

ECONOMIC IMPACT

ANALYSIS OF SC'S FORESTRY SECTOR, 2015



South Carolina
Forestry Commission

Contribution of Forests and Forests Products to the South Carolina Economy

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Abstract

This analysis builds on a previously published study by London (2015). Additional activity in forests-based recreation and forest products in South Carolina not accounted for in the study by London includes forest-based recreation, woody biomass energy, activity in pine straw, mulch, and firewood provision operations, nursery and tree growers (including Christmas tree growers), government activity directly in forests, blinds and shades production, and a variety of other relevant sectors. This additional economic activity is concentrated in forest-based recreation, forest-based biofuel activity, and a variety of other forest product industries such as mulch and pine straw producers. The total economic impact of activity in these unaccounted-for sectors is estimated to be 17,468 jobs, \$0.558 billion in labor income, \$1.005 billion in Gross State Product, and \$1.706 billion in output. Based on the values provided in the prior study, total activity in the forest and forest products is estimated at 90,320 jobs, \$4.481 billion in labor income, \$6.757 billion in Gross State Product, and \$18.573 billion in output.

Introduction

Forests and forest-based products (denoted here as forestry products) have a long history of making a substantial contribution to the well-being of South Carolina residents. A substantial part of that contribution is through economic activity based on both consumptive uses (such as harvesting trees for a variety of purposes) and non-consumptive uses (such as hiking and bird watching). Provided here are estimates of the economic impact of forestry products that were not included in a recently published analysis of South Carolina forestry products (as part of the agribusiness economy) (London, 2015). Like the earlier study, the analysis presented here uses an input-output model of the South Carolina economy based on the IMPLAN (Impact Planning) modeling system (Minnesota IMPLAN Group, Inc., 2000) for 2013.

Total Contribution Of The Forest Products And Forests System

Input-Output (I-O) analysis is commonly used by economists to measure the total impact of economic activity in a given sector of an economy. I-O models characterize economic linkages (sales and purchases) between all industries as well as between industries and other agents, such as households and government, in a formalized framework. As such, I-O analysis is especially useful in looking at the structure of a regional economy and the secondary effects that may spin off from an initial change in economic activity.

Forestry products make substantial contributions to state economic activity in terms of generating employment, income, and sales. Economic activity directly tied to forestry production and processing (a direct effect in input-output (I-O) models) shows only part of their contribution to the state economy because producers and processors of forestry-based products make purchases from a variety of other businesses located in South Carolina. These affected South Carolina businesses, in turn, buy products from other South Carolina businesses thereby generating additional sales (an indirect effect). Forestry-based producers and processors also make payments to workers that support spending by households on South Carolina products, thus setting off further rounds of economic activity that together form the induced effect. The sum of the direct, indirect, and induced effects provides an estimate of the total impact or multiplier effect of dollars injected by forestry-based producers into other sectors of the economy.

Impact analysis is a major use of input-output models. Relying on the multiplier effect, impact analysis can be used to show the effect of a particular change in demand for a given set of industries on total economic activity in the economy being modeled. Impact analysis can be used to assess the effects of a given policy on a regional economy. It can also be used to assess the contribution of a particular sector (or group of sectors) of the economy to total economic activity. It is this latter use that is applied in this study (Hughes, 2003).

A state I-O model was used to estimate the impact of various parts of state forestry products on total economic activity in South Carolina. The model was based on the IMPLAN (Impact Planning) modeling system (Minnesota IMPLAN Group, Inc., 2000) for 2013. Model results can be interpreted as an estimation of the effect on total economic activity in the state if the set of South Carolina forestry products industries ceased to exist. Or, results can be interpreted as the total contribution of the set of industries to economic activity in South Carolina. Hence, the impact analysis was a gauge of the importance of the set of industries in question to the overall South Carolina economy when all direct, indirect, and induced effects were accounted for. We focus on several key variables in assessing this contribution including employment (full-time and part-time jobs), total industry output (or sales), contribution to Gross State Product (or value added), and earned income (or labor income). Earned income is employee compensation, primarily in the form of wages and salaries, plus net profits to owner operators. Earned income is a key component of Gross State Product, which is comprised by returns to capital and labor. In this regard, Gross State Product includes returns to capital in the form of corporate profits, depreciations charges, and other accounting measures of corporate profitability (in addition to earned income). Certain types of taxes, such as sales taxes and excise taxes, are also included (also these have a small share of Gross State Product). Total industry output is the value of total output or total sales revenue.

A major component of our analysis centers on the consumptive use of trees or products from trees (such as

mulch) as a major input in the production process. Another major component is recreational activities by households in South Carolina forests. This activity is generally non-consumptive with respect to wood products, in that trees are not harvested to support such activities. In some cases, other natural resources produced by forests are consumed (such as hunting) while in other cases the activities are non-consumptive (such as hiking and bird watching). In some cases, the activity can be tied to service providers (such as guide services for hunting) while in other cases the activities are direct purchases by households tied to use of the forest-based resource (such as permits to use forest lands or camping gear).

Activities Included In This Modeling Effort

The appropriate activities included in this modeling effort are provided in Table 1. In our view these activities make an important contribution to the South Carolina economy and should be included in any assessment of the economic impact of forestry-products on the state economy. These activities include forest recreation, nursery and tree production, pine straw, mulch and soil conditions, firewood providers, and shavings mills producers. Electricity generated from woody biomass is a sector of growing importance while a wood-based laminate producer was also included in our economic impact analysis. Based on numerous other studies (Coronado et. al, 2015, for example), blinds and shades production were also included as were wood casket and mattresses production manufacturing in the state. Wholesale activity directly tied to South Carolina wood products was included as was relevant export activity and activity in appropriate government agencies.

Economic Impact Analysis

Economic impact analysis was conducted for each set of activities as denoted in Table 1. Although all sectors are important, the size of these impacts differed in terms of the contribution to the South Carolina economy.

FORESTRY-BASED RECREATION

Estimates of forestry-based recreation were based on a publication produced by the U.S. Fish and Wildlife Service regarding outdoor recreation in South Carolina. Analysis was limited to hunting and bird watching while fishing was excluded. Total spending estimates were translated into appropriate economic sectors and “marginizing” of expenditures was made for appropriate purchases.¹ While much of the total spending on SC forestry-based recreation leaked out of the state as imports (for example, camping equipment purchased by out-of-state residents was excluded as were our estimates of purchases by SC residents of a variety of goods produced elsewhere), the economic impact of such activity is significant. Based on our use of the SC IMPLAN model, we estimate that the total economic impact of such activity was 10,178 jobs, \$0.778 billion in output, \$0.461 billion in Gross State Product, and \$0.268 billion in labor income.

CHRISTMAS TREE PRODUCTION AND FOREST SERVICE PROVIDERS

Nursery and tree production (a major part of which is Christmas tree production) forms part of Greenhouse, nursery, and floriculture



1 Margining refers to “the process of applying margins. Margins are the value of the wholesale and retail trade services provided in delivering commodities from producers’ establishments to purchasers. Margin is calculated as sales receipts less the cost of goods sold. It consists of the trade margin plus sales taxes and excise taxes that are collected by the trade establishment” (Glossary, Thilmany et al., Forthcoming, 2015).

production sector (sector 6) in the IMPLAN model. To separate or delineate nursery and tree production from other activities in that sector, we used the estimate of employment and wages paid to employees for South Carolina as in 2013 (NAICS sector 111421, Nursery and tree production) as provided in the US Department of Labor, Quarterly Census of Employment and Wages (QCEW) data (2015).^{2,3} Because only businesses with employees are accounted for in QCEW data, this approach is a conservative estimate of activity in nursery and tree production. The direct economic impact due to nursery and tree production was 1,425 jobs and \$63.451 million in output (or 26.1% of all jobs and 26.1%% of all output in IMPLAN sector 6).

We also employed QCEW data to divide activity in IMPLAN sector 19, Support activities for agriculture and forestry, into businesses exclusively serving forestry-based activity (North American Industry Classification System (NAICS) 1153, Support activities for forestry). Based on this division, our estimate of direct activity in the forest products service providers was 1,341 jobs and \$55.755 million in output (versus \$27.879 million in output as reported by London).

FIREWOOD, MULCH AND SOIL CONDITIONERS, PINE STRAW AND SHAVINGS MILLS

Activity in these sectors was based on a list of various firms primarily provided by the personal with the S.C. Forestry Commission including the public database of secondary and primary wood products businesses in South Carolina. Industry level of economic activity (sales, employment, and value added) were also based on discussions with S.C. Forestry Commission personnel, the public database of primary and secondary product businesses (especially the S.C.

Forest Products Mill Directory) developed by the S.C. Forestry Commission (2013), a list of S.C. pine straw balers provided by the North Carolina Forest Service and web-based searches concerning the various businesses found in these activities. The levels of activities in our estimates were found to be consistent with estimates based on conversations with the businesses themselves. Based on our analysis, the total direct contribution of these sectors to economic activity was 396 jobs and \$111.737 million in output. For example, as part of this total, pine straw firms had a direct economic impact of \$11.0 million in sales.



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- 2 IMPLAN estimates are based on data provided by the U.S. Department of Commerce, Bureau of Economic Analysis. A core, or key, dataset underlying the BEA estimates is the QCEW data. According to the BLS, “the QCEW program produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Publicly available files include data on the number of establishments, monthly employment, and quarterly wages” by industry classification or type (U.S. Bureau of Labor Statistics, Overview). Accordingly, with the major exception of self-employed business proprietors, virtually all employment is covered by QCEW.
 - 3 Other components of IMPLAN sector 6 at the six-digit NAICS level include NAICS 111419 Other food crops grown under cover and NAICS 111422 Floriculture production.

WOODY BIOMASS PRODUCERS

Energy generated from biomass (wood and other sources) is a growing sector in the U.S. economy. Much of this energy is in the form of generated electricity. We employed our knowledge of the South Carolina economy, discussions with S.C. Forestry Commission personnel, the secondary SC Forest Products Mill Directory, and web searches of appropriate company websites and public records to estimate employment and sales for South Carolina businesses that generate electricity from woody biomass (all forestry-based in South Carolina) for market sale and their resulting impact on the state economy. Based on IMPLAN sector, Electric power generation – Biomass (47), these values were used to estimate the direct contribution of woody biomass energy production to the state economy of 115 jobs and \$111.442 million in output.

BLINDS AND SHADES, WOOD-LAMINATE, WOOD CASKET AND MATTRESSES

Based on the standard approach taken in other studies (for example see Coronado et al.,) we included Mattresses manufacturing (IMPLAN sector 377) and Blind and shade manufacturing (IMPLAN sector 378). A wood-based laminates firm was also identified and included in the analysis as was wood casket manufacturing. Value provided in the 2013 South Carolina IMPLAN model were employed to estimate the impacts of blind and shade and mattress manufacturing and a county-level data from IMPLAN provided an estimate concerning the economic impact of the wood-based laminate operation. Sales estimates for wood casket manufacturing was estimated based on employment and wage data found in QCEW for 2013 in South Carolina. Together, this set of activities had a direct economic impact on the state economy of 810 jobs and \$254.094 million.

FORESTRY-BASED PRODUCTS EXPORTS AND WHOLESALE ACTIVITY

Data taken from a study regarding the economic impact of port activity at the Charleston Harbor (Wilbur Smith Associates, Inc., 2008) published data regarding the composition of exports by industry type combined with estimates from our IMPLAN regarding foreign exports by wood products sectors were used to estimate the impact of port activity due to S.C. wood product firms. Also, wholesale activity estimates were based on detailed data found in the QCEW database (NAICS 423310 Lumber



and wood merchant wholesalers) for South Carolina in 2013 that allowed for allocating wholesale services to wood products. IMPLAN model-based estimates of the degree to which wood products demand in South Carolina was met by South Carolina production was used to allocate lumber and wood wholesale activity to in-state production.

FORESTRY-RELATED FEDERAL GOVERNMENT, STATE GOVERNMENT, AND UNIVERSITY ACTIVITY

Published data provided by the S.C. Forestry Commission, U.S. Forest Service, and from public records regarding Clemson University, were used to estimate the contribution of government-based forestry activity to the state economy (U.S. Forest Service, 2010, 2013, and 2015; South Carolina Forestry Commission, 2014). Also included were payments by U.S. Forest Service for local school systems and roads in South Carolina counties where the U.S. Forest Service is a major landowner. Together, this set of activities had a direct economic impact on the state economy of \$57.772 million in total spending and 556 direct jobs.

Total Economic Impact

We accounted for all the previously discussed sectors and activities in our analysis of the total, multiplier base contribution based on our 2013 economic model of the South Carolina economy. The total (i.e., direct, indirect, and induced) economic impact of activity in these unaccounted for sectors is estimated to be 17,468 jobs, \$0.558 billion in labor income, \$1.005 billion in Gross State Product, and \$1.706 billion in output. The resulting details of the impacts are provided in Table 2. Added to the values as calculated in the prior study by London (slightly adjusted to avoid double counting in certain sectors) we estimate that the total contribution of forestry and forest-products to the South Carolina economy to be 90,320 jobs, \$4.481 billion in labor income, \$6.757 billion in Gross State Product, and 18.573 billion in output.

Employment impacts were concentrated in Full-service restaurants (IMPLAN sector 501) at 1,945 jobs, Limited-service restaurants (502), Greenhouse, nursery, and floriculture production (6) at 1,453 jobs, and Support activities for agriculture and forestry (19). Labor income, Gross State Product, and output impacts were concentrated in Wholesale Trade (395), Full-service restaurants (501), Limited-service restaurants (502), Sporting goods, hobby, musical instrument and book stores (404), and Hotels and motels (499). For example, Hotel and motels had economic impacts of \$37.307 million in labor income, \$74.959 million in Gross State Product and \$119.961 million in output while Retail - Sporting goods, hobby, musical instrument and book stores (404) had an impact of \$73.537 million in output.

We also divided model results into the four major categories of natural-resources-based industries (IMPLAN Sectors 1-67), Manufacture (65-394), Trade (395-416), and Services (417-539) as shown in Figure 1 through Figure 4. Recalling that most traditional forestry-based manufacturing is included in the study by London, economic impacts evaluated in this study were most concentrated in Services, with 9,740 (55.8% of all jobs impacts) of jobs, 53.5% (\$297.635 million) of labor income, \$531.771 million (52.9%) of Gross State Product, and \$842.668 million (49.4%) of output. Relatively large levels of impacts were also found in Trade at 3,961 jobs (22.7% of all jobs impacts) and Natural resources at 3,239 jobs and \$187.513 million in output. On the hand, the impacts on manufacturing in the state were relatively small (at only 3.0% of all job impacts). The Services and Trade orientation of the impacts were large part reflective of the importance of recreational uses of S.C. forest in our analysis.

Summary And Conclusions

This analysis is an extension of previous work that examined the contribution of forestry-based products to the South Carolina economy. Activity in forests-based recreation and forest products in South Carolina evaluated in this study includes forest-based recreation, woody biomass energy, activity in pine straw, mulch, and firewood provision operations, nursery and tree growers, government activity directly in forests, blind and shades production, and a variety of other relevant sectors. The total economic impact of all of this additional activity is estimated to be 17,468 jobs, \$0.558 billion in labor income, \$1.005 billion in Gross State Product, and \$1.706 billion in output. Much of the activity is concentrated in service activities followed by trade and natural resource-oriented sectors. The largest contributor to economic activity evaluated here was recreational uses of S.C. forests. Based on the values provided in the prior study by London, we estimate that the total contribution of forest and forest products to the South Carolina economy is 90,320 jobs, \$4.481 billion in labor income, \$6.757 billion in Gross State Product, and 18.573 billion in output.

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Appendices

Table 1. Forestry-Related Industries Included in This Study.

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1. Forest-based recreation
 2. Nursery and tree production (including Christmas trees)
 3. Forestry-related service providers¹
 4. Firewood, Mulch and soil conditioners, Pine straw, and shavings mills producers
 5. Woody biomass energy production
 6. Wood-based laminates
 7. Mattresses production
 8. Blinds and shades production
 9. Wood casket and Wood musical instrument manufacturing
 10. South Carolina-based forestry product export activity
 11. South Carolina wood-based wholesale activity
 12. Forestry-related Federal Government, State Government, and University activity (US Forest Service , SC Forestry Commission and Clemson University forestry-related activity including payments by US Forest service to local government)
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¹Estimate differs from London study.

Table 2. Economic Impact of Evaluated Forestry-Based Products on the South Carolina Economy.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
Total	17,468	558,363,138	1,005,123,931	1,705,660,089
1 Oilseed farming	0	4,274	9,990	15,769
2 Grain farming	1	3,286	-92	89,825
3 Vegetable and melon farming	2	63,859	124,015	150,089
4 Fruit farming	4	50,641	81,827	102,053
5 Tree nut farming	0	3,840	7,808	9,445
6 Greenhouse, nursery, and floriculture production	1,453	32,518,788	47,592,368	65,568,532
7 Tobacco farming	0	7,518	12,304	19,521
8 Cotton farming	0	21,119	40,165	64,095
9 Sugarcane and sugar beet farming	0	0	0	0
10 All other crop farming	4	74,423	123,355	202,490
11 Beef cattle ranching and farming, including feedlots, dual-purpose operations	1	24,276	55,415	134,471
12 Dairy cattle and milk production	1	19,147	37,113	80,429
13 Poultry and egg production	4	113,507	239,194	721,856
14 Animal production, except cattle and poultry and eggs	5	101,773	227,843	253,806
15 Forestry, forest products, and timber tract production	2	80,919	86,019	312,213
16 Commercial logging	116	6,127,643	6,490,330	11,194,640
17 Commercial fishing	1	5,203	10,206	26,376
18 Commercial hunting and trapping	1	19,734	25,764	53,585
19 Support activities for agriculture and forestry	1,394	41,976,184	45,430,418	60,464,554
20 Extraction of natural gas and crude petroleum	1	16,015	677,315	830,746
21 Extraction of natural gas liquids	1	9,769	25,459	129,827
22 Coal mining	0	0	0	0
23 Iron ore mining	0	37	245	282
24 Gold ore mining	0	265	930	1,179
25 Silver ore mining	0	0	0	0
26 Lead and zinc ore mining	0	0	0	0
27 Copper ore mining	0	0	0	0
28 Uranium-radium-vanadium ore mining	0	0	0	0
29 Other metal ore mining	0	0	0	0
30 Stone mining and quarrying	1	31,484	136,925	188,922
31 Sand and gravel mining	0	17,102	36,153	74,648
32 Other clay, ceramic, refractory minerals mining	0	992	1,162	3,368
33 Potash, soda, and borate mineral mining	0	1,111	3,065	5,502
34 Phosphate rock mining	0	0	0	0
35 Other chemical and fertilizer mineral mining	0	155	542	908
36 Other nonmetallic minerals	0	3,084	5,503	10,940
37 Drilling oil and gas wells	0	48	86	407
38 Support activities for oil and gas operations	0	6,924	9,269	22,575
39 Metal mining services	0	2,591	2,702	3,784
40 Other nonmetallic minerals services	0	362	392	631
41 Electric power generation - Hydroelectric	0	25,584	85,852	144,796
42 Electric power generation - Fossil fuel	5	593,677	2,817,471	5,319,973
43 Electric power generation - Nuclear	5	787,156	2,124,066	3,086,190
44 Electric power generation - Solar	0	24	49	54
45 Electric power generation - Wind	0	0	0	0
46 Electric power generation - Geothermal	0	15	77	97
47 Electric power generation - Biomass	115	6,618,983	72,816,590	115,797,164
48 Electric power generation - All other	0	94	254	419
49 Electric power transmission and distribution	10	961,265	1,703,044	11,469,841

Note: sectors in bold had direct impacts.

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
50 Natural gas distribution	1	84,994	206,468	363,358
51 Water, sewage and other systems	2	113,050	247,671	426,777
52 Construction of new health care structures	0	3,502	3,589	11,960
53 Construction of new manufacturing structures	0	178	180	388
54 Construction of new power and communication structures	0	7,075	7,510	18,600
55 Construction of new educational and vocational structures	1	28,455	29,151	108,819
56 Construction of new highways and streets	1	39,448	40,579	151,620
57 Construction of new commercial structures, including farm structures	0	4,098	4,280	10,640
58 Construction of other new nonresidential structures	1	46,898	49,660	135,732
59 Construction of new single-family residential structures	0	239	251	666
60 Construction of new multifamily residential structures	0	1,888	1,901	6,276
61 Construction of other new residential structures	0	204	209	943
62 Maintenance and repair construction of nonresidential structures	79	4,188,682	4,365,671	12,926,878
63 Maintenance and repair construction of residential structures	22	1,162,489	1,176,060	3,873,258
64 Maintenance and repair construction of highways, streets, bridges, and tunnels	6	331,031	338,916	1,021,372
65 Dog and cat food manufacturing	0	9,564	49,783	192,828
66 Other animal food manufacturing	0	3,655	11,677	131,794
67 Flour milling	0	4,230	14,155	103,252
68 Rice milling	0	0	0	0
69 Malt manufacturing	0	0	0	0
70 Wet corn milling	0	2,841	11,738	65,359
71 Soybean and other oilseed processing	0	1,139	5,172	80,078
72 Fats and oils refining and blending	0	16	40	421
73 Breakfast cereal manufacturing	0	0	0	0
74 Beet sugar manufacturing	0	368	1,538	11,821
75 Sugar cane mills and refining	0	0	0	0
76 Nonchocolate confectionery manufacturing	0	893	1,859	9,113
77 Chocolate and confectionery manufacturing from cacao beans	0	302	1,006	4,912
78 Confectionery manufacturing from purchased chocolate	0	86	190	2,174
79 Frozen fruits, juices and vegetables manufacturing	0	108	187	717
80 Frozen specialties manufacturing	1	43,543	59,702	320,078
81 Canned fruits and vegetables manufacturing	0	22,849	36,793	167,878
82 Canned specialties	0	0	0	0
83 Dehydrated food products manufacturing	0	0	0	0
84 Fluid milk manufacturing	1	34,087	68,107	433,719
85 Creamery butter manufacturing	0	0	0	0
86 Cheese manufacturing	0	483	916	10,508
87 Dry, condensed, and evaporated dairy product manufacturing	0	0	0	0
88 Ice cream and frozen dessert manufacturing	0	488	976	8,160
89 Animal, except poultry, slaughtering	1	43,820	109,150	807,548
90 Meat processed from carcasses	0	14,608	24,478	160,283
91 Rendering and meat byproduct processing	0	7,845	12,529	60,138
92 Poultry processing	6	214,983	280,657	1,537,922
93 Seafood product preparation and packaging	0	1,069	1,223	7,829
94 Bread and bakery product, except frozen, manufacturing	3	88,693	132,433	311,955
95 Frozen cakes and other pastries manufacturing	0	4,580	9,583	31,061
96 Cookie and cracker manufacturing	0	2,929	6,555	21,822
97 Dry pasta, mixes, and dough manufacturing	0	8,154	26,234	89,363
98 Tortilla manufacturing	0	432	694	2,490
99 Roasted nuts and peanut butter manufacturing	0	2,227	11,820	36,332

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
100 Other snack food manufacturing	0	1,894	9,008	30,285
101 Coffee and tea manufacturing	0	10,381	26,746	129,912
102 Flavoring syrup and concentrate manufacturing	0	0	0	0
103 Mayonnaise, dressing, and sauce manufacturing	0	5,248	15,011	69,687
104 Spice and extract manufacturing	0	2,615	4,823	23,047
105 All other food manufacturing	0	2,598	3,757	20,333
106 Bottled and canned soft drinks & water	3	210,010	565,275	2,563,868
107 Manufactured ice	0	13,764	10,644	40,057
108 Breweries	0	5,380	46,441	126,898
109 Wineries	0	4,053	11,062	51,267
110 Distilleries	0	414	11,450	15,979
111 Tobacco product manufacturing	0	0	0	0
112 Fiber, yarn, and thread mills	1	63,636	71,960	439,374
113 Broadwoven fabric mills	14	676,274	763,540	3,339,920
114 Narrow fabric mills and schiffli machine embroidery	0	8,196	8,558	28,611
115 Nonwoven fabric mills	0	29,699	42,324	181,959
116 Knit fabric mills	0	2,445	2,621	12,268
117 Textile and fabric finishing mills	1	31,700	34,738	147,499
118 Fabric coating mills	0	24,078	26,491	127,513
119 Carpet and rug mills	1	31,521	32,697	177,168
120 Curtain and linen mills	0	8,117	9,643	29,474
121 Textile bag and canvas mills	0	11,607	12,192	35,134
122 Rope, cordage, twine, tire cord and tire fabric mills	0	3,185	3,446	11,312
123 Other textile product mills	0	23,433	24,615	63,335
124 Hosiery and sock mills	0	932	988	1,881
125 Other apparel knitting mills	0	1,378	1,495	3,533
126 Cut and sew apparel contractors	0	7,156	7,418	14,298
127 Mens and boys cut and sew apparel manufacturing	0	1,349	1,434	3,324
128 Womens and girls cut and sew apparel manufacturing	0	794	1,018	6,075
129 Other cut and sew apparel manufacturing	0	3,036	3,268	8,518
130 Apparel accessories and other apparel manufacturing	0	4,256	4,542	11,063
131 Leather and hide tanning and finishing	0	2	3	71
132 Footwear manufacturing	0	55	66	1,134
133 Other leather and allied product manufacturing	0	74	80	682
134 Sawmills	2	96,290	101,315	445,250
135 Wood preservation	0	15,674	20,375	120,046
136 Veneer and plywood manufacturing	1	28,298	33,254	127,515
137 Engineered wood member and truss manufacturing	0	11,144	10,668	35,514
138 Reconstituted wood product manufacturing	0	17,833	26,278	100,187
139 Wood windows and door manufacturing	1	58,176	61,228	187,295
140 Cut stock, resawing lumber, and planing	0	8,255	9,387	48,074
141 Other millwork, including flooring	1	41,896	43,754	165,534
142 Wood container and pallet manufacturing	1	23,951	24,474	87,940
143 Manufactured home (mobile home) manufacturing	0	0	0	0
144 Prefabricated wood building manufacturing	0	4,911	5,060	16,717
145 All other miscellaneous wood product manufacturing	1	56,125	58,714	225,719
146 Pulp mills	0	235	256	1,496
147 Paper mills	1	82,994	99,024	570,064
148 Paperboard mills	0	26,988	29,911	193,647
149 Paperboard container manufacturing	1	106,617	124,265	563,597

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
150 Paper bag and coated and treated paper manufacturing	1	60,356	72,903	325,460
151 Stationery product manufacturing	0	23,395	24,837	111,245
152 Sanitary paper product manufacturing	1	52,982	119,048	486,813
153 All other converted paper product manufacturing	0	9,860	10,048	44,255
154 Printing	15	658,436	896,407	2,221,718
155 Support activities for printing	0	6,206	6,301	12,017
156 Petroleum refineries	0	14,435	58,873	962,562
157 Asphalt paving mixture and block manufacturing	0	11,711	12,421	109,792
158 Asphalt shingle and coating materials manufacturing	0	582	634	4,924
159 Petroleum lubricating oil and grease manufacturing	0	30,823	39,049	400,432
160 All other petroleum and coal products manufacturing	0	0	0	0
161 Petrochemical manufacturing	0	10,582	64,046	582,231
162 Industrial gas manufacturing	1	69,742	167,546	773,474
163 Synthetic dye and pigment manufacturing	0	5,887	12,287	57,084
164 Other basic inorganic chemical manufacturing	0	51,483	114,695	404,350
165 Other basic organic chemical manufacturing	0	5,327	9,594	124,837
166 Plastics material and resin manufacturing	0	37,362	46,306	513,571
167 Synthetic rubber manufacturing	0	503	551	6,459
168 Artificial and synthetic fibers and filaments manufacturing	0	36,340	48,895	363,070
169 Nitrogenous fertilizer manufacturing	0	11,068	33,644	305,299
170 Phosphatic fertilizer manufacturing	0	0	0	0
171 Fertilizer mixing	0	7,318	12,049	80,112
172 Pesticide and other agricultural chemical manufacturing	0	4,684	17,761	97,121
173 Medicinal and botanical manufacturing	0	11	20	51
174 Pharmaceutical preparation manufacturing	0	36,173	122,059	440,252
175 In-vitro diagnostic substance manufacturing	0	140	215	418
176 Biological product (except diagnostic) manufacturing	0	272	580	1,168
177 Paint and coating manufacturing	0	12,293	24,185	95,472
178 Adhesive manufacturing	0	4,950	8,071	39,788
179 Soap and other detergent manufacturing	0	1,746	8,773	29,246
180 Polish and other sanitation good manufacturing	0	26,537	73,268	286,194
181 Surface active agent manufacturing	0	6,061	33,158	107,628
182 Toilet preparation manufacturing	0	480	1,739	5,808
183 Printing ink manufacturing	0	2,181	3,363	13,079
184 Explosives manufacturing	0	0	0	0
185 Custom compounding of purchased resins	0	1,744	3,293	11,000
186 Photographic film and chemical manufacturing	0	9,721	15,817	65,168
187 Other miscellaneous chemical product manufacturing	0	23,518	39,370	169,640
188 Plastics packaging materials and unlaminated film and sheet manufacturing	3	241,765	576,214	1,371,758
189 Unlaminated plastics profile shape manufacturing	1	75,370	167,105	376,492
190 Plastics pipe and pipe fitting manufacturing	0	4,893	17,047	48,443
191 Laminated plastics plate, sheet (except packaging), and shape manufact	141	7,625,228	21,162,808	46,218,923
192 Polystyrene foam product manufacturing	0	13,721	38,190	109,514
193 Urethane and other foam product (except polystyrene) manufacturing	3	133,569	295,073	927,378
194 Plastics bottle manufacturing	0	6,196	17,163	47,690
195 Other plastics product manufacturing	1	78,023	115,257	371,060
196 Tire manufacturing	1	48,557	111,491	409,986
197 Rubber and plastics hoses and belting manufacturing	0	3,645	7,928	19,730
198 Other rubber product manufacturing	2	190,217	404,228	772,810
199 Pottery, ceramics, and plumbing fixture manufacturing	0	6,665	10,026	20,838

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output	
		\$	\$	\$	
200	Brick, tile, and other structural clay product manufacturing	0	13,840	26,462	67,724
201	Flat glass manufacturing	0	588	1,095	2,347
202	Other pressed and blown glass and glassware manufacturing	0	24,465	35,169	95,038
203	Glass container manufacturing	0	0	0	0
204	Glass product manufacturing made of purchased glass	0	1,207	1,887	6,940
205	Cement manufacturing	0	18,942	48,165	110,024
206	Ready-mix concrete manufacturing	1	66,820	92,314	346,241
207	Concrete block and brick manufacturing	0	15,753	31,681	80,945
208	Concrete pipe manufacturing	0	2,727	4,785	12,427
209	Other concrete product manufacturing	1	51,295	72,431	178,923
210	Lime manufacturing	0	309	666	2,205
211	Gypsum product manufacturing	0	4,920	10,315	33,321
212	Abrasive product manufacturing	0	4,411	11,782	27,962
213	Cut stone and stone product manufacturing	0	8,093	10,513	26,375
214	Ground or treated mineral and earth manufacturing	0	788	1,910	5,544
215	Mineral wool manufacturing	0	3,112	6,820	15,785
216	Miscellaneous nonmetallic mineral products manufacturing	0	1,323	3,205	8,729
217	Iron and steel mills and ferroalloy manufacturing	0	14,683	31,814	160,808
218	Iron, steel pipe and tube manufacturing from purchased steel	0	701	778	4,735
219	Rolled steel shape manufacturing	0	16,410	34,239	148,252
220	Steel wire drawing	0	16,207	16,968	87,192
221	Alumina refining and primary aluminum production	0	4,690	5,487	30,453
222	Secondary smelting and alloying of aluminum	0	79	89	966
223	Aluminum sheet, plate, and foil manufacturing	0	2,069	2,248	20,323
224	Other aluminum rolling, drawing and extruding	0	1,001	1,041	6,818
225	Nonferrous metal (exc aluminum) smelting and refining	0	17	35	281
226	Copper rolling, drawing, extruding and alloying	0	95	200	1,393
227	Nonferrous metal, except copper and aluminum, shaping	0	1,173	1,373	6,404
228	Secondary processing of other nonferrous metals	0	1,628	6,061	29,815
229	Ferrous metal foundries	0	312	418	1,626
230	Nonferrous metal foundries	0	1,249	1,379	4,605
231	Iron and steel forging	0	1,768	2,946	11,260
232	Nonferrous forging	0	653	994	3,578
233	Custom roll forming	0	3,088	3,305	18,300
234	Crown and closure manufacturing and metal stamping	0	9,535	11,591	36,715
235	Cutlery, utensil, pot, and pan manufacturing	0	217	574	2,417
236	Handtool manufacturing	0	1,532	2,152	5,427
237	Prefabricated metal buildings and components manufacturing	0	3,050	3,689	11,987
238	Fabricated structural metal manufacturing	0	21,975	29,458	98,828
239	Plate work manufacturing	0	5,229	5,439	16,155
240	Metal window and door manufacturing	0	3,566	4,444	16,916
241	Sheet metal work manufacturing	0	7,334	7,912	27,273
242	Ornamental and architectural metal work manufacturing	0	5,708	5,966	21,757
243	Power boiler and heat exchanger manufacturing	0	816	1,145	2,287
244	Metal tank (heavy gauge) manufacturing	0	1,044	1,393	4,281
245	Metal cans manufacturing	0	1,311	2,288	18,052
246	Metal barrels, drums and pails manufacturing	0	360	375	2,063
247	Hardware manufacturing	0	8,236	11,145	39,101
248	Spring and wire product manufacturing	11	635,498	758,802	2,378,910
249	Machine shops	1	82,524	95,252	219,407

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output	
		\$	\$	\$	
250	Turned product and screw, nut, and bolt manufacturing	0	1,787	2,555	6,223
251	Metal heat treating	0	11,851	17,996	46,479
252	Metal coating and nonprecious engraving	0	25,482	39,358	104,241
253	Electroplating, anodizing, and coloring metal	0	24,978	26,016	62,633
254	Valve and fittings, other than plumbing, manufacturing	0	4,451	7,002	21,575
255	Plumbing fixture fitting and trim manufacturing	0	7,488	17,335	67,890
256	Ball and roller bearing manufacturing	0	6,076	10,865	29,666
257	Small arms ammunition manufacturing	0	194	321	801
258	Ammunition, except for small arms, manufacturing	0	369	562	1,166
259	Small arms, ordnance, and accessories manufacturing	0	4,089	7,517	18,330
260	Fabricated pipe and pipe fitting manufacturing	0	12,508	15,698	46,124
261	Other fabricated metal manufacturing	1	39,360	49,042	140,229
262	Farm machinery and equipment manufacturing	0	625	1,662	7,916
263	Lawn and garden equipment manufacturing	0	1,955	3,480	27,728
264	Construction machinery manufacturing	0	561	1,217	6,691
265	Mining machinery and equipment manufacturing	0	138	215	1,044
266	Oil and gas field machinery and equipment manufacturing	0	98	142	771
267	Food product machinery manufacturing	0	207	240	1,183
268	Semiconductor machinery manufacturing	0	0	0	0
269	Sawmill, woodworking, and paper machinery	0	47	50	189
270	Printing machinery and equipment manufacturing	0	160	169	739
271	All other industrial machinery manufacturing	0	495	577	1,751
272	Optical instrument and lens manufacturing	0	38	52	129
273	Photographic and photocopying equipment manufacturing	0	312	446	1,457
274	Other commercial service industry machinery manufacturing	0	3,887	6,386	21,165
275	Air purification and ventilation equipment manufacturing	0	397	577	1,538
276	Heating equipment (except warm air furnaces) manufacturing	0	1,499	1,687	8,280
277	Air conditioning, refrigeration, and warm air heating equipment manufacturing	0	5,321	7,833	31,645
278	Industrial mold manufacturing	0	202	231	549
279	Special tool, die, jig, and fixture manufacturing	0	165	189	929
280	Cutting tool and machine tool accessory manufacturing	0	2,350	2,436	6,677
281	Machine tool manufacturing	0	281	438	1,140
282	Rolling mill and other metalworking machinery manufacturing	0	86	101	285
283	Turbine and turbine generator set units manufacturing	0	7,086	10,792	33,837
284	Speed changer, industrial high-speed drive, and gear manufacturing	0	980	1,248	3,666
285	Mechanical power transmission equipment manufacturing	0	164	230	696
286	Other engine equipment manufacturing	0	503	1,013	5,821
287	Pump and pumping equipment manufacturing	0	892	1,567	4,611
288	Air and gas compressor manufacturing	0	302	480	1,692
289	Measuring and dispensing pump manufacturing	0	0	0	0
290	Elevator and moving stairway manufacturing	0	10	11	33
291	Conveyor and conveying equipment manufacturing	0	999	1,283	3,675
292	Overhead cranes, hoists, and monorail systems manufacturing	0	208	324	1,169
293	Industrial truck, trailer, and stacker manufacturing	0	675	1,141	4,765
294	Power-driven handtool manufacturing	0	14,799	34,098	101,567
295	Welding and soldering equipment manufacturing	0	252	302	964
296	Packaging machinery manufacturing	0	333	380	1,073
297	Industrial process furnace and oven manufacturing	0	54	59	177
298	Fluid power cylinder and actuator manufacturing	0	127	135	471
299	Fluid power pump and motor manufacturing	0	377	535	2,126

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
300 Scales, balances, and miscellaneous general purpose machinery manufacturing	0	350	444	1,558
301 Electronic computer manufacturing	0	1,592	2,896	16,254
302 Computer storage device manufacturing	0	0	0	0
303 Computer terminals and other computer peripheral equipment manufacturing	0	2,306	3,627	12,867
304 Telephone apparatus manufacturing	0	116	178	646
305 Broadcast and wireless communications equipment manufacturing	0	330	465	1,417
306 Other communications equipment manufacturing	0	1,386	1,883	6,589
307 Audio and video equipment manufacturing	0	1,432	1,846	8,410
308 Bare printed circuit board manufacturing	0	363	500	1,609
309 Semiconductor and related device manufacturing	0	1,851	4,851	19,648
310 Capacitor, resistor, coil, transformer, and other inductor manufacturing	0	2,081	2,798	5,760
311 Electronic connector manufacturing	0	148	224	842
312 Printed circuit assembly (electronic assembly) manufacturing	0	934	970	4,671
313 Other electronic component manufacturing	0	1,029	1,263	4,076
314 Electromedical and electrotherapeutic apparatus manufacturing	0	1,008	1,688	4,743
315 Search, detection, and navigation instruments manufacturing	0	14	21	57
316 Automatic environmental control manufacturing	0	389	479	1,482
317 Industrial process variable instruments manufacturing	0	209	293	886
318 Totalizing fluid meter and counting device manufacturing	0	2,140	3,508	12,873
319 Electricity and signal testing instruments manufacturing	0	13	14	93
320 Analytical laboratory instrument manufacturing	0	321	403	1,577
321 Irradiation apparatus manufacturing	0	10	15	57
322 Watch, clock, and other measuring and controlling device manufacturing	0	649	949	2,355
323 Blank magnetic and optical recording media manufacturing	0	0	0	0
324 Software and other prerecorded and record reproducing	0	97	138	845
325 Electric lamp bulb and part manufacturing	0	1,089	1,516	4,412
326 Lighting fixture manufacturing	0	1,653	3,815	7,282
327 Small electrical appliance manufacturing	0	51	237	452
328 Household cooking appliance manufacturing	0	0	0	0
329 Household refrigerator and home freezer manufacturing	0	1,974	7,544	18,567
330 Household laundry equipment manufacturing	0	0	0	0
331 Other major household appliance manufacturing	0	519	2,068	5,496
332 Power, distribution, and specialty transformer manufacturing	0	398	710	2,035
333 Motor and generator manufacturing	0	969	2,068	6,328
334 Switchgear and switchboard apparatus manufacturing	0	4,727	10,967	25,229
335 Relay and industrial control manufacturing	0	5,239	11,194	26,026
336 Storage battery manufacturing	0	1,259	2,025	6,225
337 Primary battery manufacturing	0	10,476	50,257	108,394
338 Fiber optic cable manufacturing	0	8,260	8,977	32,725
339 Other communication and energy wire manufacturing	0	13,652	22,207	98,267
340 Wiring device manufacturing	0	6,184	18,684	34,614
341 Carbon and graphite product manufacturing	0	3,604	8,517	21,332
342 All other miscellaneous electrical equipment and component manufacturing	0	274	379	1,194
343 Automobile manufacturing	0	11,243	43,857	208,772
344 Light truck and utility vehicle manufacturing	0	0	0	0
345 Heavy duty truck manufacturing	0	44	84	670
346 Motor vehicle body manufacturing	0	269	299	1,829
347 Truck trailer manufacturing	0	8	10	51
348 Motor home manufacturing	0	0	0	0
349 Travel trailer and camper manufacturing	0	32,699	38,470	101,113

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
350 Motor vehicle gasoline engine and engine parts manufacturing	0	3,118	5,306	24,869
351 Motor vehicle electrical and electronic equipment manufacturing	0	14,445	23,056	91,443
352 Motor vehicle steering, suspension component (except spring), and brake sys	0	26,703	48,779	178,056
353 Motor vehicle transmission and power train parts manufacturing	0	1,507	2,557	12,436
354 Motor vehicle seating and interior trim manufacturing	0	432	672	3,070
355 Motor vehicle metal stamping	0	839	1,438	4,276
356 Other motor vehicle parts manufacturing	0	20,421	40,310	164,517
357 Aircraft manufacturing	0	2,756	4,587	17,597
358 Aircraft engine and engine parts manufacturing	0	588	675	3,094
359 Other aircraft parts and auxiliary equipment manufacturing	0	803	819	1,734
360 Guided missile and space vehicle manufacturing	0	0	0	0
361 Propulsion units and parts for space vehicles and guided missiles manufacturi	0	0	0	0
362 Railroad rolling stock manufacturing	0	802	843	7,023
363 Ship building and repairing	0	1,495	1,624	5,118
364 Boat building	0	7,237	7,688	37,111
365 Motorcycle, bicycle, and parts manufacturing	0	94	101	629
366 Military armored vehicle, tank, and tank component manufacturing	0	432	665	2,048
367 All other transportation equipment manufacturing	0	5,682	7,280	46,415
368 Wood kitchen cabinet and countertop manufacturing	0	13,070	14,913	43,410
369 Upholstered household furniture manufacturing	0	3,744	3,841	10,840
370 Nonupholstered wood household furniture manufacturing	0	2,294	3,250	9,367
371 Other household nonupholstered furniture manufacturing	0	734	923	4,416
372 Institutional furniture manufacturing	0	40	41	123
373 Wood office furniture manufacturing	0	65	83	403
374 Custom architectural woodwork and millwork	0	51	54	168
375 Office furniture, except wood, manufacturing	0	96	262	628
376 Showcase, partition, shelving, and locker manufacturing	0	5,385	7,588	22,680
377 Mattress manufacturing	221	7,301,065	12,648,975	76,299,754
378 Blind and shade manufacturing	27	676,165	720,382	3,612,591
379 Surgical and medical instrument manufacturing	0	4,718	8,176	17,794
380 Surgical appliance and supplies manufacturing	0	14,216	20,025	57,354
381 Dental equipment and supplies manufacturing	0	544	640	1,321
382 Ophthalmic goods manufacturing	0	589	674	2,498
383 Dental laboratories	0	5,427	5,491	9,724
384 Jewelry and silverware manufacturing	0	571	773	5,551
385 Sporting and athletic goods manufacturing	0	9,395	10,820	25,487
386 Doll, toy, and game manufacturing	0	1,731	2,100	7,966
387 Office supplies (except paper) manufacturing	0	3,797	4,710	14,659
388 Sign manufacturing	3	169,960	168,099	409,606
389 Gasket, packing, and sealing device manufacturing	0	17,649	19,435	53,588
390 Musical instrument manufacturing	0	566	519	1,320
391 Fasteners, buttons, needles, and pins manufacturing	0	23	25	71
392 Broom, brush, and mop manufacturing	0	8,224	12,640	33,807
393 Burial casket manufacturing	32	1,340,438	1,478,485	5,178,707
394 All other miscellaneous manufacturing	1	66,522	72,529	226,998
395 Wholesale trade	874	62,411,121	127,639,415	192,152,109
396 Retail - Motor vehicle and parts dealers	43	2,271,818	3,905,190	5,271,361
397 Retail - Furniture and home furnishings stores	18	571,125	967,514	1,649,467
398 Retail - Electronics and appliance stores	65	2,808,986	2,300,787	3,921,673
399 Retail - Building material and garden equipment and supplies stores	44	1,630,489	2,506,663	4,060,983

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
400 Retail - Food and beverage stores	97	2,631,103	3,928,812	6,164,175
401 Retail - Health and personal care stores	42	1,604,818	2,025,934	3,260,180
402 Retail - Gasoline stores	411	12,607,426	17,326,468	28,413,157
403 Retail - Clothing and clothing accessories stores	52	1,084,973	2,245,662	3,920,566
404 Retail - Sporting goods, hobby, musical instrument and book stores	1,376	26,928,553	43,482,441	73,536,795
405 Retail - General merchandise stores	117	3,141,038	5,025,587	8,117,648
406 Retail - Miscellaneous store retailers	456	8,172,013	9,389,787	15,772,891
407 Retail - Nonstore retailers	46	624,555	1,948,585	4,028,787
408 Air transportation	3	129,936	217,738	869,062
409 Rail transportation	4	409,486	451,452	1,194,200
410 Water transportation	19	881,908	1,981,869	13,787,254
411 Truck transportation	87	4,437,188	4,704,622	12,233,747
412 Transit and ground passenger transportation	10	325,597	394,685	691,075
413 Pipeline transportation	1	61,708	98,612	156,216
414 Scenic and sightseeing transportation and support activities for transportation	66	3,571,638	3,695,550	8,621,567
415 Couriers and messengers	53	1,811,794	1,872,089	4,094,777
416 Warehousing and storage	79	3,245,426	4,119,749	7,537,777
417 Newspaper publishers	22	862,323	1,154,102	2,461,710
418 Periodical publishers	3	165,848	265,658	781,673
419 Book publishers	1	81,410	309,780	584,745
420 Directory, mailing list, and other publishers	1	85,828	229,779	467,163
421 Greeting card publishing	0	0	0	0
422 Software publishers	5	459,474	769,714	1,430,846
423 Motion picture and video industries	5	104,017	338,524	820,832
424 Sound recording industries	0	21,668	166,672	220,609
425 Radio and television broadcasting	19	1,676,979	1,771,807	4,331,083
426 Cable and other subscription programming	1	63,876	87,887	331,975
427 Wired telecommunications carriers	28	1,763,524	4,320,763	11,067,178
428 Wireless telecommunications carriers (except satellite)	9	504,347	1,943,461	7,000,087
429 Satellite, telecommunications resellers, and all other telecommunications	2	141,629	160,966	362,902
430 Data processing, hosting, and related services	11	824,288	1,147,244	2,977,169
431 News syndicates, libraries, archives and all other information services	1	49,146	328,225	741,895
432 Internet publishing and broadcasting and web search portals	3	269,724	427,645	1,985,830
433 Monetary authorities and depository credit intermediation	8	712,881	31,570,712	32,321,905
434 Nondepository credit intermediation and related activities	39	3,258,162	3,773,727	6,780,027
435 Securities and commodity contracts intermediation and brokerage	25	701,210	613,099	1,849,897
436 Other financial investment activities	15	259,778	330,264	2,511,912
437 Insurance carriers	77	4,657,188	8,389,037	19,930,689
438 Insurance agencies, brokerages, and related activities	56	2,786,018	3,571,294	8,835,616
439 Funds, trusts, and other financial vehicles	17	509,504	514,401	1,906,804
440 Real estate	565	7,178,990	61,606,997	81,804,693
441 Owner-occupied dwellings	0	0	32,684,732	45,635,498
442 Automotive equipment rental and leasing	10	405,810	1,625,495	2,332,056
443 General and consumer goods rental except video tapes and discs	241	10,503,652	15,321,724	21,546,313
444 Video tape and disc rental	1	15,187	84,692	109,549
445 Commercial and industrial machinery and equipment rental and leasing	5	439,134	1,579,257	1,972,337
446 Lessors of nonfinancial intangible assets	1	33,952	1,104,770	2,323,363
447 Legal services	67	4,095,858	5,556,713	8,335,365
448 Accounting, tax preparation, bookkeeping, and payroll services	63	2,792,404	3,708,929	4,847,930
449 Architectural, engineering, and related services	39	2,948,595	2,689,409	4,971,240

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
450 Specialized design services	4	137,990	333,804	536,287
451 Custom computer programming services	1	63,660	71,099	121,752
452 Computer systems design services	18	1,480,101	1,308,736	1,955,178
453 Other computer related services, including facilities management	9	738,372	750,752	1,230,404
454 Management consulting services	53	3,170,435	3,211,086	5,904,746
455 Environmental and other technical consulting services	7	549,256	487,273	744,127
456 Scientific research and development services	1	89,083	96,489	249,563
457 Advertising, public relations, and related services	63	2,255,538	5,196,536	9,690,388
458 Photographic services	3	51,384	182,718	329,746
459 Veterinary services	15	470,106	476,603	982,260
460 Marketing research and all other miscellaneous professional, scientific, and technical services	13	698,456	2,369,261	3,404,908
461 Management of companies and enterprises	65	5,244,295	6,162,173	12,200,586
462 Office administrative services	25	1,328,216	1,359,425	1,847,994
463 Facilities support services	4	396,785	517,005	831,661
464 Employment services	236	6,967,259	8,228,482	10,244,046
465 Business support services	67	2,000,046	2,070,101	3,473,491
466 Travel arrangement and reservation services	7	318,556	432,679	971,923
467 Investigation and security services	52	1,553,249	1,632,281	2,257,147
468 Services to buildings	108	2,412,956	3,381,482	5,327,488
469 Landscape and horticultural services	140	4,046,764	5,143,796	8,031,890
470 Other support services	12	378,402	410,508	904,840
471 Waste management and remediation services	24	2,118,482	3,013,877	5,686,126
472 Elementary and secondary schools	26	709,631	643,703	1,018,458
473 Junior colleges, colleges, universities, and professional schools	37	1,232,470	1,487,644	2,883,413
474 Other educational services	25	629,647	601,852	1,079,772
475 Offices of physicians	95	8,680,175	7,786,056	11,688,823
476 Offices of dentists	31	1,840,930	2,692,979	3,921,889
477 Offices of other health practitioners	23	1,007,875	2,237,973	2,981,393
478 Outpatient care centers	13	756,421	989,287	1,898,745
479 Medical and diagnostic laboratories	8	482,222	449,218	709,588
480 Home health care services	33	1,111,619	1,047,947	1,520,870
481 Other ambulatory health care services	11	406,498	435,522	840,137
482 Hospitals	90	5,807,490	6,033,432	11,574,863
483 Nursing and community care facilities	77	2,591,888	2,868,178	4,709,798
484 Residential mental retardation, mental health, substance abuse and other facilities	17	518,160	531,325	785,928
485 Individual and family services	44	886,530	896,843	1,508,205
486 Community food, housing, and other relief services, including rehabilitation services	14	359,091	362,621	803,032
487 Child day care services	29	557,329	564,360	1,202,735
488 Performing arts companies	24	258,504	413,825	1,094,132
489 Commercial Sports Except Racing	11	152,624	122,528	269,013
490 Racing and Track Operation	1	11,774	22,737	32,133
491 Promoters of performing arts and sports and agents for public figures	25	209,813	276,981	1,028,457
492 Independent artists, writers, and performers	4	76,175	145,390	410,974
493 Museums, historical sites, zoos, and parks	3	90,036	95,542	255,903
494 Amusement parks and arcades	3	41,935	113,771	192,902
495 Gambling industries (except casino hotels)	13	365,724	625,935	1,299,063
496 Other amusement and recreation industries	375	8,186,100	11,910,587	21,753,342
497 Fitness and recreational sports centers	21	282,243	433,107	833,956
498 Bowling centers	2	29,286	47,121	83,835
499 Hotels and motels, including casino hotels	1,297	37,306,889	74,958,564	119,961,532

Table 2 Continued.

Sector	Jobs	Labor Income	Gross State Product	Output
		\$	\$	\$
500 Other accommodations	2	61,959	103,824	158,147
501 Full-service restaurants	1,945	39,984,187	45,843,339	91,020,234
502 Limited-service restaurants	1,754	35,220,271	55,049,916	91,016,431
503 All other food and drinking places	101	2,603,072	3,387,844	7,686,017
504 Automotive repair and maintenance, except car washes	76	3,306,936	3,529,748	5,806,332
505 Car washes	12	290,656	314,708	521,267
506 Electronic and precision equipment repair and maintenance	9	525,960	534,583	942,506
507 Commercial and industrial machinery and equipment repair and maintenance	33	1,938,886	2,268,290	3,467,739
508 Personal and household goods repair and maintenance	15	539,735	1,314,950	2,219,629
509 Personal care services	50	1,230,141	1,364,559	2,149,411
510 Death care services	14	481,105	377,444	637,603
511 Dry-cleaning and laundry services	42	1,158,757	737,133	1,330,142
512 Other personal services	25	606,051	758,898	1,495,621
513 Religious organizations	6	171,614	201,543	696,332
514 Grantmaking, giving, and social advocacy organizations	36	1,294,572	1,343,790	2,112,212
515 Business and professional associations	23	1,295,288	1,007,998	1,491,499
516 Labor and civic organizations	203	5,442,116	6,579,025	9,378,639
517 Private households	24	339,907	339,907	340,775
518 Postal service	51	4,205,923	4,305,458	5,499,244
519 Federal electric utilities	0	0	0	0
520 Other federal government enterprises	3	97,300	110,333	815,498
521 State government passenger transit	0	4,055	415	21,914
522 State government electric utilities	4	487,165	1,659,600	2,911,615
523 Other state government enterprises	1	109,749	102,267	162,062
524 Local government passenger transit	1	76,825	-27,808	125,523
525 Local government electric utilities	2	91,785	230,852	845,932
526 Other local government enterprises	36	2,849,390	4,083,249	10,495,015
527 Not an industry (Used and secondhand goods)	0	0	0	0
528 Not an industry (Scrap)	0	0	0	0
529 Not an industry (Rest of world adjustment)	0	0	0	0
530 Not an industry (Noncomparable foreign imports)	0	0	0	0
531 Employment and payroll of state govt, non-education	379	15,736,204	18,690,775	18,690,774
532 Employment and payroll of state govt, education	18	1,333,490	1,576,957	1,576,957
533 Employment and payroll of local govt, non-education	41	2,408,160	2,831,657	2,831,657
534 Employment and payroll of local govt, education	15	918,530	1,079,048	1,079,048
535 Employment and payroll of federal govt, non-military	194	13,393,908	18,292,218	18,292,220
536 Employment and payroll of federal govt, military	0	0	0	0

Figure 1. Economic Impact of Evaluated Forestry-Based Products on employment in the South Carolina Economy by major economic segment.

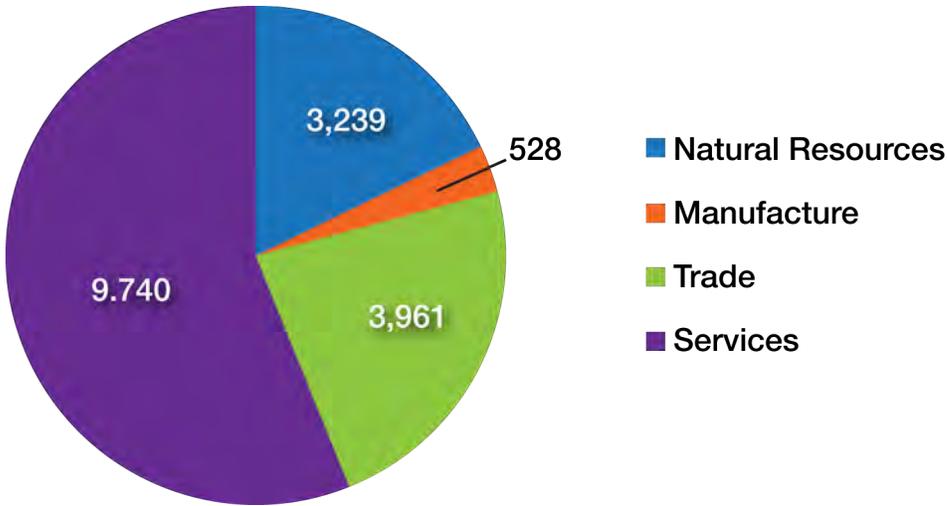


Figure 2. Economic Impact of Evaluated Forestry-Based Products on labor income in the South Carolina Economy by major economic segment.

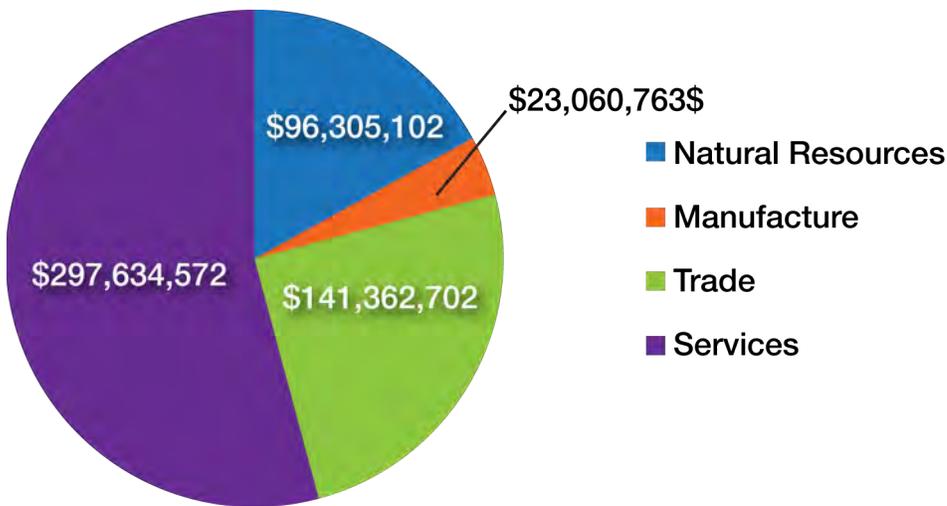


Figure 3. Economic Impact of Evaluated Forestry-Based Products on Gross State Product in the South Carolina Economy by major economic segment.

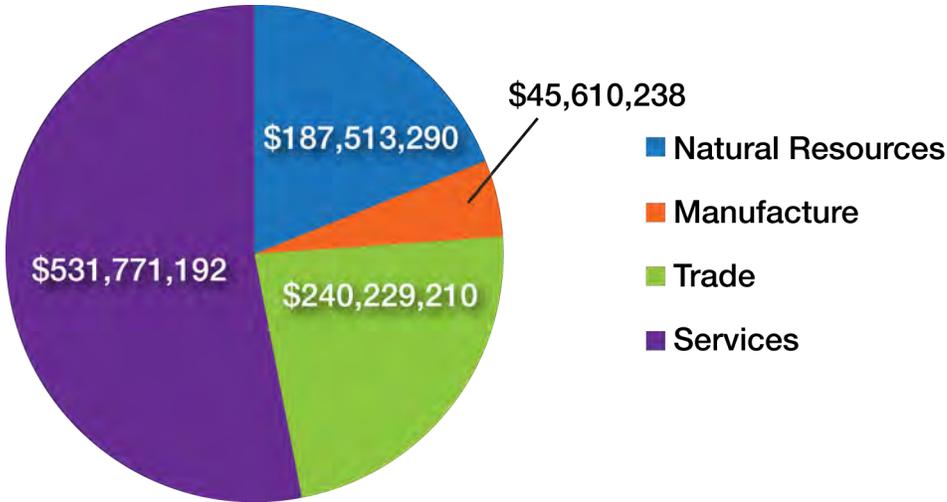


Figure 4. Economic Impact of Evaluated Forestry-Based Products on Output in the South Carolina Economy by major economic segment.

