

Economic Contribution of the Food and Fiber System to the Mississippi Delta Region



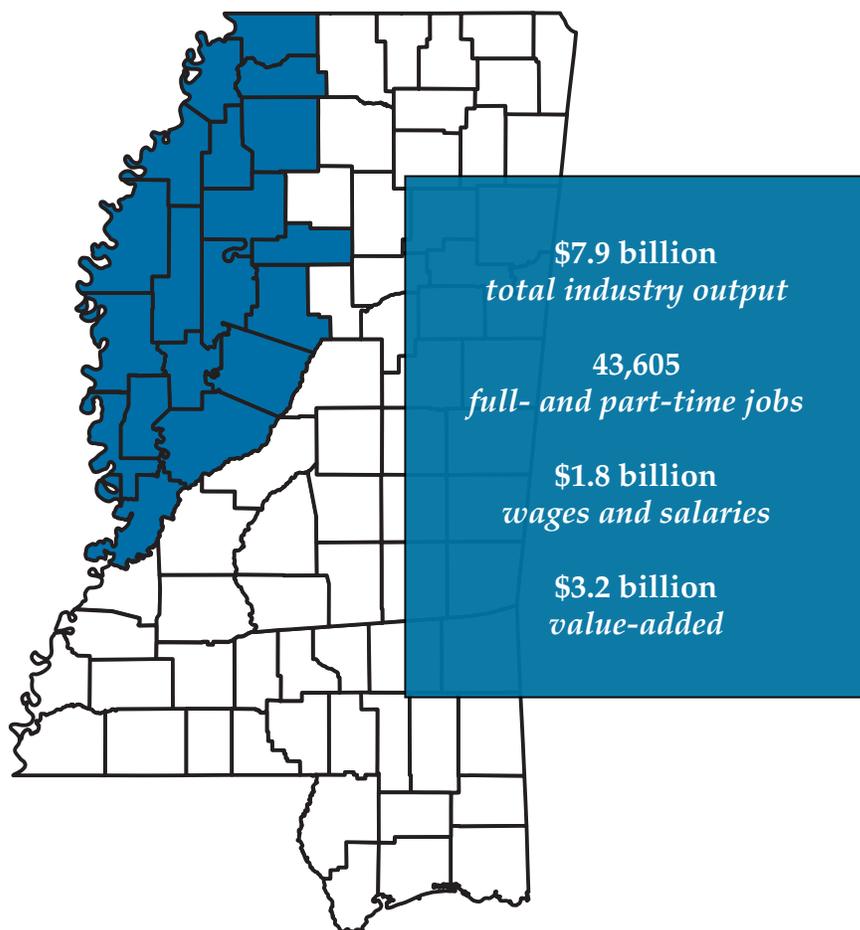
Food and fiber processing and production are major components of the Mississippi Delta Region's economy. The Mississippi Delta Region includes 18 counties in north-west Mississippi: Bolivar, Carroll, Coahoma, Desoto, Holmes, Humphreys, Issaquena, Leflore, Panola, Quitman, Sharkey, Sunflower, Tallahatchie, Tate, Tunica, Warren, Washington, and Yazoo.

In 2015 alone, sectors of the economy that comprise the food and fiber system in the Delta directly accounted for 18,828 jobs paying \$859.7 million in wages and salaries (Table 1). In addition, food and fiber system sectors also directly accounted for \$4.89 billion in sales with a value-added generation of \$1.5 billion. Clearly, agriculture-related sectors that comprise the food and fiber system provide a major contribution to the Mississippi Delta Region's economy. Yet, that contribution has a much larger impact on the Delta economy than these direct impacts. A larger total impact results when accounting for indirect and induced impacts that result from industry and employee spending. Because of the food and fiber system, other indirect and induced jobs and economic value are generated in other sectors of the economy.

This report provides an estimate of the economic contribution of the food and fiber system on the Mississippi Delta Region's economy using 2015 data available on production (e.g., cotton farming, animal production), primary processing activities (e.g., cotton ginning, fish preparation and packaging), and value-added products (e.g., sawmills, paper manufacturing). This report focuses on the total economic contribution of the food and fiber system on employment, income, total value of sales, and value-added generation.

Methods

The total economic contribution is the sum of direct, indirect, and induced effects. Direct effects represent the economic activity from businesses defined as the food and



fiber system (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., services, utilities, and finance 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 as a result of direct and indirect effects. These effects were derived by using a well-known input-output modeling system called Impact for Planning and Analysis (IMPLAN). IMPLAN is a computerized database and modeling system for constructing regional economic accounts and regional input-output tables. The IMPLAN 539 sector input-output model is based primarily on data from the U.S. Bureau of

Economic Analysis, the U.S. Bureau of Labor Statistics, the U.S. Census Bureau, the U.S. Department of Agriculture, and the U.S. Geological Survey. This study used 2015 IMPLAN data, the most recent available.

The total economic contribution of the food and fiber system (direct, indirect, and induced effects) was estimated in the IMPLAN model by removing sectors from the modeled economy in the previously defined Mississippi Delta Region and examining the resulting dependencies of all other sectors. This provides an estimate of how much economic activity is supported by sectors comprising the food and fiber system. This is the procedure recommended by the IMPLAN Group LLC for estimating the economic contribution of an industry. The results also indicate which sectors of the economy benefit the most from the economic contribution of the food and fiber system.

This study combines the 539 sectors into 31 aggregated sectors—12 agriculture and forestry sectors and 18 sectors representing the rest of the Mississippi Delta economy (**Table A1**). This procedure follows Barnett and Reinschmiedt (1996), who modeled the Mississippi economy using 45 aggregated sectors—26 food and fiber sectors and 18 nonfood and nonfiber sectors. The food and fiber system contains 12 sector groups, including soybean farms, grain farms, other farms (vegetable and melon), cotton farms, cattle and dairy, poultry and eggs, aquaculture and other animal production, logging, commercial fishing and wildlife, agriculture support activities, food and fiber products manufacturing, wood and paper products.

The economic contribution of the food and fiber system sectors on the Mississippi Delta Region's economy can be measured by four key statistics: employment (the number of full- and part-time jobs), employee compensation (the wages and salaries), output (the total value of production), and value-added (total output minus the costs of purchased inputs). Value-added represents the amount of money available for disbursement, in the form of wages, owner compensation, or taxes.

Results

The combined economic contribution of the food and fiber system had a substantial effect on the Mississippi Delta Region's economy as measured by jobs, employee compensation, total output, and value-added (**Table 2**). Employment is the annual average number of full-time and part-time jobs in both private and public sectors. This measure represents those employed for wages as well as self-employed people. Food and fiber system activities contributed an estimated total employment of 43,605 jobs in the Delta, or about 17.1 percent of all jobs in the region. Employee com-

ensation is the annual monetary wages and salaries paid to employees and self-employed people and includes the value of benefits. The food and fiber system contributed an estimated \$1.81 billion (18.5 percent) of the region's total labor income.

Output represents the total gross sales for goods and services throughout the region. The food and fiber system accounted for \$7.92 billion (21.7 percent) of all economic activity in the region. Value-added is the residual value of a sector's outputs after it pays for its inputs. This performance measure is akin to regional domestic product and 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). The food and fiber system activities contributed \$3.17 billion in value-added, or 18.8 percent of new wealth generated in the region.

The food and fiber system 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 \$648.6 million. The federal tax revenue contribution was estimated at \$400.1 million, while the state and local government contribution equaled \$248.5 million.

Summary

The food and fiber system in the Mississippi Delta Region contributes \$7.9 billion dollars to the Delta Region. These production and processing sectors provide a major economic contribution to the regional economy, accounting for 17.1 percent of all jobs, 18.5 percent of wages and salaries, 21.7 percent of all sales, and 18.8 percent of value-added activities. Clearly, agriculture contributes a significant amount of employment, income, sales, and value-added to the Mississippi Delta Region's 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.
- Minnesota IMPLAN Group, Inc. 2010. IMPLAN Version 3.0 User's Guide. Minnesota IMPLAN Group, Inc., Stillwater, Minnesota.

Table 1. Mississippi Delta Region economy, indicating size of food and fiber system sectors and all other non-agricultural sectors by employment and wages and salaries, total industry output, and value-added in millions of dollars (\$MM).*

Aggregated Sectors	Employment	Wages and Salaries (\$MM)	Total Industry Output (\$MM)	Value-Added (\$MM)
Agriculture support activities	1,852	74.38	137.79	113.50
Aquaculture and other animal production	1,631	46.47	133.94	105.95
Cattle and dairy	401	2.60	26.64	6.61
Commercial fishing and wildlife	365	5.27	17.28	14.73
Cotton farms	1,637	87.04	181.31	118.01
Food and fiber products manufacturing	4,137	152.58	2,415.97	386.94
Grain farms	2,786	60.26	468.57	113.88
Logging	1,103	15.93	55.78	18.71
Other farms	1,413	21.22	42.76	29.59
Poultry and egg	101	3.58	10.47	2.99
Soybean farms	1,942	304.52	820.95	454.11
Wood and paper products	1,460	85.83	581.93	150.41
All food and fiber system sectors	18,828	859.66	4,893.40	1,515.42
Government	40,322	2,068.94	2,737.64	2,581.29
Retail trade	28,149	785.40	2,121.60	1,363.31
Health & social services	25,662	1,070.36	2,039.69	1,197.76
Accommodation & food services	24,397	515.50	1,645.40	886.04
Administrative & waste services	17,130	360.35	847.13	480.20
Transportation & warehousing	14,909	724.66	2,528.97	1,012.18
Other services	14,805	400.78	886.07	481.79
Construction	12,835	547.37	1,944.54	667.76
Manufacturing	12,052	699.14	6,929.52	1,568.14
Professional – scientific & tech svcs	9,151	395.22	1,078.81	490.78
Wholesale trade	8,553	540.46	1,962.19	1,177.40
Real estate & rental	7,893	148.11	3,055.72	2,012.05
Finance & insurance	7,626	285.83	1,314.84	539.00
Arts – entertainment & recreation	4,996	111.81	473.31	246.77
Educational svcs	2,168	49.13	88.52	52.61
Information	1,827	81.31	837.28	256.73
Mining	1,703	34.35	188.85	61.85
Management of companies	903	47.78	145.05	64.12
Utilities	780	57.55	709.30	209.96
All other sectors	235,858	8,924.03	31,534.44	15,349.73
Total Delta economy	254,687	9,783.69	36,427.84	16,865.15

*Estimates developed using IMPLAN software and 2015 data.

Table 2. Economic contribution estimates of the food and fiber system to the Mississippi Delta Region, indicating impacts by employment and wages and salaries, total industry output, and value-added in millions of dollars (\$MM). The food and fiber system sector values are direct impacts (same values from Table 1), and indirect and induced impacts are shown for all other nonagricultural sectors.*

Aggregated Sectors	Employment	Wages and Salaries (\$MM)	Total Industry Output (\$MM)	Value-Added (\$MM)
Agriculture support activities	1,852	74.38	137.79	113.50
Aquaculture and other animal production	1,631	46.47	133.94	105.95
Cattle and dairy	401	2.60	26.64	6.61
Commercial fishing and wildlife	365	5.27	17.28	14.73
Cotton farms	1,637	87.04	181.31	118.01
Food and fiber products manufacturing	4,137	152.58	2,415.97	386.94
Grain farms	2,786	60.26	468.57	113.88
Logging	1,103	15.93	55.78	18.71
Other farms	1,413	21.22	42.76	29.59
Poultry and egg	101	3.58	10.47	2.99
Soybean farms	1,942	304.52	820.95	454.11
Wood and paper products	1,460	85.83	581.93	150.41
All food and fiber system sectors	18,828	859.66	4,893.40	1,515.42
Government	4,366	225.82	304.36	283.60
Health & social services	2,903	122.87	237.76	138.80
Retail trade	2,742	74.29	204.98	131.10
Accommodation & food services	2,078	36.96	116.88	58.77
Wholesale trade	1,741	110.01	399.39	239.65
Administrative & waste services	1,719	32.78	74.57	41.47
Other services	1,607	44.79	100.75	54.74
Transportation & warehousing	1,506	73.34	233.49	98.19
Construction	1,385	59.32	205.65	72.02
Professional – scientific & tech svcs	1,135	47.56	123.22	57.37
Real estate & rental	1,119	21.28	408.12	269.49
Finance & insurance	914	36.30	161.93	69.52
Arts – entertainment & recreation	445	8.93	34.81	17.83
Manufacturing	383	22.94	185.91	43.82
Educational svcs	222	4.88	8.82	5.19
Information	212	9.62	97.93	29.91
Utilities	120	8.26	96.44	28.42
Management of companies	118	6.24	18.93	8.37
Mining	61	1.33	7.19	2.16
Total indirect and induced	24,776	947.52	3,021.13	1,650.39
Total contribution	43,605	1,807.18	7,914.53	3,165.82
Total contribution as % of Delta economy	17.1%	18.5%	21.7%	18.8%
Total Delta economy	254,687	9,783.69	36,427.84	16,865.15

*Estimates developed using IMPLAN software and 2015 data.

Table A1. Aggregation scheme of commercial sectors used in the IMPLAN input-output analysis.

Aggregated Sectors	Original IMPLAN Sectors
Agriculture support activities	19 Support activities for agriculture and forestry
Aquaculture and other animal production	14 Aquaculture and other animal production
Cattle and dairy	11 Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming; 12 Dairy cattle and milk production
Commercial fishing and wildlife	17 Commercial fishing; 18 Commercial hunting and trapping
Cotton farms	8 Cotton farms
Food and fiber products manufacturing	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 Nonchocolate 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; 106 Bottled and canned soft drinks & water; 107 Manufactured ice; 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
Grain farms	2 Grain farming
Logging	15 Forestry, forest products, and timber tract production; 16 Commercial logging
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
Poultry and egg	13 Poultry and egg
Soybean farms	1 Oilseed farming
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 planing; 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
Government	518 Postal service; 519 Federal electric utilities; 520 Other federal government enterprises; 521 State government passenger transit; 522 State government electric utilities; 523 Other state government enterprises; 524 Local government passenger transit; 525 Local government electric utilities; 526 Other local government enterprises; 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
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
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
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

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
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
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; 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)
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	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 Handtool 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 manu-

	<p>facturing; 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 handtool 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; 368 Wood kitchen cabinet and countertop manufacturing; 369 Upholstered household furniture manufacturing; 370 Nonupholstered wood household furniture manufacturing; 371 Other household nonupholstered furniture manufacturing; 372 Institutional furniture manufacturing; 373 Wood office furniture manufacturing; 374 Custom architectural woodwork and millwork; 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</p>
Professional – scientific & tech svcs	<p>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</p>
Wholesale trade	<p>395 Wholesale trade</p>
Real estate & rental	<p>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</p>
Finance & insurance	<p>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</p>
Art – entertainment & recreation	<p>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</p>
Educational svcs	<p>472 Elementary and secondary schools; 473 Junior colleges, colleges, universities, and professional schools; 474 Other educational services</p>
Information	<p>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</p>

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
Management of companies	461 Management of companies and enterprises
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

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