

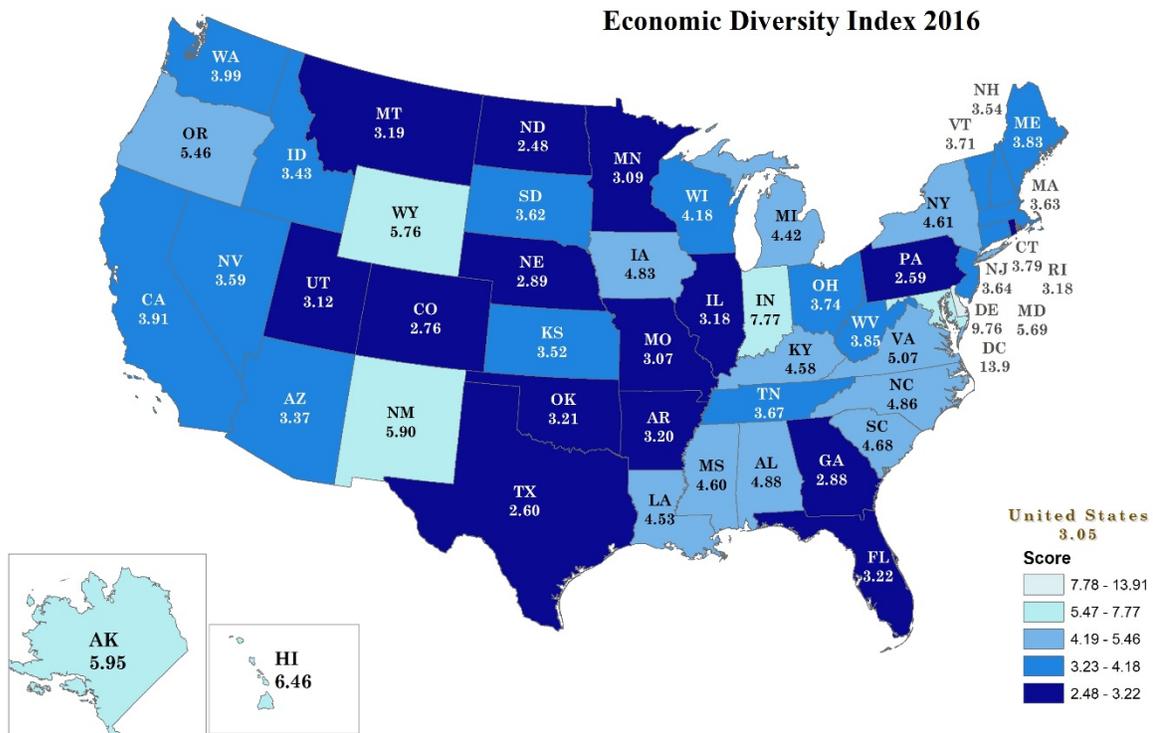


Missouri Economic Indicator Brief: *Economic Diversity 2016*

Diversification Index

A diversified economy is one with many industries that can better manage fluctuations in the business cycle. By contrast, a less diversified economy specializes in only a few industries. A state economy with a disproportionate number of workers in one specific industry would suffer should that industry fall on hard times. Whereas, a more diversified economy is also a more balanced economy. A balanced economy is more capable of absorbing an economic shock through the other industries present. The other industries, that are performing stronger economically, help to compensate for the loss, which helps maintain economic stability for that state.

In 2016, North Dakota was the most diversified state in the country followed by Pennsylvania, Texas, Colorado, Georgia and Nebraska. Missouri ranked seventh in the index¹, same as the previous year. The map below shows each state's 2016 score.



The lower a score, the more diversified a state's economy; the higher a score, the more specialized its economy.

Gross Domestic Product

The broadest measure of economic activity is the Gross Domestic Product.² In calculating each state's diversification index, the gross product by industry was measured against total state gross product.

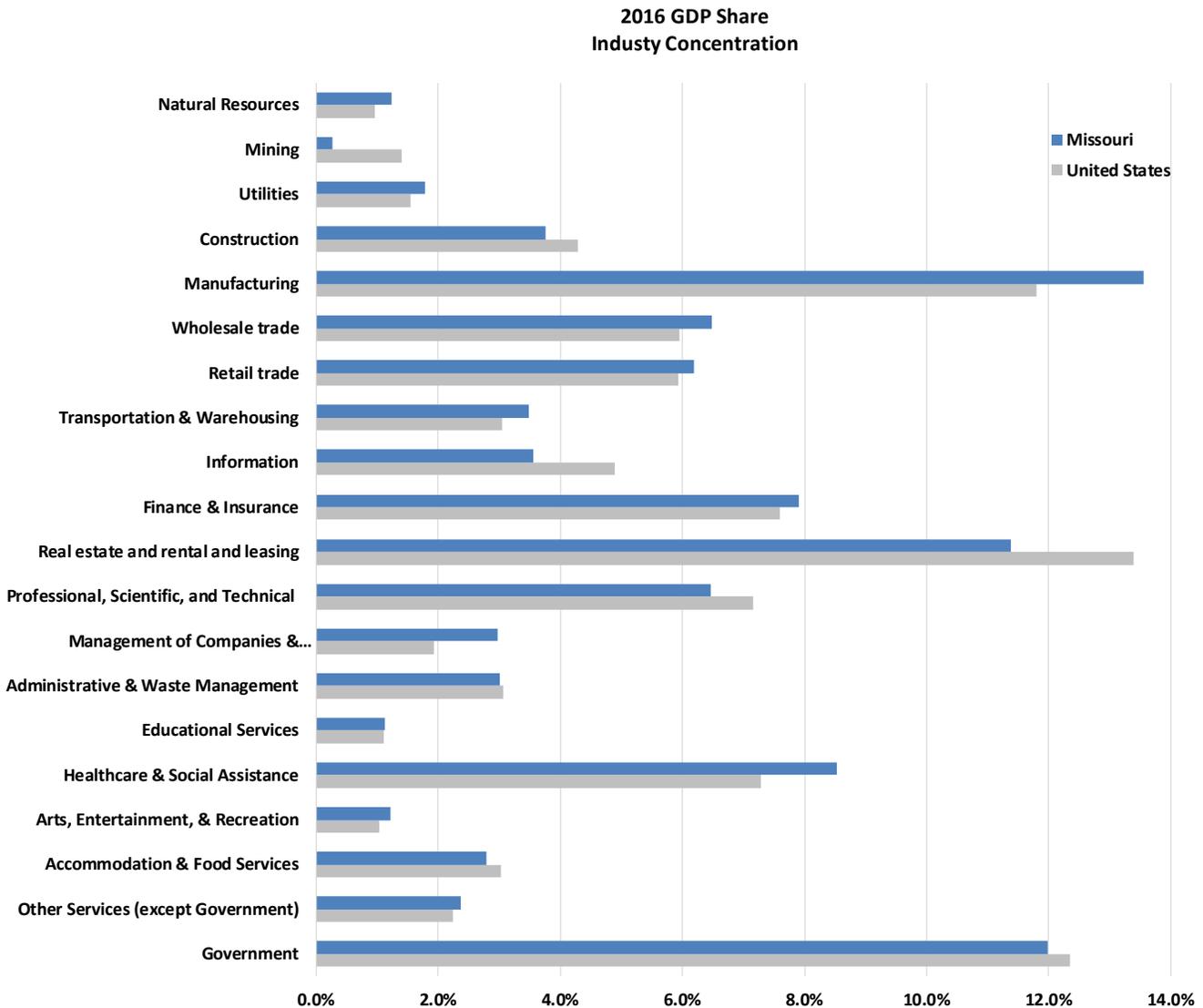
Missouri's total gross domestic product (GDP) increased from \$261.2 billion in 2015 to \$262.0 billion in 2016 in real terms. The state's top five industries, not including Government, are *Manufacturing* (13.6 percent of total GDP), *Real Estate* (11.4 percent), *Health Care* (8.5 percent), *Finance and Insurance* (7.9 percent) and *Wholesale Trade and Professional, Scientific, and technical Services* both at 6.5 percent.

Among the service sectors that experienced some growth between 2015 and 2016, *Finance and Insurance* grew 0.2 percent from 7.7 to 7.9; *Real Estate* grew 0.2 percent from 11.2 to 11.4 percent; *Professional, Scientific, and Technical Services* grew 0.2 percent from 6.3 to 6.5 percent; and *Construction* grew 0.2 percent from 3.6 to 3.8 percent GDP share. Among sectors that experienced some decline include *Manufacturing*, which declined 0.2 percent from 13.8 to 13.6 percent; *Wholesale Trade* declined 0.2 percent from 6.7 to 6.5 percent; and *Information*, which declined 0.1 percent from 3.7 to 3.6

Missouri Industry GDP Share			
Industry	2016	2015	Change from 2015-2016
Natural Resources	1.2%	1.2%	-
Mining	0.3%	0.3%	-
Utilities	1.8%	1.8%	-
Construction	3.8%	3.6%	0.2%
Manufacturing	13.6%	13.8%	-0.2%
Wholesale trade	6.5%	6.7%	-0.2%
Retail trade	6.2%	6.2%	-
Transportation & Warehousing	3.5%	3.5%	-
Information	3.6%	3.7%	-0.1%
Finance & Insurance	7.9%	7.7%	0.2%
Real estate and rental and leasing	11.4%	11.2%	0.2%
Professional, Scientific, and Technical	6.5%	6.3%	0.2%
Management of Companies & Enterprises	3.0%	3.1%	-0.1%
Administrative & Waste Management	3.0%	2.9%	0.1%
Educational Services	1.1%	1.1%	-
Healthcare & Social Assistance	8.5%	8.4%	0.1%
Arts, Entertainment, & Recreation	1.2%	1.2%	-
Accommodation & Food Services	2.8%	2.7%	0.1%
Other Services (except Government)	2.4%	2.4%	-
Government	12.0%	12.0%	-

State Industry Concentration

Another measurement based on industry GDP share analysis is industry concentration. The chart below compares Missouri to the United States to better identify concentrations within the state. Three industries in particular have significantly higher GDP share concentrations in the State of Missouri than that of the United States including *Healthcare, Manufacturing, and Management of Companies & Enterprises*. Other concentration with higher rates than that of the nation include *Transportation and Warehousing, Utilities, Wholesale Trade, Retail Trade, Finance & Insurance, Arts, Entertainment, & Recreation, Other Services, and Natural Resources*.



Notes

¹Diversification Index

There are a handful of indices available to measure an economy's diversification: Herfindahl, Hachman, and competitive share among others. Data used to construct an index may include employment, earnings, per capita income, capital investment or gross domestic product. In this brief, a modified Herfindahl Index (H_i) based on gross domestic product data was constructed.

$$H_i = \left\{ \sum_{s_i} \frac{n}{n-1} \times \left(\left(\frac{GDP_i}{GDP_s} \right) - \left(\frac{1}{n} \right) \right)^2 \right\} * 100$$

Where n is the number of industries in the state economy, and GDP_i is the gross domestic product for each industry (i) in the state, and GDP_s is a state's total gross domestic product. The number of industries (n) analyzed in each state (s) is constant. Thus, the analysis focuses on the distribution of GDP. Those states with an index value closer to 0 are more diversified.

²Gross Domestic Product

A state's Gross Domestic Product is estimated by the U.S. Bureau of Economic Analysis. This estimate is the sum of value-added from each industry in the state for a given time period. Value-added is effectively an industry's net revenue: income minus costs of production.

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