Forest Products Industries' Economic Contributions: Illinois, 2023

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Prepared by:
Basanta **Lamsal**, PhD
Jagdish **Poudel**, PhD
Raju **Pokharel**, PhD

Department of Forestry
Michigan State University
East Lansing, Michigan, USA

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Authors

Basanta Lamsal, PhD: Dr. Basanta Lamsal is a Postdoctoral Fellow in the Department of Forestry at Michigan State University. Dr. Lamsal specializes in in the application of input–output economics to the forest sector, forest resource economics, and the auction theory applied to timber markets.

Jagdish Poudel, PhD: Dr. Jagdish Poudel is Forest Economist for the Michigan Department of Natural Resources and an Adjunct Assistant Professor in the Department of Forestry at Michigan State University. Dr. Poudel specializes in traditional forest economics research such as analyzing stumpage demand and supply, timber prices, and forest product utilization, markets, and business. His interests extend to economic analyses of new wood innovations, such as mass timber and woody biomass energy, as well as ecosystem services markets, including habitat conservation and wetland mitigation banking, outdoor recreation and tourism, urban and community forestry, international forestry, and forest carbon markets.

Raju Pokharel, PhD: Dr. Raju Pokharel is an Assistant Professor of Forest Resource Economics in the Department of Forestry at Michigan State University. Dr. Pokharel specializes in evaluating and developing market opportunities for forest products including timber, bioenergy, mass timber, biochar, and others, estimating forest product feedstock supply and market competitions, and assessing the economic trade-off of timber products under different management strategies.

For more information:

Forest Economics and Resource Management Lab (MSU FERM)
URL: https://www.canr.msu.edu/FERM/
Room 208, Natural Resources Building, 480 Wilson Rd,
Department of Forestry, Michigan State University
East Lansing, Michigan 68842

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Foreword

The forest resources of Illinois cover 4.87 Million acres, just under 14% of the state's land area, and provide a multitude of benefits to the citizens of the state. These include providing wildlife habitat, protecting soil from erosion, improving air quality, the preservation of biological diversity, supplying multiple outdoor recreation opportunities, and enhancing the scenic beauty of Illinois. Forests also provide us with a variety of wood products that we use and enjoy everyday, from the building materials we use to frame and finish our homes, the furniture that makes our lives more pleasurable, and the multiple other wood-based products we utilize that we don't even realize come from the forest. All of these many ecological and social benefits that forests provide to us can be renewable and sustainable with careful forest management planning and conservation efforts.

This publication provides a detailed overview of the various forestry-related economic benefits that come from the forests of Illinois, including the multiple jobs they support, both directly and indirectly. The economic benefits of forests are a critical element that go hand-in-hand with the ecological and social benefits forests provide. Having a better understanding and appreciation of these economic benefits helps to ensure that as we move forward, we do not take these benefits for granted. Indeed, the better we understand the many benefits of the state's forest resources, the more likely we will work together to support and sustain the forests of Illinois for the future, allowing us the opportunity to enjoy all the truly priceless benefits our forests provide, both environmentally and economically.

Kenneth Jolly,

IDNR Forestry Division Chief / State Forester

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Executive Summary

Based on 2023 FIA estimates, Illinois contains approximately 4.95 million acres of forest land, accounting for 14.0 percent of the state's total land area of 35.32 million acres. Of this forest base, 4.60 million acres are classified as timberland, representing the majority of forest land capable of producing commercial wood products. An additional 344,462 acres are designated as reserved forestland, while 6,641 acres fall into other forest land classifications. The remaining 30.37 million acres, or approximately 86.0 percent of Illinois' land area, are classified as non-forest land. Building on this land base, this report evaluates the economic contribution of Illinois' forest products industries using IMPLAN 2023 data, with a focus on employment, output, value added, and labor income. The analysis also examines changes in industry performance over the pre- and post-COVID period, capturing trends over the most recent seven-year timeframe (2017-2023).

Forest Product Industries

This report analyzes the economic contribution of Illinois's forest products sector, comprised of 31 individual economic sectors aggregated into seven industry groups: Forestry, Logging, Primary solid wood products, Secondary solid wood products, Wood furniture, Pulp, paper, and paperboard mills, and Secondary paperboard and other paper products. In 2023, these industries directly supported 38,281 jobs and generated $15.74 billion in output, $4.47 billion in value added, and $3.27 billion in labor income. When indirect supply-chain linkages and induced household-spending effects are included, the sector's total economic footprint reached 86,938 jobs, $26.57 billion in output, $10.94 billion in value added, and $6.96 billion in labor income. The sector exerts a notable multiplier effect on the broader economy; for every 100 direct jobs in the forest industry, roughly 127 additional jobs are supported elsewhere in the state.

Leading Forest Products Industry Groups (direct contribution)

Among the seven aggregated groups, Secondary Paperboard and Other Paper Products was the dominant direct employer in 2023 (16,427 jobs), followed by Wood Furniture (10,965 jobs) and Secondary Solid Wood Products (7,541 jobs). In terms of output, Secondary Paperboard and Other Paper Products produced the highest direct output at $9.09 billion, serving as the sector's primary manufacturing engine. Wood Furniture generated $2.67 billion, highlighting the state's strength in value-added finished goods. Forestry, while the smallest contributor in dollar terms ($23.80 million), provided the essential biological services supporting the broader value chain.

Leading Individual Forest Products Sectors (direct contribution)

At the disaggregated level (31 sectors), Paperboard container manufacturing remained the undisputed top individual employer with 11,395 jobs. Financial dominance was also concentrated in this sector, which ranked first in Labor Income ($1.17 billion), Value Added ($1.51 billion), and Output ($6.63 billion). Wood container and pallet manufacturing was a consistent top-tier performer, ranking second in Employment (3,120 jobs), though Paper bag and coated and treated paper manufacturing outpaced it in output ($1.43 billion) and value added ($390.0 million). Showcase, partition, shelving, and locker manufacturing also emerged as a major driver, ranking third in direct employment (3,093 jobs) and third in output ($898.61 million). These rankings show a downstream-focused economy: specialized paper converting and packaging dominating over primary processing or furniture making.

Illinois's Forest Products Industries Compared to Other Illinois Industries

The Forest Products sector remains a vital component of Illinois's natural resource economy. In 2023, it ranked second in employment and third in output when compared to Agriculture, Mining, and Commercial Fishing. The forest sector's direct output ($15.74 billion) trailed Agriculture ($24.43 billion) and Mining ($19.32 billion) but significantly outperformed Commercial Fishing ($52.4 million). In terms of employment, the 38,281 jobs supported by the forest industry accounted for roughly 26 percent of the state's total natural resources workforce, ranking behind Agriculture (83,307 jobs) but significantly surpassing Mining (24,266 jobs) and Commercial Fishing (669 jobs). Furthermore, within the statewide manufacturing landscape, Forest Products ranked as the ninth largest manufacturer by output ($15.46 billion) and the sixth largest employer.

Seven-years Trends in Illinois's Forest Products Industries Economic Contribution

From 2017 to 2023, the sector demonstrated remarkable structural stability and resilience. Direct employment decreased by a negligible 0.7 percent, while direct output declined by 2.4 percent in real terms. Notably, real Value Added actually increased by 0.8 percent despite the slight dip in output. This trend shows a divergence in the state's forest economy, where efficiency gains have allowed the industry to generate more wealth per unit of production, stabilizing the sector as a reliable economic anchor during a period of broader post-pandemic fluctuation.

Glossary

Forestry Terms

Average annual harvest removals: The estimated volume of trees that were live at the time of the previous inventory and were either cut and removed by direct human activity related to harvesting or died as a result of silvicultural or land-clearing activity by the time of the current inventory.

Average annual mortality: The volume of trees that were live at the time of the previous inventory and are dead in the current inventory.

Average annual net growth: The change in merchantable bole volume of growing-stock trees (at least five inches diameter at breast height [DBH]) after deducting mortality volume, in cubic feet, on forest land.

Forest land: Land that is at least 10 percent stocked by trees of any size, including land that formerly had such tree cover and that will be naturally or artificially regenerated. Forest land includes transition zones, such as areas between heavily forested and non-forested lands that are at least 10 percent stocked with trees and forest areas adjacent to urban and built-up lands, including pinyon-juniper and chaparral areas in the western U.S., and afforested areas. The minimum area for classification of forest land is one acre and 120 feet wide, measured stem-to-stem from the outermost edge. Unimproved roads and trails, streams, and clearings in forest areas are classified as forest land if less than 120 feet wide.

Growing stock: Live trees of commercial species that meet minimum merchantability standards (at least five inches DBH). In general, these trees have at least one solid eight-foot section, are reasonably free of form defect on the merchantable bole, and at least 34 percent or more of the volume is merchantable. Excludes rough or rotten cull trees.

Timberland: A subset of forest land that produces or can produce crops of industrial wood and is not withdrawn from timber utilization by statute or administrative regulation. (Note: Areas qualifying as timberland can produce at least 20 cubic feet per acre per year of industrial wood in natural stands. Currently inaccessible and inoperable areas are included.)

Economic Contribution Terms

Direct effects/contributions: The direct contribution represents the economic activities (output, employment, labor income, and value-added) that occur within an industry or sector as a result of its existing production to satisfy current (exogenous) final demand. In contribution analysis, the direct effect corresponds to the sector's own production activities that maintain the structure of the regional economy. For example, the direct contribution of the forest products industry reflects its ongoing production and employment required to meet current local and export demand for forest-based goods.

Employment: The number of full- and part-time jobs associated with an industry.

Indirect effects/contributions: The indirect contribution captures the inter-industry linkages created when the industry purchases goods and services from other local industries. These transactions stimulate additional production, employment, and income along the supply chain. For instance, demand for wood products generates additional output in sectors such as transportation, wholesale trade, and equipment manufacturing that supply inputs to the forest industry. The magnitude of indirect contribution reflects the degree of interdependence and strength of local supply-chain relationships.

Induce effects/contributions: The induced contribution measures the additional economic activity generated by household spending of labor income earned through direct and indirect effects. When workers employed in the forest products and related supply-chain sectors spend their income on goods and services, such as housing, healthcare, or retail, it further stimulates regional economic activity. This household feedback effect represents the cyclical flow of income and expenditures within the economy.

Labor income: The dollar total of employee compensation and proprietor income; the latter is associated with self-employed individuals.

Output: The dollar measure of production within an area; it is also viewed as sales.

Social Accounting Matrix (SAM) multipliers: These multipliers are derived by dividing the sum of direct, indirect, and induced effects by the direct effects. The social accounts include payments made between households, households and government, and more. These are available for output, employment, labor income, and value-added and are used to assess the effects of changes in industry activity (i.e., "ripple effects").

Total effects/contributions: The sum of direct, indirect, and induced effects.

Value-added (also known as gross state product, or GSP): The sum of labor income, other property income (e.g., rents and profits), and indirect business taxes (e.g., excise and sales

taxes). It is the difference between an industry's total output and the cost of its intermediate inputs. The sum of value-added for all economic sectors within the region equals the total GSP.

Introduction

Forest products industries are an integral component of Illinois's economy. They provide jobs, raw materials, and finished goods that generate additional economic activity throughout the state, region, and nation. Forests in Illinois have always supported local and state economies and generated employment and income (Leefers 2014, 2015; Poudel, 2022). These forests form the foundation for a wide array of industries, supporting logging, sawmills, pulp and paper, wood products manufacturing, and furniture production. Collectively, the Forest Products Industry (FPI) contributes directly to the economic development of the region, while also supporting rural livelihoods, providing raw materials for construction and packaging, and generating substantial downstream linkages to other industries (Poudel and Dahal 2025; Lamsal et al. 2025a). The scale and diversity of activities across the FPI underscore its role as a major part of the broader manufacturing economy, contributing to value added and sustaining consumer demand (Lamsal et al. 2025b).

Image 1: *Logging operation at Sand Ridge State Forest. Source: IDNR Forestry Division.*

A state report on FPI contributions on Illinois was previously published by Leefers et al. (2020) using 2017 IMPLAN data. The present update extends that effort using 2023 data, allowing for a

comparison across time. This analysis measures how the performance of forest sector industries in Illinois has shifted between 2017 and 2023 in terms of employment, output, labor income, and the Gross State Product (GSP), also known as value added[1]. Tracking these changes is essential, as it provides a clear picture of both long-term trends and the more recent disruptions caused by the COVID-19 pandemic. The pandemic had economy-wide effects on supply chains, consumer demand, and labor markets (Poudel and Dahal 2025; Lamsal et al. 2025b), and this report therefore captures the pre- and post-COVID conditions of the FPI within the region.

This trend analysis can be used in multiple ways by related stakeholders. For policymakers, it offers a benchmark for monitoring the health of one of the region's key resource-based industries and helps inform workforce development, investment, and rural economic policies. For industry stakeholders, it provides insight into productivity, competitiveness, and sectoral resilience, supporting strategic planning. For researchers and forest managers, it offers a consistent regional framework that connects forest resources with industrial performance and economic outcomes.

The data used in this report were derived from the U.S. Forest Service Forest Inventory and Analysis (FIA) database and from Impact Analysis for Planning (IMPLAN). These data and related information are presented in four major sections: (i) Forest Resources of Illinois, (ii) Economic Contributions of the Illinois FPIs, (iii) Comparing FPIs with other industries and neighbor states, and (iv) Summary. We acknowledge that, due to rounding, some values in the tables and figures may not sum to the exact total indicated.

Forest Resources of Illinois state

According to 2023 estimates from the USDA Forest Inventory and Analysis (FIA) program, Illinois's total land area is 35.32 million acres. Of this total, 4.95 million acres (14.0 percent) meet the FIA definition of forest land, while the remaining 30.37 million acres (86.0 percent) are classified as non-forest land. FIA defines forest land as land at least 10 percent stocked by trees of any size, including areas that formerly supported such tree cover and that will be naturally or artificially regenerated. Within Illinois's forest land base, timberland accounts for 4.60 million acres, or 92.9 percent (Figure 1), representing unreserved forest capable of producing at least 20 cubic feet of wood per acre per year. Reserved forestland comprises 344,462 acres (7.0

[1] The 2017 results in this report are based on data from the IMPLAN Pro desktop version, whereas the 2018–2023 results are based on the IMPLAN web platform. Because there are minor differences between the Pro and web versions, the 2017 estimates shown here may not exactly match 2017 results reproduced from the web version. To maintain consistency with the original 2017 report and ensure a valid basis for comparison and trend analysis, we use the original 2017 IMPLAN Pro data, and IMPLAN web data for all years from 2018 through 2023.

percent) and is withdrawn from timber utilization by legal or administrative designation. Other forestland totals 6,641 acres (0.1 percent) and consists of unreserved forests of low productivity. In practical terms, approximately 4.60 million acres of Illinois forest land are available and biophysically suitable for commercial timber management, while a relatively small share is either reserved or too low in productivity to contribute materially to timber supply.

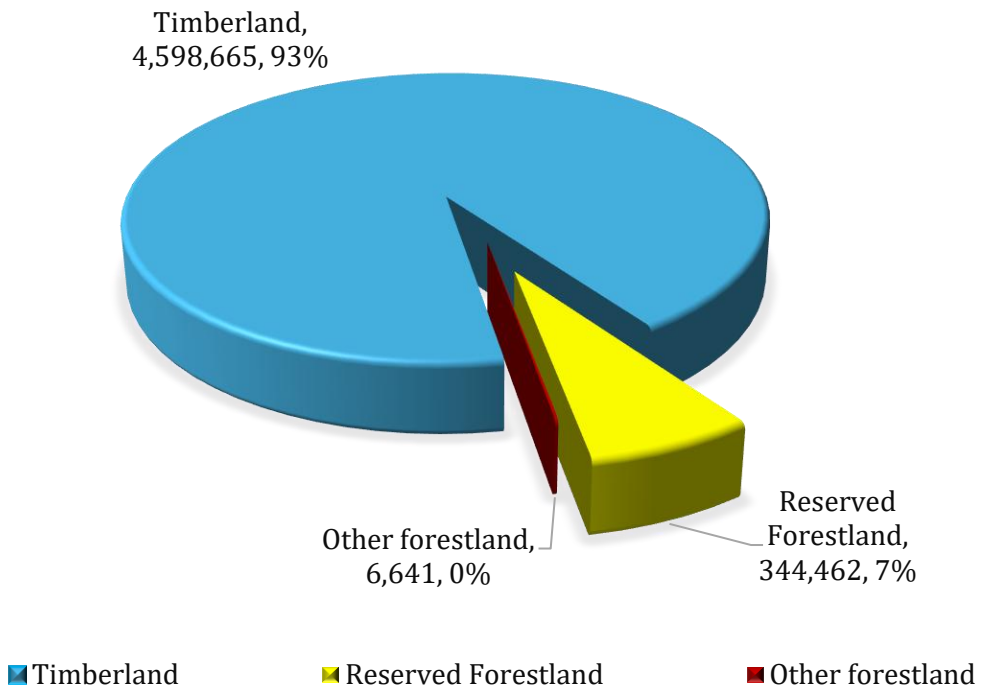

Figure 1: Illinois Forest Land area in acres by Land use type, 2023 (US Forest Service).

Ownership of Illinois's 4.95 million acres of forest land is distributed among federal, state and local, and private entities, with private landowners holding the dominant share (Figure 2). Private ownership accounts for 4,08 million acres, representing 82.4 percent of the state's forest land base. State and local governments manage 502,012 acres (10.1 percent), reflecting a meaningful public ownership presence at the subnational level. Federal ownership totals 367,799 acres (7.4 percent). Within the federal category, National Forest System lands account for 275,019 acres (5.6 percent), while other federal agencies manage 92,780 acres (1.9 percent). Overall, Illinois's forest land base is characterized by a strong predominance of private ownership, complemented by smaller but notable federal and state and local public land components.

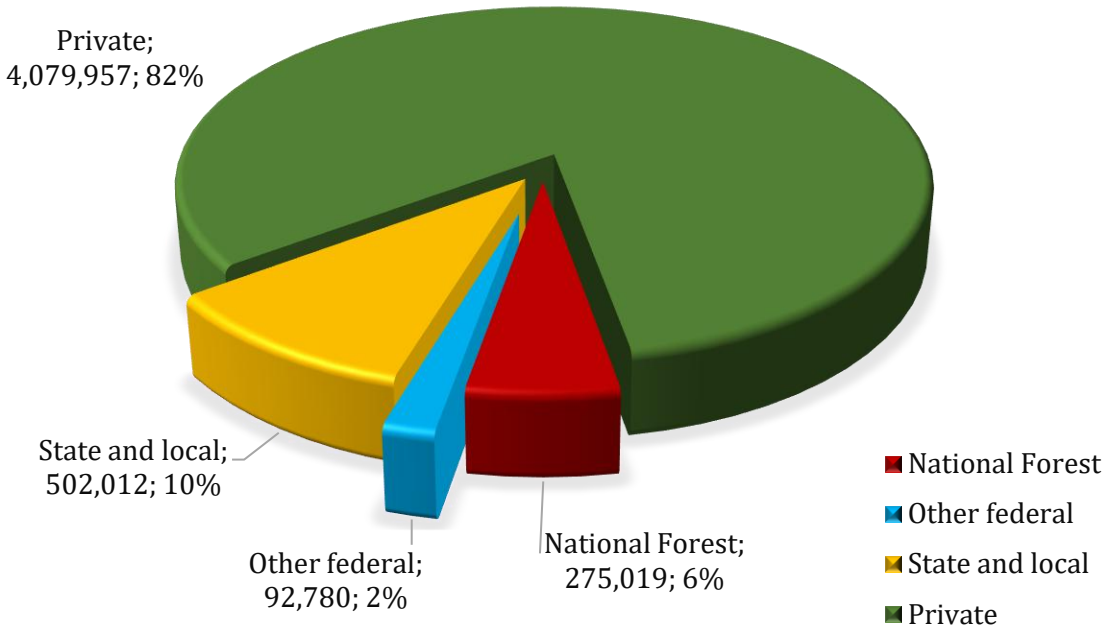

Figure 2: Illinois Forest Land area in acres by Ownership group, 2023 (US Forest Service).

Hardwood forest types dominate Illinois's 4.95 million acres of forest land (Figure 3). The oak/hickory forest-type group is the most extensive, occupying 3.27 million acres, or 66.1 percent of the state's forest land base. The elm/ash/cottonwood group represents the second-largest forest type, totaling 1.22 million acres (24.6 percent) and reflecting the importance of bottomland and riparian-associated hardwood forests across the state. Other hardwood-dominated groups account for comparatively smaller shares, including maple/beech/birch at 121,163 acres (2.4 percent) and oak/gum/cypress at 74,811 acres (1.5 percent). Mixed oak/pine forest types comprise 89,099 acres (1.8 percent), indicating a limited presence of mixed hardwood–softwood stands. The remaining 174,014 acres (3.5 percent) are distributed across other forest-type groups. Taken together, the primary hardwood-associated forest types account for the overwhelming majority of Illinois's forest land area, which shows the state's strongly hardwood-dominated forest composition.

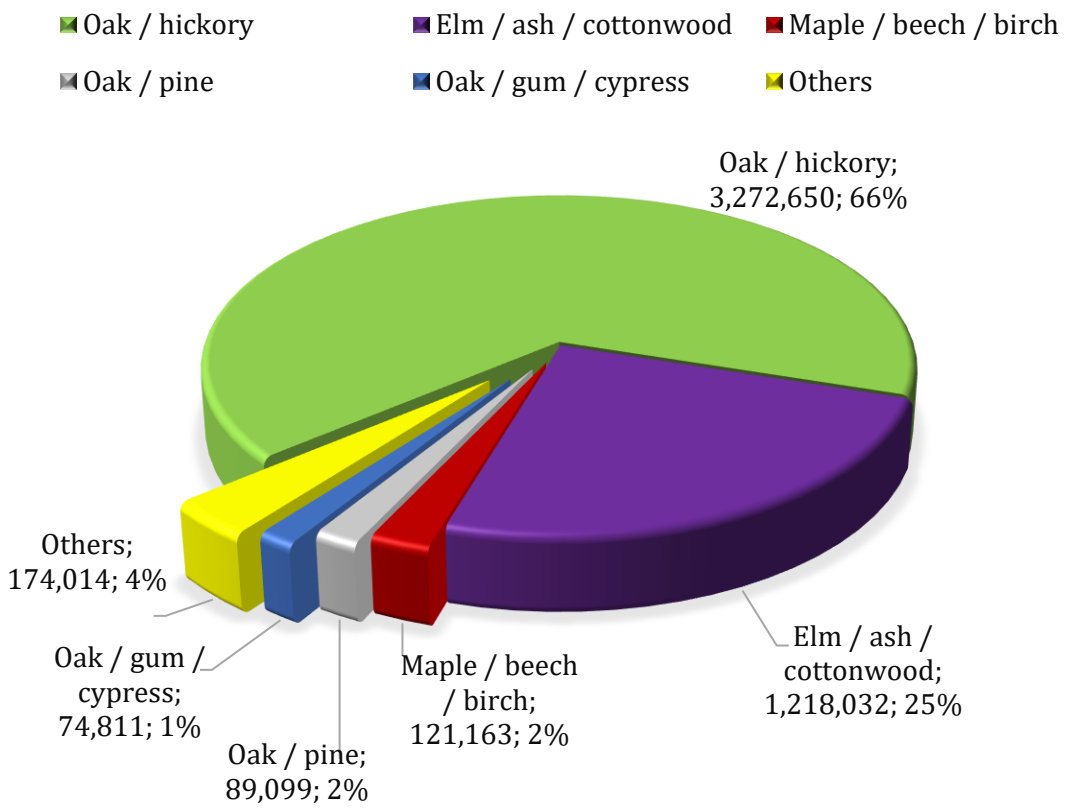

Figure 3*:* Illinois Forest Land area in acres by Forest type group, 2023 (US Forest Service).

Illinois's timber resource base supports a broad range of forest-based supply chains, including forest management, harvesting, and primary wood-using industries. The estimated volume of standing timber suitable for forest products (i.e., growing-stock volume) totals 11.61 billion cubic feet statewide (Table 1). Hardwood species dominate the resource, accounting for 11.18 billion cubic feet (96.3 percent) of total growing-stock volume, while softwoods comprise 429.8 million cubic feet (3.7 percent). By ownership class, private lands hold the majority of growing-stock volume at 9.28 billion cubic feet (79.9 percent), followed by state and local government lands with 1.17 billion cubic feet (10.1 percent). National Forest System lands contain 883.1 million cubic feet (7.6 percent), while other federal ownership accounts for 280.0 million cubic feet (2.4 percent).

Average annual net growth totals 188.5 million cubic feet per year, while average annual harvest removals total 46.1 million cubic feet and average annual mortality totals 125.6 million cubic feet per year. Net growth exceeds harvest removals by a ratio of about 4.1 to 1, indicating that removals remain well below net biological growth statewide. Because net growth is already net of mortality, the implied annual net change in growing-stock volume is net growth minus harvest removals, or approximately 142.4 million cubic feet per year. This positive balance

indicates continued expansion of growing stock volume at the statewide level. Average annual harvest removals equal roughly 0.4 percent of standing volume, or about 0.6 million standard cords, while mortality represents about 1.1 percent of standing volume. Hardwoods account for nearly all annual inventory flows, comprising 97.0 percent of net growth, 92.1 percent of harvest removals, and 97.2 percent of mortality. Harvest removals are concentrated on private lands, which account for about 88.7 percent of total removals, followed by National Forest lands at about 7.5 percent and state and local ownerships at about 3.7 percent. Overall, these statewide indicators suggest that Illinois's growing stock inventory remains in a condition of positive net growth.

Image2: *District forester and logger examining tree growth rings at Sand Ridge State Forest. Source: IDNR Forestry Division.*

Table 1: Characteristics of Growing Stock in Illinois, 2023. †

Description	Species group	National Forest	Other federal	State and local	Private	Not available	**Total**
Net volume	Hardwood	706,300	280,016	1,105,322	9,088,899	0	**11,180,535**
	Softwood	176,849	0	66,118	186,790	0	**429,758**
	Total	**883,149**	**280,016**	**1,171,440**	**9,275,689**	**0**	**11,610,294**
Average annual net growth	Hardwood	7,335	6,384	13,072	154,293	1,709	**182,793**
	Softwood	3,554	0	-670	2,777	1	**5,663**
	Total	**10,889**	**6,384**	**12,402**	**157,070**	**1,710**	**188,456**
Average annual harvest removals	Hardwood	200	0	1,723	40,519	0	**42,443**
	Softwood	3,274	0	0	373	0	**3,647**
	Total	**3,474**	**0**	**1,723**	**40,893**	**0**	**46,090**
Average annual mortality	Hardwood	7,187	3,914	12,094	98,972	0	**122,167**
	Softwood	897	0	1,668	912	0	**3,477**
	Total	**8,084**	**3,914**	**13,762**	**99,884**	**0**	**125,644**

† All amounts are in thousands of cubic feet.

Note: **Growing stock** is all live trees of commercial species that meet minimum merchantability standards. **Net volume** is net volume in cubic feet of growing stock for timber species, for trees greater than or equal to five inches in diameter, from a one-foot stump to a minimum four-inch top diameter, or to where the central stem breaks into limbs, all of which are less than four inches in diameter. **Net growth** is the average annual net growth of growing stock, in cubic feet, on forest land. **Annual mortality** is the average annual cubic foot mortality of live growing-stock trees (at least four inches DBH), in cubic feet, on forest land. **Harvest removals** are the average annual harvest removals, in cubic feet, of growing stock trees on forest land.

Economic contribution of the Forest Product Industries, 2023

The FPIs in this study are defined as 32 IMPLAN industries (only 30 industries present in Illinois) that were aggregated into seven analytic groups for consistent reporting across the state. This report follows the same industry grouping framework used in the 2017 report, which was originally developed through consultation with state forestry agencies and other stakeholders and represent a working consensus on what constitutes the regional FPI (Leefers et al. 2020; Poudel and Dahal 2025). The complete list of industries and groupings are presented in Appendix A.

The FPI encompasses a wide range of activities that begin with forest management and timber harvesting and extend through the conversion of raw materials into high-value finished goods. These activities include timber tract operations, nurseries, logging, sawmills, wood preservation, pulp and paper manufacturing, furniture production, and related downstream sectors (Poudel and Dahal 2025). The FPI is a cornerstone of the Illinois economy, not only providing direct employment in logging, milling, and manufacturing but also supporting a much larger network of indirect and induced jobs in transportation, warehousing, wholesale trade, and retail (Leefers et al. 2020). Its health has far-reaching consequences for rural communities, where it is often one of the few sources of year-round employment, and for regional supply chains that depend on steady flows of wood, fiber, and paper products (Lamsal et al. 2025a).

Measuring these contributions requires more than simply counting jobs, mills, or other establishments. Contribution analysis is essentially a descriptive, ex-post accounting framework that traces how industries interact within a regional economy and support the economy (Lamsal et al. 2025b, Watson et al. 2015). It not only measures the direct transactions tied to a sector, but also the indirect effects in supplier industries and the induced effects from household spending that ripple outward. Economic contribution analysis depends on standardized frameworks that can translate government statistics into regional input–output models. The Bureau of Economic Analysis (BEA) provides the foundation through its Benchmark Input-Output Accounts, which map the flow of goods and services across industries and establish the structure of GDP by industry (BEA 2023). The Bureau of Labor Statistics (BLS) complements this with the Quarterly Census of Employment and Wages (QCEW) and occupational data, which provide details on employment and payroll. Further, the U.S. Census Bureau adds extra detail with the Economic Census and County Business Patterns, which track establishments, receipts, and industry-level production. Impact Analysis for Planning (IMPLAN) harmonizes these data sources into a consistent input-output modeling framework for estimating regional economic contributions (IMPLAN 2023). IMPLAN is widely used in forest-sector economic research to

estimate employment, output, labor income, and value-added effects associated with forest-products industries. Several forest-sector studies have also paired IMPLAN with FIA data to link forest resource conditions with regional economic outcomes, including timber-product output in Ohio (Coronado et al. 2014), domestic hardwood substitution for imported trailer decking in New York (Pokharel et al. 2023), and potential mass timber processing facility development in Michigan (Khanal et al. 2024). IMPLAN also provides a bridge table that is important for defining the forest-products sectors included in this report. The bridge table is useful in both directions: it aggregates NAICS industries into IMPLAN sectors for modeling and identifies the NAICS components represented within each IMPLAN sector. Although this does not by itself constitute a formal sector disaggregation within IMPLAN, it provides the basis for constructing partial-sector estimates when external data are available.

This distinction is particularly important for forest sector analysis because several IMPLAN sectors contain both forestry and non-forestry components (Poudel and Dahal 2025). In this study, the IMPLAN bridge table was used to identify the relevant NAICS-defined activities embedded within broader IMPLAN sectors, and external data were then used to approximate the forest-related share of selected mixed sectors. For example, IMPLAN Sector 10 (All Other Crop Farming) includes a wide variety of agricultural activities such as alfalfa, peanut, and hemp farming, also in addition to maple syrup production. Using USDA maple syrup production data, only the maple syrup portion of Sector 10 was included in the FPI.. Similarly, IMPLAN Sector 19 (Support Activities for Agriculture and Forestry) encompasses a broad spectrum of NAICS industries, including soil preparation, crop harvesting, farm labor contracting, and specialized support services for forestry. To avoid overstating the sector, only Support Activities for Forestry were retained in the FPI totals, using BLS employment and establishment data. Thus, the partial-sector estimates reported here reflect analyst-defined allocations based on the IMPLAN bridge table and supplementary data, rather than an automatic sector split performed within IMPLAN. In the 2017 report, several additional sectors were treated as partial sectors, IMPLAN 40 (Electric Power Generation, Biomass), IMPLAN 352 (Institutional Furniture Manufacturing), and IMPLAN 356 (Showcase, Partition, Shelving, and Locker Manufacturing), but in 2023, following stakeholder consensus and due to limited data to isolate wood-based components, these are treated as full sectors; consequently, the 2023 economic contribution estimates for these specific sectors appear higher and are not directly comparable to the 2017 figures. Any comparison between years should therefore be interpreted with caution.

Further, the 2023 analysis implemented the mixed endogenous-exogenous closure using the Output- and Employment -based multipliers formulation approach (Miller and Blair 2022; Lamsal et al. 2025a), whereas the 2017 report used the equivalent matrix-inversion approach. Since these approaches are alternative computational expressions of the same input–output

framework and, under the same closure assumptions, these formulations are theoretically equivalent and yield the same multipliers and results.

Note on Data Consistency (2017 vs. 2018–2023): *Readers should interpret the sharp variance between 2017 and 2018 data with caution. The 2017 figures presented in this report are retained from previous studies that used the desktop-based IMPLAN Pro software. Data for 2018 through 2023 were generated using the modernized IMPLAN Cloud (Web) platform, which utilizes updated accounting frameworks and regional purchase coefficients. Although both sets of estimates are based on the same underlying input–output/SAM framework, they are not fully comparable in construction. IMPLAN revised its industry classification structure over time, moving from the 536-industry scheme used for 2013–2017 data years to the 546-industry scheme used for 2018–2022, and later to the 528-industry scheme beginning in 2023. IMPLAN also documents differences in trade-flow and regional purchase coefficient estimation between legacy Pro-era workflows and the current cloud environment. In addition, this report applies updated aggregation and sector-inclusion rules for selected forest-related industries. Accordingly, differences between 2017 and later years may reflect methodological discontinuity in addition to underlying economic change. Comparisons spanning 2017 to 2018 should therefore be interpreted with caution.*

Economic Performance Trends of Forest Product Industry (2017-2023)

Figures 4 and 5 illustrate the economic trajectory and structural resilience of Illinois's Forest Sector over the seven-year study period. As shown in Figure 4, the Illinois forest industry is characterized by significant workforce stability and a distinct recovery following the pandemic. After a decline to 37,007 jobs in 2020, Direct Employment rebounded to 38,281 jobs in 2023, effectively stabilizing near 2017 levels (38,554). Real Industry Output followed a slightly more volatile path; notably, after hitting a low of $15.18 billion in 2022, it experienced a robust recovery, increasing by approximately $559 million in 2023. This recent upward momentum suggests the sector is successfully navigating post-pandemic supply chain adjustments, with output levels ($15.74 billion) moving back toward the seven-year average.

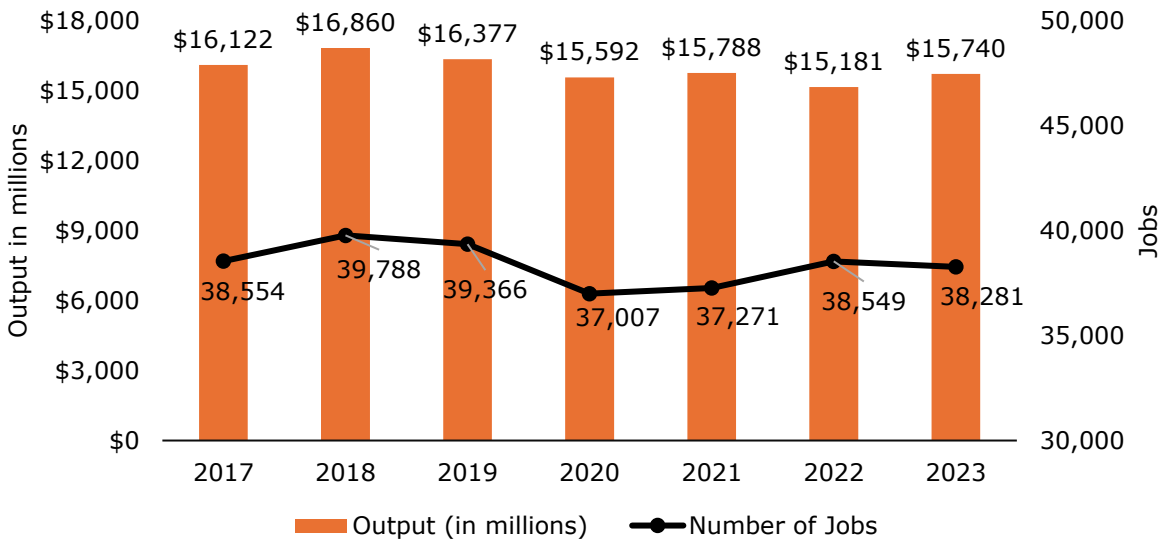

Figure 4: Direct output and employment, 2017–2023, Illinois state forest products industries.

Figure 5 highlights the sector's efficiency in generating wealth for the state economy despite fluctuations in gross production. A key technical divergence is visible here: while gross Output declined by 2.4% between 2017 and 2023, Real Value Added, the sector's net contribution to GSP, actually increased slightly by 0.8%, rising to nearly $4.48 billion in 2023. This inverse relationship indicates an improvement in "value-added intensity." The industry appears to be generating more economic value per unit of production, potentially driven by operational efficiencies or favorable adjustments in the cost of intermediate inputs. Concurrently, Labor Income has remained relatively stable in real terms, showing a modest decrease of 2.8% over the seven-year period, settling at $3.27 billion in 2023.

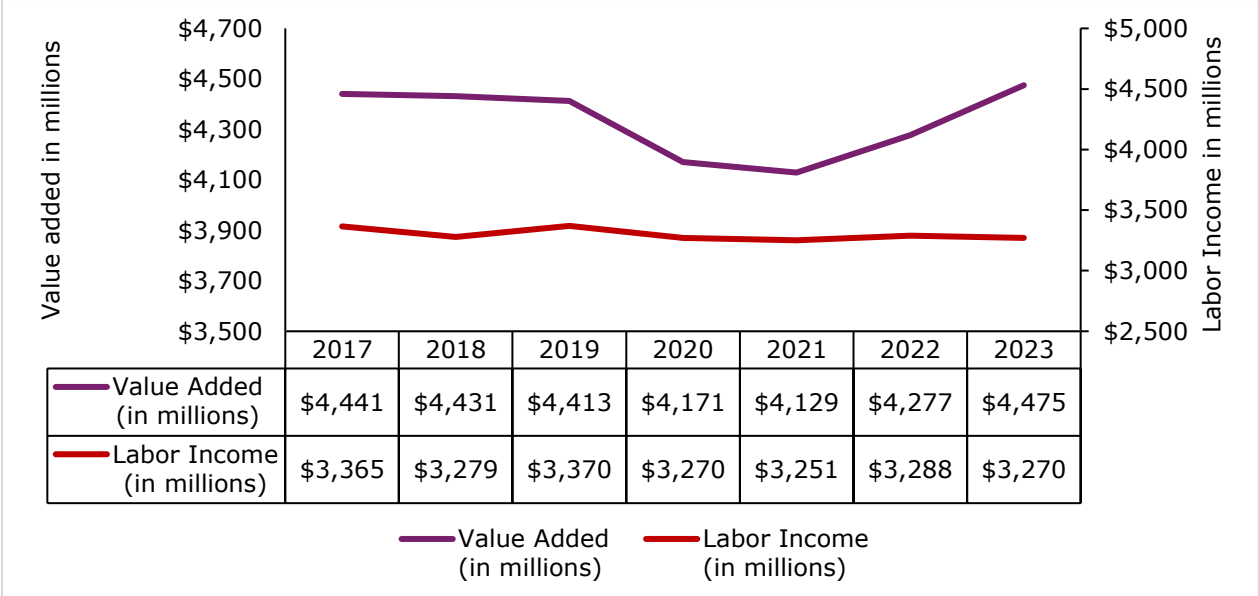

Figure 5: Direct value-added and labor income, 2017–2023, Illinois state, forest products industries.

Direct and Total Contributions by Forest Product Industry Groups

In 2023, Illinois's forest products industries directly employed 38,281 individuals, generated $15.74 billion in output, and contributed approximately $4.47 billion in value-added to the state economy (Table 2). When accounting for indirect supply-chain transactions and induced household spending, the sector's total economic contribution reached 86,938 jobs and $26.57 billion in total output.

Table 2*:* Statewide Economic Contribution of Forest Products Industries, 2023. †

	Employment	Labor Income	Value-added	Output
Direct in 2023	38,281	$3,270,415	$4,474,854	$15,739,897
Compared to 2017	-0.7%	-2.8%	0.8%	-2.4%
Total in 2023	86,938	$6,957,209	$10,941,310	$26,570,889
Compared to 2017	-3.5%	-5.1%	-0.5%	-3.0%
Multipliers in 2023	2.27	2.13	2.45	1.69

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

Comparing the 2023 results with 2017 reveals a consistent contraction across both the core industry and its broader economic ripple effects. Direct employment and output experienced slight declines of 0.7% and 2.4% respectively. However, the total economic contribution contracted at a slightly faster rate, with total employment decreasing by 3.5% and total output falling by 3.0%. This trend implies that while the primary forest industries have maintained relative stability, the supporting supply chains or service sectors dependent on them have seen reduced activity or consolidation, leading to a smaller aggregate economic footprint compared to 2017.

The calculated multipliers reflect this moderate integration into Illinois's economy. The employment multiplier of 2.27 indicates that for every 100 direct jobs in the forest industry, an additional 127 jobs are supported in other sectors. Similarly, the Value-Added multiplier of 2.45 suggests that every dollar of wealth created directly by forest industries generates an additional $1.45 elsewhere in the state. While these multipliers demonstrate that the sector remains a significant economic driver, the values (Output multiplier of 1.69) suggest that a substantial portion of the economic value is retained directly within the industry rather than dispersed through extensive intermediate transactions.

Table 3 reports the direct economic contributions of the seven industry groups, while Table 4 expands this view to include total contributions with multiplier effects. In 2023, Illinois's forest sector structure is heavily weighted toward downstream manufacturing rather than raw extraction. The Secondary Paperboard and other Paper Products sector is the clear labor leader, directly contributing 16,427 jobs, which is more than twelve times the combined workforce of the Forestry and Logging sectors (1,353 jobs). This suggests a mature industrial ecosystem where raw timber is not just harvested but is part of a broader value chain that imports and processes wood fiber into high-value finished goods like packaging, stationery, and sanitary products.

A stark divergence in capital intensity is evident when comparing sectors. While Wood Furniture requires a substantial labor force (10,965 jobs) to generate $2.67 billion in output, the Pulp, Paper, and Paperboard Mills sector generates nearly $961 million in output with only 1,193 workers. This indicates that the primary paper manufacturing sub-sector is highly automated and capital-intensive, generating significantly higher output per worker compared to more labor-intensive furniture manufacturing operations.

Table 3: Direct Economic Contributions in Illinois state, Industry Groups, 2023. †

Industries	Employment	Labor Income	Value-Added	Output
1.Forestry	492	$18,354	$20,616	$23,797
2.Logging	861	$35,358	$190,043	$193,564
3.Primary Solid Wood Products	802	$75,102	$139,104	$549,468
4.Secondary Solid Wood Products	7,541	$578,323	$719,074	$2,257,584
5.Wood Furniture	10,965	$775,259	$1,050,610	$2,668,638
6.Pulp, Paper, and Paperboard mills	1,193	$135,056	$206,976	$960,510
7.Secondary Paperboard and other Paper Products	16,427	$1,652,962	$2,148,430	$9,086,336

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

When supply-chain and induced effects are integrated (Table 4), Secondary Paperboard and other Paper Products remains the primary economic engine of the state's forest sector, supporting a substantial 45,031 total jobs and over $15.54 billion in total economic output. However, the most notable leverage effect is found in the Pulp, Paper, and Paperboard Mills sector. Despite its small direct workforce, this sector possesses an exceptionally high

employment multiplier of roughly 3.83 (4,565 total jobs supported by 1,193 direct jobs). This reflects deep backward linkages; because paper mills require vast and consistent volumes of energy, transportation services, and raw material inputs, their continued operation sustains a disproportionately large network of utility providers, logistics operators, and fiber suppliers throughout the regional economy.

Note: *In Table 4, readers may observe that the sum of the economic contributions for the individual industries exceeds the reported total contribution for the Forest Sector as a whole as presented in Table 2. This difference is intentional and results from the "mixed-model" approach used to ensure accuracy.*

In Input-Output (I-O) analysis, simply adding the total contributions of individual sectors results in double-counting. This occurs because the output of one forest industry often serves as an input for another. For example, logs harvested by the Logging sector are inputs for the Furniture sector. If modeled individually and summed, the model counts both the direct value of the logs and the associated supply-chain ripples (indirect effects) twice: once as a production requirement for the Furniture, and again as a direct output of the Logging sector. To provide the most accurate estimate, the aggregated total is calculated by treating the forest industries as a single economic unit. This method mathematically nets out all inter-industry transactions within the sector, ensuring that the final results reflect only the new economic value generated for the state economy.

Table 4: Total Economic Contributions in Illinois state, Industry Groups, 2023. †

Industries	Employment	Labor Income	Value- Added	Output
1.Forestry	578	$24,008	$30,976	$40,295
2.Logging	1,034	$46,564	$210,237	$225,380
3.Primary Solid Wood Products	2,490	$205,351	$386,860	$956,873
4.Secondary Solid Wood Products	15,151	$1,143,808	$1,713,720	$3,943,402
5.Wood Furniture	19,925	$1,444,713	$2,220,917	$4,675,640
6.Pulp, Paper, and Paperboard mills	4,565	$404,700	$693,463	$1,802,247
7.Secondary Paperboard and other Paper Products	45,031	$3,829,933	$6,038,847	$15,542,777

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Forestry

Economic Contribution of Forestry

Table 5 presents the economic contribution of the Forestry sector. For Illinois, this group aggregates two primary industries: (1) Forestry, forest products, and timber tract production, which involves the management of forest lands for the sale of standing timber; and (2) Support activities for forestry. It is important to note that while the classification identifies 32 Forest Products Industries, the "All other crop farming" (Maple syrup production) industry is not present or is undisclosed in the Illinois dataset.

Table 5: Direct, Indirect, and Induced Economic Contributions of the Forestry Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	492	$18,354	$20,616	$23,797
Indirect	2	$223	$385	$708
Induced	84	$5,431	$9,975	$15,790
Total	578	$24,008	$30,976	$40,295

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

In 2023, the Forestry sector directly supported 492 jobs and generated nearly $23.8 million in direct output. While this sector provides the biological raw material for the rest of the forest economy, its financial structure is distinct from the downstream manufacturing sectors. The data indicates an exceptionally labor-intensive industry where the vast majority of gross output is allocated to the workforce rather than to equipment or intermediate supplies. Specifically, over 77% of the sector's direct output flows to Labor Income ($18.4 million out of $23.8 million).

This heavy reliance on labor rather than physical inputs dictates the sector's unique multiplier effects. The employment multiplier is approximately 1.17, meaning that for every 100 jobs in Forestry, roughly 17 additional jobs are supported elsewhere in the state. Decomposing this multiplier highlights that the sector's economic ripples are driven almost exclusively by workforce spending (induced effects) rather than business supply chains (indirect effects).

- **Indirect Effect:** The sector generated negligible indirect impacts, supporting only 2 jobs and roughly $0.7 million in output. This reflects the land-intensive nature of timber growing; unlike a manufacturing industry that constantly purchases chemicals and energy, forestry operations have minimal business-to-business purchasing requirements.
- **Induced Effect:** In contrast, the induced effect supported 84 jobs and roughly $15.8 million in output. Because such a high percentage of the sector's output is retained as

labor income, the primary economic contribution beyond the forest itself arises when foresters and loggers spend their earnings within their local communities.

When these effects are combined, the Forestry industry contributed a total of 578 jobs, $40.3 million in output, and nearly $31 million in value-added to the Illinois economy in 2023. The total output multiplier of approximately 1.69 implies that every $100 of output generated by forest management activities generates an additional $69 of economic activity throughout the state.

Trend Analysis: Forestry (2017–2023)

As illustrated in Figure 6, the Forestry industry in Illinois has faced a persistent contraction following a brief expansion period early in the study. Unlike sectors that experienced a post-pandemic rebound, Forestry employment has steadily declined from a peak of 778 jobs in 2019 to a seven-year low of 492 workers in 2023. Consequently, current employment levels have dipped just below the 2017 baseline (499 jobs), indicating a slight long-term shrinking of the direct workforce.

Financial performance mirrors this contraction, with real output struggling to regain its initial levels. Output peaked at $27.9 million in 2017 but has since fluctuated between $22 million and $25 million, settling at $23.8 million in 2023, a 14.7% decline over the seven-year period. However, a key trend emerges in labor productivity. During the employment surge of 2018–2019, productivity plummeted as workforce growth outpaced output. The subsequent shedding of labor since 2020 has partially corrected this efficiency metric; output per worker has risen from a low of about $31,600 in 2019 to approximately $48,400 in 2023, though it remains below the 2017 high of about $55,900.

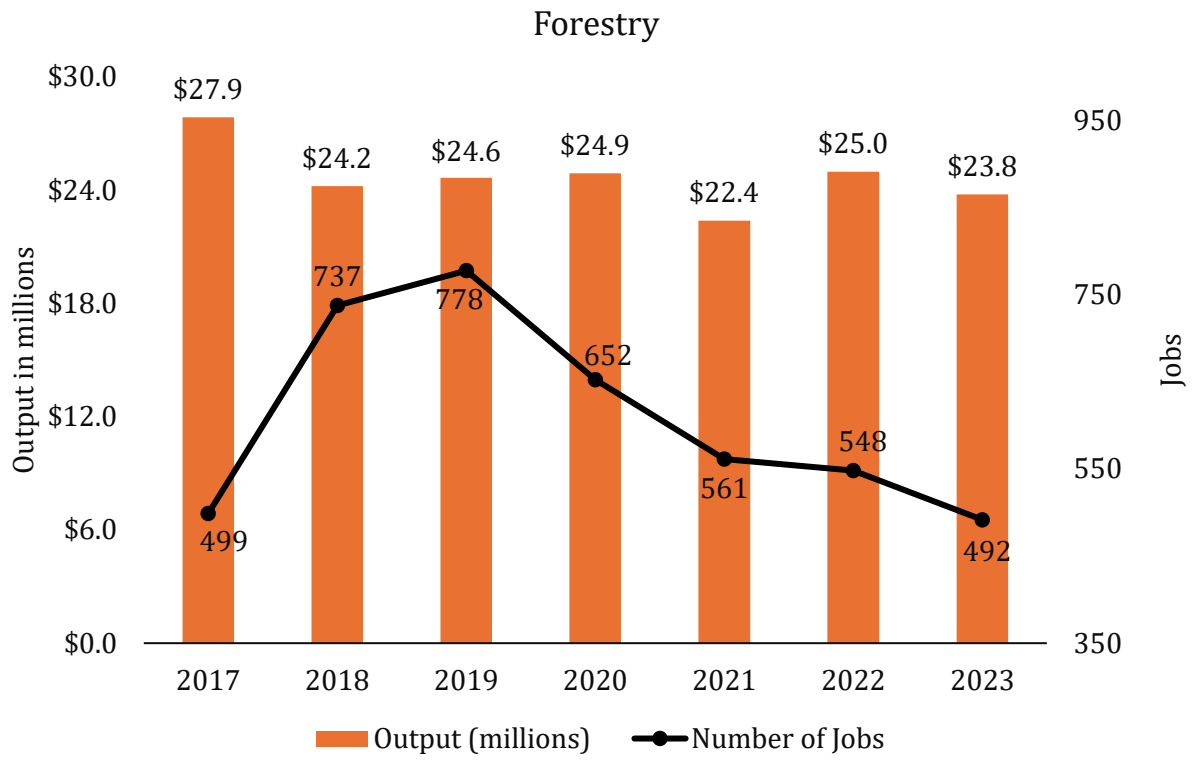

Figure 6: Trend in direct employment and output for the Forestry industry in Illinois, 2017–2023.

Logging

Economic Contribution of Logging

Table 6 outlines the economic contributions of the Logging sector, which comprises establishments primarily engaged in cutting timber, transporting logs, and producing wood chips in the field. In 2023, this sector served as a notable source of employment in Illinois, directly supporting 861 jobs. The industry generated roughly $193.6 million in direct output and contributed approximately $190.0 million in Value-Added to the state's economy.

The multiplier analysis characterizes Logging in Illinois as a sector with exceptionally high value retention and minimal intermediate consumption. A distinct technical feature here is the immense disparity between Value-Added and gross Output; nearly 98% of the sector's output is captured as Value-Added ($190.0 million out of $193.6 million). This leaves a very narrow margin for intermediate inputs, implying that the sector spends relatively little on external supply chain goods like fuel or equipment services compared to its total production value. Consequently, the sector’s economic ripple effects are driven almost exclusively by household spending (induced effects) rather than business-to-business transactions (indirect effects).

- **Indirect Effect:** The sector generated minimal indirect impacts, supporting only 12 jobs and approximately $1.5 million in output. This confirms that the industry’s supply chain

linkages, such as purchases of equipment, maintenance, and energy, are limited relative to the sheer scale of its production value.

- **Induced Effect:** In contrast, the induced effect was significantly stronger, generating $30.3 million in output and supporting 161 jobs. This indicates that the primary mechanism by which logging stimulates the broader Illinois economy is through the re-spending of labor income including proprietor profits by the local workforce.

When these direct, indirect, and induced impacts are aggregated, the Logging industry contributed a total of 1,034 jobs, $225.4 million in output, and $210.2 million in value-added to the Illinois economy. The implied Output Multiplier is 1.16, indicating that for every dollar of timber harvested, an additional $0.16 of economic activity is stimulated elsewhere in the state. This relatively conservative multiplier reflects the sector's structure as a high-value primary producer that retains the vast majority of its economic generation internally rather than dispersing it through a complex upstream supply chain.

Table 6: Direct, Indirect, and Induced Economic Contributions of the Logging Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	861	$35,358	$190,043	$193,564
Indirect	12	$786	$1,031	$1,493
Induced	161	$10,420	$19,163	$30,323
Total	1,034	$46,564	$210,237	$225,380

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Trend Analysis: Logging (2017–2023)

As shown in Figure 7, the Logging industry in Illinois defied the contractionary trends often seen in extractive sectors, exhibiting steady workforce growth and an unprecedented surge in financial productivity. Direct employment demonstrated a consistent upward trajectory, rising from 705 jobs in 2017 to a peak of 861 in 2023. This 22% increase in the workforce highlights the sector's resilience and expanding operational capacity despite broader market fluctuations.

However, the most defining feature of the seven-year period is the explosive growth in Industry Output, particularly in the final year. After growing steadily from $29.5 million in 2017 to $66.0 million in 2022, output nearly tripled in a single year, reaching $193.6 million in 2023. This decoupled growth, where output skyrocketed while employment remained relatively stable, signals a radical shift in labor productivity and value realization. In 2017, the average output per worker was approximately $41,800; by 2023, this figure surged to nearly $225,000. This suggests that the industry has either shifted toward harvesting significantly higher-value timber

species or has adopted advanced mechanization that allows the existing workforce to process vastly more volume and value than in previous years.

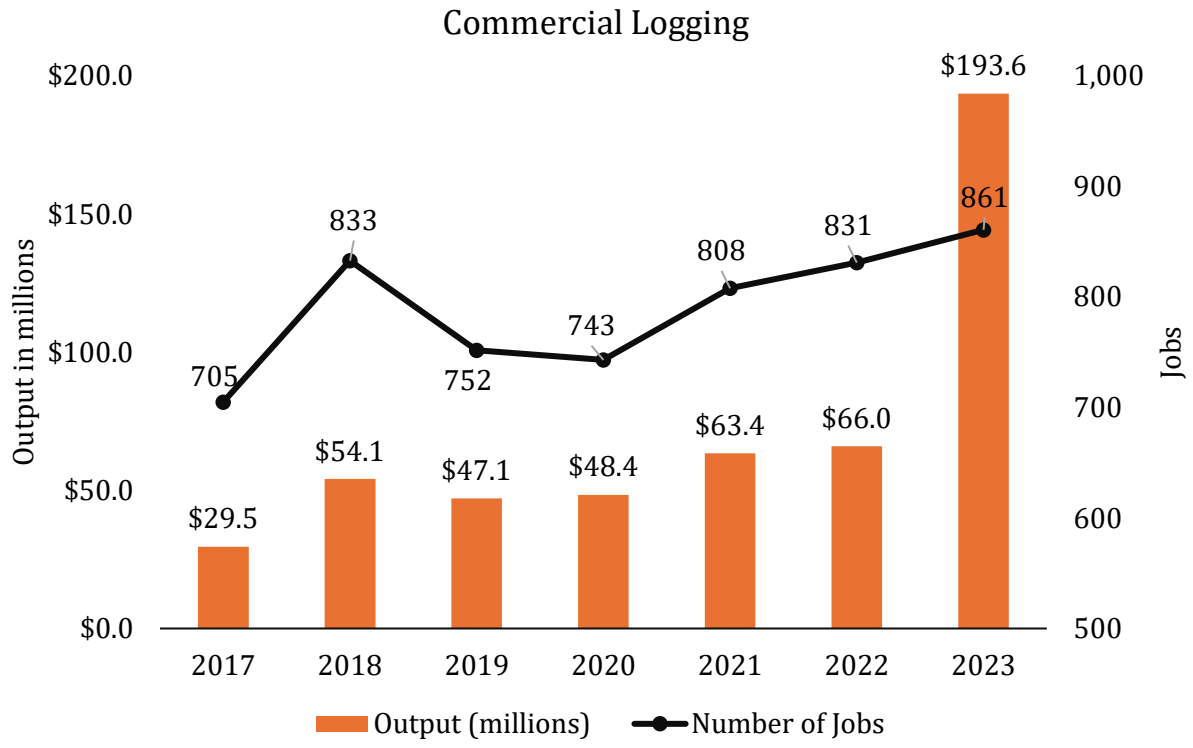

Figure 7: Trend in direct employment and output for the Logging industry in Illinois, 2017–2023.

Primary Solid Wood Products

Economic Contribution of Primary Solid Wood Products

Table 7 presents the economic contributions of the Primary Solid Wood Products industry. In Illinois, this sector encompasses a diverse range of manufacturing activities, including wood-based electric power generation (biomass), sawmills, wood preservation, veneer and plywood manufacturing, and reconstituted wood product industries. In 2023, this manufacturing hub directly employed 802 workers and generated nearly $549.5 million in direct output. The sector contributes $139.1 million in direct Value-Added, representing the economic wealth created as raw timber is processed into construction-grade lumber, structural panels, and treated wood products.

The Primary Solid Wood Products industry exhibits profound backward linkages within the Illinois forest economy, acting as a critical demand driver for upstream operations. A pivotal structural dynamic is evident in the employment data: the Indirect Employment effect supports 976 jobs, a figure that exceeds the sector's own direct workforce of 802. This results in a robust Employment Multiplier of 3.10. Essentially, for every 100 direct jobs in primary wood

manufacturing, an additional 210 jobs are supported elsewhere in the state economy. This underscores the sector's function as a "keystone" industry; its operational demands single-handedly sustain a vast network of loggers, truckers, and maintenance contractors who would otherwise lack a consistent market.

When aggregating direct, indirect, and induced effects, the Primary Solid Wood Products industry contributed a total of 2,490 jobs, nearly $956.9 million in output, and $386.9 million in value-added to the state economy in 2023. By supporting nearly 2,500 jobs statewide, this industry anchors the regional forest value chain, effectively transforming natural resources into widespread economic activity across Illinois's rural and industrial communities.

Table 7: Direct, Indirect, and Induced Economic Contributions of the Primary Solid Wood Products Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	802	$75,102	$139,104	$549,468
Indirect	976	$84,098	$162,925	$273,153
Induced	712	$46,151	$84,831	$134,251
Total	2,490	$205,351	$386,860	$956,873

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Trend Analysis: Primary Solid Wood Products (2017–2023)

As illustrated in Figure 8, the Primary Solid Wood Products industry in Illinois has undergone a significant structural consolidation over the seven-year period. Direct employment has followed a consistent downward trend, contracting from 1,201 jobs in 2017 to a low of 758 in 2022, before experiencing a modest uptick to 802 workers in 2023. This represents a net workforce reduction of approximately 33% since the start of the study period, suggesting a long-term shift toward leaner operations or facility consolidation. Despite this reduction in labor, Industry Output has demonstrated remarkable resilience and volatility. After reaching a pandemic-era peak of $635.6 million in 2020, output fell sharply to $429.8 million in 2022. However, 2023 marked a pivotal year of recovery, with output surging by nearly $120 million to reach $549.5 million. This divergence between a shrinking workforce and recovering output indicates a substantial gain in labor productivity. In 2017, the average output per worker was approximately $509,000; by 2023, this figure rose to roughly $685,000.

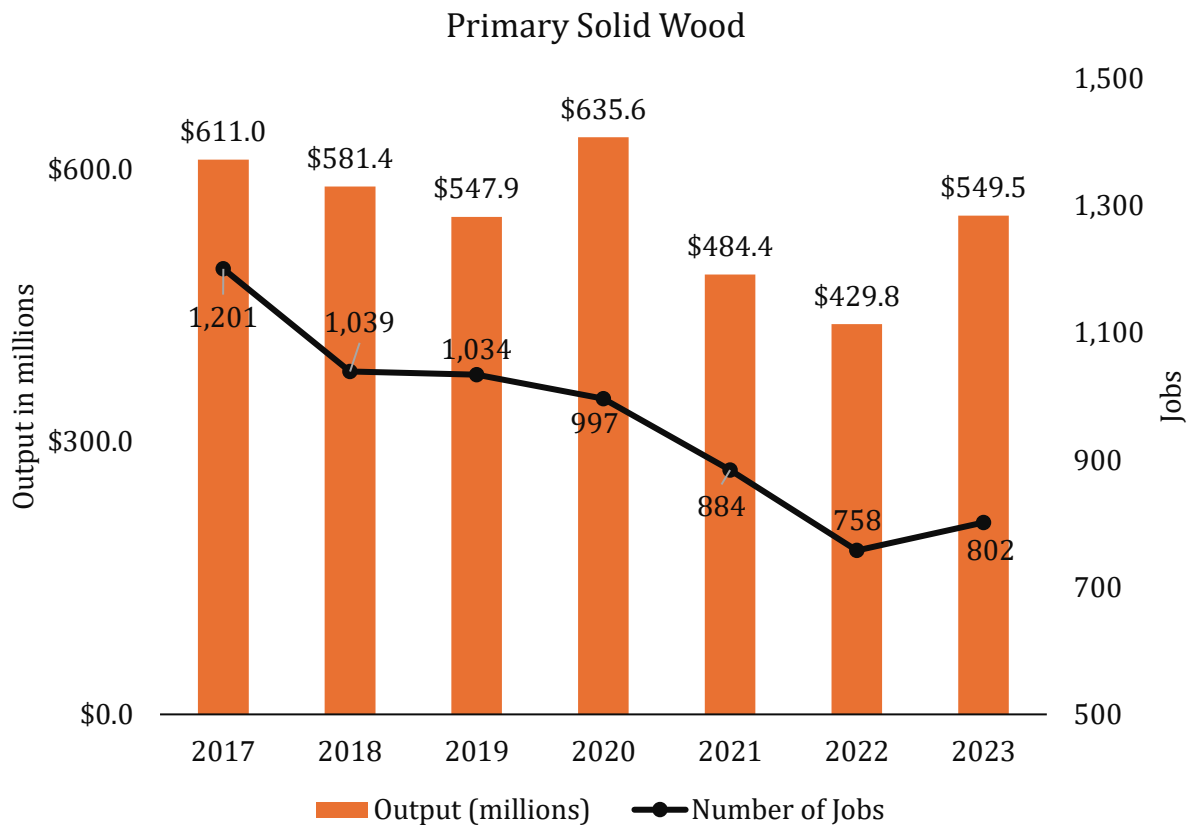

Figure 8: Trend in direct employment and output for the Primary Solid Wood Products industry in *Illinois*, 2017–2023.

Secondary Solid Wood Products

Economic Contribution of Secondary Solid Wood Products

Table 8 presents the economic contribution of the Secondary Solid Wood Products industry. This diverse value-added sector encompasses industries such as engineered wood member and truss manufacturing, wood windows and doors manufacturing, millwork and flooring, wood container and pallet manufacturing, prefabricated wood building manufacturing, and miscellaneous wood product manufacturing. In 2023, this sector was a significant direct employer within the Illinois forest economy, directly employing 7,541 workers and generating nearly $2.26 billion in direct output.

The sector exhibits a healthy employment multiplier of 2.01, indicating that for every 100 jobs created in secondary manufacturing, roughly 101 additional jobs are supported elsewhere in the Illinois economy. While robust, this multiplier is notably lower than that of the Primary Solid Wood sector (3.10). This distinction reflects upstream supply chain dynamics: whereas Primary manufacturers rely on labor-intensive logging operations for raw inputs, Secondary manufacturers primarily purchase processed lumber from capital-intensive sawmills or import

intermediate wood components. Consequently, the Indirect Employment effect (3,645 jobs) is roughly half the size of the direct workforce, contrasting with the Primary sector where the indirect workforce exceeded the direct workforce.

When fully aggregated, the sector supports a total of 15,151 jobs and contributes about $3.94 billion in total economic output. Financially, the sector acts as an effective value multiplier, contributing a total of nearly $1.71 billion in Value-Added to the state economy. This group exhibits a high degree of value retention, consistent with its focus on converting rough lumber into finished construction components and specialized wood products. Correspondingly, the ratio of direct value added to output in this sector is 31.9%, exceeding the 25.3% observed in the Primary sector.

Table 8: Direct, Indirect, and Induced Economic Contributions of the Secondary Solid Wood Products Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	7,541	$578,323	$719,074	$2,257,584
Indirect	3,645	$308,669	$522,500	$938,756
Induced	3,964	$256,816	$472,146	$747,062
Total	15,151	$1,143,808	$1,713,720	$3,943,402

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Trend Analysis: Secondary Solid Wood Products (2017–2023)

As shown in Figure 9, the Secondary Solid Wood Products industry in Illinois has exhibited a remarkably consistent and robust expansion throughout the entire seven-year period, effectively acting as a growth engine for the state's forest economy. Unlike upstream sectors that faced volatility, this value-added sector saw direct employment grow steadily year-over-year, rising from 6,304 jobs in 2017 to a peak of 7,541 in 2023. This represents a net workforce expansion of nearly 20%, highlighting the sector's increasing demand for skilled labor in manufacturing roles.

Financially, the sector's performance has been even more impressive. Industry Output followed a nearly unbroken upward trajectory, growing from $1.44 billion in 2017 to $2.26 billion in 2023, an overall increase of nearly 57%. Notably, the sector showed significant resilience during the pandemic era (2020), experiencing only a minor dip before resuming aggressive growth. This financial expansion has outpaced workforce growth, leading to a substantial improvement in productivity. Output per worker increased from approximately $228,500 in 2017 to nearly $299,400 in 2023, suggesting that these manufacturers are successfully leveraging technology and higher-value product lines to maximize the economic contribution of their expanding workforce.

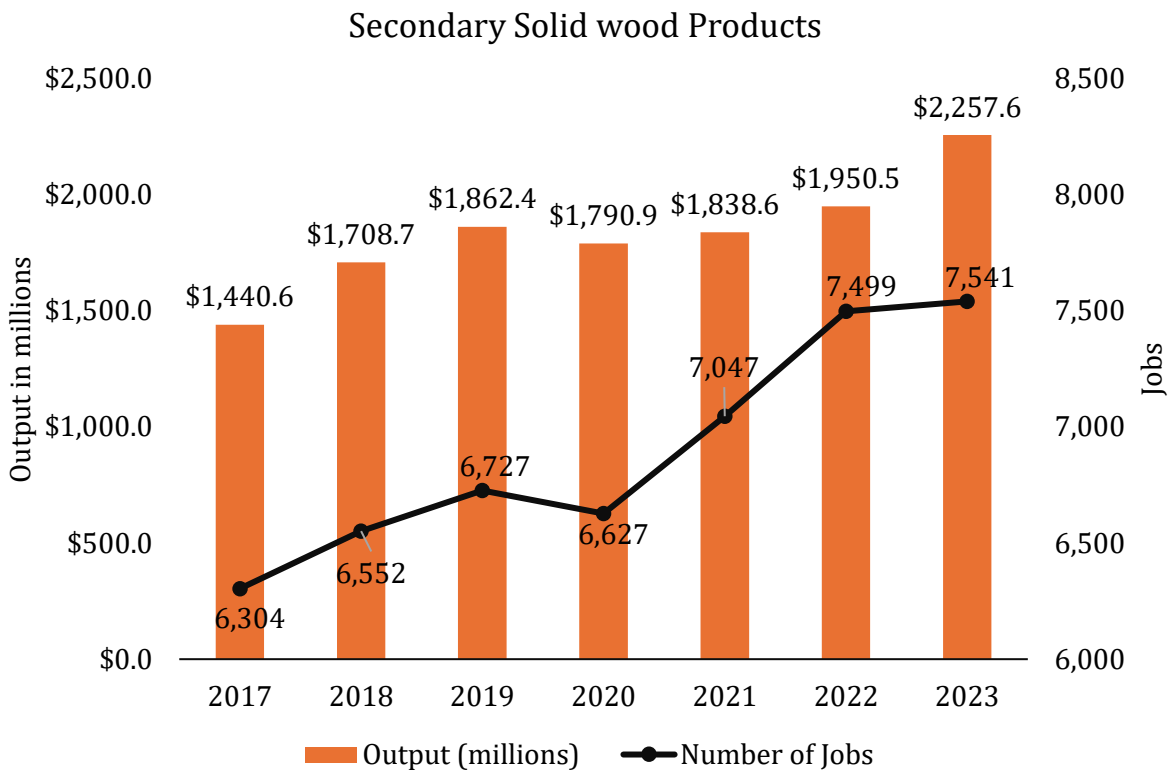

Figure 9: Trend in direct employment and output for the Secondary Solid Wood Products industry in Illinois, 2017–2023.

Wood Furniture

Economic Contribution of Wood Furniture

Table 9 details the economic contributions of the Wood Furniture industry. This group encompasses a wide range of value-added manufacturers, including those producing wood kitchen cabinets and countertops, upholstered and non-upholstered household furniture, institutional wood furniture, wood office furniture, and custom architectural woodwork. In 2023, this sector stood as a major employer within the Illinois forest economy, directly employing 10,965 workers and generating nearly $2.67 billion in direct output.

The data highlights that Wood Furniture manufacturing operates with a distinct economic structure compared to upstream processing sectors. While it is a manufacturing industry, it retains a significant labor component relative to its output. Approximately 29% of its direct gross output flows to workers as Labor Income ($775.3 million out of $2.67 billion). This ratio underscores the "craft" aspect of the industry, particularly in cabinetry and custom millwork, where the production of high-value goods relies heavily on skilled joinery and assembly.

This workforce dynamic heavily influences the sector's multiplier effects. The Employment Multiplier is roughly 1.82, meaning that every 100 direct jobs support an additional 82 jobs elsewhere in the state. Notably, the Induced Employment effect (4,990 jobs) exceeds the Indirect Employment effect (3,969 jobs). This signals that the sector's primary leverage on the state economy is derived from the wages, salaries, benefits, and proprietor income paid to its workforce, who subsequently spend that income in the local service economy, rather than from the industry's demands on the industrial supply chain.

When fully aggregated, the Wood Furniture industry contributed a total of 19,925 jobs, nearly $4.68 billion in output, and $2.22 billion in value-added to the Illinois economy in 2023. Unlike in some regions where intermediate processing dominates, in Illinois, the Wood Furniture sector actually generates more total output and supports more total employment than the Secondary Solid Wood Products sector ($4.68 billion vs. $3.94 billion). This positions it as a vital pillar of the state's value-added manufacturing base, effectively converting processed lumber into high-value consumer and industrial goods.

Table 9: Direct, Indirect, and Induced Economic Contributions of the Wood Furniture Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	10,965	$775,259	$1,050,610	$2,668,638
Indirect	3,969	$346,076	$575,562	$1,065,926
Induced	4,990	$323,378	$594,745	$941,076
Total	19,925	$1,444,713	$2,220,917	$4,675,640

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Trend Analysis: Wood Furniture Industry (2017–2023)

As illustrated in Figure 10, the Wood Furniture industry in Illinois has demonstrated a pattern of cyclical volatility returning to long-term stability. Unlike sectors that experienced linear growth or sharp contraction, this industry effectively completed a full economic cycle over the study period, ending 2023 remarkably close to where it began in 2017.

The sector experienced a distinct boom early in the period, with both employment and output peaking in 2018 at 11,838 jobs and $3.08 billion, respectively. However, this expansion was followed by a correction and a subsequent pandemic-driven contraction, reaching a low of 10,757 jobs and $2.59 billion in output in 2020. Since then, the industry has entered a stabilization phase. By 2023, direct employment stood at 10,965 workers, a net increase of just 1.5% over seven years, while output settled at $2.67 billion, nearly matching the 2017 baseline of $2.63 billion.

A critical insight from this data is the tight correlation between workforce size and output, which reinforces the labor-intensive "craft" nature of this sector discussed previously. Labor productivity has remained virtually unchanged over the period; output per worker was approximately $243,700 in 2017 and stood at roughly $243,300 in 2023.

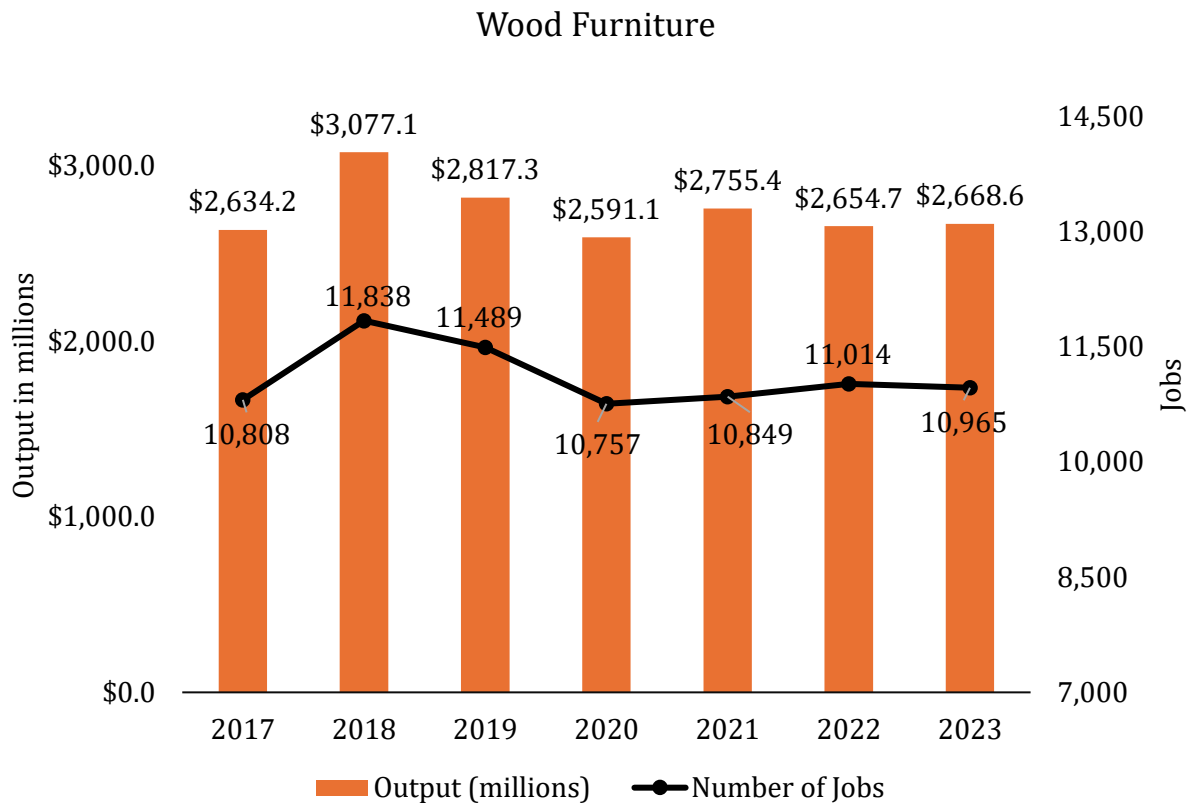

Figure 10: Trend in direct employment and output for the Wood Furniture industry in Illinois, 2017–2023.

Pulp, Paper, and Paperboard Mills

Economic Contribution of Pulp, Paper, and Paperboard Mills

Table 10 details the economic contribution of the Pulp, Paper, and Paperboard Mills industry. In the context of Illinois, this sector is highly integrated, encompassing Pulp Mills, Paper Mills, and Paperboard Mills. In 2023, these mills generated substantial financial flows despite a relatively small direct workforce. While directly employing 1,193 workers, the sector generated nearly $961 million in Direct Output. This divergence between low headcount and high output is the hallmark of advanced automation and high-value, continuous process manufacturing. The sector's direct Value-Added ($207.0 million) significantly exceeds its direct Labor Income ($135.1 million), underscoring that capital investment, along with the high cost of maintenance,

energy, and raw materials, is a primary driver of operational expenditure, distinct from purely labor-driven industries.

A defining characteristic of this industry is its function as an economic anchor, where the supply chain workforce far exceeds the workforce inside the facility itself. Specifically, the Indirect Employment (1,960 jobs) is roughly 64% larger than the Direct Employment (1,193 jobs). This indicates that the mills' intense operational requirements, massive inputs of wood fiber, energy, process chemicals, logistics, and highly technical maintenance services, sustain a much larger external workforce. Consequently, the sector exhibits an extremely powerful Employment Multiplier of 3.83. This is the highest multiplier in the entire forest economy, indicating that every 100 direct mill jobs support an additional 283 jobs elsewhere in the state.

When fully aggregated, the Pulp, Paper, and Paperboard Mills sector supports a total of 4,565 jobs and generates over $1.80 billion in total economic output. Furthermore, the quality of direct employment in this sector is notably high. With total direct labor income of $135.1 million distributed among 1,193 jobs, the average annual labor income per direct job is approximately $113,000, underscoring the industry's role as a critical source of high-income, high-skill technical employment in Illinois.

Table 10: Direct, Indirect, and Induced Economic Contributions of the Pulp, Paper, and Paperboard Mills Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	1,193	$135,056	$206,976	$960,510
Indirect	1,960	$178,195	$318,317	$575,640
Induced	1,411	$91,449	$168,171	$266,097
Total	4,565	$404,700	$693,463	$1,802,247

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Trend Analysis: Pulp, Paper, and Paperboard Mills (2017–2023)

As shown in Figure 11, the Pulp, Paper, and Paperboard Mills industry in Illinois presents a unique economic narrative characterized by a divergence between workforce expansion and output volatility. Unlike other sectors where efficiency gains often lead to higher output with fewer workers, this industry has steadily expanded its labor force while struggling to regain its 2017 production peaks.

Direct employment has demonstrated a consistent upward trend since 2018, accelerating in the final year of the study. The workforce grew from a low of 1,033 jobs in 2018 to a peak of 1,193 in 2023, representing a net increase of roughly 10.4% over the 2017 baseline (1,081 jobs). This suggests sustained demand for technical operators and maintenance staff despite broader market pressures.

In contrast, Industry Output followed a downward trajectory for most of the period, falling from a high of nearly $1.07 billion in 2017 to a low of $870.2 million in 2022. However, 2023 marked a significant turning point; output surged by nearly $90 million in a single year to reach $960.5 million, signaling a strong recovery in capacity utilization or market demand. Despite this rebound, the divergence between rising employment and lower total output has compressed labor productivity. In 2017, the average output per worker was an exceptional $988,800; by 2023, while still high relative to other sectors, it had moderated to approximately $805,100.

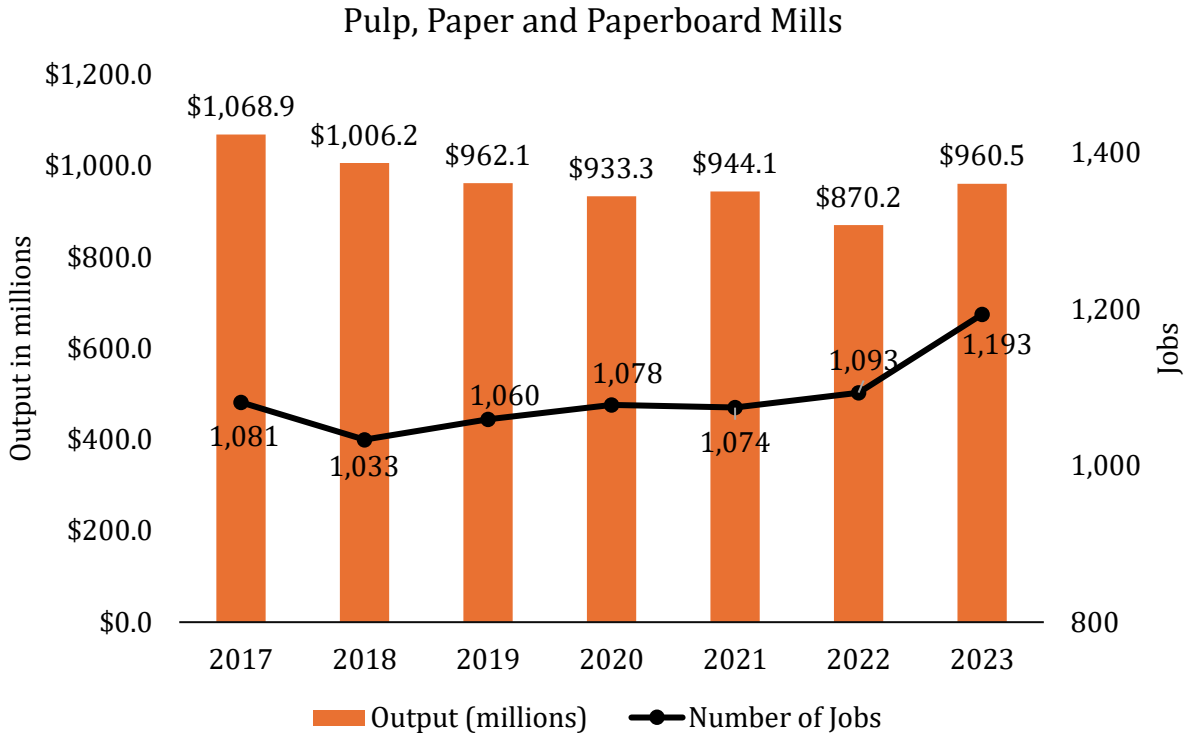

Figure 11: Trend in direct employment and output for the Pulp, Paper, and Paperboard Mills industry in Illinois, 2017–2023.

Secondary Paperboard and Other Paper Products

Economic Contribution of Secondary Paperboard and Other Paper Products

Table 11 outlines the economic contribution of the Secondary Paperboard and Other Paper Products industry. This group is composed of "converters" that manufacture finished goods from purchased paper, paperboard, or recycled materials, including products like paperboard containers, paper bags, coated paper, stationery, and other specialized paper products. In Illinois, this sector is a massive driver of the forest economy, serving as the state's largest direct employer within the industry groups. In 2023, it directly employed 16,427 workers and generated over $9.08 billion in direct output.

The sector exhibits a robust Employment Multiplier of 2.74, meaning that for every 100 direct jobs in paper converting, roughly 174 additional jobs are supported throughout the state economy. A closer examination of the multiplier components reveals a balanced distribution of downstream effects. The Indirect Employment effect (15,360 jobs) is nearly equal to the Direct Employment workforce, standing at approximately 94% of the direct labor count. This significant indirect impact indicates that Illinois converting facilities maintain strong supply chain linkages, heavily utilizing intermediate goods, namely paper and paperboard from mills, along with logistics and warehousing services to distribute finished goods.

Furthermore, the Induced Employment effect supports 13,244 jobs, a substantial figure that reflects the spending power of the sector's large workforce within local economies. In terms of total contribution, the Secondary Paperboard and Other Paper Products industry supports a total of 45,031 jobs and contributes over $15.54 billion in total economic output. By generating over $6.03 billion in total Value-Added, this converting sector serves a vital strategic role, transforming the output of capital-intensive mills into specialized packaging and consumer goods that serve as essential infrastructure for the state's broader retail, food processing, and logistics sectors.

Table 11: Direct, Indirect, and Induced Economic Contributions of the Secondary Paperboard and Other Paper Products Industry in Illinois, 2023. †

	Employment	Labor Income	Value-Added	Output
Direct	16,427	$1,652,962	$2,148,430	$9,086,336
Indirect	15,360	$1,318,970	$2,232,668	$3,960,691
Induced	13,244	$858,001	$1,657,749	$2,495,750
Total	**45,031**	**$3,829,933**	**$6,038,847**	**$15,542,777**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars.

Trend Analysis: Secondary Paperboard and Other Paper Products (2017–2023)

As highlighted in Figure 12, the Secondary Paperboard and Other Paper Products industry, the largest employer within the Illinois forest sector, has experienced a slow but persistent contraction in its economic footprint over the seven-year period. While the sector remains a massive industrial engine, both direct employment and industry output have trended downward from their 2017 baselines, signaling a long-term adjustment in market scale.

Direct employment began the period at a high of 17,956 jobs in 2017 and experienced a gradual erosion even before the pandemic. Following a sharp decline to a low of 16,047 workers in 2021, the workforce has seen a partial stabilization, recovering to 16,427 jobs in 2023. However, this still represents a net loss of over 1,500 jobs (-8.5%) compared to the start of the study period.

A similar downward trajectory is evident in Industry Output. After peaking at $10.41 billion in 2018, real output has declined in four of the last five years, ending the period at $9.09 billion in 2023. This represents a roughly 12% contraction in real value since 2017. Notably, the recovery in employment seen in 2022 did not translate into a corresponding surge in output, implying a compression in labor productivity. In 2017, the average output per worker was approximately $574,200; by 2023, this figure had decreased to roughly $553,100. This trend indicates that while the sector remains vital, it is confronting persistent limiting factors that are constraining both its production volume and its efficiency relative to historical levels.

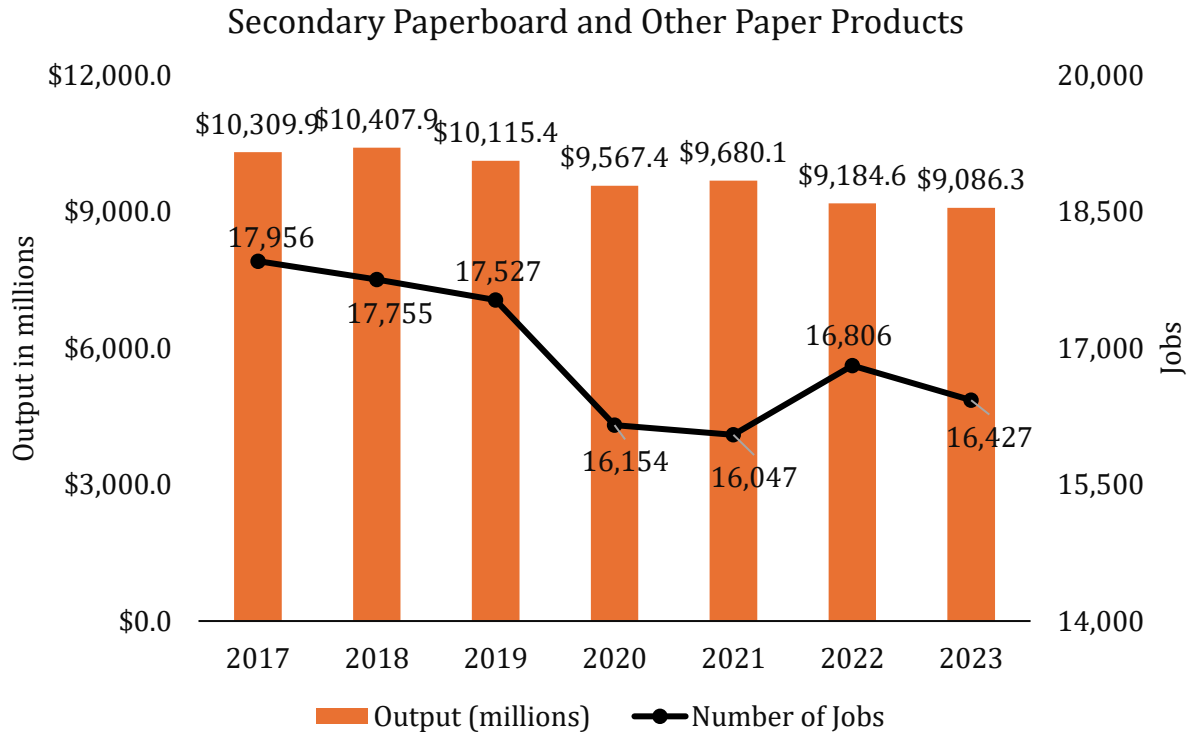

Figure 12: Trend in direct employment and output for the Secondary Paperboard and Other Paper Products industry in Illinois, 2017–2023.

Top Forest Product Sectors

Illinois's forest-products sector is represented by 31 IMPLAN industries, as the All other crop farming (Maple syrup production) sector is not present or its data is undisclosed in the state's 2023 industry mix. The economic profile of Illinois's forest sector is distinctively defined by advanced, downstream processing, particularly in the packaging and paper conversion sectors, rather than raw extraction or primary milling.

Table 12: Top five industries in terms of direct Economic Contributions in Illinois state, 2023. †

Rank	Employment	Labor Income	Value added	Output
1	Paperboard container manufacturing (11,395)	Paperboard container manufacturing ($1,173,279)	Paperboard container manufacturing ($1,514,021)	Paperboard container manufacturing ($6,634,023)
2	Wood container and pallet manufacturing (3,120)	Paper bag and coated and treated paper manufacturing ($296,038)	Paper bag and coated and treated paper manufacturing ($389,983)	Paper bag and coated and treated paper manufacturing ($1,428,261)
3	Showcase, partition, shelving, and locker manufacturing (3,093)	Wood container and pallet manufacturing ($224,391)	Showcase, partition, shelving, and locker manufacturing ($342,050)	Showcase, partition, shelving, and locker manufacturing ($898,611)
4	Paper bag and coated and treated paper manufacturing (3,021)	Showcase, partition, shelving, and locker manufacturing ($212,949)	Wood container and pallet manufacturing ($265,659)	Wood container and pallet manufacturing ($805,154)
5	Wood kitchen cabinet and countertop manufacturing (2,991)	Wood kitchen cabinet and countertop manufacturing ($189,135)	Wood kitchen cabinet and countertop manufacturing ($261,579)	Wood kitchen cabinet and countertop manufacturing ($610,214)

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

Paperboard container manufacturing stands as the undisputed economic anchor of the state's forest economy. It ranks first across all four major economic indicators, employing 11,395 workers and generating over $6.63 billion in direct output. This single industry accounts for a disproportionate share of the sector's total capacity, highlighting Illinois's specialized strength as a logistics and packaging hub.

A distinct divergence between labor intensity and capital intensity is evident when analyzing the remaining top sectors. While Wood container and pallet manufacturing ranks second in employment (3,120 jobs), it drops to fourth in terms of Output ($805 million) and Value-Added ($265.7 million). This indicates a labor-intensive operational model typical of logistics support manufacturing.

Conversely, the Paper bag and coated and treated paper manufacturing industry demonstrates significantly higher capital efficiency. Despite ranking fourth in employment (3,021 jobs), it surges to second place in all financial metrics, generating $1.43 billion in Output and nearly $390 million in Value-Added. This contrast suggests that the state's paper converting sectors generate significantly higher economic value per worker compared to the more labor-heavy wood container and furniture sub-sectors. Meanwhile, specialized wood manufacturing remains a steady contributor, with Showcase, partition, shelving, and locker manufacturing maintaining a consistent third-place ranking across Output, Value-Added, and Employment.

Top Non-Forest Industries supported by the Forest Sector in 2023

Excluding the forest-products industries themselves, the Illinois economy included 485 other IMPLAN sectors in 2023. The forest sector supported at least one job in 267 industries and at least ten jobs in 165 of those industries. Table 13 highlights the top ten non-forest industries most heavily impacted by this economic activity. Together, these ten sectors account for 16,703 jobs, representing a significant concentration of the indirect and induced employment generated by the forest economy.

Table 13: Top Ten Industries Impacted by Illinois state's Forest Products Industries in terms of number of jobs in 2023.

Industries	Number of Jobs
Warehousing and storage	3,309
Other real estate	2,172
Truck transportation	2,053
Employment services	1,550
Hospitals	1,409
Full-service restaurants	1,396
Limited-service restaurants	1,275
Wholesale - Other durable goods merchant wholesalers	1,234
Couriers and messengers	1,216
Wholesale - Other nondurable goods merchant wholesalers	1,089
Total	**16,703**

The composition of these top sectors shows the specific mechanisms through which the forest sector stimulates the wider Illinois economy:

- **Logistics and Commercial Trade:** The strongest linkages are found in the storage and movement of physical goods, reflecting Illinois's status as a central logistics hub. Warehousing and storage stands as the single largest sector supported by the Forest sector, with 3,309 jobs. This aligns with the state's dominance in paperboard and packaging manufacturing, industries that require extensive inventory management. When combined with Truck transportation (2,053 jobs), Couriers and messengers (1,216 jobs), and the wholesale trade sectors (Wholesale - Other durable goods at 1,234 jobs and Wholesale - Other nondurable goods at 1,089 jobs), it is evident that the forest sector acts as one of the primary volume drivers for the state's infrastructure. The

industry requires a vast, reliable network to move raw fiber to mills and distribute finished packaging and paper products to markets.

- **Induced Household Spending:** The high ranking of Other real estate (2,172 jobs), Hospitals (1,409 jobs), and dining establishments illustrates the "induced" power of the forest workforce. Full-service restaurants (1,396 jobs) and Limited-service restaurants (1,275 jobs) are sustained not by mill supply chains, but by the income spent by forest-sector employees in their local communities. The prominence of real estate as the second-largest impacted sector suggests that the income generated by loggers, mill operators, and manufacturing workers provides critical liquidity to local housing and property markets, while their spending supports essential community healthcare and hospitality services.

- **Business Support Services:** Notably, Employment services (1,550 jobs) ranks fourth among impacted industries. This shows that Illinois's forest product firms are significant consumers of corporate support services, relying on external firms for staffing solutions and workforce management to maintain continuous operation.

In terms of economic output, the forest sector's influence in Illinois shifts heavily toward high-volume commercial trade, massive logistics infrastructure, and essential financial services. As detailed in Table 14, the top ten non-forest industries supported by forest-sector activity generated a combined $3.80 billion in output in 2023.

The dominant category involves the wholesale distribution of goods, reflecting the underlying structure of the Illinois forest economy, which encompasses the production of both durable (lumber, furniture) and nondurable (paper, packaging) goods. The leading supported sector is Wholesale - Other nondurable goods merchant wholesalers, generating $521.0 million in output. When combined with Wholesale - Other durable goods merchant wholesalers ($457.6 million), the wholesale trade sector alone accounts for nearly $979 million in economic activity. This highlights the forest industry's role as a primary supplier for the state’s massive commercial trade network, moving vast quantities of paper products and construction materials through the supply chain.

The output rankings also underscore the substantial capital and infrastructure footprint of the forest economy. Truck transportation ranks fourth, generating $454.4 million, while Warehousing and storage ranks sixth with $324.1 million. The prominence of these two sectors, generating a combined $778.5 million, reaffirms the forest sector's integration into Illinois's broader logistics hub, requiring extensive freight and storage capabilities to manage raw inputs and finished inventory. Additionally, Electric power transmission and distribution contributed

$302.0 million, a figure driven by the immense electricity consumption of the state's capital-intensive paperboard mills and converting facilities.

Finally, the strong performance of real estate and financial sectors serves as a significant indicator of the induced effect and household wealth. Owner-occupied housing ranks third with $456.4 million, while Other real estate generated $408.2 million. In economic modeling, the former represents the imputed value of homeownership; its high ranking suggests that the income provided by the forest sector effectively sustain high levels of homeownership and property value in the state. This wealth effect is further evidenced by the $304.6 million generated in Monetary authorities and depository credit intermediation (banking), reflecting the essential financial power of the forest workforce and the capital requirements of the industry itself.

Table 14: Top Ten Industries impacted by Illinois State's Forest Products Industries in terms of output production in 2023. †

Industries	Output
Wholesale - Other nondurable goods merchant wholesalers	$520,965
Wholesale - Other durable goods merchant wholesalers	$457,556
Owner-occupied housing	$456,414
Truck transportation	$454,441
Other real estate	$408,183
Warehousing and storage	$324,107
Hospitals	$312,148
Monetary authorities and depository credit intermediation	$304,580
Electric power transmission and distribution	$301,965
Management of companies and enterprises	$261,270
Total	**$3,801,630**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

Importance of the Forest Products Industries in Context

Natural Resources and Agricultural Industries

To contextualize the economic importance of the forest economy, Table 15 compares the direct contributions of Illinois's four primary natural resource sectors: Forest Products, Agriculture, Mining, and Commercial Fishing. The data indicates that while Agriculture is the dominant volume leader in the state, the Forest Products industry remains a critical and stabilizing pillar of Illinois's natural resource base.

In terms of employment, the landscape is defined by the scale of the Agriculture sector. It supports 83,307 jobs, accounting for roughly 57% of the total natural resources workforce. The Forest Products sector ranks second as a key industrial employer, supporting 38,281 jobs. This workforce is significantly larger than that of the Mining, Oil, and Gas production sector (24,266 jobs) and eclipses the Commercial Fishing sector (669 jobs).

However, a comparison of financial productivity reveals distinct competitive dynamics. While Agriculture leads in total volume with $24.43 billion in output, the Mining sector demonstrates superior capital intensity. Despite employing significantly fewer workers than the Forest Products sector (24,266 vs. 38,281), the Mining sector generated substantially higher Value-Added ($9.13 billion vs. $4.47 billion) and Labor Income ($3.68 billion vs. $3.27 billion). This highlights the Mining sector's reliance on immense physical capital investments, which drive high value-added per worker, contrasting with the more labor-diversified structure of the forest products industry.

The comparative trend analysis underscores the Forest Products sector's role as a source of economic stability amid broader volatility. Over the study period, other natural resource sectors experienced dramatic fluctuations. The Mining sector saw explosive growth, with Labor Income surging by 200.8% and Output nearly tripling (+199.0%). Similarly, the Agriculture sector saw its Labor Income rise by nearly 199%. In stark contrast, the Forest Products sector demonstrated remarkable consistency, functioning as a stable economic anchor. Its employment remained virtually unchanged (-0.7%) and output experienced only a marginal adjustment (-2.4%).

Table 15: Natural Resources and Agricultural Production Industries in Illinois state, 2023. †

Industry	Employment	Δ2017††	Labor Income	Δ2017††	Value-Added	Δ 2017††	Output	Δ 2017††
1. Forest Products	38,281	-0.7%	$3,270,415	-2.8%	$4,474,854	0.8%	$15,739,897	-2.4%
2. Commercial fishing, hunting & trapping	669	-17.3%	-$908	-171.1%	$49,043	197.0%	$52,390	206.0%
3. Mining, and oil & gas production	24,266	-9.4%	$3,682,122	200.8%	$9,132,937	211.5%	$19,320,834	199.0%
4. Agriculture production (plant crops and animals)	83,307	-2.4%	$9,175,952	198.8%	$12,420,718	106.6%	$24,433,338	12.7%
Total	146,525	-3.3%	$16,127,581	110.5%	$26,077,551	94.6%	$59,546,459	34.5%

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.
†† All percentage differences are calculated in real terms using 2023 constant dollars.

Manufacturing Industries

To assess the relative standing of the forest sector within Illinois's industrial base, Table 16 compares "Forest Products Manufacturing" against the state's other major manufacturing groups. Note that in this context, "Forest Products" refers specifically to the manufacturing sub-sectors (Groups 3 through 7), excluding the extraction activities of forestry and logging and other non-manufacturing sectors (IMPLAN codes 10, 15, 16, 19, and 40 see Appendix A). The data reveals that while the forest sector is not the dominant volume leader, it remains a vital, high-volume industrial component within a diversified advanced manufacturing economy.

In terms of scale, the manufacturing landscape is defined by the massive Food, Fabricated Metal, and Machinery sectors. Food manufacturing is the largest employer with 102,076 jobs and the highest output at nearly $72.6 billion. Fabricated Metal manufacturing follows as the second-largest employer (87,249 workers), while Machinery manufacturing ranks third (69,362 workers).

By comparison, Forest Products manufacturing ranks sixth in terms of direct employment, supporting 36,885 jobs. This means the forest sector accounts for a respectable 6.4% of Illinois's total manufacturing workforce (36,885 out of 578,950). In terms of financial contribution, the sector remains a consistent mid-tier performer:

- Output: The sector generates $15.46 billion in direct output, ranking ninth overall.
- Value-Added: It contributes $4.23 billion to the Gross State Product, ranking eleventh.
- Labor Income: It contributes $3.20 billion to the direct labor income, ranking tenth.

The data also highlights diverse competitive productivity profiles across Illinois's industrial base. The Forest Products manufacturing sector generates approximately $419,000 in output per worker ($15.46B / 36,885). This efficiency metric is competitive, exceeding that of the labor-intensive Fabricated Metal manufacturing sector ($355,000 per worker). However, it is significantly surpassed by highly capital-intensive sectors, such as Petroleum and Coal manufacturing ($5.86 million per worker), Chemical manufacturing ($1.40 million per worker), and Food manufacturing ($711,000 per worker), which typically utilize advanced automation and continuous processing technologies. This positions the forest sector as a productive middle-tier manufacturer, balancing labor provision with moderate capital intensity.

Table 16: Manufacturing Industries in Illinois state, 2023. †

Manufacturing Industries	Employment	Labor Income	Value Added	Output
Food	102,076	$8,916,293	$15,882,730	$72,577,201
Fabricated Metal	87,249	$8,028,490	$11,961,403	$30,979,685
Machinery	69,362	$7,907,974	$14,957,030	$39,308,840
Transportation Equipment	47,244	$4,795,599	$6,289,437	$37,539,321
Chemical	43,700	$7,793,446	$29,071,300	$61,037,393
Forest Products	36,885	$3,201,229	$4,227,004	$15,457,883
Plastics and Rubber Products	36,370	$4,085,182	$6,185,547	$17,077,243
Miscellaneous	29,572	$3,518,895	$5,454,405	$10,451,177
Computer and Electronic Product	26,923	$3,430,071	$5,795,854	$14,470,588
Printing	24,961	$1,962,409	$2,964,222	$5,496,488
Electrical Equipment	20,207	$2,305,257	$4,411,769	$10,785,237
Primary Metal	17,925	$2,068,568	$3,832,902	$20,371,697
Nonmetallic Mineral Product	13,658	$1,327,862	$2,483,739	$5,829,497
Textiles and Apparel	9,345	$531,725	$844,462	$2,094,893
Beverage and Tobacco Product	7,780	$520,228	$1,267,871	$4,190,298
Petroleum and Coal	5,693	$3,453,105	$7,710,796	$33,365,130
Total	578,950	$63,846,333	$123,340,471	$381,032,571
Compared to 2017	**-2.2%**	**-0.6%**	**1.7%**	**-0.3%**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

Summary

The 2023 economic contribution report shows that the Forest Products sector remains a cornerstone of Illinois's industrial base and a vital engine for its regional economy. In 2023, the Forest Products sector directly provided 38,281 jobs and generated $15.74 billion in direct economic output. The sector's influence extends deeply into the broader regional economy; when accounting for indirect supply chain purchases and induced household spending, the total contribution reached 86,938 jobs and $26.57 billion in total output. This indicates a robust employment multiplier of 2.27. Essentially, for every 100 direct jobs in the forest sector, an additional 127 jobs are supported elsewhere in the Illinois economy, which reflects the deep integration of forest industries with the state's massive logistics, warehousing, and service sectors.

The industry exhibits a distinct structural emphasis on value-added manufacturing rather than raw extraction. Illinois's forest sector is defined by advanced processing and packaging. The Secondary Paperboard and Other Paper Products group stands as the primary employment driver, supporting 16,427 jobs, significantly outpacing other groups. Further, despite employing fewer workers than the manufacturing sectors, the Pulp, Paper, and Paperboard Mills sector remains a capital-intensive powerhouse. It generated nearly $961 million in direct output with only 1,193 workers, highlighting the high automation and value-generation capacity of the state's mills.

When analyzing the specific, unaggregated industries, Paperboard container manufacturing emerges as the undisputed economic anchor, ranking first in employment (11,395 jobs), labor income ($1.17 billion), value added ($1.51 billion), and total output ($6.63 billion). Wood container and pallet manufacturing ranks second in direct employment, while Paper bag and coated and treated paper manufacturing ranks second in both output and value-added, further underscoring the state's specialization in industrial packaging and paper conversion.

Within Illinois's natural resource–based economy, the forest products sector represents a source of relative stability. While employment in mining experienced uneven growth and agriculture faced notable fluctuations, forest products employment remained largely stable, with a minor 0.7% decline since 2017. Within the broader manufacturing sector, forest products occupies a solid mid-tier position, ranking as the sixth-largest manufacturing employer with 36,885 jobs and the ninth-largest producer by output, generating $15.46 billion.

The study period (2017–2023) shows divergent trends: while the Primary solid wood, and Secondary Paperboard sector has faced a long-term contraction in workforce, the Logging industry experienced a recent surge in output, and Secondary Solid Wood Products

demonstrated consistent growth. Ultimately, by converting renewable resources into high-value packaging, construction components, and consumer goods, the sector not only sustains the state's working landscape but also supports a vast logistics network. This reinforces its role as a durable and integral component of Illinois’s economic identity.

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Appendix A: Forest Products Industries Groupings and IMPLAN Sectors

A1: Forestry Industry Grouping and IMPLAN Sectors

Industry Code	Industry name
10	All other crop farming***
15	Forestry, forest products, and timber tract production
19	Support activities for agriculture and forestry-*

Note: Sectors with an "*" indicate that only a portion of the sector is included in the forest products industries.
Sectors denoted by "***" indicate that the corresponding FPI is not present in Illinois.

A2: Logging Industry Grouping and IMPLAN Sector

Industry Code	Industry name
16	Commercial logging

A3: Primary Solid Wood Products Industry Grouping and IMPLAN Sectors

Industry Code	Industry name
40	Electric power generation – Biomass**
124	Sawmills
125	Wood preservation
126	Veneer and plywood manufacturing
128	Reconstituted wood product manufacturing

Note: Sectors with "**" indicate that it is treated as **full sector** in 2023; however in 2017 it was treated as a **partial (wood component only)** so the numbers are not strictly comparable.

A4: Secondary Solid Wood Products Industry Grouping and IMPLAN Sectors.

Industry Code	Industry name
127	Engineered wood member and truss manufacturing
129	Wood windows and door manufacturing
130	Cut stock, resawing lumber, and planning
131	Other millwork, including flooring
132	Wood container and pallet manufacturing
133	Manufactured home (mobile home) manufacturing
134	Prefabricated wood building manufacturing
135	All other miscellaneous wood product manufacturing

A5: Wood Furniture Industry Grouping and IMPLAN Sectors.

Industry Code	Industry name
348	Wood kitchen cabinet and countertop manufacturing
349	Upholstered household furniture manufacturing
350	Non-upholstered wood household furniture manufacturing
352	Institutional furniture manufacturing**
353	Wood office furniture manufacturing
354	Custom architectural woodwork and millwork
356	Showcase, partition, shelving, and locker manufacturing**

Note: Sectors with "**" indicate that it is treated as **full sector** in 2023; however in 2017 it was treated as a **partial (wood component only)** so the numbers are not strictly comparable.

A6: Pulp, Paper, and Paperboard Mills Industry Grouping and IMPLAN Sectors.

Industry Code	Industry name
136	Pulp mills
137	Paper mills
138	Paperboard mills

A7: Secondary Paperboard and Other Paper Products Industry Grouping and IMPLAN Sectors.

Industry Code	Industry name
139	Paperboard container manufacturing
140	Paper bag and coated and treated paper manufacturing
141	Stationery product manufacturing
142	Sanitary paper product manufacturing
143	All other converted paper product manufacturing

Appendix B. Detailed Economic Contribution Results of 2023

B1: Direct Economic Contribution by IMPLAN Sector, 2023

B1.1: Direct Economic Contributions, Forestry Sector Details, 2023. †

Industries	Employment	Labor Income	Value-Added	Output
All other crop farming	0	$0	$0	$0
Forestry, forest products, and timber tract production	277	$5,401	$7,341	$10,056
Support activities for agriculture and forestry	215	$12,954	$13,275	$13,741
Total	**492**	**$18,354**	**$20,616**	**$23,797**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B1.2: Direct Economic Contributions, Logging Sector Details (2023, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Commercial logging	861	$35,358	$190,043	$193,564
Total	**861**	**$35,358**	**$190,043**	**$193,564**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B1.3: Direct Economic Contributions, Primary Solid Wood Products Sector Details (2023, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Electric power generation - Biomass	44	$15,474	$37,190	$64,653
Sawmills	361	$22,383	$30,901	$168,411
Wood preservation	249	$24,297	$47,209	$210,347
Veneer and plywood manufacturing	40	$4,831	$6,955	$17,003
Reconstituted wood product manufacturing	108	$8,117	$16,849	$89,055
Total	**802**	**$75,102**	**$139,104**	**$549,468**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B1.4: Direct Economic Contributions, Secondary Solid Wood Products Sector Details (2023, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Engineered wood member and truss manufacturing	862	$71,332	$90,385	$345,629
Wood windows and door manufacturing	1,376	$105,645	$129,848	$409,757
Cut stock, resawing lumber, and planing	39	$2,019	$3,009	$13,599
Other millwork, including flooring	763	$58,780	$80,910	$245,098
Wood container and pallet manufacturing	3,120	$224,391	$265,659	$805,154
Manufactured home (mobile home) manufacturing	89	$6,475	$7,173	$26,894
Prefabricated wood building manufacturing	426	$34,405	$47,926	$155,292
All other miscellaneous wood product manufacturing	867	$75,277	$94,165	$256,159
Total	**7,541**	**$578,323**	**$719,074**	**$2,257,584**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B1.5: Direct Economic Contributions, Wood Furniture Sector Details (2023, 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Wood kitchen cabinet and countertop manufacturing	2,991	$189,135	$261,579	$610,214
Upholstered household furniture manufacturing	683	$44,962	$60,638	$161,462
Non-upholstered wood household furniture manufacturing	1,220	$79,308	$103,466	$248,779
Institutional furniture manufacturing	1,467	$103,825	$139,946	$364,180
Wood office furniture manufacturing	269	$23,283	$37,881	$85,349
Custom architectural woodwork and millwork	1,242	$121,797	$105,051	$300,043
Showcase, partition, shelving, and locker manufacturing	3,093	$212,949	$342,050	$898,611
Total	**10,965**	**$775,259**	**$1,050,610**	**$2,668,638**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B1.6: Direct Economic Contributions, Pulp, Paper, and Paperboard Mills Sector Details (2023, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Pulp mills	142	$17,360	$22,361	$96,981
Paper mills	471	$66,504	$103,521	$388,174
Paperboard mills	581	$51,192	$81,094	$475,356
Total	**1,193**	**$135,056**	**$206,976**	**$960,510**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B1.7: Direct Economic Contributions, Secondary Paperboard and Other Paper Products Sector Details (2023, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Paperboard container manufacturing	11,395	$1,173,279	$1,514,021	$6,634,023
Paper bag and coated and treated paper manufacturing	3,021	$296,038	$389,983	$1,428,261
Stationery product manufacturing	1,079	$103,366	$117,714	$477,177
Sanitary paper product manufacturing	429	$41,586	$72,397	$346,158
All other converted paper product manufacturing	504	$38,694	$54,315	$200,716
Total	**16,427**	**$1,652,962**	**$2,148,430**	**$9,086,336**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B2: Direct Economic Contribution by IMPLAN Sector, 2017 (2017 USD)

B2.1: Direct Economic Contributions, Forestry Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
All other crop farming	363	$3,171	$4,860	$14,377
Forestry, forest products, and timber tract production	136	$7,301	$7,328	$7,850
Support activities for agriculture and forestry	0	$0	$0	$0
Total	**499**	**$10,472**	**$12,188**	**$22,227**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B2.2: Direct Economic Contributions, Logging Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Commercial logging	705	$4,713	$8,067	$23,565
Total	**705**	**$4,713**	**$8,067**	**$23,565**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2017 dollars value.

B2.3: Direct Economic Contributions, Primary Solid Wood Products Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Electric power generation - Biomass	0	$0	$0	$0
Sawmills	494	$16,471	$19,930	$128,720
Wood preservation	386	$19,418	$41,609	$225,905
Veneer and plywood manufacturing	128	$5,008	$6,557	$33,247
Reconstituted wood product manufacturing	193	$9,864	$18,634	$99,593
Total	**1,201**	**$50,761**	**$86,731**	**$487,465**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2017 dollars value.

B2.4: Direct Economic Contributions, Secondary Solid Wood Products Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Engineered wood member and truss manufacturing	426	$19,167	$22,311	$90,791
Wood windows and door manufacturing	988	$54,186	$70,602	$226,078
Cut stock, resawing lumber, and planing	54	$2,347	$3,742	$12,416
Other millwork, including flooring	648	$30,684	$43,472	$134,110
Wood container and pallet manufacturing	2,885	$126,232	$153,211	$447,291
Manufactured home (mobile home) manufacturing	23	$780	$1,269	$5,162
Prefabricated wood building manufacturing	409	$22,125	$25,310	$71,838
All other miscellaneous wood product manufacturing	869	$42,590	$56,359	$161,762
Total	**6,304**	**$298,112**	**$376,276**	**$1,149,448**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2017 dollars value.

B2.5: Direct Economic Contributions, Wood Furniture Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Wood kitchen cabinet and countertop manufacturing	3,165	$161,983	$200,341	$486,391
Upholstered household furniture manufacturing	697	$41,616	$56,032	$153,400
Non-upholstered wood household furniture manufacturing	1,398	$74,509	$116,661	$222,811
Institutional furniture manufacturing	1,169	$71,122	$97,175	$245,274
Wood office furniture manufacturing	267	$18,049	$37,243	$74,380
Custom architectural woodwork and millwork	1,158	$105,969	$141,500	$251,563
Showcase, partition, shelving, and locker manufacturing	2,955	$178,489	$266,180	$667,926
Total	**10,808**	**$651,738**	**$915,132**	**$2,101,745**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2017 dollars value.

B2.6: Direct Economic Contributions, Pulp, Paper, and Paperboard Mills Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Pulp mills	8	$2,388	$2,637	$6,907
Paper mills	584	$72,415	$106,648	$448,150
Paperboard mills	488	$64,887	$87,310	$397,823
Total	**1,081**	**$139,691**	**$196,595**	**$852,881**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2017 dollars value.

B2.7: Direct Economic Contributions, Secondary Paperboard and Other Paper Products Sector Details (2017, in Nominal 2017 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Paperboard container manufacturing	12,104	$1,030,433	$1,285,493	$5,668,266
Paper bag and coated and treated paper manufacturing	3,936	$374,154	$499,971	$1,801,839
Stationery product manufacturing	822	$74,466	$95,448	$318,668
Sanitary paper product manufacturing	124	$20,202	$40,114	$104,645
All other converted paper product manufacturing	971	$96,901	$115,938	$332,621
Total	**17,956**	**$1,596,156**	**$2,036,965**	**$8,226,039**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2017 dollars value.

B3: Direct Economic Contribution by IMPLAN Sector, 2017 (2023 USD)

B3.1: Direct Economic Contributions, Forestry Sector Details (2017, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
All other crop farming	363	$3,877	$5,942	$18,019
Forestry, forest products, and timber tract production	136	$8,927	$8,960	$9,838
Support activities for agriculture and forestry	0	$0	$0	$0
Total	**499**	**$12,804**	**$14,902**	**$27,858**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B3.2: Direct Economic Contributions, Logging Sector Details (2017, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Commercial logging	705	$5,763	$9,864	$29,535
Total	**705**	**$5,763**	**$9,864**	**$29,535**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B3.3: Direct Economic Contributions, Primary Solid Wood Products Sector Details (2017, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Electric power generation - Biomass	0	$0	$0	$0
Sawmills	494	$20,139	$24,370	$161,328
Wood preservation	386	$23,742	$50,877	$283,132
Veneer and plywood manufacturing	128	$6,124	$8,018	$41,669
Reconstituted wood product manufacturing	193	$12,061	$22,784	$124,822
Total	**1,201**	**$62,067**	**$106,048**	**$610,950**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B3.4: Direct Economic Contributions, Secondary Solid Wood Products Sector Details (2017, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Engineered wood member and truss manufacturing	426	$23,437	$27,280	$113,790
Wood windows and door manufacturing	988	$66,255	$86,327	$283,348
Cut stock, resawing lumber, and planing	54	$2,870	$4,576	$15,562
Other millwork, including flooring	648	$37,518	$53,154	$168,083
Wood container and pallet manufacturing	2,885	$154,347	$187,336	$560,599
Manufactured home (mobile home) manufacturing	23	$954	$1,551	$6,470
Prefabricated wood building manufacturing	409	$27,053	$30,948	$90,036
All other miscellaneous wood product manufacturing	869	$52,076	$68,912	$202,739
Total	**6,304**	**$364,510**	**$460,084**	**$1,440,627**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B3.5: Direct Economic Contributions, Wood Furniture Sector Details (2017, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Wood kitchen cabinet and countertop manufacturing	3,165	$198,062	$244,963	$609,603
Upholstered household furniture manufacturing	697	$50,885	$68,512	$192,260
Non-upholstered wood household furniture manufacturing	1,398	$91,105	$142,645	$279,253
Institutional furniture manufacturing	1,169	$86,963	$118,819	$307,407
Wood office furniture manufacturing	267	$22,070	$45,538	$93,222
Custom architectural woodwork and millwork	1,158	$129,572	$173,017	$315,289
Showcase, partition, shelving, and locker manufacturing	2,955	$218,244	$325,466	$837,125
Total	**10,808**	**$796,899**	**$1,118,960**	**$2,634,159**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B3.6: Direct Economic Contributions, Pulp, Paper, and Paperboard Mills Sector Details (2017, in 2023 USD). †

Industries	Employment	Labor Income	Value-Added	Output
Pulp mills	8	$2,920	$3,224	$8,657
Paper mills	584	$88,545	$130,402	$561,676
Paperboard mills	488	$79,340	$106,756	$498,600
Total	**1,081**	**$170,804**	**$240,382**	**$1,068,933**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.

B3.7: Direct Economic Contributions, Secondary Paperboard and Other Paper Products Sector Details (2017, in real 2023 Dollars). †

Industries	Employment	Labor Income	Value-Added	Output
Paperboard container manufacturing	12,104	$1,259,941	$1,571,811	$7,104,151
Paper bag and coated and treated paper manufacturing	3,936	$457,489	$611,330	$2,258,281
Stationery product manufacturing	822	$91,051	$116,708	$399,393
Sanitary paper product manufacturing	124	$24,701	$49,048	$131,154
All other converted paper product manufacturing	971	$118,484	$141,761	$416,880
Total	**17,956**	**$1,951,668**	**$2,490,658**	**$10,309,860**

† All monetary values (Labor Income, Value-Added, and Output) are in thousands of U.S. dollars, adjusted to 2023 dollars value.