



WICHITA STATE  
UNIVERSITY

W. FRANK BARTON  
SCHOOL OF BUSINESS

Center for Economic Development  
and Business Research

## Misery Index: 2016 Q4

The Misery Index is an indicator measuring the impact of changing economic conditions on people. This index, as calculated by CEDBR, is a combination of the quarterly percent change in the Housing Price Index (HPI), the quarterly average change in the Consumer Price Index (CPI), and the quarterly average unemployment rate (UR). The combination of changes in these factors indicates the changing level of economic misery experienced by people in different geographic areas.

### Misery Index

		Index Value		% Change in Index		Change in Index Components		
		2016 Q4	2016 Q3	Quarterly	Annual	HPI	CPI	UR
	U.S.	4.54	4.96	▼ -8.4%	▼ -5.3%	▼ -0.009	▲ 0.007	▼ -0.433
	Kansas	3.88	4.49	▼ -13.7%	▲ 6.9%	▼ -0.009	▲ 0.007	▼ -0.633
Kansas	Wichita, KS	4.35	5.02	▼ -13.4%	▲ 6.7%	▼ -0.018	▲ 0.007	▼ -0.700
	Kansas City, MO-KS	3.91	4.79	▼ -18.4%	▲ 2.3%	▼ -0.010	▲ 0.007	▼ -0.900
	Lawrence, KS	3.24	3.98	▼ -18.4%	▲ 6.6%	▼ -0.027	▲ 0.007	▼ -0.767
	Topeka, KS	3.84	4.31	▼ -10.9%	▲ 5.8%	▲ 0.010	▲ 0.007	▼ -0.467
Region	Oklahoma City, OK	4.14	4.52	▼ -8.4%	▲ 19.0%	▼ -0.011	▲ 0.007	▼ -0.400
	Omaha, NE	3.11	3.46	▼ -10.0%	▲ 6.2%	▼ -0.016	▲ 0.007	▼ -0.367
	St. Louis, MO-IL	4.01	4.96	▼ -19.0%	▼ -7.9%	▼ -0.017	▲ 0.007	▼ -0.967
	Tulsa, OK	4.91	5.42	▼ -9.4%	▲ 19.0%	▼ -0.015	▲ 0.007	▼ -0.533
Peer	Akron, OH	4.72	4.73	▼ -0.2%	▲ 4.3%	▼ -0.015	▲ 0.007	▼ -0.033
	Grand Rapids, MI	3.11	3.35	▼ -6.9%	▲ 11.5%	▼ -0.028	▲ 0.007	▼ -0.267
	Greenville, SC	3.78	4.76	▼ -20.6%	▼ -18.8%	▼ -0.014	▲ 0.008	▼ -1.000
	Lancaster, PA	3.91	4.60	▼ -15.1%	▲ 22.4%	▲ 0.004	▲ 0.010	▼ -0.700

Values are impacted by rounding.

Between the third and fourth quarters of 2016, the general level of misery experienced by people in the United States decreased and remained below the 2015 level. This can be attributed to a decrease in the unemployment rate, that was partially offset by increases in inflation and a decrease in housing prices.

The level of misery also decreased in Kansas in the fourth quarter but was above the 2015 level at the end of the year. This is also true of each of the metropolitan areas in the state. In general, the decreases in misery in the fourth quarter were not enough to offset the increases in misery experienced in the third quarter. Among the metropolitan areas in the state, Lawrence was the only area to have a

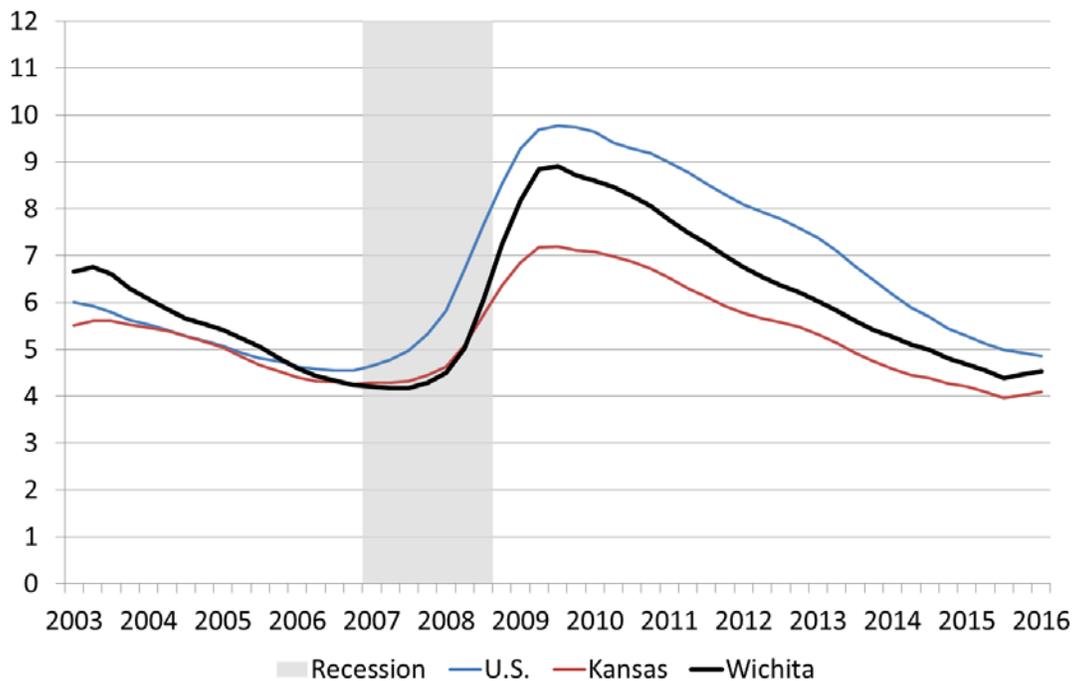
level of misery below the state level. Wichita, Kansas City, and Topeka all have levels of misery above the state level, with Wichita having the highest level of misery. However, all levels of misery in the metropolitan areas of Kansas are below the national level.

Within the region, Tulsa continues to have the highest level of misery, followed by Wichita and Oklahoma City. The lowest level of misery in the region continues to be in Omaha, followed by Lawrence. In the fourth quarter of 2016, St. Louis was the only metropolitan area in the region to have a level of misery below 2015 levels.

Between the third and fourth quarters, metropolitan areas in Kansas experienced a larger percentage decrease in misery than other metropolitan areas in the region. In general, this is due to larger decreases in the unemployment rate.

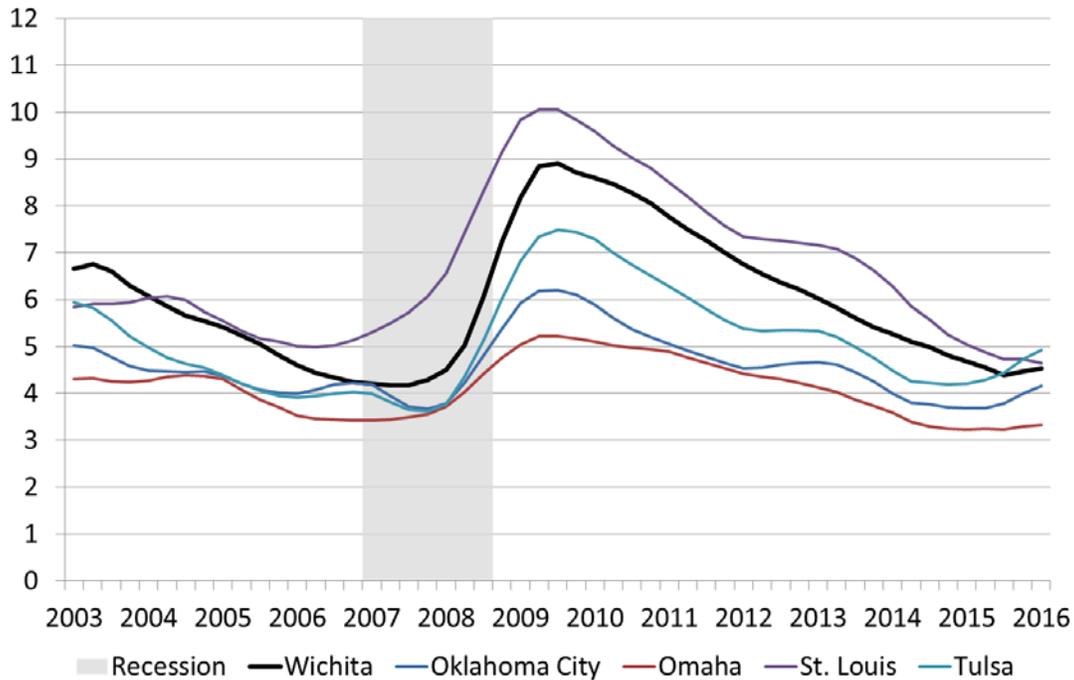
For comparison, the misery index for four metropolitan areas similar to Wichita in population, demographics, and industrial mix are also provided. Within these peer communities, Akron has the highest level of misery. The level of misery in Wichita increased more than the peer communities between the second and third quarters. The level of misery in Grand Rapids and Greenville is below 2015 levels.

**Misery Index : Wichita, Kansas & United States**  
Annual Average



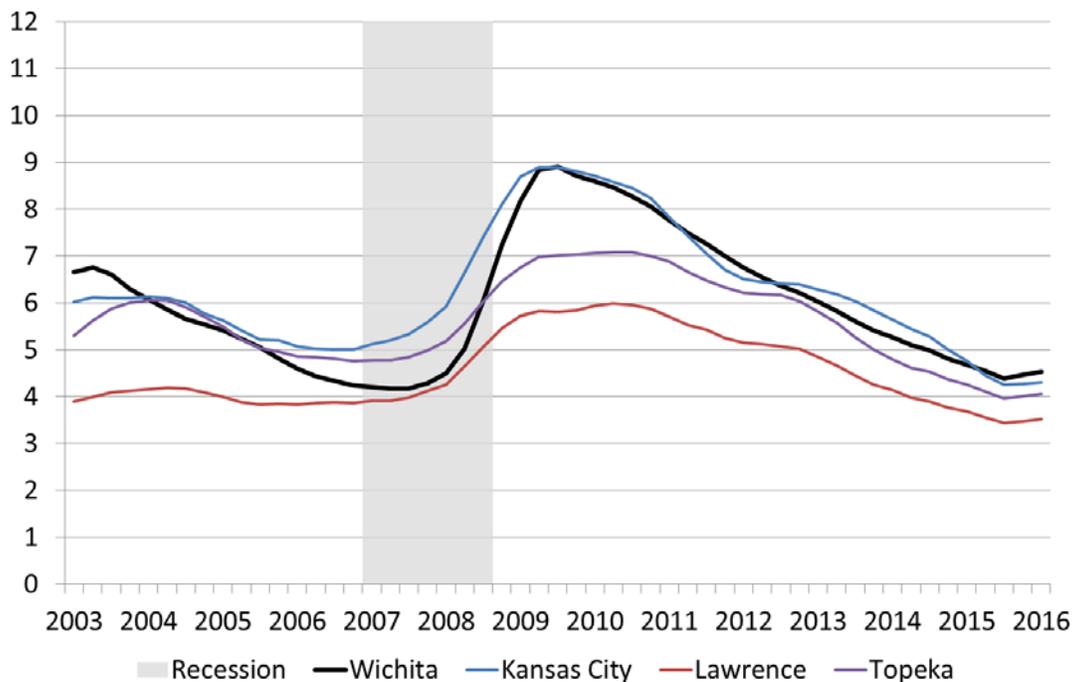
### Misery Index : Regional Metropolitan Areas

Annual Average



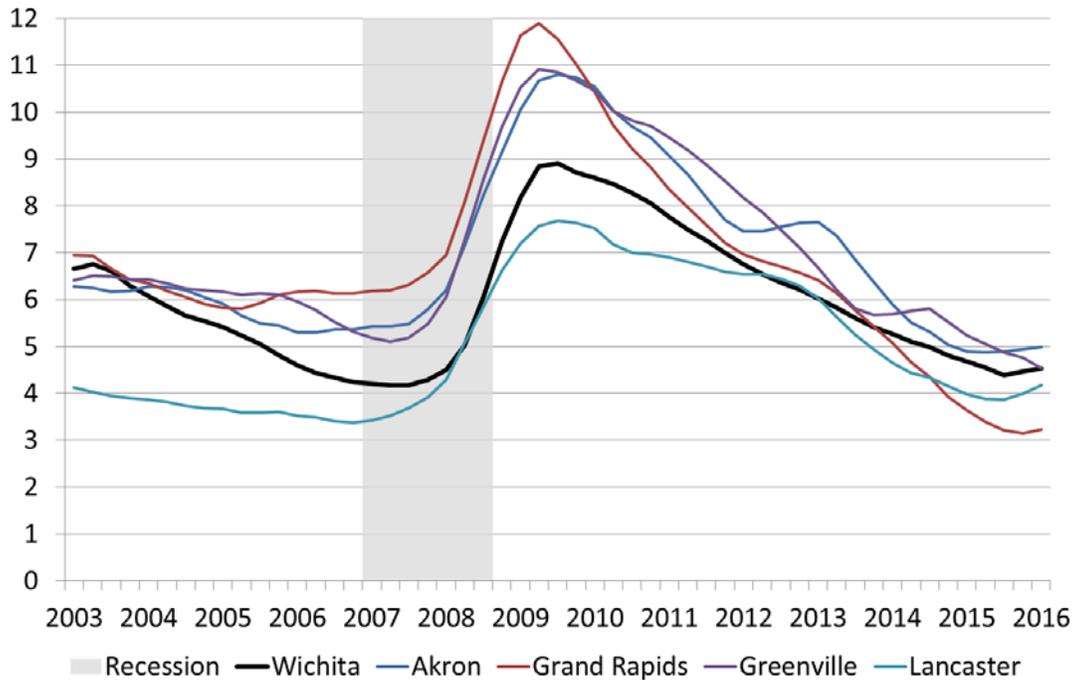
### Misery Index : Kansas Metropolitan Areas

Annual Average



## Misery Index : Peer Metropolitan Areas

Annual Average



### Methodology

The Misery Index calculated by the Center for Economic Development and Business Research (CEDBR) includes the following information:

- The Consumer Price Index (CPI) from the Bureau of Labor Statistics<sup>1</sup>
- House Price Index (HPI) from the Federal Housing Finance Agency<sup>2</sup>
- Unemployment Rates (UR) from the Bureau of Labor Statistics<sup>3</sup>

Not seasonally adjusted, monthly data values for the Consumer Price Index – All Urban Consumers were used to calculate the quarterly inflation rates. The specific indices used are as follows. U.S. city average, with a base period of 1982-84, was used for the United States inflation rate. Midwest urban, with a base period of 1982-84, was used for the Kansas inflation rate. Midwest – Size Class A, with the base year of 1982-84, was used for the Kansas City and St. Louis metropolitan area’s inflation rates. Midwest – Size Class B/C, with a base year of December 1996, was used for the Wichita, Topeka, Lawrence, Grand Rapids, Omaha, Akron, Oklahoma City and Tulsa metropolitan area’s inflation rates. Northeast urban – Size Class B/C, with a base period of December 1996, was used for the Lancaster metropolitan area

<sup>1</sup> <http://www.bls.gov/cpi/> Data accessed February 23, 2017.

<sup>2</sup> <http://www.fhfa.gov/Default.aspx?Page=87> Data accessed February 23, 2017.

<sup>3</sup> <http://www.bls.gov/bls/unemployment.htm> Data accessed February 23, 2017.

inflation rate. South – Size Class B/C, with a base period of December 1996, was used for the Greenville metropolitan area inflation rate.

The HPI is a measure of single-family home prices within specific areas. This series is used because the index is produced for a wide range of geographic areas. The CEDBR used the “All-Transactions Index” values for each respective area. The percentage change from the previous quarter was used in the Misery Index. The HPI is a positive indicator for consumers. Therefore, if the HPI is increasing, the Misery Index will decline.

The CEDBR used not seasonally adjusted, area specific, unemployment data (the official unemployment rate) to calculate the Misery Index. The unemployment rate is a negative indicator for consumers. Therefore, if the unemployment rate is increasing, the Misery Index will also increase.

For additional information and methodology details please click [HERE](#).