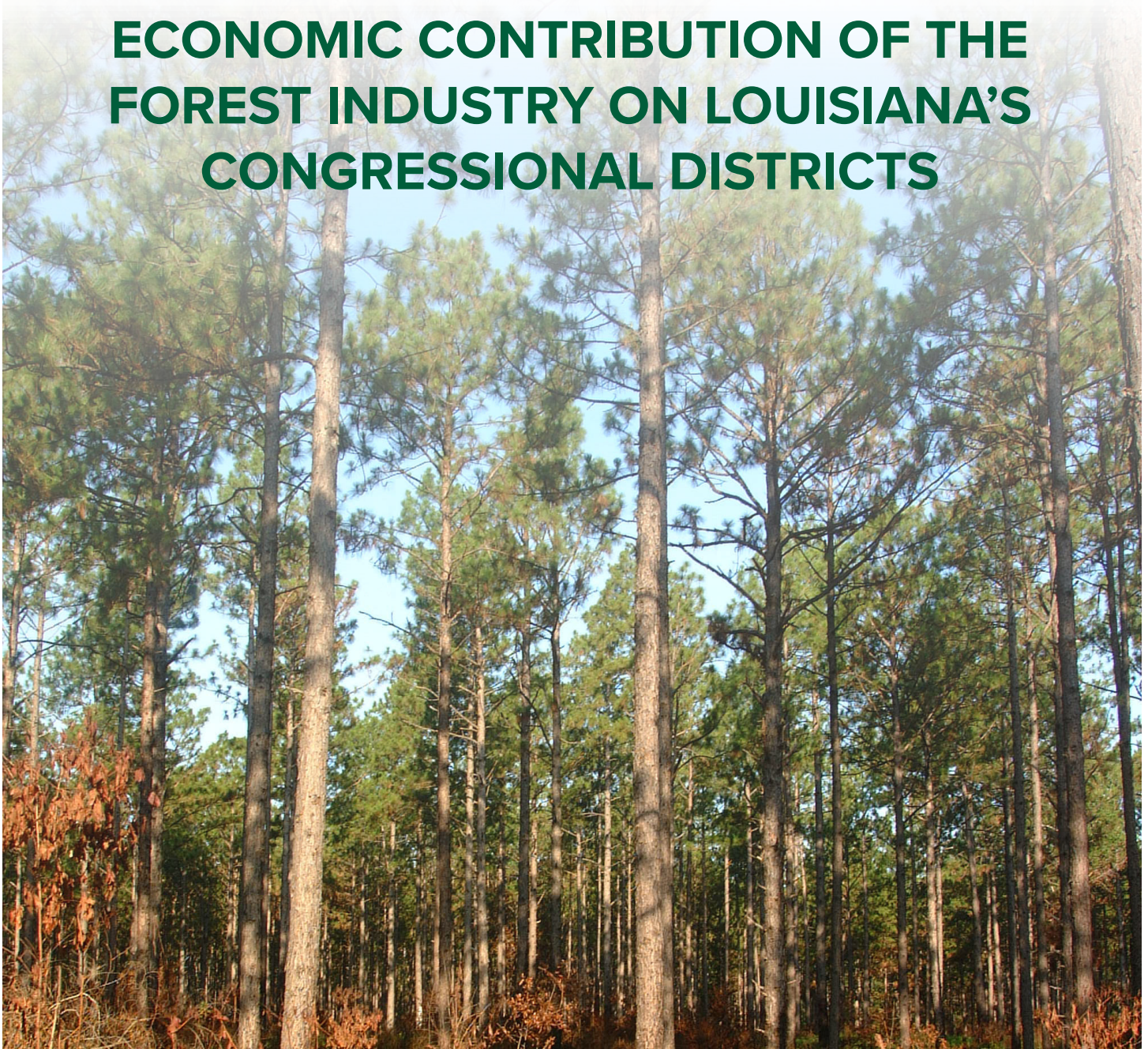


ECONOMIC CONTRIBUTION OF THE FOREST INDUSTRY ON LOUISIANA'S CONGRESSIONAL DISTRICTS



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Executive Summary

- Forest resources are abundant in Louisiana. About half of the state (14.9 million acres) is covered with forests. Loblolly pine is the most widespread species, amounting to 5.4 million acres. In Louisiana, 86% of forest land (12.9 million acres) is in private ownership, the rest is owned by federal and state government.
- Louisiana's forest industry is comprised of seven subsectors: forestry; logging; primary solid wood products and wood-based power; secondary solid wood products; wood furniture; pulp, paper, and paperboard; secondary paperboard and other paper products. The forest industry is closely connected to the rest of the economy, especially to the owner-occupied dwellings sector.
- Timber production in 2021 was 657,954 million cubic feet, only 1.8 million cubic feet (MCF) less than the previous year. With 144,075 MCF importing into the state and 83,225 MCF exporting out of the state, Louisiana continues to be a net importer of roundwood. Forest landowners received \$343.28 million in 2021, a relatively minor increase compared to \$342.67 million in 2020. \$174 million come from selling pine sawtimber.
- The current economic output reached \$11.04 billion in 2021 compared to \$10.66 billion in 2020, accounting for 1.6% of the state's total output. The largest output was produced by pulp and paper industry, reaching \$4.5 billion. This level of output was associated with 8,330 jobs and more than \$0.72 billion in labor income, representing 23% of the total forest industry in employment and 32% of the total industry in labor income. Primary solid wood products ranked the second and employed close to 7,767 jobs with \$0.52 billion in labor income.
- The average employment contribution multiplier was 1.46. Among all seven subsectors, pulp and paper industry had the highest employment multiplier of 2.2, meaning that for every 10 jobs created directly by businesses in the pulp and paper industry, another 12 jobs would be created outside of the forest industry in Louisiana. Given that the forest resources are not evenly distributed across states, the multiplier "ripple effect" varies across congressional districts.
- Despite experiencing some disruptions early on caused by COVID-19, the forest industry started to recover in the second quarter of 2020 and continued to increase in 2021 by \$700 million. Part of the rebound could be attributed to increased demand from the overheated U.S. housing market.

Introduction

Forests provide a wide range of economic, social and environmental benefits to Louisiana. As the top agricultural sector in Louisiana, the forest industry has been a major contributor to state's economy for decades, contributing \$3.8 billion to the state's gross domestic product (GDP) in 2021 (1.4%). The pulp and paper industry, which includes all paper and paperboard mills, continued to be the largest forest-based industry in 2021 representing 39% of the entire industry revenue. The forest industry directly supports 25,506 jobs, with pulp and paper manufacturers employing over 6,327 people in the state. The total economic contribution of the forest industry in Louisiana is estimated at \$11.03 billion in 2021, associated with 37,012 jobs and \$2.27 billion in labor income.

Figure 1 shows the economic output of Louisiana's forest industry between 2001-2021. It can be clearly seen that a journey to recovery for the timber industry

had characterized the last ten years, though the total output hadn't come back to pre-recession levels. The COVID-19 pandemic had pressed a pause button on economic development. Forest product markets were among those experiencing substantial disruptions early in the pandemic, ending a slow but steady rise in economic output in Louisiana from the 2007-2009 global financial crisis. Despite experiencing some disruptions early on in 2020, Louisiana's forest industry rebounded quickly in the second quarter of 2020. The rising housing market is one of the driving forces leading to a quick rebound. The forest industry relies heavily on raw materials from forests. The timber harvest trend follows closely the trend in industrial output over the entire period. Timber harvest fell by just over 40% in Louisiana from 2008 to 2009. Since 2008, forest inventory has been rising steadily, which has placed increasing pressure on timber prices.

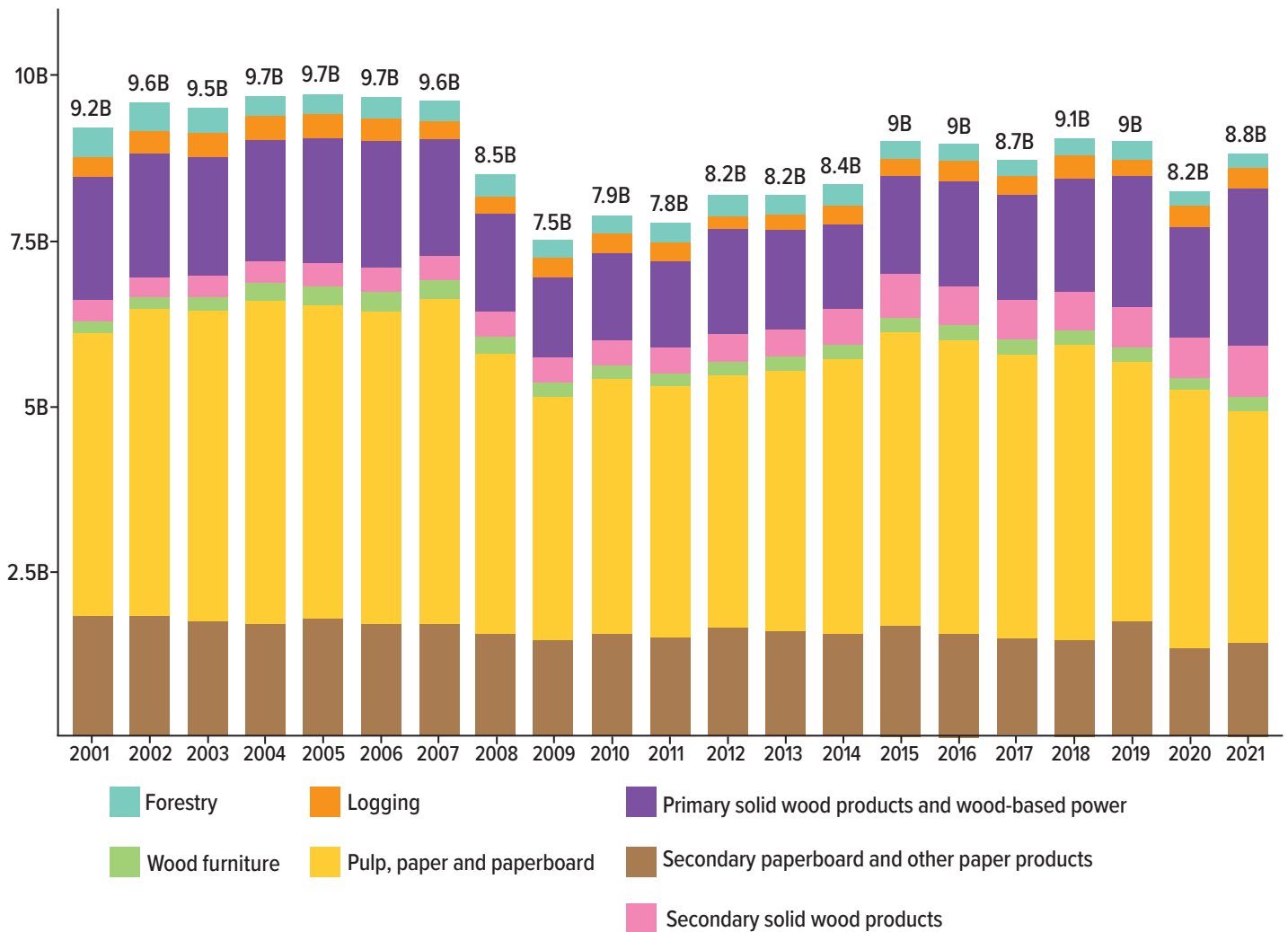


Figure 1. Forest industry economic output by sector (dollars in billions), 2001-2021.

This report aims to update the previous estimates of the economic contributions of forest-related businesses at state and district congressional levels by utilizing 2021 IMPLAN data. To do so, the analysis relies on a methodology called industry contribution analysis (ICA) to estimate the employment, labor income, value-added and economic output associated with forest industry in Louisiana. In addition,

the corresponding contribution multipliers are also calculated to evaluate the ripple effects that the forest industry creates throughout the rest of the economy. The estimated total economic contributions of the Louisiana forestry industry in 2021 are summarized by industry groups and sectors in Table 3-8. Additional information at the congressional district level can also be found in the appendix.

Results

The economic contributions of the forest industry in Louisiana in 2021 totaled more than \$11.03 billion. The \$8.82 billion of direct contributions support an additional \$1.45 billion and \$0.76 billion in indirect and induced industrial output, respectively, through non-forest industry linkages. Total employment contributions of the forest industry in Louisiana were estimated at 37,012 jobs — 25,506 jobs through direct forest industry employment, and an additional 11,506 through indirect and induced non-forest industry. Value added is the difference between the economic output of an industry and the cost of any intermediate inputs, measuring the return to resources used by the industry. In Louisiana, the forest industry supported an estimated \$3.78 billion in value added. Labor income is a subset of value added which includes employee compensation (wages and benefits) and proprietor (self-employment) income. The entire forest industry generated \$1.68 billion in direct labor income and expands to \$2.23 billion when all the effects are considered.

Table 1 also presents the breakdown of output, jobs, value added and income by industry sectors. Pulp and paper products, which include all pulping and paper-making activities, were the leading forest-based industry in terms of output, value-added, and income. The total output of the pulp and paper industry was \$3.5 billion, representing about 40% of the entire forest industry output. This activity directly supported the employment of 3,830 people who earned \$0.47 billion in 2021. The

highest employment is seen in forestry with 6,131 workers, followed by the primary solid wood products industry with 5,246 employees.

The contribution multiplier is calculated as the total effect divided by the direct effect. We find that for every dollar of output, dollar of labor income and job in the forest industry in Louisiana, \$0.29 of output, \$0.32 of labor income and 0.46 jobs are supported in non-forest industries in the state. The forestry sector has the highest contribution output multiplier of 1.42, meaning that for every dollar generated in the forestry industry, an additional \$0.42 is generated in non-forest industries. The pulp and paper sector has the highest contribution income multiplier of 1.53, meaning that for every job created directly in the forestry industry, an additional 0.42 jobs are created in backward-linked local industries.

Even though 50% of the land is covered by forests, the forests are not evenly distributed, the northern districts being the most thickly forested. Congressional districts with substantial forest resources may be home to either basic forestry activity or some combination of logging, processing, and manufacture or export. Therefore, it's not surprising to see that the economic contribution of the forest sectors to the economy varies across regions. The key findings of how forestry and forest products contribute to the economy of Louisiana's congressional districts are presented in detail in the appendix in Table 3-10.

Table 1. Economic contribution of the forest industry in Louisiana, by sector (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|-------------|-----------------------|-------------|-----------------------|-------------|----------------------------|-------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 6,131 | 16.6 | 225 | 9.9 | 210 | 1.9 | 191 | 3.9 |
| Logging | 3,785 | 10.2 | 168 | 7.4 | 303 | 2.7 | 160 | 3.3 |
| Primary Solid Wood Products | 5,246 | 14.2 | 385 | 16.9 | 2,396 | 21.7 | 1,124 | 23.1 |
| Secondary Solid Wood Products | 2,570 | 6.9 | 166 | 7.3 | 764 | 6.9 | 364 | 7.5 |
| Wood Furniture | 1,447 | 3.9 | 57 | 2.5 | 212 | 1.9 | 64 | 1.3 |
| Primary Paper Products | 3,830 | 10.4 | 474 | 20.9 | 3,494 | 31.7 | 1,398 | 28.7 |
| Secondary Paper Products | 2,497 | 6.8 | 201 | 8.9 | 1,440 | 13.1 | 476 | 9.8 |
| Subtotal | 25,506 | 68.9 | 1,676 | 73.8 | 8,818 | 80.0 | 3,778 | 77.5 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 1,689 | 4.6 | 61 | 2.7 | 207 | 1.9 | 110 | 2.3 |
| Non-Forestry Sector | 9,818 | 26.5 | 534 | 23.5 | 2,003 | 18.2 | 989 | 20.3 |
| Subtotal | 11,507 | 31.1 | 594 | 26.2 | 2,211 | 20.0 | 1,099 | 22.5 |
| Total Impact in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,029 | 100 | 4,877 | 100 |

Though accurate, some subtotals or totals may not appear to be an exact sum due to rounding in other table fields. This applies to all tables in this publication.

Discussion

The current state of abundant standing timber volumes, particularly in the southern U.S., helped keep timber prices low (TimberMart-South, 2021) even while lumber and plywood prices remained high.

Looking forward, as labor shortages and delivery delays continue to disrupt forest products supply chain and mortgage rates are on the way of returning to pre-pandemic levels, there is one bright spot in the general dullness

of the timber markets. Since 2021, at least four sawmills announced plans to make major investments in Louisiana. This will add an additional 870 million board feet (MMBF) to the current state's mill capacity to support its continued growth and demand in the sawmill. The mill capacity expansion is expected to help reduce the large oversupply of standing timber throughout the state, resulting in an increase in competition in the logging and sawmill industry.

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Appendix

Table 2: Industry descriptions of the forest products sector in Louisiana (2021).

| Aggregated Sector | IMPLAN Code | Description |
|--|-------------|---|
| Forestry | 15 | Forestry, forest products, and timber tract production |
| | 19 | Support activities for agriculture and forestry |
| Logging | 16 | Commercial logging |
| Primary Solid Wood Products and Wood-based Power | 45 | Electric power generation - biomass |
| | 132 | Sawmills |
| | 133 | Wood preservation |
| | 134 | Veneer and plywood manufacturing |
| | 136 | Reconstituted wood product manufacturing |
| Secondary Solid Wood Products | 135 | Engineered wood member and truss manufacturing |
| | 137 | Wood windows and door manufacturing |
| | 138 | Cut stock, resawing lumber, and planing |
| | 139 | Other millwork, including flooring |
| | 140 | Wood container and pallet manufacturing |
| | 141 | Manufactured home (mobile home) manufacturing |
| | 142 | Prefabricated wood building manufacturing |
| | 143 | All other miscellaneous wood product manufacturing |
| Wood Furniture | 365 | Wood kitchen cabinet and countertop manufacturing |
| | 366 | Upholstered household furniture manufacturing |
| | 367 | Nonupholstered wood household furniture manufacturing |
| | 368 | Other household nonupholstered furniture manufacturing |
| | 369 | Institutional furniture manufacturing |
| | 370 | Wood office furniture manufacturing |
| | 371 | Custom architectural woodwork and millwork |
| | 372 | Office furniture, except wood, manufacturing |
| | 373 | Showcase, partition, shelving, and locker manufacturing |
| Pulp, Paper and Paperboard | 144 | Pulp mills |
| | 145 | Paper mills |
| | 146 | Paperboard mills |
| Secondary Paperboard and Other Paper Products | 147 | Paperboard container manufacturing |
| | 148 | Paper bag and coated and treated paper manufacturing |
| | 149 | Stationery product manufacturing |
| | 150 | Sanitary paper product manufacturing |
| | 151 | All other converted paper product manufacturing |

Table 3. Impacts from forest related sectors on employment, income, output and value added in Louisiana's 1st Congressional District (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|------------|-----------------------|------------|-----------------------|------------|----------------------------|------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 422 | 1.0 | 15 | 0.6 | 15 | 0.1 | 13 | 0.3 |
| Logging | 371 | 0.1 | 7 | 0.3 | 21 | 0.2 | 7 | 0.1 |
| Primary Solid Wood Products | 28 | 0.6 | 2 | 0.1 | 11 | 0.1 | 4 | 0.1 |
| Secondary Solid Wood Products | 205 | 0.6 | 10 | 0.5 | 48 | 0.4 | 20 | 0.4 |
| Wood Furniture | 227 | 0.3 | 8 | 0.4 | 32 | 0.3 | 9 | 0.2 |
| Primary Paper Products | 110 | 0.7 | 12 | 0.5 | 100 | 0.9 | 41 | 0.8 |
| Secondary Paper Products | 251 | 4.4 | 21 | 0.9 | 128 | 1.2 | 39 | 0.8 |
| Subtotal | 1,614 | 4.4 | 76 | 3.3 | 355 | 3.2 | 133 | 2.7 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 62 | 0.2 | 3 | 0.1 | 10 | 0.1 | 5 | 0.1 |
| Non-Forestry Sector | 283 | 0.8 | 18 | 0.8 | 59 | 0.5 | 31 | 0.6 |
| Subtotal | 345 | 0.9 | 21 | 0.9 | 69 | 0.6 | 36 | 0.7 |
| Total Impact 1st District | 1,959 | 5.3 | 97 | 4.3 | 424 | 3.8 | 169 | 3.5 |
| Rest of Louisiana | 35,054 | 94.7 | 2,173 | 95.7 | 10,604 | 96.2 | 4,708 | 96.5 |
| Total in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,028 | 100 | 4,877 | 100 |

Table 4. Impacts from forest related sectors on employment, income, output and value added in Louisiana's 2nd Congressional District (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|------------|-----------------------|------------|-----------------------|------------|----------------------------|------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 611 | 1.7 | 12 | 0.5 | 14 | 0.1 | 12 | 0.2 |
| Logging | 260 | 0.7 | 4 | 0.2 | 13 | 0.1 | 3 | 0.1 |
| Primary Solid Wood Products | 38 | 0.1 | 3 | 0.1 | 13 | 0.1 | 5 | 0.1 |
| Secondary Solid Wood Products | 142 | 0.4 | 10 | 0.4 | 40 | 0.4 | 20 | 0.4 |
| Wood Furniture | 224 | 0.6 | 10 | 0.4 | 34 | 0.3 | 10 | 0.2 |
| Primary Paper Products | 65 | 0.2 | 8 | 0.4 | 62 | 0.6 | 27 | 0.6 |
| Secondary Paper Products | 388 | 1.0 | 32 | 1.4 | 278 | 2.5 | 119 | 2.4 |
| Subtotal | 1,728 | 4.7 | 79 | 3.5 | 455 | 4.1 | 196 | 4.0 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 28 | 0.1 | 2 | 0.1 | 6 | 0.1 | 3 | 0.1 |
| Non-Forestry Sector | 244 | 0.7 | 18 | 0.8 | 55 | 0.5 | 29 | 0.6 |
| Subtotal | 272 | 0.7 | 19 | 0.8 | 61 | 0.5 | 32 | 0.7 |
| Total Impact 2nd District | 2,004 | 5.4 | 98 | 4.3 | 516 | 4.7 | 229 | 4.7 |
| Rest of Louisiana | 35,007 | 94.6 | 2,172 | 95.7 | 10,513 | 95.3 | 4,649 | 95.3 |
| Total in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,028 | 100 | 4,877 | 100 |

Table 5. Impacts from forest related sectors on employment, income, output and value added in Louisiana's 3rd Congressional District (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|------------|-----------------------|------------|-----------------------|------------|----------------------------|------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 1,045 | 2.8 | 43 | 1.9 | 38 | 0.3 | 36 | 0.7 |
| Logging | 274 | 0.7 | 2 | 0.1 | 12 | 0.1 | 2 | 0.0 |
| Primary Solid Wood Products | 44 | 0.1 | 3 | 0.1 | 18 | 0.2 | 8 | 0.2 |
| Secondary Solid Wood Products | 279 | 0.8 | 15 | 0.7 | 74 | 0.7 | 32 | 0.7 |
| Wood Furniture | 239 | 0.6 | 10 | 0.4 | 34 | 0.3 | 11 | 0.2 |
| Primary Paper Products | 2 | 0.0 | 0 | 0.0 | 1 | 0.0 | 0 | 0.0 |
| Secondary Paper Products | 133 | 0.4 | 12 | 0.5 | 72 | 0.6 | 21 | 0.4 |
| Subtotal | 2,016 | 5.4 | 85 | 3.7 | 249 | 2.3 | 109 | 2.2 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 212 | 0.6 | 9 | 0.4 | 30 | 0.3 | 16 | 0.3 |
| Non-Forestry Sector | 353 | 1.0 | 18 | 0.8 | 62 | 0.6 | 32 | 0.7 |
| Subtotal | 565 | 1.5 | 27 | 1.2 | 92 | 0.8 | 48 | 1.0 |
| Total Impact 3rd District | 2,581 | 7.0 | 112 | 4.9 | 342 | 3.1 | 157 | 3.2 |
| Rest of Louisiana | 34,430 | 93.0 | 2,159 | 95.1 | 10,687 | 96.9 | 4,721 | 96.8 |
| Total in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,028 | 100 | 4,877 | 100 |

Table 6. Impacts from forest related sectors on employment, income, output and value added in Louisiana's 4th Congressional District (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|-------------|-----------------------|-------------|-----------------------|-------------|----------------------------|-------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 982 | 2.7 | 44 | 1.9 | 40 | 0.4 | 37 | 0.8 |
| Logging | 1,386 | 3.7 | 87 | 3.8 | 134 | 1.2 | 82 | 1.7 |
| Primary Solid Wood Products | 2,469 | 6.7 | 182 | 8.0 | 1,065 | 9.7 | 494 | 10.1 |
| Secondary Solid Wood Products | 620 | 1.7 | 43 | 1.9 | 204 | 1.8 | 99 | 2.0 |
| Wood Furniture | 100 | 0.3 | 4 | 0.2 | 14 | 0.1 | 4 | 0.1 |
| Primary Paper Products | 2,037 | 5.5 | 243 | 10.7 | 1,807 | 16.4 | 683 | 14.0 |
| Secondary Paper Products | 576 | 1.6 | 47 | 2.1 | 294 | 2.7 | 84 | 1.7 |
| Subtotal | 8,170 | 22.1 | 648 | 28.5 | 3,560 | 32.3 | 1,484 | 30.4 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 671 | 1.8 | 22 | 1.0 | 78 | 0.7 | 41 | 0.8 |
| Non-Forestry Sector | 4,649 | 12.6 | 248 | 10.9 | 988 | 9.0 | 477 | 9.8 |
| Subtotal | 5,320 | 14.4 | 270 | 11.9 | 1,066 | 9.7 | 518 | 10.6 |
| Total Impact 4th District | 13,490 | 36.4 | 918 | 40.4 | 4,625 | 41.9 | 2,002 | 41.0 |
| Rest of Louisiana | 23,521 | 63.6 | 1,352 | 59.6 | 6,403 | 58.1 | 2,875 | 59.0 |
| Total in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,028 | 100 | 4,877 | 100 |

Table 7. Impacts from forest related sectors on employment, income, output and value added in Louisiana's 5th Congressional District (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|-------------|-----------------------|-------------|-----------------------|-------------|----------------------------|-------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 2,229 | 6.0 | 90 | 4.0 | 81 | 0.7 | 75 | 1.5 |
| Logging | 1,266 | 3.4 | 62 | 2.7 | 106 | 1.0 | 59 | 1.2 |
| Primary Solid Wood Products | 2,494 | 6.7 | 183 | 8.1 | 1,219 | 11.1 | 585 | 12.0 |
| Secondary Solid Wood Products | 975 | 2.6 | 69 | 3.0 | 308 | 2.8 | 152 | 3.1 |
| Wood Furniture | 242 | 0.7 | 8 | 0.4 | 36 | 0.3 | 9 | 0.2 |
| Primary Paper Products | 1,551 | 4.2 | 202 | 8.9 | 1,462 | 13.3 | 619 | 12.7 |
| Secondary Paper Products | 1,011 | 2.7 | 74 | 3.3 | 512 | 4.6 | 137 | 2.8 |
| Subtotal | 9,768 | 26.4 | 688 | 30.3 | 3,724 | 33.8 | 1,636 | 33.5 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 637 | 1.7 | 21 | 0.9 | 72 | 0.7 | 39 | 0.8 |
| Non-Forestry Sector | 3,884 | 10.5 | 207 | 9.1 | 760 | 6.9 | 378 | 7.8 |
| Subtotal | 4,521 | 12.2 | 228 | 10.1 | 832 | 7.5 | 417 | 8.5 |
| Total Impact 5th District | 14,287 | 38.6 | 916 | 40.3 | 4,556 | 41.3 | 2,053 | 42.1 |
| Rest of Louisiana | 22,724 | 61.4 | 1,354 | 59.7 | 6,472 | 58.7 | 2,825 | 57.9 |
| Total in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,028 | 100 | 4,877 | 100 |

Table 8. Impacts from forest related sectors on employment, income, output and value added in Louisiana's 6th Congressional District (2021).

| | Number of Jobs | % Share | Income (US\$ million) | % Share | Output (US\$ million) | % Share | Value Added (US\$ million) | % Share |
|--|----------------|------------|-----------------------|------------|-----------------------|------------|----------------------------|------------|
| Direct Impact from Forest-Related Sectors | | | | | | | | |
| Forestry | 841 | 2.3 | 21 | 0.9 | 22 | 0.2 | 18 | 0.4 |
| Logging | 227 | 0.6 | 7 | 0.3 | 15 | 0.1 | 7 | 0.1 |
| Primary Solid Wood Products | 172 | 0.5 | 11 | 0.5 | 68 | 0.6 | 27 | 0.6 |
| Secondary Solid Wood Products | 349 | 0.9 | 20 | 0.9 | 90 | 0.8 | 41 | 0.8 |
| Wood Furniture | 414 | 1.1 | 17 | 0.8 | 61 | 0.6 | 20 | 0.4 |
| Primary Paper Products | 65 | 0.2 | 9 | 0.4 | 62 | 0.6 | 28 | 0.6 |
| Secondary Paper Products | 139 | 0.4 | 16 | 0.7 | 156 | 1.4 | 78 | 1.6 |
| Subtotal | 2,207 | 6.0 | 102 | 4.5 | 475 | 4.3 | 220 | 4.5 |
| Indirect and Induced Impact on Sectors | | | | | | | | |
| Forestry Sector | 79 | 0.2 | 4 | 0.2 | 12 | 0.1 | 7 | 0.1 |
| Non-Forestry Sector | 403 | 1.1 | 24 | 1.1 | 79 | 0.7 | 42 | 0.9 |
| Subtotal | 482 | 1.3 | 28 | 1.2 | 91 | 0.8 | 48 | 1.0 |
| Total Impact 6th District | 2,691 | 7.3 | 130 | 5.7 | 565 | 5.1 | 268 | 5.5 |
| Rest of Louisiana | 34,320 | 92.7 | 2,140 | 94.3 | 10,463 | 94.9 | 4,610 | 94.5 |
| Total in Louisiana | 37,011 | 100 | 2,270 | 100 | 11,028 | 100 | 4,877 | 100 |

Table 9. Federal tax impacts (in dollars) generated by the forest products industry in Louisiana by congressional district (2021).

| Type of Tax | 1st | 2nd | 3rd | 4th | 5th | 6th | Totals |
|--------------------------------------|---------------------|---------------------|---------------------|----------------------|----------------------|---------------------|----------------------|
| Corporate Profits Tax | \$2,503,745 | \$4,102,454 | \$1,523,638 | \$36,259,746 | \$39,108,622 | \$5,519,665 | \$89,017,870 |
| Indirect Business Taxes ¹ | -\$710,585 | -\$691,245 | -\$730,266 | -\$13,446,478 | -\$12,140,633 | -\$490,618 | -\$28,209,826 |
| Personal Taxes ² | \$5,032,435 | \$3,362,495 | \$7,390,039 | \$63,386,512 | \$59,661,732 | \$6,720,445 | \$145,553,659 |
| Social Security Taxes ³ | \$10,559,201 | \$10,154,051 | \$12,345,031 | \$100,145,259 | \$104,023,383 | \$13,957,191 | \$251,184,116 |
| Total | \$17,384,796 | \$16,927,755 | \$20,528,442 | \$186,345,039 | \$190,653,104 | \$25,706,682 | \$457,545,819 |

¹Includes motor vehicle license, property taxes, state and local non-taxes, sales tax, severance tax and other taxes.

²Includes estate and gift taxes, income taxes, motor vehicle license, property taxes and other taxes.

³Includes employee contribution and employer contribution.

Table 10. State and local government, taxes (in dollars) generated by the forest products industry in Louisiana by congressional district (2021).

| Type of Tax | 1st | 2nd | 3rd | 4th | 5th | 6th | Totals |
|--------------------------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|----------------------|
| Corporate Profits Tax | \$429,466 | \$703,691 | \$261,349 | \$6,219,610 | \$6,708,276 | \$946,785 | \$15,269,176 |
| Indirect Business Taxes ¹ | \$2,184,498 | \$1,757,429 | \$2,003,874 | \$37,938,891 | \$35,066,960 | \$1,260,003 | \$80,211,654 |
| Personal Taxes ² | \$1,032,697 | \$710,514 | \$1,539,068 | \$13,221,415 | \$12,329,180 | \$1,394,878 | \$30,227,752 |
| Social Security Taxes ³ | \$96,050 | \$100,367 | \$120,936 | \$1,017,792 | \$1,012,551 | \$143,536 | \$2,491,231 |
| Total | \$3,742,711 | \$3,272,000 | \$3,925,226 | \$58,397,707 | \$55,116,967 | \$3,745,201 | \$128,199,812 |

¹Includes motor vehicle license, property taxes, state and local non-taxes, sales tax, severance tax and other taxes.

²Includes estate and gift taxes, income taxes, motor vehicle license, property taxes and other taxes.

³Includes employee contribution and employer contribution.

Glossary

Industry Contribution Analysis (ICA) is a method used to estimate the value of an industry or group of industries in a region, at their current production levels. ICA identifies what industries and what level of production in these industries are being supported by the current activity of the target industry or industries in the region of study through its direct, indirect and induced effects.

Direct effects are the initial spending and immediate jobs coming into the economy resulting from the activity. For example, a sawmill buys raw materials from local forest owners, upgrades the equipment, pays wages to its employees and pays taxes to state and local governments.

Indirect effects are the changes in the production, labor, income and tax occurring in other industries within the study region that supply inputs to the industry under consideration. For example, if a sawmill sourced \$57,000 worth of pine sawtimber from a local forest owner and a log debarker of \$6,600 from a local machinery manufacturing company, these expenditures produce additional spending as forest owners begin replanting and the machinery company manufactures more equipment.

The **induced effect** is the summation of changes in household income due to the economic activity from the direct and indirect effects. For example, if employment in a machinery manufacturing company increases by 10 jobs, the new employees will have more money to spend on housing. As they spend their income, more economic activity occurs within the study region.

Output = intermediate inputs + value added

Value added = labor income + indirect business taxes + other property type income



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