



## Economic Contribution of Hardwood Products: State of North Dakota

Sales of hardwood products added \$875.3 million in value to the North Dakota economy in 2016, according to an Agribusiness Consulting study commissioned by the U.S. Hardwood Federation.

### Economic Contribution Results

- In 2016, North Dakota hardwood product output was valued at \$562.7 million
- The economic “ripple effects” of these hardwood products supported:
  - \$875.3 million in economic output,
  - \$351.0 million in gross state product (GSP), and
  - 4,847 jobs in the state economy.

For every \$1 million in output of hardwood products, 5.5 jobs and \$0.40 million of GSP are supported within North Dakota.

State of North Dakota 2016 Economic Contribution <sup>1</sup> Provided by Select Hardwood Products			
Sector	Jobs (#)	Gross State Product (\$ millions)	Output (\$ millions)
Sawmills	6	\$0.5	\$1.3
Wood Preservation	55	\$4.8	\$16.2
Rail Ties	22	\$1.9	\$6.4
Hardwood Veneer and Plywood Manufacturing	N/A	N/A	N/A
Engineered wood member (except truss) manufacturing	104	\$7.3	\$19.4
Truss manufacturing	340	\$23.9	\$63.8
Wood Window and Door Manufacturing	2,777	\$215.3	\$534.6
Cut Stock, Re-sawing Lumber, and Planing	N/A	N/A	N/A
Millwork	8	\$0.7	\$1.5
Flooring	5	\$0.4	\$1.0
Wood Container and Pallet Manufacturing	148	\$10.7	\$24.3
All other Miscellaneous Wood Product Manufacturing	43	\$3.5	\$7.6
Wood Kitchen Cabinet and Countertop Manufacturing	535	\$30.6	\$73.6
Upholstered Household Furniture Manufacturing	N/A	N/A	N/A
Non-upholstered Wood Household Furniture Manufacturing	167	\$9.0	\$20.9
Institutional Furniture Manufacturing	550	\$37.3	\$93.2
Wood Office Furniture Manufacturing	27	\$1.7	\$4.6
Custom Architectural Woodwork and Millwork Manufacturing	41	\$2.6	\$6.1
Showcase, Partition, Shelving, and Locker Manufacturing	23	\$1.4	\$3.9
Blind and Shade Manufacturing	20	\$1.2	\$3.3
<b>Total</b>	<b>4,847</b>	<b>\$351.0</b>	<b>\$875.3</b>

<sup>1</sup> Economic contribution is the summation of direct, indirect and induced impacts as defined on page 2.  
Source: U.S. Economic Census, Annual Survey of Manufacturers, IMPLAN and Agribusiness Consulting

## Economic Contribution of Hardwood Products: State of North Dakota (Continued)

### About the Study

This study investigated the economic contribution from the output of hardwood industries, including sawmills wood preservation, veneer and plywood manufacturing, engineered wood member manufacturing, truss manufacturing, wood window and door manufacturing, cut stock, re-sawing lumber and planing, other millwork (including flooring), wood container and pallet manufacturing, miscellaneous wood product manufacturing, wood kitchen cabinet and countertop manufacturing, upholstered household furniture manufacturing, non-upholstered wood household furniture manufacturing, institutional furniture manufacturing, wood office furniture manufacturing, custom architectural woodwork and millwork manufacturing, showcase, partition, shelving, and locker manufacturing, and blind and shade manufacturing.

**IMPLAN Summary Results Table**

Impact Type	Jobs (#)	Labor Income (\$ millions)	GSP (\$ millions)	Output (\$ millions)
Direct Effect	2,829	\$147.1	\$178.1	\$562.7
Indirect Effect	987	\$60.5	\$95.2	\$173.8
Induced Effect	1,031	\$44.5	\$77.6	\$138.8
<b>Total Effect</b>	<b>4,847</b>	<b>\$252.0</b>	<b>\$351.0</b>	<b>\$875.3</b>

### Economic Impacts

This study analyzed the economic contribution of the hardwood industry by aggregating three separate impacts: direct, indirect, and induced impacts. Direct impacts are the benefits producers directly received in the form of additional sales. Indirect impacts are realized by businesses supporting the hardwood industry, like industrial loggers and transportation companies. Induced impacts are those created from the spending of labor income and profits and would include, for example, sawmill employees buying groceries. For example, sawmill employees purchasing groceries. For this study, these impacts are aggregated to provide a holistic view of how the hardwood industry supports the North Dakota state economy.

### Economic Variable Definitions

- Jobs are the total number of jobs supported by the economic activity.
- Labor Income is the total value of all employment income, including employee compensation and proprietor income.
- Gross State Product (GSP) is very similar to GDP and is the total value added by each step in the supply chain. The GSP can be thought of as the summation of labor income, profit, taxes and indirect business taxes.
- Output can be defined as the summation of the business revenues that are associated with the production of hardwood products.