



Missouri Industry Brief
INDUSTRY CONCENTRATION
2017

Industry concentration analysis, using location quotients (LQ), can indicate which industries are more export-oriented or specialized in an area than other industries. Businesses that are typically export-oriented, like manufacturing, agriculture, and some services, are important sources of new income to the state. Some industries may have a higher LQ that is an indicator of other factors such as tourism. The higher the LQ the more export-oriented and specialized an industry is likely to be.

Location quotient analysis in this brief shows which industries, with at least 5,000 employees, have the highest 2017 job concentration in Missouri when compared to the national average (see table below). The brief also describes the larger sectors these detailed industries reside in and some employment and LQ figures for similar sector businesses.

About Location Quotients

One indicator for measuring industry concentration is the Location Quotient (LQ). LQ is a ratio of the relative distribution of industry employment in a region to that industry's distribution in a larger economy. For example, a LQ of 2.0 in the food manufacturing industry suggests that this industry's share of the state economy is twice as large as its share of the national economy. See endnotes for additional details.

TOP TEN INDUSTRY CONCENTRATIONS, 2017

Industry LQ	Industry Title	NAICS	Estab.	Jobs	Average Annual Wage	Job Growth 2016-2017
3.29	HVAC & Commercial Refrigeration Equip.	3334	52	8,325	\$49,441	0.02%
2.82	Motor Vehicle Manufacturing	3361	16	12,265	\$76,045	-4.55%
2.08	Other Electrical Equipment and Component Mfg	3359	60	5,472	\$50,317	0.61%
1.99	Dairy Product Manufacturing	3115	37	5,554	\$54,017	6.48%
1.84	Animal Slaughtering and Processing	3116	143	18,220	\$41,817	5.67%
1.69	Aerospace Product and Parts Manufacturing	3364	48	15,814	\$114,566	-1.43%
1.69	Data Processing, Hosting, and Related Services	5182	393	10,277	\$114,046	5.69%
1.59	Gasoline Stations	4471	2,567	28,712	\$19,931	-1.18%
1.53	Electronic Markets and Agents and Brokers	4251	7,194	26,362	\$91,921	-1.24%
1.50	Other Support Services	5619	1,443	9,097	\$48,551	-0.57%

Note: Ranked by LQ > 1.20 and Employment > 5,000

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Private Sector NAICS 4-Digit Industries in Missouri

Machinery Manufacturing Sector

In 2017, *Machinery Manufacturers* employed 26,119 workers spread across 545 establishments in Missouri and had a LQ of 1.26. ***HVAC and Commercial Refrigeration Equip. Mfg.*** ranked highest with a LQ score of 3.29, employing 8,325 workers at 52 establishments. The following are samples of Missouri machinery employers:

True Manufacturing various locations

Scroll Compressors in Ava

Loren Cook Company in Springfield

Transportation Equipment Sector

Transportation Equipment is the largest equipment-manufacturing sector by size: 45,524 workers in 327 establishments (142) are ***Motor Vehicle Parts Manufacturers*** with a 0.89 LQ that supply automobile plants and/or make numerous after-market products. ***Motor Vehicle Manufacturing*** has a high LQ of 2.82 thanks to large assembly plants in St. Louis and Kansas City.

The ***Aerospace Product Manufacturing*** subsector has a 1.69 LQ. Examples of *Transportation Equipment Mfg.* around the state include:

- **Ford Motor Co** in Kansas City
- **Boeing's** second largest manufacturing facility is located in St. Louis
- **Tracker Marine** operates around the state in several locations

Electrical Equipment and Appliance Mfg. Sector

Electrical Equipment and Appliance Mfg. had a LQ score of 1.46, with 143 establishments in 2017 employing 10,222 workers. ***Other Electrical Equipment and Component Manufacturing***, such as wire and battery manufacturing, had a LQ score of 2.08 with an average of 5,471 employees and 60 establishments. Examples include:

- **Emerson Electric Mfg** in Ferguson
- **Eagle Picher Technologies** in Joplin
- **Positronic Industries** in Springfield and Mt.

Production Industries

Production-based industries in Missouri employed 402,080 workers across 24,231 establishments. These establishments are in the Agriculture, Natural Resources, Mining, Construction and Manufacturing industrial categories. Production-based workers in 2017 earned an average \$51,870 annually.

Six production-based industries made the list: *HVAC and Commercial Refrigeration Equipment, Motor Vehicle Manufacturing, Other Electrical Equipment and Component Manufacturing, Dairy Product Manufacturing, Animal Slaughtering and Processing, and Aerospace Product and Parts Manufacturing.*

Service Industries

Service-based industries in Missouri employed 1.9 million workers at 172,184 establishments. Service industry groups include *Trade, Transportation, and Utilities; Information; Financial Activities; Professional and Business Services; Educational and Healthcare Services.* It also includes *Leisure and Hospitality, Public Administration, Other* and *Unclassified* services. Service-based workers in 2017 earned an average \$44,888 annually.

Four service-based industries made the list: *Gasoline Stations; Data Processing, Hosting, and Related Services; Other Support Services; and Electronic Markets, Agents, and Brokers.*

Food Manufacturing Sector

Food Manufacturing industries in Missouri are a prosperous sector due to the state's role in agricultural products. From 2016 to 2017, there was 3.8 percent employment growth. In 2017, this industry sector employed 40,566 workers in 629 establishments and had an overall industry average LQ of 1.53. **Dairy Product Manufacturing** has 37 of the 629 establishments with a LQ of 1.99.

Animal Slaughtering and Processing has 143 of the 629 *Food Manufacturing* establishments and had an average of 18,220 workers with a LQ score of 1.84. Some examples of Food Manufacturing in Missouri include:

- **Highland Dairy Foods Co, Tyson Foods, and General Mills, Inc.** each located across the state in various locations
- **Farmland Foods** located in Kansas City

Gasoline Stations Sector

Gasoline Stations climbed the list this year with a LQ of 1.59, employed 28,712 workers at 2,567 establishments in 2017. There are a variety of stations all across Missouri including **Phillips 66, Conoco, Gulf** and **Break Time** just to name a few.

This sector's high LQ is an indicator of other factors, namely tourism and truck-freight transportation. Tourism is concentrated in the central and southern regions from the Lake of the Ozarks to Branson, Missouri. Freight transportation also adds to the high concentration of *gasoline stations* in the state and is due to the logistic sectors transportation routes. Freight traffic is heaviest on the I-70 and I-44 corridors in transit to many locations within and outside the state.

Administrative Support Services Sector

Administrative Support Services is one of the larger industry employers in the state, with an average LQ score of 0.90, and over 151,000 workers at approximately 10,490 establishments.

Fortune 1000 Companies Headquartered in Missouri

Some of the industry concentrations are likely a direct result of Missouri's largest firms:

- Express Scripts
- Centene
- Emerson Electric
- Monsanto
- Reinsurance Group of America
- O'Reilly Automotive
- Edward Jones
- Graybar Electric
- Ameren
- Olin
- Post Holdings
- Cerner
- Peabody Energy
- Leggett & Platt
- H&R Block
- Panera Bread
- Great Plains Energy
- Stifel Financial
- Caleres
- Edgewell Personal Care
- Belden
- DST Systems
- Kansas City Southern
- Arch Coal

Other Support Services –including packaging, labeling, convention and trade show services– had a LQ score of 1.50 with an average of 9,097 employees at 1,443 establishments across the state.

Examples of Administrative Support Service industries across Missouri include:

- **Fedex Office Print and Ship Center** and **UPS Store** in locations across the state
- **Arrow Box Company** in Joplin

Data Processing, Hosting and Related Services Sec.

Data Processing, Hosting and Related Services are establishments that provide the infrastructure for hosting and/or data processing services. This subsector, part of the **Information** sector, had a LQ score of 1.69 with 10,277 workers at 393 establishments. Examples include:

- **Cass Information Systems, Inc.** with headquarters in St. Louis
- **Chase Card Services** in Springfield
- **ADP** multiple locations

Electronic Markets, Agents and Brokers Sector

Electronic Markets, Agents, and Brokers industry had a LQ score of 1.53 with 26,362 employees across 7,194 establishments. These markets, agents, and brokers act on behalf of the buyers and sellers of goods, by arranging sales of those goods. Example:

- **Bunge Biofuels** in Chesterfield
- **Alliance Foods** in St. Louis
- **Campbell Food Brokerage Inc.** in Springfield

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Notes

Location Quotient Formula:

$$LQ = \frac{e_i/e}{E_i/E}$$

e_i = Local employment in industry i

e = Total local employment

E_i = Reference area employment in industry i

E = Total reference area employment

LQ less than 1.0 indicates that an industry in the state is less concentrated than in the nation

LQ equal to 1.0 indicates that an industry in the state is as concentrated as in the nation.

LQ greater than 1.0 indicates that an industry is more concentrated in the state than in the nation, and thus more likely to be basic or export-oriented.

Sources

U.S. Bureau of Labor Statistics. Quarterly Census of Employment and Wages, 2017 annual data.
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EMSI – Industry Reports

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