Forest Products Industries' Economic Contributions: Nebraska, 2023

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Nebraska Forest Service
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Foreword

Part of The Great Plains, Nebraska is a portion of what was in the 19th-century referred to as "The Great American Desert". Described as an arid tree-less Great Plains, it was largely the area between the Rockies and the hardwood forests of the East and Canada to the Rio Grande. Those early explorers didn't see every part of the state, for while there were (are) acres upon acres of rolling grasslands, the streams and rivers had riparian forests on their banks. There are relic stands of forest systems left behind after the receding of ice-age glaciers, including stands of ponderosa pine in central Nebraska, limber pine in the southern panhandle, bur oak in the southwest, and birch/aspen forest along the Niobrara River valley across northern Nebraska.

Nebraska's forest resources are as diverse and unique as its citizens. The neuri River bluffs support the western edge of many high-quality eastern hardwood species including oaks, black walnut and hickory. In the northwest the Pine Ridge is aptly named for the natural stands of Ponderosa pine and other softwoods. Our ancestors planted windbreaks to slow the wind-borne erosion of the soil. Our trees and forests, natural or planted, provide numerable benefits for wildlife and our citizens from recreational opportunities to cooler towns and livable communities, ecological processes such as clean air and water, energy savings and sociological advantages. Trees also provide benefits for Nebraskans in their second life – as wood products.

Our trees and forests can bolster the forest industries that create jobs and generate substantial economic growth and opportunity in Nebraska's rural communities. The Nebraska Forest Service (NFS) provides technical assistance to the state's forest products industries, businesses, organizations, municipalities and individuals. The NFS not only aims to promote and develop wood products but also facilitate utilization opportunities for tree and forest resources statewide.

Innovative utilization and strong forest products markets provide economic incentives for landowners and foresters to ensure the health, longevity, and sustainability of Nebraska's forests. From traditional forest products of lumber and posts to emerging products such as biochar, nuts, other food and Medicinals and woody biomass energy fuel. Nebraska's forests offer opportunities for the development of economic markets to ensure long-term forest health, diversify farm and nonfarm income, and revitalize struggling rural communities.

Kim Slezak, CF/Fellow

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Executive Summary

Based on 2023 FIA estimates, Nebraska contains approximately 1.56 million acres of forest land, representing about 3.2 percent of its total land area of 49.01 million acres. Of this forest base, approximately 1.41 million acres (90.7 percent) are classified as timberland, defined as forest land capable of producing commercial volumes of wood. Reserved forestland accounts for 27,450 acres (about 1.8 percent), while other forestlands comprise 118,183 acres (7.6 percent). Non-forest land totals 47.45 million acres, or 96.8 percent of Nebraska's total land area. Building on this land-use context, this report summarizes the economic contribution of Nebraska's forest products industries using IMPLAN 2023 data and examines changes in industry performance over the pre- and post-COVID period, with emphasis on trends observed over the past seven years..

Forest Product Industries

This report analyzes the economic contribution of Nebraska's forest products sector, comprised of 25 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 5,552 jobs and generated $2.12 billion in output, $671.2 million in value added, and $353.4 million in labor income. When indirect supply-chain linkages and induced household-spending effects are included, the sector's total economic footprint reached 10,412 jobs, $3.15 billion in output, $1.26 billion in value added, and $676.0 million in labor income. The sector exerts a notable multiplier effect on the broader economy; for every 100 direct jobs in the forest industry, roughly 88 additional jobs are supported elsewhere in the state (employment multiplier of 1.88).

Leading Forest Products Industry Groups (direct contribution)

Among the seven aggregated groups, Secondary Solid Wood Products was the largest direct employer in 2023 (2,351 jobs), followed by Wood Furniture (1,377 jobs) and Secondary Paperboard and Other Paper Products (1,279 jobs). In terms of output, Secondary Solid Wood Products produced the highest direct output at $800.9 million, serving as the sector's manufacturing engine. Secondary Paperboard and Other Paper Products generated $741.2 million, highlighting the state's strength in downstream converting. Forestry, while the smallest contributor in terms of output ($31.6 million), provided the essential management and biological services supporting the broader value chain.

Leading Individual Forest Products Sectors (direct contribution)

At the disaggregated level (25 sectors), Paperboard container manufacturing stood as the top individual employer with 1,169 jobs. Financial dominance was also concentrated in the Paperboard container manufacturing sector, which ranked first in Labor Income ($92.6 million), Value Added ($151.3 million), and Output ($676.5 million). Engineered wood member and truss manufacturing was a consistent top-tier performer, ranking second in Employment (728 jobs), Labor Income ($45.6 million), and Output ($301.6 million). Showcase, partition, shelving, and locker manufacturing also emerged as a major driver, ranking third in direct employment (577 jobs), labor income ($37.1 million), and output ($145.2 million).

Nebraska's Forest Products Industries Compared to Other Nebraska Industries

The Forest Products sector remains a dominant component of Nebraska's natural resource economy. In 2023, it ranked second in employment, value added, and output when compared to Agriculture, Mining, and Commercial Fishing & Hunting. The forest sector's direct output ($2.12 billion) outperformed Mining ($1.62 billion) but remained smaller than Agriculture ($34.17 billion). In terms of employment, the 5,552 jobs supported by the forest industry accounted for around 7.8 percent of the state's total natural resources workforce, ranking behind Agriculture (63,374 jobs) but surpassing Mining (2,420 jobs) and Commercial Fishing & Hunting (128 jobs). Furthermore, within the statewide manufacturing landscape, Forest Products Manufacturing ranked as the seventh largest manufacturer by output ($2.01 billion) and the sixth largest employer (5,240 jobs).

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

From 2017 to 2023, the sector showed consolidation with significantly improving value generation. Direct employment decreased by 4.3 percent, while direct output increased by 10.4 percent and labor income rose by 2.1 percent. Notably, direct value-added increased by 35.5 percent over the same period. Similarly, the labor productivity (output per job) increased from $331.60 thousand per job in 2017 to $382.60 thousand per job in 2023, an increase of 15.4 percent.

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 Nebraska's economy. They provide jobs, raw materials, and finished goods that generate additional economic activity throughout the state, region, and nation. Forests in Nebraska 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).

A state report on FPI contributions on Nebraska 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 Nebraska 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.

[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.

The inventory data used in this report were sourced from the U.S. Forest Service Forest Inventory and Analysis (FIA) database and the economic data were obtained from Impact Analysis for Planning (IMPLAN). These data and related information are presented in four major sections: (i) Forest Resources of Nebraska, (ii) Economic Contributions of the Nebraska 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 Nebraska state

According to 2023 estimates from the USDA Forest Inventory and Analysis (FIA) program, Nebraska's total land area is 49.01 million acres. Of this total, 1.56 million acres (3.2 percent) meet the FIA definition of forest land, while the remaining 47.45 million acres (96.8 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 Nebraska's forest land base, timberland accounts for 1.41 million acres, or 90.7 percent (Figure 1), representing unreserved forest capable of producing at least 20 cubic feet of wood per acre per year. Reserved forestland comprises 27,450 acres (1.8 percent) and is withdrawn from timber utilization by legal or administrative designation. Other forestland totals 118,183 acres (7.6 percent) and consists of unreserved forests of comparatively low productivity. In practical terms, the majority of Nebraska's forest land is both unreserved and biophysically suitable for commercial timber management, while a modest share is either reserved or too low in productivity to contribute materially to timber supply.

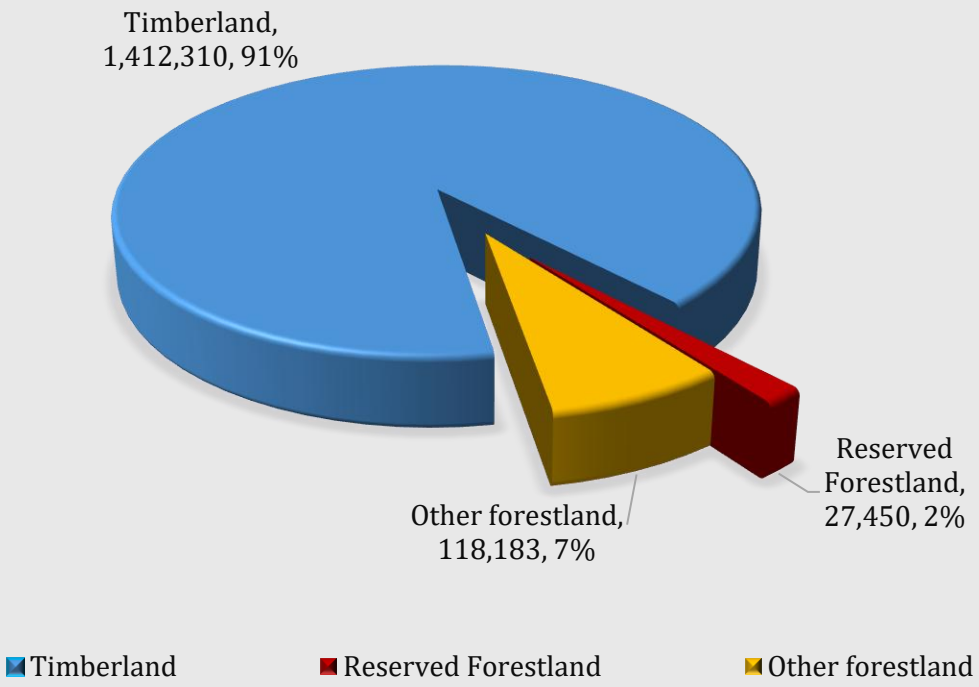

Figure 1: Nebraska Forest Land area in acres by Land use type, 2023 (US Forest Service).

Ownership of Nebraska's 1.56 million acres of forest land is distributed among federal, state and local, and private entities, with private landowners holding the majority share (Figure 2). Private ownership accounts for 1.39 million acres, representing 89.5 percent of the state's forest land base. State and local governments manage 81,721 acres (5.2 percent), indicating a relatively small public ownership component at the subnational level. Federal ownership totals 82,576 acres (5.3 percent). Within the federal category, National Forest System lands account for 49,457 acres (3.2 percent), while other federal agencies manage 33,119 acres (2.1 percent). Overall, Nebraska's forest land base is characterized by a strong predominance of private ownership, with comparatively limited federal and state and local public land holdings.

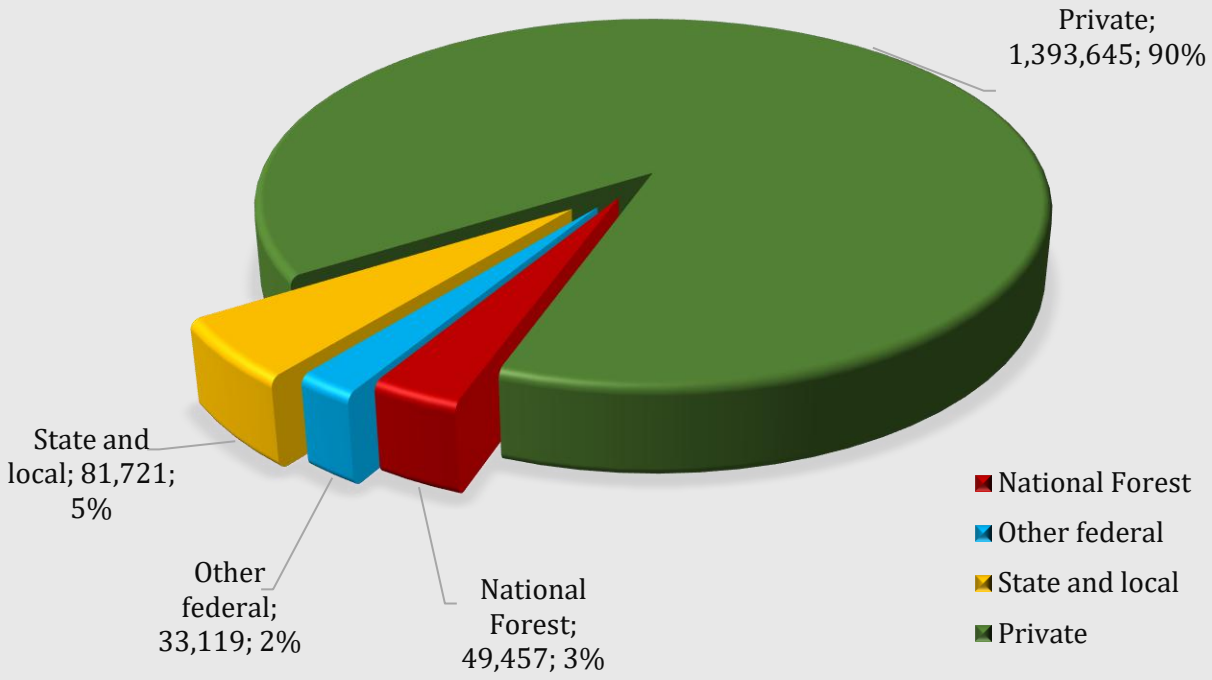

Figure 2: Nebraska Forest Land area in acres by Ownership group, 2023 (US Forest Service).

Nebraska's 1.56 million acres of forest land exhibit a diverse mix of hardwood, softwood, and mixed forest types (Figure 3). The elm/ash/cottonwood forest-type group is the most extensive, occupying 383,486 acres, or 24.6 percent of the state's forest land base. The oak/hickory group follows at 334,398 acres (21.5 percent). Softwood-dominated forest types account for a substantial portion of the forest land base, including other eastern softwoods at 276,873 acres (17.8 percent) and ponderosa pine at 166,836 acres (10.7 percent). Mixed oak/pine forest types comprise 110,495 acres (7.1 percent). The remaining 285,855 acres (18.3 percent) are distributed across other forest-type groups. Overall, Nebraska's forest land composition is more evenly distributed across hardwood, softwood, and mixed forest types than in many eastern states, reflecting the state's transitional forest landscape.

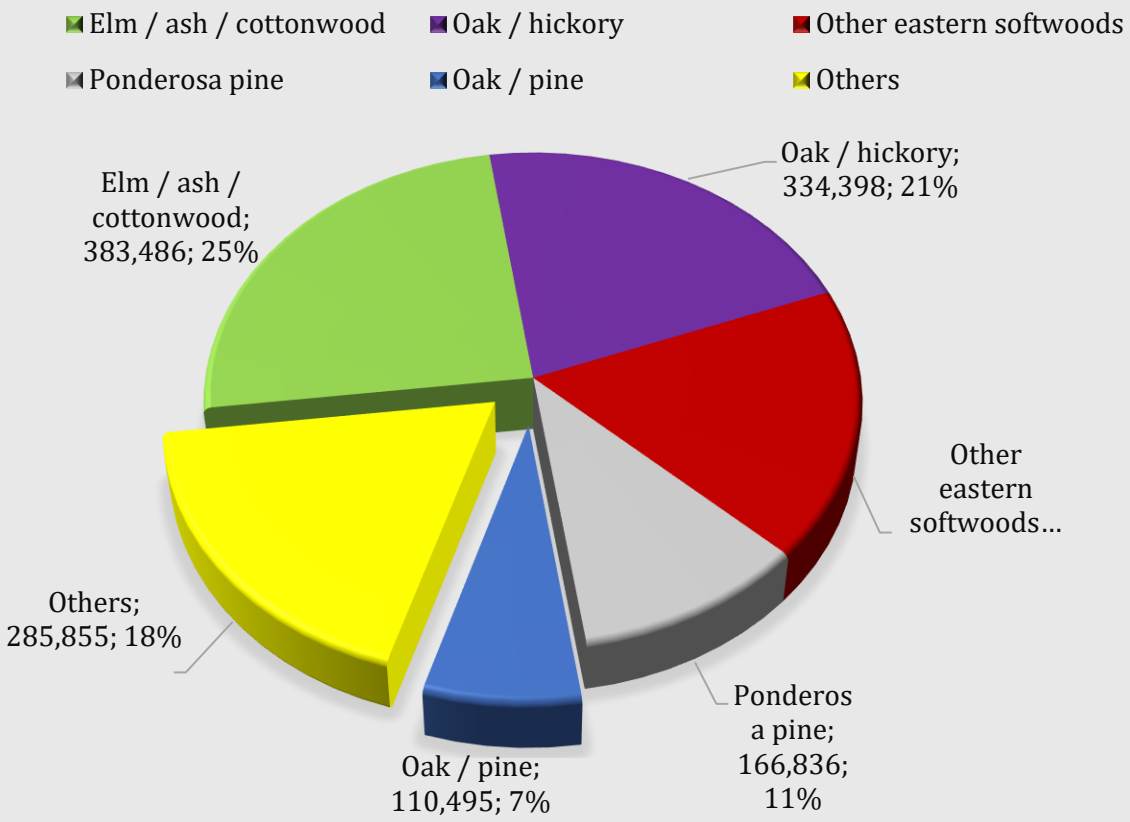

Figure 3*:* Nebraska Forest Land area in acres by Forest type group, 2023 (US Forest Service).

Nebraska's timber resources include both hardwood and softwood growing stock, supporting forest-based activities such as forest management, commercial harvesting, sawtimber, firewood, specialty wood products, and other secondary wood uses. The estimated volume of standing timber suitable for forest products, defined here as the marketable volume of growing stock, is approximately 1.88 billion cubic feet, or about 24 million standard cords (Table 1). Of this total, hardwoods account for 1.38 billion cubic feet, or 73.3 percent, while softwoods account for 502.7 million cubic feet, or 26.7 percent. By ownership class, about 89.1 percent of growing-stock volume is on private lands, 5.5 percent is on state and local lands, 4.3 percent is on other federal holdings, and 1.1 percent is on National Forest lands.

Average annual net growth totals 18.8 million cubic feet per year, while average annual harvest removals total 4.1 million cubic feet and average annual mortality totals 16.9 million cubic feet per year. Net growth exceeds harvest removals by a ratio of about 4.6 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 14.7 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 0.2 percent of standing volume, or about 0.05 million standard

cords, while mortality represents about 0.9 percent of standing volume. Hardwoods account for most net growth, comprising 94.4 percent of total net growth, while softwoods account for most harvest removals, comprising 95.1 percent of total removals. Harvest removals are concentrated on private lands, which account for about 92.6 percent of total removals, followed by National Forest lands at about 7.4 percent. Overall, these statewide indicators suggest that Nebraska's growing-stock inventory remains in a condition of positive net growth.

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

Description	Species group	National Forest	Other federal	State and local	Private	Not available	**Total**
Net volume	Hardwood	246	81,006	76,370	1,223,882	0	**1,381,504**
	Softwood	19,813	106	27,235	455,593	0	**502,747**
	Total	**20,059**	**81,112**	**103,605**	**1,679,474**	**0**	**1,884,251**
Average annual net growth	Hardwood	0	2,686	-87	15,006	137	**17,742**
	Softwood	-4,369	0	73	5,347	2	**1,052**
	Total	**-4,369**	**2,686**	**-15**	**20,353**	**139**	**18,794**
Average annual harvest removals	Hardwood	0	0	0	200	0	**200**
	Softwood	305	0	0	3,610	0	**3,915**
	Total	**305**	**0**	**0**	**3,810**	**0**	**4,114**
Average annual mortality	Hardwood	0	148	1,773	6,937	0	**8,858**
	Softwood	5,426	0	84	2,541	0	**8,051**
	Total	**5,426**	**148**	**1,857**	**9,479**	**0**	**16,910**

† 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 25 industries present in Nebraska) 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 Nebraska 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. 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 of Nebraska's Forest Sector over the seven-year study period (2017–2023). As shown in Figure 4, the industry displays a notable divergence between workforce trends and production output, indicative of increasing labor productivity and operational efficiency. While Direct Employment experienced a slight contraction, fluctuating from a peak of 5,899 jobs in 2018 to a low of 5,284 in 2020 before settling at 5,552 in 2023 (a 4.3% decrease from the 2017 baseline), output followed a robust upward trajectory. Total output grew from $1.92 billion in 2017 to a peak of $2.12 billion in 2023, representing a 10.5% increase. Because production capacity expanded despite a tightening workforce, output per worker rose significantly over the study period, increasing from $331,602 per job in 2017 to around $382,596 per job in 2023.

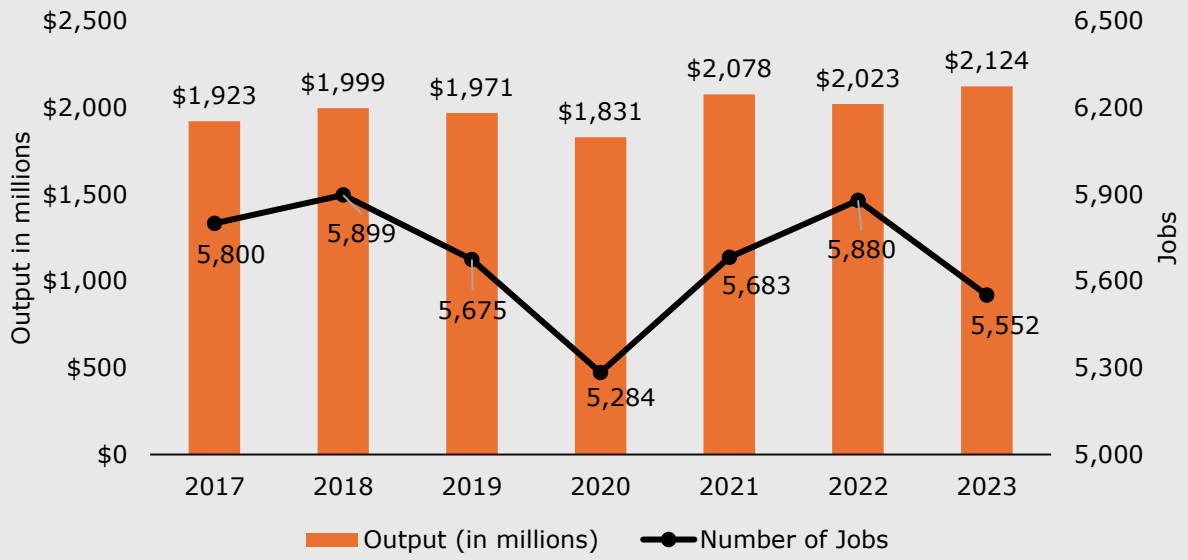

Figure 4: Direct output and employment, 2017–2023, Nebraska state forest products industries.

Figure 5 summarizes trends in value added and labor income for Nebraska's forest sector. Value added demonstrated substantial growth, rising from $495 million in 2017 to a period high of $671 million in 2023, an increase of 35.5%. This metric showed particular resilience post-2020, jumping sharply in 2021 and maintaining that higher plateau through the end of the study period. In contrast, labor income remained relatively stable, fluctuating narrowly between $345 million and $382 million, ending the period at $353 million (a modest 2% increase over 2017). When viewed alongside the employment, this stability in total labor income actually reflects a rise in average income per job, which grew from approximately $59,707 to $63,663. Ultimately, the 2017–2023 trend suggests that Nebraska's forest sector generated increasing economic value over time, even as total labor income remained comparatively stable.

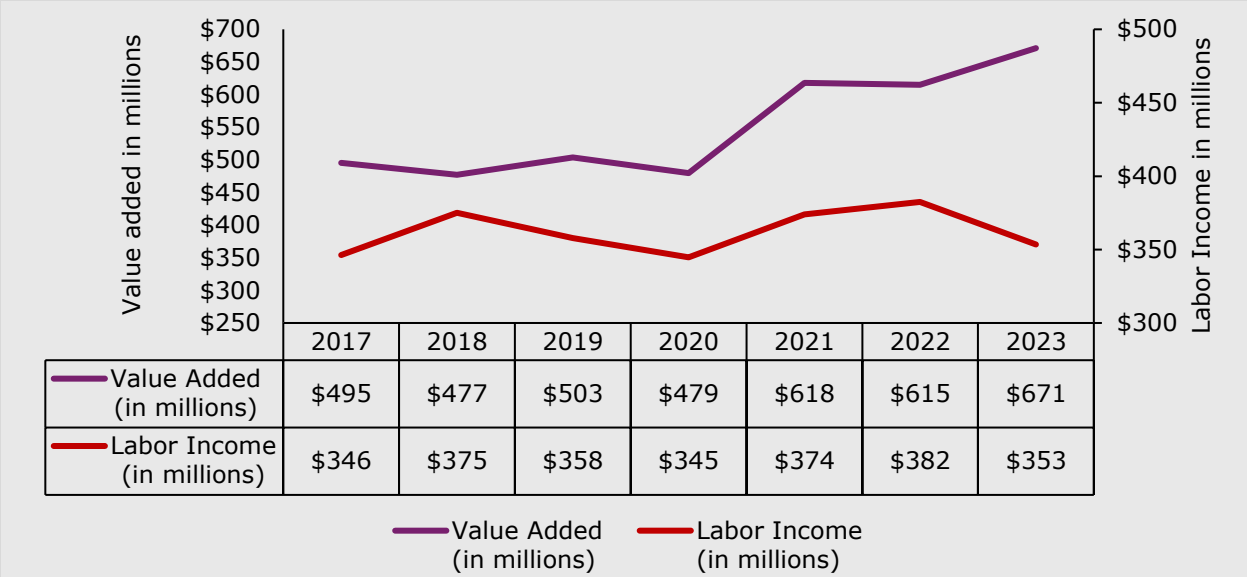

Figure 5: Direct value-added and labor income, 2017–2023, Nebraska state, forest products industries.

Direct and Total Contributions by Forest Product Industry Groups

In 2023, Nebraska's forest products industries directly provided 5,552 jobs, generated $2.12 billion in gross output, and contributed $671.2 million in value-added to the state economy (Table 2). The sector continues to exert a substantial aggregate influence on the regional economy. When accounting for indirect supply-chain transactions and induced household spending, the total economic contribution of the forest sector reached 10,412 jobs and $3.15 billion in total output.

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

	Employment	Labor Income	Value-added	Output
Direct in 2023	5,552	$353,439	$671,153	$2,124,064
Compared to 2017	-4.3%	2.1%	35.5%	10.4%
Total in 2023	10,412	$675,963	$1,264,864	$3,154,999
Compared to 2017	-7.2%	-3.2%	17.1%	6.4%
Multipliers in 2023	1.88	1.91	1.88	1.49

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

The calculated multipliers highlight the sector's robust integration into Nebraska's broader economic landscape. The employment multiplier of 1.88 indicates that for every 100 direct jobs

in the forest industry, an additional 88 jobs are supported in other sectors. Similarly, the Value-Added multiplier of 1.88 suggests that every dollar of wealth created directly by forest industries generates approximately $0.88 in additional value elsewhere in the state. These metrics underscore the forest sector's role as a foundational economic driver, creating significant ripple effects that support a total workforce nearly double the size of its direct employment base through deep linkages in transportation, agriculture, and service industries.

Table 3 details the direct economic contributions of the seven industry groups, while Table 4 expands this analysis to include total contributions incorporating indirect and induced multiplier effects. In 2023, Nebraska's forest sector structure is heavily concentrated in downstream manufacturing, with a distinct emphasis on solid wood processing. The Secondary Solid Wood Products sector is the clear economic anchor, directly providing 2,351 jobs, more than seven times the combined workforce of the Forestry and Logging sectors (312 jobs). This distribution suggests a value-added ecosystem where the state's economic engine is driven not by raw resource extraction, but by the extensive processing of lumber into finished goods, such as engineered wood members, prefabricated buildings, and millwork.

Output and efficiency metrics reveal significant structural diversity across the groups. While Secondary Solid Wood Products leads in absolute scale with $800.9 million in direct output, the Secondary Paperboard and Other Paper Products sector demonstrates superior capital intensity. With a workforce of 1,279, this sector generated $741.2 million in output, resulting in a remarkably high output-per-worker ratio of approximately $579,566. By comparison, the Wood Furniture sector, while a major employer (1,377 jobs), generated $296.6 million in output. This lower output-per-worker figure (around $215,330) reflects the labor-intensive nature of furniture manufacturing compared to the highly automated processes found in paperboard converting.

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

Industries	Employment	Labor Income	Value-Added	Output
1.Forestry	115	$4,517	$31,207	$31,589
2.Logging	197	$9,695	$86,541	$87,415
3.Primary Solid Wood Products	192	$12,746	$39,909	$134,311
4.Secondary Solid Wood Products	2,351	$141,957	$250,743	$800,871
5.Wood Furniture	1,377	$81,515	$88,328	$296,567
6.Pulp, Paper, and Paperboard mills	40	$3,345	$7,830	$32,082
7.Secondary Paperboard and other Paper Products	1,279	$99,663	$166,595	$741,229

† 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), the Secondary Solid Wood Products sector remains the primary driver of the state's forest economy, supporting a total of 4,310 jobs (ranked 1st) and $1.23 billion in total output (ranked 2nd). However, a closer examination of the multipliers reveals the disproportionate leverage of the paper-based sectors. The Pulp, Paper, and Paperboard Mills group, despite being the smallest direct employer (40 jobs), exhibits the highest employment multiplier at 2.94 (118 total jobs supported). This indicates deep backward linkages; even at a small scale, mill operations require consistent inputs of energy, logistics, and maintenance services, sustaining a supply chain network that is large relative to the facility's direct footprint. Similarly, the Secondary Paperboard sector supports 3,058 total jobs, effectively doubling its direct employment impact through strong integration with the broader 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 Nebraska state, Industry Groups, 2023. †

Industries	Employment	Labor Income	Value- Added	Output
1.Forestry	133	$5,559	$33,255	$34,949
2.Logging	239	$11,995	$91,355	$95,060
3.Primary Solid Wood Products	484	$33,093	$82,533	$204,150
4.Secondary Solid Wood Products	4,310	$273,137	$489,898	$1,226,285
5.Wood Furniture	2,240	$136,828	$191,421	$480,473
6.Pulp, Paper, and Paperboard mills	118	$9,068	$18,477	$50,767
7.Secondary Paperboard and other Paper Products	3,058	$217,520	$388,398	$1,127,216

† 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 Nebraska, this group aggregates two primary industries: timber tract operations, which involve the management of forest lands for the sale of standing timber, and support activities for forestry. It is important to note that All other crop farming (specifically Maple syrup production), which is typically included in this aggregation for other states, is not present or disclosed in the Nebraska dataset.

In 2023, the Forestry sector directly provided 115 jobs and generated approximately $31.6 million in gross output. A distinct structural characteristic of this industry in Nebraska is its exceptionally high value-added ratio. The data indicates that nearly 99% of the sector's gross output is retained as Value-Added ($31.2 million out of $31.6 million). Unlike manufacturing sectors where value is often consumed by intermediate inputs, the wealth generated here is derived primarily from the biological growth of the timber asset itself and the capitalization of land management. However, labor income ($4.5 million) comprises a smaller portion of this value.

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

	Employment	Labor Income	Value-Added	Output
Direct	115	$4,517	$31,207	$31,589
Indirect	1	$53	$115	$205
Induced	18	$988	$1,932	$3,155
Total	**133**	**$5,559**	**$33,255**	**$34,949**

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

The sector's integration into the wider economy is relatively contained, as evidenced by an employment multiplier of approximately 1.16. This means that for every 100 jobs in Forestry, roughly 16 additional jobs are supported elsewhere in the state. Decomposing this multiplier reveals that the sector's economic ripples are driven almost entirely by workforce spending rather than supply chain purchases.

The sector generated negligible indirect impacts, supporting only 1 job and around $205 thousand in output. This reflects the low input intensity of timber growing; forestry operations have limited business-to-business purchasing requirements compared to downstream manufacturers. In contrast, the induced effect was stronger, supporting 18 jobs and over $3.1 million in output. The primary economic lift beyond the forest gate occurs when proprietors and workers spend their earnings within their local communities. When these effects are combined, the Forestry industry contributed a total of 133 jobs, $34.9 million in output, and $33.3 million in value-added to the Nebraska economy in 2023.

Trend Analysis: Forestry (2017–2023)

As illustrated in Figure 6, the Forestry industry in Nebraska exhibits a distinct structural shift in the final year of the study period, breaking from the trends established earlier in the series. For the majority of the timeframe (2018–2022), the sector operated within a consistent "steady state," with employment hovering between 82 and 90 workers and annual output fluctuating narrowly between $3.9 million and $4.6 million. During this phase, the industry was characterized by a stable, labor-intensive operational model where output per worker averaged approximately $50 thousand. However, 2023 marks a dramatic divergence from this historical baseline. While direct employment increased by 38.6% from 83 jobs in 2022 to a peak of 115 in 2023, gross output surged exponentially, rising from $3.9 million to $31.6 million. This nearly eight-fold increase in production value, unaccompanied by a proportional rise in labor, drove a massive spike in apparent labor productivity. Output per worker jumped from around $47 thousand in 2022 to over $275 thousand in 2023.

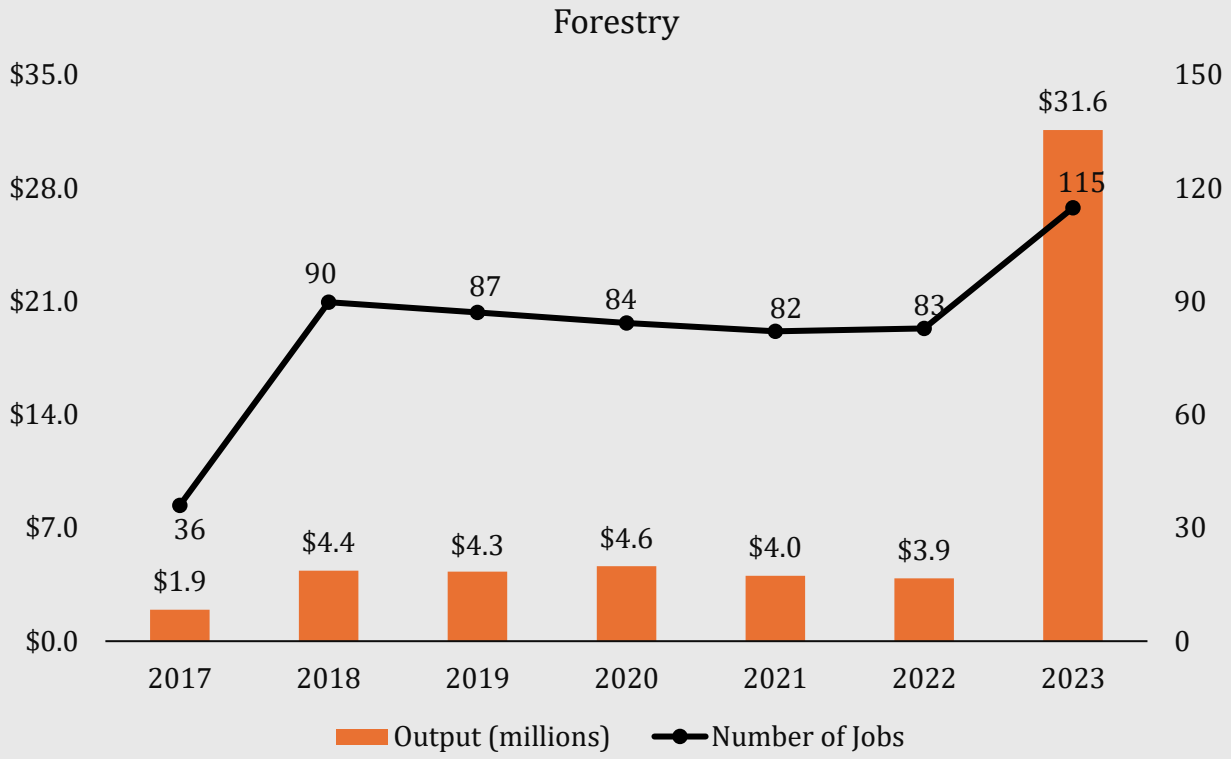

Figure 6: Trend in direct employment and output for the Forestry industry in Nebraska, 2017–2023.

Logging

Economic Contribution of Logging

Table 6 outlines the economic contributions of the Logging sector (Sector 16), which comprises establishments primarily engaged in cutting timber, transporting logs, and producing wood chips in the field. In 2023, this sector served as a specialized component of Nebraska's rural economy, directly supporting 197 jobs. The industry generated $87.4 million in direct output and contributed $86.5 million in Value-Added to the state's economy.

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

	Employment	Labor Income	Value-Added	Output
Direct	197	$9,695	$86,541	$87,415
Indirect	3	$148	$608	$776
Induced	39	$2,151	$4,206	$6,869
Total	**239**	**$11,995**	**$91,355**	**$95,060**

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

The multiplier analysis characterizes Logging in Nebraska as a sector with exceptionally high value retention but limited supply chain integration. A striking feature of the 2023 data is that nearly 99% of the sector's gross output is captured as Value-Added ($86.5 million out of $87.4 million). This suggests that the value generated by the industry is derived almost entirely from the severance of the timber resource itself and the capitalization of operations, rather than the consumption of intermediate goods. This is further evidenced by the minimal Indirect effect, only $776 thousand in output and 3 jobs supported, which reflects a supply chain with very low requirements for external business services or material inputs relative to the value of the logs harvested.

Because the sector purchases so few intermediate inputs, its economic ripple effects are driven almost exclusively by induced spending. The Induced effect generated $6.9 million in output, significantly outpacing the indirect contribution. This indicates that the sector's primary leverage on the broader economy comes from the household spending of wages and proprietor income, rather than business-to-business transactions. When these direct, indirect, and induced impacts are aggregated, the Logging industry contributed a total of 239 jobs, $95.1 million in output, and $91.4 million in value-added to the Nebraska economy.

Trend Analysis: Logging (2017–2023)

As shown in Figure 7, the Logging industry in Nebraska displays a unique trend of workforce cyclicality contrasted with an explosive surge in value realization. Direct employment followed a distinct bell curve over the study period, expanding from 197 jobs in 2017 to a peak of 249 in 2018, before undergoing a steady five-year consolidation. By 2023, the workforce had realigned exactly with its 2017 baseline of 197 workers. Output, however, followed a radically different and more aggressive trajectory. While employment retracted from its 2018 peak, production value grew consistently from $12.2 million in 2017 to $19.8 million in 2022. This upward trend culminated in a massive structural shift in 2023, where output skyrocketed to $87.4 million. This four-fold increase in a single year, achieved with the same number of workers as in 2017, drove an unprecedented spike in labor productivity. Output per worker, which had grown steadily to nearly $99 thousand by 2022, leaped to approximately $443 thousand in 2023.

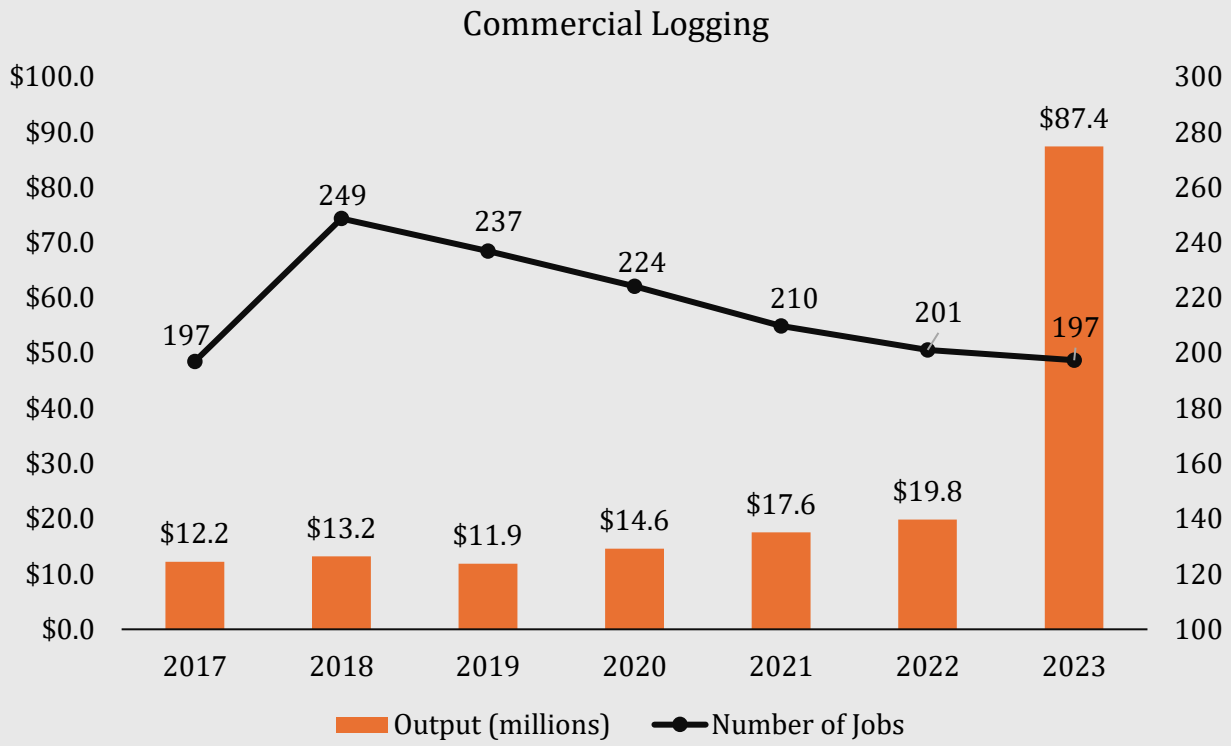

Figure 7: Trend in direct employment and output for the Logging industry in Nebraska, 2017–2023.

Primary Solid Wood Products

Economic Contribution of Primary Solid Wood Products.

Table 7 presents the economic contributions of the Primary Solid Wood Products industry. For Nebraska, this sector aggregates specific manufacturing activities including sawmills, wood preservation, veneer and plywood manufacturing, and reconstituted wood product industries. Unlike the broader regional definition often used in other states, this analysis for Nebraska excludes Electric Power Generation – Biomass, as that industry is not present or disclosed in the state's current dataset. In 2023, this manufacturing sector directly provided 192 jobs and generated $134.3 million in direct output. The sector demonstrates solid capital efficiency, contributing approximately $39.9 million in direct Value-Added, reflecting the economic value created as raw timber is processed into construction-grade lumber, treated wood products, and other intermediate goods.

The Primary Solid Wood Products industry exhibits profound backward linkages within the Nebraska forest economy, acting as a critical demand driver for upstream operations. The Indirect Employment effect supports 186 jobs, a figure nearly equal to the sector's own direct workforce of 192. This results in a robust Employment Multiplier of approximately 2.52.

Essentially, for every 100 direct jobs in primary wood manufacturing, an additional 152 jobs are supported elsewhere in the state economy. This underscores the sector's function as a "keystone" industry; its operational demands sustain a vital network of loggers, truckers, and maintenance contractors who rely on these facilities as their primary market.

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

	Employment	Labor Income	Value-Added	Output
Direct	192	$12,746	$39,909	$134,311
Indirect	186	$14,500	$31,187	$51,172
Induced	106	$5,846	$11,437	$18,667
Total	**484**	**$33,093**	**$82,533**	**$204,150**

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

When aggregating direct, indirect, and induced effects, the Primary Solid Wood Products industry contributed a total of 484 jobs, $204.2 million in output, and $82.5 million in value-added to the state economy in 2023. The multiplier effect is also evident in the output figures: for every dollar of output generated by these manufacturers, an additional $0.52 is generated in the broader economy. By supporting nearly 500 jobs statewide, this industry anchors the regional forest value chain, effectively transforming natural resources into widespread economic activity across Nebraska's industrial and rural communities.

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

Figure 8 illustrates the volatile yet resilient economic performance of the Primary Solid Wood Products industry in Nebraska from 2017 through 2023. Employment experienced a sharp structural adjustment early in the period, dropping from a high of 246 jobs in 2017 to 173 in 2018. Following a period of relative stability and a secondary dip to 157 jobs in 2022, the workforce rebounded to 192 in 2023, though it remains approximately 22% below the 2017 baseline.

Output followed a more dynamic trajectory, characterized by two distinct peaks. After an initial contraction in 2018–2019, production surged to $127.3 million in 2020. Although output retreated to $86.9 million in 2022, it rebounded to reach a period high of $134.3 million in 2023. This 2023 peak represents a 16.7% increase over 2017 levels, achieved with significantly fewer workers. Consequently, the industry has realized substantial efficiency gains; average output per worker rose from approximately $468 thousand in 2017 to nearly $700 thousand in 2023.

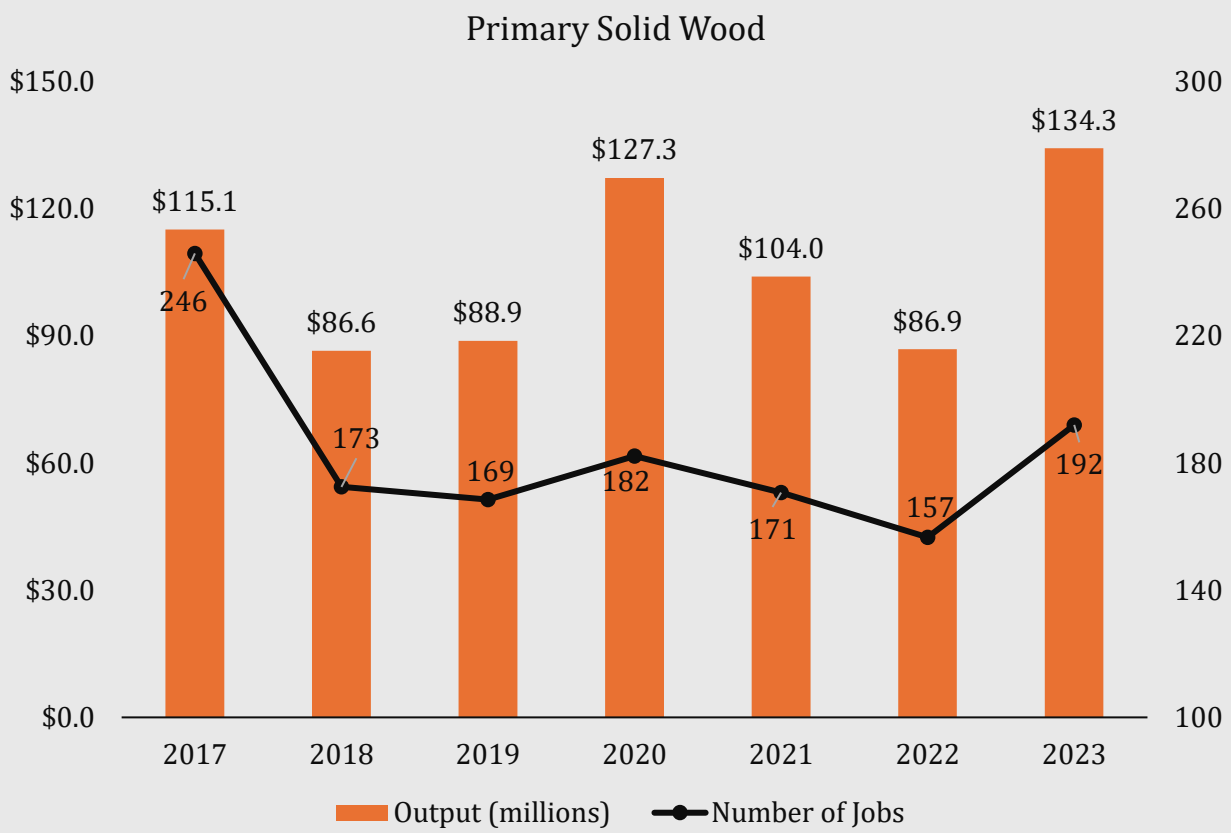

Figure 8: Trend in direct employment and output for the Primary Solid Wood Products industry in *Nebraska*, 2017–2023.

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, and prefabricated wood building manufacturing. It is important to note that Cut stock, resawing lumber, and planing, often included in this group for other states, is not present or disclosed in the Nebraska dataset. In 2023, this sector stood as the largest direct employer within the solid wood manufacturing category, directly providing 2,351 jobs and generating $800.9 million in direct output.

The Secondary Solid Wood Products industry exhibits an employment multiplier of approximately 1.83, indicating that for every 100 direct jobs, an additional 83 jobs are supported elsewhere in Nebraska through indirect and induced effects. While this represents a substantial level of economic linkage, it is notably lower than the Primary Solid Wood Products

industry (Table 7), which has an employment multiplier of approximately 2.52. In the primary sector, indirect employment (186 jobs) nearly matches the direct workforce (192 jobs), reflecting deep upstream supply-chain integration. In contrast, the secondary sector's indirect employment effect (1,086 jobs) is significant but smaller relative to its much larger direct workforce (2,351 jobs). This difference suggests that secondary manufacturers rely proportionally less on in-state upstream suppliers per unit of employment, resulting in a smaller indirect employment response. As a result, a greater share of the secondary sector's total employment impact is driven by direct operations, rather than by upstream supply-chain activity. Overall, the comparison highlights structural differences in how primary and secondary solid wood industries engage with Nebraska's broader economy.

When direct, indirect, and induced effects are combined, the Secondary Solid Wood Products industry supports 4,310 jobs and generates approximately $1.23 billion in total output. The industry also contributes $489.9 million in total value added, indicating a substantial in-state contribution to GSP. Relative to primary processing, the secondary segment shows a higher value-added share of output, which is consistent with additional processing and product transformation activities. In 2023, direct value added represented approximately 31.3 percent of direct output in the secondary sector, compared with 29.7 percent in the Primary Solid Wood Products sector.

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

	Employment	Labor Income	Value-Added	Output
Direct	2,351	$141,957	$250,743	$800,871
Indirect	1,086	$83,009	$144,906	$271,626
Induced	873	$48,172	$94,248	$153,788
Total	**4,310**	**$273,137**	**$489,898**	**$1,226,285**

† 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)

Figure 9 summarizes employment and output trends for Nebraska's Secondary Solid Wood Products industry over the 2017–2023 period. Unlike other sectors that faced significant volatility, this industry demonstrated a remarkably consistent growth trajectory. Employment followed a general upward trend, expanding from 2,121 jobs in 2017 to a peak of 2,508 jobs in 2022, before experiencing a slight correction to 2,351 jobs in 2023. Despite this final-year adjustment, the sector finished the period with a net employment gain of approximately 10.8 percent relative to the 2017 baseline.

Output performance was even more impressive, exhibiting an uninterrupted year-over-year increase throughout the entire seven-year span. Production value surged from $520.5 million in 2017 to $800.9 million in 2023, a total growth of nearly 54 percent. This steady expansion shows that demand for Nebraska's engineered wood, millwork, and prefabricated products remained resilient even during economic downturns. A notable divergence occurred between 2022 and 2023: while the workforce contracted by roughly 6.3 percent (157 jobs), output continued to climb by 4.9 percent ($37.6 million). This drove a significant spike in efficiency, with labor productivity (output per worker) rising from approximately $304 thousand in 2022 to nearly $341 thousand in 2023.

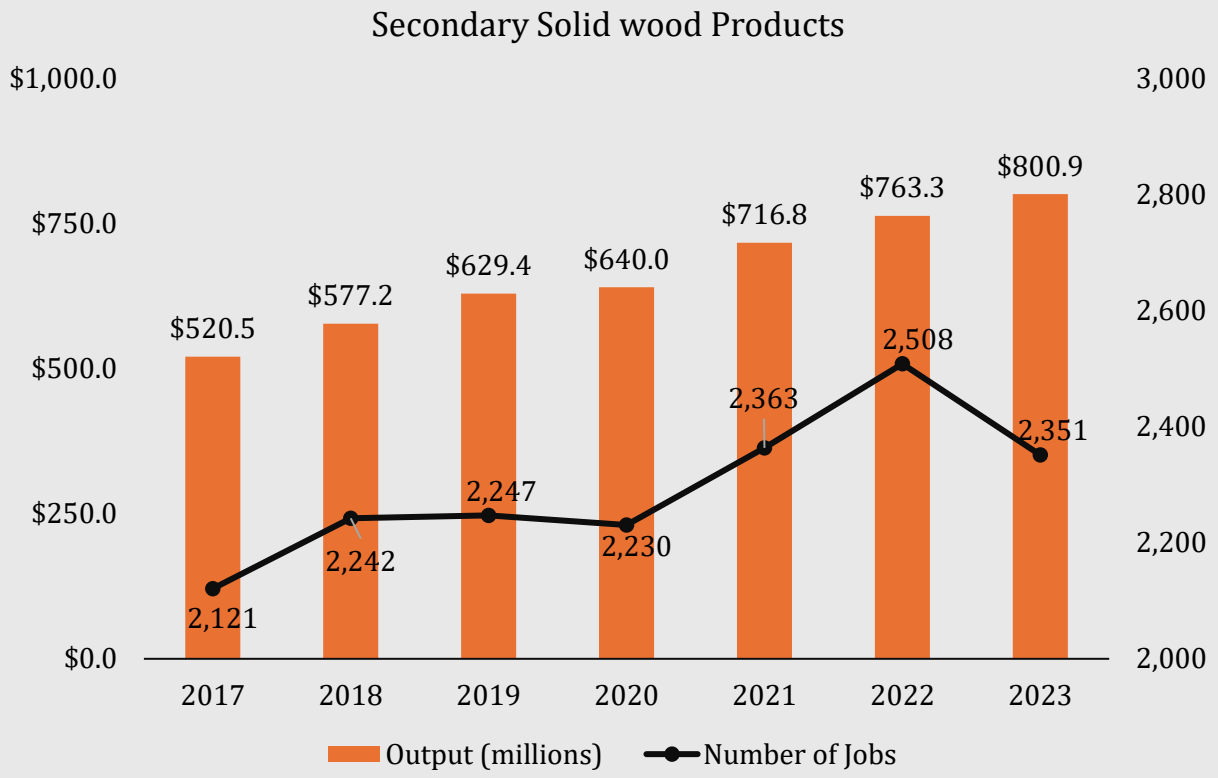

Figure 9: Trend in direct employment and output for the Secondary Solid Wood Products industry in Nebraska, 2017–2023.

Wood Furniture

Economic Contribution of Wood Furniture

Table 9 outlines the economic contributions of the Wood Furniture industry. This group encompasses a diverse range of value-added manufacturers, including those producing wood kitchen cabinets and countertops, non-upholstered household furniture, institutional wood furniture, wood office furniture, custom architectural woodwork, and showcase, partition, shelving, and locker manufacturing. It is important to note that Upholstered household

furniture manufacturing, which is often a component of this sector in other states, is not present or disclosed in the Nebraska dataset. In 2023, the sector directly provided 1,377 jobs and generated approximately $296.6 million in direct output, along with $88.3 million in direct value added and $81.5 million in direct labor income.

Multiplier effects indicate that the industry supports substantial additional activity beyond its direct operations, though its supply chain footprint is more localized than that of primary manufacturers. Indirect effects accounted for 426 jobs, $106.8 million in output, and $55.9 million in value added, reflecting demand for intermediate inputs such as lumber, finishes, and hardware. Induced effects contributed an additional 437 jobs, $77.1 million in output, and $47.2 million in value added, associated with the household spending of the sector's workforce. In aggregate, the Wood Furniture industry supported 2,240 jobs, generated $480.5 million in total output, and contributed $191.4 million in total value added to the Nebraska economy.

The implied employment multiplier is approximately 1.63, meaning that for every 100 direct jobs, an additional 63 jobs are supported elsewhere in the state economy. The distribution of multiplier components is relatively balanced, with induced employment (437 jobs) slightly exceeding indirect employment (426 jobs). Direct labor income equals approximately 27.5 percent of direct output, indicating that labor compensation represents a meaningful share of the sector’s direct production value relative to many upstream processing segments.

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

	Employment	Labor Income	Value-Added	Output
Direct	1,377	$81,515	$88,328	$296,567
Indirect	426	$31,169	$55,857	$106,818
Induced	437	$24,143	$47,235	$77,089
Total	**2,240**	**$136,828**	**$191,421**	**$480,473**

† 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 Nebraska exhibits a pattern of gradual contraction over the 2017–2023 period, with moderate year-to-year variation. Employment declined steadily, falling from 1,649 jobs in 2017 to 1,377 jobs in 2023, a net decrease of 272 jobs (16.5 percent). Employment declined each year from 2017 through 2020, reaching a low of 1,386 jobs, followed by a modest rebound in 2021 and 2022 before declining again in 2023. Overall, employment levels in 2023 remained well below the 2017 baseline.

Output followed a similar downward trajectory over the study period. Output totaled $371.5 million in 2017, declined to $286.7 million in 2020, and partially recovered to $337.9 million in 2021. By 2023, output stood at $296.6 million, representing a decline of $74.9 million (20.2 percent) relative to 2017. Output remained below its early-period levels throughout the latter half of the period, with year-to-year fluctuations but no sustained return to prior highs. Consistent with these trends, labor productivity (output per worker) declined modestly over time. Productivity averaged $225,314 per worker in 2017, increased to $234,274 in 2018, then declined during subsequent years. By 2023, output per worker was $215,330, approximately 4.4 percent below the 2017 level.

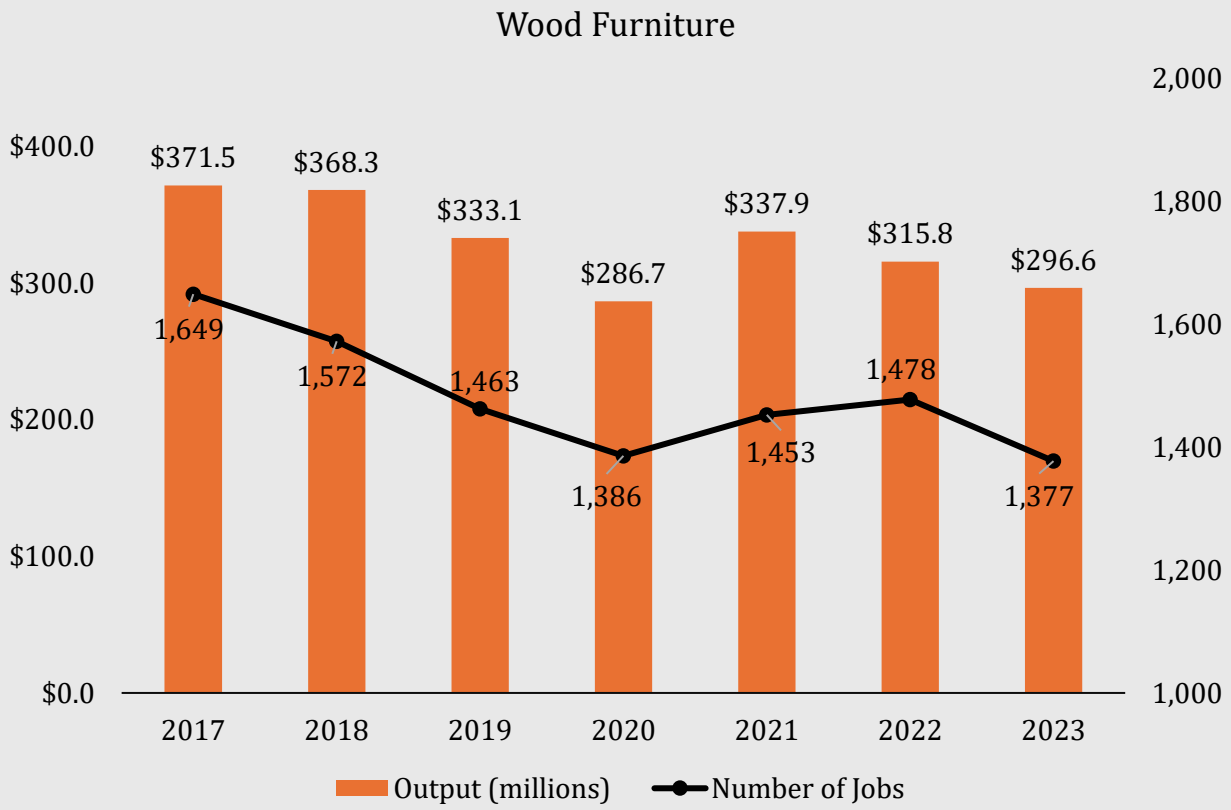

Figure 10: Trend in direct employment and output for the Wood Furniture industry in Nebraska, 2017–2023.

Pulp, Paper, and Paperboard Mills

Economic Contribution of Pulp, Paper, and Paperboard Mills

Table 10 presents the economic contribution of the Pulp, Paper, and Paperboard Mills industry group. For the Nebraska analysis, it is crucial to note that Pulp mills and Paperboard mills are not present or undisclosed in the state's dataset. Consequently, the economic activity reported here is driven exclusively by Paper mills (IMPLAN Sector 137). Among the seven industry groups,

this is the smallest industry in terms of jobs, labor income, and value added. In terms of output, it ranks sixth, slightly above forestry.

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

	Employment	Labor Income	Value-Added	Output
Direct	40	$3,345	$7,830	$32,082
Indirect	48	$4,103	$7,476	$13,508
Induced	29	$1,621	$3,172	$5,177
Total	**118**	**$9,068**	**$18,477**	**$50,767**

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

In 2023, this sector directly provided 40 jobs and generated $32.1 million in direct output. Despite its small employment footprint, the sector exhibits the highest capital intensity of all forest product industries in the state. The output-per-worker ratio stands at approximately $800 thousand. This metric characterizes the Paper Mills sector as a highly automated, continuous-process industry where production value is driven by heavy machinery and energy consumption rather than manual labor.

Multiplier effects indicate that while the direct workforce is small, the sector's operational requirements create a disproportionately large ripple effect throughout the local economy.

- **Indirect Effects:** The strength of this multiplier is driven by deep backward linkages. Indirect effects account for 48 jobs, a figure that actually exceeds the direct workforce itself. This suggests that the operation of paper mills requires a support network of maintenance contractors, logistics providers, and utility services that is larger than the staff employed inside the plant.
- **Induced Effects:** Induced effects contributed an additional 29 jobs and $5.2 million in output, reflecting the household spending of workers in these high-value industrial jobs.

In total, the industry supported 118 jobs, generated approximately $50.8 million in total output, and contributed $18.5 million in total value added statewide.

The implied employment multiplier is 2.95, meaning that every 100 direct mill jobs support an additional 195 jobs elsewhere in Nebraska; this is the highest employment multiplier among the seven forest industry groups. At the same time, the sector's output multiplier is 1.64.

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

Figure 11 illustrates the volatile and discontinuous nature of the Pulp, Paper, and Paperboard Mills industry in Nebraska from 2017 through 2023. The sector's trajectory is defined by a

period of rapid expansion followed by a sharp contraction and a notable data gap. After a modest baseline in 2017 (17 jobs, $15.6 million output), the industry experienced a dramatic surge in 2018, with employment jumping to 100 jobs and output nearly increased sixfold to $87.8 million. This higher tier of activity was sustained through 2019 and 2020, with output peaking at $99.4 million in 2019 and employment stabilizing near 100 workers.

However, the trend was interrupted in 2021, for which data is not available or disclosed. When reporting resumed in 2022, the sector had undergone a significant structural downsizing. Employment reappeared at 73 jobs in 2022 before falling further to 40 jobs in 2023, a 60% reduction from the 2018–2020 peak average. Similarly, output contracted to $32.1 million in 2023, effectively erasing the gains made during the expansion phase. Despite this volatility in scale, labor productivity (output per worker) remained exceptionally high relative to other forest industries, characteristic of this capital-intensive sector. Productivity consistently hovered near or above $900 thousand per worker during the peak years (2019–2020). Although it dipped to approximately $789 thousand upon the sector's re-emergence in 2022, it stabilized around $800 thousand in 2023.

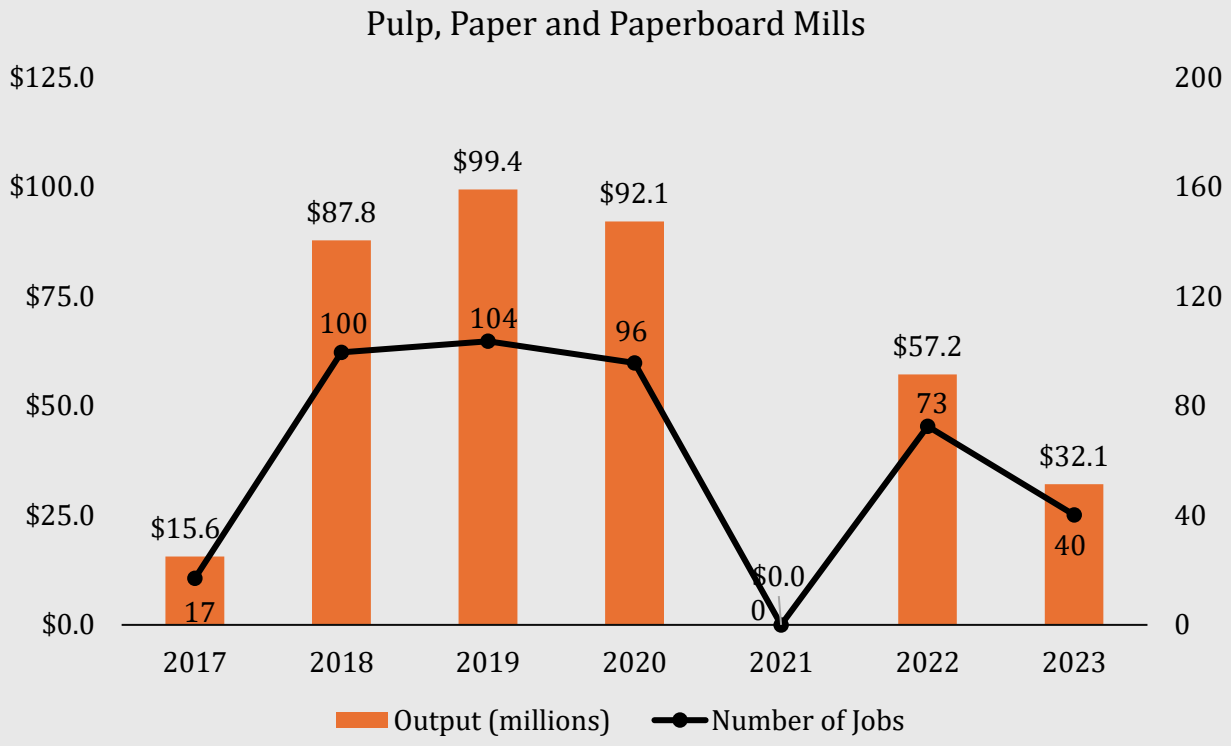

Figure 11: Trend in direct employment and output for the Pulp, Paper, and Paperboard Mills industry in Nebraska, 2017–2023.

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 comprises "converters" that manufacture finished goods from purchased paper, paperboard, or recycled materials. In Nebraska, this sector includes industries such as paperboard container manufacturing, paper bag and coated and treated paper manufacturing, and sanitary paper product manufacturing. It is important to note that Stationery product manufacturing, typically included in this aggregation for other states, is not present or undisclosed in the Nebraska dataset. In 2023, this converting sector was a cornerstone of the state's forest economy, directly providing 1,279 jobs and generating over $741.2 million in direct output.

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

	Employment	Labor Income	Value-Added	Output
Direct	1,279	$99,663	$166,595	$741,229
Indirect	1,084	$79,502	$146,763	$263,548
Induced	695	$38,355	$75,041	$122,438
Total	**3,058**	**$217,520**	**$388,398**	**$1,127,216**

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

The sector exhibits a robust Employment Multiplier of 2.39, meaning that for every 100 direct jobs in paper converting, an additional 139 jobs are supported throughout the state economy. A closer examination of the multiplier components reveals a distinct structural feature: the Indirect Employment effect (1,084 jobs) is nearly as large as the sector's Direct Employment (1,279 jobs). This substantial indirect impact suggests that Nebraska's converting facilities maintain strong supply chain linkages. Unlike extraction industries that rely on natural capital, these facilities act as significant demand drivers for intermediate goods, requiring high volumes of industrial paper and paperboard, alongside specialized logistics and packaging services, to sustain operations.

Furthermore, the output metrics highlight the capital-intensive nature of this industry. With a direct output of $741.2 million spread across 1,279 workers, the sector boasts an output-per-worker ratio of nearly $580 thousand , one of the highest in the forest products cluster. In terms of total contribution, the Secondary Paperboard and Other Paper Products industry supports a total of 3,058 jobs and contributes $1.13 billion in total economic output. By generating $388.4 million in total Value-Added, this converting sector serves a vital role by transforming the output of the capital-intensive Pulp and Paperboard Mills into specialized packaging and

consumer goods that are essential to the state's broader retail, food processing, and logistics sectors.

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

Figure 12 summarizes the employment and output trends for Nebraska's Secondary Paperboard and Other Paper Products industry from 2017 through 2023. As a key component of the state's manufacturing base, the sector experienced a distinct cycle of contraction, recovery, and subsequent correction. Employment followed a downward trend for the majority of the period, declining from a high of 1,534 jobs in 2017 to a low of 1,081 in 2020. Although the workforce rebounded significantly in 2021 to 1,405 employees, this momentum was not sustained. By 2023, employment had settled at 1,279 jobs, representing a net decrease of approximately 16.6 percent from the 2017 baseline.

Financially, the sector displayed significant volatility centered around year 2021. Real Industry Output mirrored the employment dip in 2020 ($665.9 million) before surging to a period peak of $897.7 million in 2021. However, this expansion was temporary; output contracted by around 17.4 percent between 2021 and 2023, falling to $741.2 million, a level about 16.4 percent below the 2017 starting point.

Labor productivity (output per worker) followed a similar trajectory. Efficiency metrics rose steadily early in the period, peaking at approximately $639 thousand per worker in 2021. As production volumes normalized in 2022 and 2023, productivity retreated to roughly $580 thousand per worker. Overall, the series indicates that while the sector remains highly productive, it has undergone a structural downsizing, operating with a smaller workforce and lower aggregate output in 2023 compared to pre-pandemic levels.

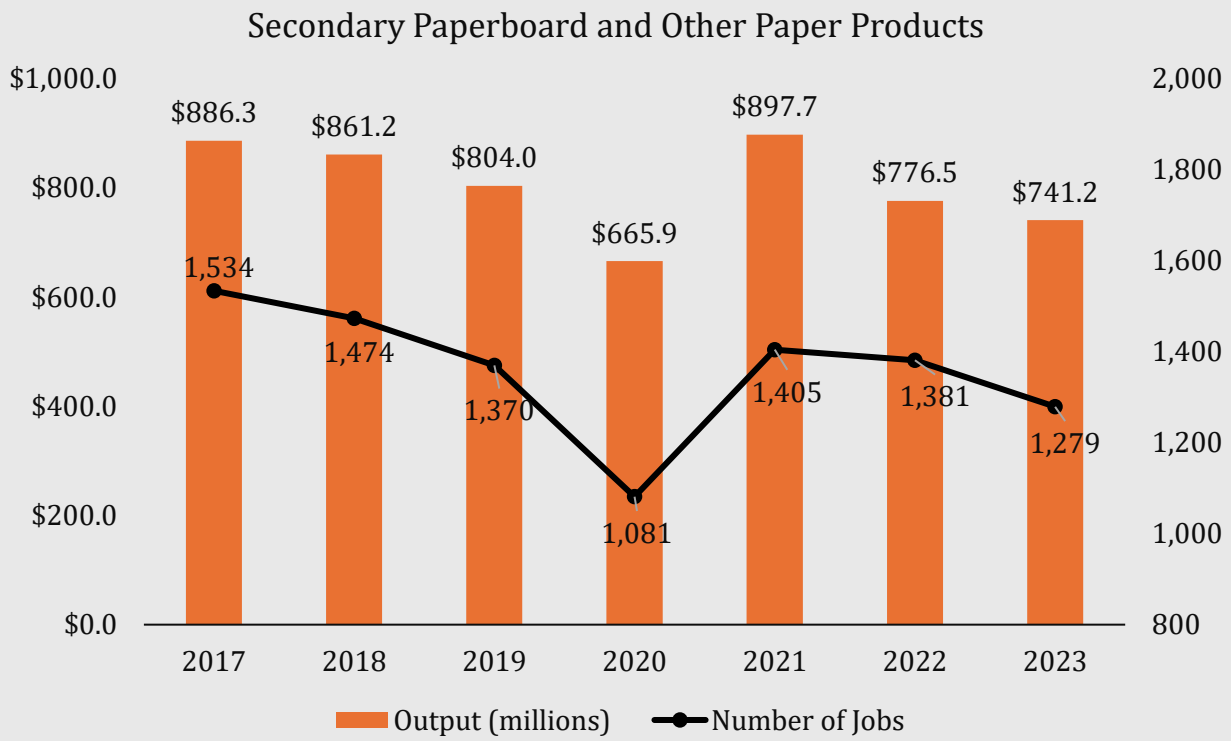

Figure 12: Trend in direct employment and output for the Secondary Paperboard and Other Paper Products industry in Nebraska, 2017–2023.

Top Forest Product Sectors

Nebraska's forest-products sector is represented by 25 distinct IMPLAN industries, yet the direct economic activity in 2023 exhibits a distinct hierarchy centered on downstream converting and construction-related manufacturing. As shown in Table 12, Paperboard container manufacturing emerged as the undisputed financial and operational anchor of the state's forest economy. It ranked first across all four key economic metrics, generating $676.5 million in output, $151.3 million in value-added, and supporting $92.6 million in labor income with a total of 1,169 jobs. Beyond the paper converting cluster, the sector relies heavily on the Secondary Solid Wood Products group. Engineered wood member and truss manufacturing secured the second-highest rank in employment (728 jobs), labor income ($45.6 million), and output ($301.6 million).

The data also reveals notable divergences between employment scale and value creation. Commercial logging appears as a unique outlier; while it does not rank among the top five employers (197 jobs, see Table 6) or output generators, it ranks second in Value-Added ($86.5 million). This shows the sector's exceptionally high value retention rate, where nearly all revenue generated from timber harvesting translates directly into GSP rather than being consumed by intermediate inputs. Further, Wood windows and door manufacturing appears in the top four for financial contributions (Income, Value-Added, and Output) despite not ranking in the top five for employment, suggesting a higher degree of capital intensity and labor productivity compared to cabinet or pallet manufacturing.

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

Rank	Employment	Labor Income	Value added	Output
1	Paperboard container manufacturing (1,169)	Paperboard container manufacturing ($92,616)	Paperboard container manufacturing ($151,340)	Paperboard container manufacturing ($676,451)
2	Engineered wood member and truss manufacturing (728)	Engineered wood member and truss manufacturing ($45,605)	Commercial logging ($86,541)	Engineered wood member and truss manufacturing ($301,593)
3	Showcase, partition, shelving, and locker manufacturing (577)	Showcase, partition, shelving, and locker manufacturing ($37,065)	Engineered wood member and truss manufacturing ($85,871)	Showcase, partition, shelving, and locker manufacturing ($145,197)
4	Wood container and pallet manufacturing (500)	Wood windows and door manufacturing ($29,139)	Wood windows and door manufacturing ($50,565)	Wood windows and door manufacturing ($140,822)
5	Wood kitchen cabinet and countertop manufacturing (462)	Wood container and pallet manufacturing ($27,644)	Wood container and pallet manufacturing ($43,510)	Wood container and pallet manufacturing ($129,921)

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

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

Excluding the forest-products industries themselves, the Nebraska economy included 406 other IMPLAN sectors in 2023. The forest sector's economic reach is extensive, supporting at least one job in 151 of these industries and at least ten jobs in 94 of them. Beyond the 5,552 direct jobs, the sector supported an additional 4,860 indirect and induced jobs across the state's economy. These additional positions, generated through supply chain purchases and workforce household spending, are heavily concentrated in logistics, wholesale trade, real estate, and essential services. Table 13 highlights the top ten non-forest industries most heavily impacted by this economic activity in terms of number of jobs in 2023. Together, these ten sectors account for 1,734 jobs, representing approximately 35.7 percent of all indirect and induced employment generated by the forest economy.

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

Industries	Number of Jobs
Warehousing and storage	271
Truck transportation	250
Other real estate	226
Wholesale - Other durable goods merchant wholesalers	221
Hospitals	137
Employment services	133
Full-service restaurants	130
Management of companies and enterprises	129
Limited-service restaurants	125
Couriers and messengers	112
Total	**1,734**

The composition of these sectors illustrates the specific mechanisms through which the forest industry drives the wider Nebraska economy:

- **Logistics and Distribution:** The strongest linkages are found in the movement and storage of physical goods. Warehousing and storage ranks as the largest impacted sector, with 271 jobs supported by the forest industry. When combined with Truck transportation (250 jobs), Wholesale - Other durable goods merchant wholesalers (221 jobs), and Couriers and messengers (112 jobs), it is evident that the forest sector acts as one of the primary volume drivers for the state's supply chain infrastructure. The

industry requires a robust network to move heavy raw timber, store bulky intermediate paper products, and distribute finished goods to market, thereby sustaining nearly 854 jobs in this logistics and trade cluster alone.

- **Induced Household Spending:** The prominence of Other real estate (226 jobs), Hospitals (137 jobs), and the dining sector (Full-service restaurants with 130 jobs and Limited-service restaurants with 125 jobs) illustrates the "induced" power of the forest workforce. These sectors are sustained not by industries supply chain purchases, but by the wages, salaries, benefits, and proprietor income spent by forest-sector employees in their local communities. Further, these high ranking of real estate and healthcare suggests that the income earned by loggers, mill workers, and manufacturers serves as a critical revenue stream for maintaining local housing markets and essential community wellness services.
- **Corporate and Business Support:** A significant impact is also seen in the sector's demand for high-level business services. Employment services (133 jobs) and Management of companies and enterprises (129 jobs) rank prominently, indicating that Nebraska's forest product firms, particularly larger manufacturers, are substantial consumers of corporate support. They rely on external firms for staffing solutions, headquarters management, and administrative oversight to maintain efficient operations.

In terms of economic output as presented in Table 14, the top ten non-forest industries supported by forest-sector activity generated a combined $415.8 million in 2023. The dominant category involves the wholesale distribution of goods, reflecting the forest industry's reliance on large-scale trade to move high volumes of finished wood and paper products. The leading supported sector is Wholesale - Other durable goods merchant wholesalers, generating over $82.3 million in output. When combined with Wholesale - Other nondurable goods merchant wholesalers ($49.3 million), the wholesale trade sector alone accounts for approximately $131.6 million in economic activity. This indicates that nearly one-third of the top-ten impact flows through the intermediaries that connect Nebraska's manufacturers to the broader marketplace.

The rankings also highlight the substantial physical and corporate infrastructure required to sustain the forest economy. Truck transportation ranks second overall, generating $59.3 million, which underscores the critical role of freight logistics in a supply chain defined by heavy raw materials and bulky finished goods. Additionally, Local government electric utilities ranks seventh, contributing $31.1 million. This figure is driven by the significant base-load electricity consumption of the state's manufacturing facilities, marking the sector as a key industrial patron of local utility infrastructure.

Finally, the presence of Owner-occupied housing as the fourth-largest supported sector ($41.9 million) serves as a significant indicator of the "induced" economic effect. In economic

modeling, this category represents the imputed value of homeownership. This economic stability further supports Other real estate ($36.3 million), Monetary authorities and depository credit intermediation ($29.9 million), and Hospitals ($27.5 million). Collectively, these figures reflect the essential spending power of the forest workforce, whose earnings circulate locally to maintain housing markets, banking systems, and community healthcare services.

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

Industries	Output
Wholesale - Other durable goods merchant wholesalers	$82,316
Truck transportation	$59,293
Wholesale - Other nondurable goods merchant wholesalers	$49,286
Owner-occupied housing	$41,860
Other real estate	$36,288
Management of companies and enterprises	$31,543
Local government electric utilities	$31,056
Monetary authorities and depository credit intermediation	$29,913
Hospitals	$27,527
Warehousing and storage	$26,750
Total	**$415,832**

† 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 forest economy within Nebraska's broader natural resource base, Table 15 compares the direct contributions of four major sectors in 2023: Forest Products, Commercial Fishing/Hunting/Trapping, Mining (including oil and gas), and Agricultural Production. The results show a sectoral structure in which agricultural production overwhelmingly dominates economic activity, while forest products and mining play smaller but distinct supporting roles. Agriculture accounts for the vast majority of employment, with 63,374 jobs, and generates $34.17 billion in output, far exceeding the combined scale of the other sectors. This shows Nebraska's longstanding economic orientation toward crop and livestock production rather than extractive or forest-based industries.

Within this context, forest products emerge as the second-largest natural resource employer, supporting 5,552 jobs, well ahead of mining and oil and gas production (2,420 jobs). At the same time, the financial profiles of these two sectors differ. Forest products generate $2.12 billion in output and $671.2 million in value added, while mining produces lower total output ($1.62 billion) but substantially higher value added ($861.6 million), which suggests that forest products contribute more through employment and sales volume, whereas mining generates higher value added per unit of output and per worker.

Changes since 2017 indicate a shared adjustment across Nebraska's natural resource sectors, characterized by declining employment alongside rising economic value. Employment decreased in all major sectors, including forest products (–4.3 percent), mining (–31.6 percent), and agriculture (–5.5 percent). Over the same period, however, value added and output increased substantially in real terms. Forest products maintained relatively stable employment compared to other sectors while achieving a 35.5 percent increase in value added, showing modest productivity gains. Mining experienced the most pronounced shift, with large employment losses paired with very large increases in value added, while agriculture showed strong growth in output and value added despite reduced labor income.

Overall, the data suggest that Nebraska's natural resource economy in 2023 is less labor-intensive but more value-generating than in 2017, with agriculture continuing to anchor the system, forest products providing steady employment and output, and mining contributing disproportionately to value added. This pattern is consistent with gradual technological change, consolidation, and efficiency gains rather than sectoral expansion driven by workforce growth.

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

Industry	Employment	Δ2017	Labor Income	Δ2017††	Value-Added	Δ 2017††	Output	Δ 2017††
1. Forest Products	5,552	-4.3%	$353,439	2.1%	$671,153	35.5%	$2,124,064	10.4%
2. Commercial fishing, hunting & trapping	128	-38.8%	-$72	473.7%	$1,888	-18.7%	$3,148	20.7%
3. Mining, and oil & gas production	2,420	-31.6%	$163,591	23.7%	$861,639	218.5%	$1,616,708	148.9%
4. Agriculture production (plant crops and animals)	63,374	-5.5%	$5,039,911	-26.4%	$14,694,108	63.8%	$34,165,843	22.0%
Total	**71,474**	**-6.7%**	**$5,556,868**	**-24.1%**	**$16,228,788**	**66.7%**	**$37,909,763**	**24.0%**

† 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 Nebraska's industrial base, Table 16 compares the aggregated "Forest Products manufacturing" contribution 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). This distinction is important because the manufacturing component represents the vast majority of the sector's footprint: Forest Products Manufacturing accounts for roughly 94.4% of total forest-sector employment ($5,240 out of $5,552 jobs), 96.0 percent of labor income ($339 million out of $353 million), 82.5 percent of value-added ($553 million out of $671 million), and 94.4% of total output (2.01 billion out of 2.12 billion).

In terms of scale, Nebraska's manufacturing landscape is heavily dominated by the massive Food Manufacturing sector, which provided 42,331 jobs (about 40.1% of the total manufacturing facilities) and generates $33.5 billion in output. Beneath this primary tier, Forest Products Manufacturing ranks as the sixth-largest employer, supporting 5,240 jobs. It occupies a solid middle-tier position, trailing the "heavy industry" cluster of Fabricated Metal (9,565 jobs), Machinery (9,323 jobs), and Transportation Equipment (8,843 jobs), but maintaining a clear lead over sectors such as Printing (4,046 jobs) and Computer and Electronic Products (3,196 jobs).

While Forest Products ranks sixth in employment, it ranks seventh in Direct Output ($2.01 billion), falling just slightly behind Miscellaneous Manufacturing ($2.10 billion). On a per-worker basis, Forest Products Manufacturing generated approximately $382,679 of output per job. This level of output per job is broadly similar to Fabricated Metal Manufacturing ($375,210 per job) and Plastics and Rubber Products ($376,700 per job), but below several higher-output-per-job industries, including Chemical Manufacturing ($1.58 million per job) and Primary Metal Manufacturing ($1.32 million per job). Overall, the comparison indicates that Forest Products Manufacturing contributes meaningfully to Nebraska's manufacturing base in employment and output, with productivity levels that are competitive with some mid-tier manufacturing groups but lower than the most capital- and output-intensive manufacturing industries in the state.

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

Manufacturing Industries	Employment	Labor Income	Value Added	Output
Food	42,331	$3,476,892	$7,131,110	$33,510,965
Fabricated Metal	9,565	$790,134	$1,340,437	$3,589,030
Machinery	9,323	$791,702	$1,937,789	$5,838,908
Transportation Equipment	8,843	$737,854	$1,215,866	$5,577,732
Chemical	6,507	$1,395,680	$3,852,959	$10,298,914
Forest Products	5,240	$339,226	$553,404	$2,005,060
Miscellaneous	4,918	$460,646	$1,273,580	$2,104,775
Printing	4,046	$230,719	$235,697	$648,263
Plastics and Rubber Products	3,770	$262,782	$324,584	$1,420,032
Computer and Electronic Product	3,196	$293,141	$428,702	$1,367,026
Nonmetallic Mineral Product	2,978	$248,948	$532,874	$1,324,057
Electrical Equipment	1,566	$141,536	$213,229	$755,461
Textiles and Apparel	1,119	$55,402	$132,453	$325,821
Primary Metal	1,110	$134,346	$255,700	$1,460,471
Beverage and Tobacco Product	989	$39,796	$116,786	$392,022
Petroleum and Coal	92	$548,090	$48,231	$285,012
Total	**105,593**	**$9,946,893**	**$19,593,400**	**$70,903,549**
Compared to 2017	**4.1%**	**20.7%**	**27.5%**	**6.4%**

† 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 Nebraska's industrial base and a vital engine for its rural and industrial economy. In 2023, the Forest Products sector directly provided 5,552 jobs and generated $2.12 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 10,412 jobs and $3.15 billion in total output. This indicates a robust employment multiplier of 1.88. Essentially, for every 100 direct jobs in the forest sector, an additional 88 jobs are supported elsewhere in the Nebraska economy, which reflects the deep integration of forest industries with local logistics, utilities, and corporate service sectors.

The industry exhibits a distinct structural emphasis on value-added manufacturing rather than raw extraction. The Secondary Solid Wood Products group stands as the primary employment driver, supporting 2,351 direct jobs. Further, the Secondary Paperboard and Other Paper Products sector remains a capital-intensive powerhouse. It generated over $741.2 million in direct output with 1,279 jobs, highlighting the high automation and value-generation capacity of the state's converting facilities. Further, while smaller in total scale (40 jobs), the Paper Mills sector demonstrated the highest efficiency of any group, generating approximately $800,000 in output per worker, indicative of a highly automated, continuous-process niche within the state's industrial base. When analyzing the specific, unaggregated industries, Paperboard container manufacturing emerges as the most significant subsector, ranking first in employment (1,169 jobs), Labor-Income ($92.6 million), Value-Added ($151.3 million), and Output ($676.5 million).

Within Nebraska's natural resource base, agriculture remains the largest employer and the dominant generator of direct industrial value, producing $34.17 billion in output; however, the forest products industry remains the second-largest natural resource employer, supporting 5,552 jobs and generating $2.12 billion in output. Since 2017, forest products employment declined by 4.3 percent while output increased by 10.4 percent and value added increased by 35.5 percent, showing higher value creation relative to a smaller employment base. Within manufacturing, the forest products industry was a crucial industry, ranking sixth in employment (5,240 jobs; 5.0 percent of statewide manufacturing employment) and seventh in output ($2.01 billion). Overall, the sector transforms locally sourced renewable inputs and intermediate materials into higher-value manufactured products, including construction materials, paper packaging, and consumer goods, supporting employment within Nebraska while generating significant out-of-state sales. This underscores its continuing role in the state's manufacturing and resource-based economy.

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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 Nebraska.

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

Sectors denoted by "***" indicate that the corresponding FPI is not present in Nebraska.

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

Sectors denoted by "***" indicate that the corresponding FPI is not present in Nebraska.

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.
Sectors denoted by "***" indicate that the corresponding FPI is not present in Nebraska.

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

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

Sectors denoted by "***" indicate that the corresponding FPI is not present in Nebraska.

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

Sectors denoted by "***" indicate that the corresponding FPI is not present in Nebraska.

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	7	$586	$604	$677
Support activities for agriculture and forestry	107	$3,931	$30,603	$30,912
Total	**115**	**$4,517**	**$31,207**	**$31,589**

† 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	197	$9,695	$86,541	$87,415
Total	**197**	**$9,695**	**$86,541**	**$87,415**

† 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	0	$0	$0	$0
Sawmills	99	$6,564	$13,981	$51,504
Wood preservation	47	$3,326	$13,886	$44,607
Veneer and plywood manufacturing	12	$482	$1,209	$4,206
Reconstituted wood product manufacturing	35	$2,374	$10,832	$33,994
Total	**192**	**$12,746**	**$39,909**	**$134,311**

† 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	728	$45,605	$85,871	$301,593
Wood windows and door manufacturing	444	$29,139	$50,565	$140,822
Cut stock, resawing lumber, and planing	0	$0	$0	$0
Other millwork, including flooring	40	$2,436	$5,401	$13,991
Wood container and pallet manufacturing	500	$27,644	$43,510	$129,921
Manufactured home (mobile home) manufacturing	330	$18,626	$24,269	$97,848
Prefabricated wood building manufacturing	274	$16,614	$37,660	$106,635
All other miscellaneous wood product manufacturing	35	$1,894	$3,466	$10,061
Total	**2,351**	**$141,957**	**$250,743**	**$800,871**

† 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	462	$27,224	$29,243	$83,123
Upholstered household furniture manufacturing	0	$0	$0	$0
Non-upholstered wood household furniture manufacturing	95	$3,884	$4,161	$15,440
Institutional furniture manufacturing	133	$7,260	$7,861	$28,179
Wood office furniture manufacturing	82	$4,596	$5,217	$19,743
Custom architectural woodwork and millwork	28	$1,487	$530	$4,883
Showcase, partition, shelving, and locker manufacturing	577	$37,065	$41,317	$145,197
Total	**1,377**	**$81,515**	**$88,328**	**$296,567**

† 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	0	$0	$0	$0
Paper mills	40	$3,345	$7,830	$32,082
Paperboard mills	0	$0	$0	$0
Total	**40**	**$3,345**	**$7,830**	**$32,082**

† 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	1,169	$92,616	$151,340	$676,451
Paper bag and coated and treated paper manufacturing	58	$3,611	$6,275	$26,311
Stationery product manufacturing	0	$0	$0	$0
Sanitary paper product manufacturing	41	$2,841	$7,831	$34,227
All other converted paper product manufacturing	11	$595	$1,150	$4,240
Total	**1,279**	**$99,663**	**$166,595**	**$741,229**

† 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	0	$0	$0	$0
Forestry, forest products, and timber tract production	36	$1,293	$1,411	$1,549
Support activities for agriculture and forestry	0	$0	$0	$0
Total	**36**	**$1,293**	**$1,411**	**$1,549**

† 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	197	$885	$5,434	$9,768
Total	**197**	**$885**	**$5,434**	**$9,768**

† 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	79	$1,763	$2,202	$19,567
Wood preservation	82	$4,181	$9,869	$49,000
Veneer and plywood manufacturing	85	$4,526	$5,553	$23,307
Reconstituted wood product manufacturing	0	$0	$0	$0
Total	**246**	**$10,471**	**$17,624**	**$91,874**

† 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	451	$22,585	$25,318	$97,804
Wood windows and door manufacturing	417	$20,087	$27,122	$92,690
Cut stock, resawing lumber, and planing	0	$0	$0	$0
Other millwork, including flooring	62	$2,286	$3,419	$12,032
Wood container and pallet manufacturing	538	$20,127	$25,289	$80,158
Manufactured home (mobile home) manufacturing	272	$13,752	$23,810	$69,009
Prefabricated wood building manufacturing	282	$12,159	$14,250	$46,345
All other miscellaneous wood product manufacturing	98	$3,835	$5,338	$17,281
Total	**2,121**	**$94,830**	**$124,545**	**$415,319**

† 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	508	$21,320	$26,867	$72,760
Upholstered household furniture manufacturing	0	$0	$0	$0
Non-upholstered wood household furniture manufacturing	99	$2,975	$4,807	$12,312
Institutional furniture manufacturing	64	$3,122	$4,302	$12,462
Wood office furniture manufacturing	126	$7,149	$14,999	$32,554
Custom architectural woodwork and millwork	154	$7,737	$10,491	$25,173
Showcase, partition, shelving, and locker manufacturing	697	$30,859	$46,435	$141,186
Total	**1,649**	**$73,162**	**$107,901**	**$296,447**

† 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	0	$0	$0	$0
Paper mills	17	$1,263	$2,402	$12,454
Paperboard mills	0	$0	$0	$0
Total	**17**	**$1,263**	**$2,402**	**$12,454**

† 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	1,259	$83,512	$112,170	$567,911
Paper bag and coated and treated paper manufacturing	171	$11,850	$18,093	$74,589
Stationery product manufacturing	0	$0	$0	$0
Sanitary paper product manufacturing	87	$5,150	$14,364	$59,574
All other converted paper product manufacturing	18	$799	$1,032	$5,073
Total	**1,534**	**$101,311**	**$145,659**	**$707,147**

† 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	0	$0	$0	$0
Forestry, forest products, and timber tract production	36	$1,582	$1,725	$1,942
Support activities for agriculture and forestry	0	$0	$0	$0
Total	**36**	**$1,582**	**$1,725**	**$1,942**

† 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	197	$1,082	$6,644	$12,242
Total	**197**	**$1,082**	**$6,644**	**$12,242**

† 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	79	$2,156	$2,692	$24,524
Wood preservation	82	$5,113	$12,067	$61,413
Veneer and plywood manufacturing	85	$5,534	$6,790	$29,211
Reconstituted wood product manufacturing	0	$0	$0	$0
Total	**246**	**$12,803**	**$21,549**	**$115,148**

† 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	451	$27,615	$30,957	$122,580
Wood windows and door manufacturing	417	$24,561	$33,162	$116,170
Cut stock, resawing lumber, and planing	0	$0	$0	$0
Other millwork, including flooring	62	$2,796	$4,181	$15,080
Wood container and pallet manufacturing	538	$24,610	$30,921	$100,464
Manufactured home (mobile home) manufacturing	272	$16,815	$29,113	$86,490
Prefabricated wood building manufacturing	282	$14,867	$17,424	$58,086
All other miscellaneous wood product manufacturing	98	$4,689	$6,527	$21,658
Total	**2,121**	**$115,952**	**$152,285**	**$520,528**

† 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	508	$26,069	$32,851	$91,192
Upholstered household furniture manufacturing	0	$0	$0	$0
Non-upholstered wood household furniture manufacturing	99	$3,638	$5,877	$15,430
Institutional furniture manufacturing	64	$3,817	$5,261	$15,619
Wood office furniture manufacturing	126	$8,741	$18,340	$40,800
Custom architectural woodwork and millwork	154	$9,461	$12,828	$31,550
Showcase, partition, shelving, and locker manufacturing	697	$37,732	$56,777	$176,951
Total	**1,649**	**$89,458**	**$131,934**	**$371,542**

† 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	0	$0	$0	$0
Paper mills	17	$1,545	$2,937	$15,609
Paperboard mills	0	$0	$0	$0
Total	**17**	**$1,545**	**$2,937**	**$15,609**

† 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	1,259	$102,113	$137,153	$711,774
Paper bag and coated and treated paper manufacturing	171	$14,489	$22,123	$93,484
Stationery product manufacturing	0	$0	$0	$0
Sanitary paper product manufacturing	87	$6,297	$17,563	$74,665
All other converted paper product manufacturing	18	$977	$1,262	$6,358
Total	**1,534**	**$123,876**	**$178,102**	**$886,281**

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