



**BALL STATE
UNIVERSITY**

Center for Business and
Economic Research

ABOUT THE AUTHORS

Michael J. Hicks, PhD, is director of Ball State CBER and the George & Frances Ball distinguished professor of economics in the Miller College of Business. His research interest is in state and local public finance and the effect of public policy on the location, composition, and size of economic activity. Hicks earned doctorate from the University of Tennessee. He is a retired Army Reserve infantryman.

Srikant Devaraj, PhD, is a research economist and research assistant professor at Ball State CBER. His research interests lie in the areas of applied econometrics, health economics, and health informatics. He earned a doctorate in economics from IUPUI.

David Terrell, MBA, is executive director of the Indiana Communities Institute at Ball State and executive director of the RUPRI Center for State Policy, a partnership with the national Rural Policy Research Institute. He previously served two Indiana lieutenant governors in positions including senior advisor and deputy chief of staff. He lead the Office of Community and Rural Affairs, a state agency dedicated to rural community economic development.

Special thanks to **Jack Harber** and **Kenta Lanham** for their research assistance.

CENTER FOR BUSINESS AND ECONOMIC RESEARCH, BALL STATE UNIVERSITY

2000 W. University Ave., Muncie, IN 47306-0360
765-285-5926 | cber@bsu.edu
bsu.edu/cber | cberdata.org

Community Asset Inventory and Rankings

Changes in Indiana Counties

MAY 10, 2019

BY MICHAEL J. HICKS, SRIKANT DEVARAJ, AND DAVID TERRELL





Purpose

In 2012, researchers at the Center for Business and Economic Research at Ball State University developed the Community Asset Inventory and Rankings (CAIR) to assess the quality of life and economic conditions within each Indiana county.

Using publicly available data, we assigned ranking for each county under seven major categories:

- People
 - Health of Human Capital/Workforce
 - Education of Human Capital/Workforce
 - Government Impact and Economy
 - Arts/Entertainment/Recreation
 - Changeable Public Amenities
 - Static Public Amenities*
- *Note: Static amenities do not change from year to year*

In this report, we summarize the major changes in rankings for all categories of CAIR between 2012 and 2018. In addition, we also develop a 'housing barometer' tool for each county based on a county's home prices relative to the state and its growth.

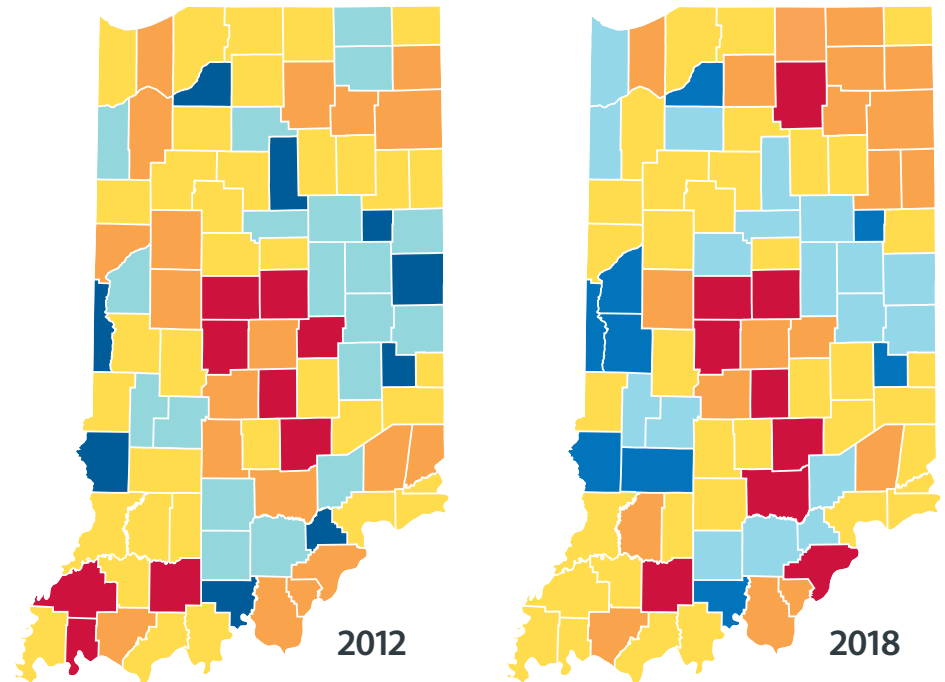
Visit the CAIR website at <https://cair.cberdata.org> to explore the full features of this research project, including a quality-of-life snapshot for each county in Indiana.

People

This category considers the conditions of the people within a community.

Factors include population growth, poverty rate, unemployment rate, private foundations revenue per capita, and other nonprofit revenue per capita.

Changes 2012–2018: Those counties who experienced improvements in this category grade had relatively lower unemployment rates, lower poverty, increase in population, and increase in private foundation/non-profit revenues compared to 2012. Those counties who had decline in grades experienced relatively higher unemployment and decline in population growth.

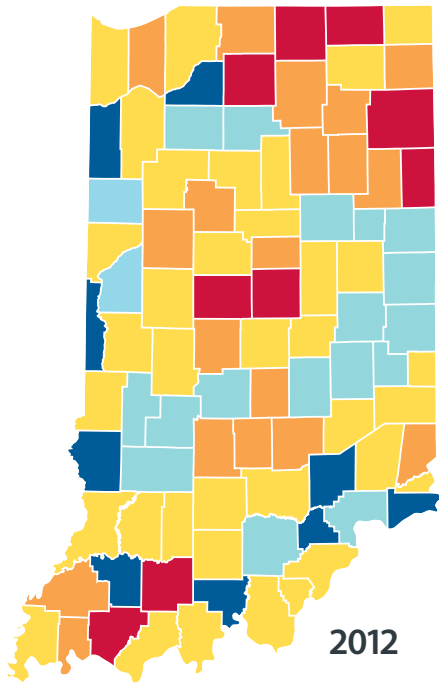


Grade Calculation

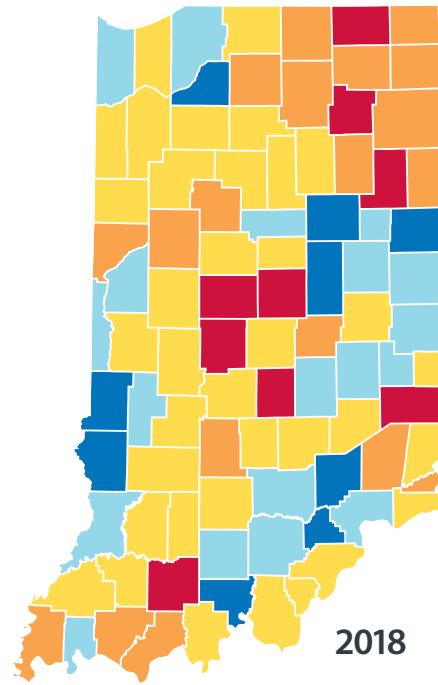
We aggregate data to the county level for each of Indiana's 92 counties. We grade on a curve— for each category, an equal number of A and F grades are given and an equal number of B and D grades are given. Average performers receive C grades.

Public amenities receive an index number with "average" being 100 points.

GRADES	A	B	C	D	F
INDEX (100 = avg.)	115+	105-114.9	95-104.9	85-94.5	< 85



2012



2018

Health of Human Capital/Workforce

This category focuses on the well being of the residents in a community. The healthier the workforce, the less expensive it is to insure.

Factors include fertility rate, death rate, premature death rate, poor and fair health rate, poor physical and mental health days, motor vehicle crash death rate, cancer incidence rate, lung and bronchus incidence rate, asthma rate; number of primary care providers; and access to healthy food (presence of food deserts).

Changes 2012–2018: The county grades for this sector changed due to relative changes in asthma incidence, fertility rates, physical/mental health and cancer incidence.

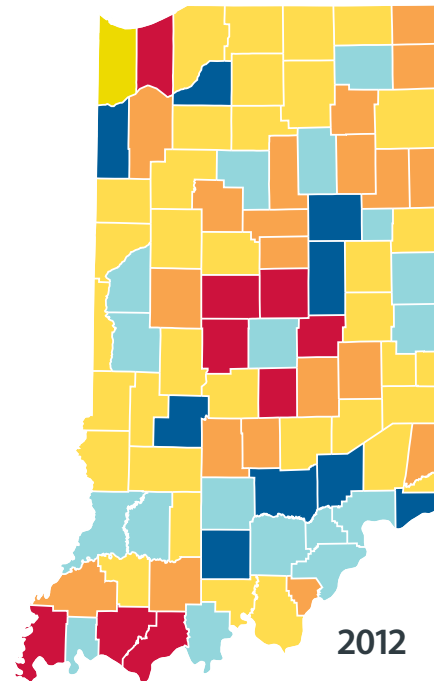


Education of Human Capital/Workforce

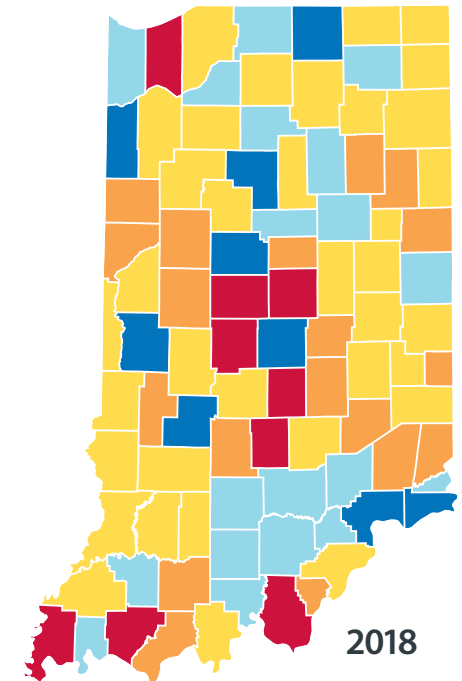
When businesses consider an expansion or relocation, the education of a community's workforce plays a key role.

Factors include percent of students who passed the ISTEP English section, percent of students who passed the ISTEP math section, educational attainment (highest degree earned), and high school graduation rate.

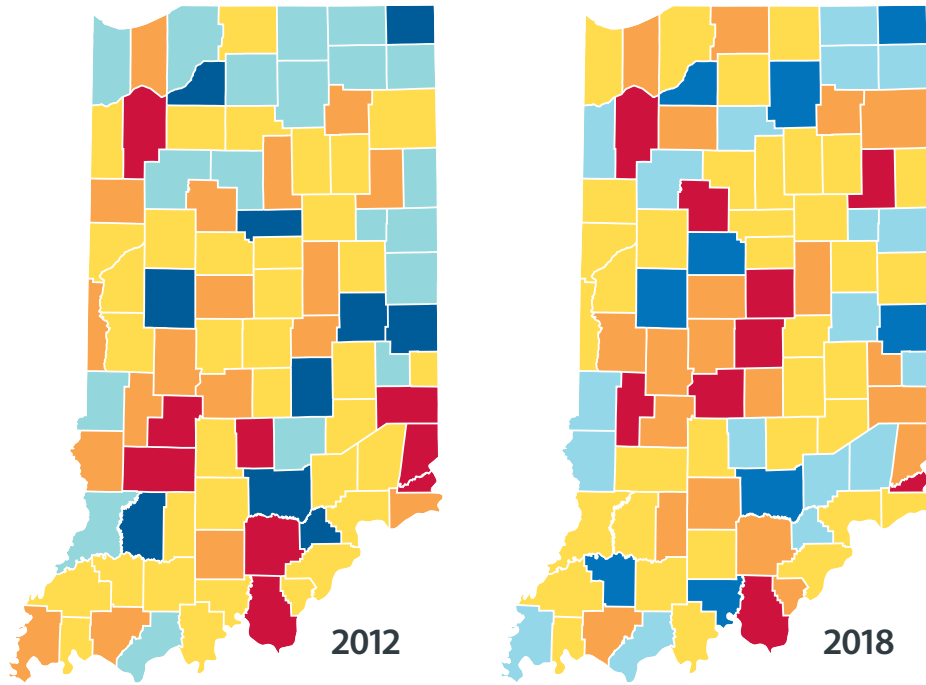
Changes 2012–2018: The changes in grades for this category were due to relative changes in English/math ISTEP, high school graduation rates, and education attainment at the county level.



2012



2018



Government Impact and Economy

Government influences and economic conditions affect the likelihood that a business will settle in a community.

Factors include crime rate, effective tax rate (lower rates = better ranking), main street rate, and metropolitan development.

Changes 2012–2018: The county grades improved/declined for this category due to relative changes in tax rates and crime rate.

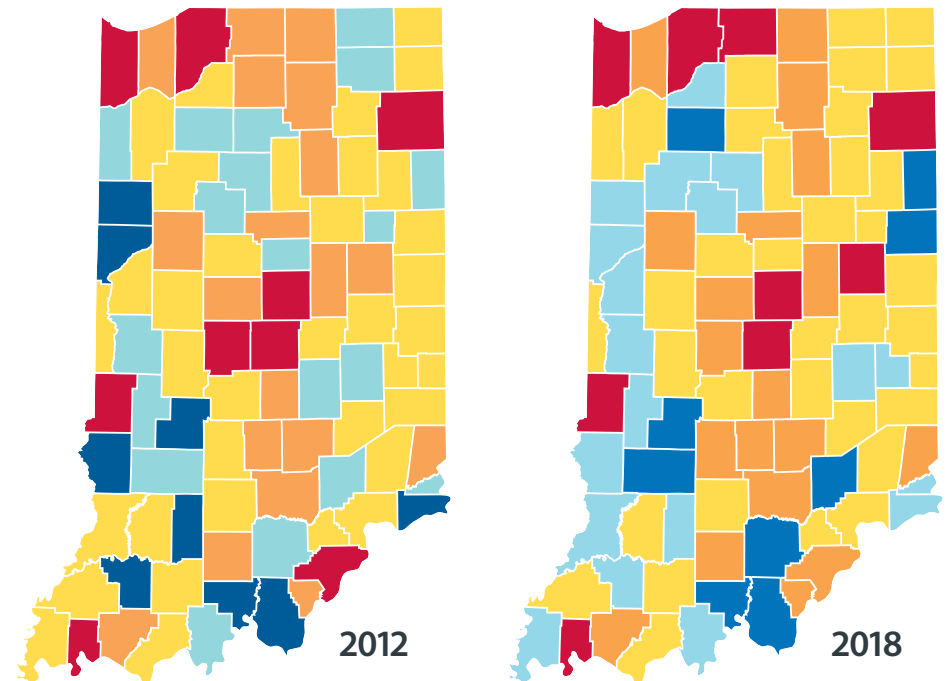


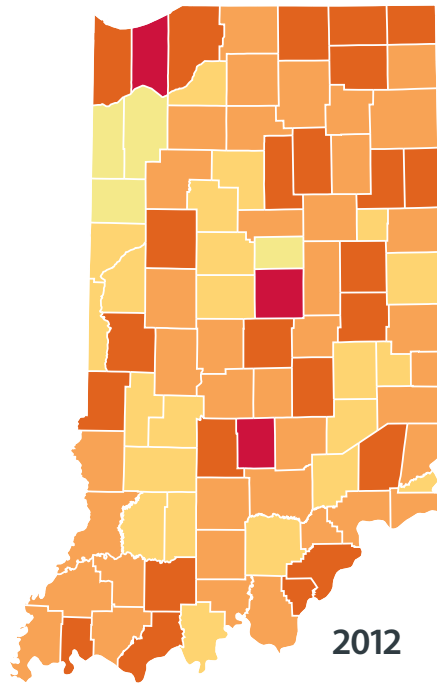
Arts, Entertainment, and Recreation

Residents and visitors alike enjoy the quality of a place through its offerings in the arts, entertainment, and recreation. These offerings are often private (not owned by the county).

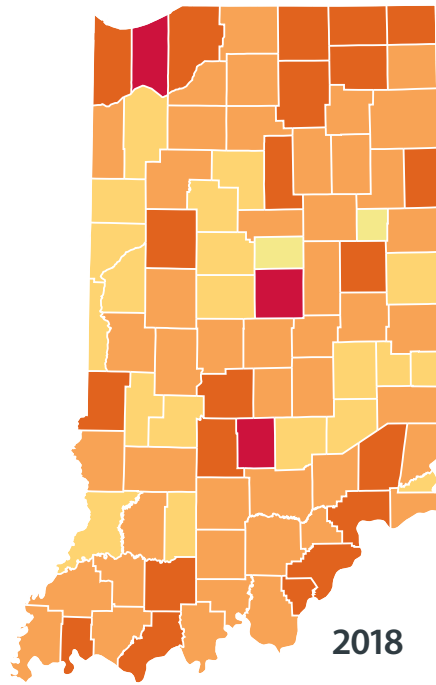
Factors include per capita personal income, employment per 1,000 people, and average compensation per employee; number of marinas, fairgrounds, athletic fields, and golf courses; and accommodation and food services per capita income.

Changes 2012–2018: Changes in this category came from relative changes in average compensation and income for specific sectors.





2012



2018

Changeable Public Amenities

Some public amenities can be changed by a community through voting, grants, initiatives, etc. These features may be created, expanded, or downsized as the needs of the community change.

Changeable public amenities include the number of public parks, historic and cultural sites, fishing and boating areas, camping or RV parks, hiking/walking trails, beaches, and school grounds.

Amenities use an index with 100 points as average.

Changes 2012–2018: The changes in the index for this category was due to relative changes in growth of parks in counties.

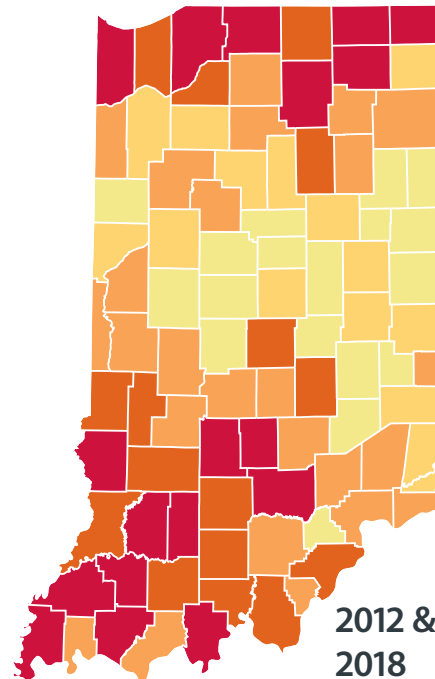


Static Public Amenities

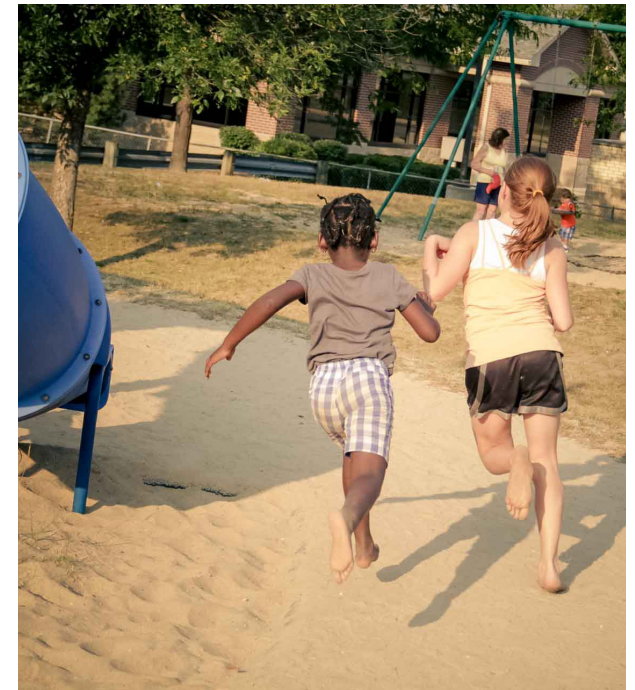
Static public amenities (often natural features) include forests, fish and wildlife areas, dedicated nature preserves, bodies of water, and shore lines.

Amenities use an index with 100 points as average.

Changes 2012–2018: These public amenities are relatively static, that is, they are not easily changed. The 2018 map displays the same values as the 2012 version.



2012 &
2018



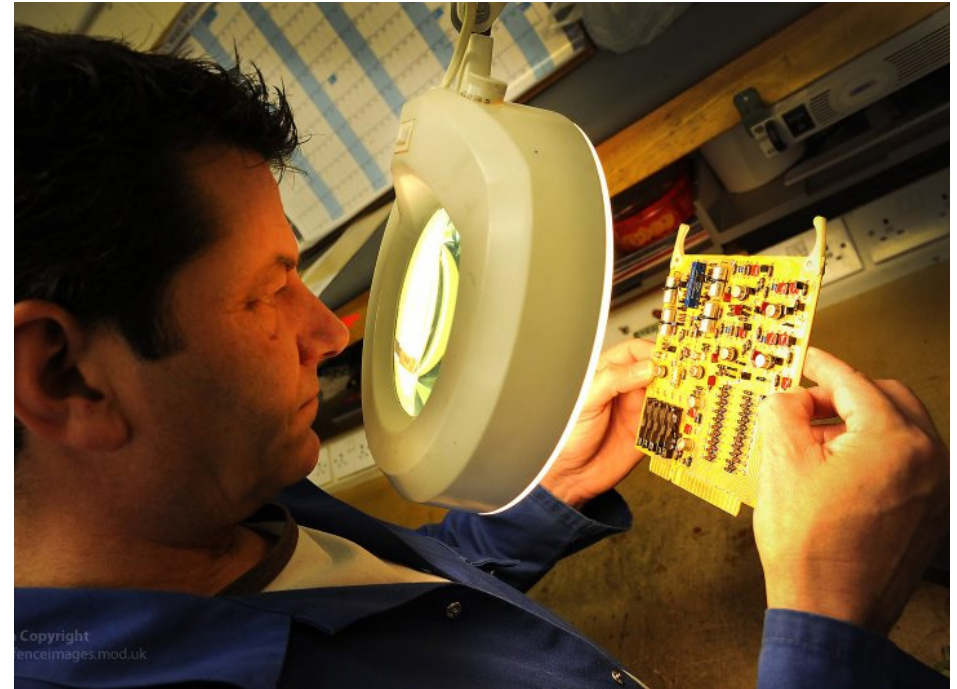
For data by county, see Appendix Table A, pg 11-12.

Examining Human Capital

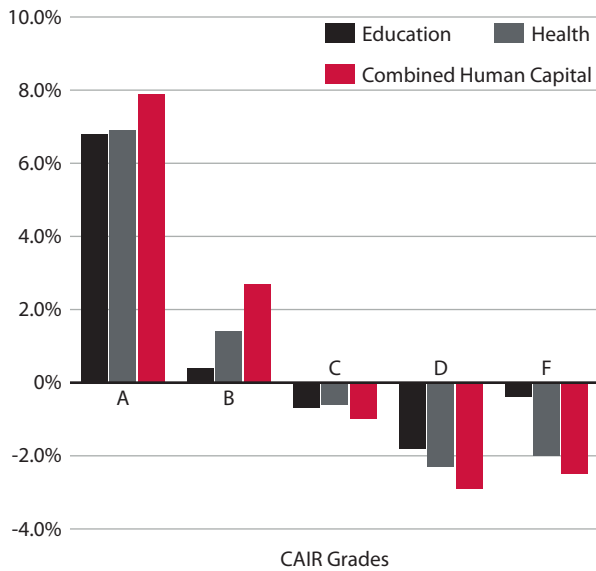
Human capital, or the quality of the local workforce, can be measured in several ways; the CAIR report examines factors of education and health to evaluate human capital in each county in Indiana. Site selectors consider levels of human capital when making decisions for where to locate new and expanding businesses.

To test the effectiveness of CAIR based on grades in education, health, and combined human capital, we graphed average population changes between 2010 and 2017, average per-capita income in 2017 and GDP per capita in 2015 based on the latest data available.

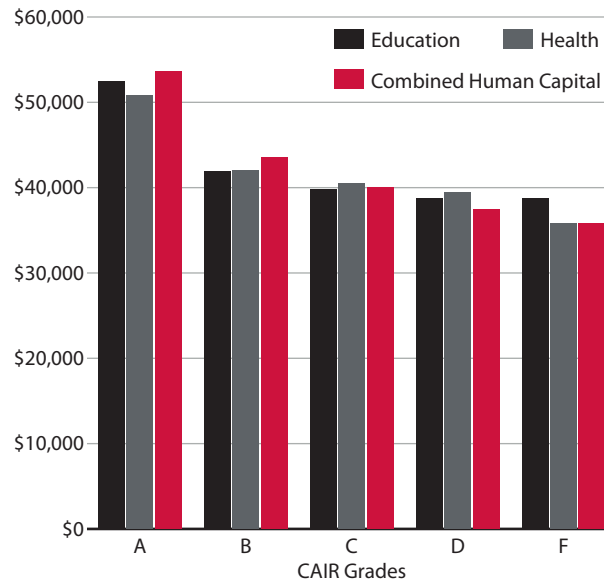
We find that the counties with higher grades had population gains, higher per capita income, and higher GDP per capita. Those counties receiving "D" and "F" experienced population decline and lower standard of living.



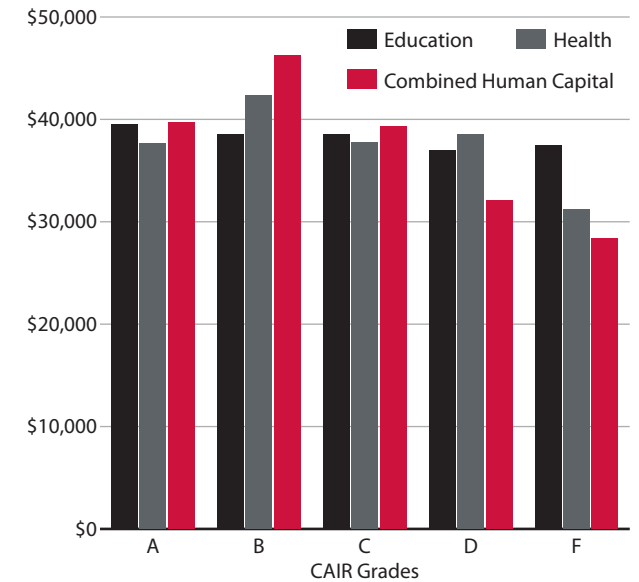
Human Capital Grades and Population Change, 2010-2017



Human Capital Grades and per Capita Income, 2017



Human Capital Grades and per Capita GDP, 2015



Housing Value Barometer

Among the most useful measures of community is the value of its stock of residential housing. The decision to locate to a particular community is the most important investment most families make.

The safety and livability of neighborhoods, the quality of local schools, and the social capital families' access in a neighborhood determine a place's attractiveness to families. Thus, the demand for housing is heavily influenced by these characteristics. In turn, the demand for housing heavily influences the quality and price of local housing choices. This is especially true in Indiana, where very few communities place onerous residential covenants on new home construction.

Measuring House Quality and Price

To describe county-level housing markets, we use data sets that assess both the changing price and quality of housing. The best of these indices is provided by Zillow, Inc., which aggregates the value of homes as estimated through its pricing model.

The Zillow home price measure captures both the change in price of existing housing stock and the effect of new, higher quality housing stock. In that way, the price changes reflect both the value of existing and new homes, without holding home quality constant. This is different from other studies: Hicks and Faulk (2018) report home prices from the Federal Housing Finance Authority's constant quality index, and Faulk and Hicks (2018) examine residential property assessment accuracy over time using actual sales and assessment data.

The intent of this analysis is to clearly report where nominal housing values (including quality changes in stock) are occurring, and to place these changes and levels into a regional context. To accomplish this we use two metrics, the county's home value relative to state and the county's eight-year growth in home value to develop the housing barometer.

We obtain county-level home value data from Zillow because its estimates consider the quality of homes, market conditions, and other home attributes.

Reading the Graphs

For each county in Indiana, we estimate the relative measure of two metrics and plot them in a graph. The horizontal axis represents the 2010-2017 growth of home values relative to state average and the vertical axis represents 2017 county home values *relative to the state average*.

If a county appears in the **first quadrant (upper-right, green)**, it represents a *growing* scenario where the home prices are above state average and is growing above state average for the past eight years.

The second quadrant (upper-left, yellow) depicts a *warning* scenario where the home prices are above state average, but the eight-year growth is lower than the state average.

The third quadrant (bottom-left, red) shows that the county's home prices are in *distress* where the values are below state average and the growth is also lower than state average.

If a county falls in the **fourth quadrant (bottom-right, blue)**, it depicts a *recovering* scenario where the growth in home prices is higher than the state average growth, despite their recent home values being lower than the state.

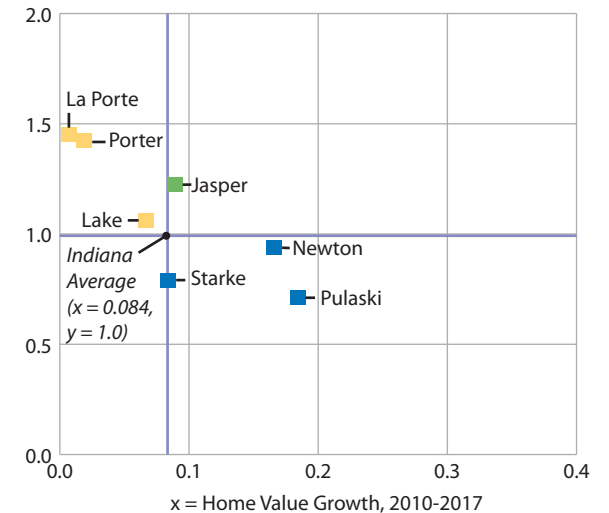
Online, we also compare the each county's housing indicator with its neighboring counties (<https://cair.cberdata.org>). Some counties may perform below average when compared with the state, but perform relatively better than their neighbors.

For data by county, see Appendix Table B, pg 13-14.

Region 1: Northwest

Jasper, Lake, La Porte, Newton, Porter, Pulaski, and Starke Co.

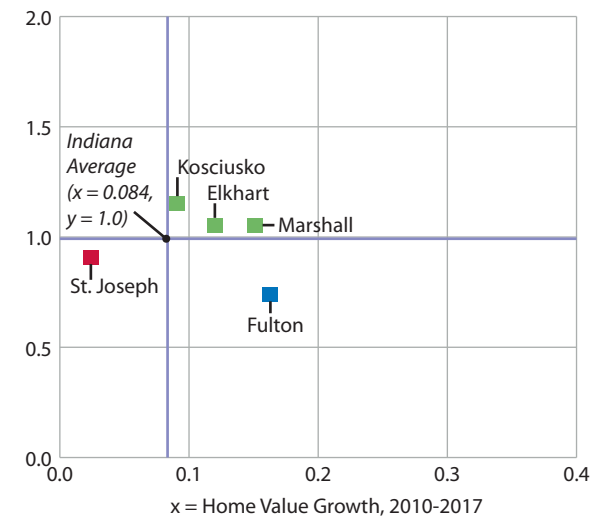
y = Ratio of County Home Value to Indiana Average, 2017



Region 2: North Central

Elkhart, Fulton, Kosciusko, Marshall, and St. Joseph Co.

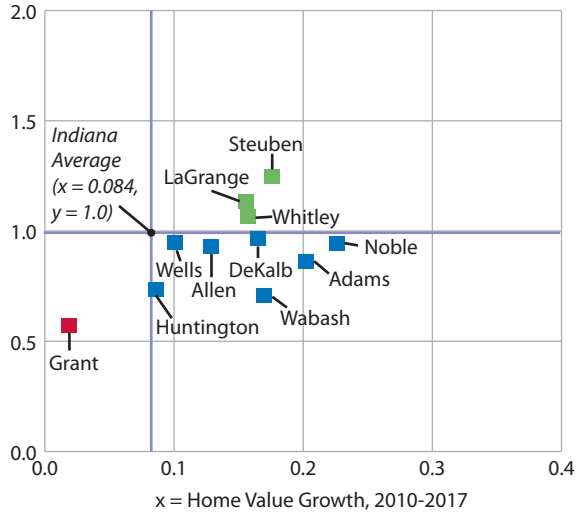
y = Ratio of County Home Value to Indiana Average, 2017



Region 3: Northeast

Adams, Allen, DeKalb, Grant, Huntington, LaGrange, Noble, Steuben, Wabash, Wells, and Whitley Co.

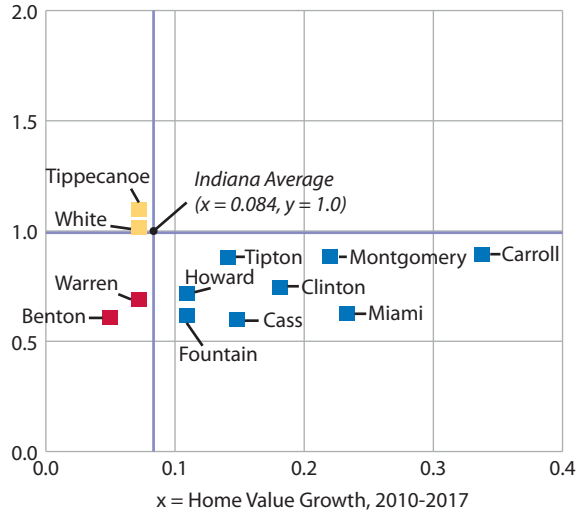
y = Ratio of County Home Value to Indiana Average, 2017



Region 4: Upper West Central

Benton, Carroll, Cass, Clinton, Fountain, Howard, Miami, Montgomery, Tippecanoe, Tipton, Warren, and White Co.

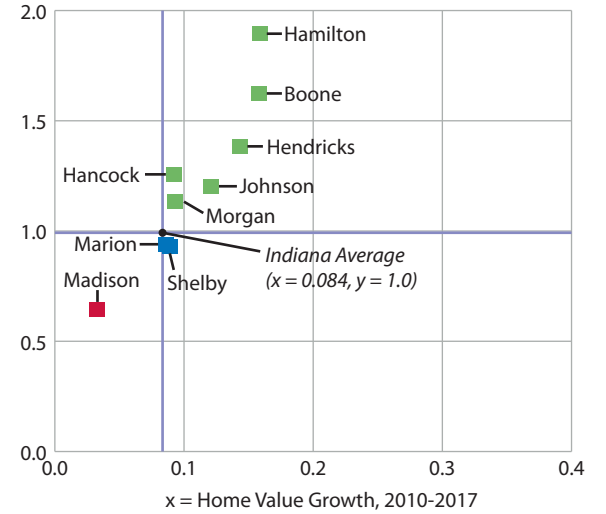
y = Ratio of County Home Value to Indiana Average, 2017



Region 5: Central Ring (and Marion Co.)

Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby Co.

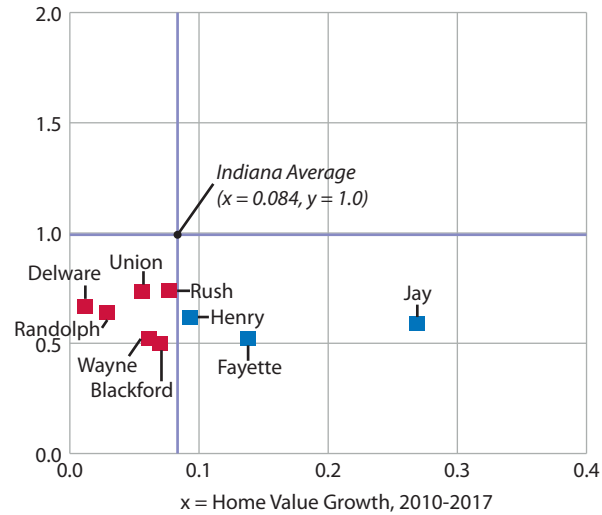
y = Ratio of County Home Value to Indiana Average, 2017



Region 6: East Central

Blackford, Delaware, Fayette, Henry, Jay, Randolph, Rush, Union, and Wayne Co.

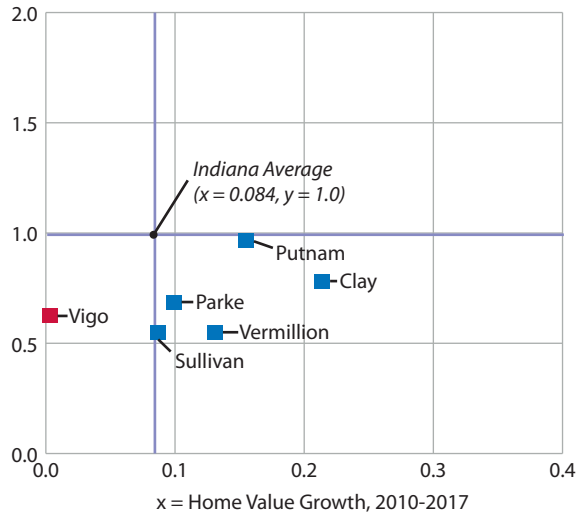
y = Ratio of County Home Value to Indiana Average, 2017



Region 7: Lower West Central

Clay, Parke, Putnam, Sullivan, Vermillion, and Vigo Co.

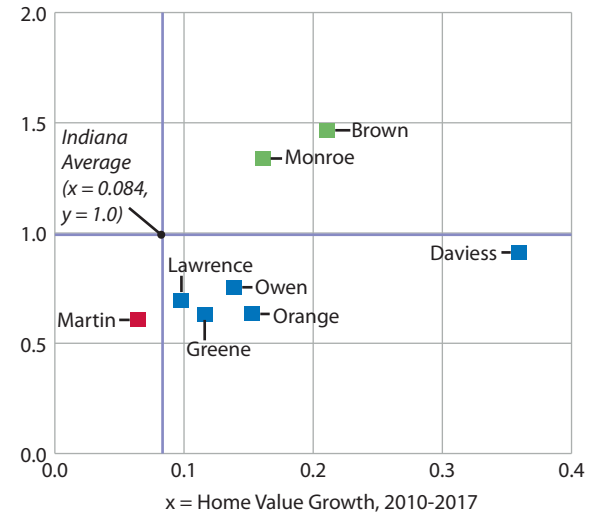
y = Ratio of County Home Value to Indiana Average, 2017



Region 8: Upper South Central

Brown, Daviess, Greene, Lawrence, Martin, Monroe, Orange, and Owen Co.

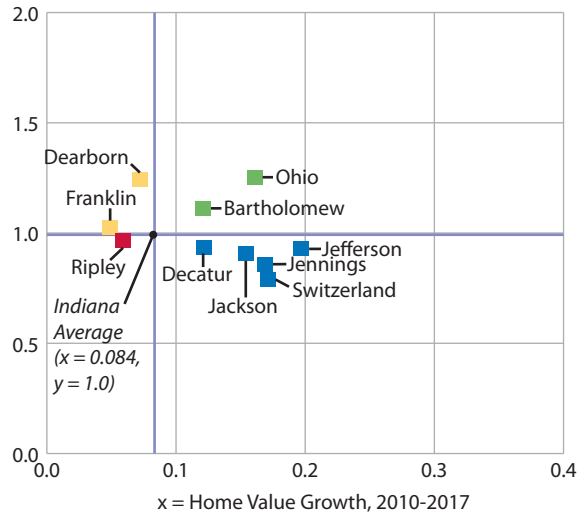
y = Ratio of County Home Value to Indiana Average, 2017



Region 9: Southeast

Bartholomew, Dearborn, Decatur, Franklin, Jackson, Jefferson, Jennings, Ohio, Ripley, and Switzerland Co.

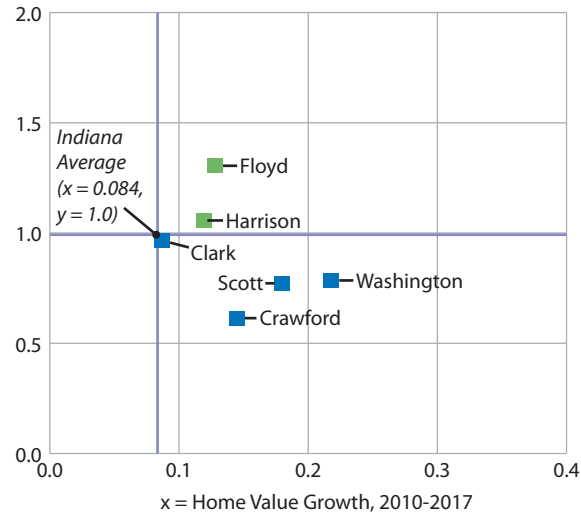
y = Ratio of County Home Value to Indiana Average, 2017
to Indiana Average, 2017



Region 10: Lower South Central

Clark, Crawford, Floyd, Harrison, Scott, and Washington Co.

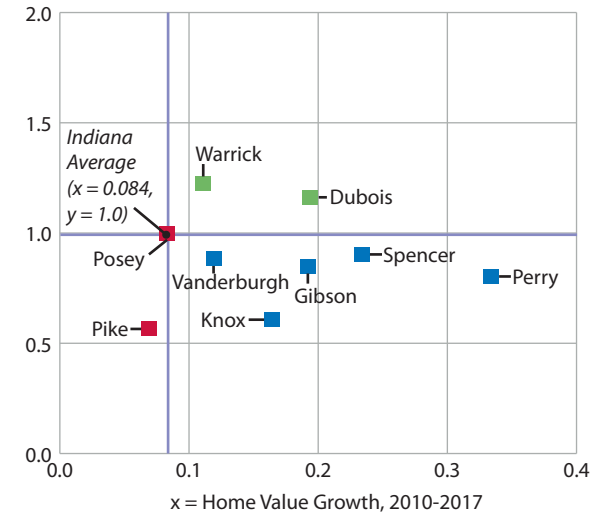
y = Ratio of County Home Value to Indiana Average, 2017
to Indiana Average, 2017



Region 11: Southwest

Dubois, Gibson, Knox, Perry, Pike, Posey, Spencer, Vanderburgh, and Warrick Co.

y = Ratio of County Home Value to Indiana Average, 2017
to Indiana Average, 2017



Data Sources

American Lung Association 2008.

Bureau of Economic Analysis, U.S. Department of Commerce 2008.

Bureau of Labor Statistics, U.S. Department of Labor 2010.

Censtats Databases, U.S. Census Bureau 2008.

County Health Rankings, Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute 2011.

Geographic Information Systems Data, Esri 2010.

Indiana Department of Education 2010.

Indiana State Department of Health 2006, 2007.

State Cancer Profiles, National Cancer Institute, Center for Disease Control 2002-2006.

National Center for Charitable Statistics 2011.

Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce 2009.

State of Indiana Government 2010, 2011.

U.S. Census Bureau 2000, 2009.

Relevant Studies

Bloom, David D., David Canning, and Jaypee Sevilla. 2004. "The Effect of Health on Economic Growth: A Production Function Approach." *World Development*, 32(1): 1-13.

Lee, Doo Won and Tong Hun Lee. 1995. "Human capital and economic growth tests based on the international evaluation of educational achievement." *Economics Letters*, 47(2): 219-225.

Gottlieb, Paul D. 1994. "Amenities as an Economic Development Tool: Is There Enough Evidence?" *Economic Development Quarterly*, 8(3): 270-285.

Green, Gary, Steven C. Deller, and David Marcouiller (Eds.) 2005. *Amenities and Rural Development: Theory, Methods and Public Policy*. Northampton, MA: Edward Elgar Publishing.

Marcouiller, David W., Kwang-Koo Kim, and Steven C. Deller. 2004. "Natural Amenities, Tourism and Income Distribution." *Annals of Tourism Research*, 31(4): 1031-1050.

About Ball State CBER

The Center for Business and Economic Research (CBER) conducts timely economic policy research, analysis, and forecasting for a public audience.

Center for Business and Economic Research
2000 W. University Ave., Muncie, IN 47306-0360
765-285-5926 | cber@bsu.edu
bsu.edu/cber | cberdata.org



**BALL STATE
UNIVERSITY**

Center for Business and
Economic Research

Appendix A: County Changes in Community Asset Inventory and Rankings, 2012 & 2018

* Amenities are scored using index numbers; 1 = most ideal; 5 = least ideal

County	People			Health			Education			Government Impact & Economy			Arts, Entertainment, Recreation			Changeable Public Amenities*			Static Public Amenities*
	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012 & 2018 (No Change)
Adams	C-	B	Up	A	B+	Down	B	C	Down	D+	C	Up	D	F	Down	2	2	Same	5
Allen	B	B-	Down	A	B	Down	C	C	Same	C-	B-	Up	A	A	Same	3	3	Same	3
Bartholomew	A	A	Same	B	C+	Up	C	C	Same	D+	C-	Up	B	B+	Up	3	4	Down	3
Benton	C	C	Same	D	C	Up	C	B	Up	B	C	Down	F	D	Up	5	4	Up	5
Blackford	F	F	Same	D-	D	Up	D	C	Up	D-	D	Up	D	C	Up	4	5	Down	5
Boone	A	A	Same	A	A	Same	A	A	Same	B	B+	Up	B-	B	Up	4	4	Same	5
Brown	C	C	Same	B	C+	Down	B	A	Up	A	D	Down	B	B	Same	1	1	Same	1
Carroll	C	C-	Down	B-	B	Up	B	C	Down	B-	A	Up	D	D	Same	4	4	Same	3
Cass	C-	C	Up	C	C	Same	D	F	Down	D	C-	Up	D+	D	Down	4	4	Same	4
Clark	B	A	Up	C	C	Same	D+	C-	Up	C	C	Same	A	B+	Down	2	2	Same	2
Clay	D	D-	Down	D	D-	Down	C	B	Up	B	A	Up	D	D-	Down	4	4	Same	2
Clinton	C-	D	Down	C+	C	Down	C-	F	Down	C-	F	Down	C	C-	Down	4	4	Same	5
Crawford	F	F	Same	F	F	Same	C	D+	Down	C+	F	Down	F	F	Same	3	3	Same	2
Daviess	C	B-	Up	C	C	Same	D	C	Up	F	C-	Up	C	C	Same	4	3	Up	1
Dearborn	B	C	Down	B	C	Down	B-	B+	Up	A	B	Down	B	B	Same	3	3	Same	4
Decatur	C	C+	Up	C+	C	Down	C+	B	Up	C+	C	Down	C+	C	Down	4	4	Same	5
DeKalb	B-	B	Up	B	B	Same	B	C+	Down	D	D+	Up	C	C	Same	3	3	Same	4
Delaware	D+	D+	Same	C-	D	Down	C	C-	Down	C	C+	Up	B+	A	Up	2	2	Same	4
Dubois	A	A	Same	A	A	Same	B+	B+	Same	C	C	Same	C	C	Same	2	2	Same	2
Elkhart	C+	B+	Up	A	B	Down	D+	F	Down	D	C	Up	B	B	Same	2	2	Same	2
Fayette	F	F	Same	D+	D-	Down	C-	C	Up	D-	B	Up	C	D+	Down	4	4	Same	5
Floyd	B	B-	Down	C	C	Same	B	B+	Up	C	B	Up	B-	B-	Same	2	2	Same	3
Fountain	D-	F	Down	D	D	Same	D	C	Up	C+	C	Down	C-	D	Down	4	4	Same	3
Franklin	C	C	Same	C	A	Up	C	C	Same	A	B	Down	C-	C-	Same	3	3	Same	4
Fulton	D	C-	Up	D	C	Up	C	D-	Down	C	D-	Down	D-	C	Up	3	3	Same	3
Gibson	A	C	Down	B	C+	Down	B	C	Down	C	C-	Down	C-	C-	Same	3	3	Same	1
Grant	D	D	Same	D	F	Down	F	D	Up	C-	C	Up	C	C	Same	3	3	Same	4
Greene	C-	F	Down	D	C-	Up	C	C	Same	A	C+	Down	D	F	Down	4	3	Up	2
Hamilton	A	A	Same	A	A	Same	A	A	Same	C	A	Up	A	A	Same	1	1	Same	3
Hancock	A	B+	Down	C+	B+	Up	A	B+	Down	B	C+	Down	C	C+	Up	3	3	Same	5
Harrison	B+	B	Down	C-	C	Up	C+	A	Up	A	A	Same	F	F	Same	3	3	Same	2
Hendricks	A	A	Same	B+	A	Up	A	A	Same	C	B	Up	A	B+	Down	3	3	Same	5
Henry	D-	D	Up	D	C-	Up	C-	C	Up	F	D	Up	C	C	Same	2	3	Down	4
Howard	D-	D	Up	C	D	Down	B	D	Down	F	C	Up	B	B-	Down	3	3	Same	5
Huntington	C	C-	Down	B	B-	Down	B+	B-	Down	C-	C-	Same	C	C	Same	3	3	Same	3
Jackson	B-	A	Up	C-	D	Down	F	D	Up	F	F	Same	B	B-	Down	3	3	Same	1
Jasper	B+	C+	Down	C	C	Same	B-	C+	Down	A	A	Same	C-	C	Up	5	4	Up	4
Jay	D	C-	Up	D	F	Down	C	B-	Up	D-	D	Up	C-	F	Down	3	3	Same	5
Jefferson	C+	C	Down	D	D	Same	D-	F	Down	C	C	Same	C	C	Same	3	2	Up	3
Jennings	D	D	Same	F	F	Same	F	D	Up	C	D	Down	D-	F	Down	4	3	Up	3
Johnson	A	A	Same	B	A	Up	A	A	Same	C	B	Up	B+	B	Down	3	3	Same	3
Knox	C	C	Same	C	D+	Down	D	C+	Up	D+	C	Up	C-	D	Down	3	4	Down	2
Kosciusko	B+	A	Up	B	B	Same	C	C	Same	D	F	Down	B+	B+	Same	3	2	Up	1
Lagrange	D+	B+	Up	A	A	Same	C	C	Same	D	D	Same	D+	C-	Up	2	2	Same	1
Lake	C	D+	Down	C	D+	Down	C-	D	Down	D	C	Up	A	A	Same	2	2	Same	1

County	People			Health			Education			Government Impact & Economy			Arts, Entertainment, Recreation			Changeable Public Amenities*			Static Public Amenities*
	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012	2018	Change	2012 & 2018 (No Change)
LaPorte	C-	C-	Same	C	D+	Down	C	C-	Down	D	C-	Up	A	A	Same	2	2	Same	1
Lawrence	D	C-	Up	C-	C-	Same	D	D-	Down	C	B-	Up	C	C	Same	3	3	Same	2
Madison	D	D	Same	C	F	Down	F	C-	Up	B-	B+	Up	B	B	Same	3	3	Same	5
Marion	B	B	Same	C+	C-	Down	D-	F	Down	C-	A	Up	A	A	Same	2	3	Down	2
Marshall	C+	B-	Up	A	B-	Down	C+	C	Down	D	C-	Up	B-	C+	Down	3	3	Same	3
Martin	C	C	Same	C	C+	Up	C	C	Same	C+	B-	Up	F	D	Up	4	4	Same	1
Miami	F	D	Up	C-	C-	Same	B	C-	Down	B	C-	Down	C	C	Same	2	2	Same	4
Monroe	B	C	Down	B+	B-	Down	B	B	Same	C	C	Same	C+	B	Up	2	2	Same	1
Montgomery	B-	B	Up	C	C	Same	B+	B-	Down	F	F	Same	C	C	Same	3	3	Same	4
Morgan	B	B	Same	D+	C	Up	C-	C+	Up	B+	A	Up	C	C-	Down	3	2	Up	3
Newton	D	D	Same	F	C-	Up	F	F	Same	C-	D-	Down	D	C	Up	5	3	Up	3
Noble	D	B	Up	C+	B	Up	D+	D-	Down	D+	D	Down	D+	C	Up	2	2	Same	1
Ohio	C	C-	Down	C-	B+	Up	C	D+	Down	A	A	Same	D-	D	Up	4	4	Same	4
Orange	D	D+	Up	C	D	Down	F	D	Up	B	C	Down	B	B-	Down	3	3	Same	2
Owen	D-	D-	Same	D-	C-	Up	F	F	Same	A	B	Down	F	F	Same	4	4	Same	3
Parke	C-	F	Down	C-	C-	Same	D	F	Down	C	B	Up	D+	D	Down	2	3	Down	3
Perry	C	C	Same	C-	C	Up	D+	C+	Up	C	C	Same	D	D	Same	4	3	Up	1
Pike	C	C-	Down	F	C	Up	C	D	Down	C-	F	Down	F	D-	Up	3	3	Same	1
Porter	B	B	Same	B-	C	Down	A	A	Same	B-	B-	Same	B+	B	Down	1	1	Same	3
Posey	C	C	Same	C	B	Up	A	A	Same	B	D-	Down	C	D+	Down	3	3	Same	1
Pulaski	C	D	Down	D	C	Up	C-	C	Up	C-	B	Up	D	F	Down	3	3	Same	4
Putnam	C+	C	Down	C	C	Same	C	C-	Down	B+	B	Down	C-	C-	Same	3	3	Same	3
Randolph	F	D-	Down	D-	D	Up	D	D	Same	D	C	Up	C+	C+	Same	4	4	Same	5
Ripley	B	B	Down	C	B-	Up	C+	B	Up	C	D+	Down	C	C	Same	2	2	Same	3
Rush	D+	C	Up	D+	D+	Same	B-	C	Down	C	C	Same	D	D-	Down	4	4	Same	5
Saint Joseph	C	C	Same	B+	C	Down	C-	D-	Down	C+	B	Up	B	A	Up	3	3	Same	1
Scott	F	D-	Up	F	F	Same	D-	D	Up	F	D	Up	C	C-	Down	2	3	Down	5
Shelby	C-	C	Up	D	D	Same	B-	B	Up	A	C	Down	D	C+	Up	2	2	Same	2
Spencer	C	C	Same	C	B	Up	A	B	Down	D+	D	Down	C	C+	Up	3	3	Same	3
Starke	F	F	Same	F	F	Same	F	D	Up	F	F	Same	C	D	Down	4	3	Up	2
Steuben	C	C+	Up	C	B	Up	B-	C	Down	F	F	Same	C+	C	Down	2	2	Same	1
Sullivan	F	F	Same	F	F	Same	C	C	Same	B	D	Down	F	D	Up	3	3	Same	1
Switzerland	C+	C-	Down	F	C-	Up	F	F	Same	B-	C	Down	F	D+	Up	3	3	Same	3
Tippecanoe	B-	C+	Down	B	B	Same	C	B	Up	C	C	Same	B	B	Same	2	2	Same	3
Tipton	C-	C-	Same	B	C+	Down	B+	B	Down	C	C-	Down	D	C	Up	5	5	Same	5
Union	C	C	Same	C	C	Same	C	B-	Up	C-	D-	Down	C	C	Same	3	4	Down	3
Vanderburgh	A	C+	Down	B-	D	Down	D	D	Same	C	C	Same	A	A	Same	2	2	Same	3
Vermillion	F	F	Same	F	D	Up	C	C-	Down	B+	C+	Down	C-	C-	Same	4	4	Same	3
Vigo	C	C	Same	C-	F	Down	C-	C-	Same	D	D	Same	A	A	Same	2	2	Same	2
Wabash	C	C	Same	B	C	Down	D	D+	Up	C	C	Same	B-	B	Up	2	3	Down	2
Warren	B	C	Down	C	B	Up	C	B	Up	C	C-	Down	F	D-	Up	4	4	Same	4
Warrick	B	B	Same	A	B+	Down	A	A	Same	B+	B-	Down	B	B	Same	3	3	Same	1
Washington	D+	D	Down	D-	D-	Same	D-	D+	Up	A	B+	Down	D-	F	Down	4	3	Up	3
Wayne	D+	D	Down	D+	D-	Down	D	C-	Up	F	F	Same	C	C	Same	3	3	Same	4
Wells	C	B	Up	B+	A	Up	B	B	Same	B	A	Up	C-	C-	Same	2	3	Down	5
White	C-	C	Up	C	C	Same	C	C	Same	D	D+	Up	C+	D+	Down	3	3	Same	3
Whitley	B+	B+	Same	B	A	Up	B	C	Down	B	B+	Up	C	C	Same	3	3	Same	3

Appendix B: Housing Value Barometer for Each County and Its Neighbors, 2017

** The Housing Value Barometer for neighbors can be found on the CAIR project website: cair.cberdata.org

County	Region	Y Axis: Ratio of County Housing Values Relative to State Average (y = 1.000)	X Axis: Housing Value Growth, 2010-2017 (x = 0.084)	Housing Value Barometer for County	Average Housing Value of Neighboring Counties Relative to State Average (y = 1.000)**	Average Housing Value Growth of Neighboring Counties, 2010-2017 (x = 0.084)**	Housing Value Barometer of Neighboring Counties**
Adams	Region 3	0.863	0.202	Recovering	0.822	0.166	Recovering
Allen	Region 3	0.930	0.129	Recovering	0.920	0.156	Recovering
Bartholomew	Region 9	1.112	0.121	Growing	1.050	0.144	Growing
Benton	Region 4	0.606	0.050	Distressed	0.855	0.080	Distressed
Blackford	Region 6	0.501	0.070	Distressed	0.694	0.100	Recovering
Boone	Region 5	1.624	0.158	Growing	0.993	0.114	Recovering
Brown	Region 8	1.466	0.211	Growing	0.912	0.111	Recovering
Carroll	Region 4	0.895	0.338	Recovering	0.632	0.102	Recovering
Cass	Region 4	0.598	0.148	Recovering	0.784	0.183	Recovering
Clark	Region 10	0.967	0.087	Recovering	0.948	0.181	Recovering
Clay	Region 7	0.782	0.214	Recovering	0.702	0.100	Recovering
Clinton	Region 4	0.746	0.181	Recovering	1.142	0.171	Growing
Crawford	Region 10	0.614	0.145	Recovering	0.731	0.160	Recovering
Daviess	Region 8	0.912	0.359	Recovering	0.601	0.107	Recovering
Dearborn	Region 9	1.242	0.072	Warning	1.081	0.090	Growing
Decatur	Region 9	0.933	0.122	Recovering	0.938	0.094	Recovering
DeKalb	Region 3	0.967	0.165	Recovering	1.064	0.172	Growing
Delaware	Region 6	0.667	0.012	Distressed	0.575	0.091	Recovering
Dubois	Region 11	1.162	0.194	Growing	0.783	0.184	Recovering
Elkhart	Region 2	1.053	0.120	Growing	0.857	0.125	Recovering
Fayette	Region 6	0.523	0.138	Recovering	0.623	0.055	Distressed
Floyd	Region 10	1.305	0.128	Growing	0.937	0.141	Recovering
Fountain	Region 4	0.616	0.109	Recovering	0.643	0.104	Recovering
Franklin	Region 9	1.024	0.049	Warning	0.856	0.087	Recovering
Fulton	Region 2	0.741	0.163	Recovering	0.806	0.152	Recovering
Gibson	Region 11	0.849	0.192	Recovering	0.611	0.087	Recovering
Grant	Region 3	0.572	0.019	Distressed	0.714	0.106	Recovering
Greene	Region 8	0.632	0.116	Recovering	0.781	0.161	Recovering
Hamilton	Region 5	1.895	0.159	Growing	1.016	0.115	Growing
Hancock	Region 5	1.257	0.092	Growing	0.961	0.090	Recovering
Harrison	Region 10	1.057	0.119	Growing	0.901	0.164	Recovering
Hendricks	Region 5	1.384	0.143	Growing	0.916	0.111	Recovering
Henry	Region 6	0.619	0.093	Recovering	0.713	0.063	Distressed
Howard	Region 4	0.717	0.109	Recovering	0.720	0.177	Recovering
Huntington	Region 3	0.734	0.086	Recovering	0.730	0.111	Recovering
Jackson	Region 9	0.906	0.154	Recovering	1.004	0.165	Growing
Jasper	Region 1	1.224	0.089	Growing	1.000	0.081	Distressed
Jay	Region 6	0.590	0.269	Recovering	0.510	0.069	Distressed
Jefferson	Region 9	0.928	0.197	Recovering	0.713	0.099	Recovering
Jennings	Region 9	0.859	0.169	Recovering	0.936	0.139	Recovering
Johnson	Region 5	1.203	0.121	Growing	0.930	0.102	Recovering
Knox	Region 11	0.607	0.164	Recovering	0.592	0.147	Recovering
Kosciusko	Region 2	1.153	0.091	Growing	0.928	0.164	Recovering
Lagrange	Region 3	1.135	0.156	Growing	1.053	0.172	Growing
Lake	Region 1	1.062	0.067	Warning	1.196	0.091	Growing
LaPorte	Region 1	1.450	0.007	Warning	1.086	0.054	Warning

County	Region	Y Axis: Ratio of County Housing Values Relative to State Average (y = 1.000)	X Axis: Housing Value Growth, 2010-2017 (x = 0.084)	Housing Value Barometer for County	Average Housing Value of Neighboring Counties Relative to State Average (y = 1.000)**	Average Housing Value Growth of Neighboring Counties, 2010-2017 (x = 0.084)**	Housing Value Barometer of Neighboring Counties**
Lawrence	Region 8	0.696	0.098	Recovering	0.817	0.144	Recovering
Madison	Region 5	0.645	0.033	Distressed	0.982	0.086	Recovering
Marion*	Region 12*	0.940	0.086	Recovering	1.347	0.122	Growing
Marshall	Region 2	1.054	0.151	Growing	0.892	0.111	Recovering
Martin	Region 8	0.606	0.064	Distressed	0.680	0.153	Recovering
Miami	Region 4	0.626	0.233	Recovering	0.526	0.088	Recovering
Monroe	Region 8	1.338	0.161	Growing	0.931	0.135	Recovering
Montgomery	Region 4	0.883	0.220	Recovering	1.017	0.131	Growing
Morgan	Region 5	1.133	0.093	Growing	1.150	0.145	Growing
Newton	Region 1	0.938	0.166	Recovering	0.964	0.069	Distressed
Noble	Region 3	0.945	0.226	Recovering	1.078	0.142	Growing
Ohio	Region 9	1.253	0.161	Growing	0.999	0.101	Recovering
Orange	Region 8	0.633	0.153	Recovering	0.616	0.100	Recovering
Owen	Region 8	0.754	0.139	Recovering	0.777	0.117	Recovering
Parke	Region 7	0.687	0.099	Recovering	0.737	0.138	Recovering
Perry	Region 11	0.803	0.334	Recovering	0.893	0.191	Recovering
Pike	Region 11	0.565	0.069	Distressed	0.706	0.182	Recovering
Porter	Region 1	1.425	0.019	Warning	1.132	0.062	Warning
Posey	Region 11	0.998	0.083	Distressed	0.866	0.155	Recovering
Pulaski	Region 1	0.711	0.184	Recovering	0.904	0.118	Recovering
Putnam	Region 7	0.965	0.155	Recovering	0.937	0.151	Recovering
Randolph	Region 6	0.520	0.061	Distressed	0.629	0.101	Recovering
Ripley	Region 9	0.966	0.059	Distressed	1.004	0.135	Growing
Rush	Region 6	0.738	0.077	Distressed	0.881	0.097	Recovering
Saint Joseph	Region 2	0.905	0.024	Distressed	1.087	0.090	Growing
Scott	Region 10	0.772	0.180	Recovering	0.732	0.121	Recovering
Shelby	Region 5	0.931	0.089	Recovering	1.030	0.103	Growing
Spencer	Region 11	0.903	0.234	Recovering	1.063	0.213	Growing
Starke	Region 1	0.791	0.084	Recovering	1.073	0.091	Growing
Steuben	Region 3	1.247	0.176	Growing	1.015	0.183	Growing
Sullivan	Region 7	0.550	0.087	Recovering	0.662	0.124	Recovering
Switzerland	Region 9	0.789	0.171	Recovering	1.049	0.139	Growing
Tippecanoe	Region 4	1.097	0.072	Warning	0.884	0.150	Recovering
Tipton	Region 4	0.882	0.141	Recovering	0.800	0.096	Recovering
Union	Region 6	0.734	0.056	Distressed	0.728	0.072	Distressed
Vanderburgh	Region 11	0.883	0.119	Recovering	1.024	0.129	Growing
Vermillion	Region 7	0.550	0.131	Recovering	0.654	0.071	Distressed
Vigo	Region 7	0.624	0.003	Distressed	0.642	0.133	Recovering
Wabash	Region 3	0.708	0.170	Recovering	0.815	0.125	Recovering
Warren	Region 4	0.690	0.072	Distressed	0.717	0.090	Recovering
Warrick	Region 11	1.224	0.111	Growing	0.696	0.138	Recovering
Washington	Region 10	0.785	0.218	Recovering	0.869	0.133	Recovering
Wayne	Region 6	0.638	0.029	Distressed	0.599	0.087	Recovering
Wells	Region 3	0.946	0.101	Recovering	0.698	0.129	Recovering
White	Region 4	1.014	0.072	Warning	0.855	0.147	Recovering
Whitley	Region 3	1.065	0.157	Growing	0.752	0.107	Recovering

* Marion County is included in Region 5 for easier comparison with its neighbors.

**The Housing Value Barometer for neighboring counties can be found on the CAIR project website: cair.cberdata.org