

Forest Products Industries' Economic Contributions in the Northeast and Midwest Area - 2017

The Northeast and Midwest area has 175.5 million acres of forest land that cover 43 percent of its land base, and most of this forest land can produce commercial timber. The majority, 73 percent, is privately owned; about 19 percent is managed by state and local government, and 8 percent by the federal government. These forests support a vibrant forest products industry.

Key Findings – Forest Products Industries:

- Provided almost 540,000 direct jobs and supported a total of 1.4 million jobs in 2017.
- Provided more direct labor income and output than: commercial fishing, hunting, and trapping; mining and oil and gas production; and agricultural production industries (plant crop and animal farming).
- Accounted for 8.1 percent of direct manufacturing jobs, and 9.5 percent of non-food manufacturing jobs.
- Forest products industries ranked 5th in number of direct manufacturing jobs compared out of 16 manufacturing industries in the Northeast and Midwest.

Economic Contributions:

Direct Contributions by Industry Group, 2017 (in number of jobs, and thousands of dollars)

Industry Group	Employment	Labor Income	Value-added	Output
Forestry* **	17,582	\$605,111	\$625,441	\$820,887
Logging*	41,769	\$2,349,855	\$3,366,782	\$4,286,672
Primary solid wood products	41,560	\$2,457,771	\$3,182,925	\$13,939,506
Secondary solid wood products	122,434	\$7,044,823	\$8,313,876	\$24,694,220
Wood furniture	136,021	\$7,844,368	\$9,307,465	\$23,743,111
Pulp, paper, and paperboard mills	38,351	\$3,926,864	\$6,914,707	\$29,603,879
Secondary paperboard and other paper products	144,442	\$12,289,344	\$18,842,069	\$69,945,542
Total	542,158	\$36,518,137	\$50,553,265	\$167,033,817

Total Contributions by Industry Group, 2017 (in number of jobs, and thousands of dollars)

Industry Group	Employment	Labor Income	Value-added	Output
Forestry* **	16,669	\$684,498	\$857,354	\$1,267,775
Logging*	23,331	\$1,268,111	\$1,921,904	\$2,745,669
Primary solid wood products	108,003	\$6,708,781	\$10,274,777	\$23,526,396
Secondary solid wood products	288,927	\$17,504,448	\$25,155,685	\$54,607,794
Wood furniture	297,641	\$17,980,467	\$25,692,267	\$53,520,259
Pulp, paper, and paperboard mills	164,948	\$12,051,257	\$19,932,081	\$48,900,414
Secondary paperboard and other paper products	508,115	\$36,287,805	\$57,934,902	\$142,597,517
Total	1,407,634	\$92,485,367	\$141,768,969	\$327,165,824

*Forestry and Logging are reported in this table; but most of their contributions are as indirect inputs or intermediate inputs that are used in the production in the other five industry groups – part of their jobs is included in the estimates for the other groups.

**In this summary, the forestry group includes maple syrup production.



Top Forest Industry Sectors in the Region:

Top 6 Industry Sectors by Direct Jobs

Industry Sector	Employment
Paperboard container manufacturing	76,914
Wood kitchen cabinet and countertop manufacturing	55,097
Commercial logging	41,769
Paper bag and coated and treated paper manufacturing	33,636
Wood container and pallet manufacturing	31,072
Paper mills	30,459

Top 6 Industry Sectors by Value Added (Thousands)

Industry Sector	Value Added
Paperboard container manufacturing	\$8,407,846
Paper mills	\$5,586,217
Paper bag and coated and treated paper manufacturing	\$4,457,117
Sanitary paper product manufacturing	\$3,734,063
Commercial logging	\$3,366,782
Wood kitchen cabinet and countertop manufacturing	\$3,251,378

Forest Products Industries in Context to other Industries:

Natural Resources and Agricultural Production Industries in the Northeast and Midwest, 2017

Manufacturing Industries	Employment	Labor Income (Thousands)	Value-added (Thousands)	Output (Thousands)
Forest products	542,158	\$36,518,137	\$50,553,265	\$167,033,817
Commercial fishing, hunting, and trapping	27,552	\$1,408,345	\$1,743,915	\$1,999,665
Mining and oil and gas production	241,876	\$14,835,473	\$61,481,475	\$85,797,446
Agricultural production (plant crop and animal)	1,072,139	\$27,684,645	\$49,631,488	\$142,689,243

Manufacturing Industries in the Northeast and Midwest, 2017 (in number of jobs, and thousands of dollars)

Manufacturing Industries	Employment	Labor Income	Value-Added	Output
Food	786,964	\$48,110,515	\$89,279,962	\$427,010,736
Fabricated metal	770,590	\$55,262,862	\$81,201,345	\$193,059,452
Transportation equipment	730,204	\$66,571,331	\$121,350,931	\$507,207,964
Machinery	579,438	\$51,851,543	\$76,651,691	\$216,314,136
Forest products	481,790	\$33,361,859	\$46,119,188	\$161,064,639
Plastics and rubber products	382,401	\$26,353,506	\$43,435,494	\$130,570,527
Chemical	370,049	\$56,950,248	\$157,009,695	\$405,660,854
Computer and electronic product	365,272	\$40,011,172	\$70,867,255	\$171,967,446
Miscellaneous	353,579	\$30,439,345	\$44,122,764	\$107,965,022
Printing	271,449	\$15,966,626	\$22,139,486	\$46,119,717
Primary metal	221,500	\$19,508,679	\$32,654,743	\$128,984,613
Electrical equipment	197,063	\$18,551,800	\$27,156,074	\$80,481,496
Nonmetallic mineral product	175,698	\$12,227,351	\$22,423,414	\$58,895,457
Textiles and apparel	126,492	\$6,635,051	\$8,512,703	\$24,323,602
Beverage and tobacco product	90,350	\$6,607,292	\$21,662,850	\$61,264,815
Petroleum and coal	35,256	\$7,853,351	\$34,687,460	\$117,427,560
Total	5,938,096	\$496,262,530	\$899,275,055	\$2,838,318,036

State Comparisons:

Direct employment in forest products industries ranged from 1,957 jobs in Delaware to 68,541 jobs in Pennsylvania. Six states had over 40,000 direct jobs: Pennsylvania, Wisconsin, Indiana, Ohio, New York, and Michigan. Direct employment by industry group provides additional insight regarding the distribution of industries across the region. Pennsylvania was among the top five states in all seven industry groups, followed by Wisconsin (top five in six industry groups) and New York (top five in five industry groups).

State-level Direct Contributions, 2017 (in number of jobs, and thousands of dollars)

State	Employment	Labor Income	Value-added	Output
Connecticut	7,730	\$612,313	\$673,015	\$2,415,490
Delaware	1,957	\$172,281	\$277,321	\$811,193
Illinois	38,554	\$2,751,641	\$3,631,953	\$12,863,371
Indiana	50,093	\$3,124,900	\$4,046,325	\$12,883,498
Iowa	17,834	\$1,118,759	\$1,828,168	\$4,978,201
Maine	18,887	\$990,184	\$1,589,980	\$5,236,715
Maryland	8,813	\$589,530	\$730,098	\$2,633,880
Massachusetts	16,083	\$1,548,080	\$1,441,125	\$5,354,786
Michigan	40,746	\$2,674,987	\$3,481,716	\$12,182,249
Minnesota	34,055	\$2,367,350	\$3,578,890	\$10,503,265
Missouri	25,699	\$1,466,242	\$2,336,133	\$6,985,972
New Hampshire	7,289	\$362,982	\$651,642	\$1,620,412
New Jersey	18,702	\$1,550,628	\$1,908,904	\$6,720,879
New York	43,024	\$3,270,371	\$3,783,648	\$13,484,023
Ohio	54,445	\$3,690,189	\$4,649,464	\$16,111,539
Pennsylvania	68,541	\$4,631,225	\$7,477,831	\$22,419,639
Rhode Island	3,035	\$180,616	\$229,666	\$929,557
Vermont	9,107	\$291,472	\$393,406	\$1,370,850
West Virginia	10,108	\$520,228	\$747,027	\$2,214,972
Wisconsin	67,793	\$4,517,367	\$7,065,287	\$25,282,710
20-state region (sum)	542,494	\$36,431,345	\$50,521,600	\$167,003,201
20-state region (model)	542,158	\$36,518,137	\$50,553,265	\$167,033,817

Note: The numbers in the table are the results of 20 individual state models, the sum of which is indicated by the “20-state region (sum)” total. A total region model was also calculated, the total of which is represented by the “20-state region (model)” total, and these values match the estimates given in the body of this report. The difference between the 20-state region sum and model reflects interstate economic activity not captured in the individual state models. The use of ratios applied for partial sectors at the state versus regional level led to small differences in direct effect results (less than 0.25 percent).

Total employment contributions followed a similar pattern, with larger states having over 85,000 jobs supported by the forest products industries. Illinois joined this group with approximately 90,000 total jobs supported. The largest two states in terms of total employment contributions were Wisconsin (160,149 jobs) and Pennsylvania (152,698 jobs). Labor income, value-added, and output follow a similar pattern to that of employment.

State Comparisons (continued):

State-level Total Contributions, 2017 (in number of jobs, and thousands of dollars)

State	Employment	Labor Income	Value-added	Output
Connecticut	16,141	\$1,224,699	\$1,637,604	\$3,957,671
Delaware	4,003	\$291,789	\$485,356	\$1,147,886
Illinois	90,102	\$5,995,900	\$8,994,987	\$21,851,360
Indiana	96,444	\$5,522,457	\$7,982,412	\$19,935,504
Iowa	33,656	\$1,880,743	\$3,116,328	\$7,285,278
Maine	39,742	\$1,951,150	\$3,190,147	\$8,165,119
Maryland	18,046	\$1,162,355	\$1,675,631	\$4,200,375
Massachusetts	37,806	\$3,102,352	\$3,806,318	\$9,225,714
Michigan	91,176	\$5,477,204	\$7,987,222	\$20,196,166
Minnesota	78,465	\$5,098,267	\$7,893,811	\$18,036,983
Missouri	53,862	\$2,961,633	\$4,759,704	\$11,292,249
New Hampshire	12,881	\$695,988	\$1,168,016	\$2,485,618
New Jersey	41,942	\$3,186,935	\$4,477,820	\$10,894,609
New York	86,775	\$6,537,990	\$9,049,965	\$21,792,352
Ohio	124,692	\$7,516,031	\$11,069,310	\$27,365,814
Pennsylvania	152,698	\$9,874,890	\$15,782,426	\$36,469,069
Rhode Island	6,372	\$375,000	\$548,657	\$1,462,615
Vermont	13,816	\$521,860	\$770,800	\$2,057,036
West Virginia	17,171	\$853,058	\$1,311,223	\$3,229,881
Wisconsin	160,149	\$9,528,567	\$15,295,296	\$39,996,566
20-state region (sum)	1,175,938	\$73,758,866	\$111,003,033	\$271,047,864
20-state region (model)	1,407,634	\$92,485,367	\$141,768,969	\$327,165,824

Note: The numbers in the table are the results of 20 individual state models, the sum of which is indicated by the “20-state region (sum)” total. A total region model was also calculated, the total of which is represented by the “20-state region (model)” total, and these values match the estimates given in the body of this report. The difference between the 20-state region sum and model reflects interstate economic activity not captured in the individual state models. The use of ratios applied for partial sectors at the state versus regional level led to small differences in direct effect results (less than 0.25 percent).

About This Bulletin:

This bulletin summarizes the economic contributions of forest products industry in Michigan in 2017, as part of an analysis of the 20 Northeast and Midwest states plus Nebraska supported by a U.S. Department of Agriculture Forest Service 2017 Landscape Scale Restoration Grant. Several measures of economic contribution are presented below; for more information, see the full report at <http://www.northeasternforests.org>. This analysis used 2017 IMPLAN data for 32 industry sectors summarized in 7 industry groups.

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