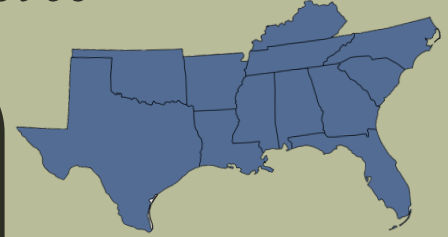


ECONOMIC CONTRIBUTIONS OF THE FOREST PRODUCTS INDUSTRY IN THE *Southeast United States*



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DIRECTLY, the forest products industry in the southeastern United States has:



513,100 people employed
\$39.5 billion in labor income
\$74 billion GDP contribution



INDIRECTLY, the forest products industry along with economic multipliers from related industries and household spending result in a **TOTAL ECONOMIC CONTRIBUTION** of

1,315,600 people employed
\$94 billion in labor income
\$173 billion in GDP contribution
(40.5% of the nation's total forestry contribution to our national economy)



! OTHER IMPORTANT FACTS



The **PULP AND PAPER INDUSTRY** is the largest sector in the Southeast US and contributes **\$33.6 billion** directly to the region's GDP

\$33.6 billion



Average annual employee **COMPENSATION** in all forest products sectors is

\$79,412



The largest sector by employment is the **SOLID WOOD PRODUCTS INDUSTRY** which directly employs

190,923 people

ECONOMIC CONTRIBUTIONS OF THE FOREST PRODUCTS INDUSTRY IN THE SOUTHEAST UNITED STATES



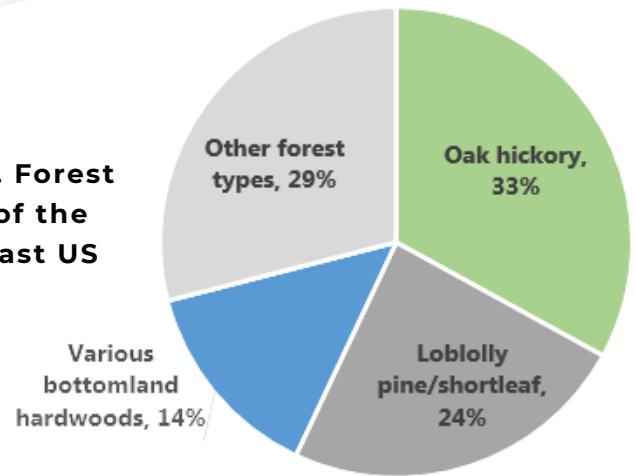
FORESTS AND FOREST INDUSTRY



Forests in the Southeast United States cover nearly 258 million acres (404 thousand square miles) and are comprised of a great diversity of forest types and trees. These forests are privately owned with 222 million acres (86%) under various forms of private ownership. Oak hickory is the dominant forest type (33%), followed by loblolly/shortleaf pine (24%) and various

bottomland hardwoods (14%) (Figure 1). These forests support a forest industry that is found throughout rural and urban areas of the region and include forest management services, logging, solid wood products, pulp and paper, furniture, and power generation.

Figure 1. Forest types of the Southeast US



HOW WE DETERMINE ECONOMIC CONTRIBUTIONS OF THE FOREST INDUSTRY



IMPLAN (impact analysis for planning) is a commonly used tool for economic analysis. It is both a database and a software system for performing impact and contribution analyses for a defined geographic area of interest. IMPLAN uses data from a variety of government sources, including the Bureau of Economic Analysis, the USDA Census of Agriculture, the US Census Bureau, and the US Department of Commerce. Using this data, IMPLAN software can develop models that track shocks to an economy, such as the addition or loss of a portion of an industry (impact analysis) or the total contribution of an industry sector to a region's economy (contribution analysis). The data reported here are from contribution analyses and show the entire effect that forestry has on the economy of the Southeast United States.

DIRECT EFFECTS OF THE FOREST PRODUCTS INDUSTRY IN THE SOUTHEAST UNITED STATES



The forest industries of the Southeast United States can be categorized by forestry, logging, solid wood products, pulp and paper and furniture. Table 1 shows the employment, labor income, GDP (value added) and output by

sector. Solid wood products employs the greatest number of individuals in manufacturing facilities such as sawmills, plywood and other wood panels, reconstituted wood products (medium

density fiberboard, for example), flooring and windows, and other engineered wood products (mass timber, trusses). The average annual employee compensation for all sectors is in the bioenergy sector (\$147,292) followed by pulp and paper (\$101,375), forestry (\$76,678), solid wood products (\$74,895), logging (\$70,276), and furniture (\$61,130). In terms of contributions to gross domestic product (GDP) and output, the largest sector is pulp and paper followed by solid wood products.

Table 1. Employment, labor income, GDP, and output by sector

Sector	Employment	Labor Income	GDP (Value added)	Output (value of shipments)
Forestry	5,589	\$343,987,683	\$453,553,488	\$508,423,491
Logging	48,309	\$2,783,018,228	\$3,417,338,723	\$3,615,258,674
Energy	581	\$129,169,648	\$387,925,422	\$754,169,867
Solid Wood Products	190,923	\$14,416,543,675	\$27,491,841,219	\$84,300,692,958
Pulp and Paper	142,685	\$14,464,813,037	\$33,596,822,075	\$105,693,362,099
Furniture	125,012	\$7,358,344,588	\$9,044,071,190	\$26,638,734,449
Totals	513,100	\$39,495,876,858	\$74,391,552,118	\$221,510,641,539

Texas, North Carolina, Georgia, and Alabama employ the largest number of people in the forest industry (Table 2). Texas has the largest direct labor income, followed closely by North Carolina and Georgia. Georgia's forest industry has the greatest direct contribution to GDP (value added), and Texas leads the Southeast in output (value of shipments).

STATE BY STATE FOREST INDUSTRY DIRECT EFFECTS

Table 2. Forestry industry total direct contributions by state

	Employment	Labor Income	Value Added	Output
Alabama	45,202	\$3,839,990,916	\$7,467,583,212	\$21,114,527,944
Arkansas	26,377	\$1,920,828,391	\$4,129,875,811	\$12,985,660,552
Florida	41,419	\$3,411,592,413	\$5,837,155,293	\$16,741,146,991
Georgia	60,330	\$4,982,025,820	\$10,968,777,083	\$29,975,389,883
Kentucky	26,571	\$2,057,975,495	\$3,219,380,996	\$11,271,617,042
Louisiana	20,058	\$1,655,615,348	\$4,358,182,480	\$10,923,209,286
Mississippi	33,096	\$2,223,365,686	\$3,665,505,797	\$11,333,499,324
North Carolina	72,173	\$4,999,381,668	\$7,793,317,710	\$25,881,594,603
Oklahoma	9,275	\$614,003,289	\$1,639,073,807	\$4,771,749,897
South Carolina	28,750	\$2,476,401,205	\$5,201,569,263	\$14,932,835,040
Tennessee	39,141	\$3,115,573,029	\$6,718,957,307	\$17,828,353,776
Texas	76,813	\$5,746,285,415	\$9,170,783,153	\$29,986,586,153
Virginia	33,894	\$2,452,838,184	\$4,221,390,208	\$13,764,471,051
Totals	513,100	\$ 39,495,876,858	\$ 74,391,552,118	\$ 221,510,641,539

STATE BY STATE FOREST INDUSTRY DIRECT EFFECTS (cont'd)

Labor income is one measure of compensation for the value added manufacturing of a product. It does, however, include proprietor income. Table 3 shows each states employee and salary workers and their compensation, and the annual averages for those states. Overall, forestry employees earn 98% of their state average compensation, and with the exceptions of Texas, Virginia, and North Carolina, forest industry employees have greater than average annual compensation.

Table 3. Wage and salary employees and employee compensation by state in the Southeast United States in 2023

	Wage & Salary Employees	Employee Compensation	Average	% of State Average
Alabama	41,654	\$3,445,031,104	\$82,707	113%
Arkansas	23,894	\$1,830,343,195	\$76,602	113%
Florida	36,217	\$2,966,578,834	\$81,912	102%
Georgia	55,257	\$4,855,666,579	\$87,874	107%
Kentucky	23,862	\$1,799,717,634	\$75,421	103%
Louisiana	17,507	\$1,544,409,897	\$88,218	122%
Mississippi	29,819	\$1,972,224,943	\$66,139	107%
North Carolina	66,805	\$4,787,487,578	\$71,663	90%
Oklahoma	7,827	\$609,068,116	\$77,814	111%
South Carolina	26,199	\$2,442,697,161	\$93,235	129%
Tennessee	35,267	\$2,837,628,641	\$80,461	103%
Texas	68,414	\$5,417,382,893	\$79,186	91%
Virginia	30,848	\$2,304,653,056	\$74,710	81%
Totals	463,571	36,812,889,631	\$79,412	98%



FOREST INDUSTRY CONTRIBUTIONS (ECONOMIC MULTIPLIERS)

The above economic figures reflect only the direct activities within the forest products industries of the Southeast United States. These industries do not operate in a vacuum, they interact with each other and associated downstream industries such as warehousing and storage, wholesale durable goods, truck transportation, employment services, and management of companies and enterprises. In turn, the direct forest industry

employment and the associated industries' direct employment wage earnings are spent throughout the general economy, affecting restaurants, hospitals, general merchandise stores, physician offices, grocery stores any business where household expenditures are made. Table 4 provides the direct contributions, the economic multiplier contributions and the total contributions for the entire Southeastern United States. The overall contribution of \$173 billion

FOREST ECONOMIC CONTRIBUTIONS (cont'd)



is equivalent to 2.0% of the region's total GDP, making the Southeastern Region 11% more dependent on the forest industry than the nation. Furthermore, the Southeast United States is responsible for 40.5% of the nation's total forest industry contribution.

Table 4. Direct and economic multiplier contributions from the forest products industry to the economics of the Southeast United States

Impact	Employment	Labor Income	Value Added	Output
Direct forest industry	513,100	\$39,495,876,858	\$74,391,552,118	\$221,510,641,539
Economic multipliers	802,500	\$54,591,640,162	\$98,909,174,624	\$183,637,957,763
Total Contribution	1,315,600	\$94,087,517,021	\$173,300,726,742	\$405,148,599,302

DETAILS ON THE IMPLAN SECTORS USED IN THIS ANALYSIS

The most recent IMPLAN data was used in this study and comes from the calendar year of 2023. The data and all results are reported in 2023 dollars.

IMPLAN aggregates all the North American Industry Code Standard industry sectors into 528 sectors for analysis. The IMPLAN sectors used in this study to define the forest industry are shown in Table 5. Table 5 also shows how the IMPLAN forestry sectors were aggregated into six major forestry sectors.

The IMPLAN contribution analyses all used baseline settings in IMPLAN. There were no adjustments made to industry data, the IIA event details, commodities, income, or spending patterns. While the base IMPLAN data and matrices may not reflect specific states' differences, they do provide a comparative and information tool.

For detailed information, one of the best sources is the land-grant university in your state. IMPLAN software is commonly used and widely available, and the precise templates can be provided upon request.

Table 5. IMPLAN sectors used to define the forest industry in the study and the aggregation used to report details in each fact sheet.

IMPLAN Sector	IMPLAN Forestry Sector Name	Aggregation into Forestry Sectors
15	Forestry, forest products, and timber tract production	FORESTRY
16	Commerical logging	LOGGING
40	Electrical Energy Production	ELECTRICAL ENERGY FROM BIOMASS
124	Sawmills	SOLID WOOD PRODUCTS
125	Wood preservation	
126	Veneer and plywood manufacturing	
127	Engineered wood member and truss manufacturing	
128	Reconstituted wood product manufacturing	
129	Wood windows and door manufacturing	
130	Cut stock, resawing lumber, and planing	
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	
136	Pulp mills	PULP AND PAPER
137	Paper mills	
138	Paperboard mills	
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	
348	Wood kitchen cabinet and countertop manufacturing	FURNITURE
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	