# INDIANA HARDWOOD

Throughout Indiana's rich history, agriculture has played an important role in the state's economic and cultural identity. This is a comprehensive assessment and strategy to grow one sector of particular importance: Indiana hardwoods.





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## ABOUT THE STRATEGY

Throughout Indiana's rich history, agriculture has played an important role in the state's economic and cultural identity. From row crops to livestock production, Indiana has a robust and diverse agricultural industry and leads the nation in many sectors – one of particular significance is hardwoods.

Since the formation of the state in 1816, and even before then, the hardwoods industry has been a major economic driver in Indiana. Today, this important sector contributes approximately \$10.4 billion to the state's economy and supports more than 70,000 high-wage jobs in a variety of fields, from sawmills to carpentry to wood kitchen cabinet manufacturing. Moreover, Indiana's hardwoods industry has demonstrated its commitment to conservation and sustainable forestry practices, allowing Hoosier forests to grow and thrive over the years.

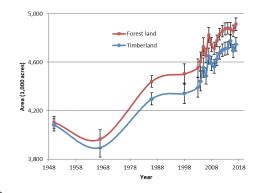
To grow this important sector of agriculture and the economy, an in-depth assessment and strategy was completed for the hardwoods industry, known as the Indiana Hardwood Strategy. The completed strategy will be used to expand current and attract new primary and secondary wood processing facilities to Indiana, better utilizing current timber production and fostering growth within Indiana's hardwoods industry. This summary highlights the key findings, as well as growth opportunities to move the industry forward. 8%

State and Local

Indiana is renowned for producing high quality hardwood timber for products, such as grade lumber and veneer, as well as substantial amounts of industrial wood for shipping and construction purposes. This diversity of products is made possible by Indiana's diverse and productive hardwood forest resource.

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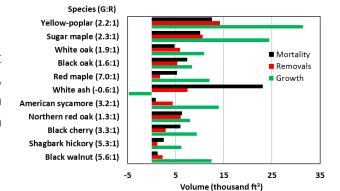
According to the assessment conducted, Indiana has a substantial and sustainable forest resource base, providing materials for a variety of wood-using industries, as well as recreation, wildlife habitat, environmental services, and qualityof-life benefits. Forest area, volume of wood, and percentage of sawtimber trees have all been on the increase.



Government 394,000 acres are owned by state and local government 84% **Privately Owned** Indiana has roughly 4.9 million acres 4.1 million acres are privately of forestland. owned 7.5% Federal Government The majority of ownerships are family ownership is 37.4 acres. 388,493 acres are owned by the federal government

under 100 acres, and the average

The growth-to-removals ratios of our most abundant hardwood species, with the exception of white ash, are positive. In other words, growth exceeds both mortality and removals for all inventoried Indiana tree species by a ratio of 2.3 to 1.



## SUSTAINABILITY

The total acreage of timberland in Indiana has steadily increased since the 1960s, and forests are growing in volume more than 3.3 times the amount being removed each year. Most of the public acres are in parks, preserves, wilderness areas, federal control, or otherwise off limits to harvest. This leaves about 150,000 acres available for multiple-use management, including healthy and sustainable harvesting. Sustainable Forestry Initiative® and the Forest Stewardship Council® sustainable "green certified" wood products from State Forests in FY 2016-2017 totaled 10,298,000 board feet equivalent, made up of 7.66 million board feet timber and 5,283 cords.

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## **ECONOMICS OF HARDWOODS**

The hardwoods industry is a significant sector within Indiana's agriculture economy. Not only is Indiana known for producing high-quality timber, the secondary manufacturing industry also adds tremendous value to both timber and the broader economy. A snapshot of the Indiana hardwoods industry shows the state has a considerable presence along various points of the hardwoods-related supply chain relative to the United States. Hardwood industries are defined as primary, secondary or tertiary based on the amount of value added in the production of the final good, such as furniture. Much of the analysis centers around the primary, secondary and tertiary wood products industries, but researchers believe it is worth examining additional industries included in the supply chain, such as suppliers, wholesalers, and the paper-manufacturing sector. For every dollar of added value generated by Indiana's hardwood industries, an additional \$0.80 is generated by firms and their employees that support the production of hardwood products. The employment multiplier for the hardwoods industry is 1.85, meaning that every person directly employed in hardwoods triggers an additional 0.85 persons to be hired throughout the state.



In total, these six subgroups employ 70,425 workers as of 2016, who make an average of \$66,188 per year. Over half of these employees, 37,144, are in the secondary wood products industries.

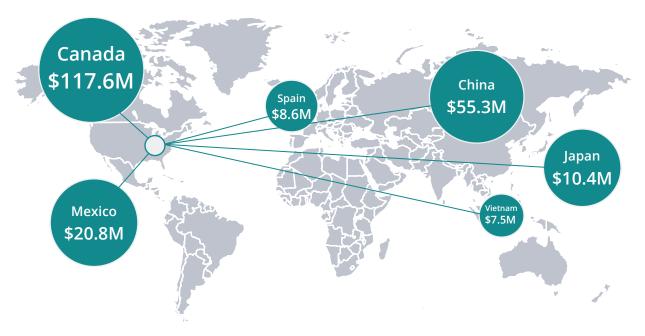
### TAX CONTRIBUTION

Approximately \$366 million was paid in local and state taxes by the primary, secondary and tertiary wood products industries. An additional \$825.2 million was paid in federal taxes, totaling \$1.1 billion in taxes in 2016 by these three wood products industries.

## **INTERNATIONAL TRADE**

EXPORTS: The 2017 value of exports were at its highest point since 2004, totaling \$268.1 million. Export of logs, regardless of type, has increased in the past decade. Some value-added products are seeing growth, in particular wooden staves for barrels, wood waste, veneer and paperboard products in addition to paper. Canada and China remain Indiana's top two markets, importing raw and lightly value-added products. Mexico and Japan have moved up in the past five years and are now in the top five export markets for Indiana.

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IMPORTS: In Chicago, the main wood product imported has been a plywood product, which primarily surfaced in 2017. In prior years, the main product imported was wooden frames used for paintings, photographs, mirrors or other products of that nature. The St. Louis Port has had two primary products imported: wooden staves and hoops and a thick fiberboard. In both ports, the top 20 raw/lightly value-added wood products comprise over 80 percent of the incoming wood products in 2017.

Transportation systems play a vital role in the economic viability of the Indiana hardwoods sector. Known as the "Crossroads of the America," Indiana has 14 Interstates and 235 state roads, with over 11,000 miles of combined highways. In 2017, Indiana increased weight limits on most Indiana roads and highways to 97,000 pounds for trucks that haul "from the point of harvest to the point of first destination, which may include bark logs, sawdust, wood chips, or agricultural commodities."

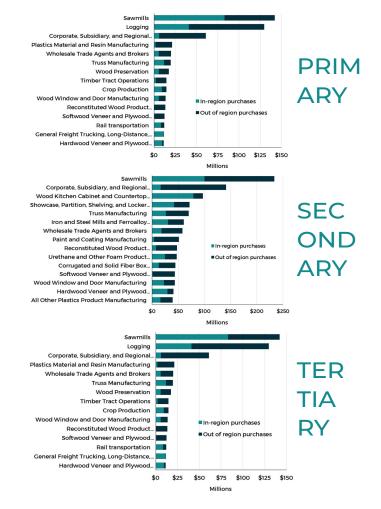
#### TRANSPORTATION

The railroad industry operates intermodal terminals that service Indiana in Avon, Indianapolis, Louisville Kentucky, and Cincinnati, Ohio. As the hardwoods industry grows, an additional intermodal terminal between Indianapolis and the Ohio River will be needed to assist with the consolidation of hardwood materials and products. Indiana has access to four ports (Mount Vernon, Burns Harbor, Jeffersonville, and Greater Cincinnati). They are primarily used for corn and other agricultural products.

## **OPPORTUNITIES**

The primary, secondary, and tertiary hardwood industries, in total, obtained more than \$230 million of sawmill products from outside of Indiana. This indicates an area of opportunity and excess demands that can be fulfilled within Indiana. Supply chain leakages in certain hardwood-related industries can benefit from an import substitution strategy, which will include the identification of Indiana businesses most impacted and informing them about the excess but unmet demand within the state.

Logging is another sector with large amounts of leakages. The supply chain chart of the secondary hardwood industries contains a variety of wood product industries that have excess demands fulfilled from outside of Indiana. Other sectors include hardwood veneer and plywood, wood windows and doors, softwood veneer and plywood, paint and coatings, and wood kitchen cabinets and countertop manufacturing.



STRATEGIES

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Business Development

To strengthen Indiana's existing hardwoods industry through networking, technology and innovation, and work to attract new companies to Indiana to increase capital investment, workforce and skill sets.



#### Education

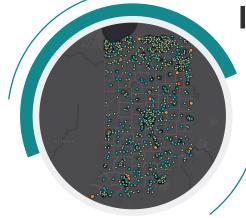
To increase efforts to educate consumers and businesses on the sustainability of real wood; inform youth of the importance of the Indiana hardwoods industry, best forest management practices, and sustainability of real wood; and work with landowners on proper management of forests.



#### Marketing

To develop an ongoing campaign to promote the quality of Indiana hardwoods, work with existing businesses on innovation and expansion in the industry, inform legislators of the importance of Indiana's hardwoods industry and what is needed to grow the industry in Indiana.





## **INTERACTIVE MAP**

An online interactive map of nearly 3,200 businesses has been developed with links to hardwoods and forest products sectors. The establishments are shown as dots of varying sizes dependent on the number of jobs in the business. The usual mapping features of zoom-in, zoom-out, linear distance measurement, and exporting into various image types are available. A click on any dot (business establishment) produces a pop-up feature with various details about the establishment including name, physical and web address, line of business, industry type, and more.

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