13. Wood and wood products production, consumption, and trade

13.1 Value of wood-related products
The value of wood-related products and shipments indicates the relative importance of Wisconsin forests as a source of raw material for a wide variety of uses. Tracking the values of goods and services through the production process, from the forest to the end of secondary processing, explains a key dimension of the economic contribution that forests make to local, state and national economies. Several related measures can be used to analyze the relative value of products by industry. They are: total value of shipments, cost of materials, and value added. (Detailed definitions are located in the Glossary.) These measures appear in the subsequent graphs in terms of both current dollars and dollars adjusted for inflation according to 2007 constant dollars.

Total value of wood related products can be assessed through the total value of shipments (analogous to sales) in the forest product industry. Total value of shipments for the forest products industry has declined since reaching a height of $26.8 billion in 1995 (in constant 2007 dollars), dropping to $20.5 billion by 2006 (Figure 13.a).

Value added is considered to be a valuable measure for comparing the relative economic importance of manufacturing among industries and geographic areas. While total value of shipments dropped in terms of constant 2007 dollars from 1995, value added by wood products increased around 2002, when cost of materials fell at a faster rate relative to total value of shipments (Figure 13.a).

![Graph showing value of shipments, cost of materials, and value added over time.](image)

**Figure 13.a: Forest industry value added (constant 2007 dollars) (US Economic Census, 2007)**

Criterion 6: Socioeconomic benefits of forests and their ecosystem services
Among wood product industry subsectors, the paper manufacturing subsector contributes the majority of the value of shipments ($13.8 billion), or 9% of the value of shipments for all manufacturing in Wisconsin in 2006. According to the Wisconsin Paper Council, the state continues its rank as the top U.S. paper producer, a position it has held for over 50 years. Only the wood furniture subsector experienced a recent decrease in total value of shipments, dropping from $2.3 billion in 2002 to $1.5 billion in 2006. In terms of share of all manufacturing’s value of shipments, none of the five forest products industry subsectors have had gains from 2002 to 2006. Growth in forest products manufacturing has not kept pace with other manufacturing in Wisconsin, and when adjusting for inflation, a gradual reduction in value added is apparent over the last 5 years (Figure 13.a).

The obvious decline in total value of shipments in the forest products industry, combined with a decline in value added through those shipments indicates an industry in transition. Cost of materials has not fallen at the same pace as value of shipments, cutting into the overall value added to the economy by the industry. The changes within the paper manufacturing and processing industry and the wood furniture subsector are especially important. Large paper mills have closed, while wood furniture manufacturing had the greatest percentage decline, due to stiff overseas competition which benefits from cheaper labor, readily available wood fiber, and low transportation costs. In 2006, Wisconsin’s exports of furniture and fixtures (NAICS 337), was 10% of the U.S. GDP in furniture and fixtures. This is above the average of 7.5% for the eastern hardwood region but still is low potentially due to the difficulty in transporting products to ports (Bowe et al 2008). Again, compared to the eastern region, Wisconsin ranked below the median for exports of primary wood products. However, Wisconsin’s forest products industries remain a vital component of the state economy, comprising 13.8% of the value added in all manufacturing sectors.
13. Wood and wood products production, consumption, and trade

**Figure 13.b: Total value of shipments (US Economic Census, 2007)**

13.2 Production of roundwood
An important indicator of a sustainable forest is the level of actual timber harvested. This information is an important measure of whether or not the current timber cutting levels can be sustained. (See also Indicator 6: metric 6.1 - Net growth and removals.) Production levels are also a good indication of the health of the forest products industry.

Roundwood is the unit of measure for products and refers to the volume being harvested for industrial and nonindustrial products such as the following:

- **Softwoods** include all softwood species.
- **Hardwoods** include all hardwood species.
- **Sawlogs** includes roundwood logs and bolts processed at sawmills into a variety of sawn products (lumber, cants, squares, blanks, etc.). Principal sawlog species are oaks, maples, aspen, and red pine.
- **Veneer logs** includes roundwood logs and bolts processed at veneer mills into a variety of peeled, sliced, stamped, or cut products (sheathing, panels, plywood, containers, sticks, etc.). In the East, this product code may include logs exported for processing. Principal veneer species are maple, aspen, birch, oaks, and black walnut.
- **Pulpwood/fiber byproducts** include roundwood logs, bolts, and chips used in the manufacture of wood pulp for making paper and paperboard products. Fiber byproducts identify mill residues as being used in the manufacture of wood pulp or composite products (particle board, chip board,
13. Wood and wood products production, consumption, and trade

flake board, engineered lumber products, etc.). Principal pulpwood species are aspen, maples, jack pine, red pine, birch, and fir.

**Composite products** include roundwood logs, bolts, and chips used in the manufacture of reconstituted wood products (chip board, flake board, oriented strand board, engineered lumber, etc.). Principal species used in composite products include aspen, jack pine, and birch.

**Fuelwood/fuel byproducts** include roundwood logs, bolts, and chips used as fuel in industrial, residential, and institutional situations. Fuel byproducts identify mill residues as being used for industrial, residential, and institutional fuel. Principal fuelwood species are oaks, elm, maples, and aspen.

**Post, poles, and pilings** includes roundwood logs milled (cut, peeled, etc.) into standard sizes (lengths and circumferences) to be put in the ground to provide vertical and lateral support in buildings, foundations, utility lines, and fences. Post, Poles, and Pilings may include nonindustrial (unmilled) roundwood that has been cut directly into posts for domestic and local uses. Principal species for posts, poles and pilings include cedar, pines, oaks, and aspen.

**Miscellaneous products/Miscellaneous byproducts** include roundwood logs, bolts, and chips processed into a variety of products not previously listed (charcoal, cooperage, excelsior, etc.). In Wisconsin, a large proportion of this category is the 60 log cabin manufacturers. Miscellaneous byproducts identifies mill residues as being used for a variety of products not previously listed (mulch, bedding, charcoal, small dimension lumber, etc.).

Wisconsin forests yielded a total of 414.2 million cubic feet of roundwood in 2007, up from 408.6 million cubic feet in 2002, but considerably less than 1997 total production of 435.2 million cubic feet. Hardwood species comprise the vast majority (79.2%) of total roundwood production in Wisconsin, a proportion that has been stable over the last decade (Figure 13.c).

Over half (52.8%) of all roundwood produced in Wisconsin (for both hardwood and softwood species) in 2007 is pulpwood destined for paper and paperboard production. For all species in 2007, sawlogs were second-most prevalent (24.1% of all roundwood), followed in descending order of production by composite products, fuelwood, miscellaneous products, and post, poles, & pilings (Figure 13.c).
Softwood production is decreasing slightly over time from 1997 (92.6 million cubic feet) to 2007\(^2\) (86.3 million cubic feet). More softwood is being used as sawlogs in 2007 (23.7 million cubic feet) than in 1997 (18.2 million cubic feet), and to a lesser degree more softwood is being

\(^2\) 2007 data is based on models for the Forest Service RPA.
used in composite products and miscellaneous products over the same time period. Conversely, production of softwood pulpwood declined from 68 million cubic feet in 1997 to only 52.3 million cubic feet in 2007. This trend among softwood toward larger diameter sawlogs may reflect the maturation of softwood stands, especially among red pine plantations throughout the state (Figure 13.e).

![Figure 13.e: 2007 Production of roundwood from softwood species (cubic ft.) (US Economic Census 2007)](image)

Hardwood production is changing differently from softwood, as the resource base of large diameter valuable hardwoods dwindles and forest regeneration undergoes changes resulting from past management that may have harvested larger trees. Meanwhile, the wood products industry changed capacity and function of its facilities to better utilize the available merchantable timber. Total hardwood roundwood production declined from 1997 (342.7 million cubic feet) to 2002 (319.6 million cubic feet), but rebounded somewhat by 2007 (328 million cubic feet). Hardwood pulpwood production continues to increase, growing from 127 million cubic feet in 1997 to 165.3 cubic feet in 2007. Strikingly, 2007 was the first data year in which pulpwood comprised greater than half (50.4%) of all hardwood production, up sharply from only 37.1% in 1997. Conversely, hardwood sawlogs production decreased nearly 20% in just ten years, dropping from 94.5 million cubic feet in 1997 to only 76.3 million cubic feet in 2007. Hardwood roundwood comprises well over 90% of total production in both fuelwood and in composite products, but while fuelwood production steadily declined over the past decade, composite products now constitute a larger proportion of all roundwood production. Whereas in 1997 hardwood composite products comprised only half of hardwood fuelwood production, by 2007 there was more hardwood going into composite products (39.9 million cubic feet) than hardwood in fuelwood (36.4 million cubic feet); a marked shift in hardwood production (Figure 13.f).
Wisconsin’s roundwood production is changing in response to both shifting market forces and a changing resource base in the forest. China, for instance, ranks the United States as the top source for their hardwood lumber but the United States must compete heavily for this market with countries such as Russia and Brazil (Bowe et al. 2008). Hardwood production continues to represent the dominant portion of roundwood processed in the state. Due largely to trends in hardwood species, Wisconsin is processing less sawlogs and more pulpwood in 2007 than it did in 1997. Fuelwood production is in steady decline, replaced in part by an increase in composite products and miscellaneous products.

There are several new industries interested in wood products. New pellet plants, bio refineries, power generation, and University campuses could raise the biomass consumption in Wisconsin by 1.5 million dry tons if all the proposed plants were built. Expanding interest in the use of wood biomass is coming from many directions. Proposed new plants will likely create significant new demand (i.e. 1,000,000 to 1,500,000 dry tons per year) for wood fiber in the next one to four years. This would be the equivalent of adding a large kraft pulp mill to the state. New plants being proposed are of significant size related to wood demand. While some of the proposals will not be viable, undoubtedly some of the proposed plants will occur. Even if only one or two of them successfully come on-line, the timber demand in the market will increase significantly creating price pressure on existing supply.

Assuming 320,000 dry tons (640,000 cords) per year of new demand divided by the public lands average harvest of 8 dry tons (16 cords per acre) equals 40,000 acres of new sales required per year to meet this new demand. The wildcard is how much forest biomass will be collected from existing and new sales. The logging residue on timber sales in Wisconsin, of which little is used,

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3 Barkley, Jeff, personal communication, May 2008.
is estimated for 2007 to be approximately 2.2 million dry tons. Wisconsin is currently harvesting 60% of its net annual growth annually.

Currently there is 369,000 dry tons of wood pellet capacity in the state. Much of this capacity is not operating due to lack of economically available feedstock. There are four more plants that have applied for permits or are in the planning process that would need an additional 370,000 dry tons of material. Not all of these plants will be built. The bulk of the future supply for the new pellet plants will be coming from the forests because the supply of mill residues is already under contract to existing plants. If all of the plants were running at capacity and the proposed plants built, the total demand would be 739,000 dry tons. A significant portion of this demand will be met by mill residues and the rest coming from forest biomass.

Bio-refining and ethanol production is the next area that will significantly alter demand. Two pulp mills are working on bio-refining projects to produce ethanol, diesel, jet fuel, etc. Each of these projects would be looking for an addition 250,000 dry tons of wood to feed the plants.

Utility renewable energy production is another new area of potential wood demand. Five different utilities, three in Wisconsin and two out-of-state, are looking for biomass for electricity generation. Their interest is from 50,000 dry tons to 250,000 dry tons each per year. Excel has applied to the Public Service Commission to convert their Ashland plant to all wood increasing demand by about 125,000 dry tons at that location. Excel has also announced that they will increase their biomass consumption by 14,000 dry tons at their French Island plant near La Crosse. DTE Energy Service is in the process of purchasing a coal boiler in Cassville Wisconsin and converting it to biomass with the electricity to be sold to Dairy Land Power. They will be looking for about 340,000 dry tons of biomass. If all of these occur, the demand for biomass by the utilities will increase by 479,000 dry tons on top of that is 144,000 tons dry tons they are currently using.

The Governor has directed UW-Oshkosh, UW-Stevens Point, and UW-Superior to explore ways to become energy independent. Each of these schools is looking at biomass as part of their energy mix. UW Oshkosh and UW Stevens Point have both developed plans for providing some of the energy needs from biomass and would use about 10,000 dry tons of biomass each. UW Madison is proceeding with work to convert their Charter Street boiler to biomass which would use approximately 200,000 dry tons of biomass a year.

13.3: Production and consumption of roundwood equivalent
Roundwood equivalents of harvest are defined as an estimate of the solid volume (i.e., total wood content) of a processed log in cubic units derived by multiplying the final products by a product recovery factor. The procedure for estimating roundwood equivalent of products provides a simple technique for estimating the major portion of timber harvest levels. This technique is less expensive than conducting surveys and can be done on an annual basis, which provides a benchmark that can be used in conjunction with the FIA survey approach, helping to ensure the accuracy of both methods.

By measuring per capita consumption of roundwood, comparisons can be made with other regions and states regarding their consumption. Usage trends also become more noticeable, as the relationship between production and consumption of roundwood shifts over time. This
relationship can be easily described through the production/consumption Ratio (P/C ratio) of roundwood. The P/C ratio divides total annual production in a locality by total annual consumption in the locality. As such, a P/C ratio of greater than 1 indicates a region which produces more roundwood than is consumed locally, while a P/C ratio of less than one indicates a region consuming more roundwood than it currently produces.

**Map 13.a: 2005 Production/consumption ratio of roundwood**
(Source: USFS Timber Product Output, 2005)

Generally it can be said that southern Wisconsin counties tend to have very low P/C ratios, while northern Wisconsin counties have P/C ratios well above 1. Logically, sparsely populated northern counties with high percentages of productive forest land have much higher P/C ratios than do southeastern counties with the opposite conditions. Florence County has the highest P/C ratio (50.3) in Wisconsin, while ten other remote northern counties also each produce greater than 10 times as much roundwood as they consume. Conversely, those counties with the lowest P/C ratios, which produce virtually no roundwood in relation to their consumption, all contain or border the Milwaukee, Madison, Green Bay, or Chicago, Illinois metropolitan areas. Even St. Croix, Pierce and Polk Counties in the northwest, bordering the Twin Cities, Minnesota metro
13. Wood and wood products production, consumption, and trade

area, have lower P/C ratios than their Wisconsin neighbors. The degree of urban influence in a county appears to be correlated with its P/C ratio (Map 13.a).

Wisconsin as a whole produced 414.3 million cubic feet of roundwood in 2007, while consuming 284.3 million cubic feet, yielding a statewide P/C ratio of 1.46. Wisconsin harvests more of its forest growing stock per year than is consumed by its residents, evidence that the forest products industry as a whole is an export industry which brings in new dollars to Wisconsin’s economy.

13.4 Recovered paper
Recovery paper consumed by paper and paperboard mills in Wisconsin can reduce waste in landfills and increase process efficiency. An estimate of the amount of recovered paper is available through the Wisconsin Paper Council, which annually surveys the mills belonging to its member companies.

Recovered paper includes various grades of paper that have been recycled by the consumer or recovered by paper and paperboard mills. Total recovered paper includes the following:
- Mixed paper: a mixture of various qualities of paper not limited by type of packing or fiber content
- Newspaper: baled newspaper containing less than five percent of other papers.
- Corrugated cardboard: baled corrugated containers having liners of test liner, jute, or kraft.
- Pulp substitutes
- High-grade de-inking: baled, sorted, fresh dry newspapers, not sunburned, free from magazines, white blank, pressroom over issues, and paper other than new, containing not more than the normal percentage of rotogravure and colored sections.

In 2003, the forest products industry reported 2.5 million tons (or about 41%) of the estimated 6.2 million tons of paper and paperboard produced were recycled products. According to the American Forest and Paper Association, in 2009 a record-high 63.4% of the paper used in the U.S. was recovered for recycling. Nationally, percent recovery rates of paper have steadily grown since the early 1990’s, but Wisconsin’s reported paper recovery rate in 2003 lags behind the national rate of 50.3% (http://www.afandpa.org/). This figure may be due in part to the fact that Wisconsin produces such a large volume of paper itself, skewing its recovery rate when compared to the rest of the nation. Compared to its geographic neighbors Iowa and Minnesota, Wisconsin municipal landfills have the lowest ratio of generated paper waste per capita for all five major paper categories of paper products. (WI DNR, 2003, Status of Recycling Report)

13.5 Value of non-timber forest products
Non-timber forest products (NTFP) are items harvested or gathered from forests that are not traditional wood products. Non-timber forest products are important components of the economic value of forests and their collection and processing makes an important contribution to economic activity. Many of these products also are important to indigenous people and others for their contribution to cultural values and subsistence activities (National Report, 2010). As stated in Criterion 2, indicator 6, the various types, uses, and growing locations of these products make

Criterion 6: Socioeconomic benefits of forests and their ecosystem services
tracking the amount of removal challenging. Due to the fact that there is not a long term database with information on the removals of NFTP, there is also no specific database for the value of those products. Typically, if a NTFP is sold, the value of that commodity can be tracked.

As ecosystem services begin to be monetarily valued, we may see NTFP develop greater monetary value. If the monetary values of NTFP are tracked, trends can signal a concern with the level of harvesting; ginseng is a good example. In 1999 the local price for wild-crafted North American ginseng approached $500 a pound (although average export prices are considerably lower, as noted below). Soaring prices are not only a result of higher demand, but of dwindling supplies (Sather, 2002). Since then, Wisconsin has instituted strict regulations and permitting of ginseng harvests.

Wisconsin’s urban forests annually provide over $64 million in environmental services including carbon sequestration, air pollution mitigation, and energy savings. These could be an effective tool to help address climate change and energy independence. (WI DNR, 2007 Urban Forestry Annual Report)

Significant volumes of wood salvaged from city trees hit by pest outbreaks, storm damage, construction activity and other factors are also recycled into both traditional wood products and non-timber products like garden mulch. Unfortunately, over half of urban wood currently ends up in landfills. In the United States over 200 million cubic yards of urban tree and landscape residue are generated every year. Of that, 15 percent is classified as “unchipped logs” equivalent to about 3.8 billion board feet of lumber, or nearly 30 percent of the hardwood lumber produced annually in the United States (Bratkovich, 2001). Wood waste represents an estimated 15.7% of the Wisconsin Municipal Solid Waste stream. Wood waste contributes approximately 747,000 tons of waste to Wisconsin landfills on an annual basis, and depositing wood waste in landfills costs over $18 million in Wisconsin and almost $7 million/year in Southeast Wisconsin. This does not include collection costs (Diggelmen, 2004). Better utilization of urban wood waste could produce additional income opportunities.

There is limited data available on the value of maple syrup, permits collected for balsam boughs on public land, and ginseng. Data for other products, specifically for Wisconsin, is not available.

**Maple syrup** – Maple syrup producers reported receiving $35.70 per gallon for their 2007 production and $31.20 for 2006. The average of the top ten producing states was $33.20 in 2007 (USDA, NASS).

**Balsam boughs** - On National Forests, balsam boughs may be collected with a permit. National Forest Service Handbook direction is to value special forest products at 10% of the value they can be sold for by the permittee. As a result, permits are currently a minimum $80 for 2 tons, and an additional $40 for each extra ton. Conditions apply. In 2008 on the Chequamegon Nicolet National Forest, a total of 147 permits were sold for 269 tons of boughs, totaling $10,767.

On county and state forests in 2007, $2035 was collected for balsam bough collection. (DNR, 2009)
A 2002 Wisconsin green industry study found the Christmas tree and wreath producer’s total yearly receipts for 2002 was $50,000,000.

**Ginseng** - Since 1990, the price per pound of wild ginseng exports nationwide was two to ten times higher than cultivated ginseng. From 1997 to 2007, the average export price of wild ginseng was $84.50/lb (Cheng and Mitchell, 2009). Wild Wisconsin ginseng is still available on the market, although it has been defined internationally as an endangered species due to over harvesting since the mid-1970s.

The data presented here should be viewed as a baseline. There is a great need for better tracking of NTFP. Currently, it is not possible to evaluate the health of the NTFP industry, and therefore, difficult to determine the monetary effect these products have for local and state economies.

The FS attempted to value NTFP nationally based on several assumptions (e.g. what the FS receives for a product is 10% of it’s value per unit). They state their estimates are rough and can vary greatly when a region is the primary producer. The National Report explains the difficulty in collecting this data and evaluating it:

“Prominent data gaps include personal use of NTFPs, and production and value from private lands. Determination of first point of sales value is problematic. There is no single source of data for NTFPs, nor is it expected that there ever will be. It is unclear how consistent or comparable data sources are in terms of value and scale. Personal use values for NTFPs have not been estimated.” (page 2-73)

Wisconsin is highly dependent on the FS’s monitoring systems in order to evaluate, even minimally, the monetary value of NTFP in the state.

Perhaps more significant than monetary value, NTFPs possess cultural and spiritual values that are also difficult to measure. For many Native American tribes, NTFPs are integral to their cultural traditions. There is no monetary value that could be placed on their use. Surveys show that private landowners highly value the NTFP on their land. An estimated 28,000 family forest owners (roughly 8%) stated that cultivating and collecting NTFP is a very important reason they own the land (Butler, 2008). Hunting and fishing as the primary reason for owning forest land adds another 143,000 family forest owners. Private landowners can sell NTFPs to supplement or supplant timber cutting from forest ecosystems; an alternative source of income for some woodland owners.

**13.6 Chain-of-custody certified forest products businesses**

Chain-of-Custody (COC) is a process used by businesses to verify that wood and their manufactured goods originates from well-managed forests. COC builds trust with customers. Being identified with illegal logging, destruction of old growth forests or use of child labor among other bad practices can be disastrous for marketing. Companies that want to project an image of environmental, social or economic responsibility engage independent COC auditors to affirm where their wood comes from.

The most frequently used COC standards by Wisconsin manufacturers are the Forest Stewardship Council (FSC) and Sustainable Forest Initiative (SFI). Those are tied to forest land management certification covered in Section 16.7.
COC businesses may include FSC or SFI forest certification trademarks on their products. Since SFI and American Tree Farm System certification programs are covered by the European Program for the Endorsement of Forest Certification (PEFC) – and since Tree Farm does not have an on-product trademark – the PEFC trademark might alternately be used for those brands. COC trademarks can denote 100% certified origin or mixed-product and percentage-based content. SFI also has a “fiber sourcing” label under which procurement audits (rather than COC tracking systems tied to third-party certified forest management operations) are used to claim that wood is sourced from lands meeting basic forest management standards.

COC certification is still in its infancy, with 7% of Wisconsin forest products manufacturers involved (97 out of 1,356 establishments). As shown in Table 13.a, the number of COC companies in Wisconsin and neighboring Lakes States Michigan and Minnesota was also relatively small in 2009. A few Lake States COC paper companies, however, represent a large share of the global trade in certified goods. In business to business transactions, the demand for certified products is especially high in the paper and printing sector. Rising interest in green building, which gives credit for use of building materials from certified forests, is also driving more COC certifications. In 2004, Wisconsin Governor Jim Doyle issued an Executive Order directing the Department of Administration to establish state building standards based on the Leadership in Energy and Environmental Design (LEED) certification. The overall green building market for both non-residential and residential construction is forecast to more than double from $36-49 billion in 2009 to $96-140 billion by 2013. (Source: McGraw Hill Construction, 2009) Consumer demand for certified goods is also expected to increase with greater public awareness of climate change and other environmental issues.

<table>
<thead>
<tr>
<th>State</th>
<th>FSC</th>
<th>SFI / PEFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>54</td>
<td>23</td>
</tr>
<tr>
<td>Minnesota</td>
<td>99</td>
<td>40</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>79</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>232</td>
<td>98</td>
</tr>
</tbody>
</table>

Source: metafore

Table 13.b takes a closer look at 2009 COC certificate business types in Wisconsin. FSC holds the lead in the number and variety of manufacturers. SFI COC holders are notably concentrated in paper and printing. The numbers do not, however, tell the whole story since FSC’s COC program has been in place for at least fifteen years compared to only three years (since 2006) for SFI. To now, FSC’s marketing strategy was focused on building COC participants with comparatively less emphasis on developing supply from certified land management operations. SFI initially focused on building a certified forest base and only recently began serious promotion of the SFI COC trademark program. FSC’s strength in solid wood COC is likely due to exclusive US Green Building Council recognition of FSC in the past, but SFI may be added. Continued market competition between FSC and SFI should help boost public awareness of certified responsible forestry.
### Table 13.b: Forest certification – 2009 Wisconsin chain of custody certificates

<table>
<thead>
<tr>
<th>Primary Business Type</th>
<th>FSC</th>
<th>SFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Converted Paper Products</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Forest Owner Manager/Logs</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Lumber/Home Center/Building Supply Dealer</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Packaging Paper and Board</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Paper Wholesaler/Distributor</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Printer</td>
<td>31</td>
<td>17</td>
</tr>
<tr>
<td>Pulp and Paper Manufacturer</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Sawmill/Wood Processor</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Secondary Manufacturer - Architectural Woodwork/Millwork</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Secondary Manufacturer - Cabinets/Casework/Fixtures</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Secondary Manufacturer - Doors</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Secondary Manufacturer - Lumber</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Secondary Manufacturer - Wood Flooring</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Secondary Manufacturer - Windows</td>
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<td></td>
</tr>
<tr>
<td>Total Wisconsin Chain of Custody Manufacturers</td>
<td>79</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: [metafore](#) (Note: 17 companies in the metafore database show dual FSC/SFI COC certifications.)