

# SOUTHEAST DISTRICT PROFILE: Freight and the District's Economic Future



Global trade and new technologies continue to transform the economy, redefining the way businesses operate, challenging supply chains and transportation networks, and creating new customer opportunities for Missouri businesses in places where they were once inconceivable. Businesses and their employees are more dependent than ever on integrated, agile, and efficient transportation networks to sustain economic competitiveness and facilitate journeys to work and connections to markets.

To compete in this global marketplace, businesses must optimize every asset—workforce skills, competitively priced products, and reliable transportation systems—to ensure their customers receive quality goods and services when they expect them. As the importance of trade and the demands of customers continue to evolve, Missouri companies often find freight an increasingly important factor in sustaining and enhancing their competitive position in the marketplace. Freight supports the domestic and international trade of Missouri businesses, and supports State and local economic development and job growth.

## Southeast Missouri Population Trends

Missouri's population is projected to grow, with the 2012 population of 6,021,988 increasing to 7,159,350 by 2040. The modest population growth experienced by the MoDOT Southeast District from 2000 to 2012 is expected to continue, with the 2012 population of 577,499 projected to grow to 661,290 by 2040.<sup>1</sup> Several of the 25 counties within the District experienced a decline in population between 2000 and 2012, including Dunklin, Iron, New Madrid, Pemiscot, Reynolds, Scott, Shannon, and Sainte Genevieve Counties. Between 2012 and 2040 four counties are projected to lose population: Mississippi, New Madrid, Pemiscot, and Reynolds Counties.

Cape Girardeau, Texas, and Howell Counties experienced the greatest growth in population from 2000 to 2012, but the population of the three counties increased by only 14,259 during this period. Modest population growth often tempers the expansion of non-traded sector businesses that are generally driven by population growth, such as local professional services (legal, accounting, and medical), local retail trade, real estate and financial services, and food service and restaurants.

Freight is an increasingly important factor in sustaining and enhancing the economic competitiveness of businesses in Missouri and in the Southeast District.

## Transportation Dependence: Missouri and the Southeast District Economy

Freight transportation represents a key competitiveness factor for Southeast District businesses. Companies today compete on more than product quality and cost. The transportation networks serving their facilities must provide reliable connections to buyers and link to a multitude of markets to ensure timely deliveries of goods and services and provide access for employees and customers. Some business sectors use transportation facilities and services more extensively than others. An industry sector's dependence on transportation can be measured by examining the amount a business sector spends on transportation

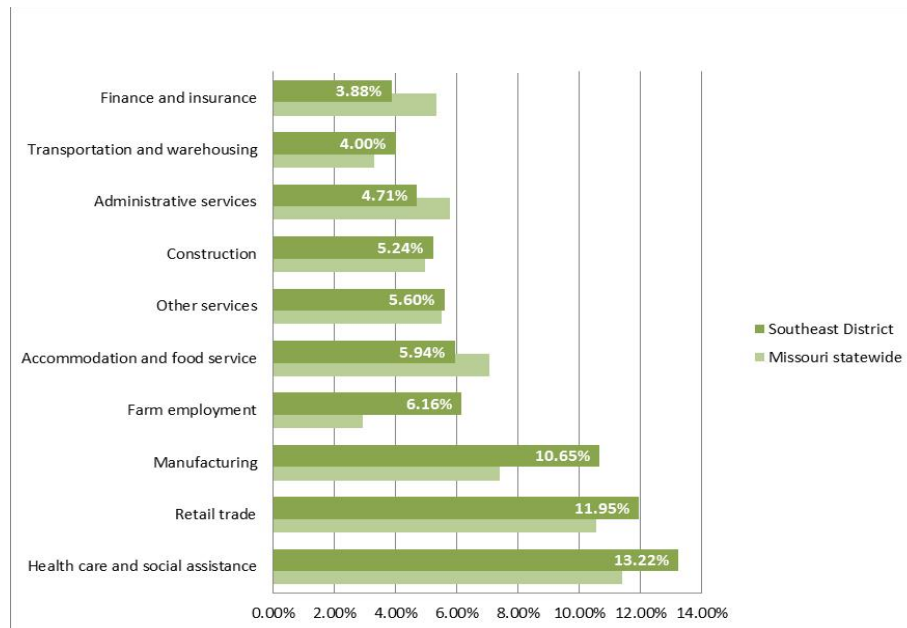
<sup>1</sup> US Census Intercensal Estimates, July 2000; US Census Annual Estimates; 2013 CEDDS by Woods and Poole Economics

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as a share of its total output.<sup>2</sup> Transportation satellite accounts provide national data regarding the amount spent on transportation per dollar of output for various sectors.

To better understand the role freight and goods movement play in the Southeast District and the contribution of multimodal transportation to the economic vitality of the District's key industry sectors, the project team evaluated the importance of these key industrial sectors based on the non-government employment concentrations in the District. Almost 75 percent of the District's non-government employment is concentrated in 10 sectors: health care and social services, retail and wholesale trade, manufacturing, accommodation and food service, other services, administrative services, finance and insurance, construction, transportation and warehousing, and farm employment.<sup>3</sup> Figure 1 shows the breakdown of these employment sectors, by percentage, for the Southeast District and for the State of Missouri.

*Figure 1: Top Ten Non-Government Employment Sectors, Southeast District*



As noted in Figure 1, the importance of transportation to these key industry sectors can be measured by the amount each sector spent on transportation as a share of its total output.

The project team evaluated several primary industry sectors and identified the corresponding industrial classification codes for each key sector in order to compare the applicable transportation costs per dollar of product output using the transportation satellite accounts research. Key business sectors for the Southeast District are shown in Table 1.

*Table 1: North American Industrial Classifications for Key Industrial Sectors, Southeast District*

Industrial Sectors	North American Industrial Classification Sector
Vineyards and Wineries	Agriculture
Cargo-Oriented Development	Transportation and Warehousing
Plastics and Rubber Products	Manufacturing
Machine Manufacturing	Manufacturing
Retail and Wholesale Trade	Retail and Wholesale Trade
Agriculture and Forestry	Agriculture

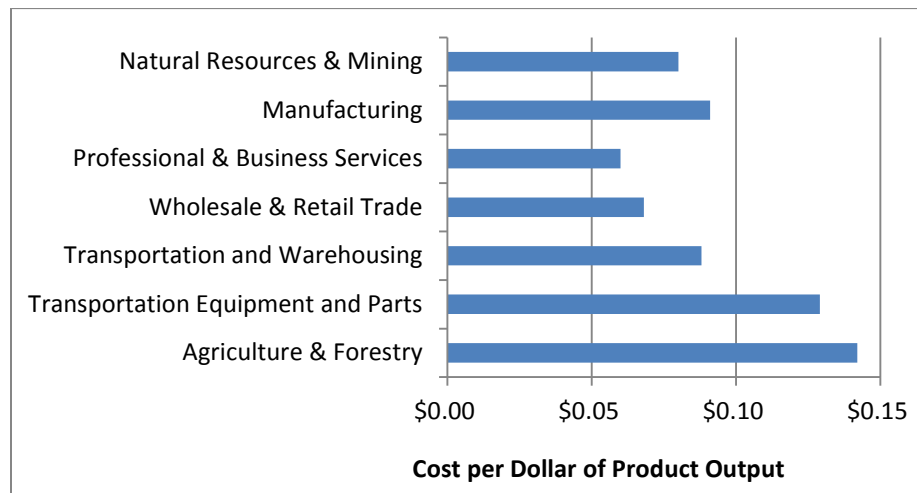
<sup>2</sup> "Transportation Satellite Accounts: A Look at Transportation's Role in the Economy," U.S. DOT Research and Innovative Technology Administration

<sup>3</sup> Bureau of Labor Statistics, US Census 2012, County Business Patterns

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**Figure 2** shows the transportation cost per dollar of product output for several important existing industry sectors in the Southeast District based on their NAICS code. Improvements in transportation costs and services would have a significant effect on the profitability of companies in these industries, as lower transportation costs and more reliable service help reduce the cost of materials, resulting in lower overall production costs. Reliable delivery of materials can enhance productivity, and reducing distribution costs to the consumer may also improve competitiveness.

*Figure 2: Transportation Cost as a Share of Sector Output.  
(Transportation cost per \$ of product value)*



*Source: Transportation Satellite Accounts database, Bureau of Transportation Statistics,  
Research and Innovation Technology Administration*

The Southeast District has been successful in retaining and attracting transportation-dependent businesses in several significant economic sectors as described in **Table 2**:

*Table 2: Economic Sectors the Southeast District has retained and attracted transportation-dependent businesses:*

Advanced Manufacturing	Machine Manufacturing	Chemical Manufacturing
Invensys Controls	Nordyne	Royal Oak Enterprises
SRG Global	Briggs & Stratton	Spectrum Brands
Noranda Aluminum	Ellington Industrial Supply	Mondi Jackson Inc.
TG Missouri		Procter & Gamble

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## Economic Development Trends

The Missouri Economic Research and Information Center (MERIC) reported the statewide average rate for the formation of new businesses increased by 0.1 percent in 2013, to 2.8 percent new businesses per 1,000 residents.<sup>4</sup> The counties in the MERIC Southeast and South Central region, which includes most of the MoDOT Southeast District, continued to lead the State in this metric. In particular, MERIC's Southeast region had a higher share of startups in manufacturing and in transportation and warehousing businesses than other parts of the State.

## Cargo-Oriented Development

MERIC also predicts strong job openings in freight-related occupations in the state between 2012 and 2022.<sup>5</sup> Heavy and tractor-trailer truck drivers are expected to account for 1,475 job openings and 1,757 openings are anticipated for freight, stock, and material movers. Both of these figures include growth as well as replacement positions due to retirement, turnover, and workers shifting to other industries. Transportation and warehousing is listed as a top industry for employment in the Southeast District between 2011 and 2040, with projected job growth of 40.6 percent.<sup>6</sup> However, as of August 2014 a nationwide shortage of truck drivers means as many as 40,000 openings are not being filled. Truck drivers are third on the list of ManpowerGroup's 2013 Talent Shortage Survey, and the shortage is expected to intensify as demand grows for shipping via truck and drivers retire; the average age for truck drivers nationwide in 2014 is 50.<sup>7</sup>

## Plastics and Machine Manufacturing

Manufacturing accounted for almost 16 percent of all non-farm jobs in the Southeast region in 2008, though both the number of manufacturing firms and manufacturing jobs declined during the 2007-2009 recession. Still, both plastics and rubber manufacturing and machine manufacturing remain significant industries in the area. As the global economy recovers, analysts expect "quite impressive" growth in the worldwide market for industrial machinery between 2014 and 2018,<sup>8</sup> driven by consumer products such as cars and food as well as oil and gas exploration, construction, and green energy. Annual growth is projected to be 6.3 percent in 2014 (more than double the 2.9 percent increase seen in 2013) and growth should average between five and six percent between 2014 and 2018.

The year-over-year output of the U.S. plastics industry grew by six percent in the second quarter of 2014, largely due to strong demand from the durable goods and motor vehicles sectors. This trend is projected to continue through 2015, and plastics firms in the Southeast District are expected to share in this growth. Although automobile manufacturing declined during the recent recession, a number of auto suppliers in Missouri announced significant expansions in 2012 and 2013.<sup>9</sup> TG Missouri is expanding its plant in Perryville to add a new production line that will supply chrome and plastic components to Toyota. The \$38.9 million investment will add 200 jobs.

A recent survey by the National Association of Manufacturers<sup>10</sup> found that three fourths of respondents across the U.S. were struggling to find qualified workers, and 88 percent cited a lack of skills as the reason. According to the survey, firms have increased employee training and many now rely on technical and community college programs to provide the workers they need to maintain and grow their businesses. A local example is the partnership announced in 2013 between SRG Global in Portageville, one of the world's largest manufacturers of chrome-plated plastic auto parts, and Three Rivers Community College. State funding from the state's Community College Job Retention Training Program will be used to enhance the skills of 350 SRG employees.

Transportation equipment, chemicals (including plastics), and machinery were the three top Missouri exports to Canada in 2013. Canada is already the largest importer of Missouri goods, and trade discussions with several Canadian provinces in 2014 point to increases in exports of Missouri products. The State has signed trade agreements with Quebec, Korea, Taiwan, China, Brazil, and several European countries to sell \$9.7 billion in Missouri products over the next four years, according to the Governor's office.<sup>11</sup>

## Agriculture and Forestry

Agriculture and forestry provide significant jobs in Southeast Missouri. Rice, soybeans, corn, and cotton are grown in the eastern

<sup>4</sup> MERIC, 2013 Business Formations

<sup>5</sup> MERIC, Missouri's Top Openings 2012-2022

<sup>6</sup> Woods and Poole

<sup>7</sup> Williams, G. Chambers, "Trucking industry faces uphill battle to recruit drivers," The Tennessean, August 25, 2014.

<sup>8</sup> Jonathan Cassell, IHS Technology, "Rise of the Machines: Industrial Machinery Market Growth to Double in 2014," April 16, 2014.

<sup>9</sup> <http://governor.mo.gov/news/>, accessed August 27, 2014

<sup>10</sup> "Mind the Gap," Member Focus, the newsletter of the National Association of Manufacturers, May 2013

<sup>11</sup> <http://governor.mo.gov/news/archive>

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part of the region, and exports of these crops continue to grow as demand for U.S.-produced agricultural products increases. Missouri's food and food ingredient exports increased 148 percent between 2005 and 2011.<sup>12</sup> A number of smaller farms, facing increasing competition from corporate growers, have turned to specialty crops. The Southeast District is home to a rapidly growing wine industry, with 46 vineyards and wineries in Southeast Missouri listed by the Missouri Grape Growers Association in 2013. Most of these are in Ste. Genevieve County. The Mississippi River Hills Association aims to strengthen the region's economy by supporting specialty agriculture and related tourism markets.

Wood products form another industry cluster in the south central area of the State. The region is a leading U.S. producer of wood pallets, which fits well with the State's status as a logistics hub. Demand for pallets should remain strong with the Federal Highway Administration projecting U.S. freight will double by 2020.

## Retail and Wholesale Trade

Job opportunities in retail trade are expected to be above average between 2012 and 2022. Cashiers are projected to have the most openings of any occupation at 3,358 and retail salespersons will have 2,097 openings.<sup>13</sup> In 2011 retail trade accounted for almost 12 percent of the District's jobs. Though internet sales will continue to compete with brick-and-mortar stores, both depend on efficient freight transportation to get their products in the hands of consumers. Wholesale trade is also important to the economy of the Southeast District, providing more than three percent of jobs in 2011. Growth is anticipated in both wholesale and retail trade in the next few years as the country and the world recover from the recent global recession.

## Importance of Freight to the Economic Development Future of the Southeast District

### Manufacturing and Exports

Manufacturing continues to be a vital part of Missouri's economy and exports of Missouri manufactured goods continue to increase. Missouri businesses exported over \$3 billion in goods by the close of the first quarter of 2014, and nearly \$13 billion in 2013.<sup>14,15</sup> Four primary industries in the manufacturing sector accounted for over 62 percent of Missouri exports: transportation equipment, chemicals, food and kindred products, and machinery related businesses. These industries exported over \$8 billion in products in 2013.<sup>16</sup> Agricultural products, fabricated metal products, electrical equipment, minerals and ores, primary metal manufacturing, and computer and electronic products round out the top 10 exports from the State in 2013. Over 6,100 businesses in Missouri exported products and services in 2012, and 89.5 percent of Missouri's exports are manufactured goods produced in communities around the state. Manufacturing exports support nearly 107,000 jobs in the State, and 85 percent of the companies engaged in exporting goods and services are small businesses.<sup>17</sup>

Manufacturing matters in Missouri because:

- Employees in manufacturing firms earn an average of \$77,060 annually in pay and benefits, while average workers in all industries earn \$60,168. This means manufacturing jobs pay, on average, 19.9 percent more than non-manufacturing jobs.<sup>18</sup>
- Manufacturing firms account for nearly two-thirds of all research and development in the U.S. and are a leading user of new technologies and processes.<sup>19</sup>
- Manufacturing has the highest multiplier effect of any economic sector. For every dollar spent in manufacturing another \$1.48 is added to the economy, helping to stimulate economic growth.
- Missouri's economy is intrinsically linked to its ability to move people, materials, components, and finished goods within the State and to national and international destinations.
- Missouri's principal trading partners are Canada, Mexico, China, Japan, and Korea.<sup>20</sup> The five industries with the most significant job dependence on exports include grain farming, oilseed farming, wholesale trade, and aircraft

<sup>12</sup> [www.missouripartnership.com](http://www.missouripartnership.com)

<sup>13</sup> MERIC, Missouri's Top Openings 2012-2022

<sup>14</sup> WISER Export Trade data, 2014

<sup>15</sup> U.S. Census Freight Trade State Exports, Missouri

<sup>16</sup> Missouri Economic Research and Information Center, Missouri Department of Economic Development, March 2013

<sup>17</sup> U.S. Department of Commerce, International Trade Administration, National Association of Manufacturing, 2013

<sup>18</sup> Bureau of Economic Analysis, Industry Economic Accounts, 2011

<sup>19</sup> Brookings Institute, Metropolitan Policy Program, "Why Does Manufacturing Matter?" February 2012

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manufacturing. Agriculture continues to play a significant role in the Southeast District's economy. The district has experienced growth in grape products, vineyards, and wineries, and in sunflowers, grains, oilseeds, and organic vegetables. The number of farms in the region has increased since 2002 as technological advances have made farming more productive and profitable.<sup>21</sup>

- Export products are intrinsically dependent on multimodal freight transportation.

### Conclusion

MoDOT's Southeast District has a diverse economy, and the outlook for the future is promising. In addition to the TG Missouri plant expansion mentioned above, Noranda Aluminum will spend \$45 million to enlarge its smelting operation in New Madrid. Investments in manufacturing such as these will add jobs to the area, both directly and indirectly. Strong demand for the region's corn, soybeans, rice, cotton, and wood products as well as the growing wine industry will enable the agriculture sector to continue to contribute to the area's economy as well. The increased demand for Southeast Missouri agricultural products and manufactured goods will, in turn, drive growth in the freight and warehousing industry, resulting in more jobs for truck drivers, freight handlers, and logistics experts. Finally, employment growth in all of these sectors will contribute to the predicted increases in population—and more residents means higher demand for consumer products that must be delivered to local stores and homes throughout the District.

All of this depends on a dependable, efficient freight network. Manufacturers of plastics, machinery, and other products depend on the statewide freight infrastructure to deliver raw materials and components and to carry finished products to assembly plants, distributors, and end users. Farms that grow rice, cotton, corn, and soybeans rely on the District's rail, highway, and water ports to deliver their output to markets across the country and around the world. Along with smaller farm operations and the growing winemaking sector, they also depend heavily on the District's many secondary roadways to link them with the broader transportation network. Businesses also rely on these secondary roads for time-sensitive deliveries, and trucks of all sizes use them to supply grocery stores, offices, building sites, and homes with the goods, materials, and products they need every day. Research shows that investing in physical infrastructure reduces costs and improves efficiencies in conducting business, boosts job creation, and fosters growth cycles within countries.<sup>22</sup> Based on this research, maintaining the existing freight system and expanding both its capacity and its connections in ways that increase reliability and reduce costs are critical to the future prosperity of the businesses and residents of the Southeast District.

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<sup>20</sup> US Census, State Exports, Foreign Trade, 2013

<sup>21</sup> 2010 Census of Agriculture, USDA, Southeast Missouri Regional Planning and Economic Development District

<sup>22</sup> Deloitte LLP and the Council on Competitiveness, "2013 Global Manufacturing Competitiveness Index"