AZ	Tonto	7,394	1,077	-830	6,317
<b>AZ</b>	<b>State Subtotals</b>	<b>24,565</b>	<b>9,884</b>	<b>-4,431</b>	<b>14,681</b>
NM	Carson	1,403	1,513	-1,106	-110
NM	Cibola	98	670	-581	-572
NM	Gila	4,089	1,251	-1,027	2,838
NM	Lincoln	1,697	489	-323	1,208
NM	Santa Fe	222	972	-764	-750
<b>NM</b>	<b>State Subtotals</b>	<b>7,509</b>	<b>4,895</b>	<b>-3,801</b>	<b>2,614</b>
<b>All</b>	<b>Regional Totals</b>	<b>32,074</b>	<b>14,779</b>	<b>-8,232</b>	<b>17,295</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 4**  
(in thousands of 1996 dollars)

State	National Forest	PV of Benefits	PV of Costs	Timber Only NPV <sup>1</sup>	All Resources NPV
ID	Boise	31,342	15,917	15,131	15,425
ID	Caribou	1,759	989	670	770
ID	Payette	14,221	9,870	4,351	4,351
ID	Salmon/Challis	1,860	1,687	116	173
ID	Sawtooth	1,031	611	330	420
ID	Targhee	535	420	2	115
<b>ID</b>	<b>State Subtotals</b>	<b>50,748</b>	<b>29,494</b>	<b>20,600</b>	<b>21,254</b>
NV	Humbolt/Toiyabe <sup>2,3</sup>	0	0	0	0
UT	Ashley	2,410	1,080	449	1,330
UT	Dixie	3,376	3,208	83	168
UT	Fishlake	508	365	117	143
UT	Manti-Lasal	418	445	-141	-27
UT	Uinta	567	258	178	308
UT	Wasatch/Cache	957	372	491	585
<b>UT</b>	<b>State Subtotals</b>	<b>8,236</b>	<b>5,728</b>	<b>1,177</b>	<b>2,508</b>
WY	Bridger-Teton <sup>2</sup>	877	767	110	110
<b>All</b>	<b>Regional Totals</b>	<b>59,861</b>	<b>35,989</b>	<b>21,887</b>	<b>23,872</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

<sup>2</sup> Forest figures represent the State subtotals.

<sup>3</sup> There were no acres harvested on this forest in FY 1996.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 5**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
CA	Angeles	1,273	325	251	948
CA	Cleveland	7	102	-95	-95
CA	Eldorado	7,440	7,555	-982	-115
CA	Inyo	1,314	588	726	726
CA	Klamath	19,463	14,606	4,811	4,857
CA	Lassen	13,079	13,403	-1,019	-324
CA	Los Padres	15	200	-185	-185
CA	Mendocino	1,830	3,864	-2,034	-2,034
CA	Modoc	31,747	21,457	7,439	10,290
CA	Six Rivers	7,244	6,162	1,081	1,082
CA	Plumas	11,812	8,287	3,310	3,525
CA	San Bernardino	229	581	-496	-352
CA	Sequoia	3,996	5,519	-1,530	-1,523
CA	Shasta Trinity	19,953	13,383	5,830	6,570
CA	Sierra	14,582	9,911	2,583	4,671
CA	Stanislaus	5,096	9,564	-4,570	-4,468
CA	Tahoe	5,270	12,620	-7,434	-7,350
CA	Lake Tahoe Basin	765	1,813	-1,048	-1,048
<b>All</b>	<b>Regional Totals<sup>2</sup></b>	<b>145,115</b>	<b>129,940</b>	<b>6,638</b>	<b>15,175</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

<sup>2</sup> The State totals for California are the same as the regional totals.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 6**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
OR	Deschutes	16,692	7,047	9,645	9,645
OR	Fremont	5,355	3,571	1,748	1,784
OR	Malheur	15,731	7,152	8,339	8,579
OR	Mt. Hood	8,757	6,200	4,216	2,557
OR	Ochoco	6,743	4,964	1,931	1,779
OR	Rogue River	9,499	1,771	7,728	7,728
OR	Siskiyou	27,062	4,551	22,406	22,511
OR	Siuslaw	10,206	3,602	6,633	6,604
OR	Umatilla	10,617	4,891	5,943	5,726
OR	Umpqua	35,459	6,685	32,050	28,774
OR	Wallowa-Whitman	5,881	5,067	814	814
OR	Willamette	22,606	5,768	15,842	16,838
OR	Winema	13,884	4,631	9,253	9,253
<b>OR</b>	<b>State Subtotals</b>	<b>188,492</b>	<b>65,900</b>	<b>126,548</b>	<b>122,592</b>
WA	Gifford Pinchot	2,649	5,026	-2,377	-2,377
WA	Mt. Baker-Snoqualmie	2,572	1,183	1,256	1,389
WA	Okanogan	4,117	2,523	1,581	1,594
WA	Olympic	5,034	2,512	2,534	2,522
WA	Wenatchee	24,088	22,114	1,974	1,974
WA	Colville	6,585	4,419	2,169	2,166
<b>WA</b>	<b>State Subtotals</b>	<b>45,045</b>	<b>37,777</b>	<b>7,137</b>	<b>7,268</b>
<b>All</b>	<b>Regional Totals</b>	<b>233,537</b>	<b>103,677</b>	<b>133,685</b>	<b>129,860</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 8**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
PR	Caribbean <sup>2,3</sup>	0	0	0	0
AL	NF's in Alabama <sup>2</sup>	11,192	5,759	5,350	5,433
AR/OK	Ouachita	40,682	19,005	22,328	21,677
AR	Ozark/St. Francis	18,230	9,532	5,139	8,698
<b>AR/OK</b>	<b>State Subtotals</b>	<b>58,912</b>	<b>28,537</b>	<b>27,467</b>	<b>30,375</b>
FL	NF's in Florida <sup>2</sup>	5,073	1,749	3,085	3,324
GA	Chattahoochee-Oconee <sup>2</sup>	5,017	2,776	2,116	2,241
KY	Daniel Boone <sup>2</sup>	2,858	2,446	-36	412
LA	Kisatchie <sup>2</sup>	34,874	13,496	21,366	21,378
MS	NF's in Mississippi <sup>2</sup>	36,971	20,873	15,169	16,098
NC	NF's in North Carolina <sup>2</sup>	6,053	5,904	155	149
SC	Marion-Sumter <sup>2</sup>	12,938	4,817	7,941	8,121
TN	Cherokee <sup>2</sup>	1,390	2,306	-1,155	-916
TX	NF's in Texas <sup>2</sup>	35,522	15,684	19,111	19,838
VA	George Wash./Jefferson <sup>2</sup>	3,092	1,800	783	1,292
<b>All</b>	<b>Regional Totals</b>	<b>213,892</b>	<b>106,147</b>	<b>101,352</b>	<b>107,745</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

<sup>2</sup> Forest figures represent State subtotals.

<sup>3</sup> There were no acres harvested on this forest in FY 1996.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 9**  
(in thousands of 1996 dollars)

State	National Forest	PV of Benefits	PV of Costs	Timber Only NPV <sup>1</sup>	All Resources NPV
IL	Shawnee <sup>2</sup>	92	123	-2	-30
IN	Hoosier <sup>2</sup>	14	77	-63	-63
OH	Wayne <sup>2</sup>	32	85	-58	-53
MI	Huron-Manistee	7,324	3,430	3,894	3,894
MI	Ottawa	9,389	4,616	4,464	4,773
MI	Hiawatha	10,199	5,414	4,600	4,785
<b>MI</b>	<b>State Subtotals</b>	<b>26,912</b>	<b>13,460</b>	<b>12,959</b>	<b>13,452</b>
MN	Chippewa	5,396	3,830	1,301	1,566
MN	Superior	4,940	4,432	-127	508
<b>MN</b>	<b>State Subtotals</b>	<b>10,337</b>	<b>8,262</b>	<b>1,174</b>	<b>2,074</b>
MO	Mark Twain <sup>2</sup>	11,913	7,959	3,249	3,954
NH	White Mountain <sup>2</sup>	1,654	1,087	340	566
PA	Allegheny <sup>2</sup>	18,002	8,798	8,811	9,205
VT	Green Mountain <sup>2</sup>	716	432	235	284
WV	Monongahela <sup>2</sup>	7,589	4,940	3,234	2,648
WI	Chequamegon	10,911	5,116	5,324	5,795
WI	Nicolet	11,364	5,918	4,927	5,446
<b>WI</b>	<b>State Subtotals</b>	<b>22,275</b>	<b>11,034</b>	<b>10,251</b>	<b>11,241</b>
<b>All</b>	<b>Regional Totals</b>	<b>99,536</b>	<b>56,258</b>	<b>40,130</b>	<b>43,278</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

<sup>2</sup> Forest figures represent State subtotals.

**Economic Account**  
For the Fiscal Year 1996 Timber Harvest

**Region 10**  
(in thousands of 1996 dollars)

<b>State</b>	<b>National Forest</b>	<b>PV of Benefits</b>	<b>PV of Costs</b>	<b>Timber Only NPV<sup>1</sup></b>	<b>All Resources NPV</b>
AK	Tongass	24,094	23,884	619	210
AK	Chugach	667	1,798	-1,693	-1,131
<b>All</b>	<b>Regional Totals<sup>2</sup></b>	<b>24,761</b>	<b>25,682</b>	<b>-1,074</b>	<b>-921</b>

<sup>1</sup> The "timber only" NPV is calculated using detailed benefit and cost information and represents the NPV associated with timber costs and benefits only.

<sup>2</sup> The State totals for Alaska are the same as the regional totals.

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**Appendix C—Summary of Revenues  
and Expenses by Region, Forest,  
and Program Component**

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**Summary of Timber Sale Revenues and Expenses—Region 1**  
for the Fiscal Year Ended September 30, 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

State	National Forest	Revenues	Expenses	Net Rev. <sup>1</sup>	MMBF <sup>2</sup> Harvest	Pct. of Total <sup>3</sup>
ID	Idaho Panhandle	24,558	16,100	8,458	76.2	94.4
ID	Clearwater	5,433	4,970	463	15.9	63.6
ID	Nez Perce	5,394	5,540	-146	32.1	83.3
<b>ID</b>	<b>State Subtotals</b>	<b>35,385</b>	<b>26,610</b>	<b>8,775</b>	<b>124.2</b>	<b>86.2</b>
MT	Beaverhead	1,287	1,430	-143	7.3	81.4
MT	Bitterroot	208	525	-317	2.2	23.5
MT	Custer	319	447	-128	1.8	70.6
MT	Deerlodge	397	631	-233	1.9	41.8
MT	Flathead	400	572	-172	2.1	11.6
MT	Gallatin	187	186	2	0.6	8.9
MT	Helena	431	390	41	1.8	35.1
MT	Kootenai	19,283	15,365	3,918	95.3	95.5
MT	Lewis & Clark	1,644	1,087	557	6.9	63.5
MT	Lolo	5,506	6,057	-551	25.4	78.4
<b>MT</b>	<b>State Subtotals</b>	<b>29,662</b>	<b>26,689</b>	<b>2,973</b>	<b>145.4</b>	<b>73.2</b>
	Regional Office	0	8,419	-8,419	0	0
<b>All</b>	<b>Regional Totals</b>	<b>65,047</b>	<b>61,718</b>	<b>3,329</b>	<b>269.6</b>	<b>78.7</b>

**Forest Stewardship Program Component**

ID	Idaho Panhandle	41	34	8	0.2	0.2
ID	Clearwater	1,251	2,288	-1,036	7.3	29.0
ID	Nez Perce	643	728	-85	4.5	11.8
<b>ID</b>	<b>State Subtotals</b>	<b>1,935</b>	<b>3,049</b>	<b>-1,114</b>	<b>11.9</b>	<b>8.3</b>
MT	Beaverhead	49	79	-30	0.4	4.4
MT	Bitterroot	834	1,250	-417	5.3	56.8
MT	Custer	5	8	-3	0	1.1
MT	Deerlodge	579	647	-69	2.1	45.0
MT	Flathead	2,748	3,297	-549	13.1	72.7
MT	Gallatin	573	1,206	-634	4.1	58.5
MT	Helena	541	435	107	2.2	41.6
MT	Kootenai	336	325	10	1.9	1.9
MT	Lewis & Clark	147	280	-133	1.9	17.9
MT	Lolo	872	1,117	-245	5.0	15.5
<b>MT</b>	<b>State Subtotals</b>	<b>6,684</b>	<b>8,646</b>	<b>-1,963</b>	<b>35.9</b>	<b>18.1</b>
	Regional Office	0	1,413	-1,413	0	0
<b>All</b>	<b>Regional Totals</b>	<b>8,619</b>	<b>13,108</b>	<b>-4,489</b>	<b>47.8</b>	<b>14.0</b>

**Summary of Timber Sale Revenues and Expenses—Region 1 (Continued)**  
for the Fiscal Year Ended September 30, 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
ID	Idaho Panhandle	49	519	-470	4.4	5.4
ID	Clearwater	20	291	-271	1.8	7.4
ID	Nez Perce	18	131	-113	1.7	4.4
<b>ID</b>	<b>State Subtotals</b>	<b>87</b>	<b>942</b>	<b>-854</b>	<b>7.9</b>	<b>5.5</b>
MT	Beaverhead	18	153	-136	1.3	14.2
MT	Bitterroot	22	283	-261	1.8	19.7
MT	Custer	16	105	-89	0.7	28.3
MT	Deerlodge	11	117	-106	0.6	13.2
MT	Flathead	29	394	-365	2.8	15.7
MT	Gallatin	42	370	-327	2.3	32.6
MT	Helena	27	155	-127	1.2	23.3
MT	Kootenai	28	277	-249	2.6	2.6
MT	Lewis & Clark	33	215	-182	2.0	18.6
MT	Lolo	28	279	-251	2.0	6.1
<b>MT</b>	<b>State Subtotals</b>	<b>254</b>	<b>2,349</b>	<b>-2,094</b>	<b>17.4</b>	<b>8.7</b>
	Regional Office	0	617	-617	0	0
<b>All</b>	<b>Regional Totals</b>	<b>342</b>	<b>3,907</b>	<b>-3,566</b>	<b>25.3</b>	<b>7.4</b>

<sup>1</sup>The net revenue calculations do not include extraordinary expenses.

<sup>2</sup>MMBF = Millions of board feet.

<sup>3</sup>Harvest in the component comprises this percent of the total program.

**Summary of Timber Sale Revenues and Expenses—Region 2**  
for the Fiscal Year Ended September 30, 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

State	National Forest	Revenues	Expenses	Net Rev. <sup>1</sup>	MMBF <sup>2</sup> Harvest	Pct. of Total <sup>3</sup>
CO	Grand Mesa/Unc/Gunn	1,065	1,478	-414	9.7	60.3
CO	Arapaho-Roosevelt	196	448	-252	1.1	48.1
CO	Pike-San Isabel	153	163	-10	0.8	19.1
CO	San Juan-Rio Grande	2,084	2,584	-500	15.5	62.7
CO	White River	1,120	838	282	8.5	42.3
<b>CO</b>	<b>State Subtotals</b>	<b>4,618</b>	<b>5,512</b>	<b>-894</b>	<b>35.6</b>	<b>52.8</b>
NE	Nebraska <sup>4</sup>	0	0	0	0	0
SD	Black Hills <sup>4</sup>	8,530	4,256	4,274	38.2	72.6
WY	Bighorn	154	265	-112	1.6	22.6
WY/CO	Medicine Bow-Routt	3,217	2,295	922	15.3	70.3
WY	Shoshone	463	268	195	1.6	27.9
<b>WY</b>	<b>State Subtotals</b>	<b>3,834</b>	<b>2,828</b>	<b>1,006</b>	<b>18.4</b>	<b>53.6</b>
	Regional Office	0	1,619	-1,619	0	0
<b>All</b>	<b>Regional Totals</b>	<b>16,981</b>	<b>14,215</b>	<b>2,766</b>	<b>92.2</b>	<b>59.7</b>

**Forest Stewardship Program Component**

CO	Grand Mesa/Unc/Gunn	184	520	-336	3.4	21.2
CO	Arapaho-Roosevelt	55	358	-303	0.6	28.7
CO	Pike-San Isabel	59	172	-113	0.9	21.5
CO	San Juan-Rio Grande	320	788	-468	4.9	19.8
CO	White River	929	1,027	-99	10.0	49.5
<b>CO</b>	<b>State Subtotals</b>	<b>1,546</b>	<b>2,865</b>	<b>-1,319</b>	<b>19.9</b>	<b>29.5</b>
NE	Nebraska <sup>4</sup>	0	0	0	0	0
SD	Black Hills <sup>4</sup>	2,356	1,356	1,000	11.0	20.9
WY	Bighorn	437	619	-183	3.6	52.9
WY/CO	Medicine Bow-Routt	425	492	-67	3.1	14.1
WY	Shoshone	109	85	23	0.7	12.3
<b>WY</b>	<b>State Subtotals</b>	<b>970</b>	<b>1,196</b>	<b>-226</b>	<b>7.4</b>	<b>21.5</b>
	Regional Office	0	1,369	-1,369	0	0
<b>All</b>	<b>Regional Totals</b>	<b>4,873</b>	<b>6,787</b>	<b>-1,914</b>	<b>38.3</b>	<b>24.8</b>

**Summary of Timber Sale Revenues and Expenses—Region 2 (Continued)**  
for the Fiscal Year Ended September 30, 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
CO	Grand Mesa/Unc/Gunn	76	319	-243	3.0	18.5
CO	Arapaho-Roosevelt	59	169	-111	0.5	23.2
CO	Pike-San Isabel	191	212	-21	2.5	59.4
CO	San Juan-Rio Grande	118	495	-377	4.3	17.5
CO	White River	68	145	-77	1.6	8.1
<b>CO</b>	<b>State Subtotals</b>	<b>512</b>	<b>1,340</b>	<b>-828</b>	<b>12.0</b>	<b>17.8</b>
NE	Nebraska <sup>4</sup>	1	21	-20	0	100.0
SD	Black Hills <sup>4</sup>	73	258	-184	3.4	6.5
WY	Bighorn	44	282	-238	1.7	24.5
WY/CO	Medicine Bow-Routt	85	302	-217	3.4	15.6
WY	Shoshone	56	312	-256	3.5	59.9
<b>WY</b>	<b>State Subtotals</b>	<b>184</b>	<b>895</b>	<b>-711</b>	<b>8.6</b>	<b>24.9</b>
	Regional Office	0	372	-372	0	0
<b>All</b>	<b>Regional Totals</b>	<b>770</b>	<b>2,885</b>	<b>-2,115</b>	<b>24.0</b>	<b>15.5</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

<sup>4</sup> Forest figures represent the State subtotals.

**Summary of Timber Sale Revenues and Expenses—Region 3**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

State	National Forest	Revenues	Expenses	Net Rev. <sup>1</sup>	MMBF <sup>2</sup> Harvest	Pct. of Total <sup>3</sup>
AZ	Apache–Sitgreaves	1,532	2,015	-483	6.0	48.0
AZ	Coconino	4	16	-11	0	0.3
AZ	Coronado	0	2	-2	0	0
AZ	Kaibab	14	91	-77	0.1	1.9
AZ	Prescott	0	0	0	0	0
AZ	Tonto	5	137	-132	0.1	8.6
<b>AZ</b>	<b>State Subtotals</b>	<b>1,556</b>	<b>2,261</b>	<b>-705</b>	<b>6.3</b>	<b>19.9</b>
NM	Carson	1	4	-3	0	0.2
NM	Cibola	0	27	-27	0	0
NM	Gila	0	86	-86	0	0
NM	Lincoln	0	19	-19	0	0
NM	Santa Fe	4	41	-36	0	0.4
<b>NM</b>	<b>State Subtotals</b>	<b>6</b>	<b>176</b>	<b>-170</b>	<b>0</b>	<b>0.2</b>
	Regional Office	0	671	-671	0	0
<b>All</b>	<b>Regional Totals</b>	<b>1,562</b>	<b>3,108</b>	<b>-1,546</b>	<b>6.3</b>	<b>13.6</b>

**Forest Stewardship Program Component**

AZ	Apache–Sitgreaves	34	540	-507	1.3	10.5
AZ	Coconino	240	1,792	-1,552	3.4	34.2
AZ	Coronado	0	57	-57	0	0
AZ	Kaibab	397	1,135	-737	2.1	43.2
AZ	Prescott	8	126	-118	0.4	19.1
AZ	Tonto	7	282	-275	0.2	9.8
<b>AZ</b>	<b>State Subtotals</b>	<b>686</b>	<b>3,934</b>	<b>-3,247</b>	<b>7.5</b>	<b>23.7</b>
NM	Carson	198	1,063	-866	1.3	50.5
NM	Cibola	0	199	-199	0	0
NM	Gila	21	687	-665	0.5	19.5
NM	Lincoln	95	260	-165	0.4	26.8
NM	Santa Fe	24	635	-611	0.5	8.4
<b>NM</b>	<b>State Subtotals</b>	<b>337</b>	<b>2,844</b>	<b>-2,507</b>	<b>2.7</b>	<b>18.1</b>
	Regional Office	0	724	-724	0	0
<b>All</b>	<b>Regional Totals</b>	<b>1,023</b>	<b>7,501</b>	<b>-6,478</b>	<b>10.1</b>	<b>21.9</b>

**Summary of Timber Sale Revenues and Expenses—Region 3 (Continued)**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
AZ	Apache–Sitgreaves	98	1,106	-1,008	5.2	41.5
AZ	Coconino	92	1,456	-1,364	6.6	65.5
AZ	Coronado	23	308	-285	0.2	100.0
AZ	Kaibab	61	802	-741	2.7	54.9
AZ	Prescott	20	451	-432	1.7	80.9
AZ	Tonto	25	567	-543	1.4	81.6
<b>AZ</b>	<b>State Subtotals</b>	<b>319</b>	<b>4,691</b>	<b>-4,372</b>	<b>17.8</b>	<b>56.4</b>
NM	Carson	38	698	-660	1.3	49.3
NM	Cibola	61	467	-406	2.1	100.0
NM	Gila	60	980	-920	1.9	80.5
NM	Lincoln	31	422	-391	1.0	73.2
NM	Santa Fe	160	1,448	-1,288	5.8	91.2
<b>NM</b>	<b>State Subtotals</b>	<b>351</b>	<b>4,014</b>	<b>-3,664</b>	<b>12.1</b>	<b>81.7</b>
	Regional Office	0	1,359	-1,359	0	0
<b>All</b>	<b>Regional Totals</b>	<b>670</b>	<b>10,064</b>	<b>-9,394</b>	<b>29.9</b>	<b>64.5</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

**Summary of Timber Sale Revenues and Expenses—Region 4**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
ID	Boise	15,192	10,066	5,127	95.0	84.6
ID	Caribou	1,122	521	601	5.2	59.6
ID	Payette	12,863	6,086	6,777	49.0	86.2
ID	Salmon/Challis	918	1,536	-618	6.9	54.7
ID	Sawtooth	116	47	69	0.9	7.5
ID	Targhee	167	450	-283	1.4	25.3
<b>ID</b>	<b>State Subtotals</b>	<b>30,379</b>	<b>18,705</b>	<b>11,674</b>	<b>158.5</b>	<b>76.1</b>
NV	Toiyabe-Humbolt <sup>4</sup>	0	241	-241	0.3	9.6
UT	Ashley	831	730	101	6.7	51.7
UT	Dixie	898	841	57	4.8	27.6
UT	Fishlake	329	262	67	2.1	60.9
UT	Manti-Lasal	6	14	-8	0.1	1.4
UT	Uinta	39	98	-59	0.2	6.7
UT	Wasatch-Cache	444	398	46	2.4	41.2
<b>UT</b>	<b>State Subtotals</b>	<b>2,547</b>	<b>2,343</b>	<b>205</b>	<b>16.2</b>	<b>35.0</b>
WY	Bridger-Teton <sup>4</sup>	454	376	78	2.1	27.4
	Regional Office	0	2,091	-2,091	0	0
<b>All</b>	<b>Regional Totals</b>	<b>33,380</b>	<b>23,756</b>	<b>9,625</b>	<b>177.1</b>	<b>66.8</b>

**Forest Stewardship Program Component**

ID	Boise	1,241	998	243	10.3	9.2
ID	Caribou	86	222	-136	1.2	13.6
ID	Payette	632	417	215	3.9	6.8
ID	Salmon/Challis	147	811	-664	3.3	26.2
ID	Sawtooth	557	464	93	6.4	54.0
ID	Targhee	160	622	-462	2.4	42.4
<b>ID</b>	<b>State Subtotals</b>	<b>2,823</b>	<b>3,534</b>	<b>-710</b>	<b>27.5</b>	<b>13.2</b>
NV	Toiyabe-Humbolt <sup>4</sup>	6	81	-75	0	0.1
UT	Ashley	165	540	-375	2.9	22.6
UT	Dixie	852	1,684	-831	10.5	60.1
UT	Fishlake	42	107	-66	0.5	15.8
UT	Manti-Lasal	532	914	-383	3.2	73.4
UT	Uinta	318	113	205	1.7	74.9
UT	Wasatch-Cache	284	324	-41	2.2	38.9
<b>UT</b>	<b>State Subtotals</b>	<b>2,192</b>	<b>3,682</b>	<b>-1,490</b>	<b>21.2</b>	<b>45.6</b>
WY	Bridger-Teton <sup>4</sup>	372	428	-56	2.5	31.6
	Regional Office	0	741	-741	0	0
<b>All</b>	<b>Regional Totals</b>	<b>5,393</b>	<b>8,465</b>	<b>-3,072</b>	<b>51.1</b>	<b>19.3</b>

**Summary of Timber Sale Revenues and Expenses—Region 4 (Continued)**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
ID	Boise	108	463	-355	7.1	6.3
ID	Caribou	50	161	-111	2.4	26.9
ID	Payette	45	309	-264	4.0	7.0
ID	Salmon/Challis	33	446	-414	2.4	19.1
ID	Sawtooth	92	169	-77	4.6	38.5
ID	Targhee	61	309	-248	1.8	32.3
<b>ID</b>	<b>State Subtotals</b>	<b>388</b>	<b>1,857</b>	<b>-1,469</b>	<b>22.2</b>	<b>10.7</b>
NV	Toiyabe-Humbolt <sup>4</sup>	51	831	-780	2.4	90.3
UT	Ashley	59	294	-235	3.4	25.7
UT	Dixie	50	299	-249	2.2	12.4
UT	Fishlake	37	116	-79	0.8	23.3
UT	Manti-Lasal	27	210	-184	1.1	25.1
UT	Uinta	25	40	-15	0.4	18.4
UT	Wasatch-Cache	50	162	-112	1.1	19.9
<b>UT</b>	<b>State Subtotals</b>	<b>248</b>	<b>1,120</b>	<b>-872</b>	<b>9.0</b>	<b>19.4</b>
WY	Bridger-Teton <sup>4</sup>	51	360	-309	3.2	41.1
	Regional Office	0	321	-321	0	0
<b>All</b>	<b>Regional Totals</b>	<b>739</b>	<b>4,489</b>	<b>-3,751</b>	<b>36.7</b>	<b>13.9</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

<sup>4</sup> Forest figures represent the State subtotals.

**Summary of Timber Sale Revenues and Expenses—Region 5**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

State	National Forest	Revenues	Expenses	Net Rev. <sup>1</sup>	MMBF <sup>2</sup> Harvest	Pct. of Total <sup>3</sup>
CA	Angeles	0	0	0	0	0
CA	Cleveland	0	0	0	0	0
CA	Eldorado	1,421	2,555	-1,134	6.9	33.9
CA	Inyo	1,202	397	805	4.3	48.3
CA	Klamath	2,090	2,574	-484	10.6	23.7
CA	Lassen	1,115	720	394	7.0	7.5
CA	Los Padres	0	0	0	0	0
CA	Mendocino	810	949	-139	1.7	27.4
CA	Modoc	3,568	1,150	2,418	7.1	12.0
CA	Six Rivers	5,950	4,580	1,370	18.2	73.5
CA	Plumas	11,239	6,302	4,937	30.6	73.1
CA	San Bernardino	0	0	0	0	0
CA	Sequoia	3,864	3,914	-50	13.3	79.6
CA	Shasta Trinity	8,920	3,889	5,031	19.8	39.4
CA	Sierra	7,512	4,298	3,214	25.2	51.4
CA	Stanislaus	3,113	4,991	-1,878	17.0	52.2
CA	Tahoe	1,614	3,713	-2,099	28.1	35.3
CA	Lake Tahoe Basin	0	0	0	0	0
<b>CA</b>	<b>State Subtotals</b>	<b>52,418</b>	<b>40,033</b>	<b>12,385</b>	<b>189.9</b>	<b>34.5</b>
	Regional Office	0	3,597	-3,597	0	0
<b>All</b>	<b>Regional Totals</b>	<b>52,418</b>	<b>43,631</b>	<b>8,787</b>	<b>189.9</b>	<b>34.5</b>

**Forest Stewardship Program Component**

CA	Angeles	14	58	-44	0.1	30.1
CA	Cleveland	1	1	0	0	0
CA	Eldorado	2,061	3,136	-1,075	9.0	44.2
CA	Inyo	45	133	-88	0.7	7.6
CA	Klamath	8,706	7,667	1,039	31.8	70.7
CA	Lassen	11,065	9,317	1,749	76.5	82.3
CA	Los Padres	3	67	-64	0.1	20.9
CA	Mendocino	754	1,998	-1,244	3.9	61.1
CA	Modoc	3,173	5,041	-1,867	50.1	85.4
CA	Six Rivers	1,237	1,094	143	4.9	19.9
CA	Plumas	209	1,140	-931	5.5	13.2
CA	San Bernardino	23	146	-123	0.4	23.9
CA	Sequoia	73	477	-404	0.8	4.7
CA	Shasta Trinity	4,857	5,689	-832	26.1	51.9
CA	Sierra	2,958	3,600	-642	18.9	38.6
CA	Stanislaus	1,400	3,138	-1,738	10.7	32.7
CA	Tahoe	3,512	5,843	-2,331	48.3	60.6
CA	Lake Tahoe Basin	758	1,401	-643	21.3	99.2
<b>CA</b>	<b>State Subtotals</b>	<b>40,850</b>	<b>49,943</b>	<b>-9,093</b>	<b>308.9</b>	<b>56.1</b>
	Regional Office	0	5,164	-5,164	0	0
<b>All</b>	<b>Regional Totals</b>	<b>40,850</b>	<b>55,107</b>	<b>-14,257</b>	<b>308.9</b>	<b>56.1</b>

**Summary of Timber Sale Revenues and Expenses—Region 5 (Continued)**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
CA	Angeles	8	132	-124	0.2	69.9
CA	Cleveland	6	68	-61	0.2	100.0
CA	Eldorado	89	831	-742	4.5	21.9
CA	Inyo	67	241	-174	3.9	44.2
CA	Klamath	25	417	-392	2.5	5.6
CA	Lassen	189	821	-631	9.4	10.2
CA	Los Padres	12	91	-79	0.4	79.1
CA	Mendocino	25	210	-185	0.7	11.5
CA	Modoc	27	114	-88	1.5	2.6
CA	Six Rivers	50	234	-185	1.6	6.6
CA	Plumas	144	716	-572	5.7	13.7
CA	San Bernardino	62	319	-257	1.2	76.1
CA	Sequoia	52	551	-499	2.6	15.7
CA	Shasta Trinity	106	670	-564	4.4	8.7
CA	Sierra	51	500	-449	4.9	10.0
CA	Stanislaus	63	780	-717	4.9	15.0
CA	Tahoe	60	275	-215	3.3	4.1
CA	Lake Tahoe Basin	7	6	1	0.2	0.8
<b>CA</b>	<b>State Subtotals</b>	<b>1,044</b>	<b>6,975</b>	<b>-5,932</b>	<b>52.3</b>	<b>9.5</b>
	Regional Office	0	598	-598	0	0
<b>All</b>	<b>Regional Totals</b>	<b>1,044</b>	<b>7,574</b>	<b>-6,530</b>	<b>52.3</b>	<b>9.5</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

**Summary of Timber Sale Revenues and Expenses—Region 6**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

State	National Forest	Revenues	Expenses	Net Rev. <sup>1</sup>	MMBF <sup>2</sup> Harvest	Pct. of Total <sup>3</sup>
OR	Deschutes	421	508	-87	2.6	4.8
OR	Fremont	2,771	3,404	-633	12.8	46.0
OR	Malheur	7,183	7,937	-754	29.0	61.7
OR	Mt. Hood	5,631	6,850	-1,219	13.4	49.7
OR	Ochoco	2,189	2,316	-127	5.6	27.8
OR	Rogue River	6,606	5,398	1,208	15.2	74.6
OR	Siskiyou	26,873	12,543	14,330	54.2	96.0
OR	Siuslaw	7,904	5,193	2,711	19.1	90.7
OR	Umatilla	7,827	8,301	-474	35.9	66.9
OR	Umpqua	29,904	12,987	16,917	64.4	97.0
OR	Wallowa-Whitman	1,403	2,971	-1,568	11.2	24.8
OR	Willamette	12,330	8,759	3,572	29.7	52.7
OR	Winema	4,163	5,337	-1,174	34.2	50.3
<b>OR</b>	<b>State Subtotals</b>	<b>115,205</b>	<b>82,504</b>	<b>32,702</b>	<b>327.3</b>	<b>58.1</b>
WA	Gifford Pinchot	2,755	6,695	-3,941	8.0	70.5
WA	Mt. Baker-Snoqualmie	2,333	5,505	-3,172	9.4	89.1
WA	Okanogan	870	1,591	-721	6.3	26.6
WA	Olympic	4,058	4,522	-464	12.8	72.5
WA	Wenatchee	536	261	276	2.1	2.3
WA	Colville	3,621	4,584	-963	21.3	59.8
<b>WA</b>	<b>State Subtotals</b>	<b>14,173</b>	<b>23,158</b>	<b>-8,986</b>	<b>59.8</b>	<b>31.4</b>
	Regional Office <sup>4</sup>	0	7,029	-7,029	0	0
<b>All</b>	<b>Regional Totals</b>	<b>129,378</b>	<b>112,691</b>	<b>16,687</b>	<b>387.1</b>	<b>51.4</b>

**Forest Stewardship Program Component**

OR	Deschutes	6,123	7,106	-983	38.6	71.6
OR	Fremont	1,435	3,323	-1,888	12.5	44.8
OR	Malheur	2,233	4,013	-1,780	14.3	30.4
OR	Mt. Hood	3,364	5,708	-2,343	11.0	40.9
OR	Ochoco	2,517	3,959	-1,443	11.4	56.6
OR	Rogue River	1,593	1,562	31	4.6	22.4
OR	Siskiyou	692	327	366	1.5	2.6
OR	Siuslaw	673	342	331	1.2	5.7
OR	Umatilla	1,125	2,577	-1,452	10.6	19.8
OR	Umpqua	420	300	121	1.2	1.9
OR	Wallowa-Whitman	2,514	5,575	-3,061	26.1	57.7
OR	Willamette	11,121	7,570	3,550	25.6	45.5
OR	Winema	9,696	5,390	4,306	32.7	48.1
<b>OR</b>	<b>State Subtotals</b>	<b>43,507</b>	<b>47,752</b>	<b>-4,245</b>	<b>191.3</b>	<b>34.0</b>
WA	Gifford Pinchot	493	488	5	0.5	4.7
WA	Mt. Baker-Snoqualmie	0	0	0	0	0
WA	Okanogan	1,995	3,616	-1,622	16.2	69.0
WA	Olympic	939	1,340	-401	3.7	21.0
WA	Wenatchee	3,543	11,075	-7,532	82.8	90.3
WA	Colville	2,375	2,275	100	10.9	30.7
<b>WA</b>	<b>State Subtotals</b>	<b>9,345</b>	<b>18,795</b>	<b>-9,450</b>	<b>114.3</b>	<b>60.0</b>
	Regional Office <sup>4</sup>	0	5,279	-5,279	0	0
<b>All</b>	<b>Regional Totals</b>	<b>52,851</b>	<b>71,825</b>	<b>-18,974</b>	<b>305.5</b>	<b>40.5</b>

**Summary of Timber Sale Revenues and Expenses—Region 6 (Continued)**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
OR	Deschutes	431	1,472	-1,041	12.7	23.5
OR	Fremont	32	330	-299	2.5	9.2
OR	Malheur	54	615	-561	3.7	7.9
OR	Mt. Hood	58	692	-633	2.5	9.4
OR	Ochoco	41	720	-679	3.1	15.7
OR	Rogue River	33	287	-254	0.6	3.0
OR	Siskiyou	22	174	-151	0.8	1.4
OR	Siuslaw	21	186	-164	0.8	3.7
OR	Umatilla	96	1,109	-1,013	7.1	13.3
OR	Umpqua	26	129	-103	0.8	1.1
OR	Wallowa–Whitman	130	1,107	-977	7.9	17.6
OR	Willamette	41	231	-190	1.0	1.8
OR	Winema	25	152	-127	1.0	1.5
<b>OR</b>	<b>State Subtotals</b>	<b>1,011</b>	<b>7,203</b>	<b>-6,191</b>	<b>44.7</b>	<b>7.9</b>
WA	Gifford Pinchot	48	777	-729	2.8	24.8
WA	Mt. Baker–Snoqualmie	94	169	-75	1.1	10.9
WA	Okanogan	12	279	-267	1.0	4.4
WA	Olympic	18	196	-179	1.2	6.6
WA	Wenatchee	97	565	-468	6.8	7.5
WA	Colville	38	476	-439	3.4	9.5
<b>WA</b>	<b>State Subtotals</b>	<b>306</b>	<b>2,462</b>	<b>-2,157</b>	<b>16.4</b>	<b>8.6</b>
	Regional Office <sup>4</sup>	0	861	-861	0	0
<b>All</b>	<b>Regional Totals</b>	<b>1,317</b>	<b>10,526</b>	<b>-9,209</b>	<b>61.0</b>	<b>8.1</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

<sup>4</sup> Includes Columbia River George unit expenses.

**Summary of Timber Sale Revenues and Expenses—Region 8**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
PR	Caribbean <sup>4</sup>	0	0	0	0	0
AL	NF's in Alabama <sup>4</sup>	2,424	1,332	1,092	16.7	27.2
AR/OK	Ouachita	14,727	6,436	8,291	82.5	56.7
AR	Ozark–St. Francis	6,332	4,464	1,868	41.8	95.4
<b>AR/OK</b>	<b>State Subtotals</b>	<b>21,059</b>	<b>10,900</b>	<b>10,159</b>	<b>124.4</b>	<b>65.7</b>
FL	NF's in Florida <sup>4</sup>	2,015	1,488	527	16.5	56.3
GA	Chattahoochee–Oconee <sup>4</sup>	1,363	1,151	212	10.6	27.0
KY	Daniel Boone <sup>4</sup>	957	1,673	-716	10.0	52.2
LA	Kisatchie <sup>4</sup>	8,347	3,682	4,665	48.6	74.5
MS	NF's in Mississippi <sup>4</sup>	23,122	6,250	16,872	111.4	56.7
NC	NF's in North Carol <sup>4</sup>	1,489	3,026	-1,537	18.1	61.8
SC	Marion–Sumpter <sup>4</sup>	3,174	1,912	1,263	18.4	54.9
TN	Cherokee <sup>4</sup>	467	657	-190	4.6	41.9
TX	NF's in Texas <sup>4</sup>	9,980	3,039	6,940	43.1	51.3
VA	Geo. Wash./Jefferson <sup>4</sup>	1,520	1,605	-85	13.8	39.9
	Regional Office	0	3,975	-3,975	0	0
<b>All</b>	<b>Regional Totals</b>	<b>75,917</b>	<b>40,690</b>	<b>35,227</b>	<b>436.1</b>	<b>55.0</b>

**Forest Stewardship Program Component**

PR	Caribbean <sup>4</sup>	0	61	-61	0	0
AL	NF's in Alabama <sup>4</sup>	5,781	3,308	2,473	44.2	72.0
AR/OK	Ouachita	7,737	4,638	3,099	62.6	43.0
AR	Ozark–St. Francis	66	131	-65	1.2	2.8
<b>AR/OK</b>	<b>State Subtotals</b>	<b>7,803</b>	<b>4,768</b>	<b>3,034</b>	<b>63.8</b>	<b>33.7</b>
FL	NF's in Florida <sup>4</sup>	1,505	1,349	156	12.6	43.1
GA	Chattahoochee–Oconee <sup>4</sup>	1,925	2,658	-733	27.9	71.3
KY	Daniel Boone <sup>4</sup>	870	1,279	-408	8.2	42.8
LA	Kisatchie <sup>4</sup>	2,643	1,272	1,372	16.4	25.1
MS	NF's in Mississippi <sup>4</sup>	9,459	4,662	4,797	84.9	43.2
NC	NF's in North Carol <sup>4</sup>	937	1,625	-688	10.1	34.5
SC	Marion–Sumpter <sup>4</sup>	1,237	1,455	-219	15.0	44.7
TN	Cherokee <sup>4</sup>	430	878	-448	6.2	56.1
TX	NF's in Texas <sup>4</sup>	7,573	2,868	4,705	40.7	48.6
VA	Geo. Wash./Jefferson <sup>4</sup>	1,658	2,298	-640	18.1	52.4
	Regional Office	0	2,739	-2,739	0	0
<b>All</b>	<b>Regional Totals</b>	<b>41,820</b>	<b>31,220</b>	<b>10,601</b>	<b>348.0</b>	<b>43.9</b>

**Summary of Timber Sale Revenues and Expenses—Region 8 (Continued)**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
PR	Caribbean <sup>4</sup>	0	0	0	0	0
AL	NF's in Alabama <sup>4</sup>	6	20	-15	0.5	0.8
AR/OK	Ouachita	7	120	-113	0.4	0.3
AR	Ozark–St. Francis	27	79	-52	0.8	1.8
<b>AR/OK</b>	<b>State Subtotals</b>	<b>34</b>	<b>199</b>	<b>-165</b>	<b>1.2</b>	<b>0.6</b>
FL	NF's in Florida <sup>4</sup>	6	18	-12	0.2	0.5
GA	Chattahoochee–Oconee <sup>4</sup>	11	54	-43	0.6	1.6
KY	Daniel Boone <sup>4</sup>	12	120	-109	1.0	5.0
LA	Kisatchie <sup>4</sup>	3	23	-20	0.3	0.4
MS	NF's in Mississippi <sup>4</sup>	5	20	-15	0.3	0.2
NC	NF's in North Carol <sup>4</sup>	47	134	-87	1.1	3.7
SC	Marion–Sumpter <sup>4</sup>	2	25	-23	0.1	0.4
TN	Cherokee <sup>4</sup>	4	42	-38	0.2	2.0
TX	NF's in Texas <sup>4</sup>	1	5	-4	0.1	0.1
VA	Geo. Wash./Jefferson <sup>4</sup>	46	228	-183	2.7	7.7
	Regional Office	0	41	-41	0	0
<b>All</b>	<b>Regional Totals</b>	<b>176</b>	<b>931</b>	<b>-755</b>	<b>8.2</b>	<b>1.0</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

<sup>4</sup> Forest figures represent the State subtotals.

**Summary of Timber Sale Revenues and Expenses—Region 9**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
IL	Shawnee <sup>4</sup>	20	50	-30	0.2	14.1
IN	Hoosier <sup>4</sup>	0	0	0	0	0
OH	Wayne <sup>4</sup>	6	152	-146	0	32.9
MI	Huron–Manistee	2,528	1,956	572	39.5	74.3
MI	Ottawa	1,939	1,742	197	37.0	56.5
MI	Hiawatha	1,663	1,522	141	33.8	57.9
<b>MI</b>	<b>State Subtotals</b>	<b>6,130</b>	<b>5,221</b>	<b>910</b>	<b>110.3</b>	<b>62.3</b>
MN	Chippewa	2,598	1,827	772	42.5	68.3
MN	Superior	2,212	2,069	143	59.2	62.5
<b>MN</b>	<b>State Subtotals</b>	<b>4,810</b>	<b>3,896</b>	<b>915</b>	<b>101.7</b>	<b>64.8</b>
MO	Mark Twain <sup>4</sup>	4,598	3,542	1,055	46.2	95.6
NH	White Mountain <sup>4</sup>	492	1,248	-756	8.2	44.3
PA	Allegheny <sup>4</sup>	25,032	5,300	19,732	58.8	98.6
VT	Green Mountain <sup>4</sup>	341	440	-99	2.7	48.6
WV	Monongahela <sup>4</sup>	6,433	2,778	3,655	27.8	98.3
WI	Chequamegon	2,973	2,309	664	57.8	84.6
WI	Nicolet	2,113	2,298	-185	45.6	79.7
<b>WI</b>	<b>State Subtotals</b>	<b>5,086</b>	<b>4,607</b>	<b>479</b>	<b>103.4</b>	<b>82.3</b>
	Regional Office	0	2,077	-2,077	0	0
<b>All</b>	<b>Regional Totals</b>	<b>52,948</b>	<b>29,311</b>	<b>23,637</b>	<b>459.3</b>	<b>73.9</b>

**Forest Stewardship Program Component**

IL	Shawnee <sup>4</sup>	39	293	-254	0.9	78.6
IN	Hoosier <sup>4</sup>	0	9	-9	0	0
OH	Wayne <sup>4</sup>	0	15	-15	0	0
MI	Huron–Manistee	535	804	-269	11.3	21.3
MI	Ottawa	1,207	1,416	-208	28.5	43.5
MI	Hiawatha	1,084	1,064	20	24.1	41.3
<b>MI</b>	<b>State Subtotals</b>	<b>2,826</b>	<b>3,284</b>	<b>-458</b>	<b>63.8</b>	<b>36.1</b>
MN	Chippewa	790	892	-103	19.7	31.7
MN	Superior	1,010	1,299	-289	35.4	37.4
<b>MN</b>	<b>State Subtotals</b>	<b>1,799</b>	<b>2,191</b>	<b>-392</b>	<b>55.2</b>	<b>35.1</b>
MO	Mark Twain <sup>4</sup>	156	106	51	1.5	3.1
NH	White Mountain <sup>4</sup>	484	1,289	-805	10.2	54.9
PA	Allegheny <sup>4</sup>	0	0	0	0	0
VT	Green Mountain <sup>4</sup>	309	449	-140	2.7	48.5
WV	Monongahela <sup>4</sup>	7	61	-53	0	0.1
WI	Chequamegon	332	405	-73	10.2	15.0
WI	Nicolet	454	519	-65	10.4	18.2
<b>WI</b>	<b>State Subtotals</b>	<b>786</b>	<b>924</b>	<b>-138</b>	<b>20.7</b>	<b>16.5</b>
	Regional Office	0	710	-710	0	0
<b>All</b>	<b>Regional Totals</b>	<b>6,407</b>	<b>9,330</b>	<b>-2,923</b>	<b>155.0</b>	<b>24.9</b>

**Summary of Timber Sale Revenues and Expenses—Region 9 (Continued)**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Personal Use Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
IL	Shawnee <sup>4</sup>	1	20	-19	0.1	7.3
IN	Hoosier <sup>4</sup>	14	108	-94	0.2	100.0
OH	Wayne <sup>4</sup>	1	71	-70	0.1	67.1
MI	Huron–Manistee	32	94	-63	2.3	4.4
MI	Ottawa	1	2	-1	0	0
MI	Hiawatha	9	19	-9	0.5	0.8
<b>MI</b>	<b>State Subtotals</b>	<b>42</b>	<b>115</b>	<b>-73</b>	<b>2.8</b>	<b>1.6</b>
MN	Chippewa	3	6	-4	0	0
MN	Superior	1	3	-2	0.1	0.1
<b>MN</b>	<b>State Subtotals</b>	<b>4</b>	<b>9</b>	<b>-5</b>	<b>0.1</b>	<b>0.1</b>
MO	Mark Twain <sup>4</sup>	6	36	-29	0.6	1.3
NH	White Mountain <sup>4</sup>	3	33	-30	0.1	0.8
PA	Allegheny <sup>4</sup>	8	46	-38	0.8	1.4
VT	Green Mountain <sup>4</sup>	6	40	-34	0.2	2.9
WV	Monongahela <sup>4</sup>	8	29	-21	0.5	1.6
WI	Chequamegon	15	9	6	0.3	0.5
WI	Nicolet	28	43	-15	1.2	2.1
<b>WI</b>	<b>State Subtotals</b>	<b>42</b>	<b>52</b>	<b>-9</b>	<b>1.5</b>	<b>1.2</b>
	Regional Office	0	29	-29	0	0
<b>All</b>	<b>Regional Totals</b>	<b>136</b>	<b>586</b>	<b>-450</b>	<b>7.0</b>	<b>1.1</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

<sup>4</sup> Forest figures represent the State subtotals.

**Summary of Timber Sale Revenues and Expenses—Region 10**  
for the Fiscal Year 1996 (in thousands of dollars, except as noted)

**Timber Commodity Program Component**

<b>State</b>	<b>National Forest</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Net Rev.<sup>1</sup></b>	<b>MMBF<sup>2</sup> Harvest</b>	<b>Pct. of Total<sup>3</sup></b>
AK	Tongass	23,837	22,621	1,217	120.0	99.8
AK	Chugach	5	8	-3	0	0.2
<b>AK</b>	<b>State Subtotals</b>	<b>23,843</b>	<b>22,629</b>	<b>1,214</b>	<b>120.0</b>	<b>97.2</b>
	Regional Office	0	6,110	-6,110	0	0
<b>All</b>	<b>Regional Totals</b>	<b>23,843</b>	<b>28,739</b>	<b>-4,897</b>	<b>120.0</b>	<b>97.2</b>

**Forest Stewardship Program Component**

AK	Tongass	-12	72	-84	0.2	0.2
AK	Chugach	91	1,674	-1,583	3.3	99.8
<b>AK</b>	<b>State Subtotals</b>	<b>80</b>	<b>1,746</b>	<b>-1,667</b>	<b>3.5</b>	<b>2.8</b>
	Regional Office	0	156	-156	0	0
<b>All</b>	<b>Regional Totals</b>	<b>80</b>	<b>1,902</b>	<b>-1,823</b>	<b>3.5</b>	<b>2.8</b>

**Personal Use Program Component**

AK	Tongass	2	47	-44	0	0
AK	Chugach	0	0	0	0	0
<b>AK</b>	<b>State Subtotals</b>	<b>2</b>	<b>47</b>	<b>-44</b>	<b>0</b>	<b>0</b>
	Regional Office	0	0	0	0	0
<b>All</b>	<b>Regional Totals</b>	<b>2</b>	<b>47</b>	<b>-45</b>	<b>0</b>	<b>0</b>

<sup>1</sup> The net revenue calculations do not include extraordinary expenses.

<sup>2</sup> MMBF = Millions of board feet.

<sup>3</sup> Harvest in the component comprises this percent of the total program.

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## **Appendix D—Statement of Revenues and Expenses by Region**

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**Statement of Timber Sale Revenues and Expenses**  
For the Fiscal Year Ended September 30, 1996

**National Summary by Region**  
(In Thousands of Dollars, Except as Noted)

Account Description	Region 01	Region 02	Region 03	Region 04	Region 05	Region 06	Region 08
<b>Revenues</b>							
Timber Sales	63,880	19,123	2,900	34,540	80,053	163,309	107,822
Purchaser Road Credit	4,626	2,466	188	3,541	4,997	6,314	8,009
Associated Charges	5,407	902	159	1,399	9,124	13,373	1,979
Interest And Penalties	94	133	8	32	139	549	103
<b>Total Revenues</b>	<b>74,007</b>	<b>22,624</b>	<b>3,255</b>	<b>39,512</b>	<b>94,313</b>	<b>183,545</b>	<b>117,913</b>
<b>Direct Expenses</b>							
Timber Sale Expenses							
Harvest Admin <sup>1</sup>	5,694	2,663	2,113	4,684	9,341	14,453	6,658
General Admin - Sales <sup>1</sup>	16,311	5,850	5,910	7,224	19,255	31,728	13,051
Sale Preparation <sup>2</sup>	9,342	5,251	3,275	9,945	26,977	31,183	16,269
Analysis/Documentation <sup>2</sup>	10,637	2,613	1,607	3,860	5,122	19,094	5,301
Appeals/Litigation - Sales <sup>2</sup>	207	73	234	41	233	440	615
Brush Disposal Fund <sup>2</sup>	3,722	395	486	863	6,473	9,972	0
Road Maintenance <sup>2</sup>	2,200	451	215	578	2,575	5,167	1,126
Undepreciated Road Writeoff <sup>1</sup>	442	0	0	0	0	3,895	0
Depreciation Expenses <sup>3</sup>							
Road Design And Construction	5,927	1,333	1,003	1,048	5,792	16,923	4,382
Purchaser Road Credits	3,966	949	782	934	5,297	19,201	4,379
<b>Total Timber Sale Expenses</b>	<b>58,448</b>	<b>19,578</b>	<b>15,625</b>	<b>29,177</b>	<b>81,065</b>	<b>152,056</b>	<b>51,781</b>
Timber Program Expenses							
Transportation Planning <sup>1</sup>	2,334	301	374	433	2,593	4,306	1,425
Silvicultural Examinations <sup>2</sup>	4,052	1,117	1,035	1,458	2,909	6,591	3,746
Genetic Tree Improvement <sup>1</sup>	1,679	23	44	151	1,926	4,237	1,496
Appropriated Reforestation <sup>4</sup>	640	160	116	761	668	1,096	1,759
KV Reforestation <sup>4</sup>	664	33	55	537	1,180	2,369	2,497
Appropriated Stand Improv. <sup>4</sup>	290	166	83	225	472	973	943
KVStand Improvement <sup>4</sup>	160	187	124	175	691	805	638
Depreciation <sup>3</sup>							
Facilities Depreciation	204	14	20	56	274	1,053	85
<b>Total Timber Program Expenses</b>	<b>10,023</b>	<b>2,001</b>	<b>1,851</b>	<b>3,796</b>	<b>10,713</b>	<b>21,430</b>	<b>12,589</b>
<b>Total Direct Expenses</b>	<b>68,471</b>	<b>21,579</b>	<b>17,476</b>	<b>32,973</b>	<b>91,778</b>	<b>173,486</b>	<b>64,370</b>

**National Summary by Region (Continued)**  
(In Thousands of Dollars, Except as Noted)

Account Description	Region 01	Region 02	Region 03	Region 04	Region 05	Region 06	Region 08
<b>Indirect Expenses</b>							
Timber Sale Expenses							
Appeals/Litigation <sup>1</sup>	261	201	234	114	725	354	542
R-10 Appropriated Road Mtce <sup>2</sup>	0	0	0	0	0	0	0
R-10 Land Line Location <sup>2</sup>	0	0	0	0	0	0	0
<b>Total Timber Sale Indirect</b>	<b>261</b>	<b>201</b>	<b>234</b>	<b>114</b>	<b>725</b>	<b>354</b>	<b>542</b>
Timber Program Expenses							
General Admin - Prog <sup>1</sup>	10,003	2,106	2,964	3,624	13,808	21,202	7,927
<b>Total Timber Prog Indirect</b>	<b>10,003</b>	<b>2,106</b>	<b>2,964</b>	<b>3,624</b>	<b>13,808</b>	<b>21,202</b>	<b>7,927</b>
<b>Total Indirect Expenses</b>	<b>10,264</b>	<b>2,307</b>	<b>3,198</b>	<b>3,738</b>	<b>14,533</b>	<b>21,556</b>	<b>8,469</b>
<b>Total Timber Expenses</b>	<b>78,735</b>	<b>23,886</b>	<b>20,674</b>	<b>36,711</b>	<b>106,311</b>	<b>195,042</b>	<b>72,839</b>
Gain/Loss Before Extraord. Exp.	-4,728	-1,262	-17,419	2,801	-11,998	-11,497	45,074
Extraordinary Expense	0	0	0	0	0	0	0
<b>Net Gain Or Loss</b>	<b>-4,728</b>	<b>-1,262</b>	<b>-17,419</b>	<b>2,801</b>	<b>-11,998</b>	<b>-11,497</b>	<b>45,074</b>
<b>Volume Harvested (MBF)</b>	<b>342,739</b>	<b>154,479</b>	<b>46,300</b>	<b>265,003</b>	<b>551,109</b>	<b>753,683</b>	<b>792,327</b>

<sup>1</sup> Annual expense

<sup>2</sup> Sale activity pool cost, amortized on basis of annual harvest

<sup>3</sup> Depreciated on basis of useful lives

<sup>4</sup> Growth activity pool cost, amortized on basis of growing stock inventory

**Statement of Timber Sale Revenues and Expenses**  
For the Fiscal Year Ended September 30, 1996

**National Summary by Region (Continued)**  
(In Thousands of Dollars, Except as Noted)

Account Description	Region 09	Region 10	Wash Off.	Natl Total
<b>Revenues</b>				
Timber Sales	55,222	14,280	0	541,129
Purchaser Road Credit	3,667	8,887	0	42,695
Associated Charges	547	114	0	33,004
Interest And Penalties	55	644	0	1,757
<b>Total Revenues</b>	<b>59,491</b>	<b>23,925</b>	<b>0</b>	<b>618,585</b>
<b>Direct Expenses</b>				
Timber Sale Expenses				
Harvest Admin <sup>1</sup>	4,117	2,836	1,634	54,193
General Admin - Sales <sup>1</sup>	8,599	8,480	12,448	128,856
Sale Preparation <sup>2</sup>	11,208	5,237	4,438	123,125
Analysis/Documentation <sup>2</sup>	2,109	4,169	252	54,764
Appeals/Litigation - Sales <sup>2</sup>	43	30	0	1,916
Brush Disposal Fund <sup>2</sup>	19	10	385	22,325
Road Maintenance <sup>2</sup>	530	107	0	12,949
Undepreciated Road Writeoff <sup>1</sup>	0	0	0	4,337
Depreciation Expenses <sup>3</sup>				
Road Design and Construction	2,013	2,574	19	41,014
Purchaser Road Credits	1,363	1,073	0	37,944
<b>Total Timber Sale Expenses</b>	<b>30,001</b>	<b>24,516</b>	<b>19,176</b>	<b>481,423</b>
Timber Program Expenses				
Transportation Planning <sup>1</sup>	1,114	2,145	1,489	16,514
Silvicultural Examinations <sup>2</sup>	2,305	858	842	24,913
Genetic Tree Improvement <sup>1</sup>	274	0	137	9,967
Appropriated Reforestation <sup>4</sup>	1,073	58	602	6,933
KV Reforestation <sup>4</sup>	471	43	222	8,071
Appropriated Stand Improv. <sup>4</sup>	382	172	285	3,991
KV Stand Improvement <sup>4</sup>	149	44	0	2,973
Depreciation <sup>3</sup>				
Facilities Depreciation	36	547	16	2,305
<b>Total Timber Program Expenses</b>	<b>5,804</b>	<b>3,867</b>	<b>3,593</b>	<b>75,667</b>
<b>Total Direct Expenses</b>	<b>35,805</b>	<b>28,383</b>	<b>22,769</b>	<b>557,090</b>

**National Summary by Region (Continued)**  
(In Thousands of Dollars, Except as Noted)

<b>Account Description</b>	<b>Region 09</b>	<b>Region 10</b>	<b>Wash Off.</b>	<b>Natl Total</b>
<b>Indirect Expenses</b>				
Timber Sale Expenses				
Appeals/Litigation <sup>1</sup>	94	481	96	3,102
R-10 Appropriated Road Mfice <sup>2</sup>	0	5	0	5
R-10 Land Line Location <sup>2</sup>	0	5	0	5
<b>Total Timber Sale Indirect</b>	<b>94</b>	<b>491</b>	<b>96</b>	<b>3,112</b>
Timber Program Expenses				
General Admin - Prog <sup>1</sup>	3,327	1,813	6,298	73,072
<b>Total Timber Prog Indirect</b>	<b>3,327</b>	<b>1,813</b>	<b>6,298</b>	<b>73,072</b>
<b>Total Indirect Expenses</b>	<b>3,421</b>	<b>2,304</b>	<b>6,394</b>	<b>76,184</b>
<b>Total Timber Expenses</b>	<b>39,226</b>	<b>30,687</b>	<b>29,163</b>	<b>633,274</b>
Gain/Loss Before Extraord. Exp.	20,265	-6,762	-29,163	-14,689
Extraordinary Expense	0	0	0	0
<b>Net Gain Or Loss</b>	<b>20,265</b>	<b>-6,762</b>	<b>-29,163</b>	<b>-14,689</b>
<b>Volume Harvested (MBF)</b>	<b>621,253</b>	<b>123,473</b>	<b>0</b>	<b>3,650,366</b>

<sup>1</sup> Annual expense

<sup>2</sup> Sale activity pool cost, amortized on basis of annual harvest

<sup>3</sup> Depreciated on basis of useful lives

<sup>4</sup> Growth activity pool cost, amortized on basis of growing stock inventory

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## **Appendix E—Map of Regions and National Forests**

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