



Missouri Economic Indicator Brief: Manufacturing Industries

Manufacturing is a major component of Missouri's \$300.9 billion economy. It represents 13.1 percent (\$39.4 billion) of the 2016 Gross State Product (GSP). Nationally, manufacturing contributed 11.9 percent to GDP.

Missouri ranks among the top states for manufacturing employment and capital expenditures. Change over the past five years in Missouri's GDP averaged 4.6 percent growth compared to the 2.7 percent average GDP change within the same time for the nation.

Manufacturing accounts for 11.3 percent of the state's private sector employment: 263,314 jobs across 6,491 establishments. The industry has added 17,094 jobs since 2011, growing 1.4 percent per year over five years compared to the nation's 1.0 percent growth rate over the same period. Wages continue to grow, statewide and nationally. Missouri's 2016 manufacturing payroll totaled \$14.8 billion, a \$56,285 average wage. This is higher than the state's \$46,500 average private sector wage.

Employment

263,314

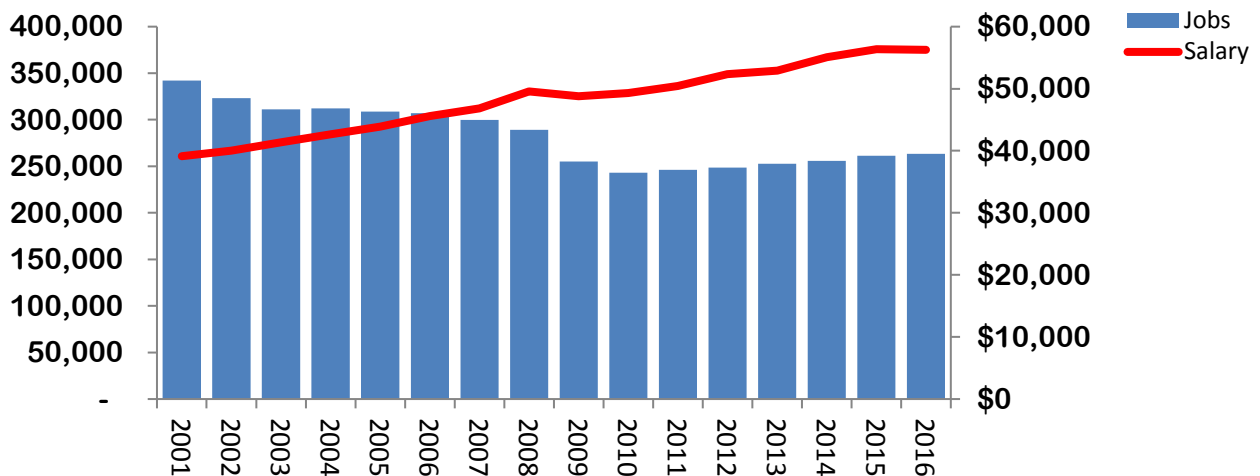
GSP Share

13.1 Percent

Average Wage

\$56,285

**Missouri Manufacturing Employment and Wages
2001 - 2016**

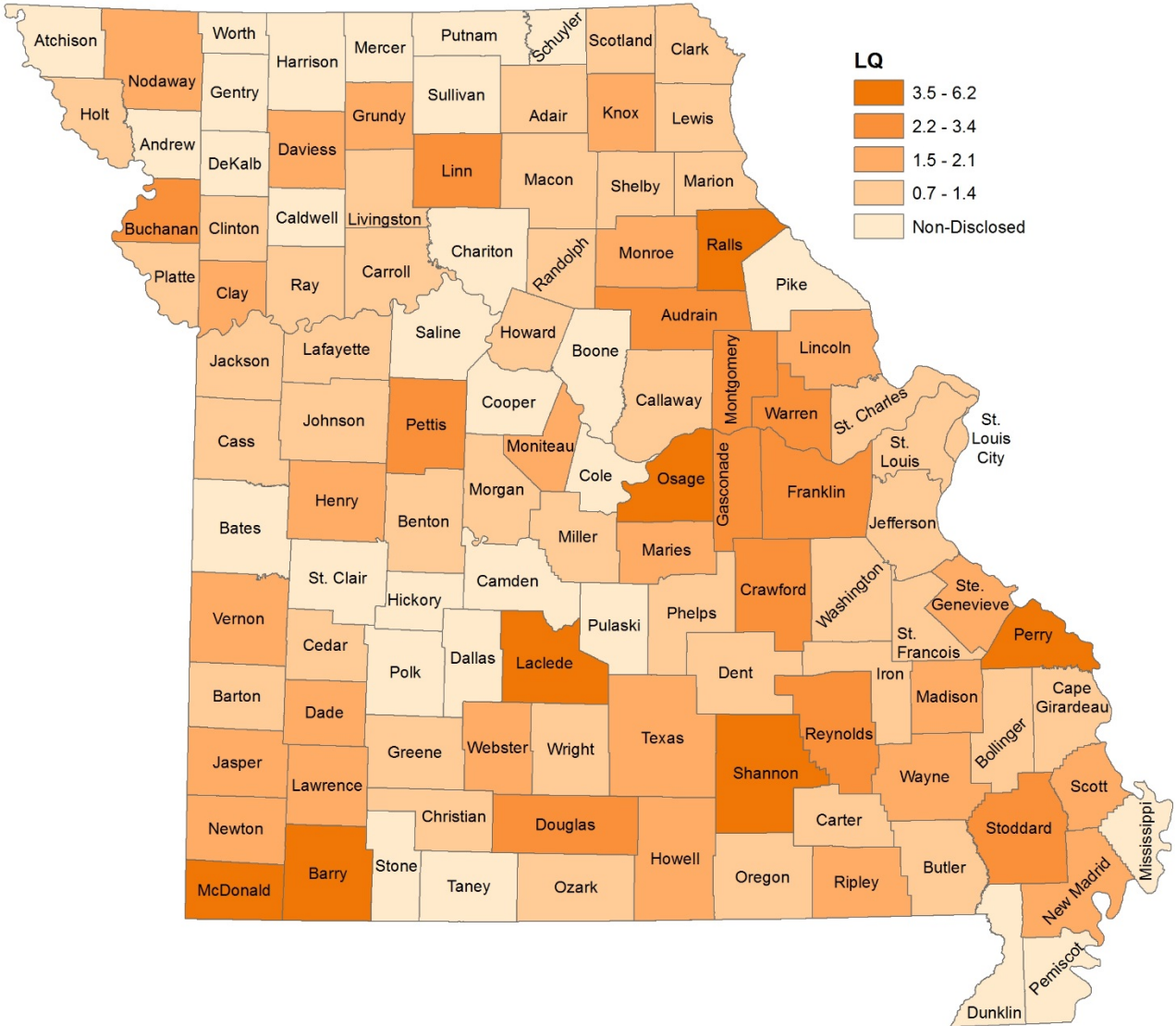


MANUFACTURING INDUSTRIES

Location Quotient Analysis

Location Quotient (LQ) compares the regional share of an industry to the national share so that an LQ over 1 indicates sectors of employment concentration. Missouri, with an LQ of 1.10, has a greater share of its workers employed in the manufacturing sector than the nation as a whole. **About 61.7 percent or 71 out of Missouri's 115 counties have an LQ over one, demonstrating a greater specialization in manufacturing compared to the nation.**

2016 Manufacturing LQ by County



MANUFACTURING INDUSTRIES

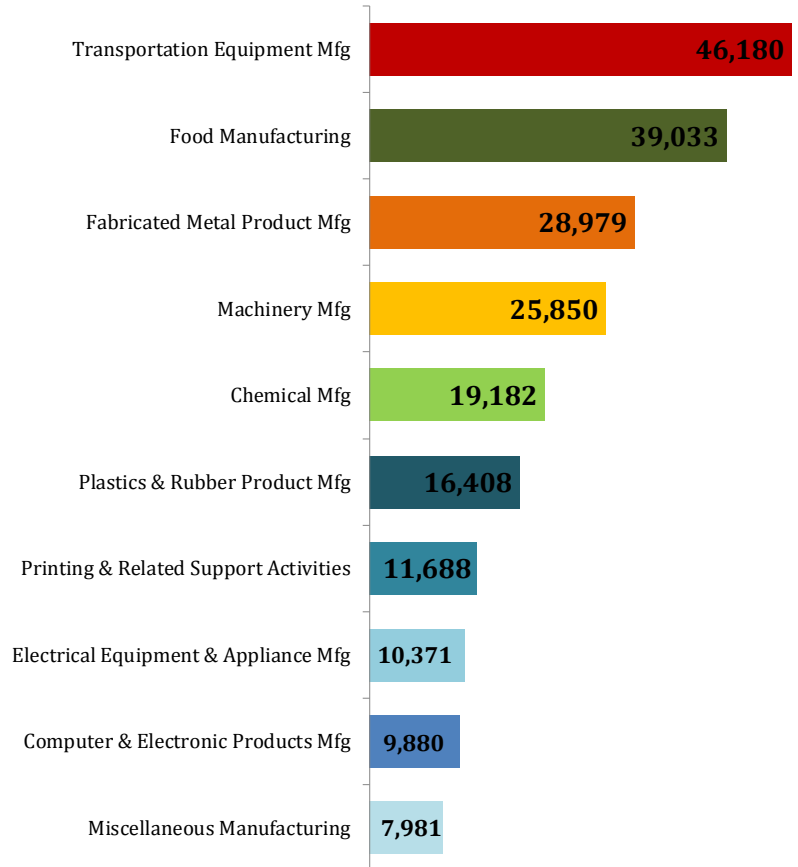
Economic Contribution

Manufacturing industries make a significant contribution to the Missouri economy, directly and indirectly. Direct contributions come from employment in manufacturing firms and the compensation paid to industry workers. Indirect benefits come from business to business transactions and from workers who spend their earnings on consumer goods and services.

Manufacturing's contribution to the Missouri economy is measured in terms of jobs created, incomes earned and value-added. Value-added, a measure of industry sales minus production costs, refers to an industry's share of Gross State Product (GSP).

Multipliers are a summary statistic indicating the magnitude of an industry's impact on the economy. For example, a multiplier of 1.9 means that for every \$1 in value-added generated by manufacturing, the state's GSP increases an additional \$0.90; similarly, an employment multiplier of 2.8 means that for every job created in manufacturing, nearly two jobs would be created in other industries.

TOP TEN MANUFACTURING INDUSTRIES Direct Employment Contribution



ECONOMIC IMPACT OF MANUFACTURING

	Direct	Indirect	Total	Multiplier
Employment	263,314	482,287	745,601	2.8
Labor Income	\$22.4 Billion	\$22.3 Billion	\$44.7 Billion	2.0
Value-Added	\$39.4 Billion	\$36.7 Billion	\$76.1 Billion	1.9

In 2016, Missouri had an estimated 6,491 manufacturing establishments that directly employed 263,314 workers, paid \$22.3 billion in wages and salaries, and contributed \$39.4 billion to the state's gross product. The impact resulted in an increase of \$36.7 billion in additional economic activity.

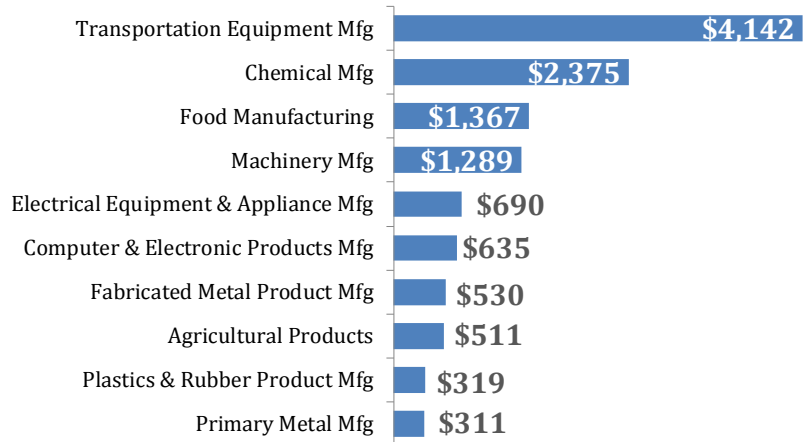
Manufacturing's total impact— direct and indirect effects— on the state economy was \$76.1 billion, which represents 25.3 percent of Missouri's gross domestic product. Manufacturing industries and indirect industries employed 745,601 workers paying about \$44.7 billion in salaries.

MANUFACTURING INDUSTRIES

2016 Exports

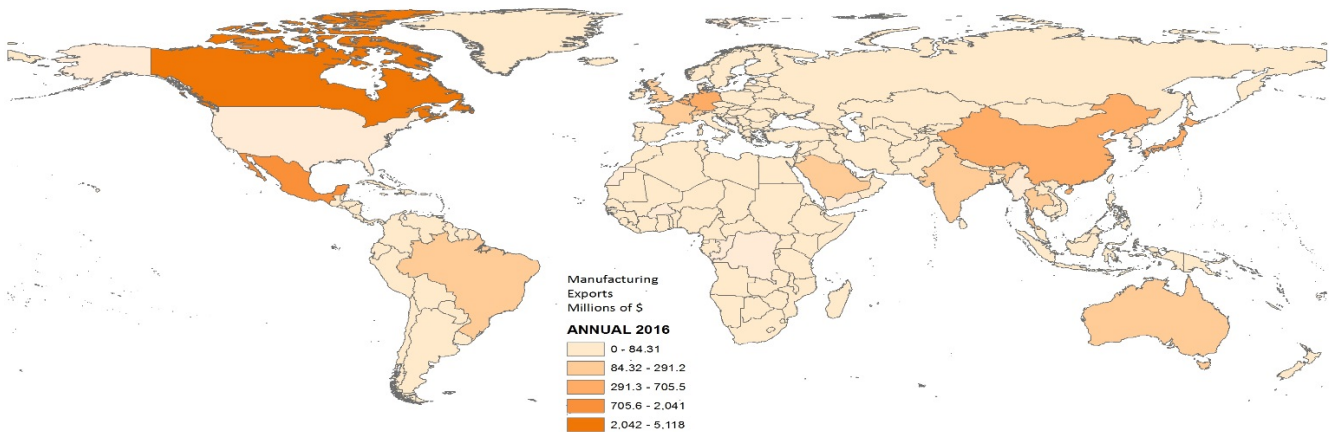
Manufacturing exports totaled nearly \$12.2 billion dollars. This is down slightly from roughly \$12.6 billion in 2015. Missouri's highest valued industry exports were *Transportation Equipment* and *Chemicals*. The largest gain was in *Transportation Equipment*, which rose 32.8 percent in 2016 to \$4,142 million. *Primary Metal Mfg* had the greatest decline percentage: 25.1 percent from \$415 million to \$311 million.

TOP TEN MANUFACTURING EXPORTS in millions



International Markets

Over \$12.9 billion worth of manufactured product and other commodities were shipped to other countries through Missouri ports. The top export destinations were Canada and Mexico followed by China, Japan, Belgium, Germany, United Kingdom, and South Korea. In 2016, Missouri's high-value shipment to both Canada and Korea was Transportation Equipment; to Mexico and Japan was Food products; and to the United Kingdom, China, Germany and Belgium was Chemicals.



MANUFACTURING INDUSTRIES

Notes:

Gross State Product data was obtained from the Bureau of Economic Analysis.

Employment numbers were obtained from the Quarterly Census of Employment and Wages (QCEW), Bureau of Labor Statistics. Industries are classified according to North American Industry Classification System (NAICS).

Location quotients were generated for manufacturing industries using 2016 annual Bureau of Labor Statistics data.

The economic contribution analysis was developed using the IMPLAN Group LLC economic model.

2016 Missouri manufacturing export data were obtained from the World Institute for Strategic Economic Research (WISER) Trade database.

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NAICS Industry Description

311	Food Products
312	Beverage and Tobacco Products
313	Textile Mills
314	Textile Product Mills
315	Apparel
316	Leather and Allied Products
321	Wood Products
322	Paper
323	Printing
324	Petroleum and Coal Products
325	Chemicals
326	Plastics and Rubber Products
327	Nonmetallic Mineral Products
331	Primary Metal
332	Fabricated Metal Products
333	Machinery
334	Computer and Electronic Products
335	Electrical Equipment
336	Transportation Equipment
337	Furniture
339	Miscellaneous

