

Indiana INdicators: A New Community Health Dashboard

In Indiana, 20.3 percent of adults between 18 and 64 years old lack health insurance, better than the nation's rate of 21.5 percent. Among Hoosier adults (age 18 and older), 30.8 percent are considered obese, compared to 27.8 percent nationally. The rate of heart disease mortality has dropped to 194.1 in Indiana, but is still higher than the national rate of 180.1 (rates are per 100,000 population).

What does all this mean? Put it together with nearly 100 other indicators now available on the recently released Indiana INdicators website (www.IndianaINdicators.org) and you can get a good idea of Indiana's overall health and quality of life. Not only does the site tell where we are now, but it also shows us goals for the future.

The Indiana State Department of Health (ISDH), the Indiana Hospital Association (IHA), the Indiana Business Research Center (IBRC) and the Indiana University Public Policy Institute partnered to provide this exciting new resource, funded through a grant from the Centers for Disease Control and Prevention.

Indiana Health Dashboard

Dashboards have become a popular way to hone in on what's critical. The dashboard indicators used on this site were deemed of critical importance to Indiana and our communities by professionals at the Indiana State Department of Health and the Indiana Hospital Association.

There are two geographic levels to the dashboard—statewide and community level (county). The **state dashboard** provides a comparison of Indiana to the nation, while the **community dashboard** compares a user-selected county to the state. Where goals (or targets) are available, those are shown with the indicator as a way to determine how far we have to go to make progress or achieve an optimum target.

The site can also demonstrate where communities are succeeding in improving health. Looking at the prenatal smoking indicator, we can see that Adams County has reduced the percentage of mothers smoking during pregnancy to 9.7 percent, lower than the state's percentage of 17.1 percent (see **Figure 1**).

Figure 1: Prenatal Smoking Indicator for Adams County, 2010



Source: Indiana INdicators, using Indiana State Department of Health data

There will be times you'll want more information about a specific indicator and you can click on the "Learn more about this indicator" link to view the source time period, and why the indicator is important and useful. It also provides links to promising practices and news links specific to the topic.

If you like the dashboard indicators but are itching for more data, the **key indicators** section offers tables and graphs of the indicators and allows you to toggle between geographies. Among the Midwestern states, Indiana ranked fourth for the longest average travel time to work (see **Table 1**).

Table 1: Travel Time to Work (Average Aggregate Minutes), 2011

Rank (Longest to Shortest Time)	State	Time in Minutes
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1	Illinois	28.1
2	Michigan	23.9
3	Missouri	23.3
4	Indiana	23.1
5	Ohio	22.9
6	Kentucky	22.6
7	Minnesota	22.6
8	Wisconsin	21.5

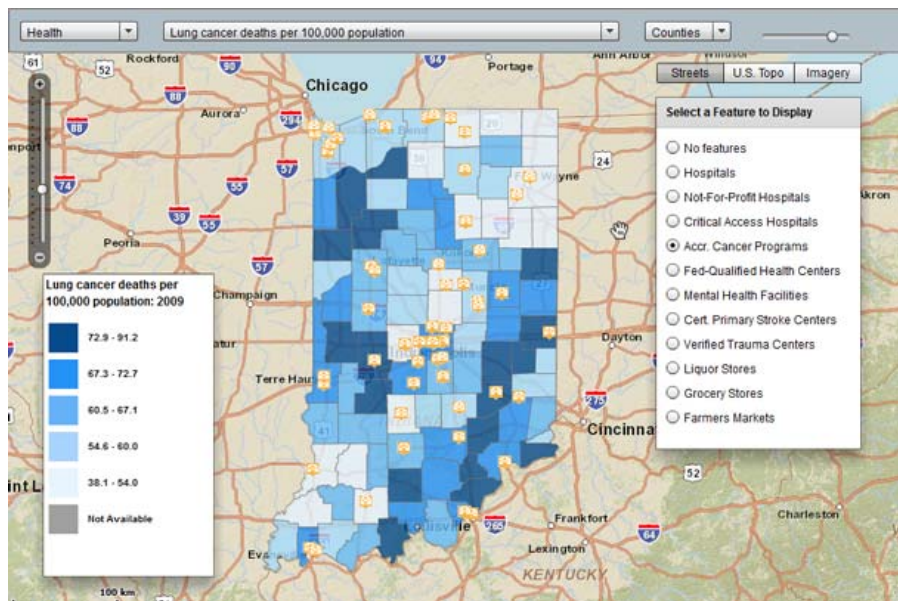
Source: Indiana Indicators, using U.S. Census Bureau American Community Survey five-year estimates

Maps

If you want something visual to compare your county to others in Indiana on numerous measures, an [interactive map](#) does just that. Compare demographics, educational attainment, health, housing, income, poverty and transportation data. You can also overlay the map with point features, including hospitals, accredited cancer programs, liquor stores, grocery stores and farmers markets just to name a few.

According to ISDH, lung cancer is the leading cause of cancer deaths in Indiana. **Figure 2** shows lung cancer deaths per 100,000 with an overlay of accredited cancer programs. With this view, it's easy to see the regions where lung cancer poses the greatest burden.

Figure 2: Lung Cancer Deaths per 100,000 Population, 2009



Source: Indiana Indicators, using Indiana State Cancer Registry data

Demographic Profiles

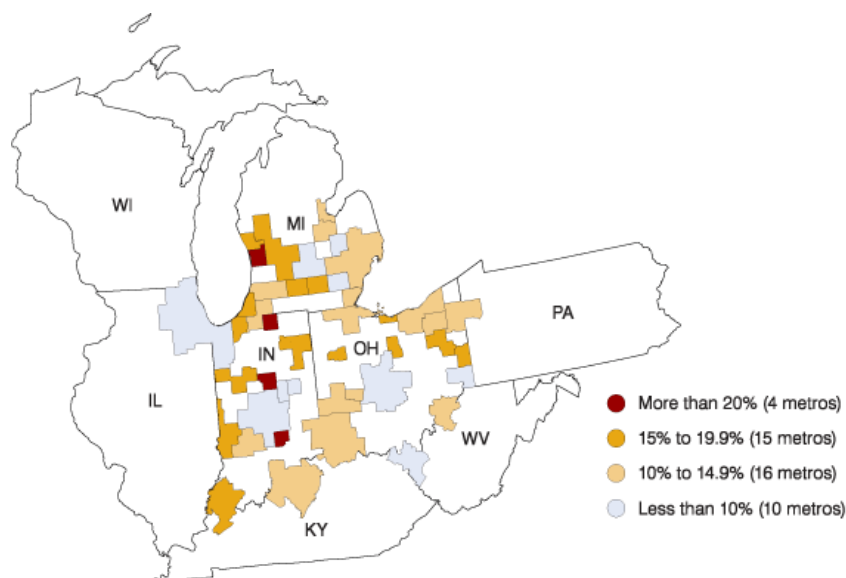
Demographic profiles (found in the “Data Central” section) offer a regional view of the data. It's easy to see how your county, health district or region compares to Indiana when looking at these profiles. In addition to population, housing and income data that is typical in a data profile, these profiles also include public transportation data, injury prevention statistics and cause of death data.

Beyond Indiana

If you want to compare Indiana areas more broadly, [region comparisons](#) allow you to compare multiple geographies across the entire United States side by side on several topics ranging from population to industry composition.

For example, of the metros in Indiana, Michigan and Ohio, Indiana had three of the four metros with at least one-fifth of total jobs in the manufacturing industry. The Holland-Grand Haven, MI metro was the only non-Indiana metro to meet that criterion (see **Figure 3**). Ohio had no metros in the top 10 manufacturing-intense metros in these three states.

Figure 3: Manufacturing as a Percent of All Jobs by Place of Work for Selected Metros, 2011



Source: IBRC, using Bureau of Labor Statistics data

In Conclusion

Two significant events have occurred to focus considerable attention on health care and hospitals. The first is the Affordable Care Act and the other is the new regulation for nonprofit hospitals to essentially prove their need in their communities. Our ability to measure the effects of these events on the health and well-being of Hoosiers will be met, in part, by this new and unique website, **Indiana INdicators**. We encourage you to visit the site, review the indicators, play with the mapping tool and provide feedback.

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What's Behind the Labor Force Participation Rate?

In recent years, increasing significance has been placed upon the percentage of our labor force that is unemployed, while the rate of participation in that labor force has generally gone unmentioned. This figure that indicates the percentage of people 16 to 65 years of age that are employed or actively seeking work is, however, a key component to our long-term economic growth. This study focuses on this important labor force participation rate and evaluates several factors that may play a part in one's active participation in the work force.

The study examines nine years of data collected from 2002 to 2010. The data include statistics for the 50 states and the District of Columbia, which were assembled into a panel set containing 4,849 observations. [View detailed methodology »](#)

Results

Rational behavior and self-interest should indicate a positive relationship between economic growth and labor force participation. As the economy grows, more people should participate in the economy in an effort to reap the benefits of a stronger economy. However, the relationship between economic output and the labor force participation rate is not statistically significant. Rather, what is shown is that better economic conditions will only induce further participation when the benefits of a stronger economy are exhibited in higher wages. Increased per capita income is shown to be statistically significant with higher levels of labor force participation.

During the 2007-2009 recession, income levels and labor participation rates fell nationally. Since the trough of the recession, the economy has since grown at a slow pace. However, labor force participation growth has been more muted than the overall economy. Stagnant wages are one of the reasons for low participation. While the economy has grown at a slow pace, this has not translated to growth in wages. Wage growth has been stagnant. Labor force participation is shown to follow wages more than economic growth and, therefore, has been slow to recover as well.

A state's cost of living is shown to have no statistically significant influence on the labor force participation rate. The need to work less in low-cost areas is not shown. It is possible that disparities in wages across the nation reflect the impact of differing costs of living more than participation rates.

Homeownership is negative and statistically significant. A higher homeownership rate is associated with a lower labor force participation rate. The probable mechanism for this relationship is likely reduced employee mobility.

An addition to the population may naturally increase the workforce, but it does not necessarily influence the labor force participation rate. There is no statistically significant influence due to population growth.

Educational attainment is statistically significant and positive. A more educated society has a higher labor participation rate. The time and monetary investment for education provide ample incentive for the population to remain employed. Additionally, those with higher levels of education are less likely to become unemployed or discouraged and drop from the workforce.

As expected, a higher percentage of the population over 65 years of age is a negative influence, thus yielding a lower labor force participation rate.

The state binaries are generally negative and indicate a statewide influence regarding the labor force participation rate. Without further data, teasing out state-specific causes is problematic. The purpose of the binary is to recognize these potential influences and control for them.

Summary

This study examined various influences on the labor force participation rate over a nine-year period. While taking yearly differences and statewide factors into consideration, a higher personal income and educational attainment level does serve to increase the rate of labor force participation. On the other hand, the cost of living, a state's overall population or economic growth do not seem to significantly change the rate at which those between the ages of 16 and 65 either work or actively seek

employment. As expected, the labor force participation rate does go down as the ratio of senior citizens (age 65 and older) increases. To a lesser degree, homeownership also decreases the rate of labor participation, perhaps due to the affect it has on worker mobility.

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Data Don'ts: When You Shouldn't Average Averages

Dealing with data can sometimes cause confusion. One common data mistake is averaging averages. This can often be seen when trying to create a regional number from county data. This article looks at a few popular data sets where averaging data distorts accuracy. Thankfully, STATS Indiana (www.stats.indiana.edu) has built-in functionality to help you avoid that mistake.

Unemployment Rate

The unemployment rate serves as a good example of when you should not average multiple rates since the rate is a calculation itself (unemployed divided by labor force). **Table 1** shows the counties comprising the Lafayette metro area. Average those three rates together and you get 7.0 percent. However, the true unemployment rate for the metro is 7.3 percent (7,260 unemployed divided by 100,113 people in the labor force).

Table 1: Lafayette Metro Counties Unemployment Rate, November 2012

Geography	Unemployment Rate
Benton	6.8
Carroll	7.0
Tippecanoe	7.3
What You Get If You Average County Rates	7.0
True Metro Unemployment Rate	7.3

Source: IBRC, using Indiana Department of Workforce Development data

Per Capita Personal Income

Per capita personal income (PCPI) is another data set where you should not aggregate data into regions using averages since PCPI is really a calculation (income divided by population). Doing so gives each county equal weight even though they each have different population levels. **Table 2** uses the 10-county Indianapolis-Carmel metro area as an example to show that the county average differs from the true PCPI by more than \$500.

Table 2: Indianapolis-Carmel, IN Metro Area PCPI, 2011

Area	PCPI
Boone County	\$52,975
Hamilton County	\$51,824
Hancock County	\$43,714
Marion County	\$38,309
Morgan County	\$37,634
Johnson County	\$36,570
Hendricks County	\$36,188
Brown County	\$35,863
Shelby County	\$35,376
Putnam County	\$31,817
What You Get If You Average County PCPIs	\$40,027
True Metro PCPI	\$40,572

Source: IBRC, using Bureau of Economic Analysis data

How Using STATS Indiana Helps

STATS Indiana has built-in functionality to provide statistics for metropolitan, micropolitan and combined statistical areas, as well

as a wide variety of pre-existing regions, such as the Department of Workforce Development's economic growth regions and Indiana Economic Development Corporation regions. In addition, you can use the custom region builder for any Indiana regions that aren't already pre-defined. The links below take you to the relevant outputs on STATS Indiana that were used in this article.

- [Unemployment Data](#)
- [Per Capita Personal Income Data](#)

A Caveat Concerning Medians

Data that are reported in terms of a median (e.g., median household income) are another area where averaging causes problems. However, with medians things get a little trickier because the raw data used to calculate the median is often unavailable. Recall that a median is the value that is in the middle. So, in the case of median household income, half of the households in the area have incomes above the median and half of the households are below the median. The problem is that we don't have the income data for every individual household in the region to calculate the regional median. Oftentimes the best that can be done if a regional median value is absolutely necessary, is to go ahead and average it. In those cases, be sure to call it the *average median value* instead of a median value.

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