



Unemployment Rate Is Lower When Education Is Higher

Everyone can benefit from more education, even if the benefits don't translate directly into dollars and cents. As we'll see in this article, one big benefit of having more education includes keeping one's job.

This article focuses briefly on the educational attainment of Indiana's working age population using the 2009 American Community Survey data (the so-called census long-form replacement).¹ Working age in this case includes people between the ages of 25 and 64 — those who are more or less post-college and pre-retirement.

Fifty-five percent of the Hoosier population aged 25 to 64 has had at least some college. If we add to that age group those with a high school diploma (or equivalent), then 89 percent of our population has finished high school. However, that does leave 11 percent of adults in their prime working years without high school credentials (see **Table 1**).

Table 1: Working Age Population by Educational Attainment, 2009

Percent of working age population with	Indiana	U.S.
Some college or higher	55%	60%
A high school diploma (or equivalent) or higher	89%	87%
Less than a high school diploma	11%	13%

Source: IBRC, using American Community Survey data

The data reveal several interesting facts about our working age population based on their employment status and educational attainment as it stood in 2009.

First, we see that labor force participation goes up as educational attainment levels increase (see **Table 2**). Remember that the labor force includes all those who are employed as well as those people who are unemployed but actively looking for work.

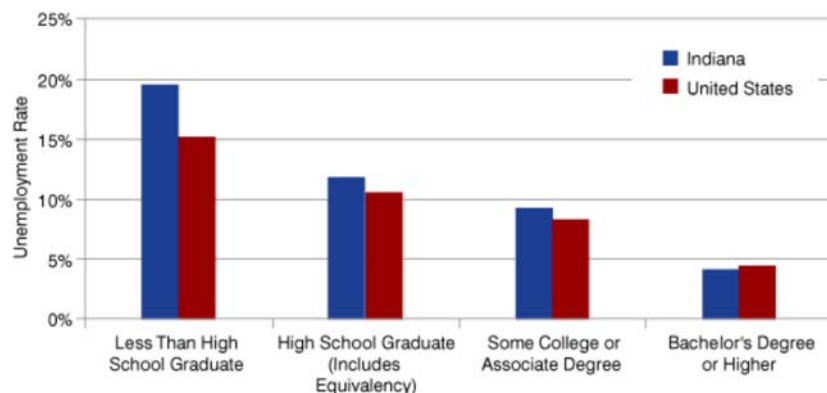
Table 2: Participation in the Labor Force by Education Level, 2009

	Indiana	U.S.
Population 25 to 64 years	79.4%	78.7%
Less than high school graduate	59.7%	62.4%
High school graduate (includes equivalency)	76.8%	75.2%
Some college or associate degree	82.2%	81.1%
Bachelor's degree or higher	88.3%	86.5%

Source: IBRC, using American Community Survey data

Second, we find that the unemployment rate goes down as educational attainment goes up (see **Figure 1**).

Figure 1: Unemployment Rate Comparison for the Working Age Population, 2009



Source: IBRC, using American Community Survey data

As shown in **Table 3**, the unemployment rate for Hoosiers with less than a high school degree was nearly 20 percent, dropping to about 4 percent for those with a bachelor's degree or higher.

Table 3: Unemployment Rate for Working Age Population by Education Level, 2009

	Indiana	U.S.
Population 25 to 64 years	9.5	8.4
Less than high school graduate	19.5	15.2
High school graduate (includes equivalency)	11.8	10.6
Some college or associate degree	9.2	8.3
Bachelor's degree or higher	4.1	4.5

Source: IBRC, using American Community Survey data

The 2009 American Community Survey contains a wealth of additional data for geographies with at least 65,000 people.² Visit the Census Bureau's American FactFinder website at <http://factfinder.census.gov/> to learn more.

Notes

1. The data used in this article come from the subject table "S2301: Employment Status" on the [American FactFinder](#) website.
2. The 2005 to 2009 five-year estimates will be released in December 2010 for all geographies down to the block group level, while the 2007 to 2009 three-year estimates will be available for geographies with at least 20,000 people in January 2011.

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How Will Indiana's Shifting Population Affect Legislative Redistricting?

With the election behind us, we now know that the Republicans will be in charge of the next round of legislative redistricting. Every 10 years congressional and legislative districts are redrawn, and Indiana's General Assembly is likely to consider a range of factors in determining where to draw the lines. By law, the districts must be of roughly equal population (also known as equinumerosity).¹

While the official 2010 population counts used for redistricting won't be available until early next year, the following analysis uses the 2009 township population estimates (the smallest level of geography for which Census Bureau estimates are available) to explore population shifts since the last census. This provides an early sense of which Indiana congressional districts might need to grow or shrink geographically to meet the equal population criteria.

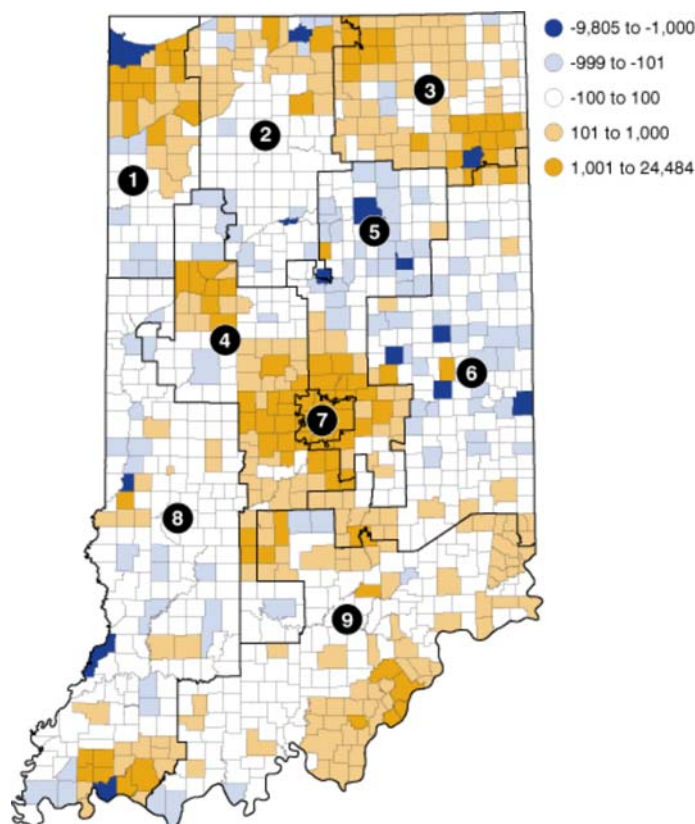
How Many People in a District?

When districts were last drawn in 2001, Indiana had almost 6.1 million people, so each of Indiana's nine congressional districts represented approximately 675,609 people (give or take 160 people).² As of the 2009 estimates, Indiana's population has grown to more than 6.4 million. Indiana is not expected to lose a congressional seat, so we can estimate that each of the nine districts will contain about 714,000 residents (again, remember that this is an estimate based on 2009 data, not the official redistricting data which won't be released until February or March 2011).

A Look at Township Population Shifts

Figure 1 shows change in township population between Census 2000 and the 2009 population estimates alongside the congressional district boundaries.

Figure 1: Change in Township Population with Congressional Districts, 2000 to 2009



Source: IBRC, using U.S. Census Bureau data

The first step is to aggregate these township data to congressional districts. In cases where a township crosses multiple districts, the population was split based on the percentage of land area in each district (i.e., if 38 percent of a township's land area was in District 1, District 1 received 38 percent of that township's population). This yielded results +/- 2 percent of the actual Census 2000 population in most cases. However, this method assigned a bit too much of the Indianapolis population to Districts 4 and 5 instead of District 7.³

As a whole, Indiana's population grew 5.6 percent between 2000 and 2009, but **Table 1** shows that estimated growth rates varied dramatically among the various congressional districts. District 6 was the only district to actually lose population (-0.5 percent). Districts 2 and 8 both had growth rates less than 1 percent. On the other hand, Districts 4 and 5 each grew more than 14 percent (though bear in mind that some of this growth occurred within the shared townships that are under-represented in District 7).

Table 1: Estimated Growth in Congressional District Population Based on Township Aggregations, 2000 to 2009

Congressional District	Actual Census 2000 Population	Estimates Based on Township Aggregations			
		2000	2009	Numeric Change	Percent Change
1	675,562	675,649	701,678	26,029	3.9%
2	675,766	666,938	672,450	5,512	0.8%
3	675,457	680,771	723,907	43,137	6.3%
4	675,617	704,828	804,201	99,374	14.1%
5	675,577	701,885	814,046	112,162	16.0%
6	675,669	686,750	683,417	-3,334	-0.5%
7	675,674	620,636	638,113	17,476	2.8%
8	675,564	675,738	681,599	5,861	0.9%
9	675,599	667,325	703,702	36,377	5.5%

Source: IBRC, using U.S. Census Bureau data

Summary

After Census 2000, Indiana lost its 10th congressional seat, which caused a rather dramatic realignment of congressional districts. The state is not projected to lose a seat this time, but population declines in east-central Indiana, slow growth in western and north-central Indiana, and the concentrated growth around the Indianapolis metro area will make some boundary adjustments necessary to satisfy the equinumerosity requirement so each Hoosier's vote will count equally.

When the Census Bureau releases the official redistricting data (known as the **P.L. 94-171 data file**) sometime during February or March 2011, we'll make those data available on STATS Indiana and update this analysis using the official block-level data. In the interim, learn more about this once-a-decade process at the new Redistricting topic page at www.stats.indiana.edu/topic/redistricting.asp.

Notes

1. It wasn't until 1964 that the Supreme Court codified the "one person, one vote" principle, which requires that districts be of equal population. The Wesberry v. Sanders decision that year applied equal population requirements to congressional districts, while the Reynolds v. Sims case applied it to state legislatures.
2. Congressional District 2 had the highest Census 2000 total population at 675,766, while District 3 had the lowest at 675,457 residents.
3. In those townships which cross into neighboring districts, the share of population living in the District 7 portion is higher relative to the portion of township land area in the district. Based on the township aggregations, the estimated population of District 7 was only 92 percent of its actual 2000 population, while Districts 4 and 5 were both 104 percent of their actual population.

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A Year's Hard Labor: The Leading Index for Indiana

Lii™ In October 2009, the Indiana Business Research Center (IBRC) launched the **Leading Index for Indiana (LII)**, an economic indicator designed to predict changes in the general direction of Indiana's economic activity. At the time of its initial release, the LII was shown to lead movement in the Philadelphia Federal Reserve's coincident index of economic activity in Indiana by several months. Specifically, the LII peaked and began to fall at least six months prior to changes in economic activity. **Figure 1** shows the index's movement since June 1997.

Figure 1: The Leading Index for Indiana, June 1997 to August 2010



Note: Hash marks indicate June and December of each year except 2010.

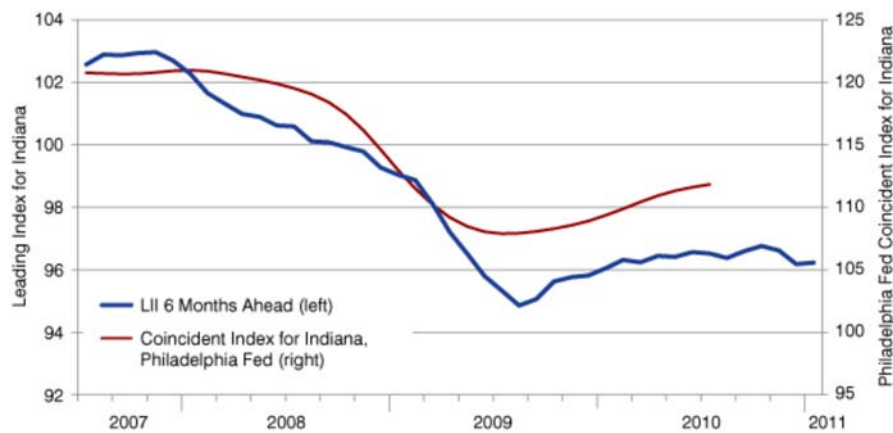
Source: Indiana Business Research Center

The LII contains five components that, in contrast to the Conference Board's leading index for the national economy, reflect the structure of the Indiana economy. The five components are the National Association of Home Builders' Housing Market Index (HMI); the Census Bureau's value of unfilled motor vehicles and parts orders; the interest rate spread between the Fed Funds rate and the 10-year Treasury yield; the Purchasing Managers Index (PMI); and the Dow Jones Transportation Average. While these are all national measures, they become available more quickly than do state-level data. As a result, they offer a more timely view of what the future might hold.

In the year since its initial release, the LII has increased, albeit at an anemic pace, signaling that the Indiana economy is in the midst of a tepid recovery from the last recession. The LII's movement is consistent with movement in the Conference Board's leading economic indicator for the United States as a whole, as well as with the Philadelphia Federal Reserve's coincident index for Indiana. The LII showed the "green shoots" of an economic recovery in March 2009. The National Bureau of Economic Research (the committee of economists that determine when recessions start and end) reported that the national recession ended in June 2009. Indiana's recession ended one month later based upon the Philadelphia Fed's coincident index for Indiana, which bottomed out in July 2009. The LII, therefore, did a solid job of predicting the turn of the economy four months before the U.S. recession ended and five months before the Indiana recession ended.

To see how well the LII has predicted Indiana's economic activity, we can look at a lagged match-up of the LII and the Philadelphia Fed's index. **Figure 2** shows the LII six months ahead, juxtaposed with the Philadelphia Fed coincident index for Indiana. The patterns are very similar. The downturn is predicted at the right time, as is the recovery. Note that the lagged LII peaks in October of this year, with the drop sustained between November and January. In a few months we may see yet another test of the LII's validity as a prediction tool.

Figure 2: Indiana Coincident Index and Six-Month Advance LII, July 2007 to January 2011



Note: Hash marks indicate every other month.

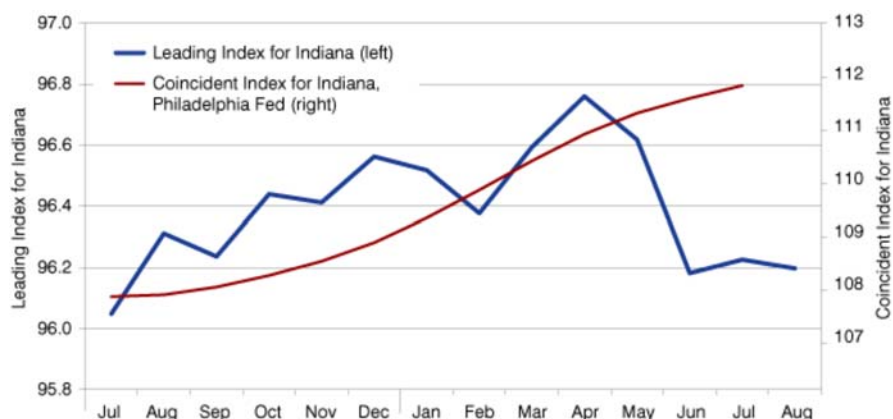
Source: Indiana Business Research Center

Past movement in the LII has shown it to be a reliable predictor of changes in Indiana's economic activity. The LII is only one measure, however, and is best used in conjunction with other indexes that portend changes in the economy, such as the Ceridian-UCLA Pulse of Commerce Index¹ and the Architectural Billings Index.²

Given the LII's predictive validity, the past few months have produced some troubling signs. From July 2009 through April 2010, the LII increased from 96.0 to 96.8; not break-neck growth, but still movement in a positive direction. This movement was also consistent with the Philadelphia Federal Reserve's coincident indicator of economic activity in the state over the same time period. In May, the LII dropped, and it prompted a warning sign when it dropped again in June (as shown in **Figure 1**). Warning signs occur when three of the five components of the LII decline *and* the LII declines overall. The LII has remained virtually unchanged since June at a value of 96.2. This level is only marginally higher than the level of the LII when the IBRC began releasing it last year.

In contrast to the LII's summer decline, the Philadelphia Fed's coincident index for Indiana has risen consistently over the last year, although its rate of increase has fallen since about February. **Figure 3** compares the movement of the two indices since last July. The coincident index is a measure of Indiana's economic activity in real time. Therefore, the drop and subsequent stagnation of the LII do not bode well for future growth in Indiana, especially given that the coincident index's growth has slowed.

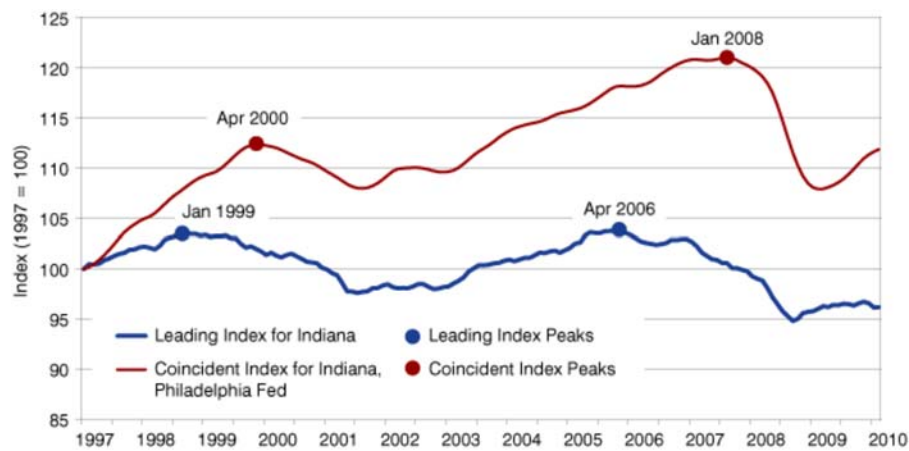
Figure 3: LII and Coincident Index for Indiana, July 2009 to August 2010



Source: Indiana Business Research Center

As **Figure 4** shows, the LII peaked at least a year before the Philadelphia Fed's coincident index for each of the last two recessions. With any luck, the April LII level of 96.8 constitutes a slight surge along a longer-term growth path rather than an overall peak (that would signal a negative turn in the economy), given that the LII has been essentially flat for the last several months.

Figure 4: Index of LII and Coincident Index for Indiana, June 1997 to June 2010



Note: Hash marks indicate June and December of each year except 2010.

Source: Indiana Business Research Center

The Conference Board's leading index for the United States is showing a trend similar to the LII. This index could be a valuable benchmark for the LII, since it also predicts the change in direction of economic activity at the national level.³ From July 2009 through April 2010, the Conference Board's leading index has increased along with the LII, as shown in **Figure 5**. Since April, however, it has essentially leveled off. It will be useful to watch this index over the next several months to see if this constitutes a change in momentum or if it is simply a temporary stall.

Figure 5: LII and Conference Board U.S. Leading Index, July 2009 to August 2010



Source: Indiana Business Research Center

The LII has been stagnant for three months, raising concerns about the fragility of Indiana's recovery. It should also make the coming months interesting, both in terms of discovering if Indiana's economy follows the LII's trend and in terms of predicting which direction the economy will take next year.

Notes

1. The Ceridian-UCLA Pulse of Commerce Index (PCI) is based on real-time fuel consumption data for over-the-road trucking. By tracking the volume and location of diesel fuel being purchased, the index closely monitors the over-the-road movement of raw materials, goods-in-process and finished goods to U.S. factories, retailers and consumers. For more information, visit www.ceridianindex.com/.
2. The Architecture Billings Index (ABI) is a diffusion index derived from the monthly Work-on-the-Boards survey, conducted by the Economics & Market Research Group of the American Institute of Architects. The ABI serves as a leading economic indicator that leads nonresidential construction activity by approximately nine to 12 months. For more information, visit www.aia.org/practicing/economics/AIAS076265.
3. The Conference Board Leading Economic Index has 10 components that are weighted from 0.3248 (the greatest) for the money supply (M2) to 0.0192 (the least) for Manufacturers' new orders, nondefense capital goods. The LII, in contrast,

weighs each of its five components equally. For more information, visit www.conference-board.org/pdf_free/economics/bci/hereagain.pdf.

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Brazil: Countries IN Profile

With 194 million people and covering 3.3 million square miles, Brazil is one of the world's largest democracies and is the most influential country in South America.¹ Brazil emerged from many decades of political turbulence and from military dictatorship in 1989 and has since developed a stable and democratic government. Brazil ranks 75th in the world on the UN Human Development Index, just below Grenada (see **Table 1**).

Table 1: UN Human Development Index (HDI), 2007

HDI Measures	Brazil	United States
HDI Value	0.813	0.956
Life Expectancy at Birth (years)	72.2	79.1
Education Index*	0.891	0.968
GDP Per Capita (PPP** U.S. Dollars)	\$9,567	\$45,592

*Measures a country's relative achievement in both adult literacy and combined primary, secondary and tertiary gross enrollment.

**Purchasing power parity (PPP) means that the exchange rate is adjusted so an identical good in two different countries has the same price when expressed in the same currency.

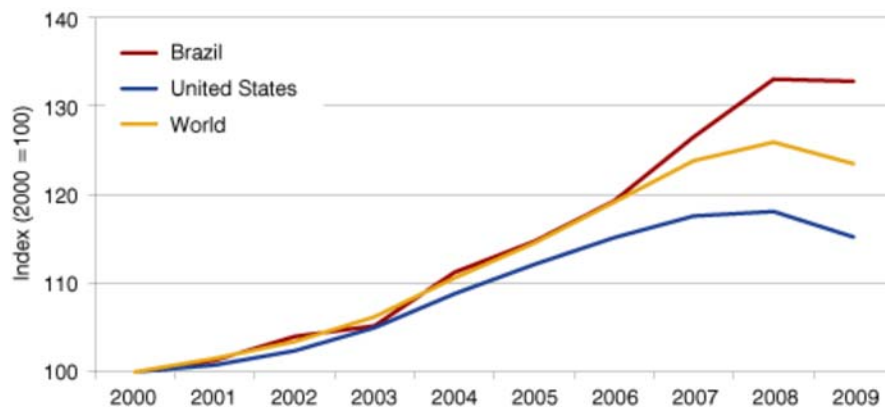
Source: Human Development Reports

Trade relations, regardless of the political situation within Brazil, with the United States have not always been cordial. Good relations between Brazil and the United States would likely benefit Indiana. Hoosier industry maintains a significant trading relationship with Brazil and while investment between the two regions may be limited, at least two of Indiana's largest manufacturers—Eli Lilly² and CTS Corporation³—have a significant presence in Brazil.

Economy

Figure 1 shows that Brazil has remained largely unaffected by the global recession, maintaining a positive economic growth rate since 1993. However, the nation has not been completely unscathed. Brazil experienced a six-month recession in 2009, largely caused by a rise in food prices that depressed consumer spending.

Figure 1: Annual Growth in GDP, 2000 to 2009



Source: IBRC, using World Bank data

where is brazil?



Brazil is located in South America. View [Brazil](#) in a larger map.

protocol tips for brazil

Titles and Forms of Address

In Brazil, it is best to wait until invited to use given names. It is customary to use titles such as "Doctor" or "Professor" during introductions where applicable.

Language

Portuguese is the national language of Brazil and spoken by nearly all Brazilians. Business cards should have one side translated into Portuguese.

Time

Relationship building takes precedence over punctuality in Brazil. If kept waiting for a business meeting, do not show agitation and remember that strong relationships take time to develop in Brazil.

Communication

Brazilians like to know the person with whom they are doing business. Face-to-face communication is preferred over written correspondence. Note: The "okay" sign is a vulgar gesture in Brazil.

Greetings

Handshakes with eye contact are the appropriate form of greeting among men. Handshakes tend to linger during initial meetings and progress to an embrace among friends. Women often kiss on alternating cheeks upon greeting.

Gift Giving

Gifts are not required at the initial meeting. Paying for a nice lunch or dinner would be recommended when relationships are being established. Note: Avoid black and purple when giving gifts as they are associated with death and mourning.

Dress

Men should wear dark suits for business and

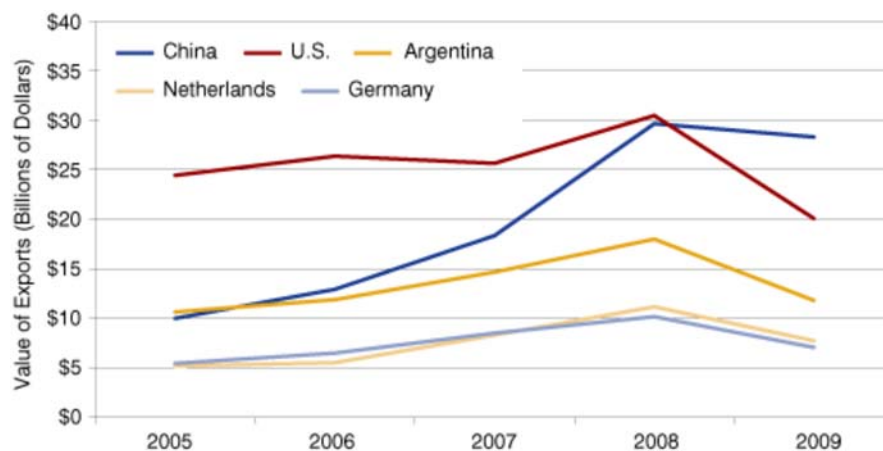
Brazil contains a wide variety of natural resources and at least three distinct ecosystems. One important resource is the recently discovered Tupi oil field, which lies 18,000 feet beneath the Atlantic Ocean and contributes some 5 million to 8 million barrels to Brazil's estimated 12.6 billion barrel reserves.⁴

Brazil is the largest recipient of foreign direct investment (FDI) in South America, with the United States as its largest investor. Foreign investment is seen as crucial to driving growth since Brazil's domestic savings has proven insufficient for capital formation. Despite the importance of FDI, investors often think twice about making investments in Brazil, citing an unfriendly business environment. The lack of a taxation or investment treaty with the United States has hampered American investment.⁵ Looking at the reverse flow, Brazilian FDI into Indiana has been limited. Since 2003, there has been only one greenfield project—a \$9.4 million investment by Gerdau, a Brazilian-based manufacturer of rolled steel.

Trade

Despite Brazil's continued economic growth, its international exports have experienced a small decline, falling in 2009 to just below their 2006 level, as the economies of Brazil's major trading partners shrank (see **Figure 2**). The United States and China are now the largest purchasers of Brazilian exports. U.S. exports to Brazil are dominated by industrial machinery, including computing equipment.

Figure 2: Destinations of Brazilian Exports, 2005 to 2009



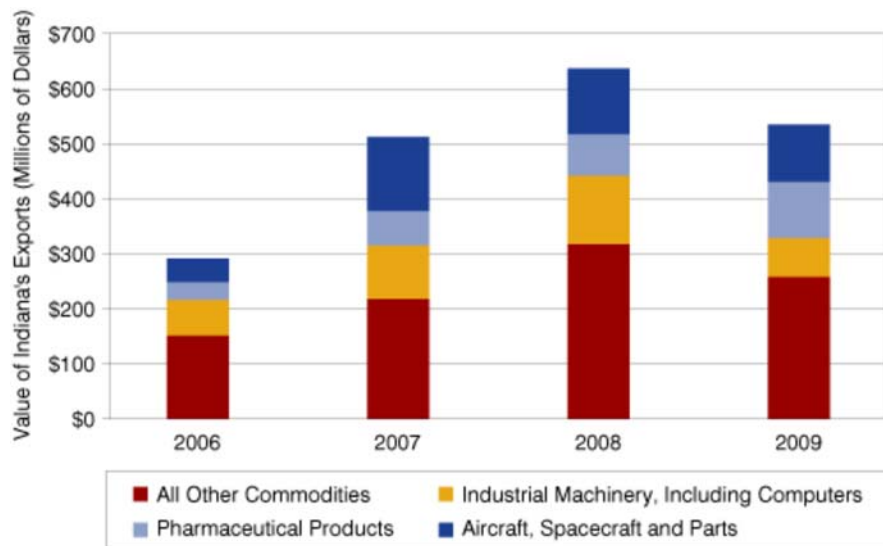
Source: IBRC, using WISERTrade data

Indiana's exports to Brazil declined in 2009, falling by 16.1 percent. Early results for 2010 show a limited turnaround. Indiana's largest export category is aircraft and spacecraft parts. Most likely these exports to Brazil are a result of the Rolls Royce factory in Indianapolis supplying aircraft engines to Brazil's growing aeronautics industry, the largest in the southern hemisphere. While the aeronautic industry's exports dominate Indiana's trade with Brazil, followed by industrial machinery and pharmaceutical products, together these three commodities account for approximately half of all Indiana's exports to Brazil (see **Figure 3**).⁶ As it happens, the country is also a participant in constructing the International Space Station and the Window Observational Research Facility that was carried into orbit earlier this year by the space shuttle Discovery.⁷

Figure 3: Indiana's Exports to Brazil, 2006 to 2009

slacks and long-sleeved shirts for casual attire. Women should wear conservative suits or dresses.

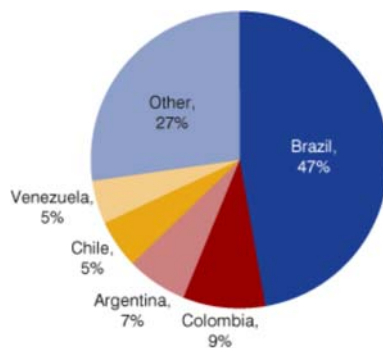
For more information on conducting business in Brazil or any other country around the world, please contact Peter Kirkwood, Protocol Officer, Office of Protocol at the International Center of Indianapolis, which is sponsored by Duke Energy, www.iccenterindy.org.



Source: IBRC, using WISERTrade data

Interestingly, Indiana's largest import category from Brazil is also aircraft and spacecraft parts. Indiana is the 16th largest purchaser of Brazilian exports among the 50 states and ranks fourth in the Midwest. Brazilian purchases account for 2.3 percent of Indiana's exports and is the state's eighth largest trading partner (see **Figure 4**).

Figure 4: Five Largest Purchasers of Indiana's Exports in Latin America and the Carribean (Excluding Mexico), 2009



Source: IBRC, using WISERTrade data

Three large commodities dominate Brazil's exports to the rest of the world: iron ore, soybeans and crude oil. The export of iron ore accounts for a significant quantity of Brazil's trade with China and has contributed to the country's recent emergence as Brazil's largest trading partner. Brazil has a long history of manufacturing and exporting ethanol, made from sugarcane as an additive to traditional fossil fuels. However, there are significant tariffs imposed on imports of ethanol into the United States, while domestic production is heavily subsidized, severely restricting Brazilian imports.⁸ These measures have limited the quantity of ethanol imported by the United States. U.S. production of ethanol has increased every year since 2004 (see **Table 2**). The ethanol production tax credit is scheduled to expire at the end of 2010 and the Brazilian Sugarcane

Industry Association has been campaigning vigorously to prevent its renewal.⁹ However, there is concern in the United States that if these tariffs are discontinued the price of corn will decrease significantly as the market is flooded with cheaper Brazilian ethanol (since the production of ethanol from sugarcane is significantly cheaper than from corn).¹⁰

Table 2: U.S. Ethanol Production and Imports (Millions of Gallons), 2004 to 2009

	2004	2005	2006	2007	2008	2009
U.S. Production	3,404	3,904	4,884	6,521	9,309	10,758

Total Imports	149	136	731	439	530	198
Imports from Brazil	86	35	453	185	203	5

Source: U.S. Department of Energy and U.S. Energy Information Administration

Conclusion

Brazil and the United States have an important, if occasionally antagonistic relationship. Ties will likely grow strong in the coming years given America's need for energy and Brazil's need for foreign investment. Brazil has been fortunate to side-step the high unemployment and cuts in public spending or large surges in public borrowing that have been the hallmark of this recession for most of the developed countries.

Indiana maintains a significant trading relationship with Brazil and the country remains a major purchaser of Indiana's aircraft and spacecraft parts as well as a major destination for exports from the Midwest. Given that at least a few of Indiana's largest companies operate within Brazil, it is in the Hoosier state's interest that relations between the U.S. and Brazil remain cordial.

Notes

1. "Brazil Country Profile", BBC News, last modified May 28, 2010, http://news.bbc.co.uk/2/hi/americas/country_profiles/1227110.stm.
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3. "Sales Offices and Stocking Distributors," CTS Corporation, accessed June 30, 2010, www.ctscorp.com/sales/samerica.htm.
4. U.S. Energy Information Administration, "Brazil: Oil," Country Analysis Briefs, last modified September 2009, www.eia.doe.gov/cabs/Brazil/Oil.html.
5. "Background Note: Brazil," U.S. Department of State, last modified February 5, 2010, www.state.gov/r/pa/ei/bgn/35640.htm.
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7. "Window Observational Research Facility (WORF)," NASA, last modified June 25, 2010, www.nasa.gov/mission_pages/station/science/experiments/WORF.html.
8. "Brazil Announces Temporary Elimination of Ethanol Tariff," National Association of Convenience Stores, last modified April 7, 2010, www.nacsonline.com/NACS/News/Daily/Pages/ND0407105.aspx.
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10. James Jacobs, "Ethanol from Sugar: What Are the Prospects for U.S. Sugar Co-ops?" *Rural Cooperatives*, September-October 2006, www.rurdev.usda.gov/rbs/pub/sep06/ethanol.htm.

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Central Indiana: Realtors Region 4 Profile

This is the fourth article in our coverage of Indiana's Realtors regions. Housing is an important dimension of economic and community development in our state, so we are forging a partnership with the Indiana Association of Realtors to encourage understanding of the housing situation in Indiana. For an overview of this article series and a map of all six regions, see the first article at www.incontext.indiana.edu/2010/may-june/article5.asp.

Geographic Context

Realtors Region 4 consists of 10 counties smack dab in the center of the state in what is either called Central Indiana or the Indianapolis area.

With an estimated population of 1.7 million, it is the largest of all six regions. Counties in this region include Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Marion, Montgomery, Morgan and Shelby (see **Figure 1**). This region covers a land area of nearly 3,890 square miles and has a population density of nearly 450 people per square mile (that's quite dense considering the rather roomy state average of 179 people per square mile).

Population

Indianapolis is the largest city in Realtors Region 4 as well as in the state with a 2009 population estimate of 807,584. Fishers (71,052) and Carmel (69,547) come in as a distant second and third largest in the region (see **Table 1**).

Figure 1: Central Indiana: Realtors Region 4



Source: IBRC, using the Indiana Association of Realtors definitions

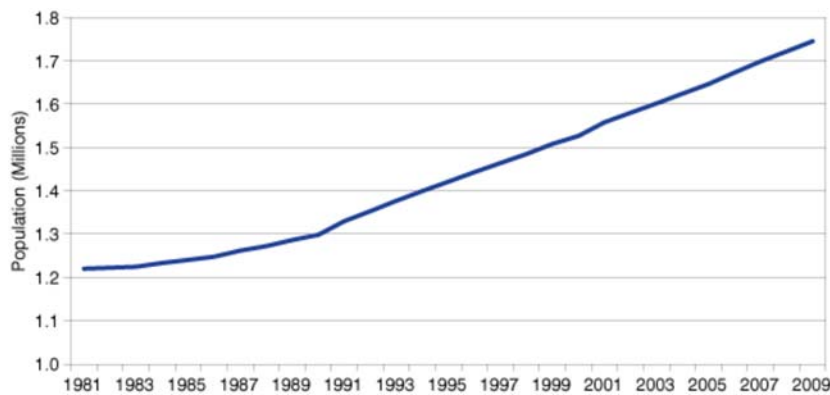
Table 1: Largest Cities in Region 4, 2009

Name	Population in 2009	% of Region
Indianapolis	807,584	46.3%
Fishers	71,052	4.1%
Carmel	69,547	4.0%
Greenwood	48,320	2.8%
Lawrence	44,107	2.5%
Noblesville	42,935	2.5%
Plainfield	28,527	1.6%
Franklin	23,595	1.4%
Westfield	22,402	1.3%
Brownsburg	20,644	1.2%

Source: IBRC, using U.S. Census Bureau data

The population in Realtors Region 4 increased between Census 2000 and the latest estimate in 2009 by more than 200,000 people, for a solid 14.3 percent change so far this decade (see **Figure 2**). The population in Realtors Region 4 is projected to continue its growth through 2015, by which time its population would be close to 1.9 million according to the official county population projections from the Indiana Business Research Center.

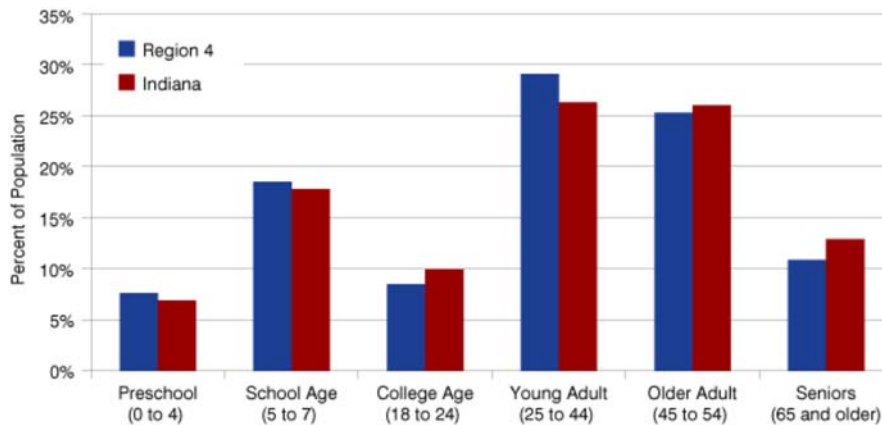
Figure 2: Region 4 Population Levels, 1981 to 2009



Source: IBRC, using U.S. Census Bureau data

This region has an age mix that differs from the state mix (see **Figure 3**). Realtors Region 4 has a higher proportion of young adults, preschoolers and school age children than the state overall.

Figure 3: Current Age Structure, 2009



Source: IBRC, using U.S. Census Bureau data

Among the six Realtors regions, Region 4 ranks first in net migration from other nations, with 2,851 more people moving into the region from overseas or across borders between 2008 and 2009 than moving out. The region had a domestic net increase of 7,314 people—that is, in-migration to this region outpaced out-migration by a considerable number.

About 82 percent of the population is white, making this the least homogenous region among the six. Fifteen percent of the population is black (compared to the state's 9.1 percent), and a little over 5 percent of the region's population is Hispanic (which is somewhat smaller than the statewide 5.5 percent estimated for 2009).

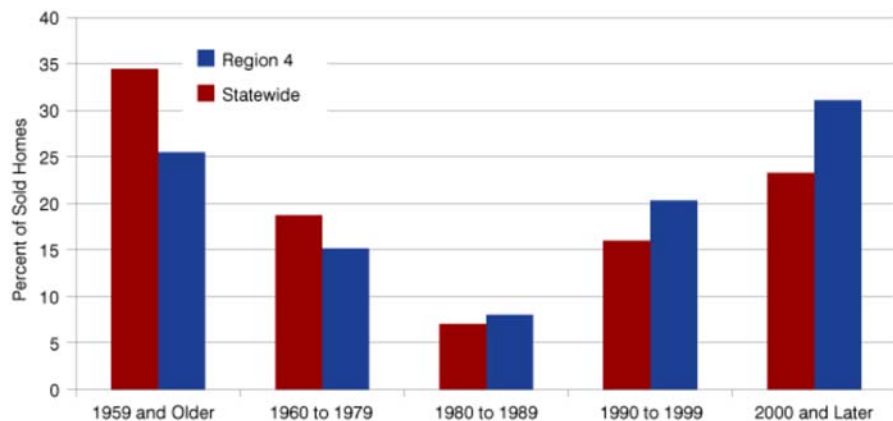
Housing and Life Styles

The region ranks first among the six regions with 760,596 housing units (2009 estimate). The majority of units (62.3 percent) were owner-occupied, according to Census 2000, although the region has a significant share of the state's rental housing. More than half of households in the region were married couples (23.8 percent with children, 27.1 percent without), 10 percent were single-parent households, and 27 percent lived alone.

Home sales in the region, not surprisingly, have slowed along with the rest of the state and the nation. Regardless, the region accounted for 36 percent of all homes sold in the state in 2009, compared to 35 percent in 2005. The median sale price has shifted downward, from \$130,000 in 2005 to \$118,000 in 2009, so Region 4 is part of that nationwide buyer's market.

In 2009, nearly 23,300 homes were sold in the central region, with a median age of 17 years (that is, median year built was 1992). That median age was definitely younger when compared to the state, with a median build-year of 1976 (see **Figure 4**).

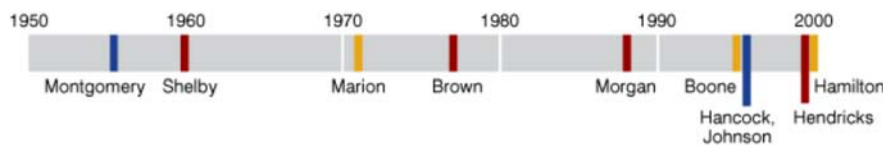
Figure 4: Percent of Homes Sold in 2009 by Year Built



Source: IBRC, using Indiana Association of Realtors data

Looking at individual counties in the region, there is a significant spread based on the median age of homes sold in 2009 (see **Figure 5**).

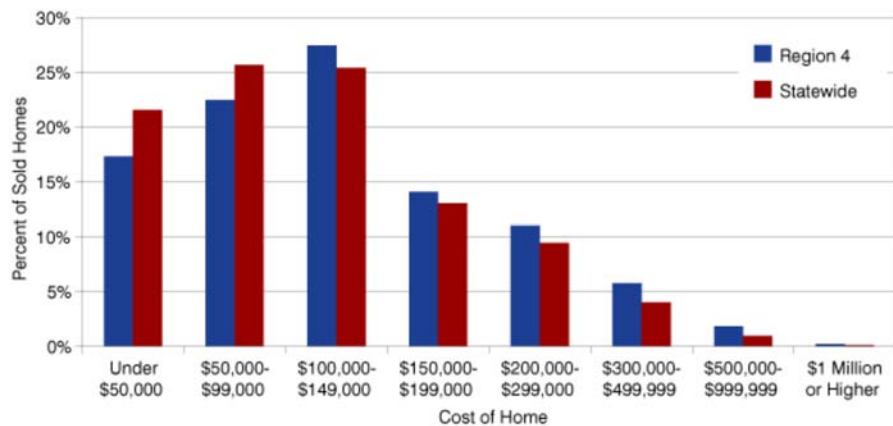
Figure 5: Median Age of Homes Sold in 2009 by County in Realtors Region 4



Source: IBRC, using Indiana Association of Realtors data

The vast majority of homes sold were priced under \$200,000 and about 50 homes were sold for \$1 million or more in 2009. Using a statewide comparison, the region's home sales occurred at a higher frequency in the ranges above \$100,000 (see **Figure 6**).

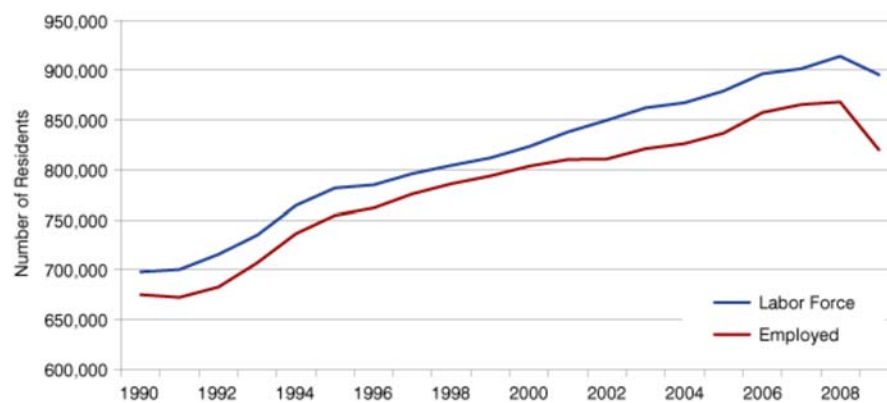
Figure 6: Cost of Homes Sold Compared to the State, 2009



Source: IBRC, using Indiana Association of Realtors data

Labor Force

As seen in **Figure 7**, nearly 900,000 residents of the region are part of the labor force, with 820,000 people employed and the remaining 75,000 actively seeking work (i.e., unemployed), based on 2009 annual average). The September 2010 unemployment rate for the region was 8.7 percent, lower than the state rate of 9.5 percent for that same month (figures are not seasonally adjusted). For a closer inspection of labor force numbers, be sure to visit Hoosiers by the Numbers at www.hoosierdata.in.gov, the workforce development website of the Indiana Department of Workforce Development. These numbers are released monthly as preliminary estimates and previous months' figures are revised.

Figure 7: Realtors Region 4 Resident Labor Force and Employment, 1990 to 2009

Note: Data are not seasonally adjusted.

Source: IBRC, using Indiana Department of Workforce Development data

Work

The vast majority of residents work in private industry. The largest sectors in the region include health care and social services, retail trade, and manufacturing (see **Table 2**).

Table 2: Realtors Region 4 Jobs by Industry, 2009

Industry	Jobs	Jobs LQ
Total	830,118	1.00
Health Care and Social Services	101,337	0.64
Retail Trade	88,938	0.75
Manufacturing	87,302	1.14
Accommodation and Food Services	71,208	0.85
Administrative and Support and Waste Management and Remediation Services	58,871	1.09
Transportation and Warehousing	49,722	1.45
Public Administration	42,619	0.88
Professional, Scientific, and Technical Services	41,462	0.51
Finance and Insurance	40,796	0.68
Construction	38,533	0.99
Wholesale Trade	38,359	0.84
Other Services (Except Public Administration)	26,510	0.80
Information	15,926	0.71
Real Estate and Rental and Leasing	14,259	0.91
Educational Services	13,638	0.16
Arts, Entertainment, and Recreation	12,111	0.60
Management of Companies and Enterprises	10,875	0.91
Utilities	3,976	0.75
Agriculture, Forestry, Fishing and Hunting	1,160	0.16
Mining	641	0.16
Unallocated	33	0.03

Source: IBRC, using U.S. Bureau of Labor Statistics data

Jobs within Industry Cluster

Clusters can be a valuable way to organize our thinking about industry mix in an area. The Purdue Center for Regional Development has identified 17 industry clusters that give insight into the core industries and their supplier industries. The resulting data can help the region consider which are important or emerging clusters (see **Table 3**).

Table 3: Realtors Region 4 Industry Clusters, 2008

Description	Cluster Employment	Industry Cluster Employment LQ
Total All Industries	870,084	1.00
Business and Financial Services	78,309	1.03
Transportation and Logistics	43,227	1.69
Biomedical/Biotechnical (Life Sciences)	42,257	1.41
Manufacturing Supercluster	42,246	1.01
Defense and Security	36,039	0.84
Energy (Fossil and Renewable)	35,315	0.68
Information Technology and Telecommunications	28,657	0.70
Chemicals and Chemical Based Products	23,342	1.60
Arts, Entertainment, Recreation and Visitor Industries	21,095	0.61
Advanced Materials	16,596	0.49
Printing and Publishing	16,513	0.99
Education and Knowledge Creation	15,709	0.19
Transportation Equipment Manufacturing*	15,431	1.46
Fabricated Metal Product Manufacturing*	12,560	1.27
Forest and Wood Products	11,089	0.69
Agribusiness, Food Processing and Technology	9,055	0.44
Machinery Manufacturing*	7,918	1.04
Computer and Electronic Product Manufacturing*	4,256	0.53
Apparel and Textiles	4,042	0.55
Glass and Ceramics	2,936	0.85
Primary Metal Manufacturing*	1,296	0.45
Electrical Equipment, Appliance and Component Manufacturing*	785	0.29
Mining	651	0.49

*These are subclusters within the manufacturing supercluster.

Source: IBRC, using U.S. Bureau of Labor Statistics and Purdue Center for Regional Development data

In using the table, it's worthwhile to consider the actual employment numbers shown. It's almost always good to consider "how many" jobs comprise a particular cluster. Another valuable measure is the location quotient (LQ) provided in the column next to the employment numbers. Anything over 1.0 means the region has what is considered export capacity—exporting to neighbors in another region, another state, across the nation or around the globe. The idea of producing "more than we need" indicates that those clusters are serving needs outside the region as well as within its borders. In short, having an LQ higher than 1.0 is good; if it is a lot higher, then the cluster can be considered substantial, and is at least worth a closer look as part of an economic development strategy.

If clusters have piqued your interest, be sure to turn your browser to www.statsamerica.org/innovation to see these data in action for areas throughout Indiana and in comparison to the rest of the country.

Time to Explore

We hope to have given you a fast trek through the numbers. We could go on, but then that might spoil your fun in going to **STATS Indiana's IN Depth Profiles** and learning more about this region or the whole host of regions we have available.

Carol O. Rogers

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