



AUTOMOTIVE



Automotive—Definition

The Automotive cluster is comprised of industries involved in the manufacturing of motor vehicles, such as buses, cars, and trailer trucks. This also includes the manufacturing of new and after-market parts for use within the design of the motor vehicle.

Missouri's Strengths

Vehicle Manufacturing

Light truck, utility vehicle, and truck trailer manufacturing are key global exporters and large employers in Missouri. The three major American automakers have had locations in the state for many years. Firms in this industry have contributed to the development of a highly skilled workforce in the state. Companies included in this industry are Chrysler Corporation, Ford Motor Company, and General Motors Corporation.

Vehicle Parts Manufacturing

Other large employers and exporters within the automotive segment in Missouri involve parts manufacturing. These industries manufacture and design parts for new cars as well as after-market. Growth industries include the manufacture of storage batteries, carburetors, pistons, valves, steering, suspensions, current-carrying wiring devices, seating, and vehicle bodies. Eagle-Picher and Lear Operations are some of the companies involved in vehicle parts manufacturing.

Key Locations

The largest employing areas in Automotive are located mainly in the St. Louis and Kansas City metro areas, and Greene County. The highest employment growth areas include the northwest, the central region, the Ozarks region, and the southeast. Regional export areas are spread throughout Missouri.

Factoid:

- Missouri is home to the Dodge Ram, the Chrysler Caravan, the Ford Escape, the GMC Savana, and the Chevrolet Express.
- 90% of all Automobile Dealers are involved in selling new cars; 10% sell used.
- More than 16% of automotive service technicians are self employed.
- The first locally manufactured gas engines were built in 1897 by the St. Louis Gasoline Engine Company.



What's Next for Automotive?

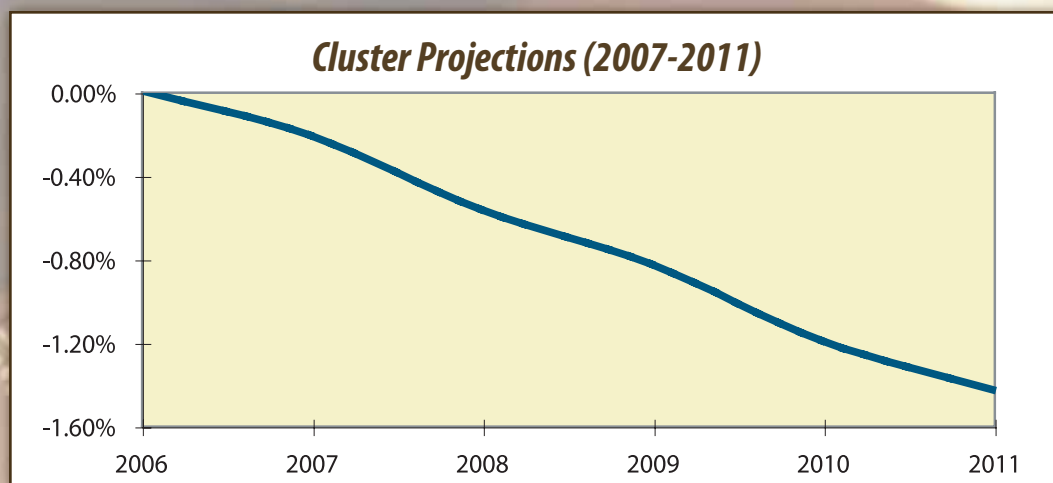
Automotive manufacturing is an important part of Missouri's economy. The automotive industry accounts for nearly 1.6% of total employment in the state. Ford, Daimler Chrysler and General Motors all have assembly plants in Missouri. A large number of vehicle parts manufacturers and wholesalers are also located in Missouri.

Higher gas prices have changed consumer buying patterns from large trucks and SUV's to smaller, more fuel-efficient vehicles. This change is impacting the industry in different ways. Both Ford and Chrysler have recently announced assembly plant closures or employee cuts due to this shifting consumer demand. On a positive note, Chrysler has announced plans to convert one of its assembly plants into a flexible manufacturing facility which is capable of producing different models on the same assembly line. Flexible manufacturing systems represent the future of automotive manufacturing.

Automobile parts manufacturers in Missouri are aware that this changing market also means changes for them. Some are expanding their markets to reach automobile manufacturers throughout the U.S. Diversified Plastics Corporation in Nixa, for example, has recently contracted with Honda to manufacture foam seating.

Overall, employment has been consistent for Missouri's automotive industrial group, despite a measured decrease in the number of total establishments between 2001 and 2005. Manufacturing output is expected to continue to grow to replace existing vehicles and meet the demand for new vehicles as the driving population grows. Market pressures for fuel efficiency and lower emissions could provide opportunities for new investment in the state as parts manufacturers adapt to new technology.

Missouri is a top ten auto-producing state. Possessing an automotive industrial knowledge base that reaches across the state, a robust and evolving infrastructure, and competitive energy costs, Missouri remains poised to continue as a key partner in the auto industry of the future.



Cluster Statistics

- Number of Businesses (2006) 258
- Number of Jobs (2006) 36,223
- Percent of Total Missouri Jobs (2006) 1.58%
- Average Annual Wages (2005) \$54,167
- Location Quotient (2006) 1.65
- Percent Change from 2001 Location Quotient 3.91%
- Net Percent Change in Jobs (2001-2006) -12.2%

- Total Change in Jobs (2001-2006) -5,051
- Employment Change from 2001 attributed to:*
- National Factors 1,059
- Industry Factors -7,066
- Missouri's Competitiveness 956

Top Five Industries

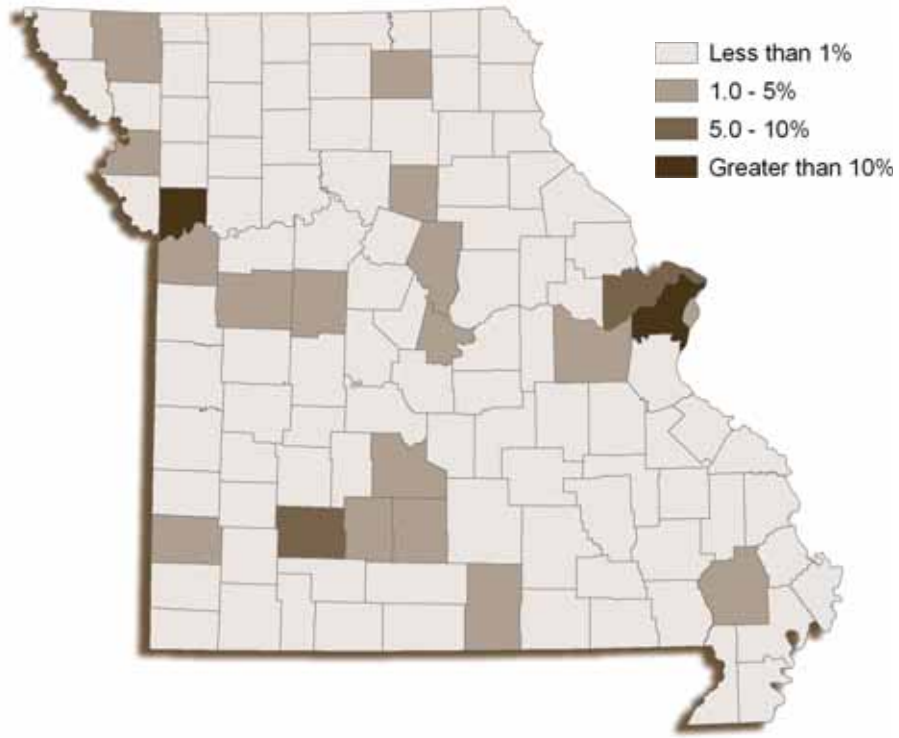
- Light truck and utility vehicle manufacturing
- Motor vehicle parts manufacturing
- Motor vehicle seating and interior trim mfg.
- Storage battery manufacturing
- Truck trailer manufacturing

68% of
Cluster Jobs

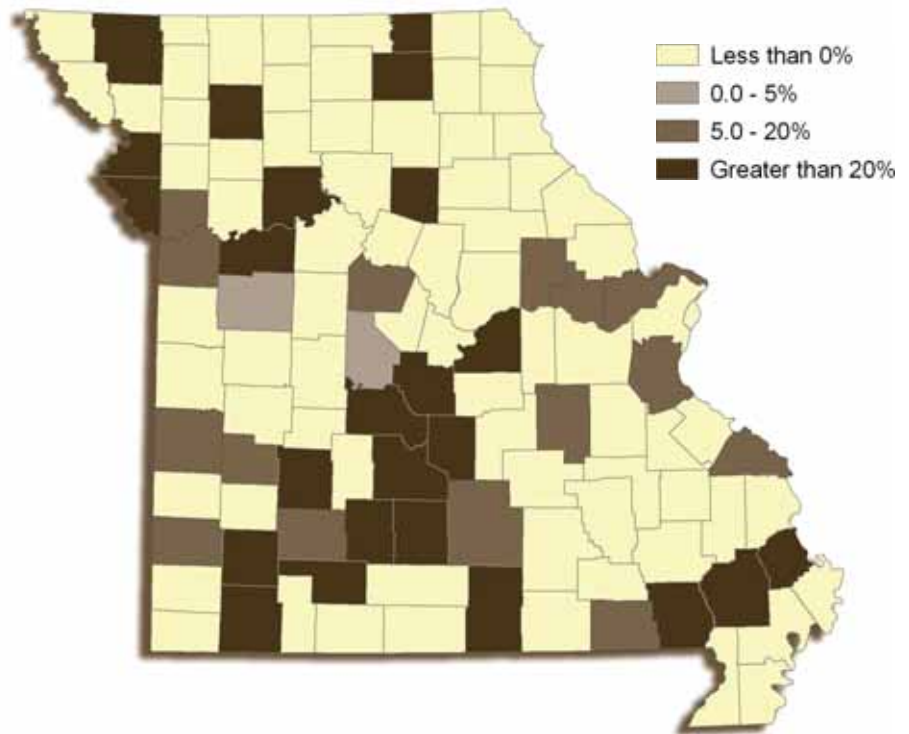
Targeted Occupations with Projected Growth and Current Wage

<i>42% of Cluster Occupations</i>	<i>Current Wage</i>	<i>Projected Growth 2004–2014</i>
Maintenance and Repair Workers	\$32,410	10.30%
Electricians	\$50,500	9.20%
Welders, Cutters, Solderers, and Brazers	\$29,840	4.90%
First-Line Supervisors/Managers	\$47,950	4.40%
Team Assemblers	\$28,570	4.30%

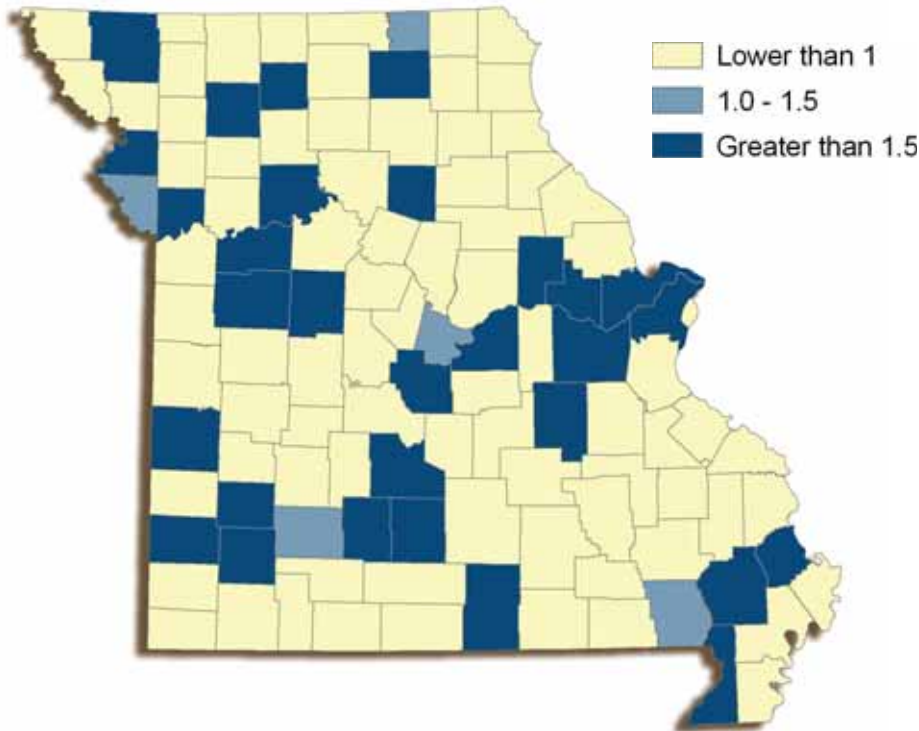
Employment Percentage by County (2006)



Employment Change by County (2001-2006)



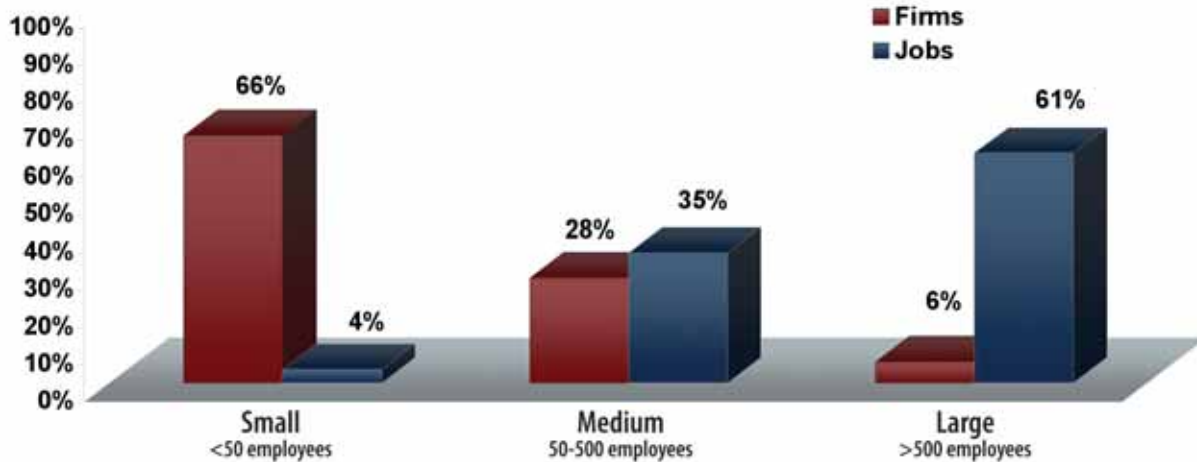
Location Quotient by County (2006)



Top Industries by 2006 Location Quotient (LQ) with Change from 2001 LQ

NAICS	Industry	2006 LQ	Percent Change
336112	Light truck and utility vehicle manufacturing	9.52	-25.81%
335911	Storage battery manufacturing	6.41	44.42%
336212	Truck trailer manufacturing	2.46	-8.79%
336321	Vehicular lighting equipment manufacturing	2.32	-4.93%
336360	Motor vehicle seating and interior trim mfg.	2.08	-12.78%
336311	Carburetor, piston, ring, and valve mfg.	2.01	30.47%
336340	Motor vehicle brake system manufacturing	1.95	-22.30%
336330	Motor vehicle steering and suspension parts	1.46	47.70%
336399	All other motor vehicle parts manufacturing	1.30	8.63%
335931	Current-carrying wiring device manufacturing	1.13	27.60%
336211	Motor vehicle body manufacturing	1.07	21.06%

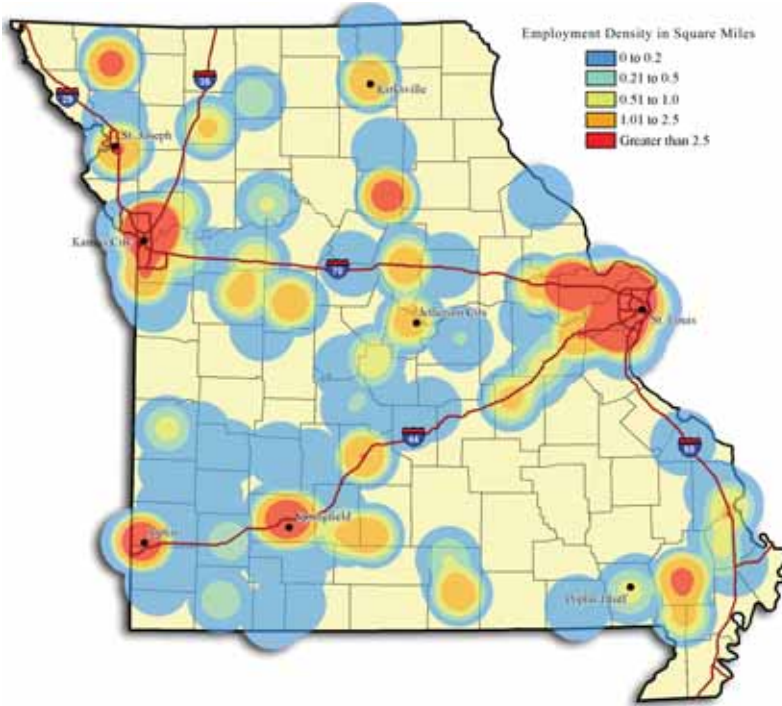
Distribution of Firms and Jobs by Firm Size (2006)



NAICS industries included in targeted cluster

335110	Electric Lamp Bulb and Part Manufacturing
335911	Storage Battery Manufacturing
335931	Current-Carrying Wiring Device Manufacturing
336111	Automobile Manufacturing
336112	Light Truck and Utility Vehicle Manufacturing
336120	Heavy Duty Truck Manufacturing
336211	Motor Vehicle Body Manufacturing
336212	Truck Trailer Manufacturing
336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing
336312	Gasoline Engine and Engine Parts Manufacturing
336321	Vehicular Lighting Equipment Manufacturing
336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing
336340	Motor Vehicle Brake System Manufacturing
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing
336360	Motor Vehicle Seating and Interior Trim Manufacturing
336370	Motor Vehicle Metal Stamping
336391	Motor Vehicle Air-Conditioning Manufacturing
336399	All Other Motor Vehicle Parts Manufacturing

Missouri Auto Industry: The Supply Chain



Distribution trend maps illustrate the clustering orientation of employees or firms which can help identify industry corridors.

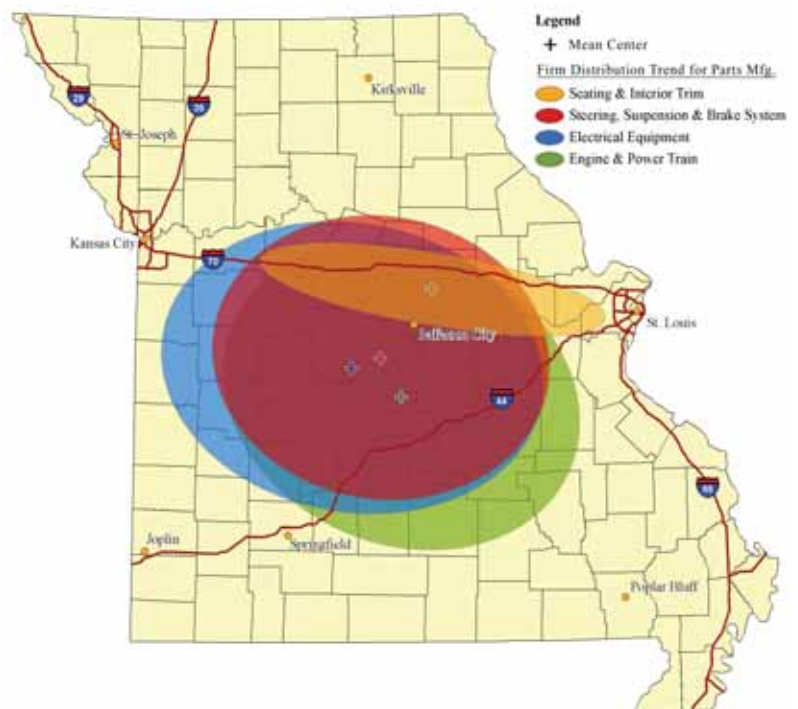
With major assembly operations in the metro areas of Kansas City and St. Louis, industrial expertise along the automotive value chain extends throughout Missouri. The employment density of automotive assembly plants, along with automotive parts manufacturers, is illustrated by the map on the left.

The automotive parts and component firms' distribution is shown to the right.

"Steering, Suspension & Brake System", "Electrical Equipment", and "Engine & Power Train" trend southward toward Springfield but with heavy influence from Kansas City and St. Louis.

The directional trend for "Seating & Interior Trim" establishments, however, tightens along the Interstate 70 corridor and slightly favors the St. Louis metropolitan area.

Firm Distribution Trend of Missouri Automotive Parts Manufacturers



Definition of Terms

Location Quotient

Location Quotient (LQ) measures the employment concentration of an industry within a specified area relative to the nation as a whole. It is calculated by dividing the region's industry employment share by the nation's industry employment share. A LQ of 1.00 or greater means that there is a higher concentration in the region for an industry than exists nationally. The Location Quotient is a quick guide to understanding key industries within an area, especially when coupled with employment growth trends that shift-share analysis can reveal.

What Does the Location Quotient (LQ) Mean?		
	Low Employment Growth	High Employment Growth
High LQ	Important industries that may require attention	Important growth industries
Low LQ	Industries with lower potential for local economy	Potential emerging industries

Statewide Location Quotients are provided by cluster in the summary section and in each cluster and sub-cluster section. Top industry and county Location Quotients are included in each cluster and sub-cluster section.

Shift Share Analysis

Shift Share analysis measures employment changes in an industry, cluster, or regional industry mix. It breaks out employment changes into three components: National Share (NS), Industry Mix (IM), and Regional Shift (RS).

National Share (NS)—is the share of regional employment changes attributed to factors in the national economy.

Industry Mix (IM)—identifies local industry employment changes attributed to national industry employment changes.

Regional Shift (RS)—identifies a region's lagging or leading industries. This is also considered a measure of a region's competitiveness.

The shift share analysis is provided in the summary section and in each cluster and sub-cluster section under the heading Cluster Statistics.

Summary of Clusters

	Agribusiness	Automotive	Defense Homeland Security	Energy	Finance	Information Technology	Life Sciences	Transportation Logistics	All Clusters
Employer Units (2006)	3,040	258	348	696	9,769	2,345	1,034	12,468	29,349
Employment (2006)	88,645	36,223	16,922	20,275	132,036	38,604	31,295	175,064	519,316
Average Employment per Establishment (2006)	29	140	49	29	14	16	30	14	18
Percent of Total Missouri Jobs (2006)	3.86%	1.58%	0.74%	0.88%	5.75%	1.68%	1.36%	7.62%	22.62%
Average Annual Wages (2005)	\$39,605	\$54,167	\$77,935	\$58,053	\$52,206	\$70,938	\$66,505	\$43,374	\$51,285
Location Quotient (2006)	1.19	1.65	0.78	1.29	1.04	0.79	0.91	1.05	1.06
Percent Change from 2001 Location Quotient	5.25%	3.91%	38.25%	-1.91%	-2.34%	8.69%	11.95%	0.11%	1.22%
Projected Employment Change (2011)	1.03%	-1.43%	4.61%	1.72%	0.12%	9.25%	11.41%	3.81%	2.88%
Percentage of Firms with less than 50 Employees	91%	66%	88%	93%	92%	93%	91%	94%	93%
Net Percentage Change in Jobs (2001-2006)	-8.9%	-12.2%	42.2%	-17.6%	1.4%	10.8%	17.4%	0.3%	-3.40%
Employment Change in Jobs (2001-2006) Total Change	-8,654	-5,051	5,024	-4,320	1,798	3,760	4,629	446	-18,482
Employment Change from 2001 attributed to National Factors	2,498	1,059	305	631	3,343	894	685	4,482	13,805
Employment Change from 2001 attributed to Industry Factors	-14,590	-7,066	180	-4,315	3,204	195	932	-2,178	-32,559
Employment Change from 2001 attributed to Missouri's Competitiveness	3,438	956	4,538	-637	-4,749	2,670	3,013	-1,858	272

Note: Some industries are in more than one cluster, so the sum of individual clusters will not equal the total for all clusters.