

# The Economic Contribution of Agriculture and Forestry Production and Processing in Mississippi: *An Input-Output Analysis*



Agriculture and forestry are major components of Mississippi's economy. In 2014 alone, agriculture and forestry production and processing sectors directly accounted for 113,934 jobs paying \$3.04 billion in wages and salaries (**Table 1**). In addition, agriculture and forestry related sectors also directly accounted for \$26.4 billion in sales with a value-added generation of \$8.4 billion. Clearly, agriculture and forestry provide a major contribution to the Mississippi economy.

Yet, this contribution has a much larger effect on the Mississippi economy. A larger total contribution results when also accounting for the stimulative effect of spending by the employees of the agriculture and forestry industries. This report provides an estimate of the economic contribution of agriculture and forestry sectors using the most recent data available (2014) on the value of production (e.g., commodities, timber harvests), primary processing activities (e.g., cotton ginning, paper mills), and value-added products (e.g., snack food manufacturing, stationery product manufacturing). This report focuses on the total economic contribution of agriculture and forestry activities on employment and income.

## Methods

The total economic contribution is the sum of direct effects, indirect effects, and induced effects. Direct effects represent the economic activity from businesses defined to belong in agriculture and forestry (i.e., producers, processors, and agricultural support services). Indirect effects represent the economic activity from businesses and organizations not traditionally thought of as agriculture-related (e.g., education, information, and insurance), though they may supply goods and services to agricultural businesses. Indirect effects are a basic response to agricultural activities and reflect the interdependence between businesses and industries throughout the economy. Induced effects simply reflect spending by households in the form of wages and salaries earned by employees.

Data for the direct effects and estimation of the indirect and induced effects came from a well-known input-output modeling system called Impact for Planning and Analysis, or IMPLAN, software that is updated annually by the IMPLAN Group LLC (2015). IMPLAN is a computerized database and modeling system for constructing regional economic accounts and regional input-output tables. The IMPLAN 536 sector input-output model is based primarily on data from the U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, U.S. Census Bureau, U.S. Department of Agriculture, and U.S. Geological Survey. This study used an input-output model constructed with the most recent 2014 IMPLAN data.

The total economic contribution of agriculture and forestry (i.e. direct, indirect, and induced) was estimated in the IMPLAN model by removing these sectors from the modeled economy and comparing the resulting effects on the Mississippi economy. The difference represents the sectors' contribution to the rest of the economy, which is an estimate of how much economic activity is supported by these sectors. This is the procedure recommended by the IMPLAN Group LLC for estimating the economic contribution of an industry. Results also indicate which industries benefit the most from the economic contribution of agriculture and forestry sectors.

This study combines the 536 sectors into 32 aggregated sectors—13 agriculture and forestry sectors and 19 sectors representing the rest of the Mississippi economy (**Table A.1**). This procedure follows Barnett and Reinschmiedt (1996), who modeled the Mississippi economy using 45 aggregated sectors—26 food and fiber sectors and 18 non-food and non-fiber sectors. The 13 agriculture and forestry production and processing sector groups include agriculture support activities, cattle and dairy, commercial fishing and wildlife, cotton farms, food and fiber products, grain farms, logging, other animal production (hogs, horses, aquaculture), other farms (vegetable and melon), poultry, soybean farms, wood and paper products, and wood furniture manufacturing.

The economic contribution of agriculture and forestry-related sectors on Mississippi can be measured by four key statistics:

- employment—the number of full- and part-time jobs in the sector;
- employee compensation—the wages paid by the sector;
- output—the sector’s total value of production; and
- value-added—total sector output minus the costs of purchased inputs.

Value-added represents the amount of money made available for disbursement, either in the form of wages, owner compensation, or taxes as a result of the economic activity of the agriculture and forestry sectors.

## Results

The combined economic contribution of the agriculture and forestry production and processing sectors had a substantial total economic effect on the Mississippi economy as measured by jobs, employee compensation, total output, and value-added (**Table 2**). Values shown for all agriculture-related sectors indicate direct effects, while values for NAICS sectors 21–92 represent indirect and induced effects to the rest of the Mississippi economy that are attributable to agriculture and forestry production and processing in Mississippi.

Employment is the annual average number of full-time and part-time jobs in the private and public sectors. This measure represents people employed for wages as well as self-employed people. Agricultural and forestry activities contributed to an estimated total employment of 266,392 jobs in the state, or about 17.4 percent of all jobs in Mississippi. Employee compensation is the annual monetary wages and salaries paid to employees and self-employed people and includes the value of benefits.

Agricultural and forestry activities contributed an estimated \$8.4 billion, or 15.3 percent, of the state’s total employee compensation. Output represents the total gross sales for goods and services throughout the state. In 2014, agriculture and forestry activities, including production and processing, directly and indirectly accounted for \$45.2 billion, or 18.6 percent, of all economic activity in Mississippi. Value-added is the residual value of a sector’s outputs after it pays for its inputs. This performance measure avoids double-counting the value of an output from one sector that is used as an input in another sector. A sector’s value-added is distributed as wages and salaries, rental payments, royalties from contracts, dividends from corporations, corporate profits, or indirect business taxes (such as property taxes, excise taxes, and sales taxes).

In 2014, agriculture and forestry activities contributed \$18.7 billion in value-added, or 17.5 percent of new wealth generation in the state.

Agriculture and forestry production and processing also generates a considerable amount of tax revenue. The tax contribution of the food and fiber system includes tax revenue for federal, state, and local governments. The total tax contribution was estimated to be \$3.73 billion. The federal tax revenue contribution was estimated at \$2.39 billion, while the state and local government contribution equaled \$1.34 billion.

## Summary

Agriculture and forestry production and processing is Mississippi’s \$45.2 billion industry. These production and processing industries provide a major economic contribution to the state economy, accounting for 17.4 percent of all jobs, 15.3 percent of the state’s wages and salaries, 18.6 percent of all sales, and 17.5 percent of value-added. Clearly, agriculture and forestry are important to the Mississippi economy.

## References

- Barnett, B. and L. Reinschmiedt. 1996. Agriculture and Forestry in Mississippi: An Analysis of the Impacts of Food and Fiber Related Sectors on the Mississippi Economy. Agricultural Economics Technical Bulletin No. 95. Mississippi State University, Mississippi State, Mississippi.
- IMPLAN Group LLC. IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078. [www.IMPLAN.com](http://www.IMPLAN.com).

**Table 1. Direct effects on Mississippi employment, compensation, output, and value-added of the aggregated industrial sectors (2014).\***

Model Sectors	Employment	Wages and Salaries (\$MM)	Total Industry Output (\$MM)	Value-Added (\$MM)
Soybean farms	4,474	4.57	1,312.98	978.62
Grain farms	4,210	7.11	616.88	95.79
Other farms	5,161	31.44	241.38	187.72
Cotton farms	2,468	79.58	432.88	299.00
Cattle and dairy	6,440	6.44	411.26	202.12
Poultry and egg	7,742	129.49	3,107.74	1,326.15
Aquaculture and other animal production	7,883	21.86	370.97	314.25
Logging	11,161	247.02	1,087.89	612.02
Commercial fishing and wildlife	1,316	2.64	63.69	39.20
Agriculture and forestry support activities	4,876	115.44	251.72	194.06
Food and fiber products	29,186	1,061.72	10,645.88	2,123.73
Wood and paper products	12,791	729.49	4,985.66	1,319.18
Wood furniture manufacturing	16,228	603.59	2,852.69	731.98
All Agriculture-related Sectors	113,934	3,040.40	26,381.63	8,423.83
21 Mining	16,823	581.05	4,654.82	2,003.80
22 Utilities	9,175	858.32	8,822.55	2,909.94
23 Construction	90,740	2,485.05	15,218.63	5,614.81
31–33 Manufacturing	89,248	5,874.54	60,522.59	10,779.54
42 Wholesale Trade	39,532	2,198.13	8,382.78	4,985.06
44–45 Retail trade	159,856	3,772.48	11,881.27	7,599.51
48–49 Transportation & Warehousing	62,321	2,743.09	9,127.41	4,040.98
51 Information	16,253	795.41	7,643.14	2,117.05
52 Finance & insurance	58,166	2,186.43	10,034.43	3,902.16
53 Real estate & rental	45,436	474.04	18,811.34	12,691.36
54 Professional—scientific & tech service	65,637	2,633.70	7,795.77	3,988.06
55 Management of companies	11,872	1,030.99	2,270.29	1,242.07
56 Administrative & waste services	95,081	1,983.71	4,918.03	2,899.42
61 Educational services	17,621	501.46	1,101.35	679.89
62 Health & social services	152,519	6,110.89	12,895.34	7,757.82
71 Arts—entertainment & recreation	23,759	384.71	1,880.52	952.71
72 Accommodation & food services	125,146	2,226.62	7,413.55	3,807.89
81 Other services	80,080	1,255.74	4,784.05	3,342.13
92 Government & non NAICs	257,530	13,602.59	18,070.29	16,716.25
All Other Sectors	1,416,797	51,698.95	216,228.14	98,030.44
Total Economy	1,530,731	54,739.35	242,609.77	106,454.27

\*Values are expressed in 2014 dollars.

**Table 2. Total effects of agriculture and forestry production and processing on Mississippi employment, wages, output, and value-added for the aggregated industrial sectors (2014).\***

Model Sectors	Employment	Wages and Salaries (\$MM)	Total Industry Output (\$MM)	Value-Added (\$MM)
Soybean farms	4,474	4.57	1,312.98	978.62
Grain farms	4,210	7.11	616.88	95.79
Other farms	5,161	31.44	241.38	187.72
Cotton farms	2,468	79.58	432.88	299.00
Cattle and dairy	6,440	6.44	411.26	202.12
Poultry and egg	7,742	129.49	3,107.74	1,326.15
Aquaculture and other animal production	7,883	21.86	370.97	314.25
Logging	11,161	247.02	1,087.89	612.02
Commercial fishing and wildlife	1,316	2.64	63.69	39.20
Agriculture and forestry support activities	4,876	115.44	251.72	194.06
Food and fiber products	29,186	1,061.72	10,645.88	2,123.73
Wood and paper products	12,791	729.49	4,985.66	1,319.18
Wood furniture manufacturing	16,228	603.59	2,852.69	731.98
All Agriculture-related Sectors	113,934	3,040.40	26,381.63	8,423.83
21 Mining	450	18.01	118.44	50.94
22 Utilities	974	87.59	878.73	286.41
23 Construction	8,025	223.09	1,331.27	495.64
31–33 Manufacturing	1,395	78.38	969.82	159.97
42 Wholesale Trade	6,827	379.59	1,447.59	860.85
44–45 Retail trade	16,445	389.19	1,219.74	781.93
48–49 Transportation & Warehousing	9,325	401.75	1,354.66	605.80
51 Information	2,097	103.45	942.15	260.75
52 Finance & insurance	6,824	267.13	1,197.86	483.42
53 Real estate & rental	5,506	56.49	2,384.26	1,610.29
54 Professional—scientific & tech service	8,027	297.33	877.80	461.64
55 Management of companies	1,903	165.28	363.95	199.11
56 Administrative & waste services	11,241	214.95	534.17	311.67
61 Educational services	2,118	60.24	132.21	81.59
62 Health & social services	18,692	749.60	1,584.54	949.19
71 Arts—entertainment & recreation	2,610	35.44	172.57	82.43
72 Accommodation & food services	13,065	208.72	693.59	343.51
81 Other services	9,876	157.53	598.48	418.96
92 Government & non NAICs	26,303	1,401.54	1,888.16	1,733.18
Total Indirect and Induced	151,703	5,295.28	18,689.99	10,177.29
Total Contribution	266,392	8,350.50	45,211.66	18,646.05

\*Values are expressed in 2014 dollars.

**Table A.1. Aggregation scheme of commercial sectors used for IMPLAN input-output analysis of agriculture and forestry production and processing on the Mississippi economy, 2014.**

Model Sectors	Original IMPLAN Sectors
Soybean farms	1 Oilseed farming
Grain farms	2 Grain farming
Other farms	3 Vegetable and melon farming; 4 Fruit farming; 5 Tree nut farming; 6 Greenhouse, nursery, and floriculture production; 7 Tobacco farming; 9 Sugarcane and sugar beet farming; 10 All other crop farming
Cotton farms	8 Cotton farming
Cattle and dairy	11 Cattle ranching and farming; 12 Dairy cattle and milk production
Poultry and egg	13 Poultry and egg production
Aquaculture and other animal production	14 Animal production, except cattle and poultry and eggs
Logging	15 Forestry, forest products, and timber tract production; 16 Commercial logging
Commercial fishing and wildlife	17 Commercial fishing; 18 Commercial hunting and trapping
Agriculture and forestry support activities	19 Support activities for agriculture and forestry
Food and fiber products	65 Dog and cat food manufacturing; 66 Other animal food manufacturing; 67 Flour milling; 68 Rice milling; 69 Malt manufacturing; 70 Wet corn milling; 71 Soybean and other oilseed processing; 72 Fats and oils refining and blending; 73 Breakfast cereal manufacturing; 74 Beet sugar manufacturing; 75 Sugar cane mills and refining; 76 Non-chocolate confectionery manufacturing; 77 Chocolate and confectionery manufacturing from cacao beans; 78 Confectionery manufacturing from purchased chocolate; 79 Frozen fruits, juices and vegetables manufacturing; 80 Frozen specialties manufacturing; 81 Canned fruits and vegetables manufacturing; 82 Canned specialties; 83 Dehydrated food products manufacturing; 84 Fluid milk manufacturing; 85 Creamery butter manufacturing; 86 Cheese manufacturing; 87 Dry, condensed, and evaporated dairy product manufacturing; 88 Ice cream and frozen dessert manufacturing; 89 Animal, except poultry, slaughtering; 90 Meat processed from carcasses; 91 Rendering and meat byproduct processing; 92 Poultry processing; 93 Seafood product preparation and packaging; 94 Bread and bakery product, except frozen, manufacturing; 95 Frozen cakes and other pastries manufacturing; 96 Cookie and cracker manufacturing; 97 Dry pasta, mixes, and dough manufacturing; 98 Tortilla manufacturing; 99 Roasted nuts and peanut butter manufacturing; 100 Other snack food manufacturing; 101 Coffee and tea manufacturing; 102 Flavoring syrup and concentrate manufacturing; 103 Mayonnaise, dressing, and sauce manufacturing; 104 Spice and extract manufacturing; 105 All other food manufacturing; 108 Breweries; 109 Wineries; 110 Distilleries; 111 Tobacco product manufacturing; 112 Fiber, yarn, and thread mills; 113 Broadwoven fabric mills; 114 Narrow fabric mills and schiffli machine embroidery; 115 Nonwoven fabric mills; 116 Knit fabric mills; 117 Textile and fabric finishing mills; 118 Fabric coating mills; 119 Carpet and rug mills; 120 Curtain and linen mills; 121 Textile bag and canvas mills; 122 Rope, cordage, twine, tire cord and tire fabric mills; 123 Other textile product mills; 124 Hosiery and sock mills; 125 Other apparel knitting mills; 126 Cut and sew apparel contractors; 127 Mens and boys cut and sew apparel manufacturing; 128 Womens and girls cut and sew apparel manufacturing; 129 Other cut and sew apparel manufacturing; 130 Apparel accessories and other apparel manufacturing; 131 Leather and hide tanning and finishing; 132 Footwear manufacturing; 133 Other leather and allied product manufacturing
Wood and paper products	134 Sawmills; 135 Wood preservation; 136 Veneer and plywood manufacturing; 137 Engineered wood member and truss manufacturing; 138 Reconstituted wood product manufacturing; 139 Wood windows and door manufacturing; 140 Cut stock, resawing lumber, and planning; 141 Other millwork, including flooring; 142 Wood container and pallet manufacturing; 144 Prefabricated wood building manufacturing; 145 All other miscellaneous wood product manufacturing; 146 Pulp mills; 147 Paper mills; 148 Paperboard mills; 149 Paperboard container manufacturing; 150 Paper bag and coated and treated paper manufacturing; 151 Stationery product manufacturing; 152 Sanitary paper product manufacturing; 153 All other converted paper product manufacturing
Wood furniture manufacturing	368 Wood kitchen cabinet and countertop manufacturing; 369 Upholstered household furniture manufacturing; 370 Non-upholstered wood household furniture manufacturing; 373 Wood office furniture manufacturing; 374 Custom architectural woodwork and millwork
Mining	20 Extraction of natural gas and crude petroleum; 21 Extraction of natural gas liquids; 22 Coal mining; 23 Iron ore mining; 24 Gold ore mining; 25 Silver ore mining; 26 Lead and zinc ore mining; 27 Copper ore mining; 28 Uranium-radium-vanadium ore mining; 29 Other metal ore mining; 30 Stone mining and quarrying; 31 Sand and gravel mining; 32 Other clay, ceramic, refractory minerals mining; 33 Potash, soda, and borate mineral mining; 34 Phosphate rock mining; 35 Other chemical and fertilizer mineral mining; 36 Other nonmetallic minerals; 37 Drilling oil and gas wells; 38 Support activities for oil and gas operations; 39 Metal mining services; 40 Other nonmetallic minerals services
Utilities	41 Electric power generation - Hydroelectric; 42 Electric power generation - Fossil fuel; 43 Electric power generation - Nuclear; 44 Electric power generation - Solar; 45 Electric power generation - Wind; 46 Electric power generation - Geothermal; 47 Electric power generation - Biomass; 48 Electric power generation - All other; 49 Electric power transmission and distribution; 50 Natural gas distribution; 51 Water, sewage and other systems; 519 Federal electric utilities; 522 State government electric utilities; 525 Local government electric utilities

Construction	52 Construction of new health care structures; 53 Construction of new manufacturing structures; 54 Construction of new power and communication structures; 55 Construction of new educational and vocational structures; 56 Construction of new highways and streets; 57 Construction of new commercial structures, including farm structures; 58 Construction of other new nonresidential structures; 59 Construction of new single-family residential structures; 60 Construction of new multifamily residential structures; 61 Construction of other new residential structures; 62 Maintenance and repair construction of nonresidential structures; 63 Maintenance and repair construction of residential structures; 64 Maintenance and repair construction of highways, streets, bridges, and tunnels
Manufacturing	106 Bottled and canned soft drinks & water; 107 Manufactured ice; 143 Manufactured home (mobile home) manufacturing; 154 Printing; 155 Support activities for printing; 156 Petroleum refineries; 157 Asphalt paving mixture and block manufacturing; 158 Asphalt shingle and coating materials manufacturing; 159 Petroleum lubricating oil and grease manufacturing; 160 All other petroleum and coal products manufacturing; 161 Petrochemical manufacturing; 162 Industrial gas manufacturing; 163 Synthetic dye and pigment manufacturing; 164 Other basic inorganic chemical manufacturing; 165 Other basic organic chemical manufacturing; 166 Plastics material and resin manufacturing; 167 Synthetic rubber manufacturing; 168 Artificial and synthetic fibers and filaments manufacturing; 169 Nitrogenous fertilizer manufacturing; 170 Phosphatic fertilizer manufacturing; 171 Fertilizer mixing; 172 Pesticide and other agricultural chemical manufacturing; 173 Medicinal and botanical manufacturing; 174 Pharmaceutical preparation manufacturing; 175 In-vitro diagnostic substance manufacturing; 176 Biological product (except diagnostic) manufacturing; 177 Paint and coating manufacturing; 178 Adhesive manufacturing; 179 Soap and other detergent manufacturing; 180 Polish and other sanitation good manufacturing; 181 Surface active agent manufacturing; 182 Toilet preparation manufacturing; 183 Printing ink manufacturing; 184 Explosives manufacturing; 185 Custom compounding of purchased resins; 186 Photographic film and chemical manufacturing; 187 Other miscellaneous chemical product manufacturing; 188 Plastics packaging materials and unlaminated film and sheet manufacturing; 189 Unlaminated plastics profile shape manufacturing; 190 Plastics pipe and pipe fitting manufacturing; 191 Laminated plastics plate, sheet (except packaging), and shape manufacturing; 192 Polystyrene foam product manufacturing; 193 Urethane and other foam product (except polystyrene) manufacturing; 194 Plastics bottle manufacturing; 195 Other plastics product manufacturing; 196 Tire manufacturing; 197 Rubber and plastics hoses and belting manufacturing; 198 Other rubber product manufacturing; 199 Pottery, ceramics, and plumbing fixture manufacturing; 200 Brick, tile, and other structural clay product manufacturing; 201 Flat glass manufacturing; 202 Other pressed and blown glass and glassware manufacturing; 203 Glass container manufacturing; 204 Glass product manufacturing made of purchased glass; 205 Cement manufacturing; 206 Ready-mix concrete manufacturing; 207 Concrete block and brick manufacturing; 208 Concrete pipe manufacturing; 209 Other concrete product manufacturing; 210 Lime manufacturing; 211 Gypsum product manufacturing; 212 Abrasive product manufacturing; 213 Cut stone and stone product manufacturing; 214 Ground or treated mineral and earth manufacturing; 215 Mineral wool manufacturing; 216 Miscellaneous nonmetallic mineral products manufacturing; 217 Iron and steel mills and ferroalloy manufacturing; 218 Iron, steel pipe and tube manufacturing from purchased steel; 219 Rolled steel shape manufacturing; 220 Steel wire drawing; 221 Alumina refining and primary aluminum production; 222 Secondary smelting and alloying of aluminum; 223 Aluminum sheet, plate, and foil manufacturing; 224 Other aluminum rolling, drawing and extruding; 225 Nonferrous metal (exc aluminum) smelting and refining; 226 Copper rolling, drawing, extruding and alloying; 227 Nonferrous metal, except copper and aluminum, shaping; 228 Secondary processing of other nonferrous metals; 229 Ferrous metal foundries; 230 Nonferrous metal foundries; 231 Iron and steel forging; 232 Nonferrous forging; 233 Custom roll forming; 234 Crown and closure manufacturing and metal stamping; 235 Cutlery, utensil, pot, and pan manufacturing; 236 Hand tool manufacturing; 237 Prefabricated metal buildings and components manufacturing; 238 Fabricated structural metal manufacturing; 239 Plate work manufacturing; 240 Metal window and door manufacturing; 241 Sheet metal work manufacturing; 242 Ornamental and architectural metal work manufacturing; 243 Power boiler and heat exchanger manufacturing; 244 Metal tank (heavy gauge) manufacturing; 245 Metal cans manufacturing; 246 Metal barrels, drums and pails manufacturing; 247 Hardware manufacturing; 248 Spring and wire product manufacturing; 249 Machine shops; 250 Turned product and screw, nut, and bolt manufacturing; 251 Metal heat treating; 252 Metal coating and nonprecious engraving; 253 Electroplating, anodizing, and coloring metal; 254 Valve and fittings, other than plumbing, manufacturing; 255 Plumbing fixture fitting and trim manufacturing; 256 Ball and roller bearing manufacturing; 257 Small arms ammunition manufacturing; 258 Ammunition, except for small arms, manufacturing; 259 Small arms, ordnance, and accessories manufacturing; 260 Fabricated pipe and pipe fitting manufacturing; 261 Other fabricated metal manufacturing; 262 Farm machinery and equipment manufacturing; 263 Lawn and garden equipment manufacturing; 264 Construction machinery manufacturing; 265 Mining machinery and equipment manufacturing; 266 Oil and gas field machinery and equipment manufacturing; 267 Food product machinery manufacturing; 268 Semiconductor machinery manufacturing; 269 Sawmill, woodworking, and paper machinery; 270 Printing machinery and equipment manufacturing; 271 All other industrial machinery manufacturing; 272 Optical instrument and lens manufacturing; 273 Photographic and photocopying equipment manufacturing; 274 Other commercial service industry machinery manufacturing; 275 Air purification and ventilation equipment manufacturing; 276 Heating equipment (except warm air furnaces) manufacturing; 277 Air conditioning, refrigeration, and warm air heating equipment manufacturing; 278 Industrial mold manufacturing; 279 Special tool, die, jig, and fixture manufacturing; 280 Cutting tool and machine tool accessory manufacturing; 281 Machine tool manufacturing; 282 Rolling mill and other metalworking machinery manufacturing; 283 Turbine and turbine generator set units manufacturing; 284 Speed changer, industrial high-speed drive, and gear manufacturing; 285 Mechanical power transmission equipment manufacturing; 286 Other engine equipment manufacturing; 287 Pump and pumping equipment manufacturing; 288 Air and gas compressor manufacturing; 289 Measuring and dispensing pump manufacturing; 290 Elevator and moving stairway manufacturing; 291 Conveyor and conveying equipment manufacturing; 292 Overhead cranes, hoists, and monorail systems manufacturing; 293 Industrial truck, trailer, and stacker manufacturing; 294 Power-driven hand tool manufacturing; 295 Welding and soldering equipment manufacturing; 296 Packaging machinery manufacturing; 297 Industrial process furnace and oven manufacturing; 298 Fluid power cylinder and actuator manufacturing; 299 Fluid power pump and motor manufacturing;

	300 Scales, balances, and miscellaneous general purpose machinery manufacturing; 301 Electronic computer manufacturing; 302 Computer storage device manufacturing; 303 Computer terminals and other computer peripheral equipment manufacturing; 304 Telephone apparatus manufacturing; 305 Broadcast and wireless communications equipment manufacturing; 306 Other communications equipment manufacturing; 307 Audio and video equipment manufacturing; 308 Bare printed circuit board manufacturing; 309 Semiconductor and related device manufacturing; 310 Capacitor, resistor, coil, transformer, and other inductor manufacturing; 311 Electronic connector manufacturing; 312 Printed circuit assembly (electronic assembly) manufacturing; 313 Other electronic component manufacturing; 314 Electromedical and electrotherapeutic apparatus manufacturing; 315 Search, detection, and navigation instruments manufacturing; 316 Automatic environmental control manufacturing; 317 Industrial process variable instruments manufacturing; 318 Totalizing fluid meter and counting device manufacturing; 319 Electricity and signal testing instruments manufacturing; 320 Analytical laboratory instrument manufacturing; 321 Irradiation apparatus manufacturing; 322 Watch, clock, and other measuring and controlling device manufacturing; 323 Blank magnetic and optical recording media manufacturing; 324 Software and other prerecorded and record reproducing; 325 Electric lamp bulb and part manufacturing; 326 Lighting fixture manufacturing; 327 Small electrical appliance manufacturing; 328 Household cooking appliance manufacturing; 329 Household refrigerator and home freezer manufacturing; 330 Household laundry equipment manufacturing; 331 Other major household appliance manufacturing; 332 Power, distribution, and specialty transformer manufacturing; 333 Motor and generator manufacturing; 334 Switchgear and switchboard apparatus manufacturing; 335 Relay and industrial control manufacturing; 336 Storage battery manufacturing; 337 Primary battery manufacturing; 338 Fiber optic cable manufacturing; 339 Other communication and energy wire manufacturing; 340 Wiring device manufacturing; 341 Carbon and graphite product manufacturing; 342 All other miscellaneous electrical equipment and component manufacturing; 343 Automobile manufacturing; 344 Light truck and utility vehicle manufacturing; 345 Heavy duty truck manufacturing; 346 Motor vehicle body manufacturing; 347 Truck trailer manufacturing; 348 Motor home manufacturing; 349 Travel trailer and camper manufacturing; 350 Motor vehicle gasoline engine and engine parts manufacturing; 351 Motor vehicle electrical and electronic equipment manufacturing; 352 Motor vehicle steering, suspension component (except spring), and brake systems manufacturing; 353 Motor vehicle transmission and power train parts manufacturing; 354 Motor vehicle seating and interior trim manufacturing; 355 Motor vehicle metal stamping; 356 Other motor vehicle parts manufacturing; 357 Aircraft manufacturing; 358 Aircraft engine and engine parts manufacturing; 359 Other aircraft parts and auxiliary equipment manufacturing; 360 Guided missile and space vehicle manufacturing; 361 Propulsion units and parts for space vehicles and guided missiles manufacturing; 362 Railroad rolling stock manufacturing; 363 Ship building and repairing; 364 Boat building; 365 Motorcycle, bicycle, and parts manufacturing; 366 Military armored vehicle, tank, and tank component manufacturing; 367 All other transportation equipment manufacturing; 371 Other household non-upholstered furniture manufacturing; 372 Institutional furniture manufacturing; 375 Office furniture, except wood, manufacturing; 376 Showcase, partition, shelving, and locker manufacturing; 377 Mattress manufacturing ; 378 Blind and shade manufacturing ; 379 Surgical and medical instrument manufacturing; 380 Surgical appliance and supplies manufacturing; 381 Dental equipment and supplies manufacturing; 382 Ophthalmic goods manufacturing; 383 Dental laboratories; 384 Jewelry and silverware manufacturing; 385 Sporting and athletic goods manufacturing; 386 Doll, toy, and game manufacturing; 387 Office supplies (except paper) manufacturing; 388 Sign manufacturing; 389 Gasket, packing, and sealing device manufacturing; 390 Musical instrument manufacturing; 391 Fasteners, buttons, needles, and pins manufacturing; 392 Broom, brush, and mop manufacturing; 393 Burial casket manufacturing; 394 All other miscellaneous manufacturing
Wholesale Trade	395 Wholesale trade
Retail trade	396 Retail - Motor vehicle and parts dealers; 397 Retail - Furniture and home furnishings stores; 398 Retail - Electronics and appliance stores; 399 Retail - Building material and garden equipment and supplies stores; 400 Retail - Food and beverage stores; 401 Retail - Health and personal care stores; 402 Retail - Gasoline stores; 403 Retail - Clothing and clothing accessories stores; 404 Retail - Sporting goods, hobby, musical instrument and book stores; 405 Retail - General merchandise stores; 406 Retail - Miscellaneous store retailers; 407 Retail - Nonstore retailers
Transportation & Warehousing	408 Air transportation; 409 Rail transportation; 410 Water transportation; 411 Truck transportation; 412 Transit and ground passenger transportation; 413 Pipeline transportation; 414 Scenic and sightseeing transportation and support activities for transportation; 415 Couriers and messengers; 416 Warehousing and storage; 518 Postal service; 521 State government passenger transit; 524 Local government passenger transit
Information	417 Newspaper publishers; 418 Periodical publishers; 419 Book publishers; 420 Directory, mailing list, and other publishers; 421 Greeting card publishing; 422 Software publishers; 423 Motion picture and video industries; 424 Sound recording industries; 425 Radio and television broadcasting; 426 Cable and other subscription programming; 427 Wired telecommunications carriers; 428 Wireless telecommunications carriers (except satellite); 429 Satellite, telecommunications resellers, and all other telecommunications; 430 Data processing, hosting, and related services; 431 News syndicates, libraries, archives and all other information services; 432 Internet publishing and broadcasting and web search portals
Finance & insurance	433 Monetary authorities and depository credit intermediation; 434 Nondepository credit intermediation and related activities; 435 Securities and commodity contracts intermediation and brokerage; 436 Other financial investment activities; 437 Insurance carriers; 438 Insurance agencies, brokerages, and related activities; 439 Funds, trusts, and other financial vehicles
Real estate & rental	440 Real estate; 441 Owner-occupied dwellings; 442 Automotive equipment rental and leasing; 443 General and consumer goods rental except video tapes and discs; 444 Video tape and disc rental; 445 Commercial and industrial machinery and equipment rental and leasing; 446 Lessors of nonfinancial intangible assets
Professional- scientific & tech services	447 Legal services; 448 Accounting, tax preparation, bookkeeping, and payroll services; 449 Architectural, engineering, and related services; 450 Specialized design services; 451 Custom computer programming services; 452 Computer systems design services; 453 Other computer related services, including facilities management; 454 Management consulting services; 455 Environmental and other technical consulting services; 456 Scientific research and development services; 457 Advertising, public relations, and related services; 458 Photographic services; 459 Veterinary services; 460 Marketing research and all other miscellaneous professional, scientific, and technical services
Management of companies	461 Management of companies and enterprises

Administrative & waste services	462 Office administrative services; 463 Facilities support services; 464 Employment services; 465 Business support services; 466 Travel arrangement and reservation services; 467 Investigation and security services; 468 Services to buildings; 469 Landscape and horticultural services; 470 Other support services; 471 Waste management and remediation services
Educational services	472 Elementary and secondary schools; 473 Junior colleges, colleges, universities, and professional schools; 474 Other educational services
Health & social services	475 Offices of physicians; 476 Offices of dentists; 477 Offices of other health practitioners; 478 Outpatient care centers; 479 Medical and diagnostic laboratories; 480 Home health care services; 481 Other ambulatory health care services; 482 Hospitals; 483 Nursing and community care facilities; 484 Residential mental retardation, mental health, substance abuse and other facilities; 485 Individual and family services; 486 Community food, housing, and other relief services, including rehabilitation services; 487 Child day care services
Arts- entertainment & recreation	488 Performing arts companies; 489 Commercial Sports Except Racing; 490 Racing and Track Operation; 491 Promoters of performing arts and sports and agents for public figures; 492 Independent artists, writers, and performers; 493 Museums, historical sites, zoos, and parks; 494 Amusement parks and arcades; 495 Gambling industries (except casino hotels); 496 Other amusement and recreation industries; 497 Fitness and recreational sports centers; 498 Bowling centers
Accommodation & food services	499 Hotels and motels, including casino hotels; 500 Other accommodations; 501 Full-service restaurants; 502 Limited-service restaurants; 503 All other food and drinking places
Other services	504 Automotive repair and maintenance, except car washes; 505 Car washes; 506 Electronic and precision equipment repair and maintenance; 507 Commercial and industrial machinery and equipment repair and maintenance; 508 Personal and household goods repair and maintenance; 509 Personal care services; 510 Death care services; 511 Dry-cleaning and laundry services; 512 Other personal services; 513 Religious organizations; 514 Grantmaking, giving, and social advocacy organizations; 515 Business and professional associations; 516 Labor and civic organizations; 517 Private households
Government & non NAICs	520 Other federal government enterprises; 523 Other state government enterprises; 526 Other local government enterprises; 527 Not an industry (Used and secondhand goods); 528 Not an industry (Scrap); 529 Not an industry (Rest of world adjustment); 530 Not an industry (Noncomparable foreign imports); 531 Employment and payroll of state govt, non-education; 532 Employment and payroll of state govt, education; 533 Employment and payroll of local govt, non-education; 534 Employment and payroll of local govt, education; 535 Employment and payroll of federal govt, non-military; 536 Employment and payroll of federal govt, military

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By **James E. Henderson**, Associate Extension Professor, Forestry; **James N. Barnes**, Associate Extension Professor, Agricultural Economics; **Larry L. Falconer**, Extension Professor, Delta Research and Extension Center, Agricultural Economics; **Brian Williams**, Assistant Extension Professor, Agricultural Economics; **Dave Sites**, Research Associate III, Agricultural Economics.



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