

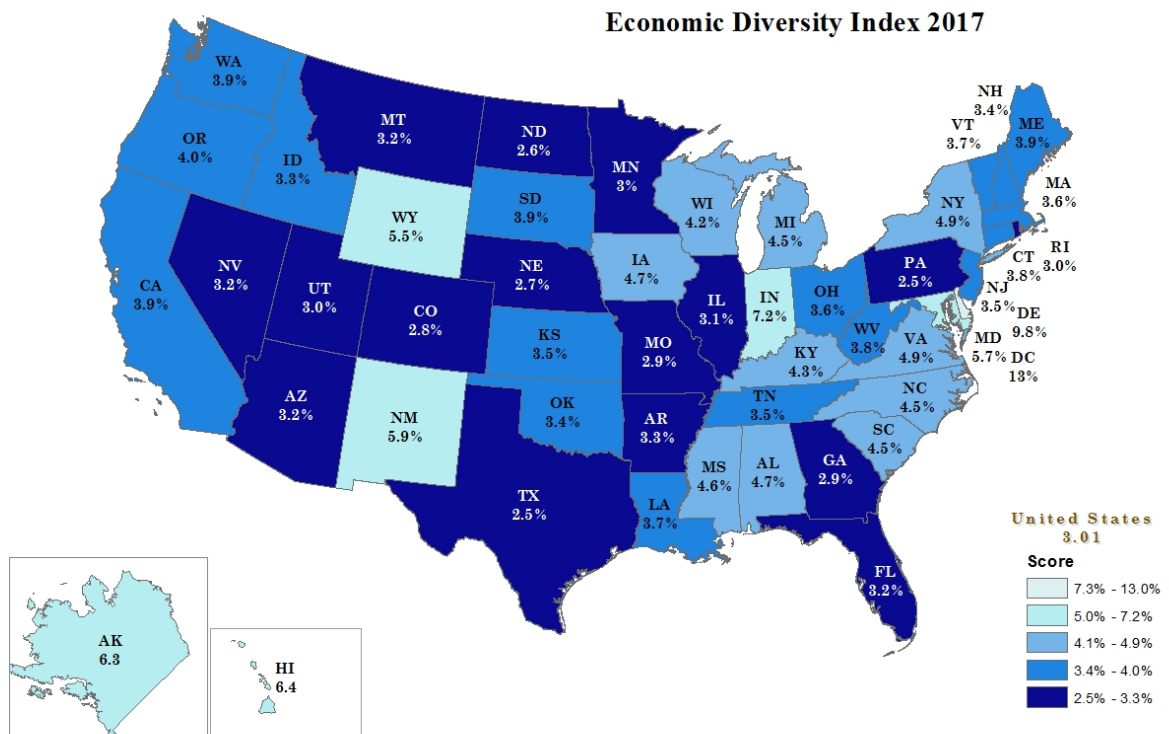


Missouri Economic Indicator Brief: *Economic Diversity 2017*

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 diversified economy is more balanced. A balanced economy is capable of absorbing an economic shock through the other industries present. If a shock were to occur, other industries help to compensate for the loss by helping to maintain economic stability for that state.

In 2017, Texas was the most diversified state in the country followed by Pennsylvania, North Dakota, Nebraska, Colorado, and Georgia. Missouri ranked seventh in the index¹, same as the previous year. The map below shows each state's 2017 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.

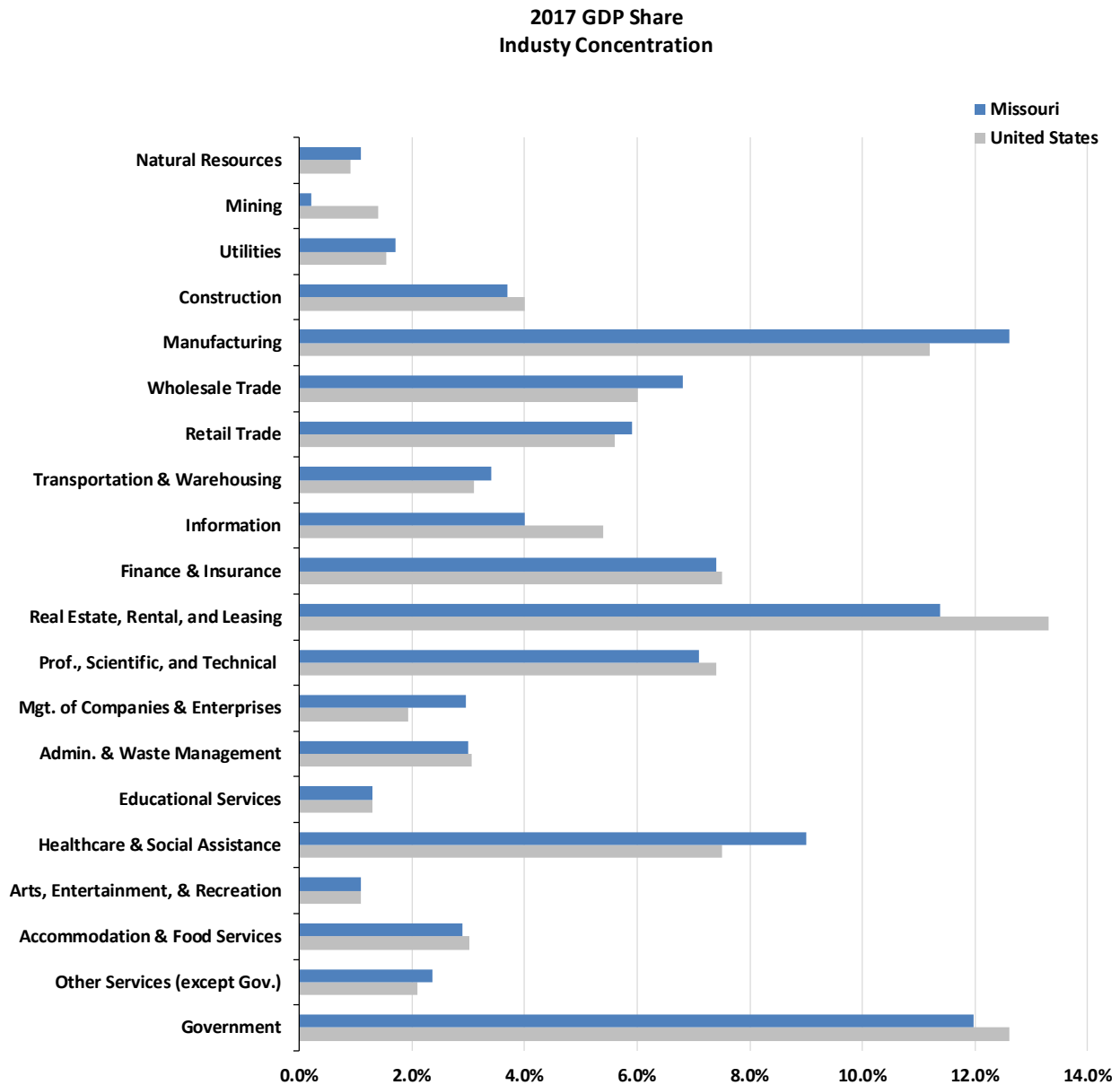
Missouri's total gross domestic product (GDP) increased from \$273.1 billion in 2016 to \$275.5 billion in 2017 in real terms. The state's top five industries, not including *Government*, are *Manufacturing* (12.6 percent of total GDP), *Real Estate* (11.4 percent), *Health Care* (9.0 percent), *Finance and Insurance* (7.4 percent) and *Professional, Scientific, and Technical Services* both at 7.1 percent.

Service sectors that experienced growth between 2016 and 2017 include *Professional, Scientific, and Technical*, which grew 0.6 percent from 6.5 to 7.1; *Healthcare & Social Assistance* grew 0.5 percent from 8.5 to 9.0; *Information* grew 0.4 percent from 3.6 to 4.0; *Wholesale Trade* grew 0.3 percent from 6.5 to 6.8; *Educational Services* grew 0.2 percent from 1.1 to 1.3; and *Accommodation & Food Services* grew 0.1 percent from 2.8 to 2.9 percent GDP share. Among sectors that experienced decline include *Manufacturing*, which declined 1.0 percent from 13.6 to 12.6; *Finance & Insurance* declined 0.5 percent from 7.9 to 7.4; and *Retail Trade* declined 0.3 percent from 6.2 to 5.9 percent.

Missouri Industry GDP Share			
Industry	2017	2016	Change from 2017-2016
Natural Resources	1.1%	1.2%	-0.1%
Mining	0.2%	0.3%	-0.1%
Utilities	1.7%	1.8%	-0.1%
Construction	3.7%	3.8%	-0.1%
Manufacturing	12.6%	13.6%	-1.0%
Wholesale trade	6.8%	6.5%	0.3%
Retail trade	5.9%	6.2%	-0.3%
Transportation & Warehousing	3.4%	3.5%	-0.1%
Information	4.0%	3.6%	0.4%
Finance & Insurance	7.4%	7.9%	-0.5%
Real estate and rental and leasing	11.4%	11.4%	-
Professional, Scientific, and Technical	7.1%	6.5%	0.6%
Management of Companies & Enterprises	3.0%	3.0%	-
Administrative & Waste Management	3.0%	3.0%	-
Educational Services	1.3%	1.1%	0.2%
Healthcare & Social Assistance	9.0%	8.5%	0.5%
Arts, Entertainment, & Recreation	1.1%	1.2%	-0.1%
Accommodation & Food Services	2.9%	2.8%	0.1%
Other Services (except Government)	2.4%	2.4%	-
Government	12.0%	12.0%	-

State Industry Concentration

Industry concentration is another measurement based on industry GDP share analysis. The chart below compares the same industries across Missouri and the United States to help identify state-level industry concentrations. 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 concentrations in Missouri, which have higher rates than that of the nation, include *Wholesale Trade*, *Retail Trade*, *Transportation & Warehousing*, *Other Services*, *Utilities*, 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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