



Station Bulletin 101  
January 2014

Idaho Forest, Wildlife and  
Range Experiment Station  
Moscow, Idaho

Director  
Kurt S. Pregitzer, Ph.D.

University of Idaho

# Idaho's Forest Products Industry

## Current Conditions and 2014 Forecast

.....

*Produced by*

The Bureau of Business and Economic Research at The University of Montana-Missoula, in cooperation with the College of Natural Resources at the University of Idaho, and with funding provided by the Idaho Forest Products Commission.

.....

*The authors of this report are:*

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

Jay O'Laughlin, Ph.D., Professor of Forestry and Policy Sciences and Director, Policy Analysis Group, College of Natural Resources, University of Idaho, Moscow, Idaho, (208) 885-5776

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

Charles E. Keegan III, Research Professor, Bureau of Business and Economic Research, The 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

This publication is issued as contribution No. 1078 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

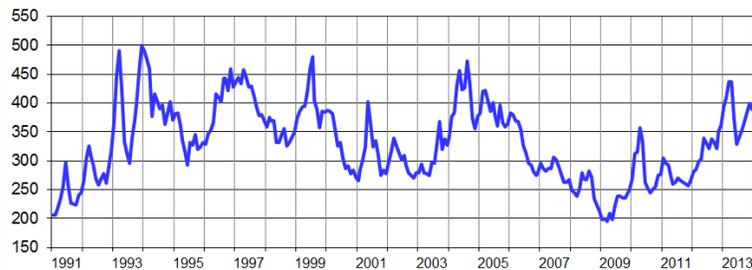
## Current Conditions and 2014 Forecast

### Operating Conditions

In 2013 nationwide average prices for lumber and other wood products were the highest they have been since 2005. During 2013, new home starts in the U.S. grew more than 15 percent, from 780,600 in 2012 to more than 900,000, boosting wood products markets. Housing starts were unexpectedly high in the last quarter of 2012 and first quarter of 2013. Lumber prices responded, reaching eight-year highs in March and April 2013 (**Figure 1**); structural panel prices followed a similar trend. Mills throughout North America increased production by bringing recession-idled capacity back into operation. The additional supply of wood products and a mid-year cooling of the U.S. housing market temporarily drove product prices down. Lumber prices have since climbed steadily from their June low (**Figure 1**), finishing the year about 19 percent higher than in 2012.

**Figure 1**  
Nationwide Composite Lumber Prices  
Monthly Weighted Average  
1991-2013

Dollars per thousand board feet, lumber tally (current dollars)



Source: Random Lengths Publications, Inc.

For the majority 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 2007-2008, which affected the industry most dramatically in 2009 (**Figure 2**). In 2009 more than 80 percent of Idaho's forest products firms reported decreases in profits, sales, and production. Since then, 2013 was the fourth year of continuing improvement. Indicators of continuing improvement are as follows:\*

- During 2013, 64 percent of Idaho's wood products firms reported increased sales and production when compared to 2012; only 7 percent of the firms reported decreases in sales compared to 2012, and only 8 percent indicated lower production levels;
- In 2013 profits increased at 58 percent of the firms; only 14 percent reported a decline in profits for 2013, compared to 21 percent reporting drops in profits for 2012;
- 47 percent of the firms reported employment increases during 2013, and only 7 percent reported decreasing employment. This was much improved from 2012, when 34 percent of firms reported employment increases and 24 percent reported decreases;

\* From a telephone survey of Idaho's wood products manufacturers conducted in November and December of 2013. Response rate was 68 percent, with 39 primary and 35 secondary wood products manufacturing facilities responding to survey questions.

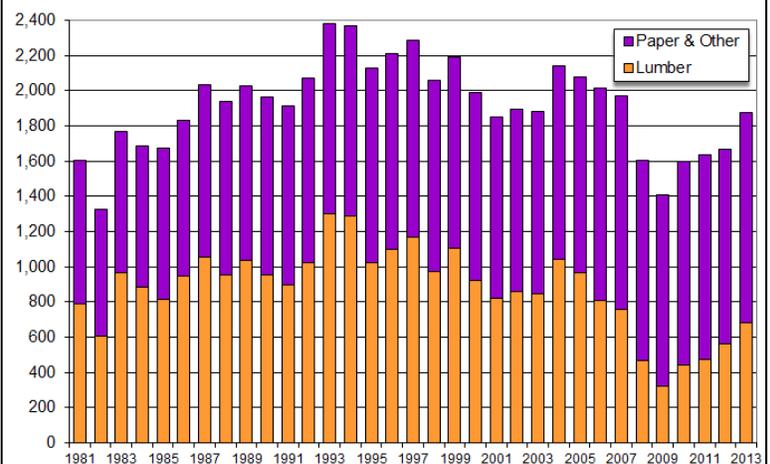
- 40 percent of the firms reported making a major capital expenditure during 2013, compared to just one-third of firms in 2012, and less than 20 percent of them in 2009 and 2010;
- 16 percent of the firms temporarily curtailed production during 2013, compared to 26 percent during 2012, which was a major improvement from 2010 and 2009 when 45 and 60 percent of firms, respectively, reported curtailed production; and
- 95 percent of the firms did not eliminate any production capacity during 2013, and 15 percent indicated developing new product lines.

### Idaho Forest Products Industry Sales, Production, and Employment during 2013

**Sales trend by industry segment.** Sales of primary forest products manufactured in Idaho during 2013 were more than \$1.8 billion, compared to less than \$1.7 billion in 2012 (**Figure 2**), confirming the improved operating conditions described above. All segments of the industry improved in 2013: lumber sales were \$680 million, up from \$572 million in 2012; paper and other primary product sales (including plywood) were \$1.2 billion, up from \$1.1 billion; and secondary wood and paper products sales were \$575 million, up from \$430 million. Industry total sales were \$2.4 billion in 2013, up from \$2.1 billion in 2012.

**Figure 2**  
Idaho Forest Products Industry (FPI) Primary Sales  
1981-2013

Millions of dollars (inflation adjusted, constant 2013 dollars)



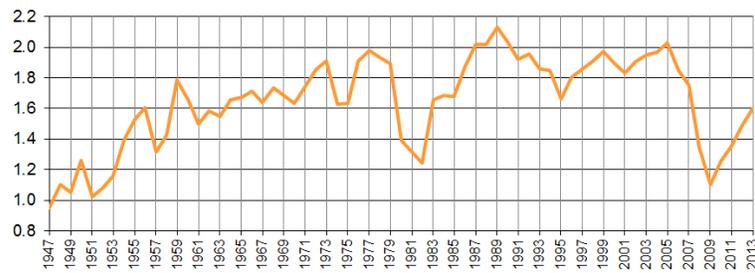
Sources: Bureau of Business and Economic Research, The University of Montana-Missoula; Western Wood Products Association.

**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 the primary wood products and 65 percent of the 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 \$3.5 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 2013 lumber production in Idaho’s mills was an estimated 1.6 billion board feet (lumber tally), an increase of more than 7 percent from 1.5 billion board feet in 2012 (**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 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.

**Figure 3  
Idaho Lumber Production  
1947-2013**

Billion board feet, lumber tally



Sources: Bureau of Business and Economics Research, The University of Montana-Missoula; Western Wood Products Association.

**Employment and worker income.** Forest products industry employment in 2013 was estimated at 10,510 workers, an increase of 2 percent from 10,320 workers in 2012 (**Figure 4**). Wages and salaries in the forest products industry were estimated at \$366.5 million in 2013, up from \$360 million in 2012. This is about 1.5 percent of all wages and salaries in the state, or 1.9 percent of all private nonfarm wages and salaries. Personal income or worker earnings in the forest products industry totalled \$547.1 million, which is \$53,000 per employee. This is 27 percent higher than the Idaho average of \$41,600 for all employees in all 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.** Although wood products and paper manufacturing in Idaho account for roughly 0.8 percent of total employment and 1.1 percent of worker personal income earnings, the industry’s percentage of value added is greater than this. Gross Domestic Product (GDP) is the sum of all value added from economic activity in the state. Forest products manufacturing was about 1.5 percent of all industry GDP, 1.7 percent of private industry GDP, and 8.3 percent of manufacturing GDP in Idaho. The GDP per employee in the industry was 77 percent higher than average GDP per employee 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 employee in wood and paper manufacturing has increased more than 30 percent, more than doubling average GDP growth per employee 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 5,460 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 9,280 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 19,790 jobs in Idaho from converting timber to useful consumer products. In addition to industry wages and salaries of \$366.5 million in 2013, the IMPLAN multiplier effect is each dollar of wages associated with export sales generated \$1.10 of wages in supporting industries, for a wage and salary impact of \$576 million. Using labor income as a measure, only three states have a higher dependence than Idaho on the forest products industry—Maine, Oregon, and Mississippi.

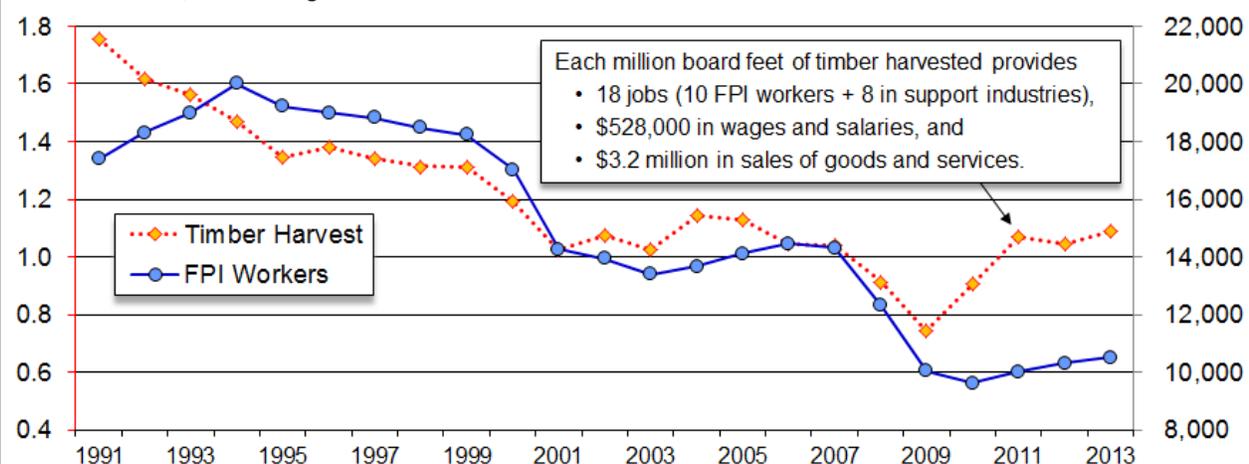
**Idaho Timber Harvest and its Impact**

All of the 19,790 jobs in the industry (10,510 direct and 9,280 indirect or induced) and worker income depend upon timber harvest. During 2013 timber harvest volume in Idaho was estimated at almost 1.1 billion board feet (Scribner log scale), an increase of about 4 percent from 2012 and a substantial increase from the recession-induced level of 746 million board feet in 2009 (**Figure 4**).

**Figure 4  
Idaho Timber Harvest and Direct Employment of Forest Products Industry (FPI) Workers  
1991-2013**

Billion board feet, Scribner log scale

FPI workers



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

Today's timber harvest is less than it was in 1947, when timber harvest totalled 1.2 billion board feet; this increased to more than 1.5 billion in 1953 and nearly 2 billion in the late 1970s and 1980s (Figure 5). Lumber production followed, doubling from 1 billion board feet to 2 billion during the same period (Figure 3). 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 2001, Idaho's forest products industry has been sustained primarily by timber harvests from private and state lands (Figure 5). During 2013, private lands provided more than half (56 percent) of Idaho's timber harvest volume, while state lands provided 34 percent. About 10 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 timberlands are federal lands, a total that does not include 4 million acres of federal forest lands in the National Wilderness Preservation System.

## Outlook for 2014

**General outlook.** Wood products markets in 2014 and 2015 are generally expected to improve, as new home construction is expected to exceed 1.1 million units in 2014 and 1.4 million in 2015. Coupled with considerable unutilized 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 still have unutilized capacity, and timber processors are positioned to increase output as markets improve.

**Idaho industry executives' outlook.** Executives in Idaho's forest products industry have a positive outlook for the coming year. Fifty-five percent of wood products manufacturers responding to our annual survey believe that 2014 will generally be better than 2013, and just 5 percent expect conditions to be worse. While 66 percent of firms expect employment levels to remain constant, 30 percent expect to increase the number of employees in 2014. More than one-third of the responding firms expect to make a major capital improvement in 2014, and more than half of the firms expect product prices and profits to increase. Over 70 percent of Idaho wood products firms expect gross sales to be higher in 2014 than during 2013.

**Factors constraining industry growth potential.** Issues that Idaho's forest industry executives expressed concerns about include the overall economy, the housing market, and timber availability. With more than 80 percent of the state's timber growing stock volume 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. More than 70 percent of primary wood products firms responding to our annual survey of Idaho wood products firms and 60 percent of secondary wood processors indicated that raw material availability is a very important issue to their firm. About 20 percent of primary industry respondents indicated log supply was a major issue that affected their facility in 2013, and about 50 percent indicated timber supply issues will affect them in 2014.

