Station Bulletin 102
January 2015

Idaho's Forest Products Industry

Current Conditions
and
2015 Forecast

……..

Produced by

The College of Natural Resources at the University of Idaho and the Bureau of Business and Economic Research at the University of Montana.

……..

The authors of this report are:

Philip S. Cook, Policy Research Scientist, Policy Analysis Group, College of Natural Resources, University of Idaho, Moscow, Idaho, (208) 885-5980

Todd A. Morgan, Director of Forest Industry Research, Bureau of Business and Economic Research, University of Montana, Missoula, Montana, (406) 243-5113

Steven W. Hayes, Research Forester, Bureau of Business and Economic Research, University of Montana, Missoula, Montana, (406) 243-5113

Colin B. Sorenson, Research Economist, Bureau of Business and Economic Research, University of Montana, Missoula, Montana, (406) 243-5113

R. Garth Taylor, Ph.D., Research Professor, Department of Agricultural Economics and Rural Sociology, University of Idaho, Moscow, Idaho, (208) 885-7533

Jay O'Laughlin, Ph.D., Professor Emeritus of Forestry and Policy Sciences and Director Emeritus, Policy Analysis Group, College of Natural Resources, University of Idaho, Moscow, Idaho

Idaho Forest, Wildlife and Range Experiment Station
Moscow, Idaho

Director
Kurt S. Pregitzer, Ph.D.

University of Idaho

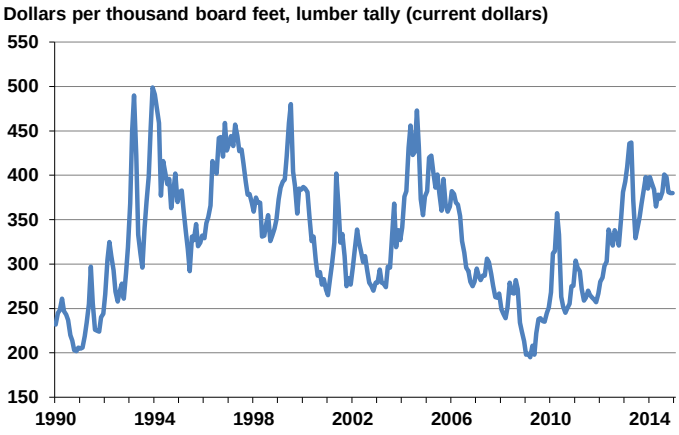
This publication is issued as contribution No. 1081 of the Idaho Forest, Wildlife and Range Experiment Station, College of Natural Resources, University of Idaho, Moscow, ID 83844-1132.

Idaho's Forest Products Industry
Current Conditions and 2015 Forecast

Operating Conditions

In 2014 nationwide average prices for lumber and other wood products remained about the same as they were in 2013.* For example, the nationwide composite lumber price average for 2014 was $384 per thousand board feet lumber tally, the same as it was in 2013 and above the 25-year nominal price average of $329 (**Figure 1**). Prices generally were less volatile in 2014 than they were in 2013.

Figure 1
Nationwide Composite Lumber Prices
Monthly Weighted Average
1990-2014



Source: Random Lengths Publications, Inc.

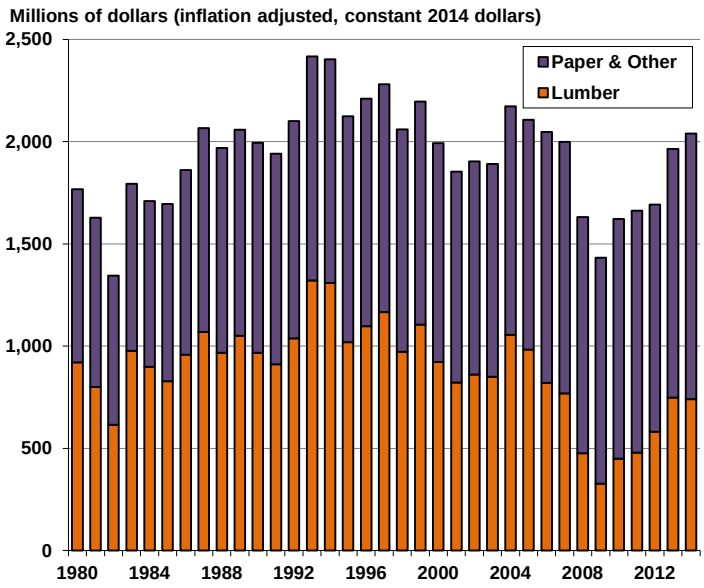
During 2014, housing starts in the U.S. grew by about 9 percent, from 924,900 in 2013 to roughly 1 million, slightly less than earlier forecasts. Mills throughout North America continued to increase production by bringing recession-idled capacity back into operation. For many of Idaho's major wood products manufacturers, the gains in U.S. housing and the overall economy translated into continued recovery from the "Great Recession" of 2007-2009, which affected the industry most dramatically in 2009 (**Figure 2**).

Idaho Forest Products Industry Sales, Production, and Employment during 2014

Sales trend by industry segment. Total sales of forest products manufactured in Idaho were $2.6 billion in 2014, up 4.5 percent from $2.5 billion in 2013. Sales of primary forest products manufactured in Idaho during 2014 were estimated to have risen slightly to just over $2.0 billion, compared to slightly less than $2.0 billion (in constant 2014 dollars) during 2013 (**Figure 2**), continuing the modest recovery from the recession. Sales results for each segment of the industry were mixed in 2014: lumber sales were estimated at $740 million, down from $749 million in 2013; paper and other primary product sales (including plywood) were estimated to be $1.3 billion, up from $1.2 billion; and secondary wood and paper products sales were an estimated $570 million, up from $532 million.

*All values for calendar year 2014 in this report are estimates based on information available through mid-November 2014.

Figure 2
Idaho Primary Forest Products Industry (FPI) Sales
1980-2014



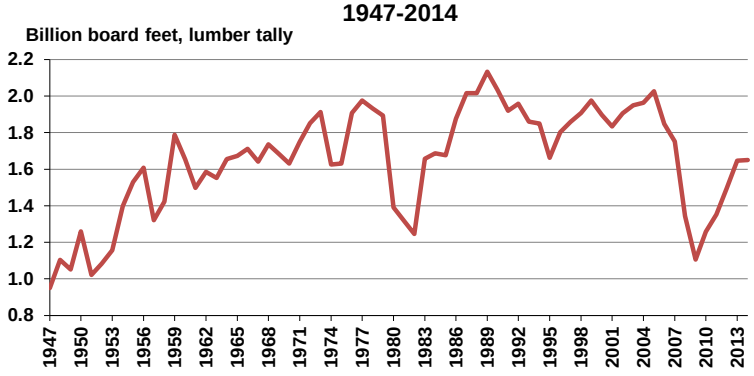
Sources: Bureau of Business and Economic Research, University of Montana; Western Wood Products Association.

Economic impact of sales (multiplier effect). Because of linkages to supporting industries, each dollar of wood and paper products sold and exported from the state generates, on average, an additional $0.60 of sales by other industries within the state. About 90 percent of primary wood products and 65 percent of primary paper products are exported out of the state; we assume 65 percent of secondary products are exported. Using the output multipliers in the IMPLAN model, the total impact in Idaho from converting timber into consumer products is more than $3.7 billion in sales, of which $1.1 billion are from industries that support forest products manufacturing, including heavy equipment, trucking and other transportation-related services as well as many wholesale, retail, and service sectors of the economy.

Lumber production trend. In 2014 lumber production in Idaho's mills was an estimated 1.6 billion board feet (lumber tally), about the same as it was in 2013 (**Figure 3**). Lumber is the largest component of Idaho's wood products industry. The residuals from manufacturing lumber from logs provide not only the raw materials for Idaho's pulp and paper industry, but also a renewable source of energy. For example, the University of Idaho's main campus in Moscow is heated by steam from boilers fueled primarily with sawmill residues, as are most of the lumber industry's dry kilns. Some mills also use the steam from burning renewable wood resources to make electricity.

Employment and worker income. Forest products industry employment in 2014 was estimated at 11,740 jobs, an increase of 2 percent from 11,480 jobs in 2013 (**Figure 4**). Wages and salaries in the forest products industry were estimated at $429 million in 2014, up from $421 million in 2013. This is about 1.7 percent of all wages and salaries in the state. Worker earnings in the forest products

Figure 3
Idaho Lumber Production
1947-2014



Sources: Bureau of Business and Economic Research, University of Montana; Western Wood Products Association.

industry totaled $667 million in 2014, up from $642 million in 2013. This is about 1.6 percent of all worker earnings in the state, or 2.1 percent of all private non-farm worker earnings. Average worker earnings in the forest products industry were $56,800 per job, which is about 37% higher than the Idaho average of $42,000 for all jobs in all non-farm sectors. In addition, the industry is efficient at adding value, and is highly linked to other industries, so many businesses benefit from forest products manufacturing by providing goods and services to forest-based businesses.

Value-added by forest products manufacturing. Gross Domestic Product (GDP) is the sum of all value added from economic activity in the state. Forest products manufacturing was about 0.9 percent of all industry GDP, 1.1 percent of private industry GDP, and 7.0 percent of manufacturing GDP in Idaho. Wood products and paper manufacturing in Idaho accounted for roughly 1.3 percent of total employment and 1.1 percent of worker personal income. The GDP per job in the forest products industry was $67,000, about 6 percent higher than average GDP per job across all industries, indicating that wood products and paper manufacturing jobs add relatively more value to the state economy than many other sectors. Since 2001, the inflation-adjusted growth of GDP per job in wood and paper manufacturing has increased more than 77 percent, more than doubling average GDP growth per job across all industries, demonstrating greater efficiency in wood and paper manufacturing when compared to many other industries.

Economic impact of employment (multiplier effect). An estimated 6,100 jobs in the industry were export-related, defined as sales of manufactured forest products outside the state. The IMPLAN model estimates that each export-related job supports 1.7 jobs in other sectors of Idaho's economy. This is an additional 10,370 indirect or induced jobs resulting from export sales of forest products. To sum up, the multiplier effect from inter-industry linkages results in a total of 22,110 jobs in Idaho from converting timber to useful consumer products. In addition to industry wages and salaries of $429 million in 2014, the IMPLAN multiplier effect shows each dollar of wages associated with export sales generated $1.10 of wages in supporting industries, for a total wage and salary impact of $674 million.

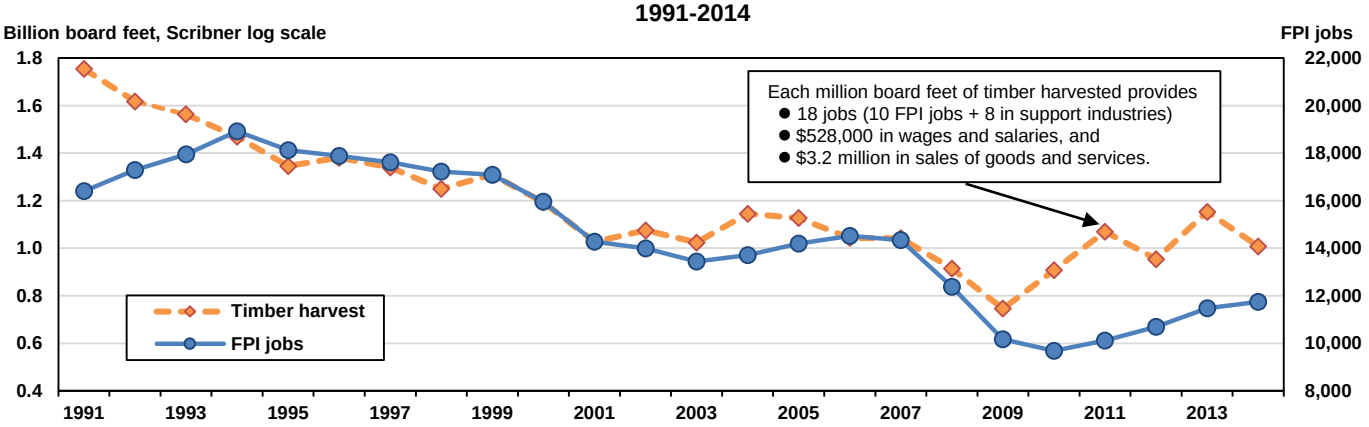
Idaho Timber Harvest and its Impact

Forest products industry jobs and worker income depend upon the harvesting of timber. During 2014 timber harvest volume in Idaho was estimated to be about 1.0 billion board feet (Scribner log scale), a decrease of about 13 percent from 2013, but a substantial increase from the recession-induced level of 746 million board feet in 2009 (**Figure 4**). As noted in the text box in **Figure 4**, today each million board feet of timber harvested and processed in the state provides approximately 18 jobs (10 in the forest products industry plus 8 indirect or induced jobs in supporting industries), $528,000 in wages and salaries, and generates more than $3.2 million in sales of goods and services.

Since the mid 1990's, Idaho's forest products industry has been sustained primarily by timber harvests from private and state lands (**Figure 5**). During 2014, private lands provided 60 percent of Idaho's timber harvest volume, while state lands provided 29 percent. About 11 percent of the timber harvest volume came from U.S. National Forest System lands.

As **Figure 5** illustrates, between 1947 and 1990 federal lands provided, on average, 43 percent of the timber harvested in the state. In 1990 federal timber harvests began a system-wide steep decline as a result of several policies. In the past ten years, federal lands within Idaho have provided just 10 percent of the harvest. Approximately 39 percent of Idaho's land (20.4 million acres) is within the U.S. National Forest System—Oregon ranks a distant second at 25 percent. More than three-fourths of Idaho's timber resources are on federal lands, a total that does not include 4 million acres of federal forest lands in the National Wilderness Preservation System.

Figure 4
Idaho Timber Harvest and Direct Employment of Forest Products Industry (FPI) Jobs
1991-2014



Sources: Bureau of Business and Economic Research, University of Montana; U.S. Forest Service, Region One Office, Missoula, Montana; U.S. Department of Commerce, Bureau of Economic Analysis, regional accounts data.

Outlook for 2015

General economic outlook. General economic conditions in the U.S. influence wood products markets. The consensus view from the *Survey of Professional Forecasters* (Federal Reserve Bank of Philadelphia, November 2014) is that the U.S. economy will continue to improve in 2015. Real GDP is forecast to grow 3.0 percent in 2015 compared to 2.2 percent in 2014. Forecasters also predict only about a one in twelve chance of experiencing a negative growth quarter for GDP in 2015. Unemployment is forecast to fall to 5.6 percent in 2015 from an average of 6.2 percent in 2014. In 2015, average monthly non-farm employment is predicted to grow at a rate 2.9 percent above the 2014 rate. Inflation is expected to remain low in 2015 at about 2.1 percent.

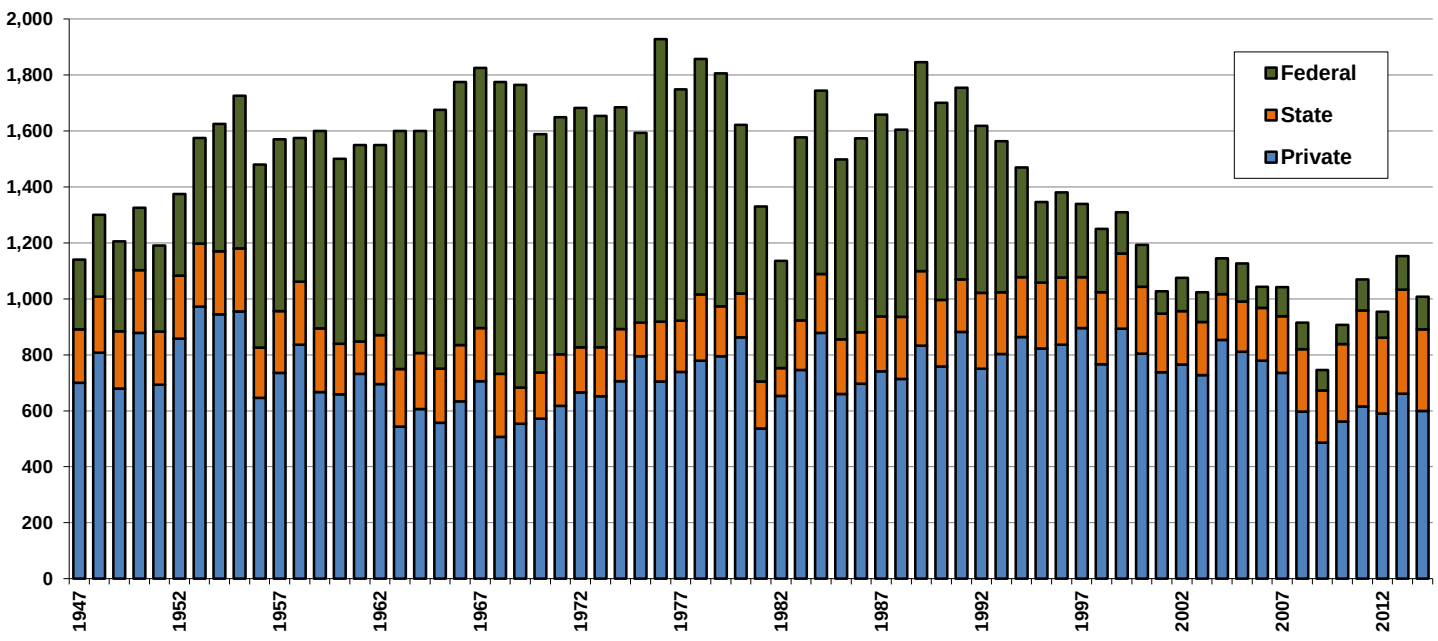
General wood products outlook. Wood products markets in 2015 are generally expected to improve, but may be more volatile than in 2014. U.S. housing starts are highly correlated with Idaho wood products markets; since 1994, 90 percent of the variance in the level of Idaho lumber production can be explained by U.S. housing starts. U.S. housing starts are expected to increase slightly to 1.2 million units in 2015. The long-term demographic fundamentals for housing starts remain strong, and mortgage interest rates are predicted to remain near 2014 levels; however, financing for first-time homebuyers is expected to remain challenging. Coupled with continued underutilized capacity to produce lumber in North America and strong but erratic export markets, wood products prices are expected to increase but remain volatile. Continued economic recovery, increased housing starts and rising product prices should benefit Idaho's forest industry, further stimulating production, sales, and employment for the state's mills and loggers. Many Idaho mills have underutilized capacity, and timber processors are positioned to increase output in response to improved markets.

Timber supply issues. With more than 80 percent of the state's growing- stock volume on timberlands under federal ownership, availability of timber is a challenge to Idaho's forest industry. Without a reliable and affordable supply of timber, mills have difficulty responding to increasing demand for wood products. As noted above, the proportion of Idaho's timber harvest coming from national forests decreased dramatically in the mid 1990's. After remaining at lower levels for two decades, there are some indications that timber supplies from national forests may increase. For example,

- The federal Agricultural Act of 2014 (Farm Bill) became law in February and contains several provisions related to national forest management. Revised National Environmental Policy Act (NEPA) rules for administrative appeals should streamline project implementation. "Good Neighbor Authority," which allows state agencies to conduct forest restoration activities on national forests lands, was extended nationwide. "Stewardship End Result Contracting" was permanently authorized.
- The Farm Bill also authorized the U.S. Secretary of Agriculture to designate landscape scale treatment areas, at the request of state governors, where national forests are at risk due to insect and disease infestations. Projects within these designated treatment areas involving less than 3,000 acres are subject to a NEPA categorical exclusion. In March, the Governor of Idaho submitted a request to the Chief of the U.S. Forest Service that identified 1.8 million acres of treatment areas; the request was approved by the Chief in May. The U.S. Forest Service plans to begin implementing projects on some of these areas in 2015.
- The Nez Perce-Clearwater National Forest is revising its land and resource management plan. Under the current plan, the volume of timber sold increased from 26.4 million board feet in 2002 to 51.5 million board feet in 2011. The Proposed Action under the new draft plan proposes an annual timber harvest volume of between 58 and 100 million board feet.

Each of these policy actions may result in more timber being available for harvest from Idaho's national forests.

Figure 5
Idaho Timber Harvest by Ownership
1947-2014



Sources: Bureau of Business and Economic Research, University of Montana; USDA Forest Service Region One, Missoula, Montana.