Montana’s Wood Products, National Forests & Affordable Housing

Todd A. Morgan, CF
Montana’s Wood Products Facilities

~140 establishments
~80 timber users
• 8 larger, 20+ small sawmills
• Plywood, MDF, particleboard
• Log homes, post & pole, chipping
• Pellets, bark, fuels-for-schools

• Mostly small, privately held
• Most don’t own forest land
• Nearly all rely on some timber from public lands
Montana
Wood Products Manufacturing

Sources: Bureau of Economic Analysis, Western Wood Products Association, BBER. *2018 Estimated.
# Montana Forest Industry (Private Sector)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2010</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers (mills &amp; forest)</td>
<td>10,006</td>
<td>7,030</td>
<td>7,732</td>
</tr>
<tr>
<td>Earnings (millions)</td>
<td>$489</td>
<td>$294</td>
<td>$341</td>
</tr>
<tr>
<td>Primary sales (millions)</td>
<td>$1,518</td>
<td>$497</td>
<td>$569</td>
</tr>
<tr>
<td>Lumber production (MMBF)</td>
<td>985</td>
<td>503</td>
<td>480</td>
</tr>
</tbody>
</table>

Sources: Bureau of Economic Analysis, Western Wood Products Association, BBER.
Montana Forests & Timber

25.9 million acres
19.8 million acres of timberland

National Forests
61% of timberland
76% of timber volume
20-25% of annual harvest
60% of burned forest area
80% of insect impact area

<table>
<thead>
<tr>
<th>County</th>
<th>Forest acres (thousand)</th>
<th>National Forest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade</td>
<td>332</td>
<td>53%</td>
</tr>
<tr>
<td>Flathead</td>
<td>2,794</td>
<td>63%</td>
</tr>
<tr>
<td>Gallatin</td>
<td>902</td>
<td>66%</td>
</tr>
<tr>
<td>Lewis &amp; Clark</td>
<td>1,391</td>
<td>71%</td>
</tr>
<tr>
<td>Lincoln</td>
<td>2,182</td>
<td>80%</td>
</tr>
<tr>
<td>Missoula</td>
<td>1,410</td>
<td>51%</td>
</tr>
<tr>
<td>Ravalli</td>
<td>1,192</td>
<td>88%</td>
</tr>
<tr>
<td>Silver Bow &amp; Deer Lodge</td>
<td>534</td>
<td>63%</td>
</tr>
<tr>
<td>Yellowstone</td>
<td>143</td>
<td>0%</td>
</tr>
<tr>
<td><strong>All counties</strong></td>
<td><strong>25,912</strong></td>
<td><strong>60%</strong></td>
</tr>
</tbody>
</table>

Source: USDA Forest Service, FIA Program
National Forests in Montana
Cut Volume & Allowable Cut

| Source: USDA Forest Service. |

- **B-D**: 14, 33.4, 54, 2014
- **Bitterroot**: 14, 24.5, 17.1, 2015
- **Custer/Gallatin**: 14, 24.5, 17.1, 2016
- **Flathead**: 14, 24.5, 17.1, 2017
- **Helena/L&C**: 14, 24.5, 17.1, 2018
- **Kootenai**: 14, 24.5, 17.1, 2019
- **Lolo**: 14, 24.5, 17.1, 2020

Millions of board feet, Scribner

2014: **80**
2015: **17.1**
2016: **17.1**
2017: **17.1**
2018: **17.1**
2019: **17.1**
2020: **17.1**

Source: USDA Forest Service.

Forest Industry & Wood Products

BUREAU OF BUSINESS AND ECONOMIC RESEARCH
UNIVERSITY OF MONTANA
National Forests in Montana

![Graph showing the trend of cut and sold timber from National Forests in Montana from 2000 to 2018. The graph indicates fluctuations in timber cut and sold over the years.](image)

Million board feet, Scribner

Cut

Sold

Source: USDA Forest Service.
Affordable Housing & Wood Products

The Five Ls impacting housing supply

- Labor
- Lots
- Lending
- Laws
- Lumber

Source: National Association of Homebuilders.
Affordable Housing & Wood Products

Monthly Lumber & Panel Prices

- US housing starts at low May 2009
- US/CAN SLA expired October 2015

Source: Random Lengths.
Example New Single-Family Home Price & Construction Costs, 2017

Sale price: $427,892
2,700 sq ft house; 11,300 sq ft lot

- Construction cost 55.6%
- Finished lot cost 21.5%
- Profit 10.7%
- Overhead expenses 5.1%
- Sales commission 4.1%
- Financing cost 1.8%
- Marketing cost 1.2%

Construction cost: $237,760

- Site work 6.7%
- Foundation 10.8%
- Framing 17.3%
- Exterior finishes 13.9%
- Major systems 13.8%
- Interior finishes 28.6%
- Final steps 7.0%
- Other 2.0%

Lumber & other wood materials estimated at $12,000 to $16,000 for 2,700 sq ft home = 5 to 6.5% of construction cost.

Source: National Association of Homebuilders and BBER.
Median U.S. new home price & lumber price, 1980-2017

(inflation-adjusted 2017 dollars)

Home price

Lumber price $ per MBF

Sources: US Census Bureau and Random Lengths.
Percentage Changes of Construction Input Costs

Affordable Housing & Wood Products

Wood use in construction

• Costs of nearly all inputs to construction have been rising since 2015.

• Two-thirds of lumber & over 85% of structural panels are used in construction, including repair & remodeling.

• Wood is a renewable construction material and stores carbon long term.

Source: U.S. Forest Products Lab.
Canadian Lumber

Volume & share of US market down in ’17 & ‘18

- Tariffs & CAN mills in US are having an impact.
- Bark beetles & fires reduced BC timber & lumber supply.
- Eastern CAN expected to increase lumber as BC declines.
Montana’s Forest Industry & Wood Products Outlook

Issues impacting the industry in 2019

- Broader US economy
- Homebuilding & interest rates
- Softwood lumber & other trade issues
- Good Neighbor Authority (GNA) projects
- Wildfires & weather
- Timber & labor availability
Thank you!

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