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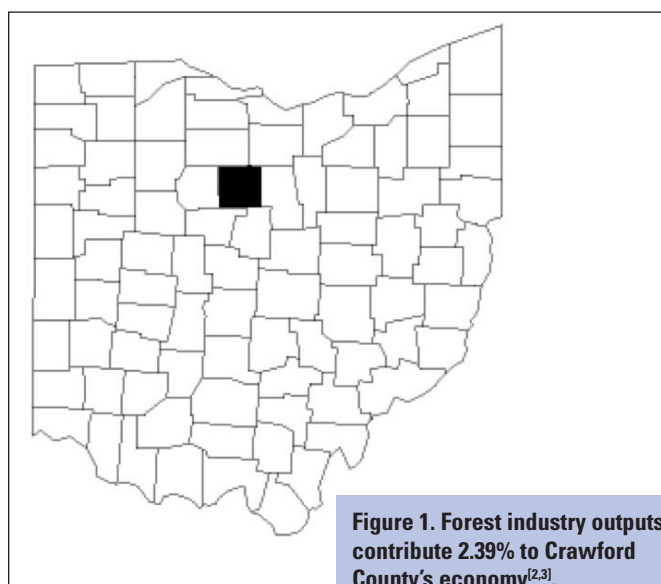
# Crawford County's Forest Economy

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**Figure 1. Forest industry outputs contribute 2.39% to Crawford County's economy<sup>[2,3]</sup>.**

**C**rawford County contains 402 square miles (257,100 acres) of land and is home to 43,780 citizens<sup>[1]</sup>. There are 174 industries in the county<sup>[2]</sup>, with the median household earning an income of \$41,200<sup>[1]</sup>. Major employers include businesses in the sectors of food services, state and local governments, and private hospitals<sup>[2]</sup>.

The land resources of Crawford County provide many economic benefits. The county's 670 agricultural farms produce agronomic crops and hogs and pigs, among others<sup>[3]</sup>. An abundance of wooded acres are also present, providing community support to the county's forest

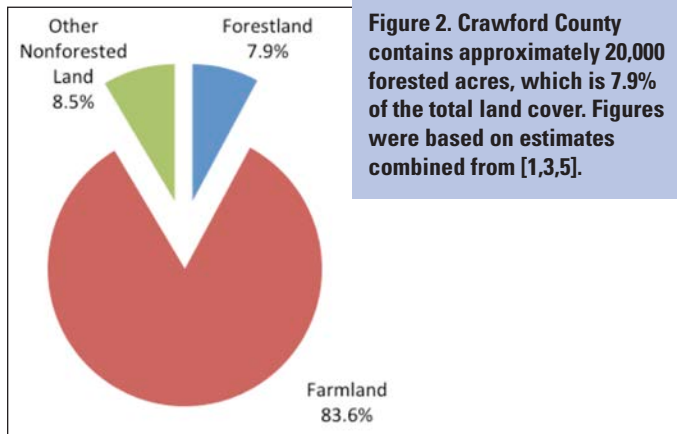
industries. These businesses generate \$60.8 million in industrial output and \$3.26 million in taxes<sup>[2]</sup>.

Some of the many contributions Crawford County's forests and forest industries provide to the local economy are illustrated in this fact sheet using key figures and statistics. Figures 2–4, describing Crawford County's forest resources, were constructed using data from the 2011 forest survey database provided by the United States Forest Service's Forest Inventory and Analysis. Figures 5–8 explain the county's forest industries and were developed from data analyzed using IMPLAN®. Table 1 summarizes the IMPLAN® model for Crawford County's economy<sup>a</sup>.

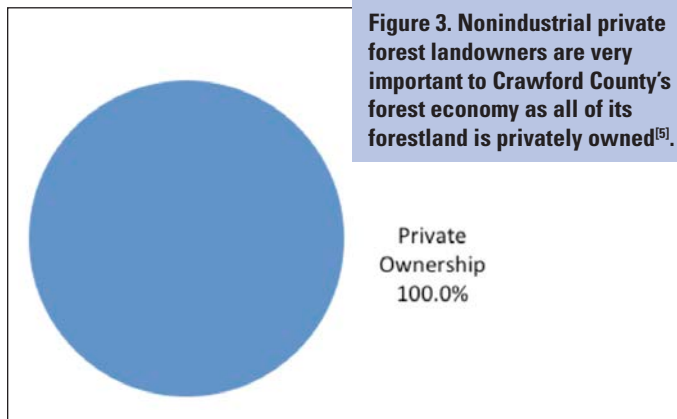
## Benefits of Woodland Management

- Properly managing your woodland improves forest health, aesthetics, and wildlife habitat. It also provides soil stabilization, clean water, carbon sequestration, self-satisfaction, and a potential source of income.
- Managing timber requires less long-term inputs compared to many other land uses.
- You are often able to obtain cost share funds to establish your woodland, property tax credits while managing your forest property, and preferable tax treatment at harvest.
- Standing timber is a stable form of wealth, often comparable in performance to mutual fund investments.

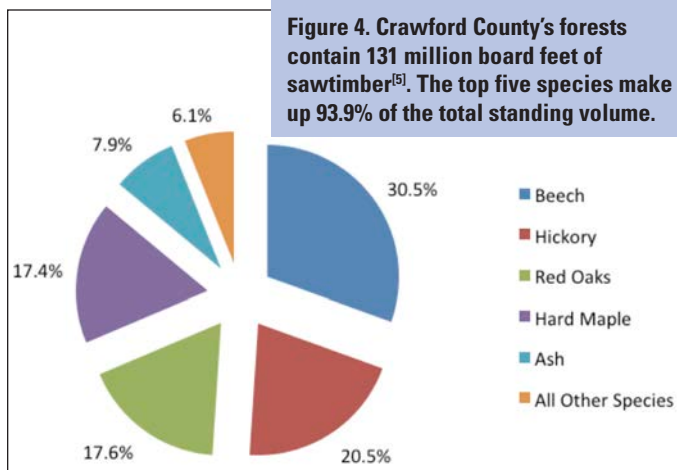
<sup>a</sup>For more information regarding IMPLAN® and the economic impact analyses for Crawford County, please contact the first author in the School of Environment and Natural Resources.



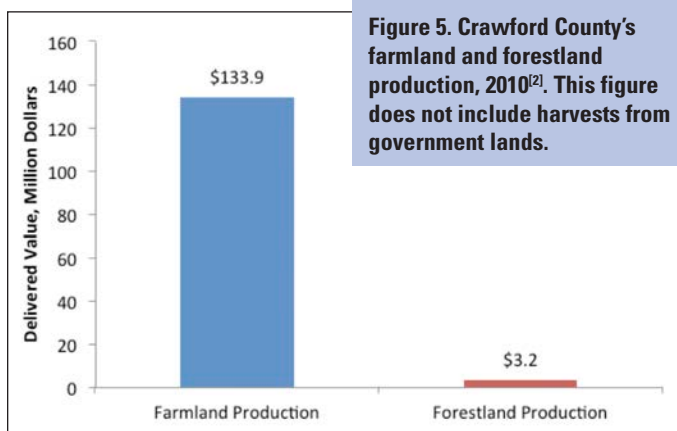
**Figure 2. Crawford County contains approximately 20,000 forested acres, which is 7.9% of the total land cover. Figures were based on estimates combined from [1,3,5].**



**Figure 3. Nonindustrial private forest landowners are very important to Crawford County's forest economy as all of its forestland is privately owned<sup>[5]</sup>.**



**Figure 4. Crawford County's forests contain 131 million board feet of sawtimber<sup>[5]</sup>. The top five species make up 93.9% of the total standing volume.**



**Figure 5. Crawford County's farmland and forestland production, 2010<sup>[2]</sup>. This figure does not include harvests from government lands.**

## How Can I Learn to Better Manage My Woodland?

- Become actively involved in the stewardship of your property.
- Join your local forestry association.
- Search Ohio State University Extension's website Ohioline (<http://ohioline.osu.edu/for-fact/index.html>) for further study of forestry related topics.
- Contact your local service forester at the Ohio Division of Forestry to help you develop a management plan for your property.
- Obtain soils and management information for trees suited to your soil types at your local Soil and Water Conservation District.
- Enlist the assistance of a professional forester when planning a timber sale.
- Consider hiring an Ohio Master Logging Company to conduct your harvesting operation.

## For More Information, Please Consult the Following Sources:

### School of Environment and Natural Resources

The Ohio State University  
2021 Coffey Rd.  
Columbus, OH 43210  
Phone: (614) 688-3421  
Web: <http://www.ohiowood.osu.edu/>  
<http://woodlandstewards.osu.edu/>

### Ohio State University Extension, Crawford County

112 E. Mansfield St., Suite 303  
Bucyrus, OH 44820-2389  
Phone: (419) 562-8731  
Fax: (419) 562-3677  
Web: <http://crawford.osu.edu/>

### Ohio Division of Forestry

359 Main Rd.  
Delaware, OH 43015  
Phone: (740) 368-0053  
Fax: (740) 368-0152  
Web: <http://www.ohiodnr.com/Home/landowner/LandownerAssistance/tabid/5279/Default.aspx>

### Crawford County Soil and Water Conservation District

3111 SR 98  
Bucyrus, OH 44820-9601  
Phone: (419) 562-8280  
Fax: (419) 562-8815  
Web: [www.crawfordswcd.org](http://www.crawfordswcd.org)

**Ohio Society of American Foresters**

[www.osafdirectory.com](http://www.osafdirectory.com)

**Ohio Forestry Association**

Master Logging Company Program

Office: 746 Morrison Rd., Columbus, OH 43230

Mail: 1100-H Brandywine Blvd., Zanesville, OH 43701

Phone: (614) 497-9580

Fax: (614) 497-9581

Web: <http://www.ohioforest.org/>

**Call Before You Cut**

Phone: (877) 424-8288

Web: <http://www.callb4ucut.com/>

**Terminology<sup>[5,6]</sup>**

**Acre:** A unit of land measure equal to 43,560 square feet (208.7 feet × 208.7 feet). One square mile equals 640 acres.

**Direct Economic Impact:** The effect generated by the industry of interest in an economic impact analysis. This is measured through employment, value-added, and industrial output produced to meet demand for the manufactured product(s).

**Direct Federal Tax Impact:** Taxes collected by the United States government. These taxes are generated from labor income, indirect business taxes, households, and corporations associated with the industry of interest.

**Direct State and Local Tax Impact:** Taxes paid to state, county, and municipal governments. These taxes are generated from labor income, indirect business taxes, households, and corporations associated with the industry of interest.

**Employment:** The total wage and salary and self-employed jobs in a geographical area.

**Indirect Business Taxes:** Sales and excise taxes paid by individuals to businesses through normal operations. They do not include taxes on corporate profits and dividends.

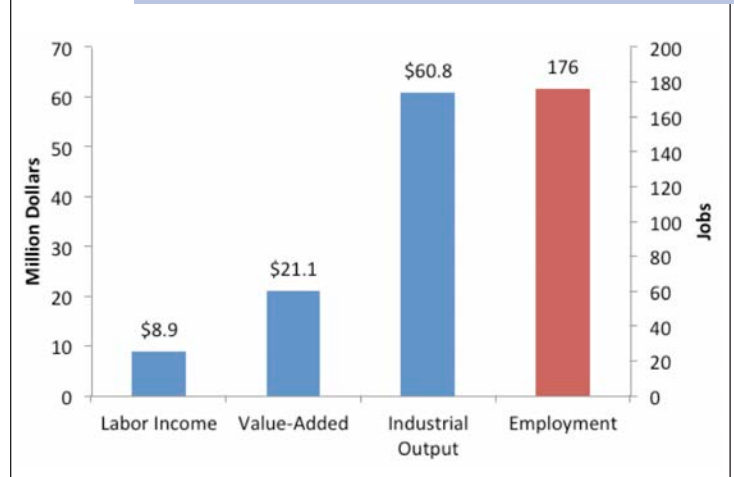
**Industrial Output:** The total value of production measured as the sum of value-added plus the cost of buying goods and services to produce the product(s).

**Labor Income:** Wages and benefits paid to employees plus proprietary income for self-employed work.

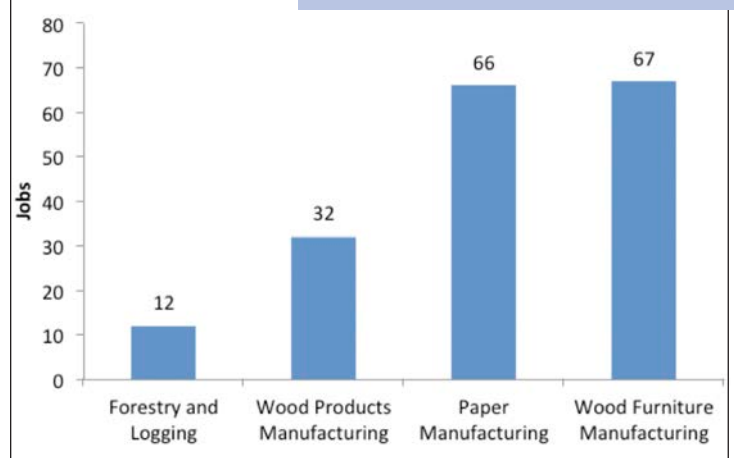
**Sawtimber Volume:** Net volume in board feet by the International 1/4-inch rule of sawlogs in sawtimber trees on timberland. Gross volume minus the deductions that affect use for lumber equals net volume.

**Value-Added:** The sum of labor income, interest, profits, and indirect business taxes.

**Figure 6. Direct economic impact of Crawford County's forest industries, 2010<sup>[2]</sup>.** Labor income, value-added, and industrial output are represented on the left Y-axis, and employment is represented on the right Y-axis.



**Figure 7. Crawford County's forest industry employers by sector, 2010<sup>[2]</sup>.**



**Figure 8. Direct tax impact of Crawford County's forest industries, 2010<sup>[2]</sup>.**



**Table 1.** Direct industrial contributions within Crawford County's economy, 2010<sup>[2]</sup>. The IMPLAN® model's 440 sectors were aggregated into 12 industries by each sector's 2-digit North American Industry Classification System (NAICS) code number. A (----) indicates less than five employees or a value less than \$500,000 to prevent potential disclosure of individual company information.

| Industry NAICS Description                         | Employment    | Labor Income         | Value-Added            | Output                 |
|--|---------------|----------------------|------------------------|------------------------|
| 11 Agriculture, Forestry, Fishing, and Hunting     | 1,084         | \$28,037,449         | \$47,886,418           | \$140,652,466          |
| <b>113 Forestry and Logging</b>                    | <b>12</b>     | <b>(----)</b>        | <b>\$513,720</b>       | <b>\$1,926,750</b>     |
| 21 Mining  | 35            | \$1,317,318          | \$3,474,070            | \$5,680,876            |
| 22 Utilities                                       | 44            | \$3,249,379          | \$14,394,445           | \$25,698,392           |
| 23 Construction                                    | 974           | \$22,712,468         | \$31,933,784           | \$98,412,379           |
| 31–33 Manufacturing                                | 3,398         | \$163,542,641        | \$329,808,255          | \$1,029,413,593        |
| <b>321 Wood Products Manufacturing</b>             | <b>32</b>     | <b>\$1,183,049</b>   | <b>\$1,619,235</b>     | <b>\$4,018,840</b>     |
| <b>322 Paper Manufacturing</b>                     | <b>66</b>     | <b>\$4,417,561</b>   | <b>\$14,320,058</b>    | <b>\$42,744,541</b>    |
| <b>337 Wood Furniture Manufacturing</b>            | <b>67</b>     | <b>\$2,957,600</b>   | <b>\$4,648,178</b>     | <b>\$12,135,366</b>    |
| 42 Wholesale Trade                                 | 638           | \$29,692,783         | \$63,707,915           | \$85,845,581           |
| 44–45 Retail Trade                                 | 2,011         | \$41,760,694         | \$65,711,208           | \$106,907,029          |
| 48–49 Transportation and Warehousing               | 451           | \$18,070,470         | \$24,392,741           | \$48,137,098           |
| 51–56 Professional Services                        | 3,092         | \$85,027,182         | \$339,629,224          | \$528,480,093          |
| 61–72 Educational, Health, and Recreation Services | 4,523         | \$109,818,202        | \$128,974,129          | \$260,621,570          |
| 81 Other Services                                  | 1,072         | \$29,362,546         | \$30,754,519           | \$65,347,102           |
| 92 Government and non-NAICS Industries             | 2,212         | \$106,496,631        | \$120,236,811          | \$146,597,029          |
| <b>Forest Industries</b>                           | <b>176</b>    | <b>\$8,893,419</b>   | <b>\$21,101,191</b>    | <b>\$60,825,497</b>    |
| <b>Total</b>                                       | <b>19,532</b> | <b>\$639,087,763</b> | <b>\$1,200,903,518</b> | <b>\$2,541,793,205</b> |

## References

- [1] United States Census. 2010. United States census quick facts. <http://quickfacts.census.gov/qfd/states/39/39033.html>.
- [2] Minnesota IMPLAN Group. 2012. 2010 Ohio state and national package database. MIG, Inc., Hudson, WI.
- [3] United States Department of Agriculture National Agricultural Statistics Service. 2012. 2010 Ohio county summaries. [http://www.nass.usda.gov/Statistics\\_by\\_State/Ohio/Charts\\_and\\_Maps/index.asp](http://www.nass.usda.gov/Statistics_by_State/Ohio/Charts_and_Maps/index.asp).
- [4] United States Forest Service Forest Inventory and Analysis. 2012. Northeast Forest Inventory and Analysis Methodology: Common definitions used by FIA. [http://www.fs.fed.us/ne/fia/methodology/def\\_ah.htm](http://www.fs.fed.us/ne/fia/methodology/def_ah.htm).
- [5] United States Forest Service Forest Inventory and Analysis. 2012. Crawford County 2011 forest survey database. <http://apps.fs.fed.us/fido/standardrpt.html>.
- [6] Minnesota IMPLAN Group. 2004. IMPLAN Professional®: Users Guide, Analysis Guide, Data Guide. 3rd edition. MIG, Inc.

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