



# **Trends in the Montana Forest Products Industry**

**COFE Annual Meeting  
July 8, 2013**

**Steve Hayes, CF**

**Bureau of Business and Economic Research**

**The University of Montana**



- **BBER Who We Are**
- **The research and public service branch of the University of Montana School of Business Administration**
- **Mission – to serve the general public, business, labor, and government by providing an understanding of the economic environment in which Montanans live and work**



- **What We Do**
- **State & local economic analysis**
- **Survey research**
- **Health care industry research**
- **Manufacturing industry research**
  - **Forest industry research**



## ➤ **Forest Industry Research**

- **State-level industry analysis**
- **Removals from forest inventory:  
Resource Planning Act Assessment &  
Timber Products Output (RPA-TPO)**
- **Cost of forest management activities**
- **Other related projects**

# Data Sources



- **Periodic industry surveys and censuses**
- **Published information on the forest products industry**
- **Interviews/discussions with mill managers, state and federal utilization specialists**

# Forest Industry Censuses (with IW & PNW FIA)



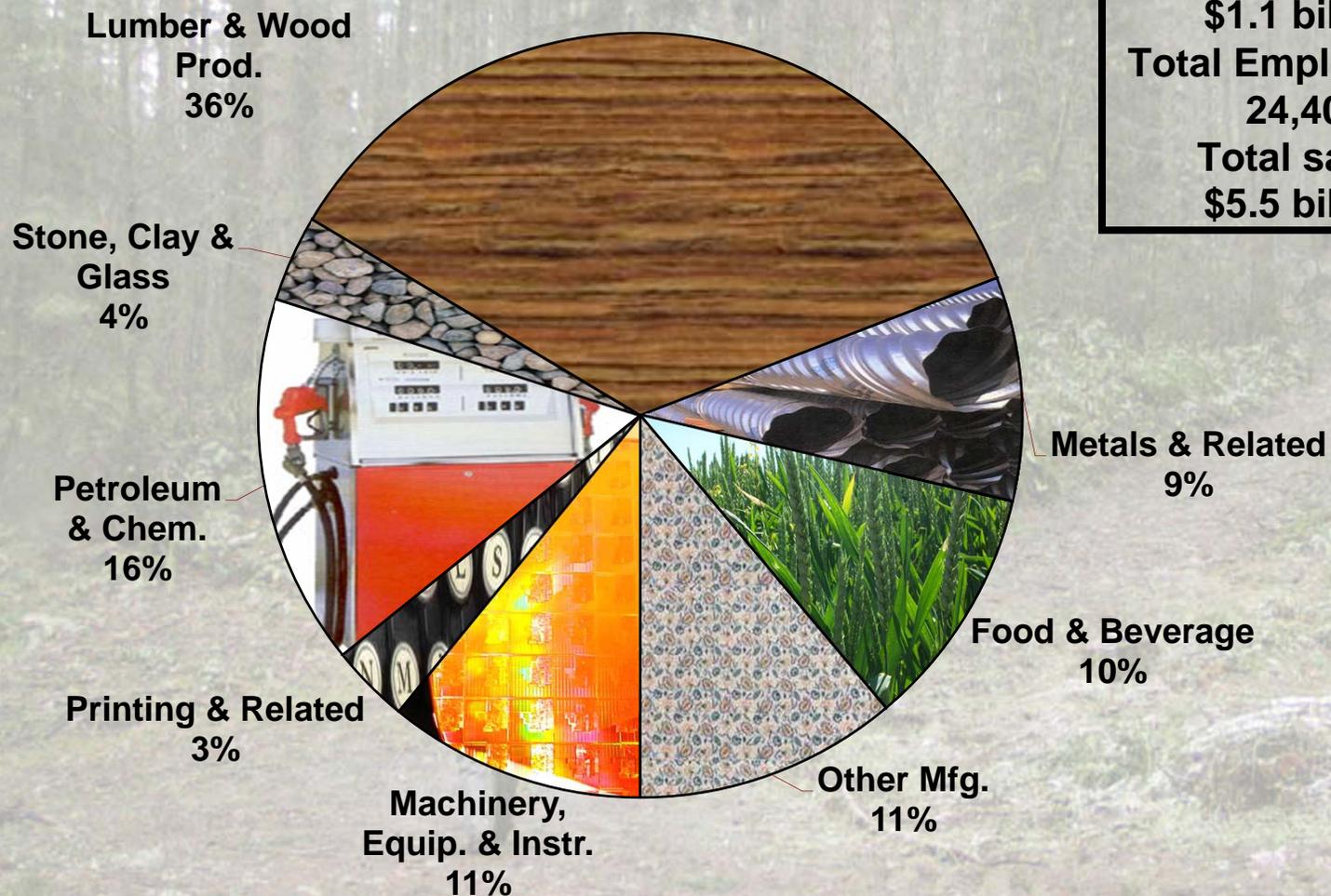
- Mill type, capacity, equipment
- Timber harvest volume, use, species, size, county, & ownership
- Product volume, sales, & geographic distribution
- Mill residue/wood fiber use
- Associated employment



# Montana Manufacturing

## 2004 Labor Income Distribution

**Total Labor Income:**  
**\$1.1 billion**  
**Total Employment:**  
**24,400**  
**Total sales:**  
**\$5.5 billion**



# Montana Manufacturing

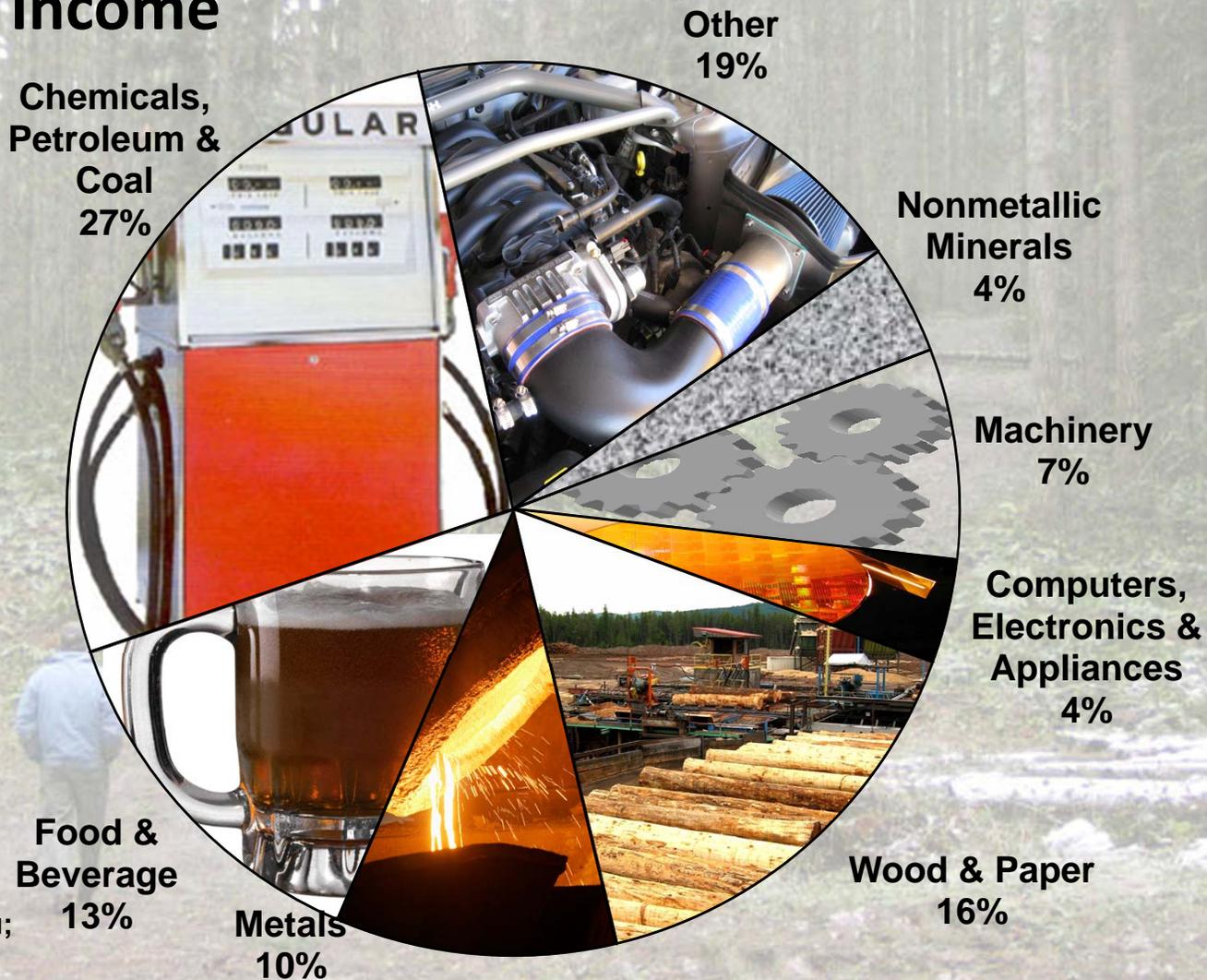
## 2012 Labor Income



**Total Sales:**  
\$13 billion

**Total Employment:**  
~21,250

**Total Labor Income:**  
\$1.08 billion



Sources: BEA-REIS; Census Bureau;  
and BBER estimates



# Montana's Forest Products Industry

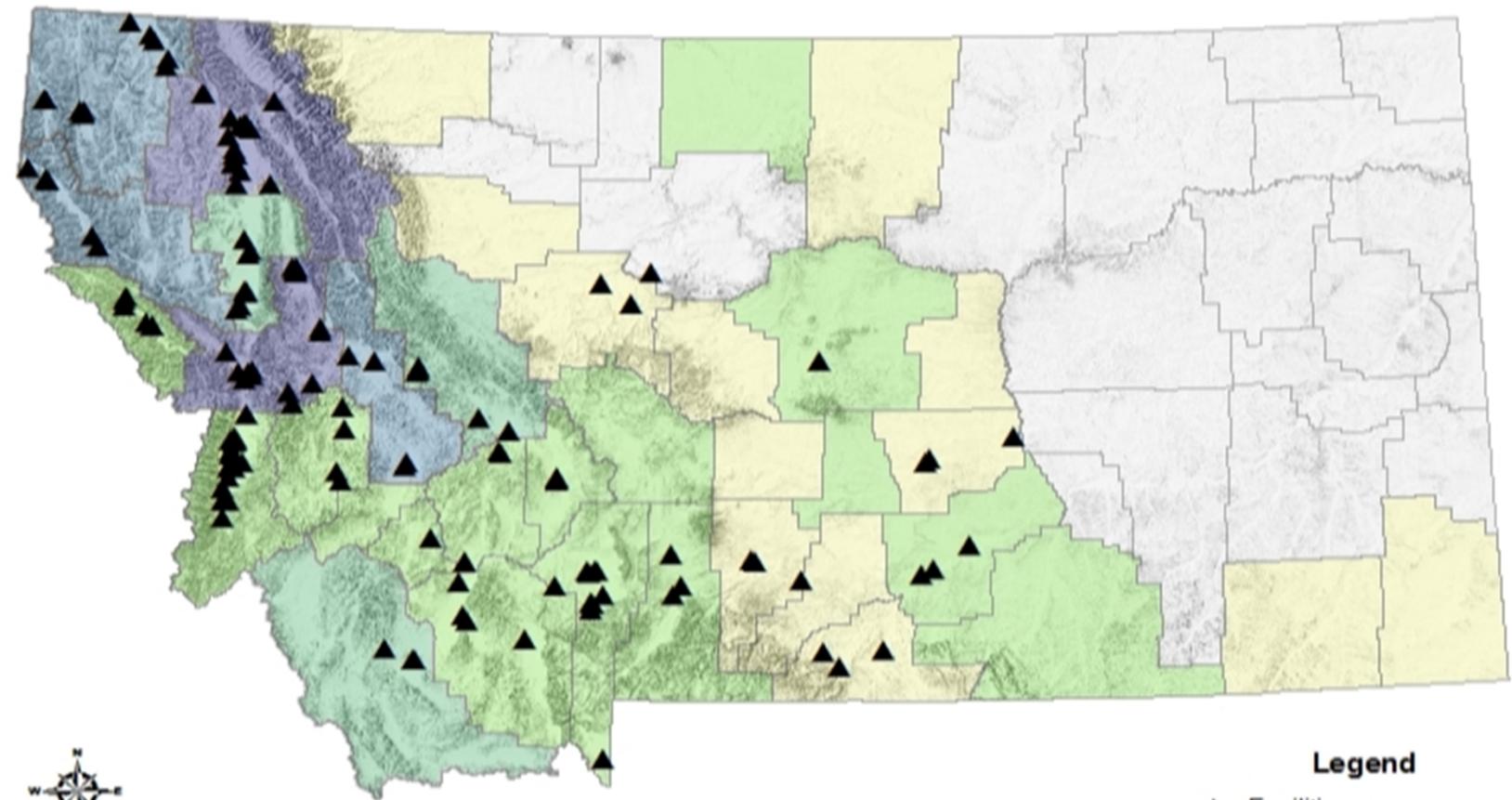
2004

2012

- 963 MMBF of capacity
- 10,695 workers
- \$410 million in labor income
- Sales of \$1.2 billion

- 485 MMBF of capacity
- 6,650 workers
- \$295 million in labor income
- Sales of \$880 million

# Montana Primary Timber Processing Facilities and Timber Harvest, 2009



**Legend**

- ▲ Facilities
- Total Harvest by County**
- .01 - 1,000 MBF
- 1,000 - 10,000 MBF
- 10,000 - 20,000 MBF
- 20,000 - 50,000 MBF
- 50,000 MBF and over

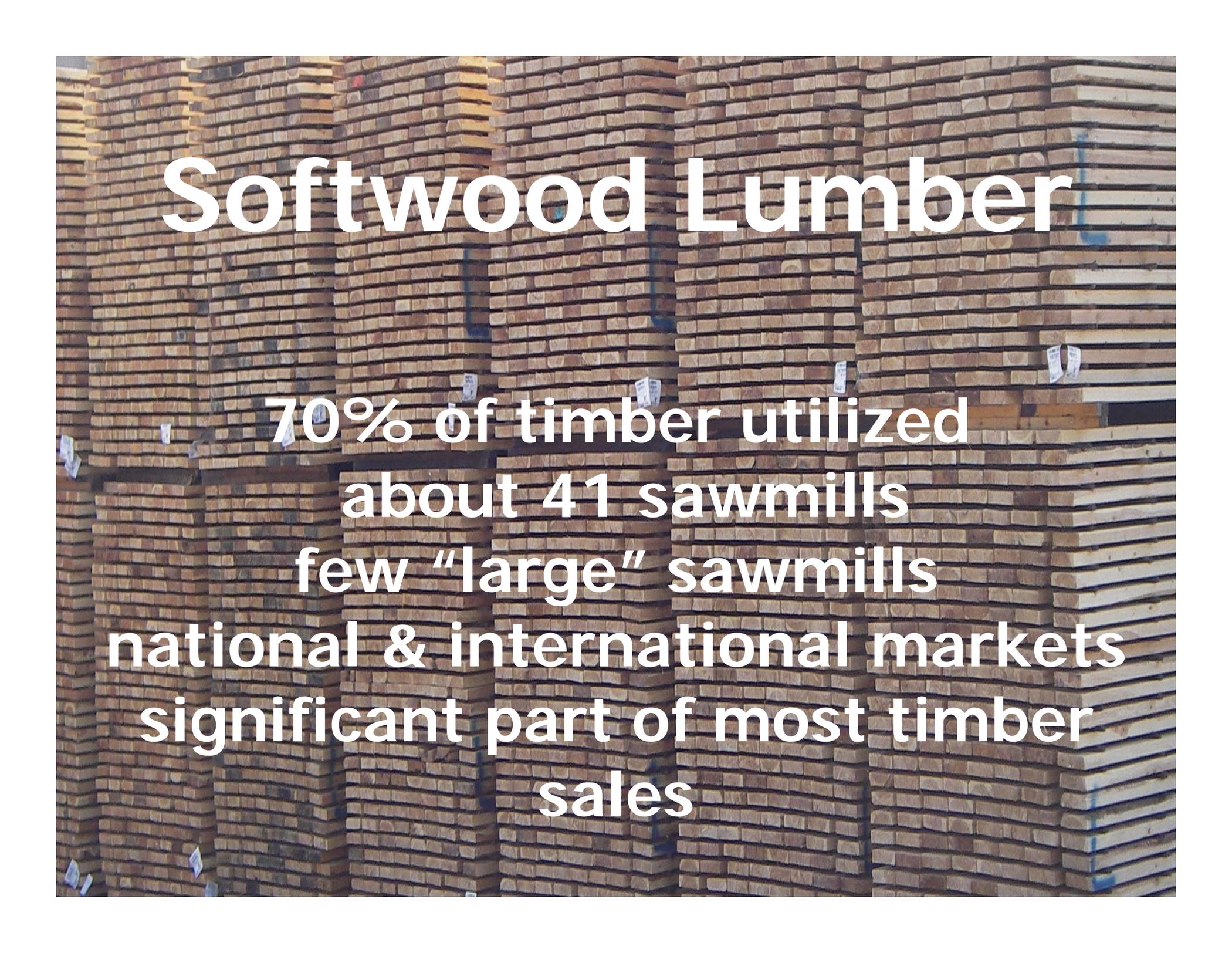
Map created by Chelsea P. Molver, Bureau of Business and Economic Research.  
Source data courtesy of ESRI, Inc.; Montana Natural Resource Information System (NRIS); and Bureau of Business and Economic Research.  
For more information contact Chelsea Molver (chelsea.molver@business.umt.edu) or visit <http://www.bber.umt.edu>.  
Created November 2, 2011.



## **Primary forest products industry:**

- logging, and processing of logs into wood products, and processing wood residues from timber-processing plants**





# Softwood Lumber

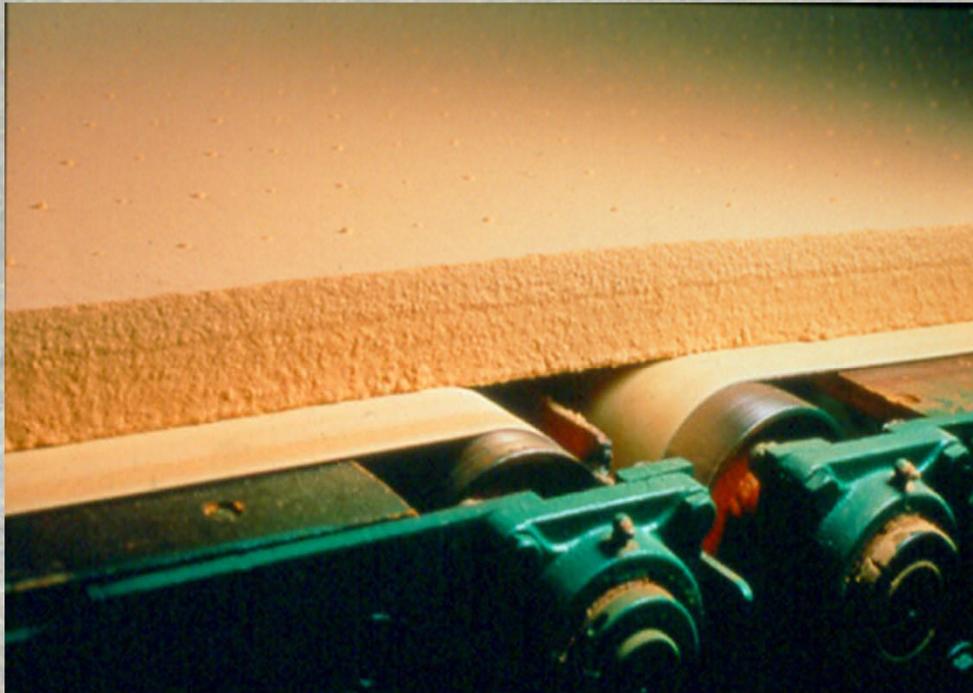
70% of timber utilized  
about 41 sawmills

few "large" sawmills

national & international markets

significant part of most timber  
sales

**Plywood**



**Particle Board  
& MDF**

# Log Homes





**Posts,  
Poles, Rails**



**Log  
Furniture**





# Pulpwood



# Biomass



# Quarterly Montana Reporting



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## THE MONTANA WOOD PRODUCTS INDUSTRY: 2010

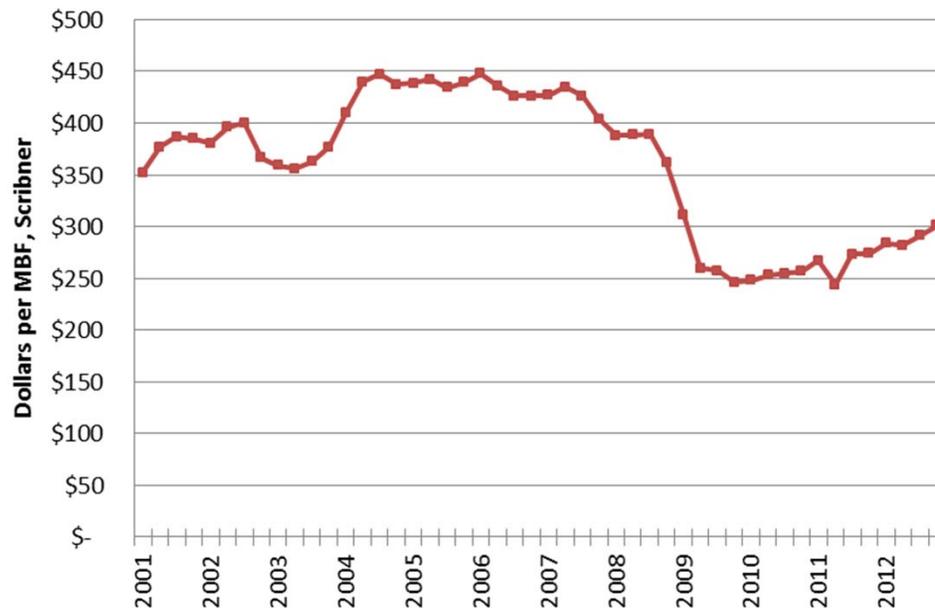
A Compilation of Quarterly Reports

2010	Production Workers <sup>a</sup>	Production Wages (000) <sup>a</sup>	Lumber Production (MMBF) <sup>b</sup>
January	1,891	\$5,076	36
February	1,544	\$4,358	37
March	1,541	\$4,672	48
<b>First Quarter</b>	<b>1,658</b>	<b>\$14,105</b>	<b>121</b>
April	1,553	\$4,569	45
May	1,564	\$5,199	47
June	1,562	\$4,570	41
<b>Second Quarter</b>	<b>1,560</b>	<b>\$14,347</b>	<b>135</b>
July	1,583	\$4,498	34
August	1,582	\$4,633	37
September	1,568	\$4,280	42
<b>Third Quarter</b>	<b>1,578</b>	<b>\$13,391</b>	<b>113</b>
October	1,558	\$4,470	38
November	1,529	\$4,313	39
December	1,521	\$4,509	35
<b>Fourth Quarter</b>	<b>1,536</b>	<b>\$13,292</b>	<b>112</b>
<b>2010 TOTAL</b>	<b>1,583</b>	<b>\$55,135</b>	<b>481</b>

SOURCE: The University of Montana, Bureau of Business and Economic Research, Forest Industries Information System (Missoula, Montana 2010). Revised 2/4/11.

NOTES: <sup>a</sup> Includes production workers/wages at all timber processing and wood residue processing facilities. Production workers account for 40 to 50 percent of the workers in Montana's forest products industry. <sup>b</sup> Million board feet, lumber tally.

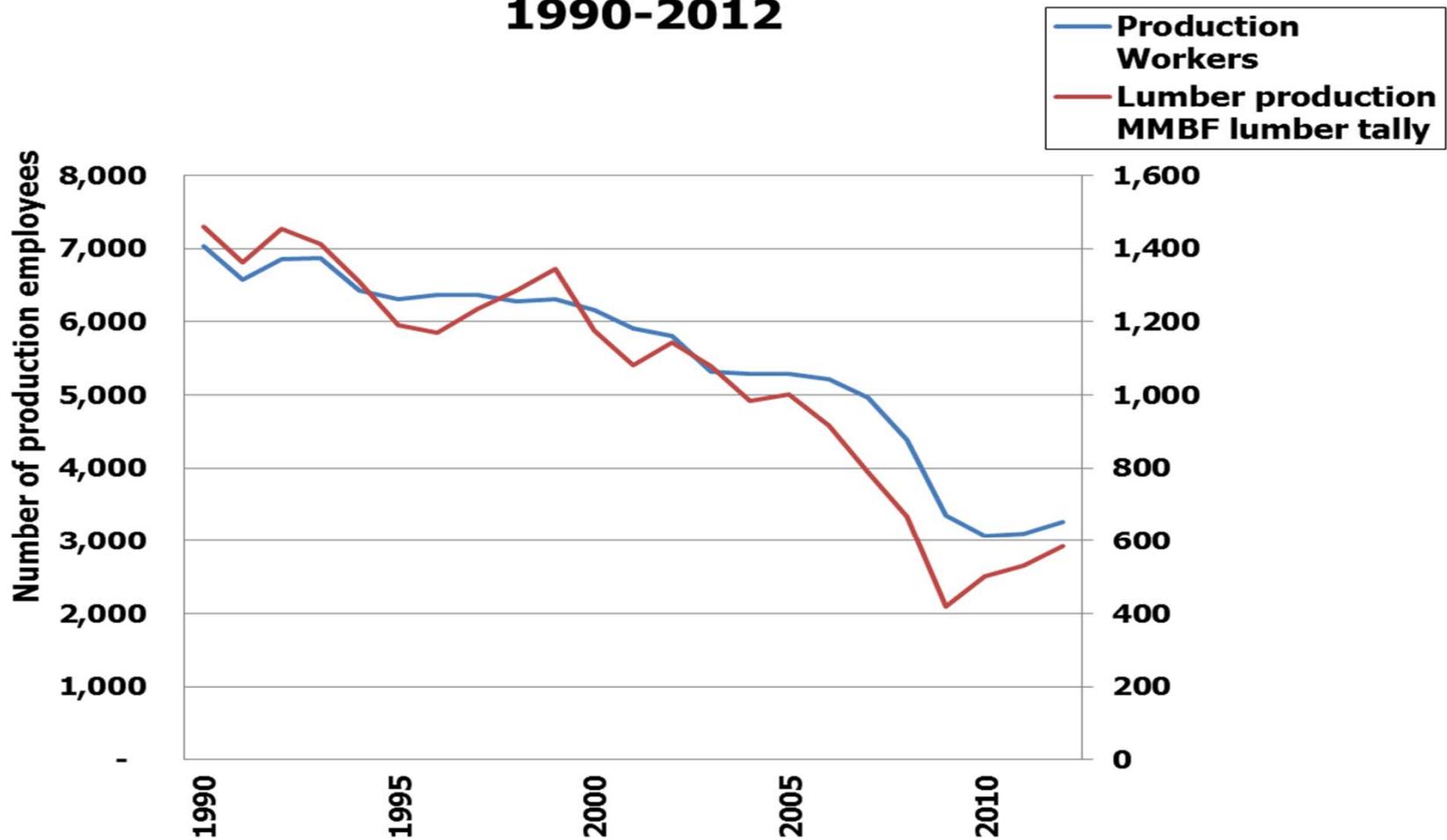
### Average Quarterly Delivered Log Price, Montana 1Q 2001- 4Q 2012



[www.bber.umt.edu/forest](http://www.bber.umt.edu/forest)



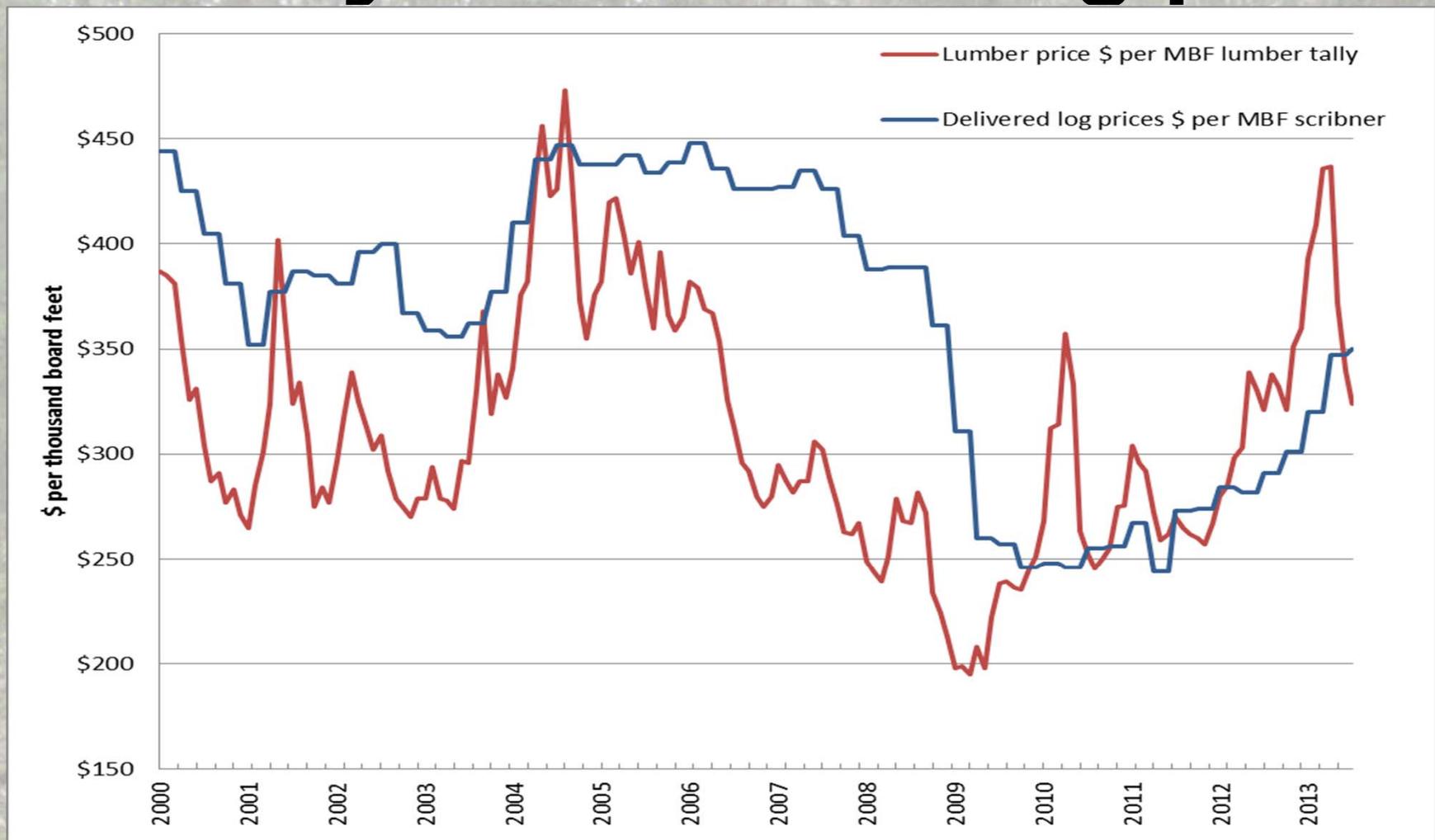
## Montana Workers and Lumber Production 1990-2012



Source: BBER, WWPA



# Quarterly Lumber vs. log prices

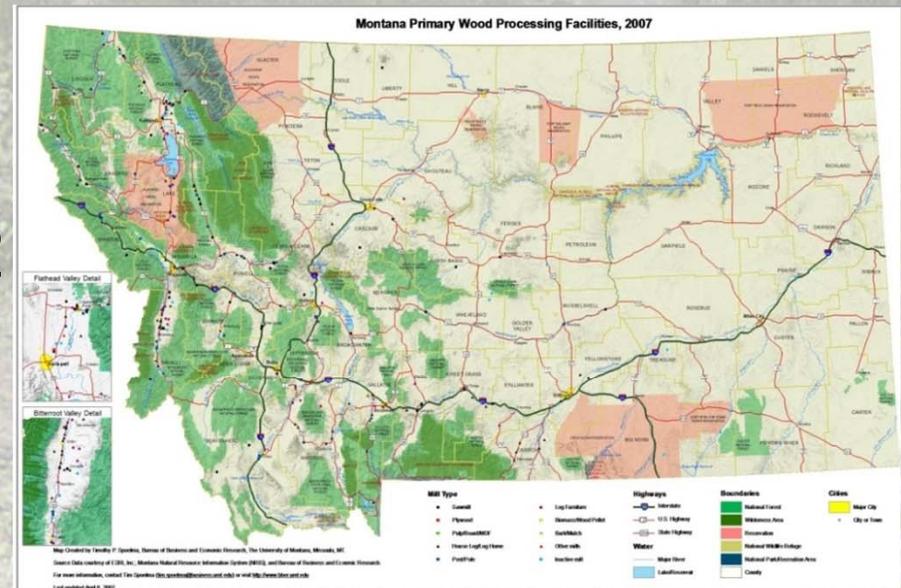


Source: Random Lengths, BBER

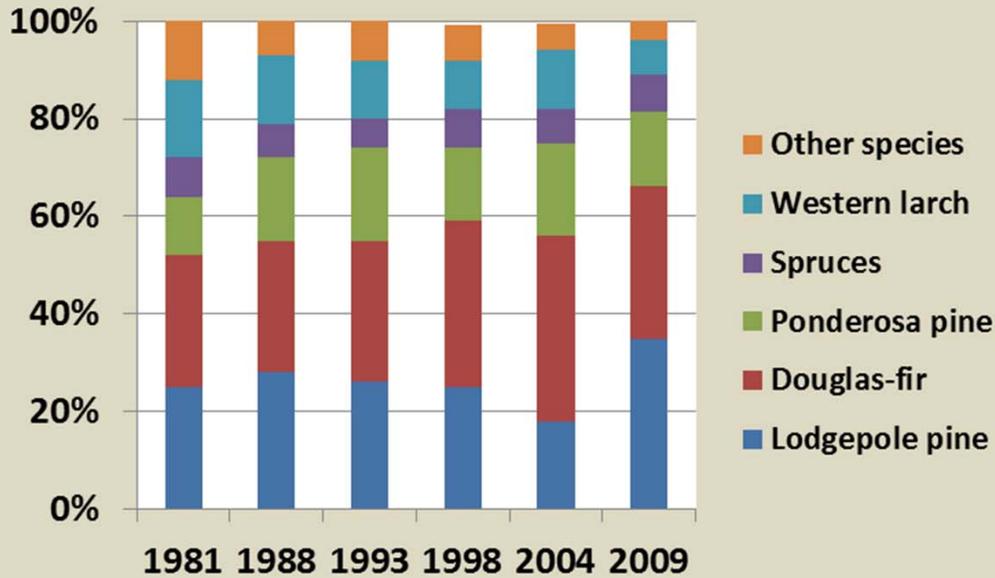


# Montana Timberland: Ownership & Harvest

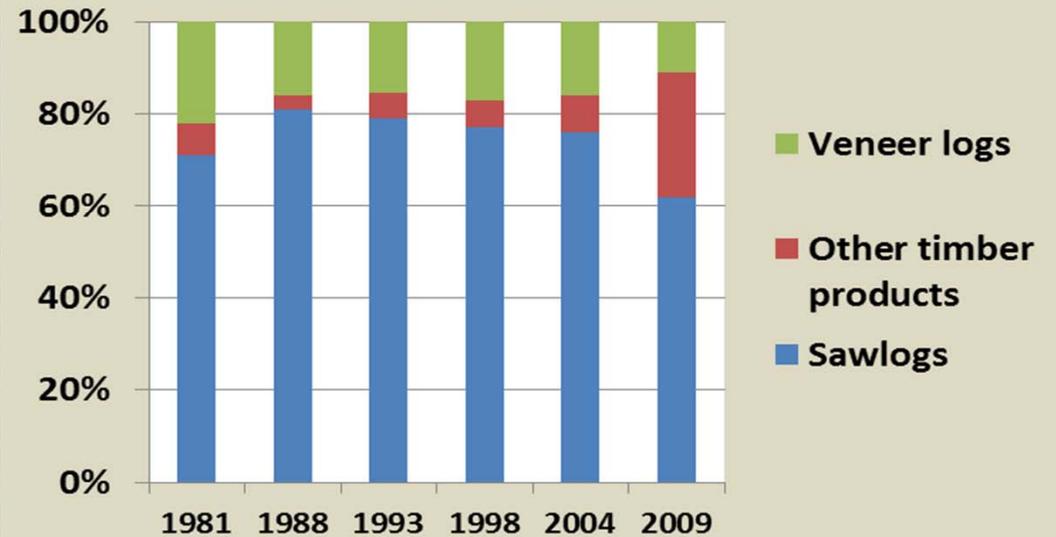
- 20 million acres of non-reserved timberland
  - 63% National Forest
  - 28% Private & Tribal
  - 9% Other Public
- 380 MMBF harvest in 2012
  - 50% NIPF & industry
  - 28% National Forest
  - 22% Other



# Harvest by Species

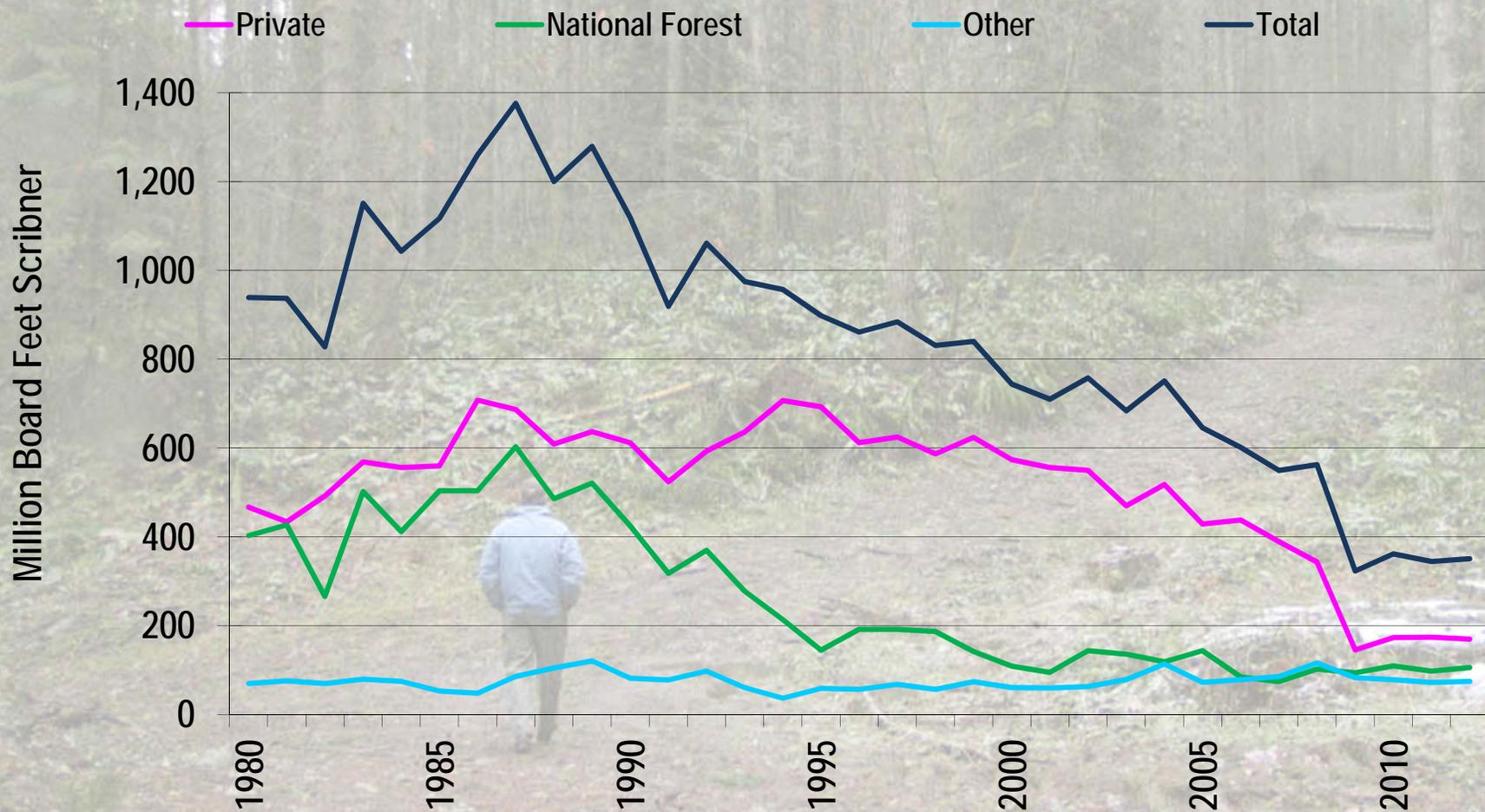


# Harvest by Product



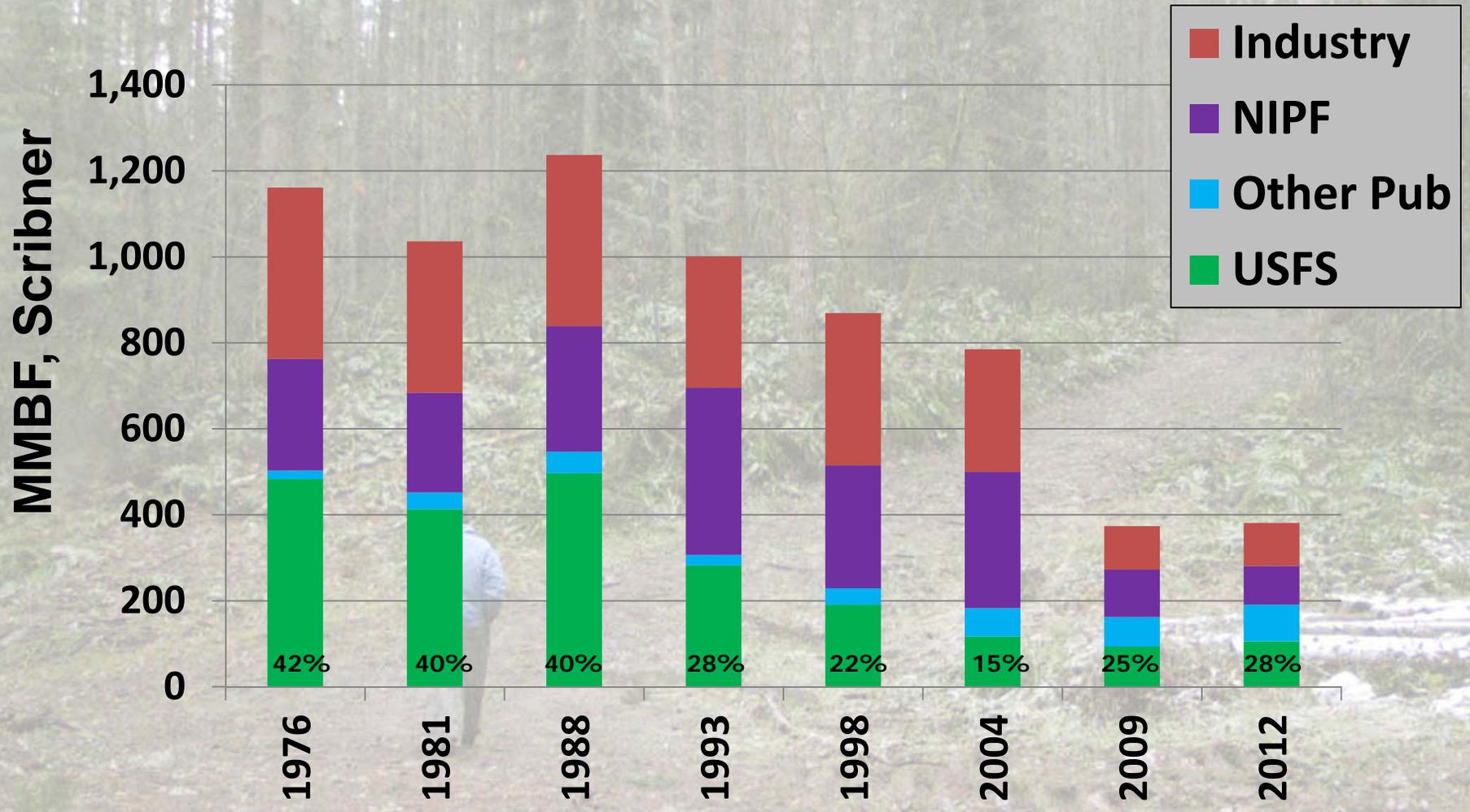


# Montana Annual Timber Harvest 1980-2012





# Montana Timber Harvest





# **Timber-processing capacity:**

**Volume of timber that could be used annually by existing timber processors if demand for products were firm and sufficient raw material were available**



# Shifts per Year :

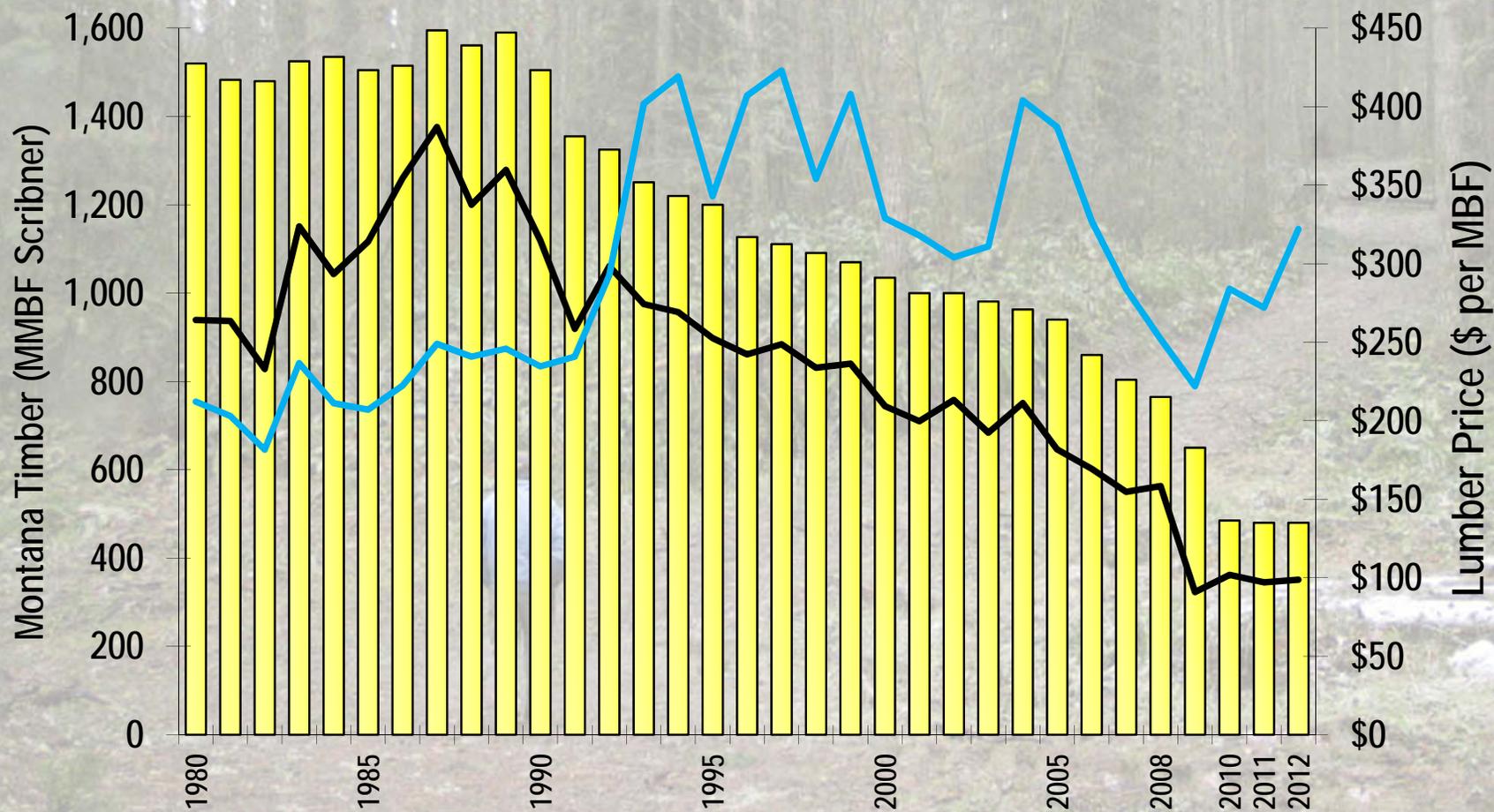
More than 85 percent of Timber Processing capacity is at sawmills and plywood plants;

- Large sawmills 2+ and in many cases 3 shifts 240 -280 days
- Plywood generally 3 shifts for @250 day year



# Montana Timber-Processing Capacity & U.S. Lumber Prices, 1980-2012

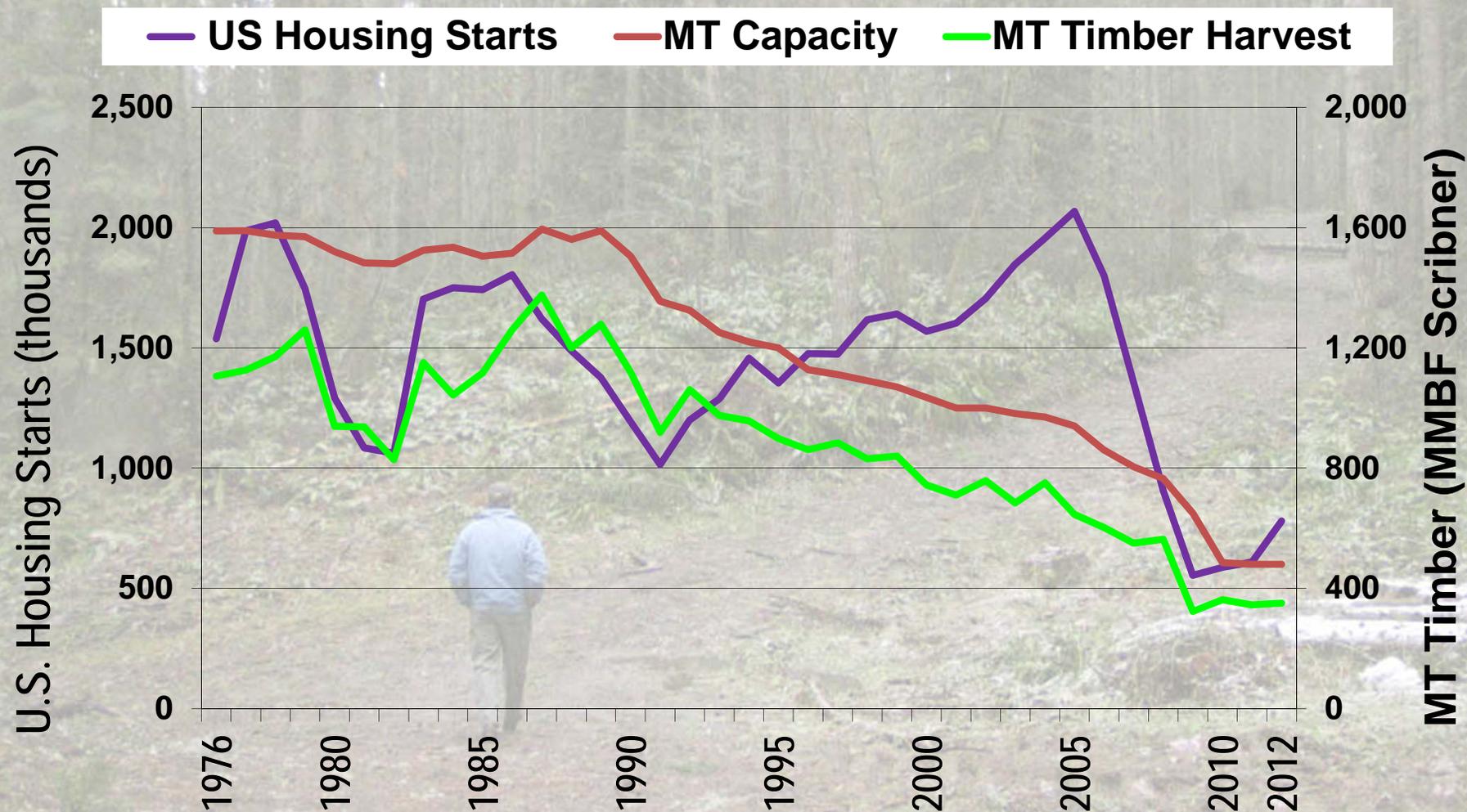
Capacity
  Total Timber Harvest
  Lumber price





# US Housing & MT Wood, 1976-2012

Sources: U.S. Census Bureau; BBER



# Recent Market Conditions



- **2003-2004-2005**
  - “Lumber Consumption At Record Levels”
- **2006-2007-2008**
  - “Housing starts tumble ...”



**2009 – 2010**

- **“Demand for lumber in the U.S. at the lowest level in modern history”**
- **“Recession ended in 2009 – Who knew?”**



# **2009-2010 "Dreadful"**



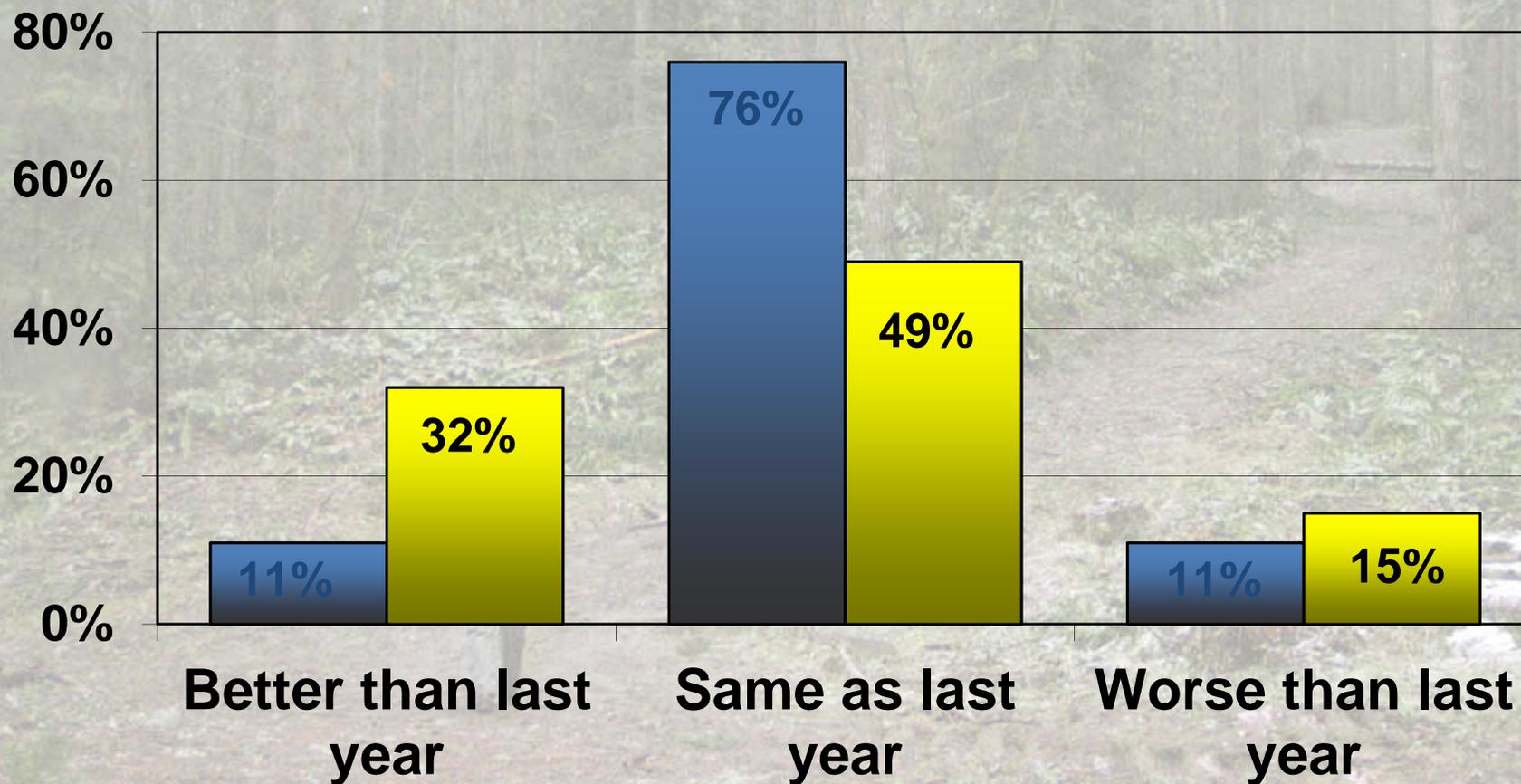
- **Curtailments at virtually every major wood products mill in west**
- **Permanent closure of 30 major mills**
  - 25 + sawmills and plywood plants**
  - 4 Pulp and board mills**
- **Employment dropped by @ 40,000**



# Montana Forest Products Outlook for the Coming Year

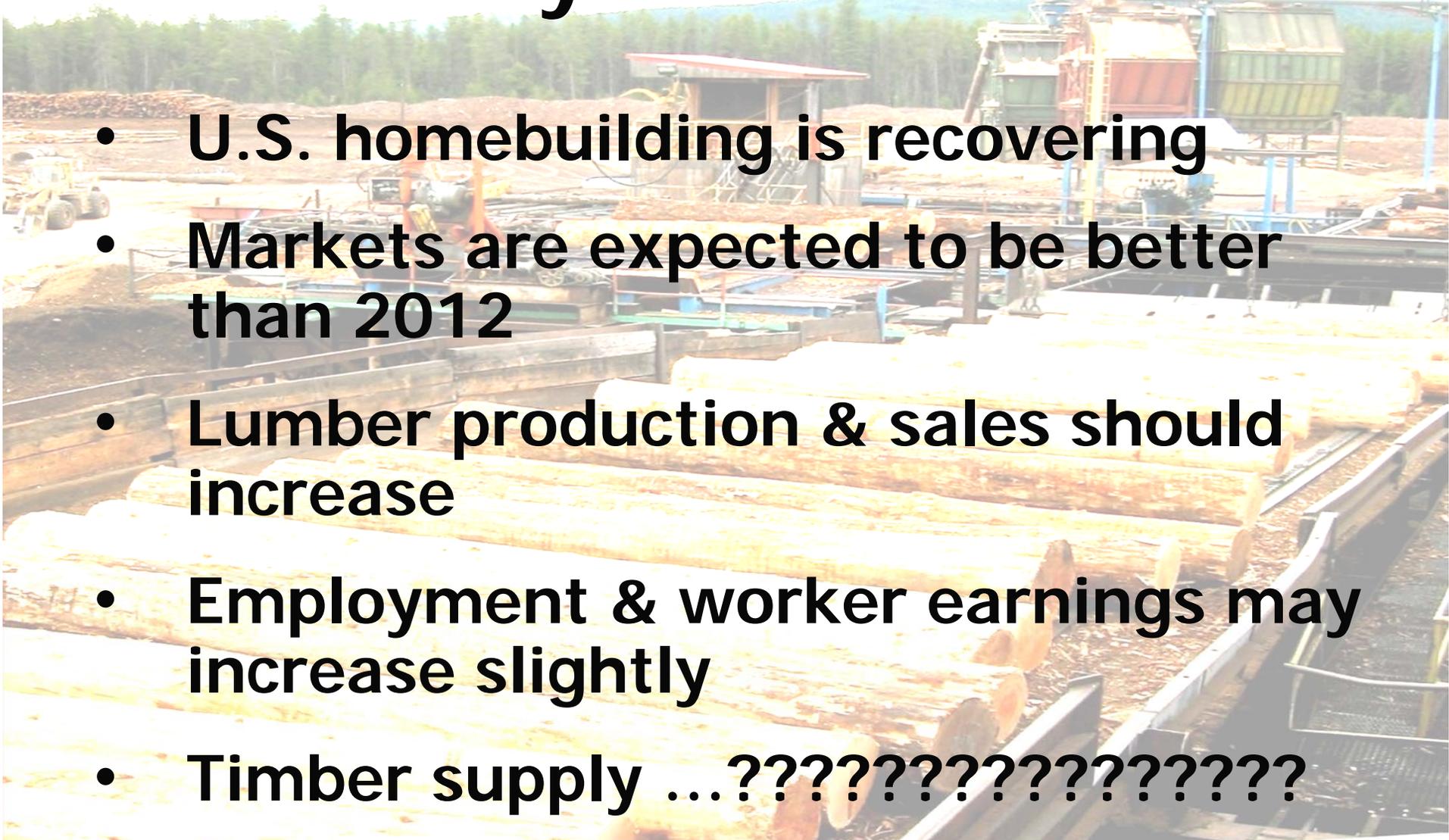
Percent of Firms

■ Outlook for 2012 ■ Outlook for 2013



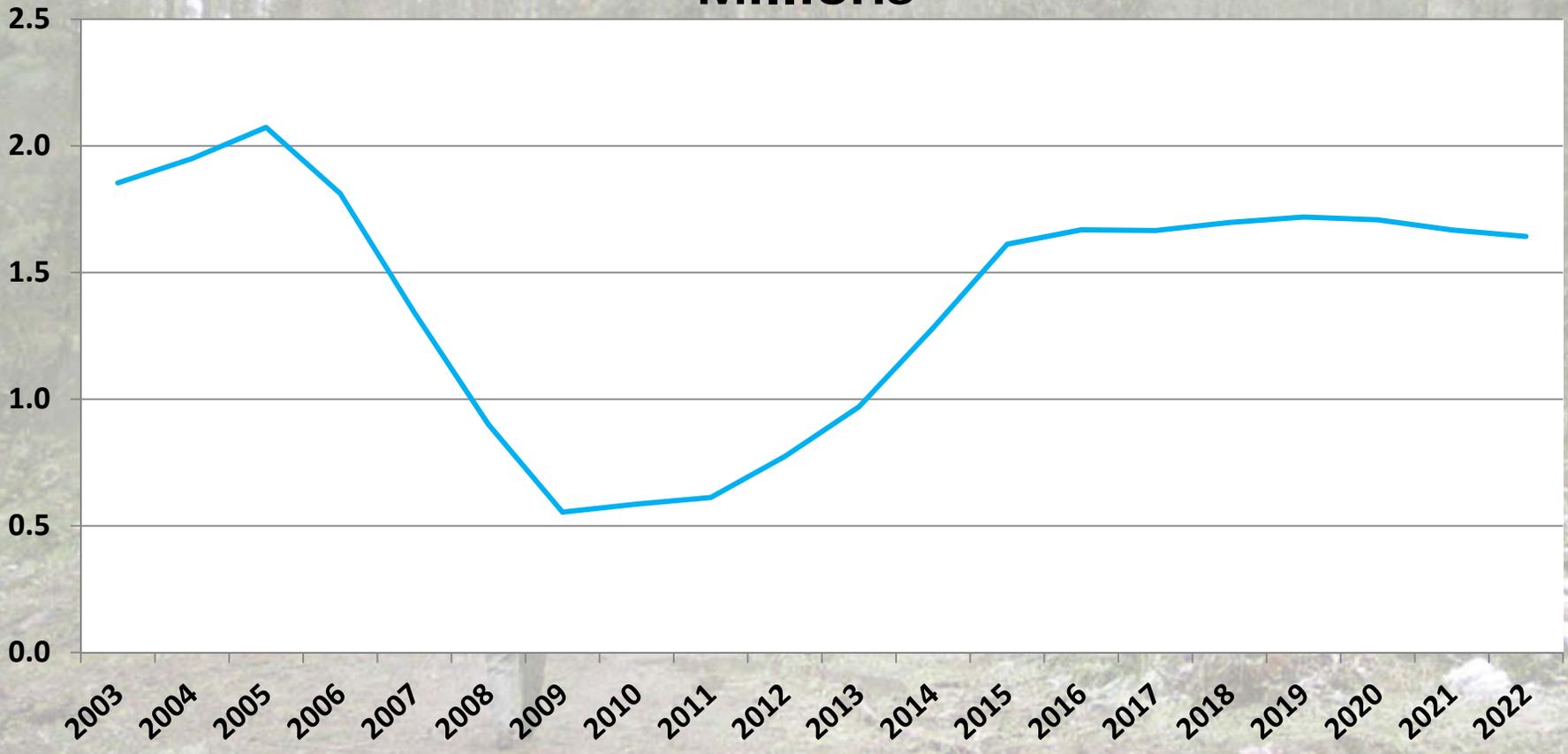
# Montana Forest Products Industry 2013 Forecast

- U.S. homebuilding is recovering
- Markets are expected to be better than 2012
- Lumber production & sales should increase
- Employment & worker earnings may increase slightly
- Timber supply ...????????????????????





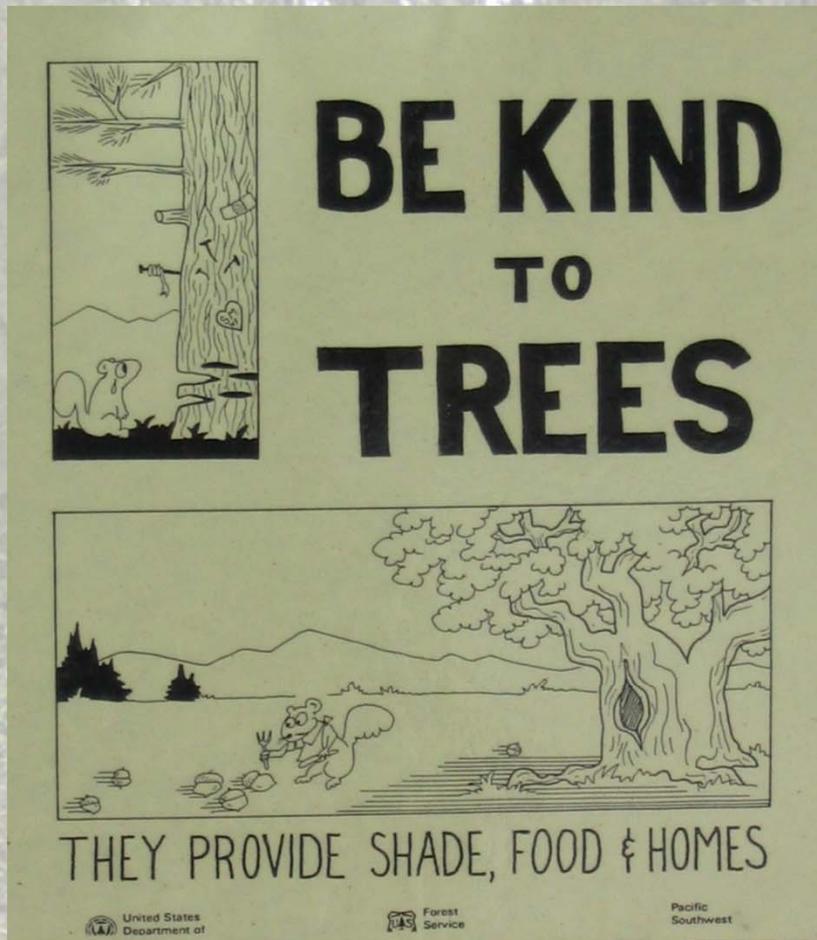
# Historical & Projected U.S. Housing Starts 2003-2012 Historical, 2013-2022 Projected, Millions



Source: February 2013 IHS Global Insights forecast



# Comments/Questions?





## **Contact Information**

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