



Missouri Industry Brief

INDUSTRY CONCENTRATION

2016

This brief explains which industries in Missouri are highly concentrated and why concentration analysis is important in understanding what makes a region's economy unique (see side bar). The 2016 top ten concentration ranks those industries with 5,000 or more workers and a Location Quotient score greater than 1.20.

Missouri's economy shows strong specializations in machinery, transportation equipment, electrical equipment, food manufacturing, along with various service industries.

Machinery Manufacturing

In 2016, *Machinery Manufacturers* employed 25,850 workers spread across 531 establishments in Missouri and had a LQ of 1.24. *HVAC and Commercial Refrigeration Equip. Mfg.* ranked highest with an LQ score of 3.33, employing 8,323 workers at 50 establishments. The following are samples of Missouri machinery employers:

- **CST Industries** located in Kansas City
- **Joseph T & Son, Inc.** in Kansas City
- **IMEC** in Monett

Transportation Equipment

Transportation Equipment is the largest equipment-manufacturing sector by size: 46,176 workers in 326 establishments. Most of these firms (234) are *Motor Vehicle Parts Manufacturers* with a 1.46 LQ that supply automobile plants and/or make numerous after-market products. *Motor Vehicle Manufacturing* had a high LQ of 3.13 thanks to large assembly plants in St. Louis and Kansas City. The *Aerospace Product Manufacturing* subsector had a 1.70 LQ.

About Industry Concentration

Industry concentration serves as a proxy for understanding a region's economic base: which of the region's industries produce more goods and services than needed to satisfy local consumption (basic)? Which are non-basic? The economic base model assumes surplus production exported outside the region brings in new monies, i.e., exports drive regional economic growth and development. Non-basic industries, on the other hand, reflect a circulation of monies within the region. The model assumes that consumer-based industries— such *Government, Education, Social Assistance, Retail* and *Private Household services*— are usually non-basic.

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, an 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.

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.

Examples of *Transportation Equipment Mfg.* around the state include:

- Kansas City is the location for **Ford Motor Co**, **American Railcar Industries** and **Harley Davidson Kansas City Mfg Operations**.
- **Boeing's** second largest manufacturing facility is located in St. Louis.
- **Tractor Marine** operates around the state in several locations.

Electrical Equipment and Appliance Mfg.

Electrical Equipment and Appliance Mfg. had an LQ score of 1.40, with 145 establishments in 2016 employing 10,371 workers. *Other Electrical Equipment and Component Manufacturing*, such as wire and battery production, had a LQ score of 2.14 with an average of 5,439 employees and 58 establishments. Examples include:

- **Energizer** out of St. Louis
- **Eagle Picher Technologies** in Joplin
- **NorthStar Battery Company** located in Springfield

Telecommunications

Telecommunications industry employed over 20,000 workers at 948 establishments across Missouri. The *Wireless Telecommunication Carrier* industry had a LQ score of 2.12, with 5,051 workers at 334 establishments. Well-known examples include:

- **AT&T, Verizon, T-Mobile, and Sprint** located in various places across the state.

Food Manufacturing

Food Manufacturing industries in Missouri are a prosperous sector due to the states role in agricultural products. In 2016, this industry sector employed 39,072 workers in 605 establishments and had a LQ of 1.3. *Dairy Product Manufacturing* has 35 of the 605

Production Industries

Production-based industries in Missouri employed 400,215 workers across 22,984 establishments. These establishments are in the Natural Resources, Mining, Construction and Manufacturing industrial categories. Production-based workers earn on average \$55,564 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 161,673 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 earn an average \$44,708 annually.

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

INDUSTRY CONCENTRATION

TOP TEN INDUSTRY CONCENTRATIONS, 2016

Ranked by LQ > 1.20 and Employment > 5,000

NAICS	Industry Title	Units	Jobs	Average Annual Wage	Industry LQ	Job Growth 2014 - 2015
3334	HVAC & Commercial Refrigeration Equip.	50	8,323	\$53,288	3.33	-2.2%
3361	Motor Vehicle Manufacturing	14	12,849	\$78,006	3.13	N/A*
3359	Other Electrical Equipment & Component Mfg	58	5,439	\$49,026	2.14	1.9%
5172	Wireless Telecommunication Carrier	334	5,051	\$68,773	2.12	-5.7%
3115	Dairy Product Manufacturing	35	5,216	\$54,177	1.91	5.4%
3116	Animal Slaughtering and Processing	138	17,243	\$39,759	1.80	-0.1%
3364	Aerospace Product and Parts Manufacturing	46	16,040	\$108,911	1.70	-4.4%
5182	Data Processing, Hosting and Related Services	336	9,726	\$120,567	1.67	3.9%
5619	Other Support Services	1,468	9,155	\$46,273	1.53	-5.7%
4251	Electronic Markets and Agents and Brokers	7,012	26,694	\$88,822	1.53	-3.1%

* Prior to 2016, (2012-2016) Motor Vehicle Manufacturing figures for 4-digit NAICS were not recorded on BLS due to (1) Data does not meet BLS or State agency disclosure standards or (2) One or more components of the calculations do not exist or do not meet BLS or State agency disclosure standards.

Food Manufacturing establishments, which experienced an increase of 5.4 percent employment growth between 2015 and 2016, had an industry LQ score of 1.91.

Animal Slaughtering and Processing maintains 138 of the 605 *Food Manufacturing* establishments and had an average of 17,243 workers with a LQ score of 1.80. Some examples of Food Manufacturing in Missouri include:

- **Highland Dairy Foods Co, LLC** located in Springfield
- **Tyson Foods** located across the state
- **Triumph Foods** in St. Joseph
- **Farmland Foods** located in Kansas City

Administrative Support Services

Administrative Support Services is one of the larger industry employers in the state, with an overall average LQ score of 1.04, and over 155,000 workers at approximately 10,400 establishments. *Other Support Services*—including packaging, labeling, convention and trade show services— had a LQ score of 1.53 with an average of 9,155 employees at 1,468 establishments across the state.

Fortune 1000 Companies Headquartered in Missouri

- Express Scripts
- Centene
- Emerson Electric
- Monsanto
- Reinsurance Group of America
- O'Reilly Automotive
- Edward Jones
- Graybar Electric
- Ameren
- Peabody Energy
- Cerner
- H&R Block
- DST Systems
- Panera Bread
- Kansas City Southern

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

Data Processing, Hosting and Related Services are establishments that provide the infrastructure for hosting and/or data processing services. This industry, part of the **Information** sector, had a LQ score of 1.67 with 9,726 workers at 336 establishments. Examples include:

- **Cass Information Systems, Inc** with headquarters in St. Louis
- **Data Systems Intl Inc** in Kansas City

Electronic Markets, Agents and Brokers

Electronic Markets, Agents, and Brokers industry had a LQ score of 1.53 with 26,694 employees across 7,012 establishments. These markets, agents, and brokers act on behalf of the buyers and sellers of goods, by arranging sales of those goods. Example:

- **Campbell Food Brokerage, Inc** located 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

Sources

U.S. Bureau of Labor Statistics. Quarterly Census of Employment and Wages, 2017 annual data.
<http://www.bls.gov/cew/>

ReferenceUSA.gov
infogroup/Government Division, 2017
<http://www.referenceusagov.com/Home/Home>

