

# **National Forests and Mill Closures:**

## **An Assessment of the Pending Mill Closure in Republic, WA**

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The Vaagen Brothers Lumber Co. recently announced its decision to close its mill in Republic, Washington, in early 2003, eliminating about 87 jobs. As with any similar announcement, this one is generating economic and social trauma for affected workers and communities. The difficulties are more troublesome as Republic is a small, relatively isolated community, population about 1,000, where alternative job opportunities for laid-off workers are scarce, and jobs at the mill have long been a part of the community's social fabric.

## THE CHOICE IS NOT JOBS-VS-THE ENVIRONMENT

In the wake of the announcement, mill workers, members of the community, and political leaders are seeking to understand the reasons underlying the pending closure and searching for ways to keep the mill open. Much of this effort, however, has become entangled in a larger, national controversy over the Bush Administration's efforts to unravel environmental protections, including some applied to the nation's national forests by the Clinton Administration in the wake of litigation that restricted logging and related activities harmful to spotted owls, salmon, and numerous other species. Hence, many critics of environmental protections—including company president Duane Vaagen, and the area's U.S. Representative, George Nethercutt—cast the mill closure in simple terms, as a contest between jobs and the environment. By this reasoning, the steps needed to reverse the mill closure are straightforward: relax federal environmental laws and regulations governing the adjacent Colville National Forest, restrict the ability of environmental groups to participate in forest-management decision-making, and the crisis will pass.

This jobs-vs.-the-environment argument is an old one, one that has been proven false elsewhere, and an overwhelming body of evidence indicates that it also is false here. Overturning environmental laws and regulations almost certainly will not save jobs at the mill because, in fact, they are not the real causes of the mill's closure. Moreover, rescinding environmental protections for the Colville National Forest probably will have serious, adverse impacts on the local economy's long-run future, reducing both the number of jobs and the levels of income.

The facts don't support the argument of those who blame the pending mill closure on laws, regulations, and processes aimed at protecting the environmental attributes of national forests:

- Mills are closing not just in Republic but across North America. Why? Not because mills don't have enough logs, but because mills worldwide have too many! As a result, the supply of wood products in the U.S. and around

the world so exceeds the demand that prices have fallen to lows not seen for a decade.

- Will increasing the supply of timber from federal lands by repealing environmental protections for national forests prevent mill closures and allow closed mills to reopen? No. Increasing the supply of logs even further will not solve a problem created by an already existing worldwide over-supply of wood products.
- The prices mills pay for logs from national forests generally do not cover the agency's timber-sale costs. In other words, U.S. taxpayers have been footing part of the bill to keep some mills open. By one estimate, the total for the Colville National Forest for 1995-97 was roughly \$19 million.
- Taxpayers further subsidize the mills insofar as the timber industry does not pay the full costs of its unemployment insurance or of repairing its environmental damage (muddy streams, degraded habitat for salmon and trout, etc.). In sum, some mills may have closed long ago if forced to stand on their own and cover their full costs.
- Even with the taxpayer subsidies the industry closes mills. Why? Not because of environmental-protection decisions by the Forest Service, but because even with the subsidies some mills, especially smaller, older ones in isolated areas, such as the mill in Republic, are not competitive with larger mills in regional economic centers.

## **CLOSURE OF THE REPUBLIC MILL STEMS LARGELY FROM ITS INABILITY TO OPERATE PROFITABLY IN RESPONSE TO THE BUSH ADMINISTRATION'S FOREIGN TRADE POLICY AND OVERPRODUCTION BY THE GLOBAL TIMBER INDUSTRY**

The most fundamental reason for closing the Vaagen Brothers Lumber Co.'s mill in Republic, Washington, is the mill's inability to generate a profit, given current market conditions and the mill's high operating costs, relative to those of its competitors.

The market conditions facing the mill are severe. Despite high levels of demand for wood products in the U.S., supplies of these products are even higher. As a result, prices are low, with little prospect of rising substantially in the near future.

Why are supplies of wood products so high and prices so low? A major—probably THE largest—contributing factor is the Bush Administration's foreign trade policy. Last May, the U.S. slapped wood-products producers in Canada with hefty tariffs averaging about 27 percent of the value of Canadian lumber imported to the U.S. Intended to curtail Canadian imports, the tariffs have had the opposite effect. Although some Canadian manufacturers shut down, others boosted production and cut production costs. As a result, supplies of wood products have jumped and

prices have fallen. High growth in worldwide productive capacity virtually ensures that these current conditions will persist.

Faced with the onslaught, U.S. manufacturers have faced a tough choice: either lower production costs further than the competitors or withdraw from the competition. Although the details of its operations remain private, the information available to the public indicates that the mill in Republic, with old equipment and high debt costs, finds itself in the latter group: unable to lower its costs fast enough to remain profitable, it must close. Its closure is not occurring in isolation. Mills across the U.S. have found themselves in similar situations and closed the doors.

Given these market conditions, it is unlikely that any increase in the supply of logs from the Colville National Forest could make the Republic mill operate at a profit. Even if it could, the increase in logs from the national forest could come only at a substantial cost to the overall national economy and to other mills and millworkers. The Colville National Forest (and many others) has consistently incurred net losses in its timber-sale program. Thus, the forest has supplied logs to the Republic mill, and others, only because it received subsidies from American taxpayers. Increasing the supply of logs would increase the subsidy costs to taxpayers. Any subsidized increase in the mill's competitiveness necessarily would place other mills at a disadvantage, perhaps resulting in job losses in other communities.

## **ENVIRONMENTAL DEGRADATION WOULD WEAKEN THE ECONOMY**

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Extensive evidence shows that the value of the recreational opportunities, roadless areas, and other environmental amenities produced by the Colville National Forest far exceed the value of its timber production. The timber industry's role in the economy has diminished, as it contracted while other industries grew. Further growth in non-timber industries in communities, such as Republic, often is linked to the quality of the environmental and other amenities derived from public lands. Degrading the forest's environmental attributes to compensate for the adverse effects of the timber-industry's overproduction in response to the Bush Administration's foreign-trade policies could have lasting, negative impacts on the economy.

## **READER'S GUIDE TO THIS REPORT**

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In support of these conclusions, this report proceeds in three steps:

- In Chapter 2, we identify the full set of economic forces contributing to the mill's closure and demonstrate that the laws and regulations protecting the environmental attributes of the Colville National Forest make, at most, a minor contribution.

- In Chapter 3, we describe the timber industry's role in the overall economy, and demonstrate that, because the significance of this role is declining steeply, the long-run ramifications of the mill's closure will not be as severe as many might fear.
- In Chapter 4, we discuss the ways in which the local economy will benefit from actions that protect and enhance the environmental quality of the Colville National Forest. These benefits are likely to outweigh the costs arising from restrictions on the supply of logs to the timber industry so that, in the long run, the economy will be stronger with the restrictions than without them.

We note that this report represents an initial, preliminary analysis. A subsequent analysis of this mill closure could provide a more complete picture of the local and regional economies, their relationship to the timber industry, timber-industry trends, and the growing importance of national forests and other natural amenities in attracting skilled workers to an area.

## WHO PREPARED THIS REPORT?

Ernie Niemi and Kristin Lee, economists with ECONorthwest, prepared this report for The Wilderness Society, with assistance and analytical contributions from Thomas Michael Power, Chair of the Economic Department at the University of Montana. Tim Coleman and others provided valuable insights and assistance, but ECONorthwest remains solely responsible for the report's contents.

We have prepared this report based on our general knowledge of the natural resource industries and the economy of the Northwest, as well as information derived from government agencies, private statistical services, the reports of others, interviews of individuals, or other sources believed to be reliable. We have not verified the accuracy of such information, however, and make no representation regarding its accuracy or completeness. Any statements nonfactual in nature constitute our current opinions, which may change as more information becomes available. As time passes, the results of this report should not be used without accounting for more recent data and relevant assumptions.

## HOW CAN YOU GET ADDITIONAL INFORMATION?

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Mill closures do not occur in an economic vacuum. Instead, they occur within the context of market conditions, and reflect the inability of a mill—its managers, facilities, and workers—to generate profits within this context. The pending closure of the Vaagen Brothers Lumber Co.’s mill at Republic, Washington, can be understood only when one views it in the context of today’s market conditions and considers its apparent inability to generate profits under these conditions.

In this chapter we describe some of the major characteristics of current market conditions affecting the mill in Republic. Our findings demonstrate that the pending closure of the mill is not an isolated event stemming solely from local conditions, such as the supply of logs from the Colville National Forest. In fact, local timber supply has little to do with the many mill closures that have occurred in recent months and years throughout the Pacific Northwest.

Here, as elsewhere, the fundamental problem is not an under supply of logs, but the reverse: the overall market for wood products is awash with so much product that prices have plummeted. Furthermore, production capacity in the industry far exceeds demand, choking off the prospects for higher prices in the foreseeable future, and restricting the ability of any but the most efficient mills to generate profits.

Within this context, it is clear that the Vaagen Brothers Lumber Co.’s mill at Republic is closing for the most fundamental of economic reasons: its ability to generate profits has been undermined by its competitors. Unless conditions throughout the U.S., Canada, and the entire global market for wood products become far more favorable for producers, it is unlikely that the firm’s profitability will increase enough for the owners to reverse their decision to close the mill. Indeed, this is nothing new to the Vaagen Bros. Lumber company. In 1995 the workers at the Vaagen Bros. Mill in Colville were certified as eligible to apply for NAFTA Transitional Adjustment Assistance because of increased competition from imported goods (Federal Register, 1995), and the same factors are at play now.

Against this backdrop, it is clear that market conditions—and not environmental protections on the Colville National Forest—are the true causes of the mill closure. Given the widespread, nationwide mill closures occurring because of these market conditions, it is unlikely, absent mill-specific evidence to the contrary, that any increase in the supply of logs from the Colville National Forest could overcome these market conditions enough to make the mill profitable.

Furthermore, because the timber-sale programs of the Colville and other national forests consistently operate at a net loss, it seems likely that any

increase in the flow of logs from the Colville National Forest to the Vaagen Brothers Lumber Co. mill would occur only through an indirect subsidy from taxpayers to the company. Setting aside environmental protections could exacerbate the situation. Thus, to bail out the mill in Republic other industries would have to curtail some of their operations, workers in other communities would have to give up some of their incomes, and all Americans would have to accept environmental degradation of the national forest. More specifically, other mills in Washington, the Pacific Northwest, and the nation who do not get subsidies will pay a large part of the costs, since, in a limited market, subsidized output from the Vaagen mill will come at the expense of firms who do not receive such subsidies. All firms and households would be harmed to the extent that additional subsidies to the Vaagen Bros. Mill will come through higher taxes, lower service, or both.

## **BASIC MARKET CONDITIONS: SUPPLY IS OUTSTRIPPING DEMAND**

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Firms competing in the market for lumber, pulp, paper, and other wood products are facing unfavorable, even drastic conditions. The supply of lumber is high, relative to demand, and, hence, prices for lumber are low. This is good news for consumers, but it's very bad news for firms, especially small, isolated, high-cost firms competing in a global market.

There is nothing remarkable about these conditions. The U.S. timber industry has increasingly merged with the global industry, and riding the roller coaster of international commodity prices is an unavoidable feature of a natural resource economy. American farmers and ranchers, mines and smelters, and, of course, its forest products mills have been riding it up and down for a century or more. During the boom times as prices rise higher and higher, the ride is a blast, but it soon becomes stomach-wrenching when prices plummet and keep on falling. The consequences are not pleasant. As we describe below, the current dip in the price of lumber products stems from recent U.S. trade policy and an overall increase in efficiency and capacity in U.S. and Canadian timber mills. It is not tied to the supply of timber on federal lands.

## **U.S. Trade Policy Has Created an Oversupply of Lumber on the U.S. Market**

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Recent U.S. trade policy has distorted the market signals for softwood lumber, resulting in an oversupply of lumber. In a classic example from Economics 101, the excess supply has driven prices down and heated up competition.

Tariffs placed on softwood imports from Canada, which were intended to help U.S. producers, have backfired. Canadian producers have increased

"The tariff had a terrible impact on the Canadian economy and the result was a backlash that was unexpected," said Jenna Morgan, director of government affairs for the National Lumber and Building Material Dealers Association, a Washington-based trade association. "The large Canadian producers, instead of ratcheting back production, have increased it and are supplying more lumber over the border, taking a lower per unit cost and lowering the impact of the tariff."

"The result has been disastrous for the U.S. industry. The same lumber companies that lobbied for the tariffs are now finding the market flooded with inexpensive product, and the U.S. building industry is on break for the winter.

"There is a lot of supply out there and you have the American building season winding down for the winter," Morgan said. "What this is doing is distorting the marketplace and . . . that's the main reason why you've seen prices deflated to the point where they are."

Source: Ezra Fieser, The Daily Record (Baltimore, MD), December 18, 2002

production and modernized their mills to reduce per-unit costs, which has led to a flood of lumber products on the market. These steps have allowed Canadian producers to offset a good part of the effect of the U.S. tariff, and they have become even more effective competitors in American and other markets. This is the primary reason lumber prices are so low right now.

Firms in Washington also have attempted to cut costs and remain competitive. But it simply is not possible for every mill to pursue this strategy successfully. Eventually, the high-cost producers must drop out of the market to bring demand and supply back into a long-run balance.

We in the Pacific Northwest are used to industrial firms responding to over-supply and low prices by reducing costs, temporarily cutting back, or shutting down completely. Regional aluminum plants do that, paper mills do that, mining and smelting operations do that, farmers and cattle producers do that, and, of course, lumber mills have always done it too. Mill closure is a normal, though painful, part of the adjustment process to bring supply and demand back into balance. Prices ultimately begin to recover and at least some of the mills, usually those that operate most efficiently, can return to full production. The forest products industry of northeastern Washington has been

through these market-driven closures for as long as it has sold its lumber products in national markets.

## Highly Efficient Mills Have Reduced Their Costs, Making Smaller, Older Mills Less Competitive

Big mills have responded to the tighter market conditions by investing in cost-reducing capital. They operate more efficiently, turning out lumber with ever-lower costs. They can compete better in the marketplace, taking market share away from mills with higher costs, typically mills that are smaller and more isolated, with higher transportation costs and less operational flexibility. This process inevitably lowers the economic viability of high-cost mills.

Perhaps the single most important theme surrounding the concept of viability is the difference between the large, industrial timber company and smaller companies or private individuals. The largest companies have a diversified portfolio of timberlands, much of which is outside the Pacific Northwest. They

also tend to be integrated, combining logging activities with saw mills, pulp mills, and specialty wood products.

#### **Mill Capacity has Increased Despite Mill Closures**

"There have been about 150 mill closures in the U.S. and Canada over the period 1996-2001. Despite these closures net mill capacity has gone up. 2.1 billion board feet of capacity is from new mills but 13.1 billion feet are from upgrades of existing mills according to Henry Spelter of the US Forest Service. Subtracting 7.5 billion board feet in closed capacity, leaves 7.7 billion feet of capacity gain.

"Spelter concludes that North American manufacturing capacity totals about 72 bbf, while consumption is at 68 bbf, which puts the industry in a condition of 'chronic over capacity.'"

Source: Stevens, 2002

The diversity encompassed within the largest firms adversely affects smaller mills in several ways. In particular, local mills that once received all the logs generated from nearby lands now face competition from hundreds of miles away. Moreover, pressures from large, diversified mills often have forced small mills to respond by simplifying their product lines. This adjustment has an impact similar to that which occurs with the simplification of an ecosystem: the mill becomes less resilient to shock.

## **INCREASING THE SUPPLY OF LOGS FROM NATIONAL FORESTS WOULD HAVE LITTLE IMPACT**

Despite efforts to link the difficulties that lumber mills are currently facing to reduced federal timber harvests, such partisan political bickering makes two fundamental economic errors. First, it assumes the problem lumber mills face is lack of access to raw material rather than a surplus of raw material that is driving prices down. Second, it assumes that gaining access to the most costly sources of supply at the very time that the prices mills can get for their products are at record lows would somehow help the mills.

Logging the timber in roadless areas is costly because it is located in isolated, steep, remote timber stands that require new road systems and special harvesting techniques; to compound the problems with these areas, in general, they are dominated by relatively low valued trees. This is the opposite of the type of supply that would currently be useful to mills, at least if they were asked to carry those costs rather than shifting them onto U.S. taxpayers.

If increasing the timber supply from the Colville National Forest prevented any job losses at all, it would not necessarily occur in the immediate vicinity.

The Colville National Forest and nearby mills, including the one at Republic, are part of a vast regional timber market. Mills as far away as Coeur d'Alene, Idaho, and John Day, Oregon, have recently bid on timber sales on the Loomis State Forest, at the northern border of Washington's Cascade Mountains. Similar competition exists for logs from other lands in northeastern Washington. As a consequence, one cannot be certain that increasing the supply of logs from the Colville National Forest necessarily will yield increased job security for workers at the mill in Republic. Instead, this mill would have to compete for the additional logs with other mills, with the winner being the most efficient mill(s) in the overall timber industry of the Pacific Northwest and Northern Rockies. One could be confident that the boost in timber jobs would occur locally only if the mill in Republic is the most efficient in the region.

The publicly-available evidence indicates that the mill in Republic has higher costs relative to its competitors and, hence, there is no certainty that increasing the supply of logs from the Colville National Forest would prevent the mill's closure.



# THE TIMBER INDUSTRY'S ROLE IN THE LOCAL ECONOMY: NOT AS IMPORTANT AS IT ONCE WAS

Much of the fear about how mill closures will affect northeastern Washington's economy stems from the belief that the timber industry plays a special role in the economy, forming the base supporting all other public and private-sector activities. The theory associated with this belief is called the economic-base theory, and the theory generally is applied through the use of IMPLAN, a computer model that sees the economy as inflexible and frozen forever in time. According to the economic-base theory, the basic industries, which include mining and other resource-extraction industries—as well as logging—warrant special protection because any reduction in them would cause the base to crumble, bringing down all the superstructure sitting atop it.

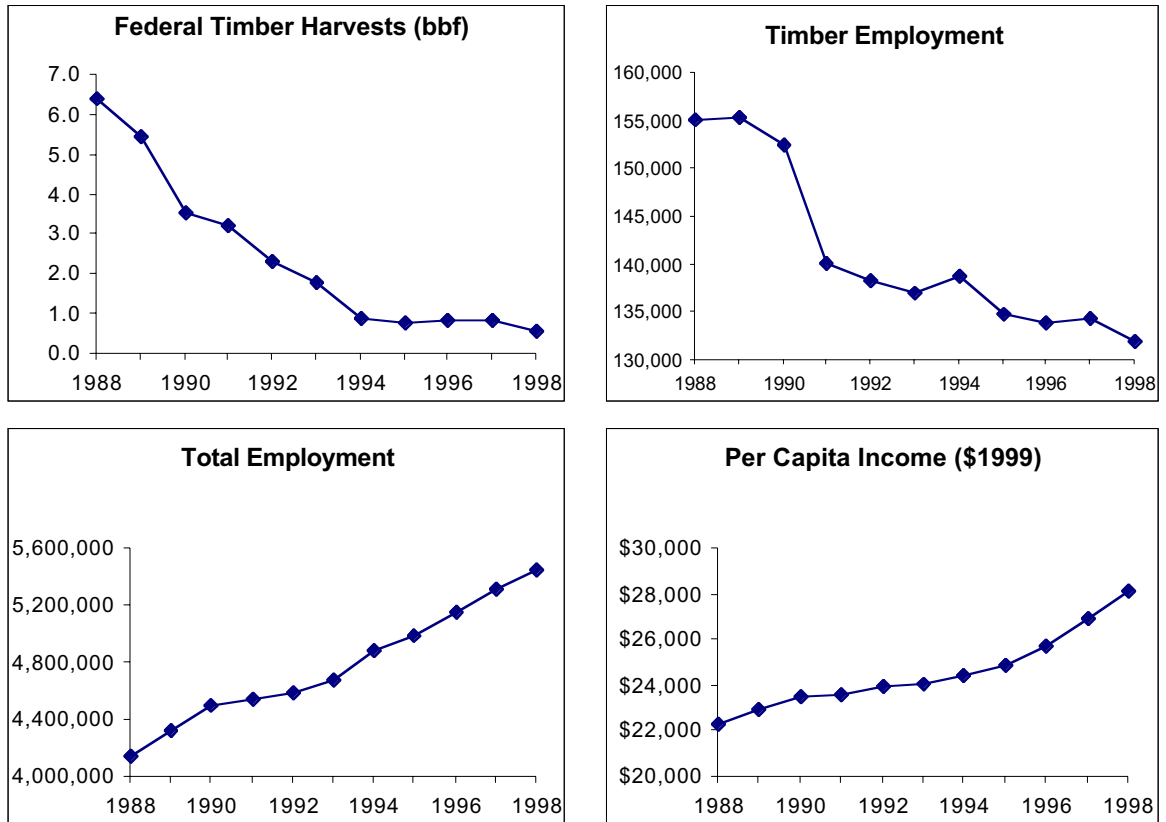
For decades, timber-industry advocates in Washington and other states in the West have used the economic-base argument to strike fear into the hearts of public officials, communities, and the public whenever anyone proposed to rein-in the supply of logs from public lands. For example, one prominent logging advocate and former overseer of the Forest Service concluded that, because of the timber-industry's special role as a component of the economic base, adding a second shift with 67 workers at a plywood mill would be more important to the economy than building a new high-tech plant with 1,000 workers (Beuter, 1995).

The fundamental flaws in the economic-base theory have been pointed out for decades by professional economists not aligned with the timber and other resource industries (Barkley and Allison Jr., 1968; Courant et al., 1997; Cunningham, 1995; Krikelas, 1992; O'Sullivan, 1993). Proof bearing more directly on the issues associated with commercial logging on the Colville National Forest comes from studies of changes in logging on federal lands throughout the region. Figure 1, for example, shows how the economies of Oregon and Washington have responded to reductions of more than 90 percent in logging on federal lands. Before the reductions, countless industry-affiliated economists, political leaders, and others predicted that even a minor drop in logging would, through the economic-base effect, have catastrophic impacts on jobs throughout the economy. Instead, total employment and earnings have grown rapidly.

There is no reason to anticipate that Washington's response to the small reductions in mill output that might result from the mill closure in Republic will be any different. The view that the timber industry plays a special role in the economy represents an obsolete sense of how today's economy works. Whatever the timber industry's economic role in distant decades, it now plays an increasingly minor role, one that cannot generate the new jobs and higher incomes Washingtonians need if they are to enjoy increases in prosperity

along with other Americans. As a mature industry, where mills in Washington produce commodity products that compete against essentially identical products from producers in a global market, there is no hope that the industry will meaningfully generate new jobs and higher incomes. Instead, competitive pressures will continue to force firms to hold costs, primarily labor costs, in check. Consequently, even if timber harvests and production remain stable, wood-products employment will continue to fall as it has dramatically for over half a century. Thus, if Washingtonians want the national forests to play a larger role in generating jobs and incomes, they will have to look to industries other than the timber industry, and to forest uses other than logging.

**Figure 1. The Economy of Oregon and Washington Grew Rapidly in the 1990s, Even Though Logging on Federal Lands Plummeted**



Source: ECONorthwest with data from U.S. Department of Commerce (2000) and Warren (2000).

## LOGGING IN NATIONAL FORESTS IS NOT ESSENTIAL TO WASHINGTON'S ECONOMIC VITALITY<sup>1</sup>

As a first broad brush overview of how Washington and its communities have coped with dramatic declines in National Forest timber harvests, we consider the state as a whole and three broad economic regions in the state: southwest, central, and eastern Washington. Following this overview, we will focus on northeast Washington.

The declines in National Forest timber harvests in eastern Washington have been dramatic, as shown in Table 1. If we average over two five year periods to avoid measuring between untypical years, the declines between the 1986-1990 average and the 1994-1998 average were 87 percent for the state as a whole, 89 percent for the southwest corner of the state, 81 percent for the central counties, and 68 percent for the 11 eastern-most counties, as shown in Table 2. The bulk of the National Forest harvests that was available in the second half of the 1980s was no longer available in the second half of the 1990s.

**Table 1. National Forest Timber Harvest Changes in the 1990s**

National Forest	1986-1990 Average Harvest (mmbf)	1994-1998 Average Harvest (mmbf)	1990s Reduction In NF Harvest (mmbf)
Gifford Pinchot	391.7	44.3	-347.4
Okanogan	89.7	16.3	-73.4
Wenatchee	134.8	36.8	-98
Colville	106.3	32.5	-73.8
Umatilla	20.9	8.1	-12.8

Source: Tom Power with data from Washington Department of Natural Resources. Timber Harvest by County Aggregated by National Forest.

Given the familiar twin assumptions that forest products are a key element in the economic base of many counties outside of the Puget Sound area and that National Forests are an indispensable source of raw material, one might expect this dramatic fall in federal timber supply to have had a crippling effect on the economic vitality of the state and the sub-state regions that significantly depend on the forest products industry. The data in Table 2 show that at the statewide and broad regional basis, no such effects are evident. As federal timber harvests plummeted during the 1990s,

<sup>1</sup> This section draws heavily on Power (2000).

employment expanded by almost 18 percent statewide. The southwest and eastern counties saw employment grow even faster, by a fifth to a quarter. Total real income received by residents grew even faster, allowing average real income to rise steadily. Population also expanded, with counties outside the Puget Sound area often leading the state. In the southwest counties, where the declines in federal harvests were the greatest, employment, population and income growth were the highest.

**Table 2. Washington's Economy Remained Strong Despite the Decline in National Forest Timber Harvests**

Region	Change in NF Timber Harvest 86-90 to 94-98	Change in Total Jobs 1990-97	Change in Total Real Income 1990-97	Change in Average Real Income 1990-97	Change in Population 1990-97
Washington State	-86.8%	17.6%	25.5%	9.7%	14.5%
Southwest (7 county)	-88.6%	25.6%	32.5%	7.6%	23.1%
Central (9 county)	-80.9%	17.3%	21.2%	3.3%	17.3%
Eastern (11 county)	-68.0%	19.3%	20.1%	7.1%	12.1%

Source: Tom Power with data from US BEA REIS and Washington Department of Natural Resources

Notes: SW = Skamania, Clark, Cowlitz, Wahkiakum, Pacific, Lewis, Thurston;

Central = Okanogan, Chelan, Kittitas, Yakima, Douglas, Klickitat, Benton, Franklin, Grant.

East = Pend Oreille, Stevens, Ferry, Lincoln, Spokane, Asotin, Columbia, Garfield, Walla Walla, Adams, Whitman

This regional economic vitality despite dramatic declines in national forest timber harvests is all the more impressive because it took place despite the decline in employment opportunities in the forest-products industry. In central Washington almost 500 forest-products jobs were lost, but over 24,000 jobs were added in other industries. In the northeast, due to the opening of new facilities, forest-products employment actually expanded by several hundred. As shown in the data on employees covered by unemployment insurance in Table 3, even in counties with a high dependence on forest products for employment, employment gains were strongest outside the forest-products sector. Most counties experienced net job creation. Clearly the decline in federal timber harvests did not cripple either the state economy or its various regional economies. It is possible, however, that the decline in federal timber harvests had localized impacts that were negative and severe. We therefore take a closer look at counties with a high dependence on forest products for employment and income.

**Table 3. Changes in Forest-Products Jobs and All Other Jobs: Central and Eastern Washington**

Region/ County	Forest Products Jobs				Jobs Outside Forest Products			Net Job Creation 90-98
	as % of 1998 Total Jobs	1998 Total	1990-98 Change	1990-98 % Change	1998 Total	1990-98 Change	1990-98 % Change	
<b>Central (4 county)</b>	1.7%	3,486	-484	-12.2%	156,771	24,155	18.2%	23,671
Chelan	0.7%	244	8	-3.4%	36,026	6,505	22.0%	6,513
Kittitas	0.9%	106	-64	-37.6%	11,165	2,188	24.4%	2,124
Yakima	2.5%	2,353	1	0.0%	91,668	11,314	14.1%	11,315
Okanogan	4.2%	783	-429	-35.4%	17,912	4,148	30.1%	3,719
<b>Northeast (4 county)</b>	1.6%	3,131	303	10.7%	194,922	37,653	23.9%	37,956
Ferry	9.3%	165	-35	-17.5%	1,609	12	0.8%	-23
Stevens	11.1%	1,103	-25	-2.2%	8,796	2,217	33.7%	2,192
Pend Oreille	15.1%	375	90	31.6%	2,101	515	32.5%	605
Lincoln	0.7%	20	-4	-16.3%	2,994	637	27.0%	633
Spokane	0.8%	1,468	277	23.3%	179,422	34,549	23.6%	34,272

Source: Tom Power with data from Washington State Employment Security Department Reports, 1990-98

Note: These data represent employment covered by unemployment insurance. They do not include the self-employed, those working for very small firms, and some industries. A larger percentage of jobs in forest products than jobs outside forest products are "covered."

## Impacts of Declining National Forest Harvests in Northeast Washington <sup>2</sup>

The three counties in the northeast corner of the state—Ferry, Stevens, and Pend Oreille—were among the most timber-dependent counties in the state in 1988. At that time about one out of every six jobs were in forest products. Between the late 1980s and the late 1990s national forest timber harvests fell

<sup>2</sup> In the discussion of employment changes in northeastern Washington, two different sources of data have been used. The US Dept. of Commerce Regional Economic Information System has been used for total jobs, total personal income, and population. The forest-products employment, however, is taken from the "covered" employment released by the Washington Employment Security Department. "Covered" refers to "covered by employment insurance." Since the self-employed, those working in very small firms, and some industries are not "covered," they are not included in this job data. The percentage of jobs in forest products is based on covered employment: the ratio of forest products to total covered employment. Because a larger percentage of forest products jobs are "covered" than is true for total employment, estimates of the relative importance of forest products as a source of jobs are biased upward by using covered employment data. Statewide there are 51,000 forest-products workers in covered employment while there are a total of 58,000 total jobs in forest products. But when expressed as a percentage of total employment, forest products is the source of 2.0 percent of all covered employment but only 1.7 percent of total employment.

60 to 80 percent in these counties. During the same time period Stevens County lost about 260 and Ferry County about 100 forest-products jobs. Pend Oreille, although it lost about 50 wood-products jobs, gained, on net, 210 forest-product jobs as a result of the construction of a new paper mill. Spokane County also added about 150 new forest-products jobs. When this group of counties is looked at together, there was almost no change in forest products employment despite the loss of 70 percent of the federal timber harvest.

**Table 4. Changes in Employment, Real Income, and Population: 5 NE Washington Counties**

Counties	% of 1988 Jobs in Forest Products	Change in NF Harvest 86-90 / 94-98 Averages	1988-97 Total New Jobs Created	1988-97 % Change in Total Real Income	1988-97 % Change in Population	1988-97 % Change in Average Real Income
Ferry	17.8%	-79.4%	596	33.4%	21.1%	8.4%
Stevens	18.2%	-61.5%	3,775	33.7%	29.8%	2.5%
Pend Oreille	10.0%	-65.0%	1,137	40.3%	29.6%	7.8%
Lincoln	1.0%	--	1,665	8.7%	8.1%	1.9%
Spokane	1.0%	--	51,953	32.9%	14.5%	15.5%
3 NE Counties	16.8%	-69.4%	5,508	34.9%	28.6%	4.2%
5 NE Counties	2.1%	-69.4%	58,526	32.3%	15.9%	13.6%

Sources: Tom Power with data from Washington Employment Security Department; US BEA REIS; Washington Department of Natural Resources

Because of the geography of these counties, with relatively isolated towns such as Colville and Republic that are not actually within commuting distance of the Spokane urban area, the losses in the northern towns cannot be seen as being offset by job gains in the southern portions of these counties and region. Nonetheless, the employment gains in these counties were impressive. Table 4 presents employment<sup>3</sup> and income data from the Bureau of Economic Analysis, over a longer time period than the data in Table 3. These data show that Stevens County added almost 4,000 new jobs while Pend Oreille added over 1,100. Even Ferry County added 600 net new jobs despite the loss of 100 forest-products jobs. All three of the northern tier counties saw significant population growth: Stevens and Pend Oreille had growth of about 30 percent. Ferry, the most isolated of the counties, saw its population rise 21 percent. The large population increase in Stevens County nearly matched its growth in real income, resulting in relatively slow growing average real income. The three northeastern tier counties saw population increases greater than that of the state as a whole.

<sup>3</sup> The Bureau of Economic Analysis employment data is more comprehensive than the Washington covered-employment data. See footnote 2 and the notes to Table 3 for a description of the jobs not included in covered-employment data.

For the five-county region as a whole, almost 60,000 new jobs were created, total real income grew by a third, population expanded 16 percent, and average real incomes rose 14 percent. Clearly this “timber-dependent region” was also not stagnating due to the loss of 70 percent of the national forest timber harvest.

## COMMERCIAL LOGGING IN WASHINGTON'S NATIONAL FORESTS COSTS TAXPAYER DOLLARS

Commercial logging on the national forests in Washington is a money-losing activity for the Forest Service and American taxpayers. Table 5 reports data, derived from an analysis by the U.S. General Accounting Office, on the losses for the period, 1995-97. For none of the national forests did the revenues from

the sale of timber cover the costs of selling the timber. The total loss for all forests was \$153 million.

**Table 5. Financial Losses in the Timber-Sale Program for Washington’s National Forests, 1995-97**

National Forest	Timber Sale Program Losses (Million Dollars)
Colville	18.98
Gifford Pinchot	49.9
Mt. Baker-Snoqualmie	22.0
Okanogan	20.6
Olympic	15.4
Wenatchee	26.3
Total	153.1

Source: Taxpayers for Common Sense (2000).  
Numbers may not sum to total due to rounding.

These losses occurred during a period when prices the Forest Service received for timber (called stumpage prices) were unusually high. Prices then rose, largely in response to reductions in logging in Oregon and Washington. Since then prices have fallen much farther.

Demand for lumber declined throughout 2000, and the domestic market became oversupplied. Domestic producers are exporting less lumber, and must compete with Canadian imports. The average price for framing lumber for 2000

dropped to \$323 per 1,000 board feet, the lowest annual average since 1992 (in nominal dollars) (Harwood, 2001).

Since commercial logging of eastern Washington’s national forests was a money-losing proposition for American taxpayers when log prices were unusually high, the losses would be even greater with lower prices. Although market prices probably will recover somewhat from their current lows, there is a lower likelihood that prices for timber on federal lands will recover to the same extent. Indeed, they may not recover at all.

These losses have some strong implications for evaluating the pending closure of the Vaagen Bros. Mill in Republic. To the extent that this mill has processed logs from the national forests, its operations have been dependent on the taxpayer subsidies that produced these logs. Increasing the flow of logs

to prop-up the mill into the future could be accomplished only with larger subsidies.

# NON-TIMBER ECONOMIC BENEFITS FROM NATIONAL FORESTS ARE SUBSTANTIAL

## Chapter 4

Washington's national forests produce many different goods and services, besides timber, that are valuable to local, regional, and national economies.

Recreation that takes place in undeveloped regions has grown in popularity over the last few decades, and is expected to continue growing. From the early 1980s to the mid-1990s, the number of Americans that backpacked grew by 6 million, a 73 percent increase. The number of cross-country skiers grew by 1 million, a 23 percent increase (Cordell et al., 1999). Wildlife-related recreation is, on average, more popular in Washington than throughout the rest of the country. In Washington, 56 percent of the population participates in wildlife-related recreation, compared to 39 percent of the total U.S. population (U.S. Fish & Wildlife Service, 2002).

Table 6 presents the data for those goods and services that have been quantified, for two sub-regions covering the northeastern and central areas of Washington, derived from a U.S. Forest Service study completed as part of the Interior Columbia Basin Ecosystem Management Project (ICBEMP) (Haynes and Horne, 1997). In the Northern Glaciated Mountains sub-region, the study found that, in 1995, timber accounted for 14.5 percent of the total value of the goods and services listed

### Natural Forest Values: A Partial List

#### Watersheds

- Water Quantity
- Water Quality
- Timing of Water Flows
- Flood Control
- Headwater Fisheries

#### Recreation

- Wildlife Viewing
- Hunting
- Angling
- Forest Travel and Experience
- Adventure Recreation
- Other Dispersed Recreation

#### Scenic Integrity

- Scenic Beauty
- Open Space
- Natural Vistas

#### Spiritual/Cultural Values

- Opportunities for Solitude in a Natural Setting
- Interaction with and Experience of Natural Systems

#### Passive Use Values

- Existence of Natural Wildlands
- Existence of Endangered Species Including Salmon

#### Climate Stabilization

- Carbon Storage
- Micro Climates
- Air Quality

#### Other Natural System Values

- Ecosystem Health
- Soil Productivity
- Resistance to Catastrophic Fire
- Scientific Understanding
- Stability and Resilience

#### Commercial Goods

- Lumber
- Livestock Forage
- Minerals
- Special Forest Products (mushrooms, pine cones, other)
- Commercial Recreation (outfitting, ski areas, other)

Source: Power (2000).

in Table 6. Timber's contribution is projected to drop to 9.36 percent by 2045. In the Northern Cascade sub-region, timber accounted for less than eight percent of quantified goods and services in 1995, dropping to 2 percent by 2045.

The aggregate value of the indicated types of recreation far exceeded the value of timber in each of the sub-regions. The high intrinsic values of these areas can translate into local economic activity and growth if local communities are successful in using these resources to attract the people—as visitors or as residents—who value these most highly.

**Table 6: Percentage Contribution of Timber and Other Activities to the Total Value of Goods and Services Derived from Federal Lands, 1995 (Actual) and 2045 (Projected)**

	<b>Northern Glaciated Mtns</b>	<b>Northern Glaciated Mtns</b>	<b>Northern Cascades</b>	<b>Northern Cascades</b>
	1995	2045	1995	2045
Logging	14.5	9.4	7.8	2.0
Grazing	1.1	0.8	0.09	0.04
Recreation				
Camping	3.3	4.2	5.9	3.8
Day Use	5.1	8.0	4.2	3.8
Fishing	7.3	4.6	1.2	0.6
Hunting	9.6	6.3	3.2	1.5
Motor Boating	0.3	0.2	0.04	0.02
Motor Viewing	2.2	9.3	1.9	21.2
Non-Motor Boating	0.5	0.4	0.05	0.03
ORV	0.2	0.1	0.3	0.2
Snowmobiling	0.1	0.1	0.2	0.1
Trail Use	2.7	6.4	9.3	9.3
Viewing Wildlife	1.0	1.2	0.6	19.0
Winter Sports	2.9	3.4	5.4	3.9
Total Recreation	35.1	44.2	32.3	63.5
Unroaded Existence	49.3	45.7	59.8	34.6

Source: Haynes and Horne (1997).

Includes primarily lands administered by the Forest Service and Bureau of Land Management. Does not include values for production of water, modulation of flooding, and sequestration of carbon. Numbers may not sum to 100 percent due to rounding.

The finding for Washington, that timber represents a minor portion of the total value of goods and services derived from the national forests, is not unique, or even unusual. In 1995 the Forest Service conducted an analysis of the contribution of the national forests, considered as a whole, to the overall economy (U.S. Department of Agriculture, 1995). Looking at the value of different goods and services as a percent of the national forests' contribution to the Gross Domestic Product, the study found that, by the year 2000, the national forests would contribute \$145.1 billion of goods and services to the national economy. The left side of Figure 2 shows the breakdown. Recreation accounts for three-quarters of this amount, or \$108.4 billion, while fish and wildlife account for another \$14.4 billion, or ten percent. Timber, in contrast, accounts for less than three percent, and all the major commodities—timber, minerals, and forage—account for less than 12 percent.

The right side of Figure 2 shows a similar breakdown, looking at the national forests' contribution to jobs. Here again, recreation accounts for three-quarters of the total, while timber accounts for fewer than 3 percent of the jobs derived from the national forests.

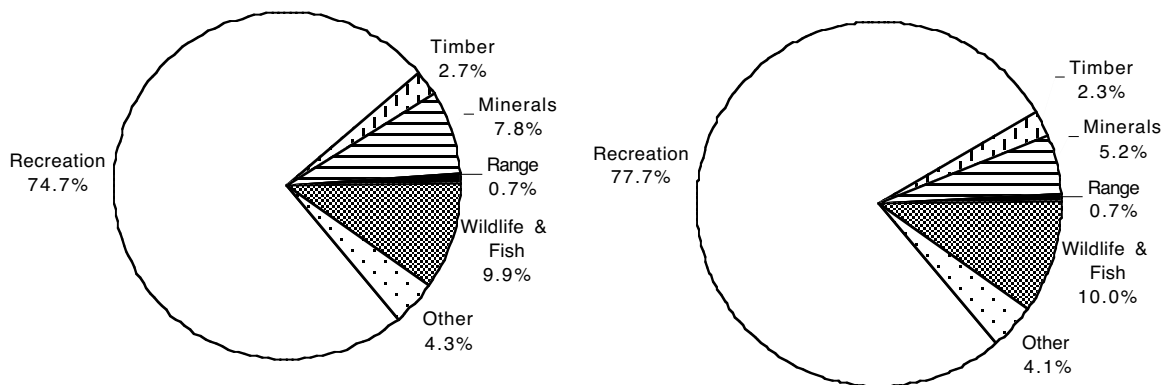
**Figure 2. Timber Accounts for a Small Portion of the Total Value and Total Jobs Produced by the National Forests in the U.S.**

**Contribution to Gross Domestic Product**

Total Value: \$145 billion (1999 dollars).  
Excludes carbon sequestration, clean water and other services provided by national forests.

**Contribution to Jobs**

3.3 million jobs derived from the national forests.  
Excludes carbon sequestration, clean water and other services provided by national forests.



Source: U.S. Department of Agriculture (1995).

The data in Figure 2 are currently being reassessed, following the discovery of ambiguities in recreation data. The general message of Figure 2—that the services produced by the national forests outweigh the goods—seems robust, however, because the underlying data omit at least two additional services

the national forests in Washington and elsewhere provide: the provision of clean, cool water and the sequestration of carbon to reduce the effects of carbon dioxide on the global climate. (Figure 2 also omits consideration of the existence values associated with unroaded areas.) Unroaded forests provide water that is cleaner and cooler than water degraded by pollution from roads and commercial logging. They also sequester more carbon than the forests that are logged. Preliminary estimates indicate that the summed value of these services is potentially comparable to recreation values (Niemi and Fifield, 2000). If these preliminary estimates prove valid, then adding them to the analysis would reveal that commercial logging is a very small share of the total value of goods and services derived from national forests. Moreover, as it is typically carried-out, commercial logging results in a diminution of the other, larger values. It also generates logging jobs at the expense of jobs associated with the recreational and other forest uses.

Communities in northeastern Washington, and elsewhere, can grow their economies without increasing the amount of timber harvested from national forests nearby. Rather, their futures lie in their ability to capitalize on the economic benefits of high-quality natural amenities such as forests and clean water. Amenity-supported economic development is creeping towards Republic. It is found to the north, south, and east. Likewise, communities in the Flathead and Bitterroot Valleys of western Montana, which used to be heavily reliant on timber-industry employment, have experienced enormous declines in the amount of timber harvested from national forests and, in addition, the closure of almost all of their mills. These are now among the most economically-vital (and fastest-growing) counties in the US.

Ferry County and Republic, despite their isolation—and partly because of their isolation—have a lot of untapped economic potential unrelated to timber and mining. As other communities shifting away from resource-extraction-based economies have found, the proximity to high-quality natural resources could become an asset in transitioning into a new economic future.

## CONCLUSION

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Based on the wide body of evidence presented in this report, it is clear that the pending mill closure in Republic, Washington is the result of the Bush Administration's foreign-trade policies and market forces originating far from the boundaries of the Colville National Forest.

Actions that protect and enhance the environmental quality of the Colville National Forest will generate benefits that will likely outweigh the costs arising from restrictions on the supply of logs to the timber industry. In the long run, the economy will likely be stronger with the restrictions than without them.

## REFERENCES

- Barkley, P.W. and T. H. Allison Jr. 1968. "Economic Base Studies in Resource Administration." *Land Economics* 44 (4): 470-479.
- Beuter, J.H. 1995. *Legacy and Promise: Oregon's Forests and Wood Products Industry*. Oregon Business Council and Oregon Forest Resources Institute. January.
- Cordell, K.H., B.L. McDonald, R.J. Teasley, J.C. Bergstrom, J. Martin, J. Bason, and V.R. Leeworthy. 1999. "Outdoor Recreation Participation Trends." In *Outdoor Recreation in American Life*.
- Courant, P.N., E. Niemi, and W.E. Whitelaw. 1997. *The Ecosystem-Economy Relationship: Insights from Six Forested LTER Sites*. ECONorthwest. A Report to the National Science Foundation. Grant No. DEB-9416809. November.
- Cunningham, T.J. 1995. "Structural Booms: Why the South Grows." *Federal Reserve Bank of Atlanta Economic Review* May/June: 1-10.
- Federal Register. 1995. *Vaagen Brothers Lumber Inc. Colville, Washington; Amended Certification Regarding Eligibility to Apply for NAFTA Transitional Adjustment Assistance*. Department of Labor. November 24.
- Harwood, J. 2001. "Declining Demand for Lumber Saws Off Producers' Good Times." Eugene, Oregon: *Register-Guard*, February 18.
- Haynes, R.W. and A.L. Horne. 1997. "Chapter 6: Economic Assessment of the Basin." In *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins, Volume IV*. Edited by T.M. Quigley and S.J. Arbelbide. General Technical Report PNW-GTR-405. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. June. Pgs. 1715-1869.
- Krikelas, A.C. 1992. "Why Regions Grow: A Review of Research on the Economic Base Model." *Economic Review, Federal Reserve Bank of Atlanta* July/August: 16-29.
- Niemi, E. and A. Fifield. 2000. *Seeing the Forests for their Green: Economic Benefits of Forest Protection, Recreation and Restoration*. ECONorthwest for the Sierra Club. August.
- O'Sullivan, A.M. 1993. *Urban Economics*, Second Edition. Homewood, IL: Irwin.
- Power, T. 2000. *The Economic Impact of Preserving Washington's Roadless National Forests*. University of Montana. June 13.

Stevens, J. 2002. *Timber Trends*. Campbell Group. May.

Taxpayers for Common Sense. 2000. *From the Ashes: Reducing the Harmful Effects and Rising Costs of Western Wildfires*. Washington, D.C. December.

U.S. Department of Agriculture, Forest Service. 1995. *The Forest Service Program for Forest and Rangeland Resources: A Long-Term Strategic Plan*. U.S. Department of Agriculture, Forest Service. Draft 1995 RPA Program. October.

U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis. 2000. *Regional Economic Information System 1969-1998 (on CD-ROM)*. RCN-0250.

U.S. Fish & Wildlife Service. 2002. *2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. U.S. Department of Interior. October.

Warren, D. 2000. *Production, Prices, Employment, and Trade in Northwest Forest Industries, All Quarters 1998*. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. Resource Bulletin. PNW-RB-231. May.