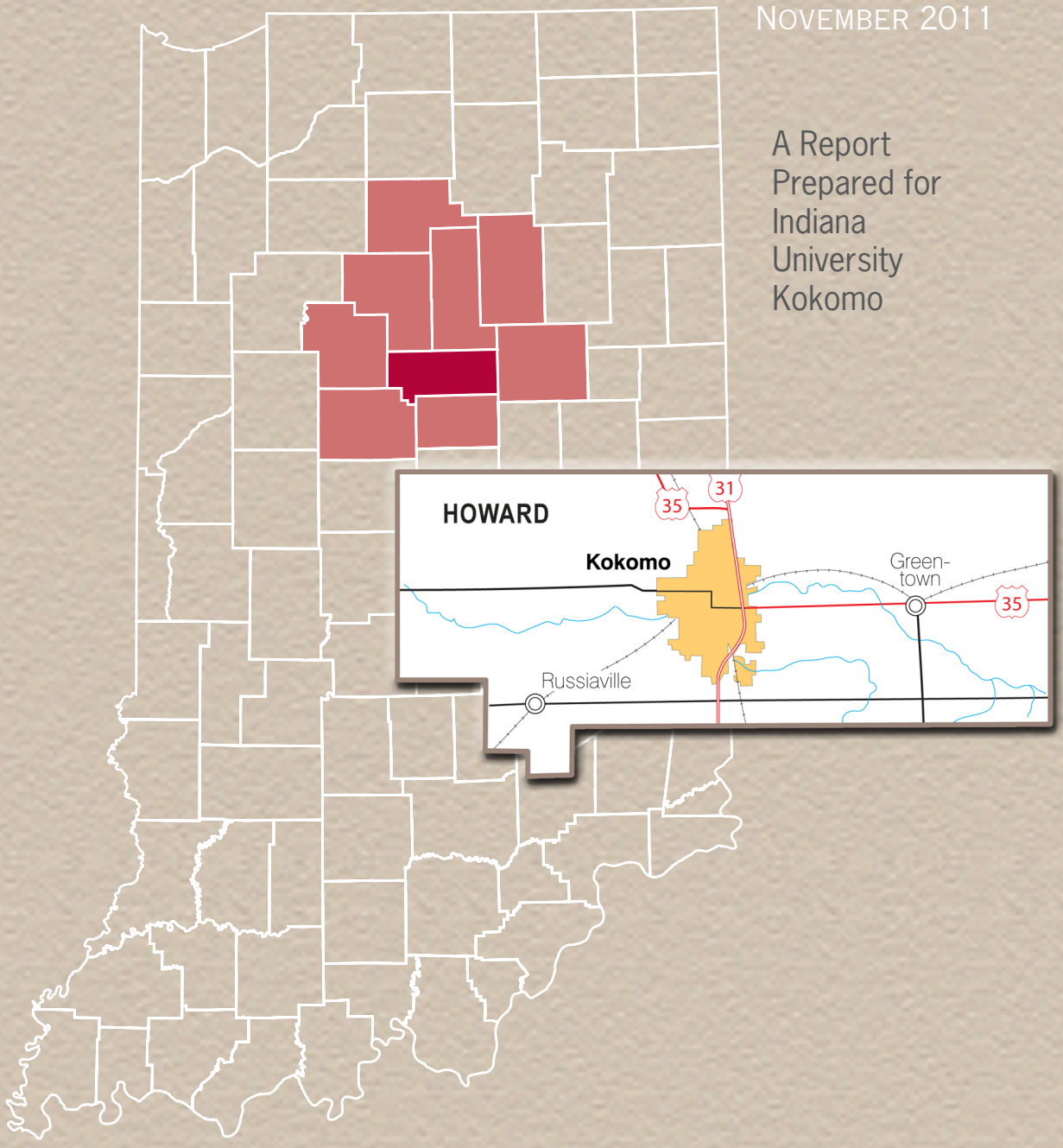
Benchmarking Kokomo

November 2011

A Report Prepared for Indiana University Kokomo



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Indiana Business Research Center

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Introduction

The Kokomo, IN, region has witnessed significant changes in its economic composition over the past 10 years. In preparation for a major initiative to foster regional transformation, Indiana University Kokomo (IUK) commissioned this study examining these changes to provide context and stimulate discussion among the region's leaders and the public.

It is difficult to understand how a community is really doing without comparing it against similar areas throughout the country. Therefore, 13 of Kokomo's peer communities were examined to better assess how Kokomo has fared over the past decade. This benchmarking study confirms how severely the Great Recession impacted Kokomo's employment and population compared to its peers, yet it also shows that Kokomo has not fallen too far behind its peers in educational attainment, GDP, unemployment rate and level of innovation.

IUK Region

The Kokomo regional campus of Indiana University serves a nine-county area in north-central Indiana including Carroll, Cass, Clinton, Fulton, Grant, Howard, Miami, Tipton and Wabash counties. The campus is located in Kokomo, the core city of the Kokomo metropolitan statistical area (MSA), in Howard County. IUK serves the population within Howard County, its adjacent counties, and nearby Fulton and Wabash counties. This nine-county region is hence termed the "IUK Region."

Of all the counties within the IUK region, clearly Howard County drives much of the economic activity as it has the region's largest concentrations of population, employment and housing. This is understandable considering that Howard County has the city of Kokomo in its midst while its neighboring counties are mostly rural counties with a great deal of farmland. Despite Howard County having the highest average wage of all IUK counties, Tipton, Carroll and Wabash counties bested Howard in per capita personal income, possibly reflecting that many of those holding Howard County's high-paying jobs live in the surrounding counties. Indeed, commuting data show that surrounding counties depend on employment opportunities in Howard County with roughly 5,000 workers commuting into the county.

Why Benchmark Kokomo?

IUK commissioned this benchmarking study to support IUK's work with community leaders aimed at understanding and enhancing the region's economic competitiveness and broadly advancing its quality of life. It is particularly timely to benchmark Kokomo now considering the economic turmoil it has undergone due to the Great Recession. This study offers insight into the general direction of the region's economy prior to the recession and the recession's impact. To provide context for how the IUK region has fared, the Kokomo metropolitan statistical area MSA was compared to 13 peer MSAs throughout the country.

Kokomo's Peers

Peer communities selected for benchmarking were similar to Kokomo 10 years ago—thus allowing comparison of how each community has performed relative to Kokomo over the past decade. All the MSAs are east of the Mississippi River, have colleges or community colleges in their core county, have comparably large manufacturing sectors and have similar populations. The 13 MSAs include: Anderson, SC; Decatur, AL; Rocky Mount, NC; Morristown, TN; Battle Creek, MI; Lebanon, PA; Sheboygan, WI; Cleveland, TN; Danville, VA; Jackson, TN; Lima, OH; Fond du Lac, WI; and Rome, GA (see **Figure 1**).

Figure 1: National Peers

Source: Indiana Business Research Center

Of all these MSAs, Lebanon, PA, was the standout performer, as it had the highest per capita personal income and was the only community with net employment growth since 2000. However, Lebanon is somewhat more of a "bedroom" community as evidenced by high commuting out of the MSA into larger nearby markets.

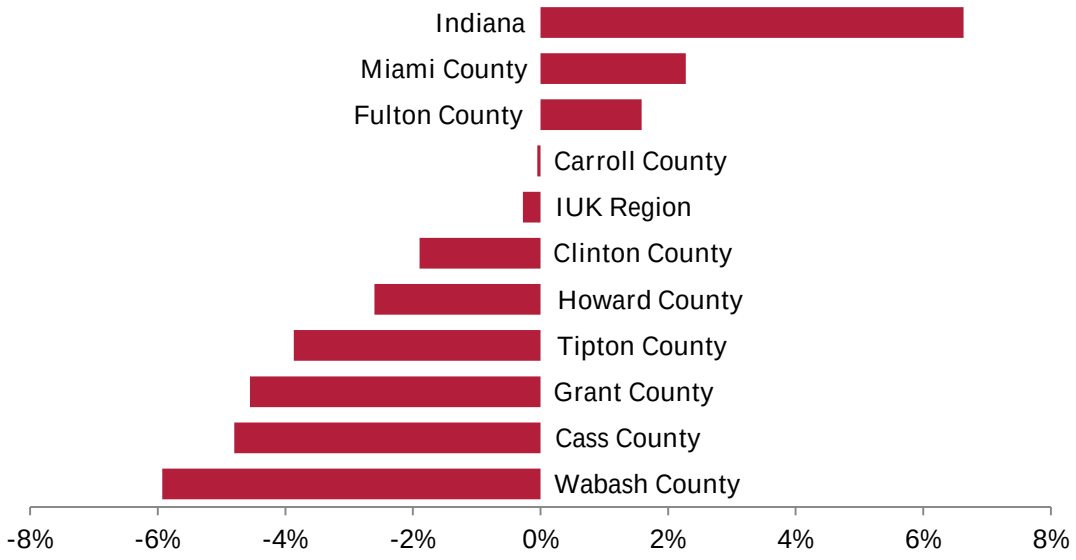
Case Studies

From the set of 13 peer MSAs, two were selected for closer examination of the economic development strategies employed to advance their economies. Fond du Lac, WI, and Decatur, AL, were selected because their manufacturing concentrations were comparable to Kokomo, yet they have fared well in the past decade as a whole. While manufacturing is an important part of each of these communities, the industry mixes are quite diverse—more so than Kokomo's. Likewise, they focus a great deal of effort on filling regional supply chain gaps with the recognition that not all suppliers would relocate to their specific MSAs, but possibly within their surrounding regions. Both MSAs utilize regional partnerships, although it appears this strategy will take time to be fully implemented as surrounding communities are still used to competing for job opportunities.

Population

The 2010 census counted 353,700 residents in the IUK region, with the bulk living in Howard and Grant counties (23 percent and 20 percent, respectively). The region experienced a decline of 9,700 residents (-0.3 percent) over the past decade (see **Figure 2**). Seven of the nine IUK counties experienced population losses ranging from less than 1 percent to nearly 6 percent, while Miami and Fulton counties both grew. Their growth rates, however, were far below that of the state, with not nearly enough gains to offset the other counties' declining populations.

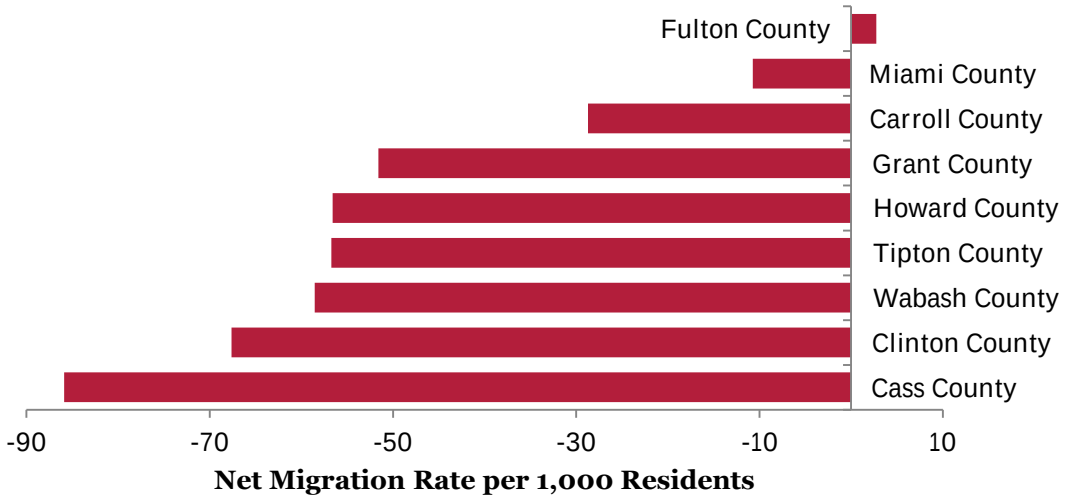
Figure 2: Percent Change in Population, Indiana and IUK Region, 2000 to 2010



Source: U.S. Census Bureau

Net out-migration from the IUK region likely fueled a large portion of the region's population loss in the past decade (see **Figure 3**). Fifty-one of every 1,000 residents of the IUK region moved away during the decade, with the largest relative losses occurring in Cass and Clinton counties. While Howard County lost 4,800 residents since 2000, the relative impact per 1,000 residents was not as profound as Cass County's 3,515 loss due to Howard's larger population base. Only Fulton County had more people moving to the county than leaving it, and that was a very small net in-migration.

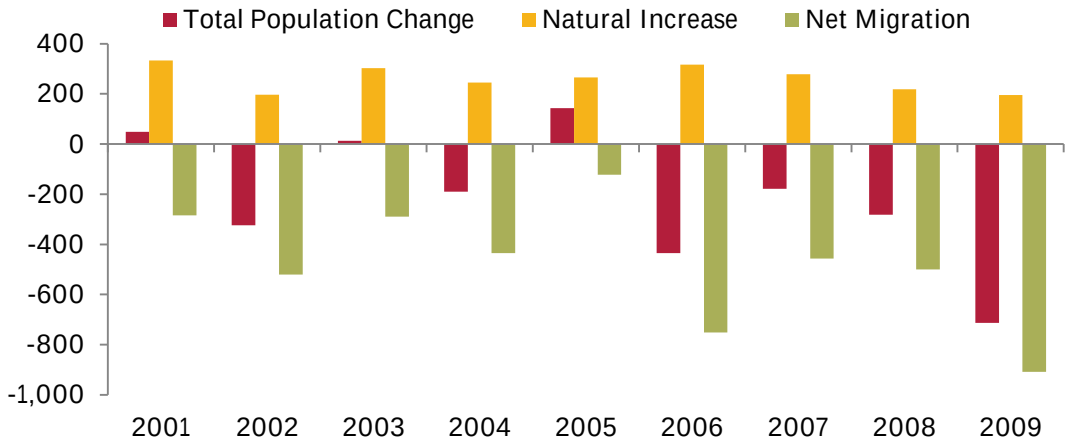
Figure 3: Net Migration Rate, IUK Region, 2010



Source: Indiana Business Research Center estimates

Taking a closer look at the largest county in the region, **Figure 4** shows the components of population change in Howard County since 2001. Natural increase compares births to deaths in the region (with positive values indicating more births than deaths), whereas net migration indicates individuals either moving into or out of the region. Howard County's net migration was negative—meaning more people moved out than in—throughout this period. However, in 2001, 2003 and 2005, the county's natural increase (births > deaths) surpassed its negative net migration, so the population grew. However, in 2006 net out-migration increased dramatically—possibly reflecting shrinking employment in the county's automotive industry—a trend that continued through 2009. Overall for the past decade, Howard County has had more residents leaving than moving to the county, with minimal population growth occurring due to natural increase during a few years early in the decade.

Figure 4: Components of Population Change, Howard County, 2001 to 2009

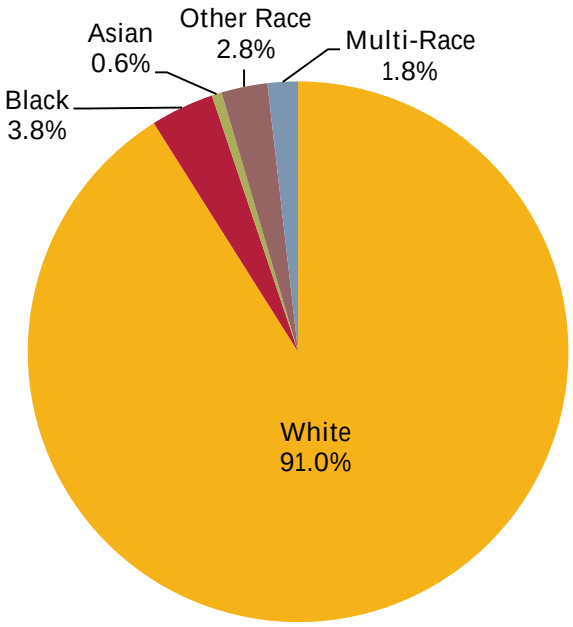


Source: IBRC calculations based on the Census Bureau's annual population estimates and the 2000 and 2010 decennial census counts

The population mix in the IUK region is predominantly white (91 percent), with the second largest race being black or African-American (see **Figure 5**). Within the past decade, very little change has occurred in racial composition. Most of the decline in population was the result of white residents leaving the area (-21,200), and the population gains have been among minority groups. The black, Asian and multi-racial populations grew (200, 100 and 3,090 individuals, respectively). In 2010, the Hispanic population (whose members may claim any race but are of Hispanic or Latin American descent) totaled 6,470—nearly 6 percent higher than in 2000—and represented 5 percent of the region's population.

The IUK region is less diverse than Indiana as a whole. Statewide, roughly 84 percent of the population is white, 9 percent is black, 2 percent is multi-racial and 6 percent claims Hispanic ethnicity. The IUK region has a higher percentage of whites, whereas statewide there is a higher percentage of blacks and African-Americans; the other racial and ethnic proportions are relatively similar between the state and the region.

Figure 5: Racial Mix of IUK Region, 2010



Source: U.S. Census Bureau

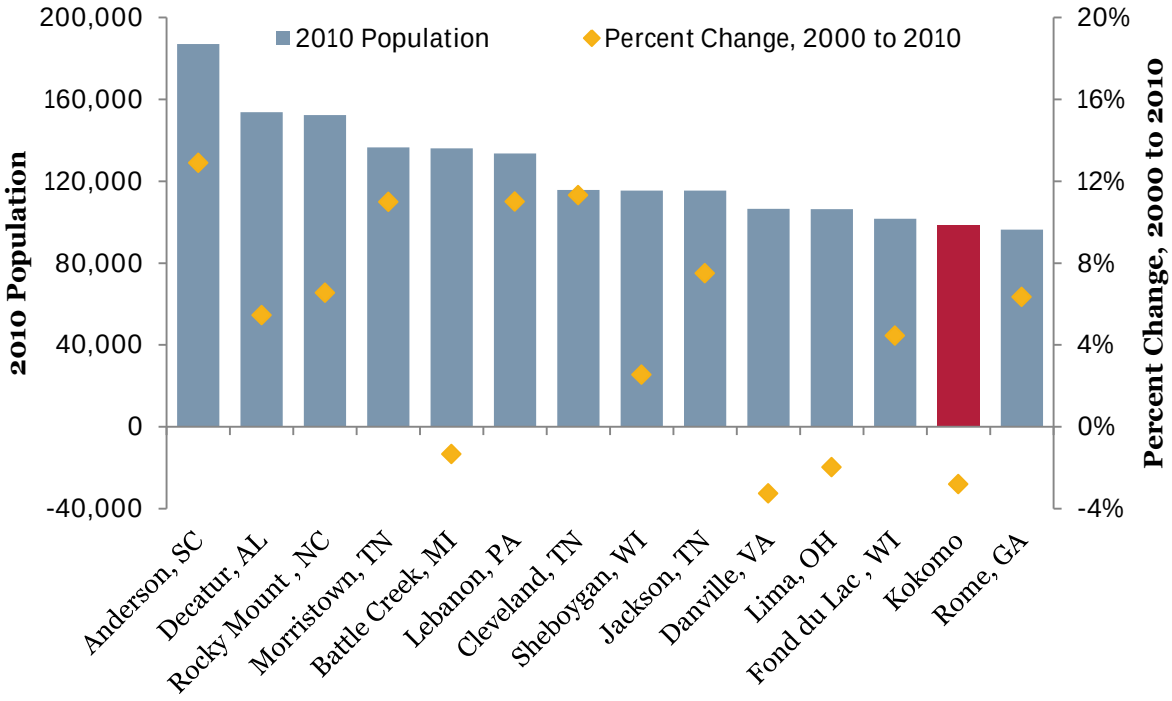
Kokomo in Perspective: Population

Kokomo had the second-smallest population in 2010 relative to its national peers (see **Figure 6**). The peer MSAs grew by an average of 5 percent over the decade, with Anderson, SC; Morristown, TN; Lebanon, PA; and Cleveland, TN, posting the highest growth rates—around 12 percent. Only four MSAs had declining populations, with Kokomo tied with Danville, VA, at about a 3 percent decline.

Kokomo ranked 10th among its peers in terms of minorities as a share of total population in 2010 (9.9 percent). Only Lebanon, PA; Morristown, TN; Cleveland, TN; and Fond du Lac, WI, were less diverse in 2010. The communities with the largest minority shares were Rocky Mount, NC

(51 percent); Jackson, TN (36 percent); and Danville, VA (36 percent). Blacks were the dominant minority in these MSAs.

Figure 6: Population and Population Change, National Peers, 2010



Source: U.S. Census Bureau

Education

Within the IUK region, nine school corporations (public and private) serve the K-12 population and four postsecondary institutions serve the adult population. These institutions have likely played a role in the increasing levels of educational attainment over the past two decades (see **Table 1**). The IUK region has seen a decline in people with only a high school diploma or less and corresponding increases in various levels of college level education including certificates, associate degrees, bachelor's and graduate/professional degrees. While all the areas highlighted in the table show decreasing attainment of only a high school diploma or less, in six counties more than 60 percent of the population has this education attainment level, whereas statewide it is close to 51 percent. It appears that these areas also trail the state in bachelor's degree or higher attainment, yet the proportion of residents with some college or an associate degree is relatively similar to the state. To gain a better perspective on how these counties fare compared to the other Indiana counties, Table 1 also shows each county's statewide rank. Interestingly, Howard and Tipton counties are ranked in the top 25 in regards to percentage of individuals with some college or associate degrees. For bachelor's and higher degrees, Howard, Wabash and Grant counties were in the top half of the state.

Table 1: Educational Attainment of IUK Region, 2009 and Change since 1990

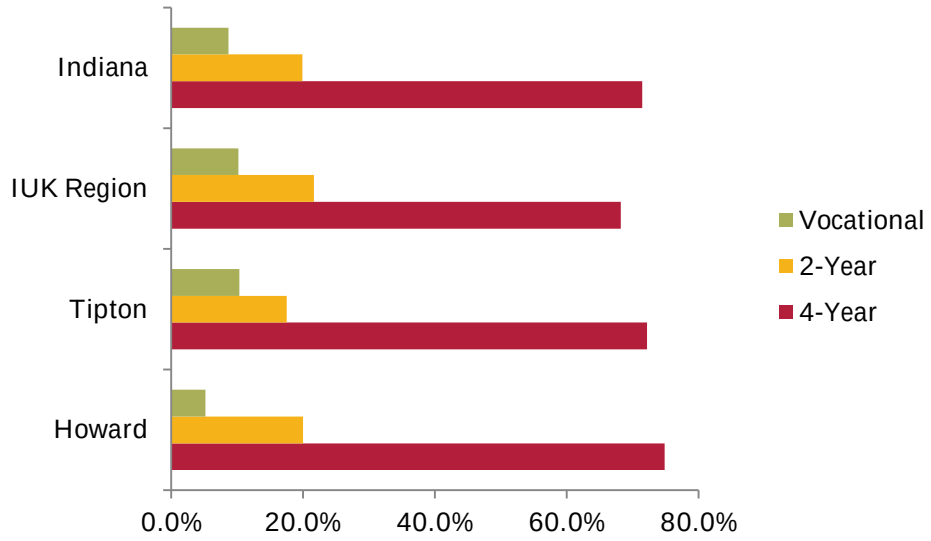
	Percent Bachelor's Degree or More		Percent Some College or Associate Degree		Percent High School or Less		Rank among Indiana's 92 counties	
	2009	%-Point Change	2009	%-Point Change	2009	%-Point Change	Some College or Associate Degree	Bachelor's Degree or more
Indiana	21.9%	6.4	27.3%	5.4	50.8%	-11.8	-	-
IUK Region	15.2%	3.8	25.8%	4.9	59.1%	-8.7	-	-
Howard	18.8%	4.5	29.1%	4.6	52.1%	-9.1	19	21
Wabash	16.8%	5.1	22.7%	4.6	60.5%	-9.7	82	31
Grant	15.8%	4.6	24.8%	5.3	59.4%	-9.9	60	39
Tipton	14.1%	4.3	27.9%	6.4	57.9%	-10.7	25	49
Cass	13.6%	4.6	23.4%	3.0	63.1%	-7.6	80	55
Carroll	13.2%	3.2	25.8%	6.6	61.0%	-9.7	50	61
Fulton	13.0%	3.6	23.7%	4.3	63.2%	-7.9	75	63
Clinton	12.3%	1.2	23.5%	4.6	64.2%	-5.8	77	67
Miami	11.0%	1.3	27.3%	5.3	61.7%	-6.6	35	76

Source: U.S. Census Bureau

The IUK region has several well-performing K-12 schools, an important consideration for parents moving to the area. Of the six school corporations with high schools in the area,[1] all were in the state's top half of school corporations for average SAT scores, with three (Northwestern, Western and Eastern Howard) in the state's top 30 on this measure. The state also designates four-star schools based on passing rates in English and math as well as adequate yearly progress. In the 2009-2010 school year, Northwestern Senior High and Western Middle School earned this distinction.

Through 2008, the state reported county-level data on the post-graduation intentions of high school seniors (which may vary from realized results due to circumstances unforeseen by the students). **Figure 7** shows that nearly 68 percent of the IUK region students who anticipated further education planned to attend a four-year institution, with an even higher proportion declaring this intention within the Kokomo MSA. A smaller proportion (21.7 percent) of the IUK region's students aspired to attend a two-year program, while vocational schools were the goal of only 10 percent of high school graduates planning further educational pursuits.

Figure 7: Intentions of Kokomo and IUK Region High School Graduates, 2006-2008



Note: 2008 is the last year that the survey results were reported by postsecondary attainment intentions. Subsequent surveys report the percentage of the school's seniors who intend to pursue college education.
Source: Indiana Department of Education

[1] Three school corporations do not have high schools and likely feed into the local high schools. Two of the three school corporations are parochial grade and middle schools.

Kokomo in Perspective: Educational Attainment

Table 2 shows that, among peer cities, Jackson, TN, had the largest percentage of individuals with a bachelor's degree or higher. Battle Creek, MI, had the largest percentage of individuals with some college or an associate degree and Lebanon, PA, had the largest percentage of individuals with a high school diploma or less. All communities have experienced a decline since 1990 in the proportion of individuals aged 25 and older with a high school diploma or less. Consequently, higher attainment levels have increased—a change most evident in Sheboygan, WI, with a 14.9 percentage-point increase in postsecondary education attainment levels.

Table 2: Educational Attainment Proportions and Trends, National Peers, 1990 to 2009

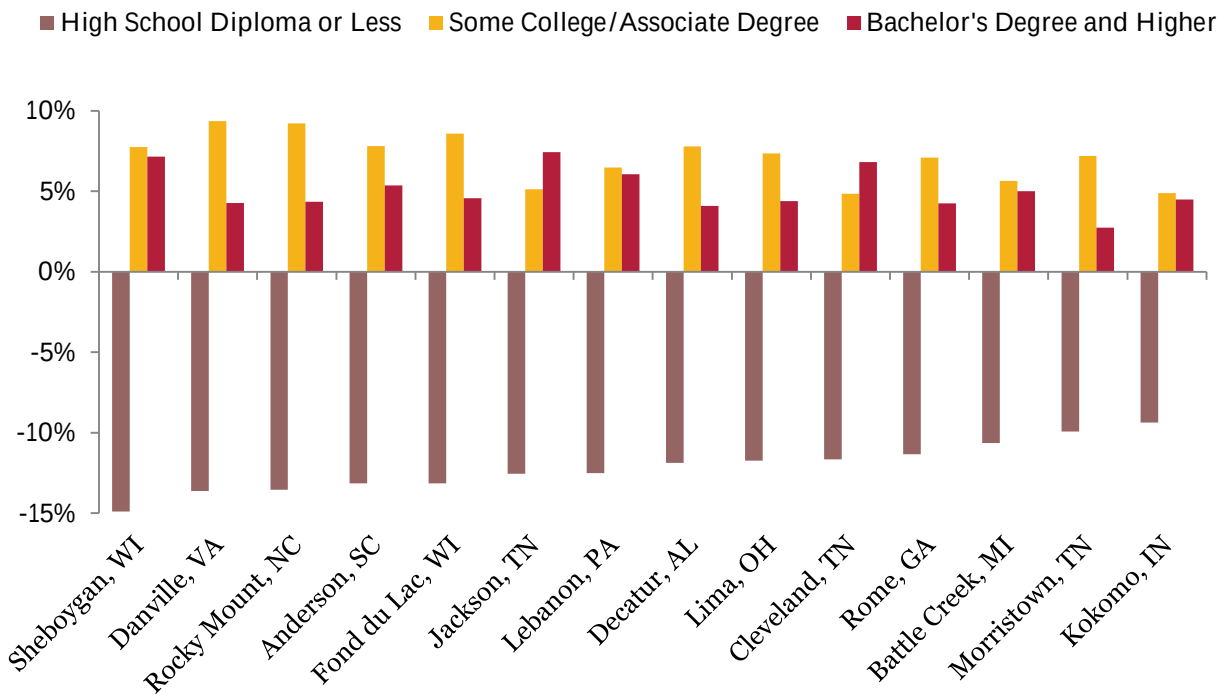
	Bachelor's Degree or Higher		Some College or Associate Degree		High School or Less	
	2009 Population Share	%-Point Change	2009 Population Share	%-Point Change	2009 Population Share	%-Point Change
Jackson, TN	22.9%	7.4	27.5%	5.1	49.6%	-12.6
Sheboygan, WI	20.9%	7.2	29.8%	7.7	49.3%	-14.9
Battle Creek, MI	18.8%	5.0	33.6%	5.6	47.6%	-10.6
Anderson, SC	18.2%	5.4	28.1%	7.8	53.6%	-13.2
Kokomo, IN	**18.1%**	**4.5**	**28.9%**	**4.9**	**53.1%**	**-9.4**
Rome, GA	18.0%	4.3	25.3%	7.1	56.8%	-11.3
Fond du Lac, WI	17.9%	4.6	30.0%	8.6	52.1%	-13.2
Lebanon, PA	17.8%	6.1	19.5%	6.5	62.7%	-12.5
Cleveland, TN	17.8%	6.8	27.5%	4.9	54.8%	-11.7
Decatur, AL	17.4%	4.1	29.1%	7.8	53.5%	-11.9
Lima, OH	15.8%	4.4	29.5%	7.4	54.7%	-11.7
Rocky Mount, NC	15.7%	4.3	27.9%	9.2	56.4%	-13.6
Danville, VA	14.1%	4.3	27.3%	9.4	58.5%	-13.6
Morristown, TN	13.0%	2.7	24.5%	7.2	62.4%	-9.9

Source: U.S. Census Bureau

Kokomo's educational attainment mix is quite comparable, if not better than, most of its peers. It has the fifth-largest share of bachelor's or higher degree recipients and the sixth-largest share of residents with some college or associate degrees, coupled with the fifth-smallest share of high-school-or-lower attainment. This trend is desirable due to the need for more skilled labor in the workforce. However, since 1990, Kokomo saw a 4.9 percent increase in those with some college or an associate degree and a 4.5 percent increase in those with a bachelor's degree or higher (see Figure 8: Percent Change in Educational Attainment, National Peers, 1990-2009). Kokomo's combined change (9.4 percent) in post-secondary attainment over the past two

decades was the peer group's smallest, and furthering the education of the 53.1 percent of Kokomo MSA residents with at most a high school education is likely to be a key challenge.

Figure 8: Percent Change in Educational Attainment, National Peers, 1990-2009



Source: U.S. Census Bureau

Employment, Occupational Mix and GDP

In 2010, the IUK region employed 121,962 individuals. **Table 3** shows that the majority (80.9 percent) worked for privately held firms. During the past decade, total regional employment declined at a 1.8 percent average annual rate, with a faster decline (-5.1 percent) occurring during the 2007-2009 recession.

Among the region's larger sectors, manufacturing led the pack with 24 percent of the workforce, followed distantly by retail trade, which employed approximately 11 percent of the workforce. In fact, over half the region's workforce was employed by the top four sectors: manufacturing, retail trade, health care and social services, and accommodation and food services. Unfortunately, the recession's dramatic impact on manufacturing hit the IUK region hard, with an average annual employment decline in this sector of 14 percent from 2007 through 2009.

The Great Recession had a very pronounced impact on private employment in the IUK region. From 2007 through 2009, IUK regional employment dropped by 13,406 jobs, or which all but 200 were with private employers and 81.3 percent (10,905 jobs) were in manufacturing. The manufacturing sector certainly shouldered the bulk of the job loss during this time period. The industry with the second-largest loss was transportation and warehousing (1,262 jobs), reflecting the slowdown in manufacturing.

Not all industry sectors had employment declines, however. Most sectors reported growth over the past decade with four expanding even during the recession for a collective gain of 1,800 jobs (see bold cells in **Table 3**). During the recession years of 2007 to 2009, wholesale trade had the largest average annual growth rate of nearly 20 percent, gaining 1,069 jobs. While both of these growth rates are encouraging, collectively these industries employed only 6 percent of the IUK region's workforce in 2009.[2]

[2] Data for educational services, a major employer in most communities, were not disclosed by BLS for most IUK counties in 2000 and 2010 due to confidentiality restrictions. Any published data represented only local government or private employment, often not reporting all educational services in the region.

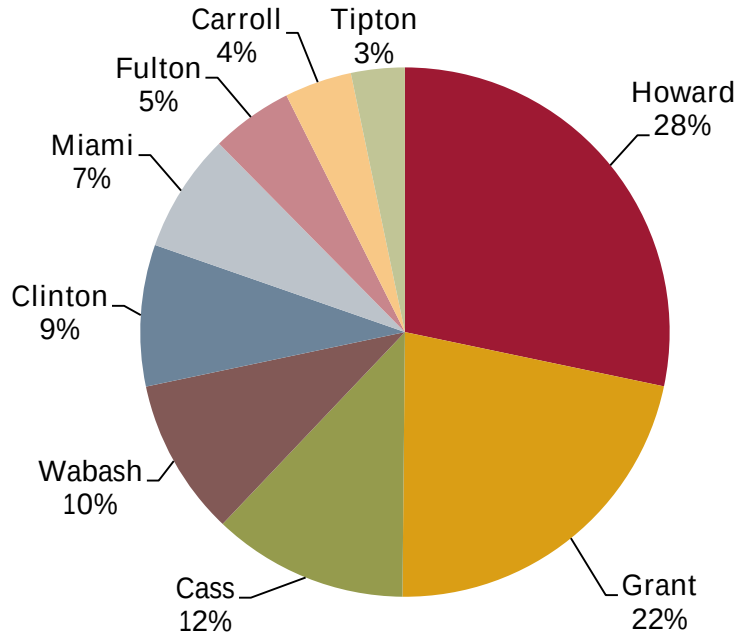
Table 3: Employment by Sector, IUK Region, 2010

Industry Sector	2010 Employment	Share of Total	Average Rate of Change, 2007-2009	Average Rate of Change, 2000-2010
Total Employment	121,962	100.0%	-5.1%	-1.8%
Private Employment	98,682	80.9%	-6.1%	-2.3%
Manufacturing	29,228	24.0%	-14.1%	-4.9%
Retail Trade	13,830	11.3%	-2.8%	-2.5%
Health Care and Social Services	10,735	8.8%	-7.0%	**5.4%**
Accommodation and Food Services	9,483	7.8%	**3.8%**	**2.7%**
Public Administration	6,520	5.3%	-1.5%	**2.7%**
Administrative, Support, Waste Management and Remediation Services	4,065	3.3%	-5.6%	**0.4%**
Construction	3,830	3.1%	-9.5%	-2.9%
Other Services (Except Public Administration)	3,214	2.6%	-1.0%	-1.8%
Finance and Insurance	3,006	2.5%	-0.4%	-0.4%
Transportation and Warehousing	2,869	2.4%	-21.7%	**9.0%**
Wholesale Trade	2,440	2.0%	**19.9%**	-1.6%
Professional, Scientific, and Technical Services	1,933	1.6%	-4.5%	**8.8%**
Information	1,091	0.9%	-6.5%	-3.9%
Real Estate and Rental and Leasing	895	0.7%	-6.1%	-2.3%
Agriculture, Forestry, Fishing and Hunting	808	0.7%	**1.8%**	**4.4%**
Arts, Entertainment, and Recreation	637	0.5%	-1.6%	-0.9%
Management of Companies and Enterprises	383	0.3%	**3.6%**	**10.5%**
Mining	137	0.1%	-6.6%	n/a
Utilities	125	0.1%	-3.3%	n/a

Note: Bold cells refer to the industries that expanded in the past decade or during the recession. Educational services data were suppressed.
Source: IBRC calculations using QCEW data from the Bureau of Labor Statistics

Figure 9 shows that Howard and Grant counties had the largest shares of employment, reflecting their sizable manufacturing firms and larger populations. Tipton County had the smallest share of the region's jobs.

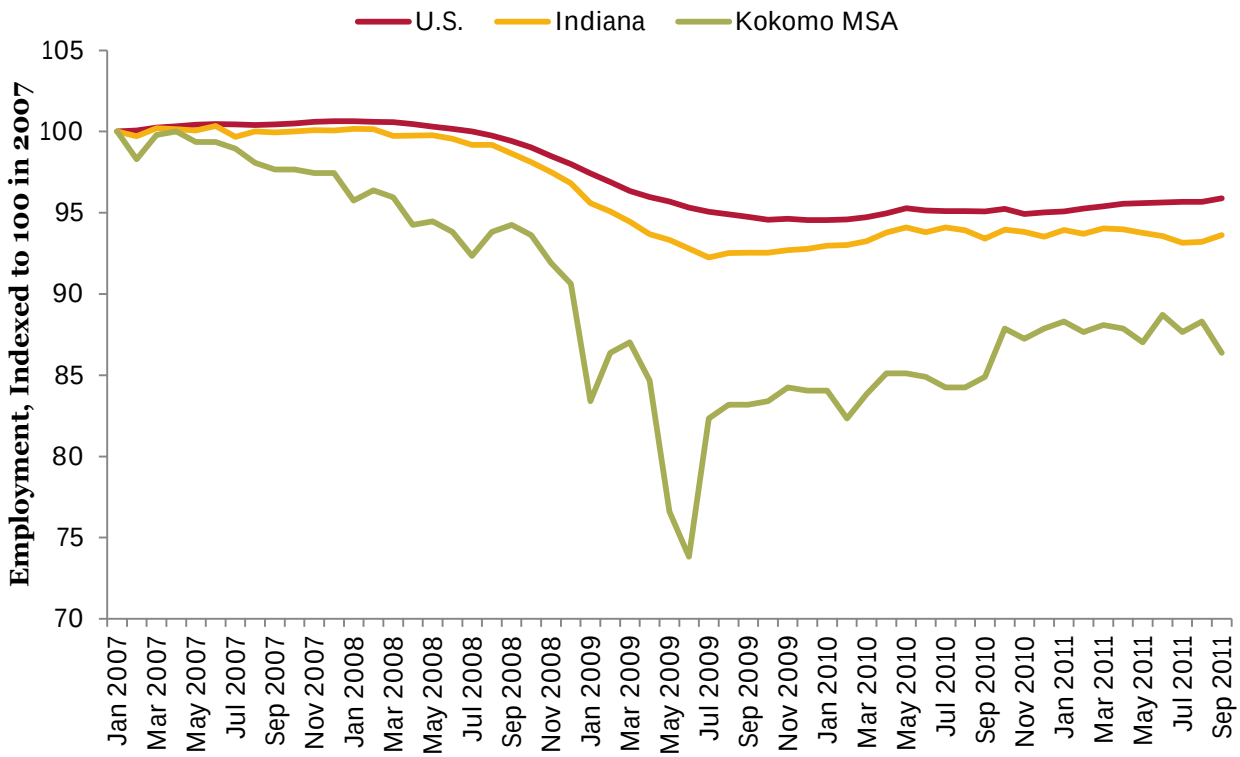
Figure 9: Employment by County, IUK Region, 2010



Source: Bureau of Labor Statistics (BLS), Quarterly Census of Employment & Wages (QCEW)

Most of the available employment data presented thus far has been for either 2009 or 2010; however, monthly seasonally adjusted data at the MSA level is available through September 2011. **Figure 10** illustrates that the Kokomo MSA has endured several dramatic swings in employment since the beginning of the economic downturn, the most pronounced occurring in mid-2009. Since then, employment has improved with less volatility, indicating a gradual upward employment trend. As of September 2011, the Kokomo MSA was still lagging behind the U.S. and Indiana with an index value of 86.4, meaning that regional employment was 13.6 percent below its January 2007 level. The corresponding U.S. and Indiana employment figures were only 4.1 percent and 6.4 percent, respectively, below their levels at the start of 2007.

Figure 10: Employment Index, November 2007 to September 2011 (seasonally adjusted)



Source: Bureau of Labor Statistics

Location quotients (LQs) are widely used to show which industry clusters have a particularly strong presence in a region.[3] In this study, LQs were calculated by dividing a given cluster's share of total employment in the local region by the cluster's corresponding employment share in the nation as a whole; an LQ greater than 1 indicates that the industry cluster is more concentrated locally than the national average. Table 4 depicts the LQs of the region's seven most concentrated clusters (based on 2009 LQs) along with their 2009 average wages. Compared to the United States, the Kokomo MSA and Howard County are very heavily concentrated in manufacturing—particularly transportation equipment manufacturing—although the concentration has slipped a bit over the 8-year period. Tipton County has nearly five times the national concentration of agribusiness, food processing and technology within its borders. Other notable growing clusters include the life sciences and information technology sectors; however, these clusters in the region have relatively low employment and wage figures.

[3] Industry clusters are concentrations of industries in a region engaged in similar, related or complementary businesses, with active channels for business transactions, communications and dialogue that share specialized infrastructure, labor markets and services, and that are faced with common opportunities and threats. The industry cluster data described here are derived from work done by the Purdue Center for Regional Development in collaboration with the IBRC for an Economic Development Administration project titled *Unlocking Rural Competitiveness: The Role of Regional Clusters*. More information about the clusters and related work is available at www.statsamerica.org/innovation/reports.html.

Table 4: Cluster Location Quotients and Average Wage per Job for Kokomo MSA, Howard and Tipton Counties, 2001 and 2009

	Kokomo MSA			Howard County			Tipton County		
	2001 LQ	2009 LQ	Average Wage	2001 LQ	2009 LQ	Average Wage	2001 LQ	2009 LQ	Average Wage
Transportation Equipment Manufacturing	19.08	15.44	$98,662	21.04	17.28	$98,662	0	0	$0
Manufacturing Supercluster	5.01	4.14	$94,442	5.49	4.57	$95,185	0.37	0.51	$38,776
Biomedical/Biotechnical (Life Sciences)	0.43	0.94	$39,599	0.42	1.01	$39,856	0.51	0.35	$33,337
Agribusiness, Food Processing and Technology	0.63	0.69	$39,072	0.2	0.19	$30,448	4.82	4.89	$41,946
Transportation and Logistics	0.33	0.43	$43,440	0.32	0.44	$44,357	0.38	0.27	$30,950
Information Technology and Telecommunications	0.12	0.36	$65,922	0.13	0.4	$65,922	0	0	$0
Business and Financial Services	0.23	0.31	$46,504	0.24	0.33	$47,606	0.14	0.13	$23,164

Source: IBRC using Bureau of Labor Statistics data; ND = not disclosed

Table 5 shows employment by major occupation categories for the Kokomo MSA and Indiana as of May 2010. The largest employment group is office and administrative support occupations, followed by food preparation-and-serving occupations and production occupations. These top three occupations for Kokomo are also in Indiana's top five occupations; thus, Kokomo does not have an unusually high concentration in any of these three occupations. However, Kokomo's 2,460 architecture and engineering employees constitute a heavy concentration in the area (with an LQ of 4.0 relative to the state). Overall, nearly half of the employees who work in the Kokomo MSA work in the region's top four occupation groups. This gives an indication of the skill level of the workers since the top four occupations include a mix of low-to-moderately skilled occupations with a few high-skilled occupations. Low and moderately skilled workers tend to have lower educational attainment levels, so Kokomo experiences a continuing abundance of low education levels due to the area's high demand for low and moderately skilled workers.

Table 5: Employment by Occupation Group, Kokomo and Indiana, 2010

	Kokomo MSA		Indiana	
Occupations	**Employment**	**Employment Share**	**Employment**	**Employment Share**
All Occupations	37,790	100.0%	2,724,850	100.0%
Office and Administrative Support	4,950	13.1%	417,320	15.3%
Food Preparation-and-Serving Related	4,220	11.2%	253,280	9.3%
Production	4,180	11.1%	307,690	11.3%
Sales and Related	3,890	10.3%	282,550	10.4%
Healthcare Practitioners and Technical	2,730	7.2%	171,680	6.3%
Education Training and Library	2,530	6.7%	167,010	6.1%
Architecture and Engineering	2,460	6.5%	44,260	1.6%
Transportation and Material Moving	1,920	5.1%	235,040	8.6%
Installation Maintenance and Repair	1,520	4.0%	114,700	4.2%
Management	1,410	3.7%	104,600	3.8%
Business and Financial Operations	1,280	3.4%	92,730	3.4%
Construction and Extraction	1,250	3.3%	106,990	3.9%
Computer and Mathematical	1,080	2.9%	46,930	1.7%
Building and Grounds Cleaning and Maintenance	1,050	2.8%	82,820	3.0%
Healthcare Support	990	2.6%	84,450	3.1%
Personal Care and Service	630	1.7%	62,710	2.3%
Protective Service	580	1.5%	57,040	2.1%
Community and Social Service	400	1.1%	28,990	1.1%
Arts Design, Entertainment Sports and Media	390	1.0%	30,730	1.1%
Life, Physical and Social Science	170	0.4%	17,180	0.6%
Legal	160	0.4%	13,070	0.5%
Farming, Fishing and Forestry	n/a	0.0%	3,080	0.1%

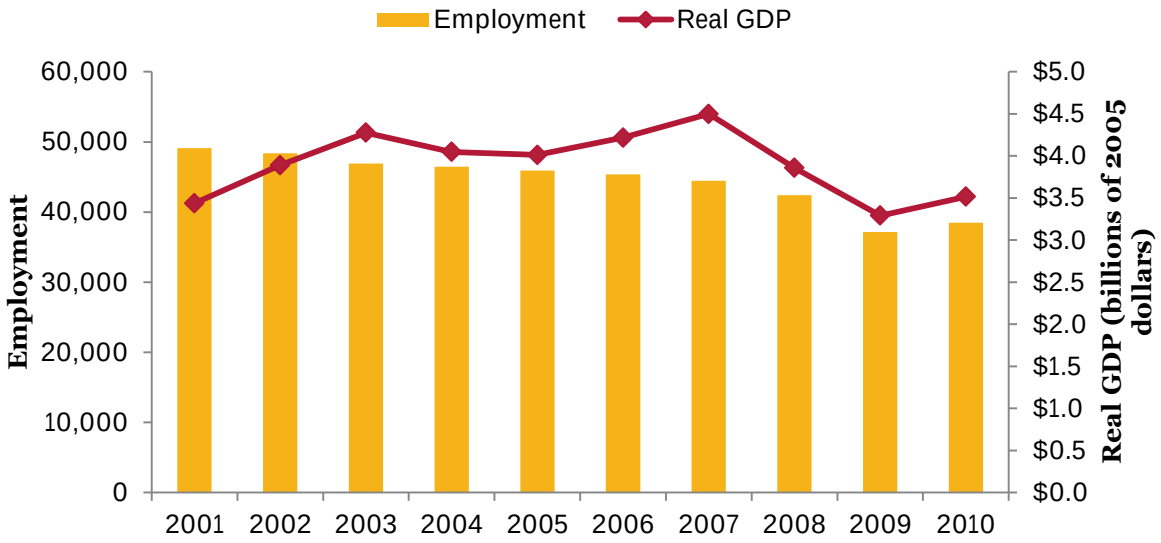
Note: Data were not available for farming, fishing and forestry operations in the Kokomo MSA
Source: Bureau of Labor Statistics

A region's industry mix affects its gross domestic product (GDP)—essentially the total value added by all industries, and a measure of the region's economic output. Kokomo's real GDP has fluctuated over time, peaking in 2007 at $4.5 billion before declining 13.4 percent through 2009

and recovering to $3.5 billion in 2010 (see **Figure 11**). The bulk of the output (44.5 percent) in 2010 was generated by the manufacturing industry, with government and trade being the second- and third-largest contributors (12 percent and 10.3 percent, respectively).

It's interesting to note that the Kokomo MSA's GDP increased during periods when employment was shrinking (2001-2003 and 2005-2007), indicating that the area's productivity was increasing as companies found ways to generate more output with fewer workers. During the recession (2007-2009) both employment and GDP receded as demand dried up in many industries. But from 2009 to 2010, both employment and GDP grew - a welcome sign in a stressed region.

Figure 11: Employment and Real GDP, Kokomo MSA, 2001 to 2010

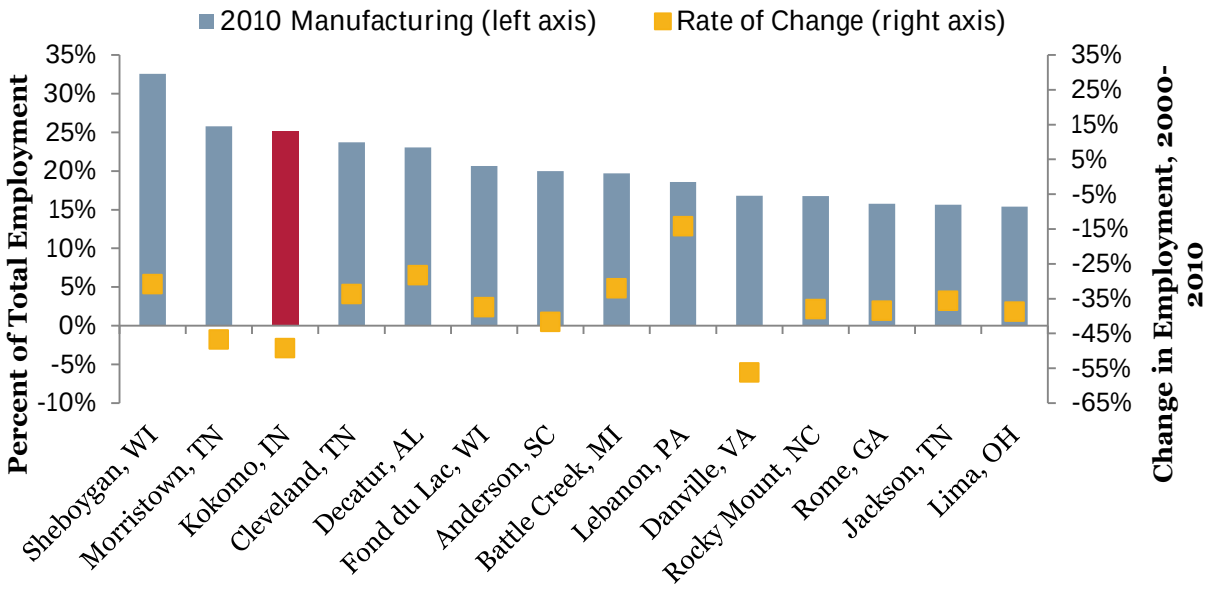


Source: Bureau of Economic Analysis and Bureau of Labor Statistics

Kokomo in Perspective: Employment and GDP

With respect to employment, Kokomo fared worse than its national peers both during the recession and over the past decade. This is attributed largely to the continuing loss of manufacturing jobs, which accelerated during the recession. **Figure 12** shows the distribution of manufacturing employment in each of the MSAs and its rate of change since 2000. While Kokomo has the third-highest share of total employment in manufacturing, it experienced the second-highest loss of manufacturing employment (-49.2 percent) over the decade, behind Danville, VA's 56.3 percent change.

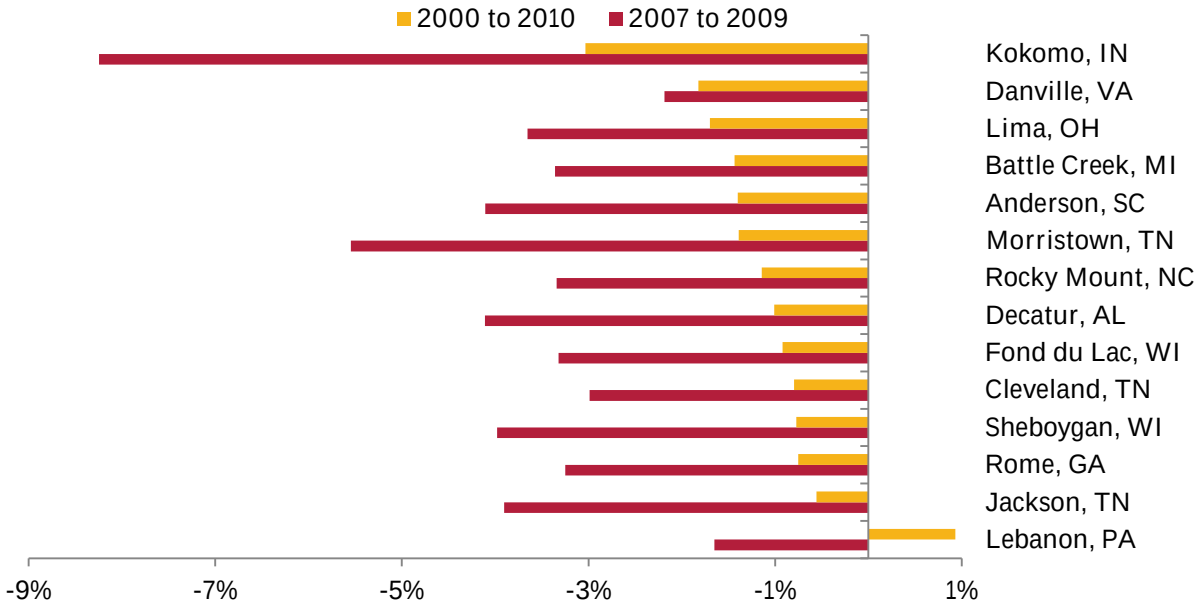
Figure 12: Manufacturing among National Peers: 2010 Share of Total Employment and Percent Change since 2000



Source: Bureau of Labor Statistics

The bulk of Kokomo's total employment loss occurred in manufacturing. **Figure 13** shows that Kokomo had the highest average annual job loss, which was greatly exacerbated between 2007 and 2009. All of the peers saw employment declines during the recession, and Lebanon, PA, was the only one with overall employment growth between 2000 and 2010.

Figure 13: Average Annual Employment Change (Percent), National Peers, 2000 to 2010

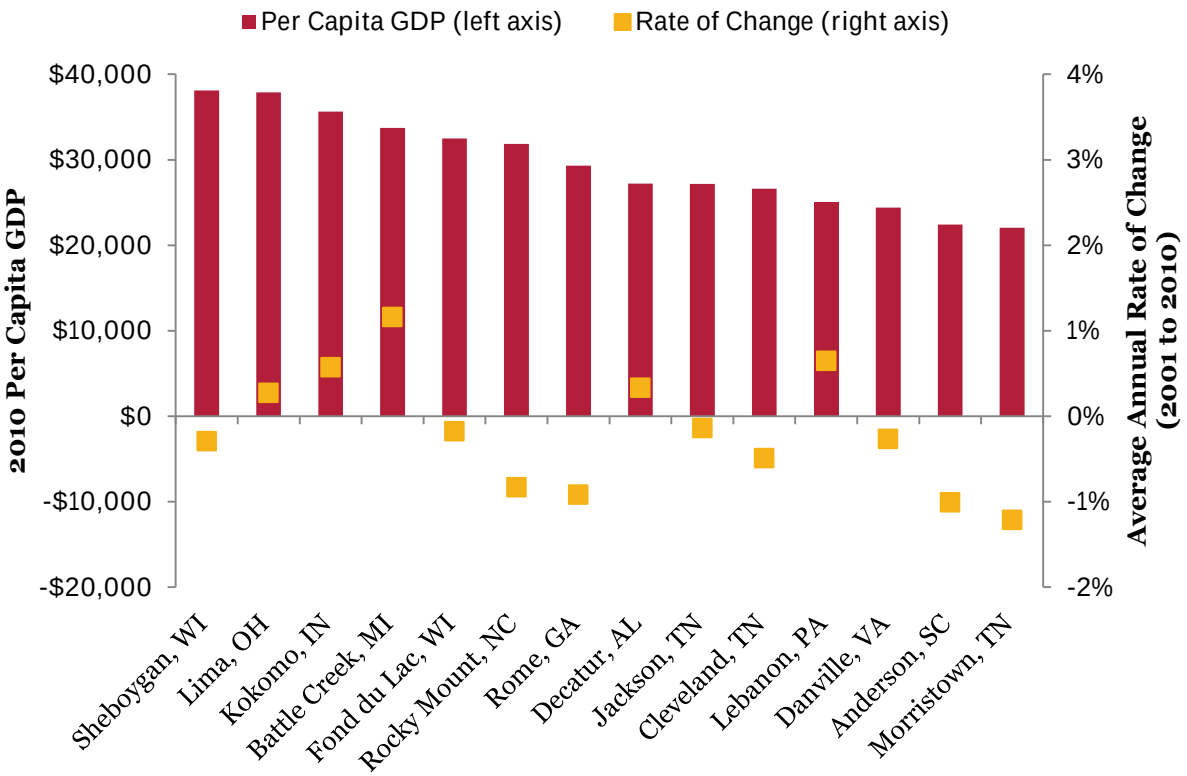


Source: Bureau of Labor Statistics

Regional Output: Gross Domestic Product

With respect to total GDP, Kokomo was in the middle of its national peer set with output of $3.5 billion in 2010. Rocky Mount, NC, had the highest output at $4.9 billion whereas Danville, VA, had the smallest output at $2.6 billion. However, when population is taken into account, a different picture emerges (see **Figure 14**). Kokomo had the third highest GDP per capita at $35,621, while Sheboygan, WI, led the peer set at $38,098. Since 2001, more than half of the MSAs have had gradually declining GDP per capita due to overall reductions in output, increases in population or both. Per capita GDP in Battle Creek, MI, grew the most at 1.2 percent over the decade, whereas Morristown, TN had the largest decline at -1.2 percent. Kokomo experienced a 0.6 percent increase in its per capita GDP, resulting from increasing manufacturing output combined with shrinking population. Now, with Kokomo's manufacturing industry growing again, the region's GDP per capita may make additional gains in the near future.

Figure 14: Per Capita GDP, National Peers, 2010

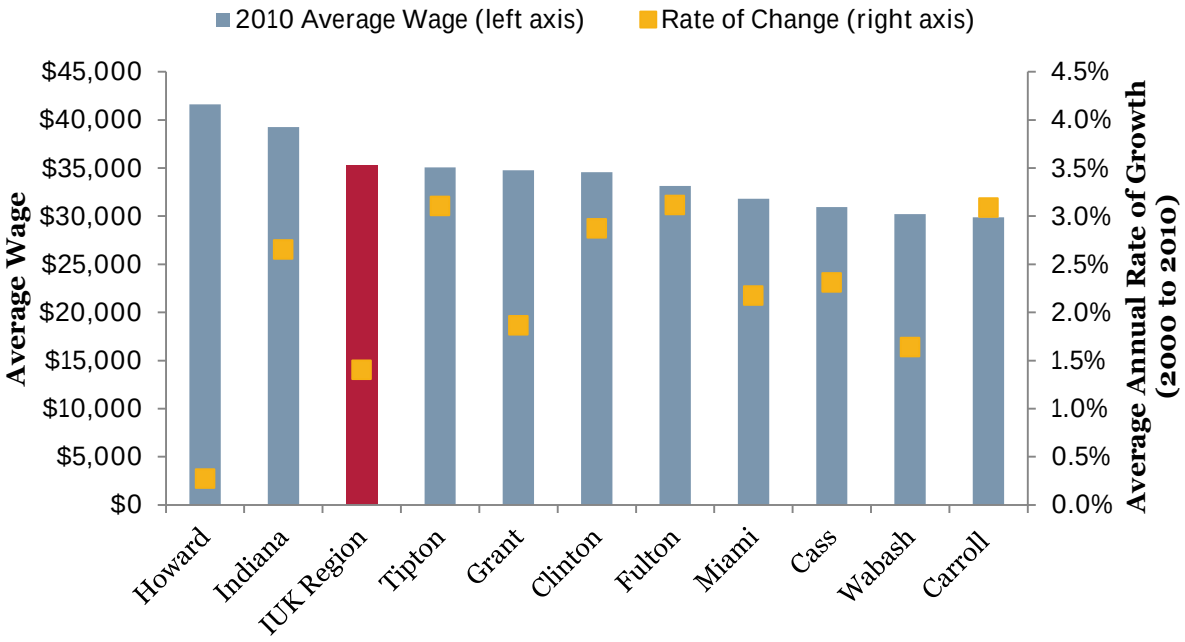


Source: Bureau of Economic Analysis

Income and Wages

The 2010 average wage across all industries in the IUK region was $35,318, approximately $4,000 less than the state average (see **Figure 15**). Howard County's wages led the region by a sizable margin and outperformed the state, due in large part to its manufacturing wages averaging $79,327, or 40 percent above the state manufacturing average. In the past decade, the region's average wage has grown about 1.4 percent annually, a growth rate below Indiana and all of the region's counties except Howard. Unfortunately, this wage growth has not kept up with inflation, which averaged 2.7 percent annually over the decade. Howard County's meager 0.3 percent average annual growth significantly weighed down the IUK region's wage growth.

Figure 15: Average Wage and Rate of Change, IUK Region, 2000 to 2010



Source: Bureau of Labor Statistics

Four industry sectors (utilities; manufacturing; transportation and warehousing; agriculture, forestry, fishing and hunting) had higher average wages in the IUK region than statewide (see **Table 6**). Above-average wages in transportation and warehousing in nearly all IUK counties indicate the importance of this sector to the region. The table also emphasizes the importance of another highly paid sector, manufacturing, in the IUK region; it is especially prominent in Howard and Grant counties. At the other end of the wage spectrum, the IUK region pays its workers in the arts, entertainment and recreation industry less than half the state's average. Other low-paying industries in the region relative to the state include management of companies and enterprises and administrative, support, waste management and remediation services.

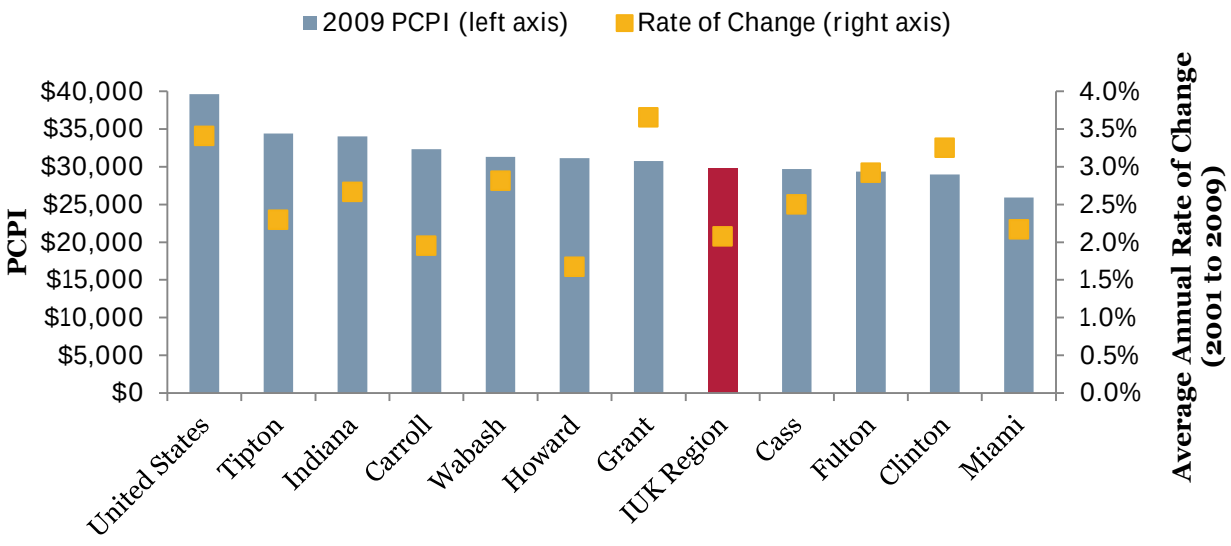
Table 6: Average Wage per Job by Industry Sector, IUK Region, 2010

Industry	Average Wage per Job	IUK Region relative to IN Average Wage
Total Employment	$40,951	104.3%
Utilities	$79,318	106.3%
Manufacturing	$76,194	140.0%
Wholesale Trade	$49,129	91.8%
Finance and Insurance	$46,665	86.0%
Transportation and Warehousing	$45,622	114.9%
Professional, Scientific, and Technical Services	$45,468	83.0%
Agriculture, Forestry, Fishing and Hunting	$42,097	107.3%
Management of Companies and Enterprises	$41,476	54.3%
Construction	$38,054	76.9%
Public Administration	$37,290	91.7%
Information	$37,087	83.3%
Health Care and Social Services	$34,843	86.4%
Educational Services	$29,762	80.6%
Real Estate and Rental and Leasing	$26,967	79.2%
Retail Trade	$21,689	92.3%
Other Services (Except Public Administration)	$20,858	79.7%
Administrative, Support, Waste Management and Remediation Services	$17,301	65.1%
Arts, Entertainment and Recreation	$13,089	44.6%
Accommodation and Food Services	$12,411	92.8%

Note: Data for mining were not disclosed
Source: Bureau of Labor Statistics

Per capita personal income (PCPI) is a broad indicator of a region's income level reflecting many sources of income, not just wages. It includes wages/salaries, any supplements to wages and salaries (e.g., bonuses), proprietors' income, investment income and personal current transfer receipts, but not contributions for government social insurance. **Figure 16** shows 2009 PCPI for the IUK region, Indiana and the United States. On average, PCPI in the IUK region was $29,845, with a modest average annual increase of 2.1 percent since 2001. Tipton County had the region's highest PCPI at $34,432, surpassing Indiana and growing 2.3 percent annually. PCPI nationwide ($39,635) was nearly $9,000 above the IUK region. Grant County had the strongest PCPI growth—outperforming the region and nation with its 3.7 percent average annual growth.

Figure 16: Per Capita Personal Income, IUK Region, 2009

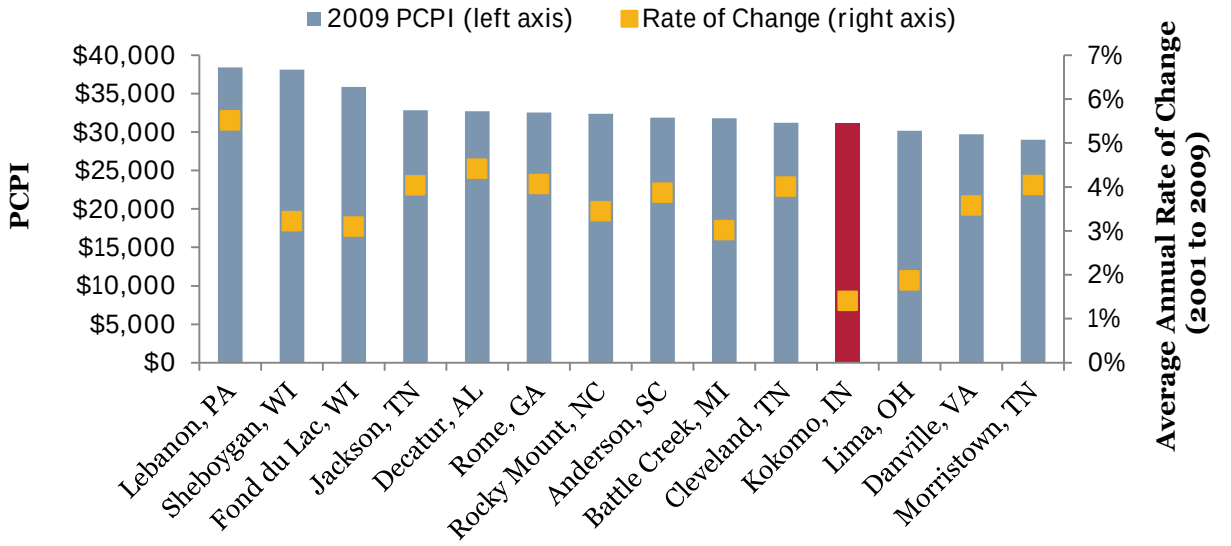


Source: IBRC using Bureau of Economic Analysis data

Kokomo in Perspective: PCPI

Kokomo's 2009 PCPI of $31,197 was the fourth lowest among its peer communities (many of which were in the $31,000-$32,000 range), and it had the lowest average annual growth rate of 1.4 percent (see **Figure 17**). Kokomo's PCPI was $7,000 below Lebanon, PA, the highest PCPI community in the group. Two MSAs—Kokomo, IN, and Lima, OH—did not keep up with the rate of inflation (2.7 percent) and lagged behind their peers in PCPI growth.

Figure 17: Per Capita Personal Income, National Peers, 2009



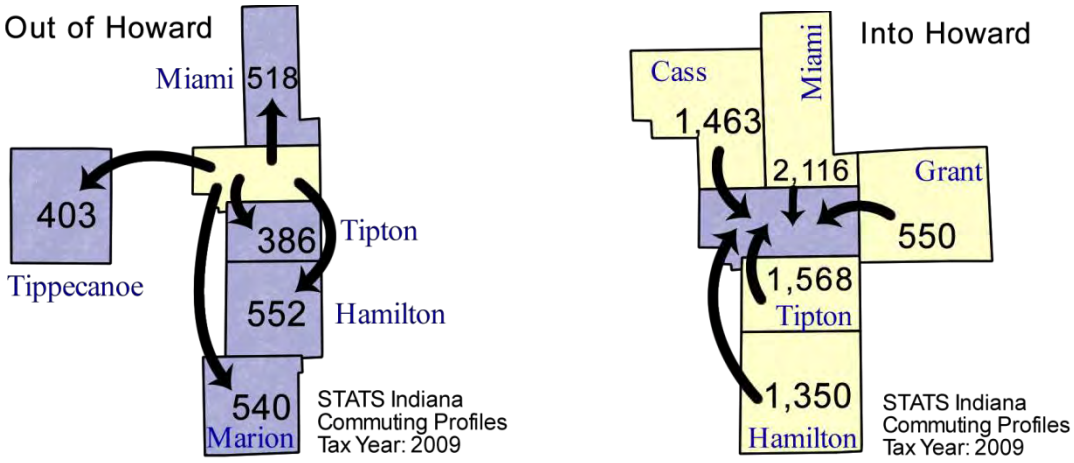
Source: Bureau of Economic Analysis

Commuting Patterns

The availability of quality jobs in other regions and the willingness of workers to travel have made commuting a way of life for many workers. The economic effects of commuting reach beyond the individual worker to the broader community. Therefore, this study examines the commuting patterns of workers and the gross earnings flows to and from counties. Commuting data are available at the county level, with data from the Indiana Department of Revenue being the most comprehensive.

As seen in **Figure 18**, Howard County has substantially more incoming commuters (workers in Howard County who live elsewhere) than outgoing commuters (Howard County residents who work elsewhere). Consequently, Howard has a far greater net flow of earnings out of the county than the other IUK region counties.

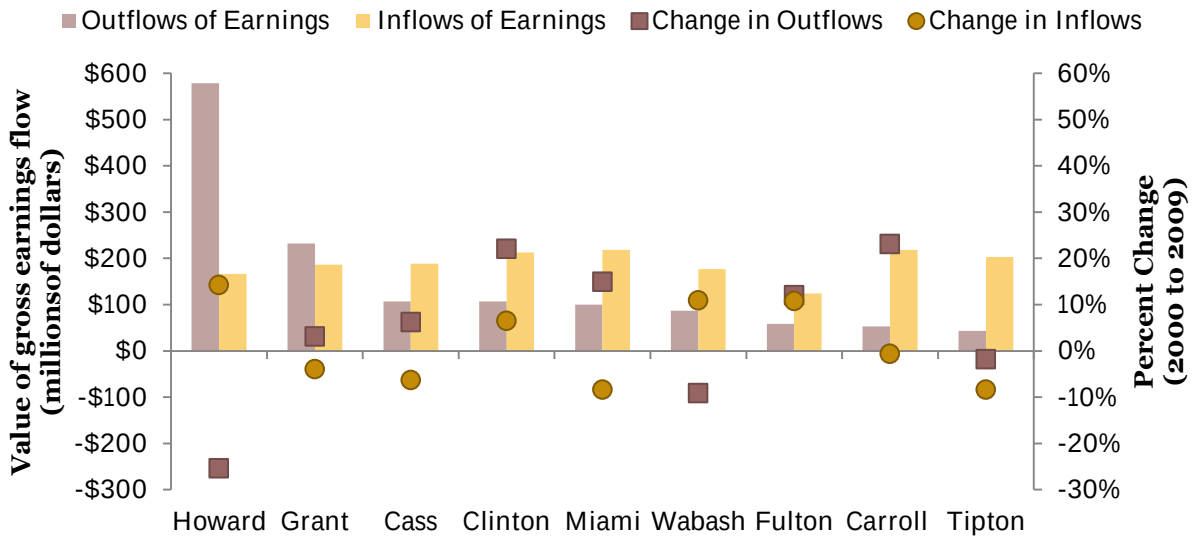
Figure 18: Commuting Patterns for Howard County, 2009



Source: Indiana Department of Revenue, 2009 IT-40 Returns

Howard County's 2009 earnings outflow was $578 million (see **Figure 19**). While substantial, it has actually dropped 25 percent in the past nine years due to the loss of 9,400 incoming workers (40 percent)—in large part the result of manufacturing employment decline. The gross earnings inflows are only about a third of the outflows, yet they grew 14.3 percent in the past nine years with an increase of 390 outgoing commuters. Since 2000, the gross earnings inflows per worker have increased $1,300 to an average wage of $41,300 per outgoing commuter. This may indicate workers leaving the county for higher paying jobs in larger metro areas; however this 3.2 percent increase only slightly exceeds the average rate of inflation during this time period. Therefore, from the numbers one could argue that Howard County has fared relatively well in retaining its earnings as a result of declining earnings outflows and increasing inflows over the past nine years.

Figure 19: Gross Earnings Inflows and Outflows, IUK Region, 2009



Source: Bureau of Economic Analysis

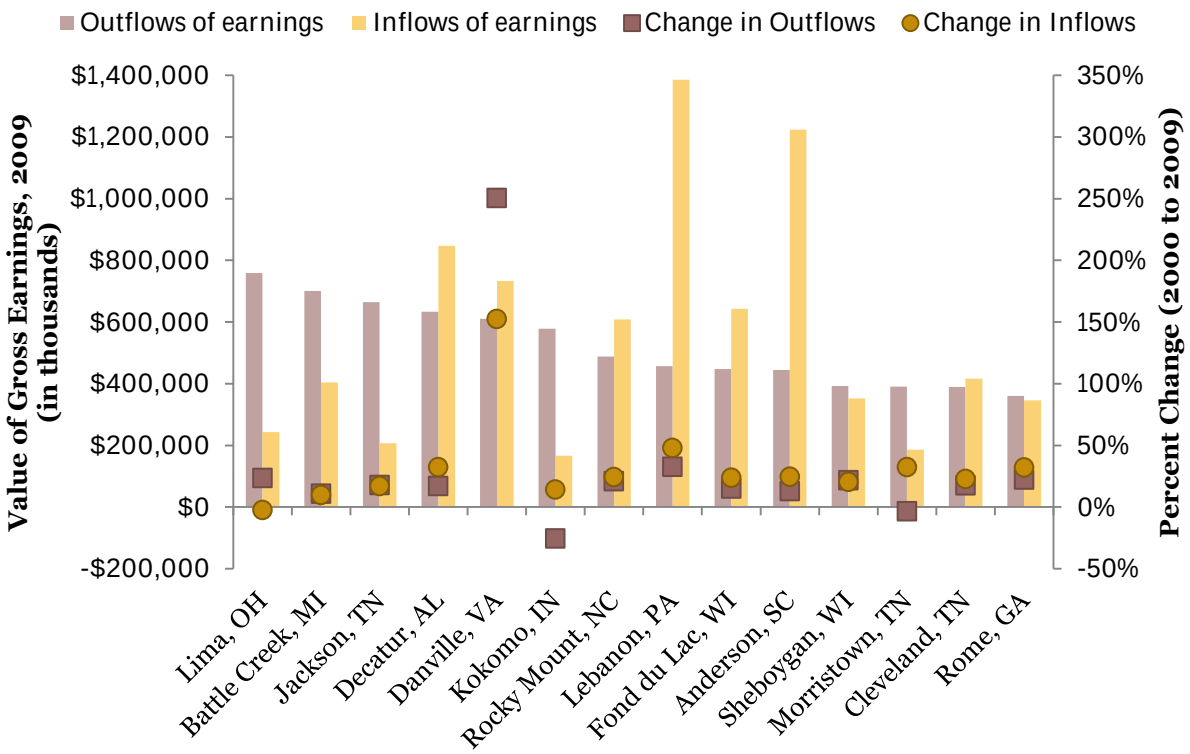
Interestingly, nearly all IUK region counties had a decline in outgoing commuters (except Wabash County with 18 percent growth) and several counties had increases in gross earnings inflows (Clinton, Wabash, Fulton and Howard). While the data do not reveal what became of the 9,400 workers that no longer commute into Howard County, several neighboring counties in the IUK area have had an increased number of incoming commuters—which may be partially explained by a shift in commuters' final destinations. Carroll, Cass, Clinton, Fulton and Miami counties had a growth in incoming commuters and consequently saw an increase in their gross earnings outflows.

Kokomo in Perspective: Gross Earnings Flows

To compare the Kokomo MSA with its national peers, each MSA's core county was used to evaluate gross earnings flow patterns. **Figure 20** shows the gross earnings in- and out-flows for each core county, sorted by the level of outflows in 2009. Indiana's Howard County had the sixth highest outflow, trailing behind the core counties of Lima, OH (Allen); Battle Creek, MI (Calhoun); Jackson, TN (Madison); Decatur, AL (Morgan); and Danville, VA (Pittsylvania).

Among all the peers, Howard County had the lowest level of earnings inflows, indicating relatively low commuting by Howard County residents to jobs elsewhere. Lebanon, PA and Anderson, SC, counties had by far the largest inflows among the peer set. The large influx of gross earnings in the leading inflow counties likely reflects their proximity to larger urban areas and workers' desire to live in suburban areas outside of the bigger city. Most MSAs had little change in gross earnings inflows and outflows during the decade, except for Danville, VA, which had tremendous growth in both inflows and outflows—perhaps indicative of increased job opportunities in the area.

Figure 20: Gross Earnings Flows, National Peers, 2009



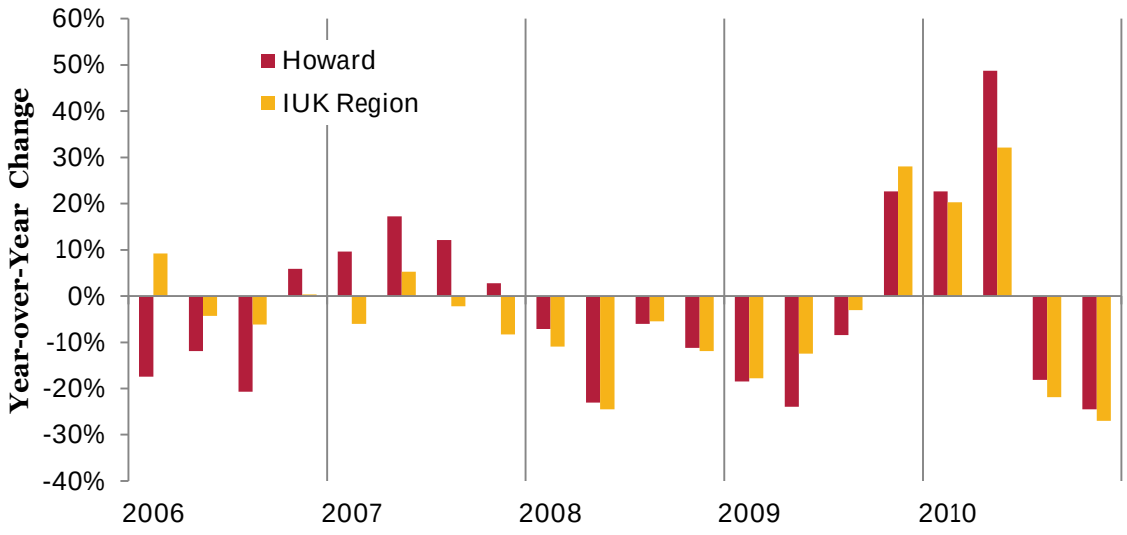
Note: Data shown is for each MSA's core county.
Source: Bureau of Economic Analysis

Housing

The housing crash that began in late 2007 left its mark on the housing industry in the IUK region, leading to a great deal of volatility that still exists today. In 2010, Howard County had 34,300 occupied housing units, of which 70.5 percent were owner-occupied. This home-ownership rate is very close to the state's rate of 69.9 percent and above the national average of 65.1 percent. **Figure 21** shows the year-over-year quarterly trends in home sales in Howard County and the IUK region. Howard County was responsible for 31 percent of all home sales in the IUK region during the 2006 to 2010 time period. In 2010, the number of homes sold was down 21 percent from its 2005 level, besting the state's decline of 30 percent.

In the IUK region, the overall decline in home sales began in 2006, before the 2007 crash, with a few upticks before the prolonged sales decline in 2007-2009 (nine consecutive quarters). In contrast, Howard County did not record persistently declining home sales until the first quarter of 2008, half a year after the regional slump began. The jump in home sales in 2009 and 2010 probably were influenced by the federal homebuyer tax credit programs, which coaxed wary buyers into the market. Unfortunately, after the federal homebuyer tax credit ran its course, the average annual rate of decline in home sales dropped to its lowest point in five years.

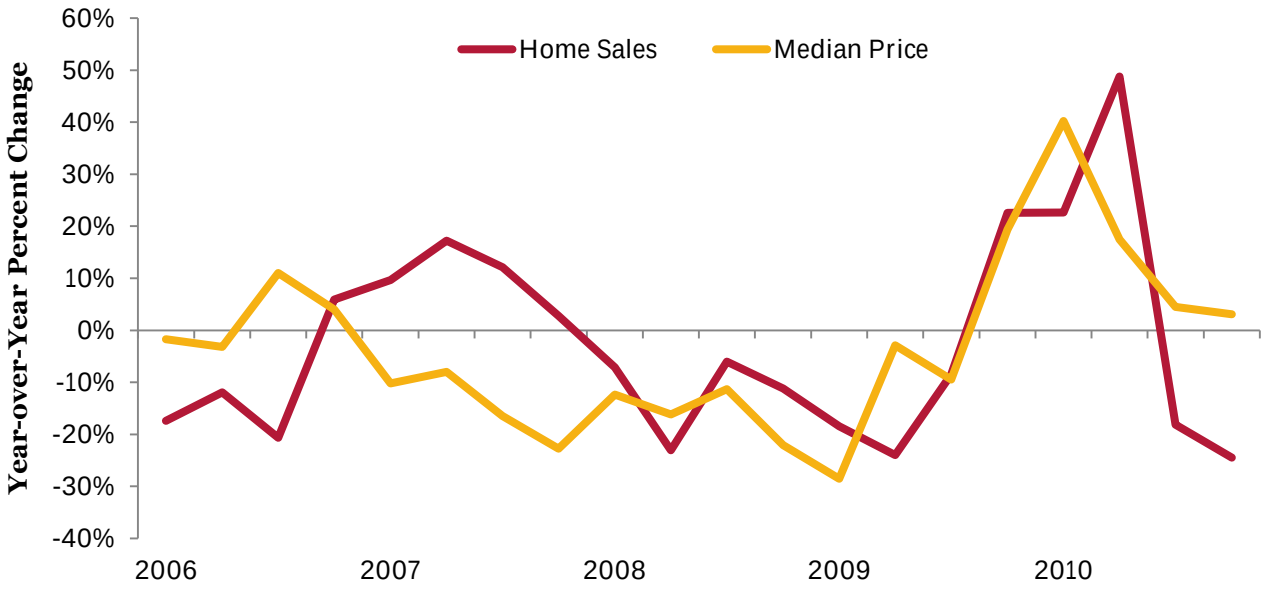
Figure 21: Change in Home Sales, Howard County and IUK Region, 2006:1 to 2010:4



Source: Indiana Association of Realtors

Figure 22 traces the annual change in Howard County's median home sale price since 2006. The year-over-year declines in median prices preceded the decline in units sold, beginning in 2007 and persisting until a steady increase in median prices began at the end of 2009. The increase in both median prices home sales defied national trends, as only in recent years has the nation experienced a sustained decline in home prices. This suggests that the federal tax credit program helped move more low-end homes nationally, whereas in Howard County higher-priced homes were sold as well, raising the median sale price.

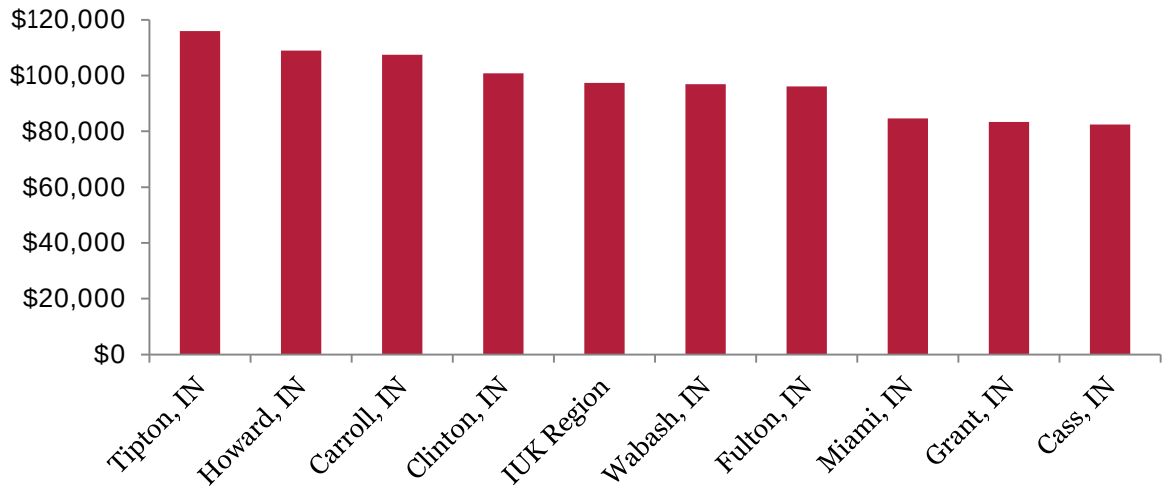
Figure 22: Change in Home Sales and Median Price, Howard County, 2006:1 to 2010:4



Source: Indiana Association of Realtors

Figure 23 portrays the median home values (self-reported via Census surveys) for all IUK region counties. While none exceeds the state median of $120,200, Tipton County was close at $115,900.

Figure 23: Median Home Values, IUK Region, 2009

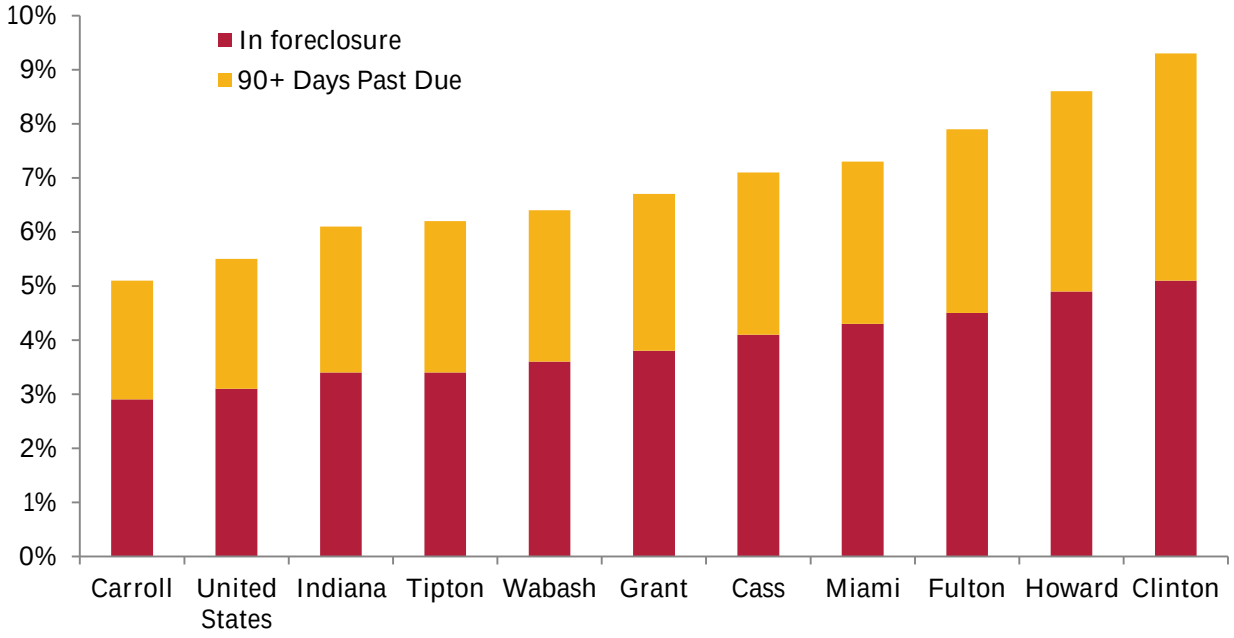


Source: U.S. Census Bureau

The sheer number of foreclosures across the United States following the housing crash continues to be problematic. Compared to California or Florida, Indiana was not as severely impacted. However, as of November 2010, the share of prime mortgages in severe delinquency or foreclosure in most counties within the IUK region was higher than in the U.S. or Indiana

(see **Figure 24**). Carroll County had the lowest share of foreclosures in the region and was the only county with a smaller share than the state and nation. In contrast, Clinton County had the highest foreclosure rate (5.1 percent). When the foreclosure rate and the severe delinquency rates are combined, Carroll County outperformed the nation and state. Clinton County had the highest combined foreclosure and severe delinquency rate at 9.3 percent, well above the national and state averages.

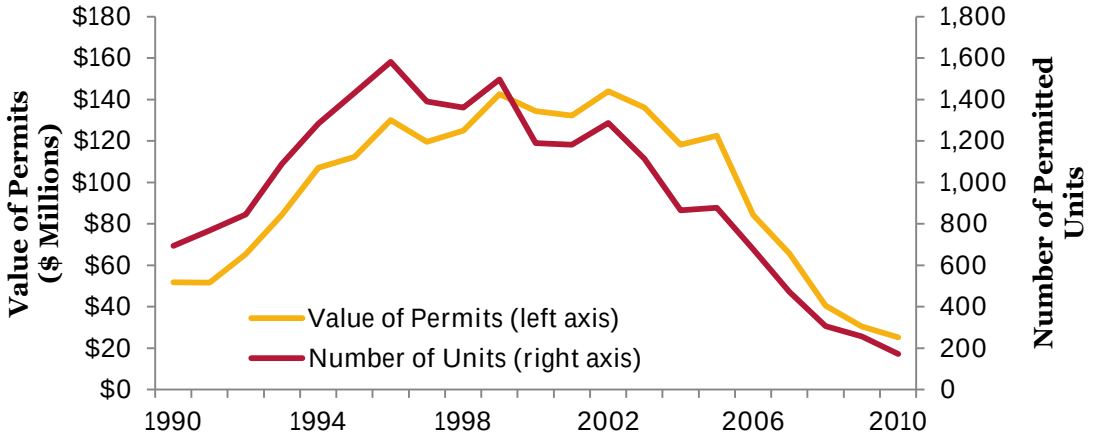
Figure 24: Percentage of Prime Mortgages that Were Severely Delinquent or Foreclosed, IUK Region, November 2010



Source: Federal Reserve Bank of New York

Construction of new homes has been severely impacted by the housing bust. Residential building permits in both Howard County and the IUK region hit 20-year lows in 2010 (see **Figure 25** and **Figure 26**). On average, Howard County comprised a third of the IUK region's granted permits between 1990 and 2010; however, in 2010 it comprised only 8 percent of the region's permits. In 2000, permit issuances in the IUK region began declining with a few upticks in demand before a precipitous slide in 2006 and beyond. Since peaking in 1996, permits issued have dropped 89 percent, with an 80 percent decline since 2005. Over time, the dollar value per permit has steadily increased; however, the total value of permits has fallen 80 percent, matching the decline in permits issued.

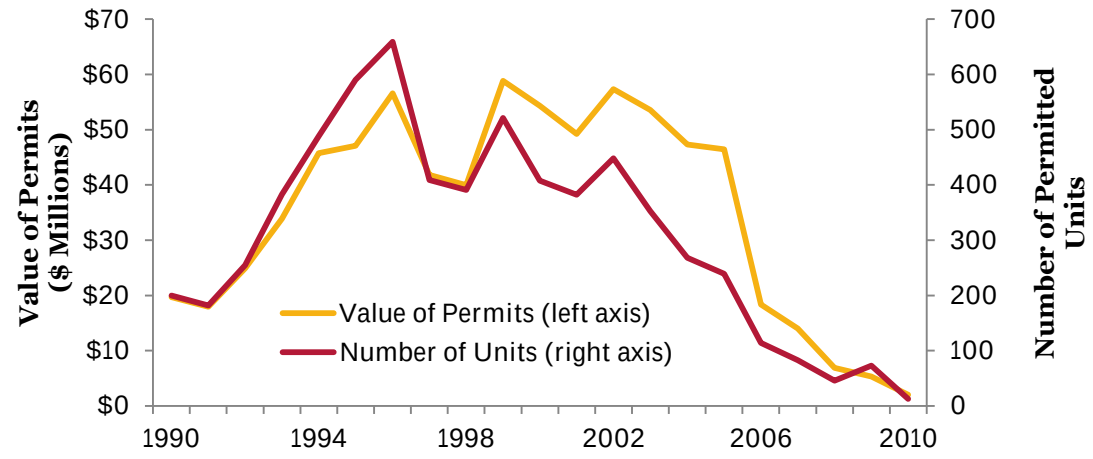
Figure 25: Number and Value of Permitted Units, IUK Region, 1990 to 2010



Source: U.S. Census Bureau

Howard County had similar trends to the IUK region, with sustained decline in permit issuances beginning in 2002. The decline is quite dramatic, at its 1996 peak, 660 permits were issued whereas only 13 permits were issued in 2010. The average value of the permits in Howard County has remained steady while following the general trend of permits issued.

Figure 26: Number and Value of Permitted Units, Howard County, 1990 to 2010



Source: U.S. Census Bureau

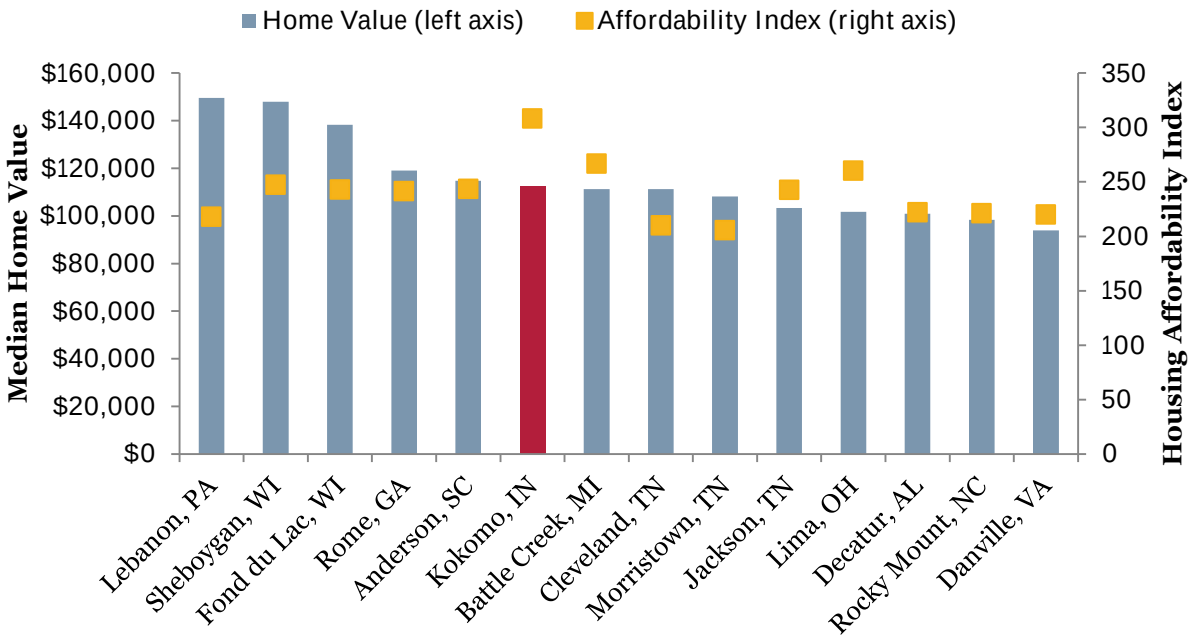
Kokomo in Perspective: Housing Affordability and Foreclosure

The 2009 national median home value ($185,400) well exceeds all of Kokomo's national peers. At $149,500, the Lebanon, PA, MSA had the highest median value, $55,550 greater than lowest-ranked Danville, VA, MSA. Kokomo ranked sixth among the peers with a median home value of $112,450 (see **Figure 27**).

Taking into account the typical incomes in a given area makes the median home value much more meaningful in terms of affordability. Moody's Economy.com combines these factors in its single-family housing affordability index—a measure based on an area's annual median existing-home sales price, median family income and effective interest rates. Index values are calibrated to 100: in a community with a score of 100, the typical family income is just enough to quality for an 80 percent mortgage on the median-priced home. The higher the index value, the more affordable the housing is for the general population.[4]

Among its peers, the Kokomo MSA has the most affordable homes with an index value of 308. This means that in 2009, Kokomo's median family income was three times the income needed to qualify for a mortgage on the median-priced home. Behind Kokomo, the Battle Creek, MI, and Lima, OH, MSAs were the second and third most affordable housing communities. The least affordable communities for housing were the Cleveland and Morristown MSAs, yet median family incomes were still twice the income needed to qualify for a mortgage.

Figure 27: Median Home Value and Housing Affordability Index, National Peers, 2009



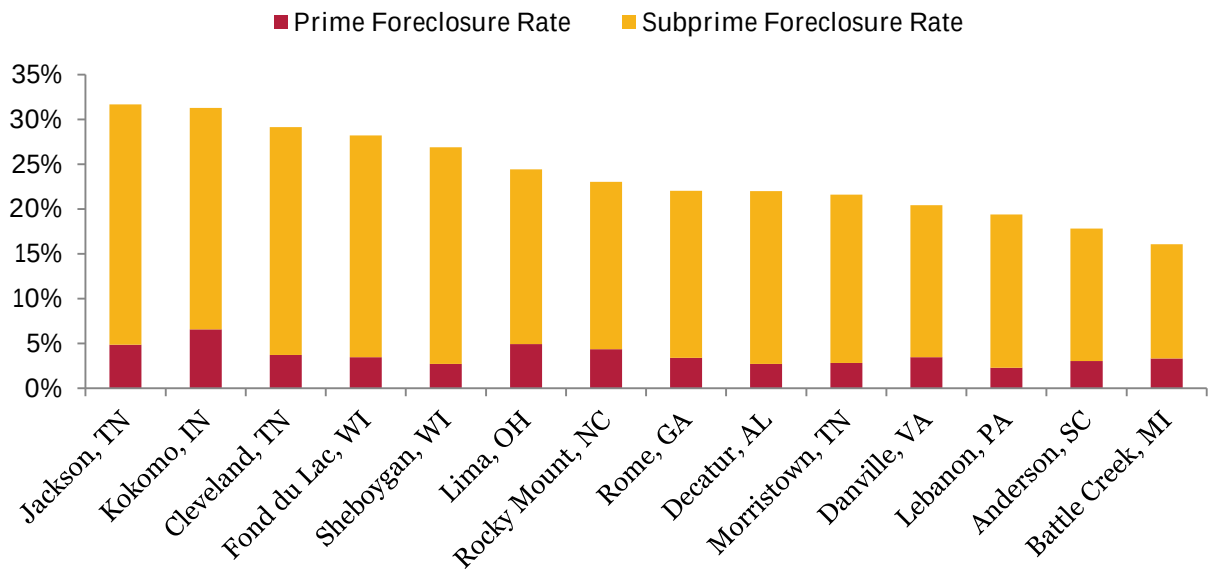
Note: Affordability Index is for single-family homes
Source: U.S. Census Bureau and Moody's Economy.com

The Jackson, TN, MSA has the highest rate of foreclosures among the peer set in December 2010 at 31.7 percent (prime and subprime combined), as seen in Figure 28. Kokomo had the highest prime foreclosure rate at 6.6 percent, more than twice the U.S. rate of 3.1 percent. Unfortunately, at the end of 2010, the Kokomo MSA had the 24th highest foreclosure rate of all

[4] See Appendix A for a more complete description of the Moody's Economy.com housing affordability index.

MSAs in the nation. One quarter later, all the peer MSAs had increases in both prime and subprime rates except for the Morristown MSA, which had lower prime rate foreclosures.

Figure 28: Foreclosures as a Share of Total Mortgages, National Peers, December 2010



Note: Prime mortgages are those graded "A," not a government product or government-insured, issued typically to borrowers with credit scores over 720. Subprime mortgages are loans coded as subprime or made to borrowers with credit scores below 620 who did not receive a government, Fannie Mae or Freddie Mac loan.
Source: Foreclosure-Response.org using data from Local Support Initiatives Corporation (LISC)

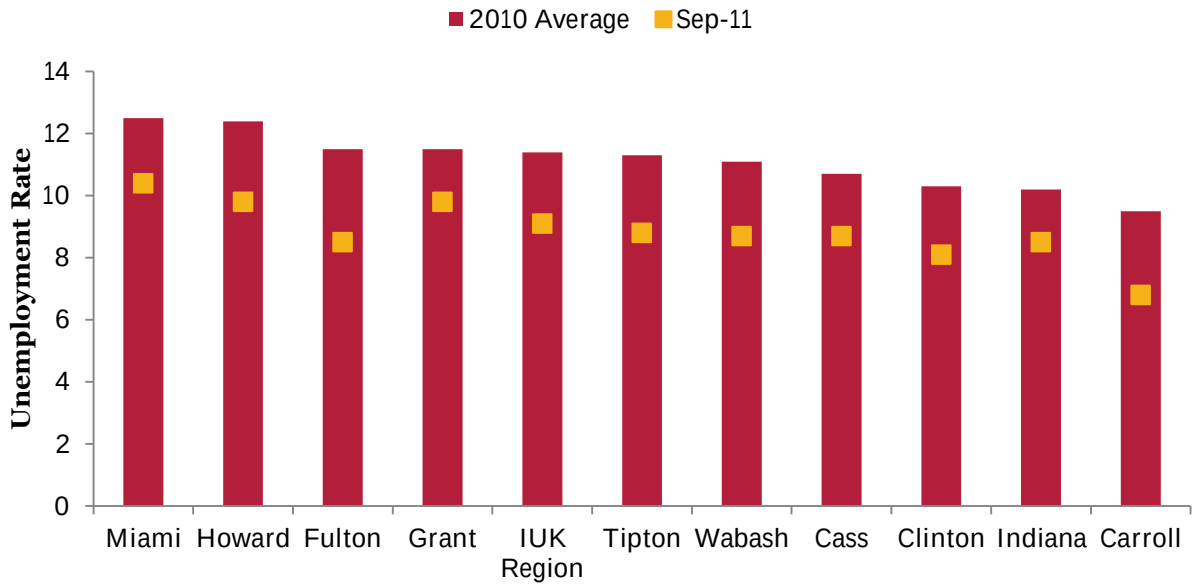
Economic Distress

Researchers and policymakers often analyze the extent of economic distress a region experiences in order to assess the need for remedial actions and to evaluate applications for government assistance. This following section presents several indicators (unemployment rate, poverty rate and number of food stamp recipients) often used to measure such distress.

Unemployment

The unemployment rate has been rather volatile the past few years. The IUK region experienced its highest unemployment rate (15.5 percent) of the 2006–September 2011 period in June 2009. Howard County had the highest rate at that time with 20.6 percent followed by Tipton at 17.2 percent, putting Kokomo frequently in the news. Since June 2009, the unemployment rate has decreased for all counties in the IUK region, although it remains high by historical standards (see **Figure 29**). In 2010, Miami County had the highest unemployment rate, followed by Howard County (12.5 percent and 12.4 percent, respectively). As of September 2011, the rate had decreased even further to 9.1 percent for the IUK region—just over half a percentage point above Indiana's unemployment rate (8.5 percent). Unfortunately, the unemployment rates for IUK and the state have slowly crept upwards since reaching lows of 8.7 and 8.1 percent, respectively, in April 2011.

Figure 29: Unemployment Rates, IUK Region, 2010 Average and September 2011

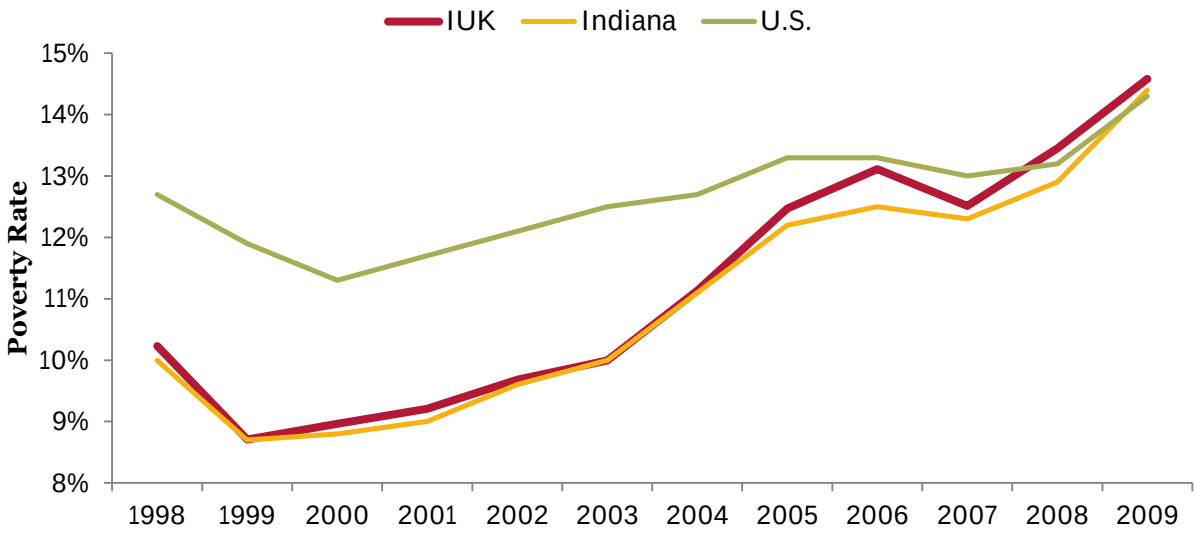


Source: Bureau of Labor Statistics

Poverty

Indiana and the IUK region historically enjoyed lower poverty rates than the nation, but they began trending upward following the 2001 recession (see **Figure 30**). By 2006, the IUK region's poverty rate nearly matched the national rate for the first time. In 2008, it surpassed the national rate, with Indiana surpassing the national rate the following year. As of 2009, poverty rates for all three areas were nearly identical as a result of much faster increases in the IUK region and Indiana compared to the nation. This dramatic poverty rate growth parallels the rapid growth in unemployment rates for both Indiana and the IUK region; these two areas had unemployment rates below the national average prior to the Great Recession.

Figure 30: Poverty Rates, 1998 to 2009

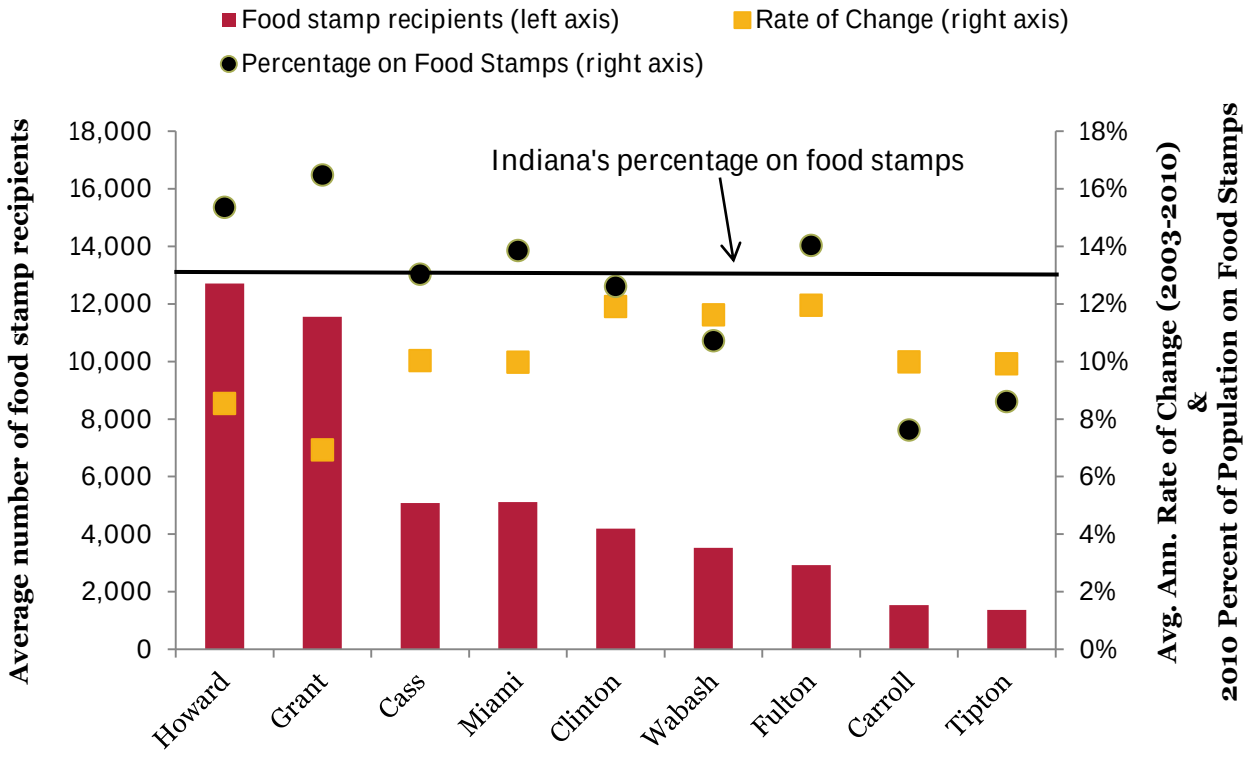


Source: U.S. Census Bureau

Food Stamps

An important form of federal assistance to needy families is food stamps, designed to raise the nutritional level of low income households by supplementing families' available food purchasing dollars with food stamp coupons. To qualify for this program, the applicants must meet both financial and non-financial requirements. Nearly 14 percent of IUK region residents received food stamps in 2010, a 64 percent increase in recipients since 2003. Statewide, 12.8 percent of the population received food stamps, a 70.1 percent increase in recipients in the past seven years. As expected, Howard and Grant counties had the highest number of food stamp recipients, with nearly one out of six households relying on the assistance (see **Figure 31**). All counties in the region saw increased food stamp usage over the past seven years, with Fulton and Clinton counties experiencing the largest increases.

Figure 31: Food Stamp Recipients, IUK Region, 2010

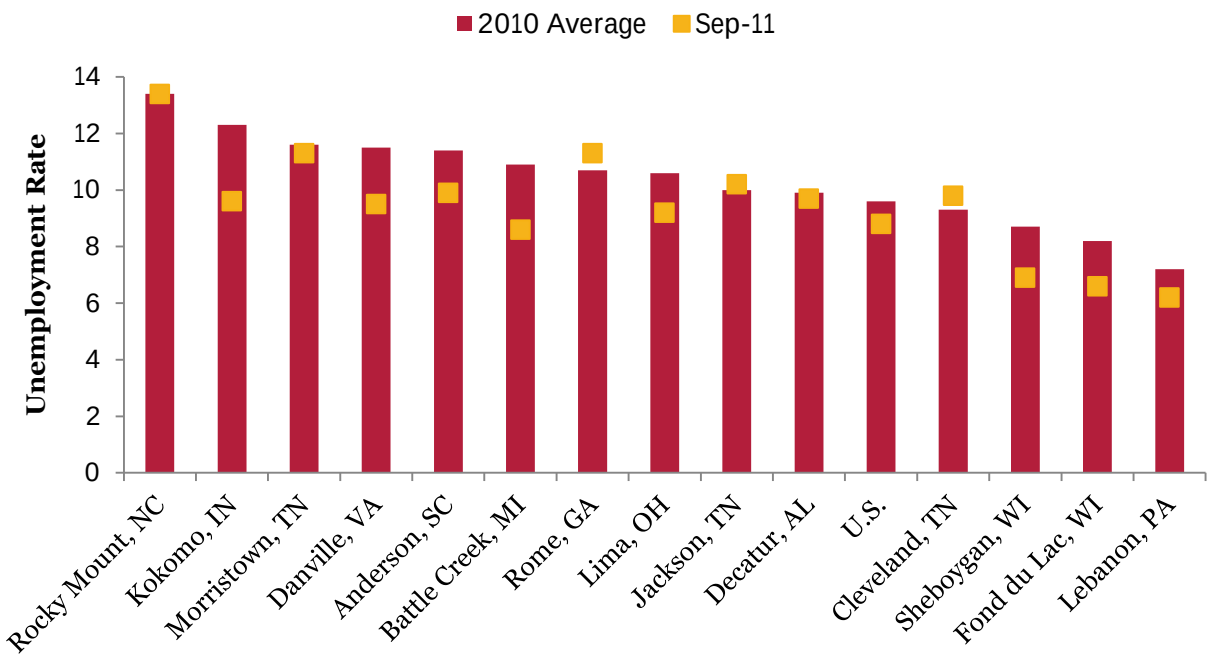


Source: Indiana Family and Social Services Administration

Kokomo in Perspective: Economic Distress

Among its peers, Kokomo had the second-highest unemployment rate in 2010 combined with the largest drop (2.7 percentage points) from its 2010 average to September 2011 (see **Figure 32**). The strong drop in the unemployment rate could signify that Kokomo is rebounding at a faster rate than its peers, or it could signify more individuals abandoning the job search. Most of Kokomo's peers have lower unemployment rates since 2010, whereas a few do not. As of August 2011, Rocky Mount, NC's rate reached its highest level yet (13.9 percent); likewise, many other MSAs had an increased unemployment rate between May and July 2011 before a reprieve in September 2011.

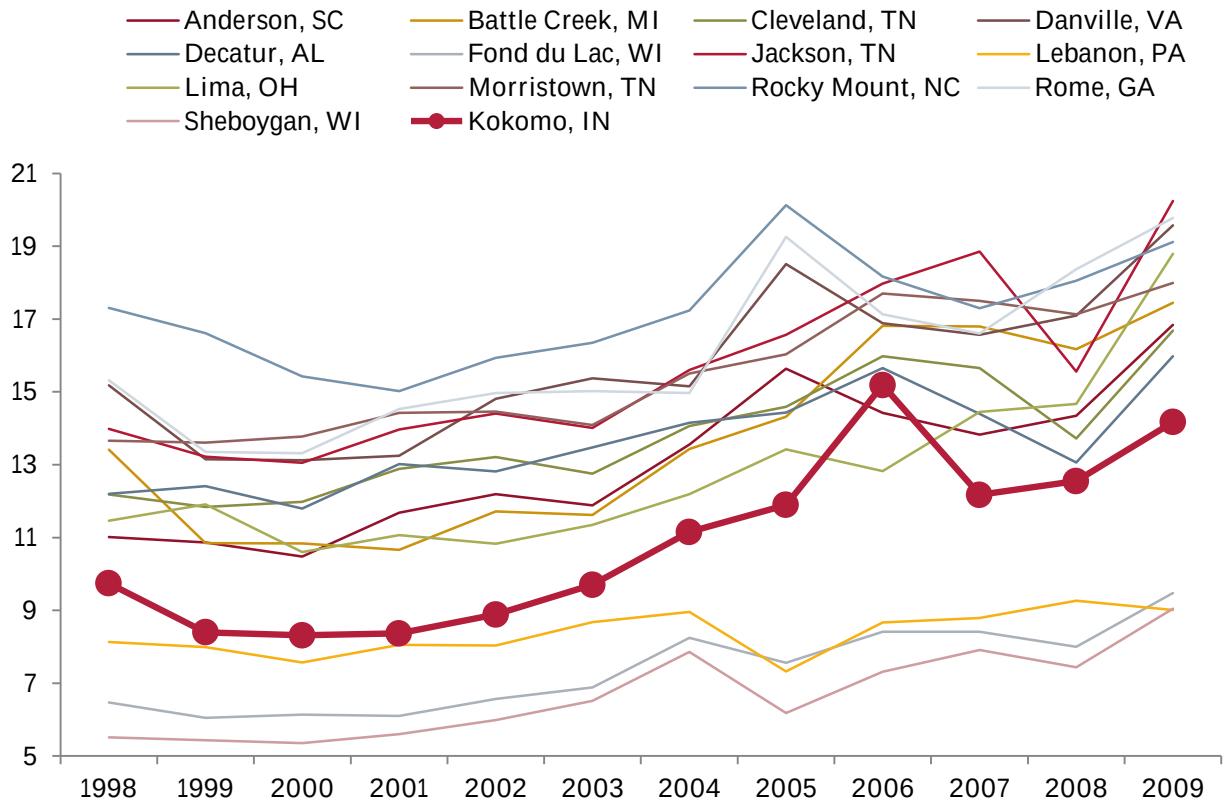
Figure 32: Unemployment Rates, National Peers, 2010 Average and September 2011



Source: Bureau of Labor Statistics

For many years the Kokomo MSA had one of the lower poverty rates among its national peers, along with Lebanon, Fond du Lac and Sheboygan—but it has since joined the higher poverty rate cohort (see **Figure 33**). As of 2009, Kokomo still had the fourth lowest poverty rate among the peer group, but substantially higher than its former low-poverty peers, whose poverty levels have not risen much. In MSAs such as Jackson, Rome, Rocky Mount, and Danville, roughly one in every five individuals lives in poverty, continuing those communities' trends of high poverty rates. In fact, 10 out of the 14 MSAs had poverty rates above the national level of 14.3 percent in 2009.

Figure 33: Poverty Rates, National Peers, 1998 to 2009



Source: U.S. Census

Innovation

Innovation is a widely recognized driver of economic growth. IBRC researchers have developed a county-level Innovation Index, a composite of many variables that measure both the inputs to innovation as well as its outputs.[5] The inputs, which can be thought of as the local capacity for innovation, include measures such as venture capital, broadband penetration, investments in R&D and educational attainment. The inputs are divided into two sub-indices: human capital and economic dynamics.

Outputs include measures considered byproducts of innovative economies such as employment growth in high-tech firms, growth in output per worker and creation of patents. The outputs are divided into two sub-indices, productivity & employment and economic well-being. An Innovation Index score of 100 indicates that an area is, on average, as innovative as the nation. The same applies to each of the sub-indices that comprise the overall index.[6]

With its overall innovation index score of 79.3, the IUK region is considered less innovative than the national average. Only two counties in the IUK region had scores higher than the region itself—Howard and Wabash counties (see **Table 7**). Different counties ranked highest on each innovation sub-index, indicating that no single county dominates innovation in the IUK region.

Table 7: Innovation Index Scores for IUK Region

County	Overall Innovation Index	Human Capital	Economic Dynamics	Productivity and Employment	Economic Well-Being
Howard County	86.9	82.4	78.1	**99.9**	87.4
Wabash County	80.6	**92.0**	75	71.3	91.2
IUK Region	79.3	76.8	76.8	78.8	89.9
Cass County	78.4	71.2	85.2	74.7	90.4
Grant County	78.3	78.4	**85.9**	66.5	90.6
Miami County	77.1	83.4	72.9	70.6	90.4
Clinton County	75.9	66.0	83.6	71.9	**94.7**
Tipton County	73.5	70.7	66.7	76.4	93.9
Carroll County	72.8	66.0	73.1	72.2	94.3
Fulton County	69.2	59.7	63.5	76.2	93.5

Note: Bold cells indicate the highest score for the sub-index category
Source: Indiana Business Research Center

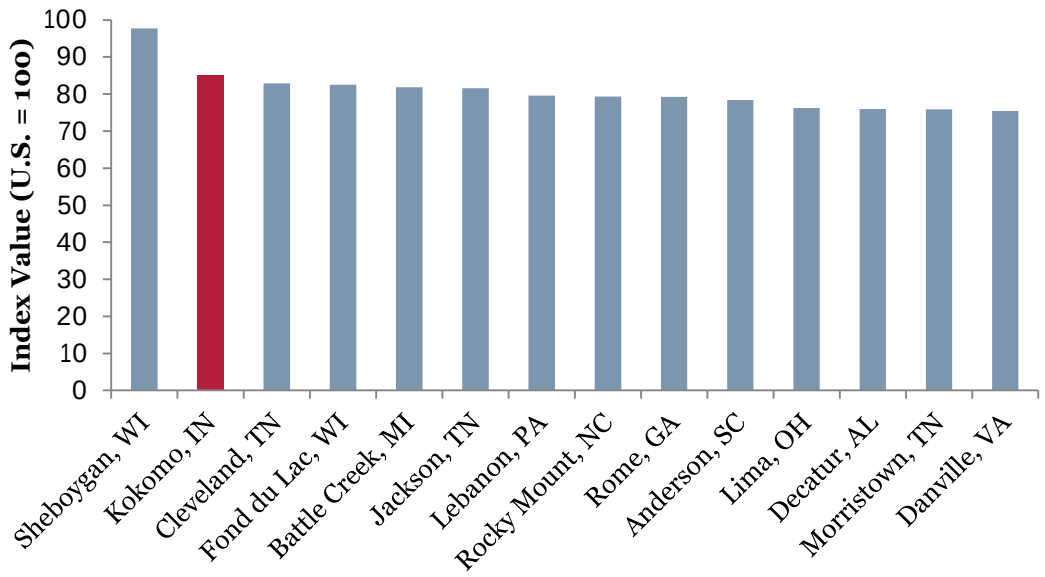
[5] A report introducing the Innovation Index, *Crossing the Next Frontier: Information and Analytics Linking Regional Competitiveness to Investment in a Knowledge-Based Economy*, and the index data may be accessed at www.statsamerica.org/innovation/.

[6] See Appendix A for a more detailed description of the Innovation Index.

Kokomo and Its Peers: Innovation

None of Kokomo's national peers had an innovation score greater than the U.S. average of 100. Kokomo ranks as the second most innovative MSA in the group with its score of 85.2, trailing 12.5 points behind Sheboygan, WI. Excluding Sheboygan, the innovation scores are relatively similar with a 9.8-point spread between the Kokomo and Danville MSAs (see **Figure 34**).

Figure 34: Innovation Index, National Peers

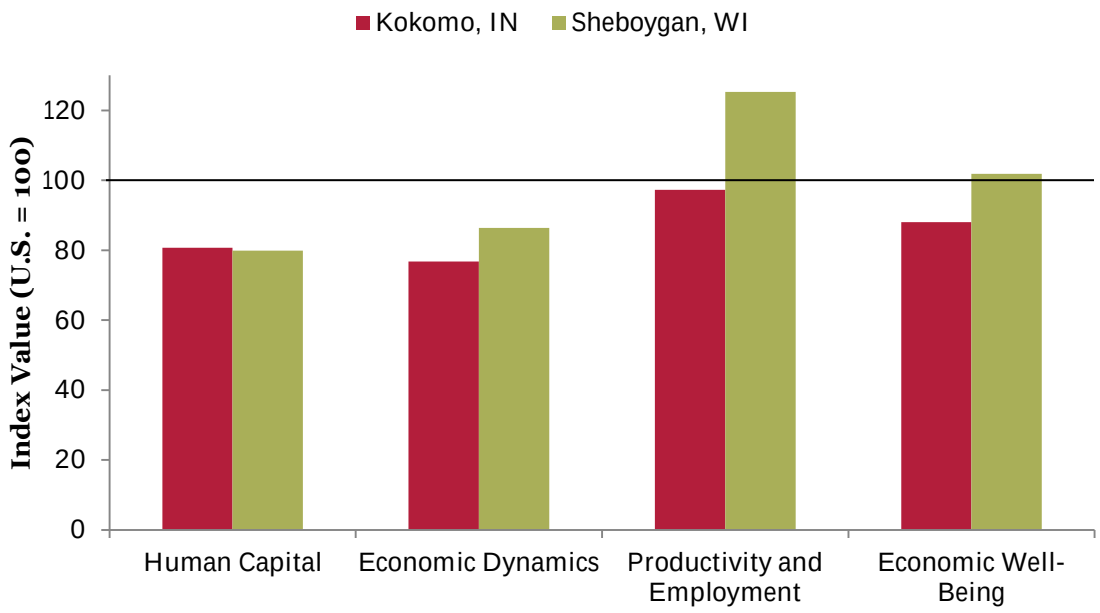


Source: Indiana Business Research Center

Figure 35 shows the sub-index scores of the two highest scoring MSAs: Sheboygan, WI, and Kokomo, IN. Sheboygan excels in the productivity and employment category relative to the United States and is comparable to the U.S. in economic well-being. In the Kokomo MSA, the productivity and employment and economic well-being categories were also its two highest scoring sub-indexes. The productivity and employment sub-index includes variables such as the ratio of job growth to population growth, change in high-tech employment share, GDP per worker and its average annual rate of change, and the average number of patents per 1,000 workers. The fact that the second highest performing category was economic well-being indicates that both MSAs do well converting innovation inputs into performance (outputs).

The lowest performing category for Kokomo was economic dynamics (76.8), which includes venture capital and R&D investments, broadband connectivity and local business characteristics. Slightly more innovative was the human capital category at 80.7. Interestingly, Kokomo had the second highest human capital score, behind Cleveland, TN.

Figure 35: Kokomo, IN, and Sheboygan, WI, MSA Innovation Sub-Index Scores



Source: Indiana Business Research Center

Globalization

Today's marketplace extends beyond the borders of a community, its state and nation to places across the globe. This section of the report examines how the Kokomo MSA fares in its globalization activities. Topics covered are foreign language and international business classes in local schools, foreign direct investments and export activity.

Foreign Language and International Business Classes

A non-traditional way to gauge the exposure of local citizens to international topics is to determine the availability of foreign language classes or international business classes for students in high schools and colleges. Across the seven local high schools in the Kokomo MSA, 61 foreign language courses are offered—mostly in German and Spanish—with a few schools also offering French, Latin and Japanese. The region's colleges also offer foreign languages, however only nine courses were offered. Various international business classes are offered, with nine different courses available for postsecondary students. Thus, students in the Kokomo area have the opportunity to learn of other cultures and international business practices.

Foreign Direct Investment

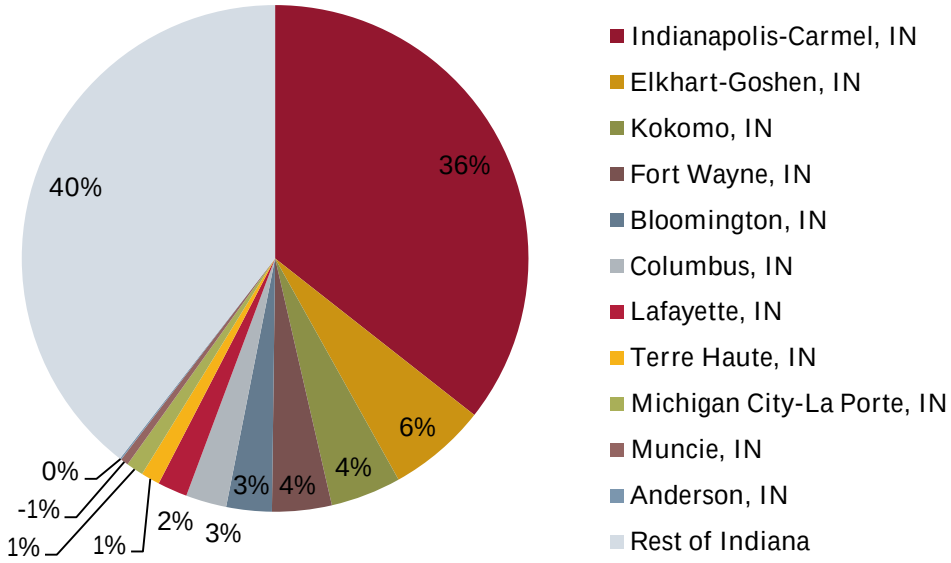
Foreign direct investment is another measure of a region's global business activity. Public data sets provide only statewide data, so the IBRC used a commercial database (fDi Markets) to identify the announced foreign investments in Kokomo. Of the 10 most recently announced investments in Kokomo, three have come from foreign companies for a total estimated value of $834.4 million and roughly 3,000 jobs. Two of these investments were made by Daimler-Chrysler involving manufacturing facilities in Kokomo in 2003 and 2007. For Kokomo, 2010 was a big year in attracting investments to the region; however, only one was from a foreign firm (ICAPE) and it is expected to create only a few jobs.

Exports

Kokomo is known as a manufacturing hub, particularly for automotive components and, more specifically, transmissions. In 2009, Kokomo exported goods and services valued at $759.5 million—a 12 percent drop since 2005. In the first half of 2010, Kokomo showed promising growth as it had already exported nearly 80 percent of the 2009 export value. The top four exported goods from Kokomo were transportation equipment; computer, electronic products and electrical equipment; appliances; and components and machinery. Collectively, these four categories of exports comprised 83 percent of all the goods exported from the Kokomo MSA.

Of Indiana's MSAs, the Indianapolis-Carmel MSA accounted for 36 percent of the state's exports during the first half of 2010. Kokomo ranked third at 4.5 percent (see **Figure 36**). Unfortunately, the export data from the U.S. Department of Commerce does not break out the Indiana portions of MSAs that cross state lines (Chicago, Louisville, South Bend and Evansville); rather these areas are lumped into the "rest of the state" category. Thus, Kokomo's ranking in Indiana may be overstated as some of those areas could export more than the Kokomo region.

Figure 36: Indiana MSAs Share of Exports, First Half of 2010

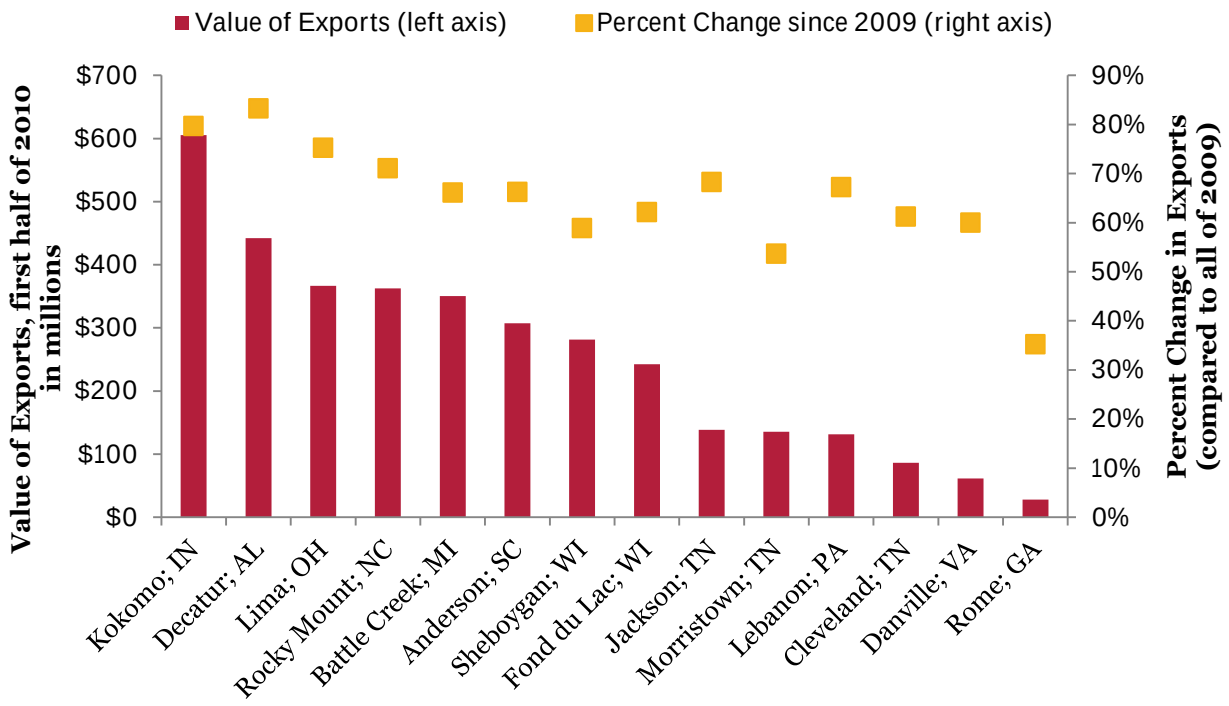


Source: International Trade Administration, U.S. Department of Commerce

Kokomo in Perspective: Exports

Among its peers, Kokomo clearly dominates in exporting power despite experiencing declines over the past four years. During the first half of 2010, Decatur, AL, was the second-highest exporting MSA with $442.1 million, followed by Lima, OH. From 2005 to 2009, nearly half of the peers saw exports decline due to the recession. The first half of 2010 has yielded stronger exports from all MSAs except Rome, GA, with Decatur, AL witnessing the strongest growth as 83.3 percent of its 2009 export level had already been exported in the first six months of 2010. During the 2005 to 2009 timeframe, the Lebanon, PA, and Lima, OH, MSAs were the only two to post high growth in exports as a result of low export values in 2005 and a large boom in exports in 2006 and 2007 that elevated the regions' export levels.

Figure 37: Exports, National Peers, First Half of 2010



Source: International Trade Administration (U.S. Department of Commerce)

Table 8 shows each MSA's share of its state's exports for 2005 through 2009 as well as the percent change since 2005. In 2009 the Decatur, AL, MSA had the largest share of state exports, followed by Kokomo. Similar to the export trends, Decatur and Kokomo had declines in their shares of exports from their states. As expected, the Lima, OH, and Lebanon, PA, MSAs had the biggest change in their respective MSA's share of exports.

Table 8: MSA Share of State Exports, National Peers, 2009

		MSA's Share of State Exports					Change in Export Share
Rank	**MSA**	**2005**	**2006**	**2007**	**2008**	**2009**	**2005-2009**
1	Decatur, AL	8.0	5.8	6.2	4.0	4.9	-38.8%
2	**Kokomo, IN**	**7.2**	**6.9**	**6.2**	**5.2**	**3.6**	**-50.0%**
3	Anderson, SC	3.1	4.0	3.2	2.9	3.0	-3.2%
4	Sheboygan, WI	2.6	2.4	2.5	2.7	2.6	0.0%
5	Rocky Mount, NC	2.2	2.6	2.5	2.5	2.3	4.5%
6	Fond du Lac, WI	2.9	2.8	2.6	2.3	2.1	-27.6%
7	Lima, OH	0.7	0.8	1.9	1.4	1.3	85.7%
8	Morristown, TN	1.4	1.4	1.6	1.6	1.3	-7.1%

		MSA's Share of State Exports					Change in Export Share
Rank	**MSA**	**2005**	**2006**	**2007**	**2008**	**2009**	**2005-2009**
9	Battle Creek, MI	0.9	0.9	0.8	0.9	1.2	33.3%
10	Jackson, TN	2.1	1.2	1.2	1.1	1.0	-52.4%
11	Cleveland, TN	0.9	0.9	0.8	0.6	0.7	-22.2%
12	Danville, VA	1.6	0.9	0.6	0.7	0.7	-56.3%
13	Lebanon, PA	0.3	0.6	0.5	0.5	0.6	100.0%
14	Rome, GA	1.1	0.6	0.6	0.6	0.4	-63.6%

Source: International Trade Administration, U.S. Department of Commerce

Case Studies

Analyzing statistics to benchmark the Kokomo MSA against national peers provides valuable information on how Kokomo is faring compared to similar communities. However, such quantitative comparisons provide little insight into each community's economic development strategy that ultimately influences its statistics. Thus, the IBRC research team conducted case studies with two of the peer communities to learn what they are doing to improve the economic environment in their regions.

Initially, the team invited four communities (Sheboygan, WI; Fond du Lac, WI; Decatur, AL; and Lebanon, PA) to participate in the case study analysis. Two communities—Fond du Lac and Decatur—agreed to participate. A series of questions was posed to local economic development organizations and other economic development agencies in the region. While these communities have much in common with Kokomo—especially the importance of manufacturing in their communities—the research team was particularly interested in the diverse manufacturing mix represented in the Fond du Lac, WI, and Decatur, AL, areas. Conversations with these communities revealed that they push for economic diversity, encourage support industries to locate closer to their customers, and stress the importance of regional economic development and partnership.

Decatur, AL

Decatur is located in north-central Alabama along the banks of the Tennessee River. The city of Decatur is located primarily in Morgan County, although the city limits do include an area across the river in Limestone County. The Decatur MSA, however, consists of Morgan County and its western neighbor, Lawrence County. Due to its proximity to Huntsville (22 miles away), Decatur is often dependent on Huntsville's economic activities, hence the reason why the region—Limestone, Morgan and Madison counties—are considered the "Golden Triangle" of northern Alabama.[7]

The Decatur MSA is growing. Decatur's population has risen 5 percent in the past decade, and has the second-highest growth rate among Kokomo's national peers for PCPI and real GDP (second only to Lebanon, PA). During the past decade, Decatur lost around 3,000 jobs, primarily during the recent recession. This is a far cry from Kokomo's job loss numbers of 13,000 over the decade. Therefore, the mood in Decatur is cautiously optimistic about its future, fueled by recent developments and leadership collaborations that appear to be directing the area toward a technologically savvy future. Additionally, business and consumer spending has been steadily improving, but perhaps most importantly, manufacturing (Decatur's principal economic sector) has remained strong.

[7] Information on the Decatur area was collected from the Morgan County Economic Development Association and from a member of the Association for University Business and Economic Research at the University of Alabama in Huntsville.

Strengths and Weaknesses of the Area

The location of Decatur on the Tennessee River is certainly a major advantage for the MSA as it draws companies requiring water transportation as well as recreational interests—particularly professional fishing competitions such as Bassmasters. The region also has a strong transportation infrastructure with multiple highways connecting the region to large cities in other states, in addition to quality rail transportation. The dedicated local workforce has technical skill sets, making them well equipped for many industrial jobs in the region. The educational institutions contribute greatly to creating a skilled workforce with Calhoun Community College (Alabama's largest community college) teaming up with local industries to develop training and degree programs that encompass the skills needed in the workplace. Examples of programs resulting from this partnership include aerospace technology, process technology and machine tool technology. The proximity to University of Alabama Huntsville provides other educational opportunities, particularly engineering. At the secondary level, the Decatur city school system offers an International Baccalaureate program from elementary through high school years.

Other positive aspects of the Decatur MSA include a responsive government with leadership interested in diversifying the economy and pursuing a strategic plan for the future.

Some of the area's perceived weaknesses include heavy dependency on manufacturing, especially durable goods; major inflows of immigrants (legal and otherwise) which tax the local infrastructure; lack of appropriate housing/apartments to draw young professionals to the area; lack of an upscale hotel/convention center for local businesses; and the ever-continuing need for improvement in workforce education.

The Role of Manufacturing

The Decatur MSA is an industrial region similar to Kokomo, with 23 percent of its employment in manufacturing. Its mix of manufacturing industries, however, is quite diverse, including chemicals, plastics, poultry processing, machine tooling, aerospace, automotive components, steel and carbon fiber. The change to a more diverse mix of industries in the region initially faced some resistance; however, there is now a conscious effort to target manufacturing technologies due to Decatur's proximity to the Redstone Arsenal aerospace facility to the east.

Decatur's Morgan County has consistently ranked near the top in Alabama in terms of manufacturing investment. Many local manufacturers have used economic downturns to invest in their facilities. While the region has witnessed some changes in its manufacturing sector—larger operations have scaled back considerably, local economic developers continue to seek manufacturing industries to complement existing companies, thus strengthening the manufacturing linkages in the area.

Economic Development Strategies

The region has undertaken several strategies to strengthen its economy, targeting recruiting businesses that can benefit from access to the Tennessee River and water-needing recreational firms. The region focuses heavily on growing its major job sectors and targeting new emerging sectors. One method of pursuing this growth has been the establishment of an Economic

Development Incentive Fund (EDIF) that makes continuous funding available for providing new and existing companies with incentives to expand or locate in the area. This fund receives an annual contribution from the county and each municipality within the county. The monetary contribution is from each area's allocations of Tennessee Valley Authority (TVA) in-lieu-of-tax dollars with the amount dependent on each area's population. Each entity has a seat on the board that controls the EDIF dollars. Another method has been to partner with existing industries to recruit their customers to locate or co-locate a manufacturing facility in the Decatur area, thereby creating new jobs and securing existing jobs. Decatur's latest development efforts have sought to bolster the manufacturing sector, by promoting the diverse array of manufacturers while seeking out new ones, particularly in the robotics and high-tech industries. This effort is accomplished by designating an individual to serve as the liaison between the Morgan County EDA and existing industries. This person maintains constant contact with each of the industries through an annual Synchronist Survey, free training opportunities, monthly plant manager meetings, completes an annual wage survey for the county, special events/recognition and other workforce development incentives. Through the constant contact, it enables the Morgan County EDA to build relationships with each industry—thus allowing them to respond and react to the needs of the industrial base.

Preparing sites with the appropriate infrastructure for industrial or retail developments has proven to be a successful strategy for the Decatur area. Currently the region has at least four industrial or business parks totaling 1,200 acres. The largest park with more than 1,000 acres was built 20 years ago and is currently filled with several major companies. The region has also seen the development of the Alabama Robotics Technology Park, a $73 million investment designed to train students in robotics (targeted to various industries) and serve as a research and development location for NASA and the U.S. Army Missile Command, with the joint purpose of building new robots and training its maintenance and production staff. The region looks to continue building industrial and business parks by using a portion of the Tennessee Valley Authority payments in-lieu-of-taxes to finance bond issues.

Some of Decatur's most noteworthy development strategies have capitalized on regional partnerships. This is a relatively new direction for the community, but its value became clear in 2005 when Decatur joined a six-county lobby to bring Army jobs to the region during the 2005 Base Realignment and Closure process. This venture produced a new level of communication and cooperation within the region. Regional partnerships often take time to cultivate when neighboring communities are more used to competing than cooperating, but Decatur has taken steps to reach out to the surrounding areas for economic growth. Decatur's regional partnership with surrounding counties is further illustrated by the location of Decatur's Calhoun Community College and the new Alabama Robotics Technology Park. Both are located in the section of the city that is north of the Tennessee River in Limestone County. It is recognized that Calhoun Community College benefits the surrounding counties in the same way that the presence of nearby University of Alabama in Huntsville is a good selling point for Decatur.

Fond du Lac, WI

The Fond du Lac MSA consists of one county (Fond du Lac) in southeast Wisconsin. Located at the foot of Lake Winnebago, Fond du Lac serves as the southern anchor for Wisconsin's

Highway 41 corridor. The Fond du Lac MSA identifies itself with three regions – an informal seven-county region, New North and the Northeast Wisconsin Regional Economic Partnership (NEW REP). In promoting industry growth, Fond du Lac identifies primarily with a seven-county network surrounding Fond du Lac that includes Calumet, Dodge, Green Lake, Sheboygan, Washington and Winnebago counties. The New North is an 18-county region in Northeast Wisconsin whose primary focus is to market the region. NEW REP is a coalition of economic developers in the 16 northeastern Wisconsin counties plus the Menominee Tribe.

The Fond du Lac MSA is a moderately growing region with a 4 percent growth in population over the past decade. Its educational attainment distribution is very similar to Kokomo's, yet the region's growth in attainment of some college, associate and bachelor's degrees is outpacing Kokomo. The MSA's PCPI has grown nearly 3 percent annually over the past decade, exceeding the average inflation rate. Fond du Lac lost 4,300 jobs over the past decade, primarily during the Great Recession, or about a third as many as Kokomo. Despite Fond du Lac's high unemployment experienced in 2009, the rate is improving, fostering a cautiously optimistic mood about the local economy and business climate in the Fond du Lac area.

Strengths and Weaknesses of the Area

The Fond du Lac area has several attributes to make it a desirable place to live and work. Its central location has excellent highway access to major markets within a half day's drive (Green Bay, Madison, Milwaukee, Chicago and Minneapolis). Likewise the MSA has easy access to several airports, further supporting individuals and businesses. The area has a skilled workforce that meets the needs of several large employers, developed in part by strong relationships between industries and the local postsecondary institutions. Other strengths include recognition as one of the 20 safest MSAs in the nation and having one of the top 25 public school districts in the nation. There are three postsecondary institutions within the metro area—Marian University, Moraine Park Technical College and the University of Wisconsin-Fond du Lac campus—with easy access to five other institutions in the broader region.

While the area does have a skilled workforce, changes within its industries demand more technical and soft skills of its workers, thus creating a shortage of qualified individuals to fill available positions. This is an issue that has been looming for quite some time, exacerbated by an aging (and retiring) workforce with few younger workers interested in manufacturing careers.

The Role of Manufacturing

Manufacturing employs approximately 20 percent of the Fond du Lac region workforce. The diverse mix of manufacturing industries ranges from advanced materials to cheese manufacturing. As an indicator of manufacturers' intention to remain within the Fond du Lac region, nearly half the respondents to a Northeastern Wisconsin Manufacturing Alliance 2011 study stated that they were making some kind of investment in capital expansion and modernization. Roughly 40 percent planned on hiring in the near future.

As the current workforce continues to age and retire, younger workers are needed to replace these workers, often with additional technical skills. Due to the shortage of these younger

workers, local technical colleges have established a "We are Manufacturing" campaign to promote and rebrand the image of manufacturing occupations. Local manufacturers have also partnered with high schools and technical colleges to create programs exposing students to manufacturing. For example, Project GRILL takes high school students on tours of manufacturing sites and organizes a student competition to design and construct charcoal grills from scratch.

Economic Development Strategies

The Fond du Lac County Economic Development Corporation (FCEDC) conducted an in-depth industry and skill gap analysis in 2010 of its seven targeted industry clusters to learn more about the clusters and identify gaps or unmet needs within each cluster's supply chain. The seven clusters were: advanced manufacturing (machinery and metals); advanced materials manufacturing; agribusiness, food processing and technology; biomedical/biotechnical (medical technology and services); printing and publishing; transportation and logistics; and energy (fossil and renewable).

One part of Fond du Lac's development strategy is to support these core industries by targeting supply-chain gaps. This involves identifying goods and services needed by local industries to create more efficient and competitive industry clusters. For example, in support of its core advanced materials manufacturers, Fond du Lac has targeted supply-chain gaps in fabricated metal manufacturing (e.g., aluminum sheet, plate and foil manufacturing), primary metal manufacturing (e.g., secondary smelting and alloying of aluminum), non-metal manufacturing (e.g., plastic and resin manufacturing), and other supporting services (e.g., technical and engineering services). While it is considered unlikely that all supply-chain needs will relocate to this one-county MSA, it does encourage Fond du Lac to focus concerted effort on working with regional partners. For businesses looking to locate in the Fond du Lac region, roughly 900 acres have been devoted to industrial or business parks as a way to encourage retail and industrial development in the area.

Another economic development strategy entails implementing one of Wisconsin's first county-level Economic Gardening programs. This program supports the growth of existing businesses in the Fond du Lac County region by providing consultative and research services in addition to unique access to technology. Through this program, established businesses can discover and expand sales opportunities, create supply chain efficiencies and better understand their competition.

Conclusion

The Kokomo MSA has experienced changes over the past decade, some more positive than others. The Great Recession impacted Kokomo more severely than any of the peer MSAs in terms of employment and population growth. The loss of jobs likely helped fuel an exodus of workers from the Kokomo MSA, although it had been slowly declining in population prior to 2007. The employment losses likely triggered several other effects—high foreclosure rates, a decrease in commuters coming to the Kokomo area to work, a decline in home sales, more individuals in poverty and a decline in exports.

However, Kokomo is not alone in having experienced hardships in the past decade. Its peer MSAs varied widely in population change, employment growth, improvements in educational attainment, per capita personal income change and unemployment rate trajectories. This report examines how Kokomo and its peers performed better on some categories and worse on others—highlighting the difficult task of economic development.

To better understand two community's economic development strategies, in-depth questions were asked of Decatur, AL, and Fond du Lac, WI, MSAs. From these two communities, strategies related to regional partnerships, supply-gap fulfillment and diverse industry mixes were revealed that may help the Kokomo region in forging its next steps into the future.

Appendix

Housing Affordability Index Methodology

The housing affordability index is designed to measure the degree to which a "typical" middle income family can afford the mortgage payments on the typical home.

To interpret the index, a value of 100 means that the typical family has just enough income to qualify for an 80 percent mortgage on a median-priced home—thus, the higher the index, the more affordable the housing.

Calculation of affordability indices is dependent on several published data sources and assumptions. The primary building block is the median existing house sales price published by the National Association of Realtors (NAR). The NAR price estimates are available for the nation, Census regions and approximately 132 metropolitan areas. Economy.com estimates home prices for counties and states, in addition to the metropolitan areas not published by the NAR.

Published median family income data for the United States, regions, states, metropolitan and county areas are used to determine the income available for a home purchase. Since the Census Bureau publishes median family income for metropolitan and county areas on a decennial basis, Economy.com estimates the intercensal years.

The affordability indices use the state-level "effective" interest rates released on an annual basis by the Federal Housing Finance Board. Effective rates are higher than contract rates because they include fees and charges (points) amortized over the typical seven-year life of a mortgage.

A 20 percent down payment is assumed, being a standard of the housing industry. This implies a loan amount of 80 percent of the median sales price. Economy.com assumes a maturity of 30 years. Economy.com assumes a 25 percent coverage ratio, which is the proportion of minimum qualifying family income allocated to the monthly payment.

Source: Moody's Economy.com

Innovation Index Overview

The ability of a regional economy to innovate drives healthy growth, but innovation is a complex concept. How can you measure innovation in order to improve it? This index provides leaders and practitioners with the first tool you can use to compare your region's innovation performance with that of the United States, a state or other regions.

A word of caution is in order: measuring regional innovation can be tricky. As with any complex process, a better understanding is gained by taking multiple perspectives. So, for example, when you describe the weather, you do not simply use one measurement, such as temperature. The weather is usually described from a variety of perspectives. In addition to temperature, you might want to know whether it is cloudy or sunny, whether it is humid or dry, how strong the

wind is blowing and in which direction. A composite of all of these measures, provides a better understanding of the weather.

So it is with innovation. No single measure will do. Innovation must be viewed from a variety of perspectives. First, the innovation index comprises two broad categories: inputs to innovation, which measure innovation capacity, and outputs of innovation, which measure the results. Within each large class, the index provides additional detail and individual measures that collectively make up the broad categories.

Innovation Index Variables			
Inputs to Innovation		**Innovation Outputs**	
Human Capital	**Economic Dynamics**	**Productivity & Employment**	**Economic Well-Being**
• Mid-Aged Population Growth Rate, 1997 to 2009 • Percent of Population Ages 25-64 with Some College or an Associate's Degree, 2000 • Percent of Population Ages 25-64 with a Bachelor's Degree, 2000 • Average High-Tech Employment Share, 1997 To 2009 • Location Quotient for Knowledge Occupational Cluster, 2001 to 2009	• Average Venture Capital Investment per $10,000 GDP, 2000 to 2006 • Residential Broadband Connections, 2009 • Change in Broadband Density, 2000 to 2009 • Average Establishment Churn, 1999 to 2006 • Average Small Establishments per 10,000 Workers, 1997 to 2008 • Average Large Establishments per 10,000 Workers, 1997 to 2008	• Job Growth to Population Growth Ratio, 1997 to 2008 • Change in High-Tech Employment Share, 1997 to 2009 • Average Annual Rate of Change in GDP ($ Current) per Worker, 1997 to 2008 • Gross Domestic Product ($ Current) per Worker, 2008 • Average Patents per 1,000 Workers, 1997 to 2008	• Average Poverty Rate, 2006 to 2008, inverse • Average Unemployment Rate, 2007 to 2009, inverse • Average Net Internal Migration Rate, 2000 to 2009 • Change in Per Capita Personal Income, 1997 to 2008 • Change in Wage and Salary Compensation per Worker, 1997 to 2008 • Change in Proprietors Income per Proprietor, 1997 to 2008

So, for example, economic dynamics play an important "input" role in innovation. The economic dynamics sub-index captures a variety of indicators and data: venture capital, broadband penetration, investments in R&D and business formation. Human capital is also vital to

innovation. Therefore, the index provides different perspectives to evaluate a region's human capital.

Innovation is not only about inputs, however. A region's economy must translate these inputs into productive outcomes: employment in high-technology firms, greater output per worker, the creation of patents, to name a few. By examining the output indicators, you can explore how well your economy converts innovation inputs into performance. Because the index is not dealing with simple linear relationships, however, there is no direct cause-and-effect connection between inputs and outputs.

The innovation index is part of a larger study titled *Crossing the Next Frontier: Information and Analytics Linking Regional Competitiveness to Investment in a Knowledge-Based Economy*. This study, sponsored by the U.S. Economic Development Administration, is a collaboration of the IBRC; the Purdue Center for Regional Development; Strategic Development Group, Inc.; the RUPRI Center for Regional Competitiveness; and Economic Modeling Specialists, Inc. The study, along with an interactive website containing innovation data for every county in the nation, is available at www.statsamerica.org/innovation.

Additional analysis by IBRC researchers using these innovation data is available at www.incontext.indiana.edu/2010/jan-feb/article1.asp and www.incontext.indiana.edu/2011/may-jun/article4.asp.