

# A Look Inside the **2011** **Bloomington Economy**

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for the Bloomington Economic Development Corporation.

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**KELLEY SCHOOL OF BUSINESS**

INDIANA UNIVERSITY  
Indiana Business Research Center

**bedc**

Bloomington Economic Development Corporation



CITY OF BLOOMINGTON

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# Introduction

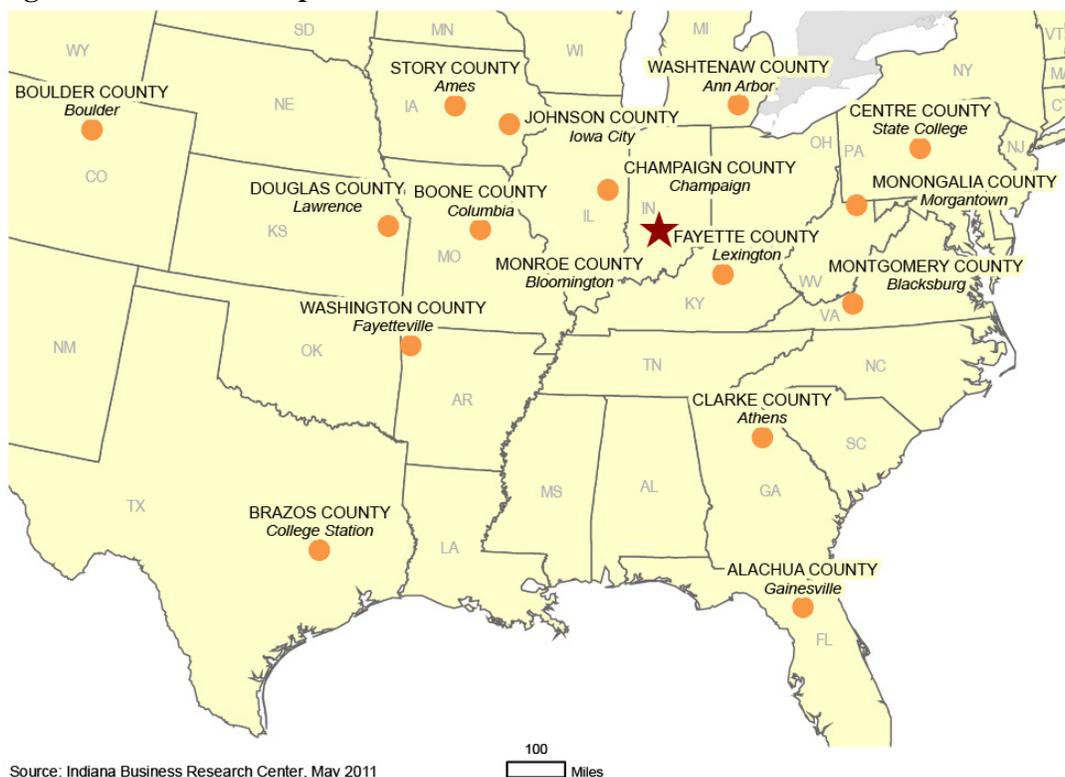
Since 2000, the Bloomington Economic Development Corporation (BEDC) and the Indiana Business Research Center (IBRC) at Indiana University's Kelley School of Business have partnered to publish periodic reports on the state of the Bloomington area economy. The last study was produced in 2007, and the current report marks the fifth publication in this series.

The following report provides a useful tool for those wanting to understand the key characteristics of the Bloomington economy. This study examines local demographic, housing, education, employment and income trends, placing them within the context of similar communities around the nation and state. By tracking these key indicators regularly, local leaders and residents can identify emerging strengths or weaknesses and follow progress toward community goals. Such fundamental information is critical to planning for Bloomington's economic growth.

## Bloomington's Peers

As with the previous reports, Bloomington is compared to a set of peer communities from around the country. For the first time, however, this report features essentially the same peer set used in the previous study. The addition of Boulder, CO, is the only adjustment made for the 2011 report. Therefore, with this consistent set of communities; we can judge how Bloomington's ranking in several key indicators has changed relative to these peers.

**Figure 1: U.S. Peer Group**



Source: Indiana Business Research Center, May 2011

For the 2007 benchmarking study, IBRC researchers performed a multivariate statistical analysis on all U.S. counties to determine which were most similar to Monroe County in terms of demographics, industry mix and income characteristics. The top 150 counties in this analysis were examined to determine which had population attributes similar to Bloomington's. Specifically, researchers sought communities with a similar population size to Bloomington and a ratio of university enrollment to total population above 20 percent. Eleven of the 15 peers ultimately selected fit these criteria. Four other communities—Boulder, CO; Ann Arbor, MI; Lexington, KY; and Fayetteville, AR—did not meet one or the other of these criteria but are included because, as “college towns” with impressive economic characteristics, they can provide a useful benchmark for Bloomington's economic growth.

Researchers also present Bloomington's economic performance within the context of Indiana peers. The statewide counterparts are essentially the 11 most populous Indiana cities that are also the largest municipality in their own metropolitan statistical area (MSA). This excludes cities such as Gary or Carmel, which are part of the larger Chicago and Indianapolis MSAs, respectively. This group is quite diverse in terms of population and economic characteristics, and therefore not all of the communities would be considered direct economic development peers of Bloomington. However, it is useful to examine the Bloomington economy within the context of some of its statewide counterparts.

**Figure 2: Indiana Peer Group**



Source: Indiana Business Research Center, May 2011

Because municipalities the size of Bloomington and its peers tend to spur economic development outside their city limits, focusing on trends within the city alone does not give a complete picture of a community. Additionally, much of the economic data necessary to gauge economic performance are available at the county level but not for municipalities. For these reasons, the economic environment of Bloomington and its peers will be analyzed on a county-wide basis. For the sake of familiarity and simplicity, however, researchers will refer to these counties by the name of their dominant city.

Furthermore, a city's influence often extends beyond its county boundaries. This is certainly true for many of the communities in this analysis; each is the principal city in its own federally designated MSA (defined by employment commuting patterns). The Bloomington MSA, for instance, includes Greene and Owen counties in addition to Monroe. This raises an interesting question: is it more appropriate to report data at the county or MSA level? The answer to this question depends on the nature of the data.

A sizeable portion of this report focuses on income and employment characteristics reported by the Bureau of Labor Statistics and Economic Analysis. These are considered place-of-work data, meaning that they represent all jobs in a given county regardless of the

employee's place of residence. Data for Monroe County, for example, represent all local jobs including those held by residents of other counties. Therefore, it is best to report this information at the county level. Conversely, some indicators such as population growth, industry clustering and commuting are often best viewed regionally and will be reported at the MSA level as well as the county level. In the body of this report, therefore, except where clearly indicated otherwise, all data are at the county level.

## Key Findings

**Bloomington has weathered the economic downturn comparatively well.** The Bloomington MSA's seasonally adjusted employment in March 2011 was roughly 2 percent below its pre-recession level (November 2007). By contrast, employment figures in both Indiana and the U.S. were down more than 5 percent over the same period. Compared to its peers, Bloomington's (Monroe County) percent change in employment between 2007 and 2009, though declining, placed sixth best out of the 16 national peers and first among the Indiana set.

**Unemployment is below state and national averages.** Bloomington's 2010 average unemployment rate of 7.3 percent was more than two percentage points below the U.S. and Indiana marks. Also noteworthy, Bloomington had the second-highest unemployment rate among national peers at the time of the last benchmarking study but now ranks ahead of six of these communities. Bloomington has the lowest unemployment rate of the Indiana peer set.

**Bloomington's economy continues to evolve.** Manufacturing accounted for 15 percent of Bloomington's total employment in 1990. This share is down to 8 percent as of 2009. In place of manufacturing, Bloomington is diversifying into a more service-oriented economy. Industries such as health care, government (including Indiana University), professional and scientific services, finance and insurance, and educational services have all grown at a strong pace in recent years.

**Growth in key industry clusters.** While Bloomington's total manufacturing employment has declined steadily, some key manufacturing sectors remain strong. Most notably, employment with local life science manufacturers nearly doubled between 2001 and 2009. Employment grew for the manufacture of both pharmaceuticals and medical devices. Expanding the life sciences to include related research, development and service activities, we see that Bloomington's employment in this cluster is far more concentrated than the national average. The local information technology cluster does not stand out like the life sciences, yet Bloomington's IT employment has held steady at a time when employment in this cluster declined nationally.

**Bloomington wages and personal income lag.** The local average wage per job and per capita personal income (PCPI) are well below state and national averages. Furthermore, Bloomington's PCPI ranks as the fourth lowest in the national peer set—one spot lower than in the 2007 benchmark report. Given that these peers have similar student-to-population ratios, the "college town" effect is not an adequate explanation for Bloomington's low PCPI. On a positive note, Bloomington's the annual PCPI growth rate between 2001 and 2009 ranked eighth among national peers and first in the Indiana set.

**Strong population growth over the last decade.** The 2010 census shows that the City of Bloomington's population increased by 16 percent since 2000, while the county grew by 14 percent. The county had the second fastest growth rate of the Indiana peers and ranked seventh fastest in the national comparison. As context, the Monroe County population grew by 11 percent over the 1990s.

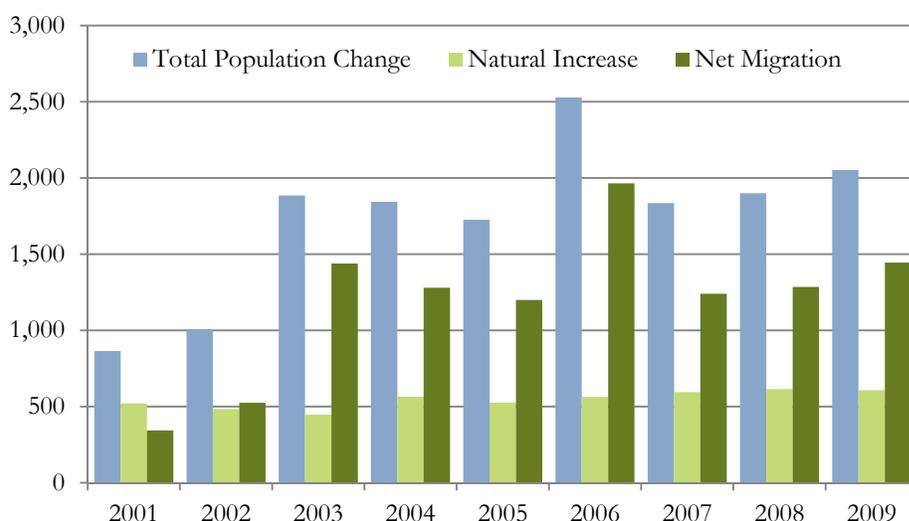
# Population

The City of Bloomington had 80,405 residents as of April 2010, making it Indiana’s sixth largest city. This tally is up by more than 11,100 residents over the Census 2000 count—a 16 percent increase.

The Monroe County population, meanwhile, added 17,400 residents over the decade to reach 137,974 people in 2010, a 14.4 percent jump. By comparison, Monroe County’s population grew by 10.6 percent during the 1990s. Monroe ranks as the state’s 13<sup>th</sup> largest county.

Strong net in-migration fueled much of Monroe County’s growth over the past decade (see **Figure 3**). The IBRC estimates that nearly 11,900 more people moved to Monroe County over the decade than moved away, meaning that this net in-migration accounted for roughly 68 percent of total population growth. Monroe County’s rate of 99 net in-migrants per 1,000 residents over this period ranked as the 10<sup>th</sup> highest among Indiana’s 92 counties. Natural increase represents the remaining growth as Monroe County averaged roughly 550 more births per year than deaths between 2000 and 2009, according to the Census Bureau.

**Figure 3: Components of Population Change, Monroe County, 2000 to 2009**



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

The Bloomington MSA, which includes Greene and Owen counties in addition to Monroe, had a population of 192,714 in 2010 compared to 175,506 in 2000. Over the decade, Monroe County essentially accounted for all the MSA growth as the Greene County count increased by just eight people and the Owen County population declined by 211 residents. This is a sharp reversal of the trend in the 1990s when Greene and Owen counties added 2,700 and 4,500 residents, respectively.

Much of this turnabout took place in what were once fast-growing townships that border Monroe County. In Greene County, the three townships that border Monroe (Beech Creek, Center and Jackson) accounted for 65 percent of the county’s total growth during the 1990s. Taken as a group, these townships continued to grow during the 2000s but at just one-third of the rate seen a decade earlier. Clay, Washington and Wayne

townships in Owen County grew by 17 percent during the 1990s but declined by 1 percent in the last decade. In all, Greene County’s population of 33,165 represented 17 percent of the MSA total in 2010 while Owen County’s 21,575 residents accounted for 11 percent.

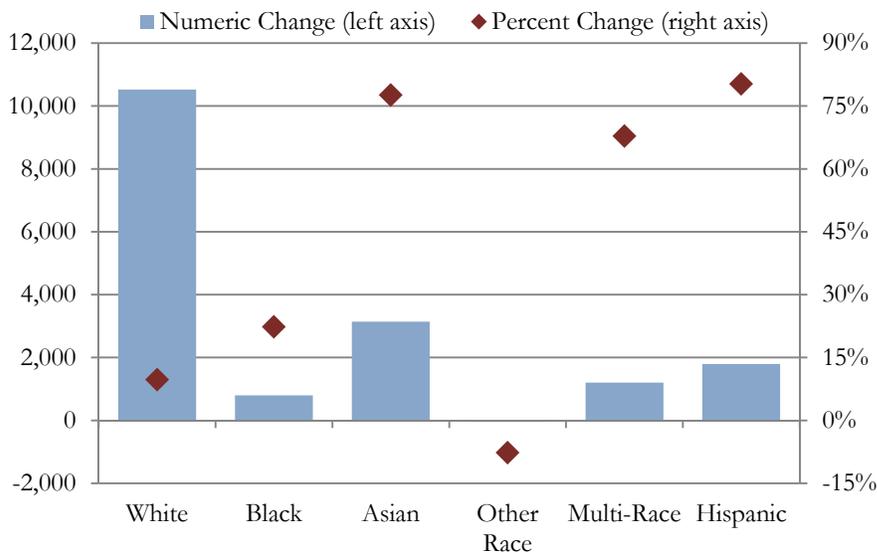
## Population by Race and Ethnicity

In Monroe County, 86 percent of residents identified as white in 2010, down from 90 percent in 2000. The county’s largest minority populations are Asian (which accounts for 5.2 percent of the total population) and black (3.2 percent). Hispanic residents now make up 2.9 percent of the county’s population.<sup>1</sup>

While Monroe County is predominantly white, several minority populations showed exceptional growth over the last decade (see **Figure 4**). The county’s Hispanic population grew by 80 percent to reach 4,000 residents, while the Asian population increased by 78 percent to finish the decade at 7,200. Nearly 3,000 Monroe County residents identified as multi-race, a 68 percent jump over the Census 2000 count.

Despite these growth rates, Monroe County remains far less diverse than Indiana as a whole. Across the state, the white population makes up 81.5 percent of the total while 9 percent of all Hoosiers are black and 6 percent are Hispanic. In terms of growth, the Hispanic population in Indiana outgrew the white population over the decade by a ratio of more than 2.5 residents to 1. The state’s black population also added more residents than the white population. By contrast, Monroe County’s white population outgrew any other group on a numeric basis.

**Figure 4: Monroe County Population Change by Race and Ethnicity, 2000 to 2010**



Source: Census Bureau

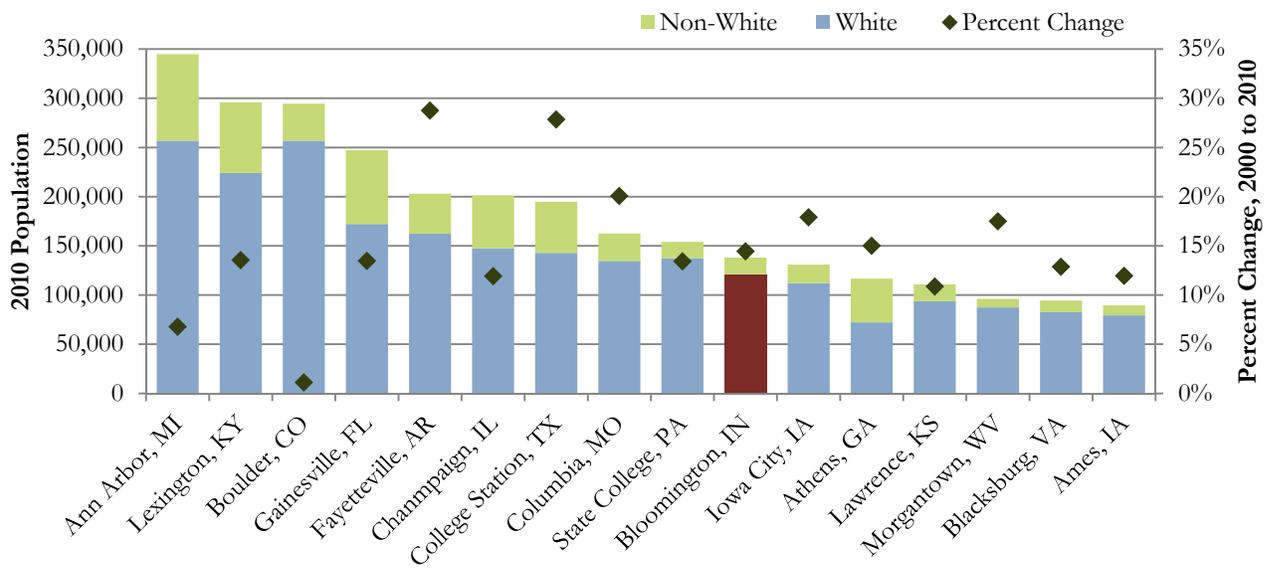
<sup>1</sup> The term Hispanic refers to an ethnicity and not a race, so Hispanic residents may be of any race. The figures reported for specific race groups exclude the Hispanic residents of that race. Therefore, figures for Monroe County’s white population, for example, refer to non-Hispanic white residents.

## Bloomington in Perspective: Population Change

Among the communities in the national peer set, Bloomington had the 10<sup>th</sup> largest population (see **Figure 5**). Meanwhile, Bloomington’s 14 percent growth rate over the decade placed it in the top half of the peer set. The fastest growing communities were Fayetteville, AR (29 percent); College Station, TX (28 percent); and Columbia, MO (20 percent). Two of the larger peers showed the slightest gains as Ann Arbor, MI, grew by 7 percent and Boulder, CO, managed just a 1 percent increase.

Bloomington ranked 13<sup>th</sup> among peers in terms of minorities as a share of total population. Only Ames, IA; State College, PA; and Morgantown, WV, were less diverse in 2010. Communities with the greatest minority share were Athens, GA (38 percent); Gainesville, FL (30 percent); and College Station, TX (27 percent).

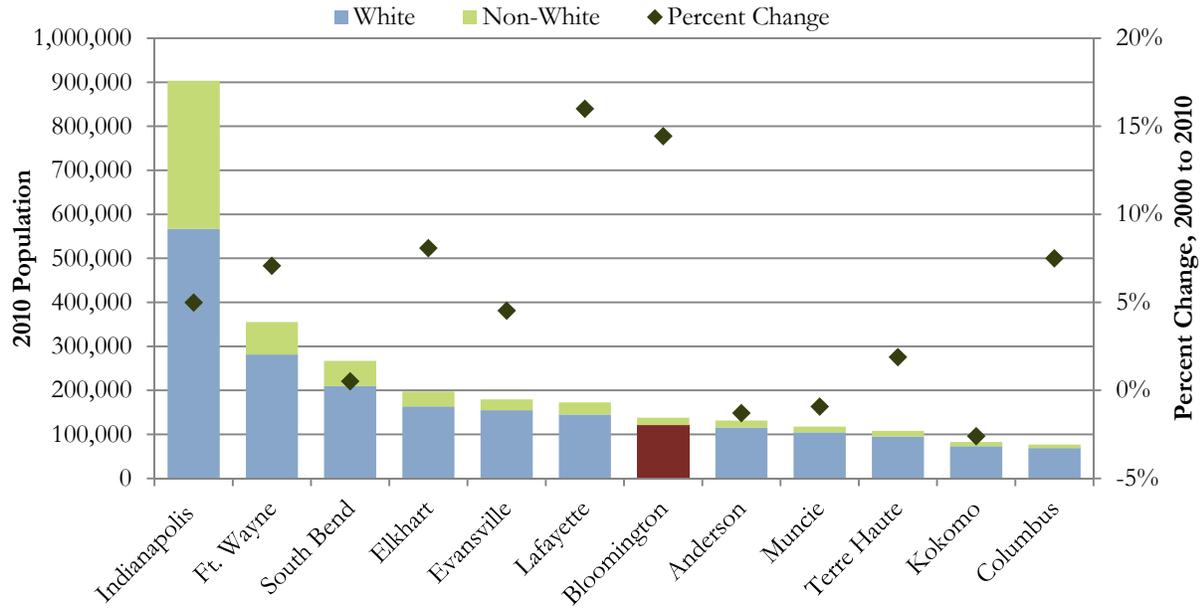
**Figure 5: 2010 Population and Growth Rates, U.S. Peers**



Source: U.S. Census Bureau

With a 16 percent growth rate over the decade, Lafayette was the only Indiana peer that grew more rapidly than Bloomington. These university communities far outpaced others in this set. Elkhart, Columbus and Fort Wayne were the next fastest growing peers, each posting increases between 7 percent and 8 percent. As a sign of industrial decline in many parts of the state, Anderson, Kokomo and Muncie lost population over the decade, while South Bend had only a slight increase.

**Figure 6: 2010 Population and Growth Rates, Indiana Peers**



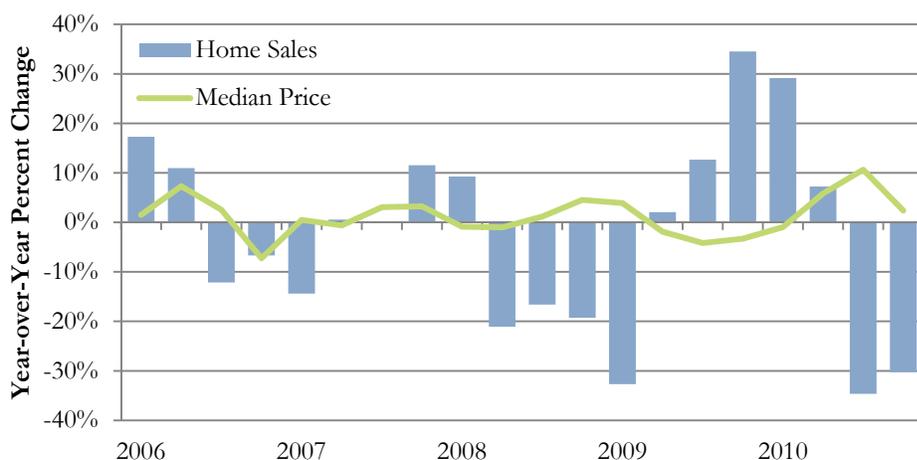
Source: U.S. Census Bureau

# Housing

The well-publicized housing crash that began in late 2007 certainly had a notable impact on home sales in Monroe County but less of an effect on home prices. **Figure 7** traces the year-over-year quarterly shifts in the number of home sales in the county and median sales price. Home sales declined dramatically for four consecutive quarters beginning in early 2008, culminating in a 33 percent decline year-over-year in the first quarter of 2009. Over much of this same period, however, the county's median home sales price held steady even as prices elsewhere in the state and country were plummeting. In fact, Indiana's median sales price declined in nine straight quarters between mid-2007 and late 2009.

Monroe County's home sales began to rebound in the second quarter of 2009 as the federal homebuyer tax credit programs coaxed more buyers to the market. Interestingly, it was over this same period that the county saw its only sustained period of price declines in recent years, suggesting that the tax credits helped to move more low-end homes as first-time homebuyers entered the market in greater numbers. After the June 2010 tax credit deadline, however, Monroe County home sales in the third and fourth quarters dropped to six-year lows year-over-year. Looking at annual data, Monroe County's 2010 home sales tally was 12 percent below the 2009 mark and 22 percent lower than the 2006 peak.

**Figure 7: Change in Monroe County Home Sales and Median Sales Price, 2005:1 to 2010:4**



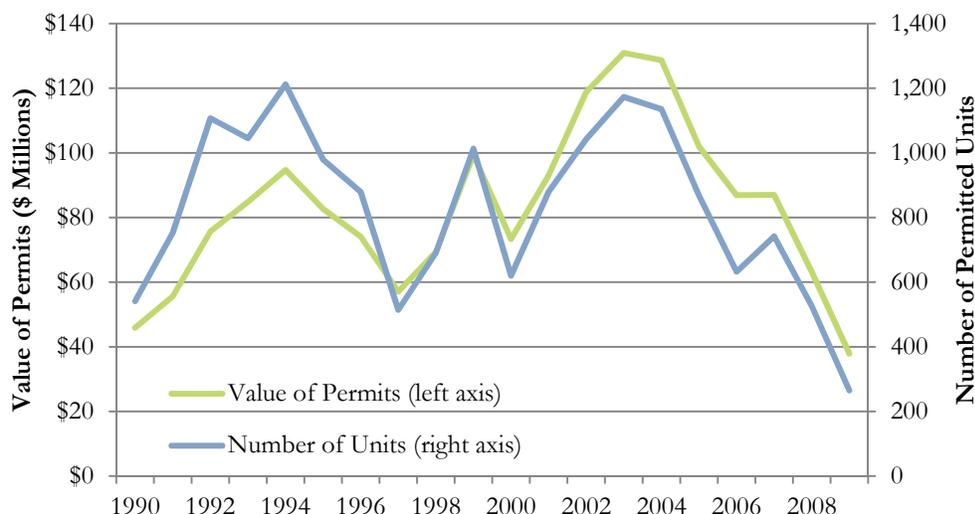
Source: IBRC using Indiana Association of Realtors data

Home sales have dropped in Greene and Owen Counties as well. According to Indiana Association of Realtor data, Greene County sales declined each year between 2005 and 2010. The county's 125 home sales in 2010 were 3 percent lower than 2009 and 33 percent below its 2005 mark. Sales in Owen County dropped each year from 2006 to 2009 before increasing by 8 percent in 2010. In terms of prices, Greene County's median sales price improved by 5 percent between 2009 and 2010, while Owen County's dropped by nearly 7 percent.

The housing bust has also had a serious impact on construction. Monroe County residential building permits—measured by both the number of units and their nominal value—hit 20-year lows in 2009 (see **Figure 8**). Local construction activity surged between 2001 and 2004 before beginning a sharp slide in 2005.

In fact, more units were added to the Monroe County market between 2002 and 2004 (3,350) than were added in the five years that followed (3,030).

**Figure 8: Annual Number of Permitted Units and Value of Permits, Monroe County, 1990 to 2009**



Source: U.S. Census Bureau

Like many communities with a large student population, Monroe County has a relatively low rate of home ownership. Of the county’s estimated 53,900 occupied housing units in 2009, only 53 percent were owner-occupied compared to 70 percent for Indiana and 66 percent nationally. Monroe County’s 2009 median home value, as determined by the U.S. Census Bureau, was \$148,200. The local home value is considerably higher than the Indiana mark of \$123,100 but well below the national median of \$185,200. The median home value for the Bloomington MSA was \$121,600.

## Bloomington in Perspective: Housing Affordability and Foreclosure

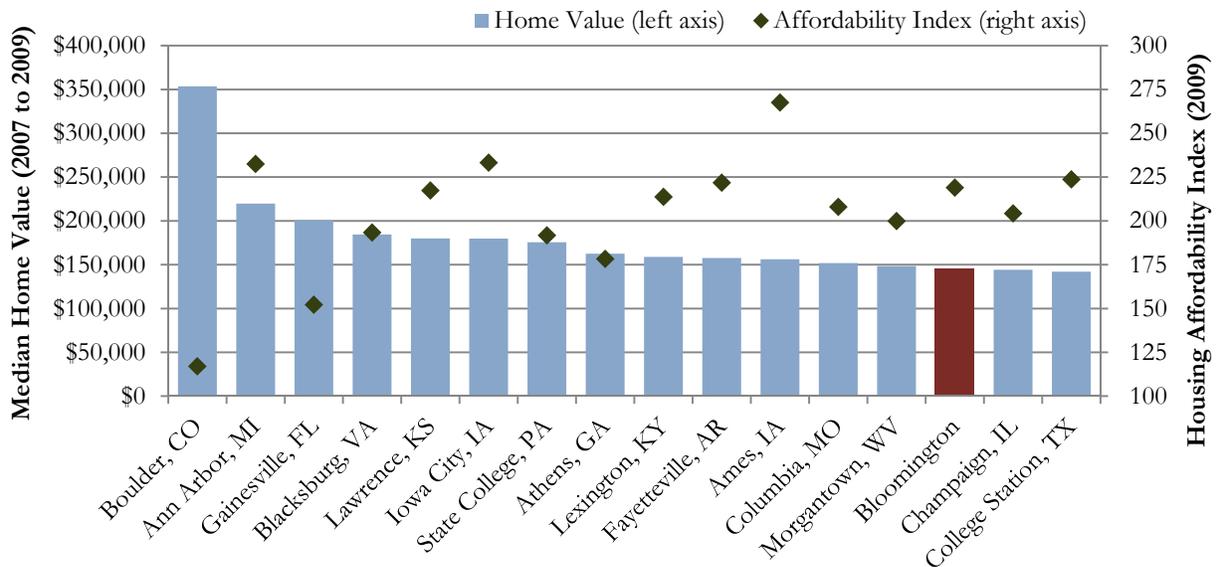
Boulder, CO; Ann Arbor, MI; and Gainesville, FL, were the only national peers with a median home value greater than the U.S. average. Bloomington’s mark ranked among the lowest in this set (see **Figure 9**).

An analysis of home values is more meaningful when considered along with the typical incomes in a given area. 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 (not the median value of housing stock), median family income and effective interest rates. Index values are calibrated to 100, meaning that in a community with a value of 100, the typical family income is just enough to qualify for an 80 percent mortgage on the median-priced home. The higher the index value, the more affordable is the housing. (See the appendix for a more complete description of the Moody’s Economy.com housing affordability index.)

By this measure, housing in Bloomington is the sixth most affordable of any of the national peers with an index value of 219. This number can be interpreted to mean that in 2009, Bloomington’s median family income was more than twice the income needed to qualify for a mortgage on the median-priced home.

The Iowa communities of Ames and Iowa City had the most affordable housing among the peers, followed by Ann Arbor, MI, and College Station, TX. Given the extremely high price of housing in the Boulder area, this community had the lowest affordability score, followed by Gainesville, FL.

**Figure 9: Median Home Value and Housing Affordability Index, U.S. Peers**



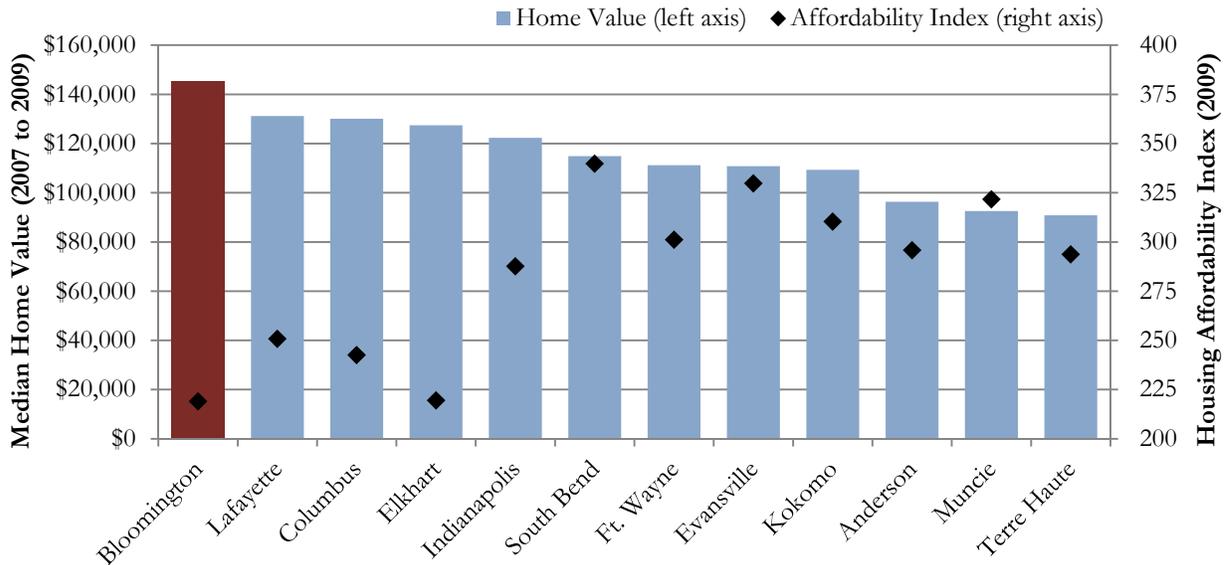
Note: The difference in home value estimates for Bloomington, Morgantown, Champaign and College Station are not statistically significant at a 90 percent confidence level.

Source: U.S. Census Bureau, 2009 American Community Survey 3-year estimates; Moody's Economy.com

In sharp contrast to its standing among national counterparts, Bloomington has the highest median home value among the Indiana peer set (see **Figure 10**). Looking at three-year estimates covering 2007 to 2009, the Bloomington median value is roughly \$14,000 higher than second-ranked Lafayette. Terre Haute, Muncie and Anderson had the lowest values with each below \$100,000.

Based on the Moody’s index, housing in all Indiana peer communities is affordable. Bloomington and Elkhart had the lowest scores, each at 219. Lafayette and Columbus were both around the 250 level while all the remaining peers approached or exceeded the 300 mark, meaning that median family incomes in these communities were roughly three times the amount generally needed to afford the median-priced home. At the state level, Indiana had the third most affordable housing in the country in 2009 according to this same measure.

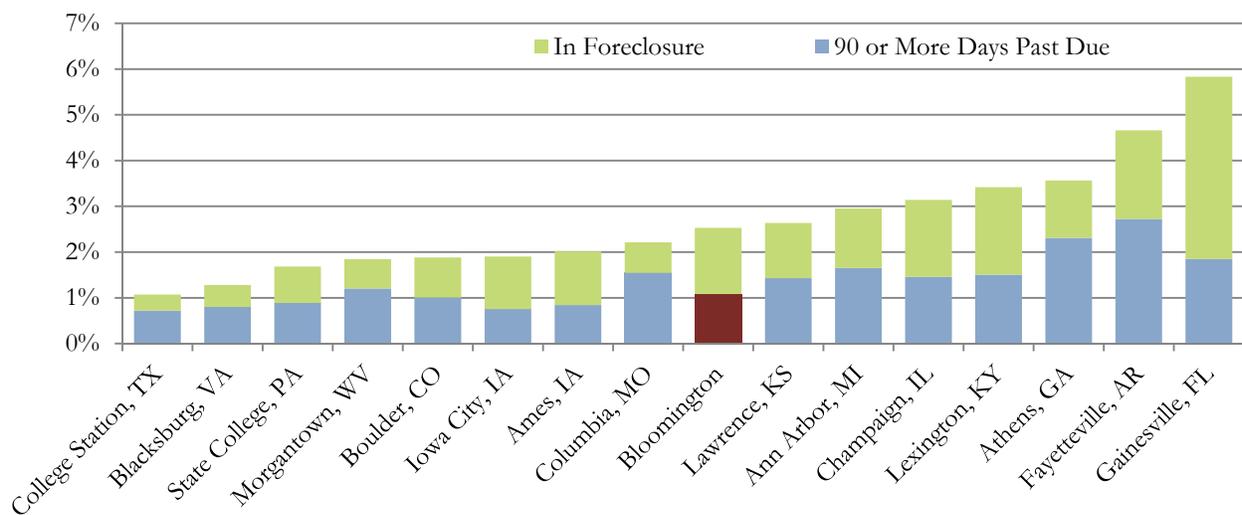
**Figure 10: Median Home Value and Housing Affordability Index, Indiana Peers**



Source: U.S. Census Bureau, 2009 American Community Survey 3-year estimates; Moody's Economy.com

Most of the national peer set appears to have dodged the foreclosure crisis that has swept much of the country (see **Figure 11**). As of October 2010, only Gainesville, FL, approached the U.S. mark of 6.1 percent of prime mortgages in serious delinquency (e.g., 90 or more days overdue or in foreclosure). Florida has headlined the foreclosure crisis, so Gainesville's rate is quite low for that state. Bloomington placed in the middle of the pack with 1.5 percent of prime mortgages in foreclosure and another 1 percent at least 90 days past due.

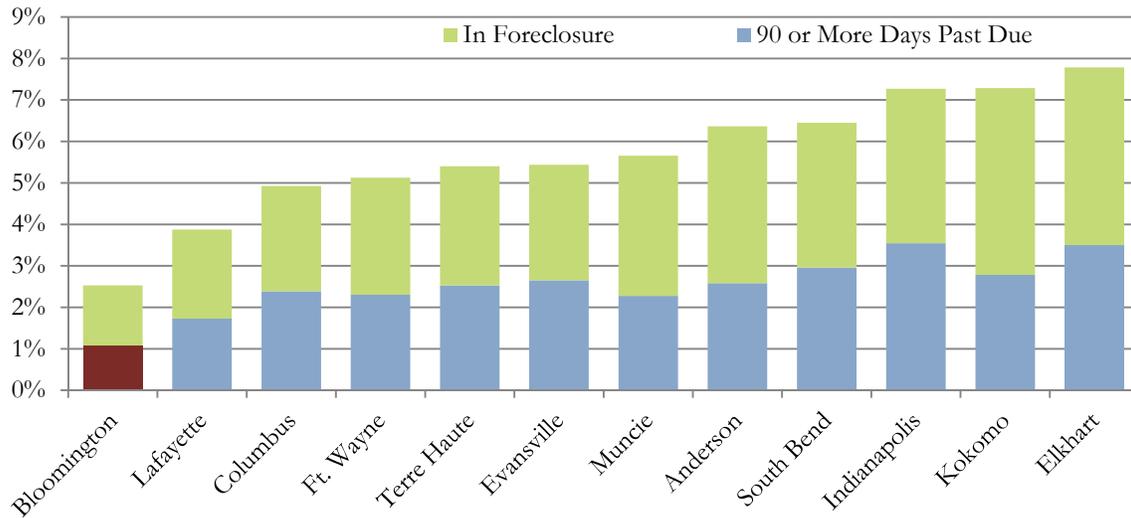
**Figure 11: Share of Prime Mortgages That Were Seriously Delinquent, U.S. Peers, October 2010**



Source: Federal Reserve Bank of New York

The housing crash and ensuing recession have also hit Hoosier homeowners hard. The state's October 2010 serious delinquency rate of 6.1 percent for prime mortgages ranked 13<sup>th</sup> among states and was identical to the U.S. rate. As **Figure 12** shows, Bloomington places well below all other state peers on this measure at less than half of the state's rate.<sup>2</sup>

**Figure 12: Share of Prime Mortgages That Are Seriously Delinquent, Indiana Peers, October 2010**



Source: Federal Reserve Bank of New York

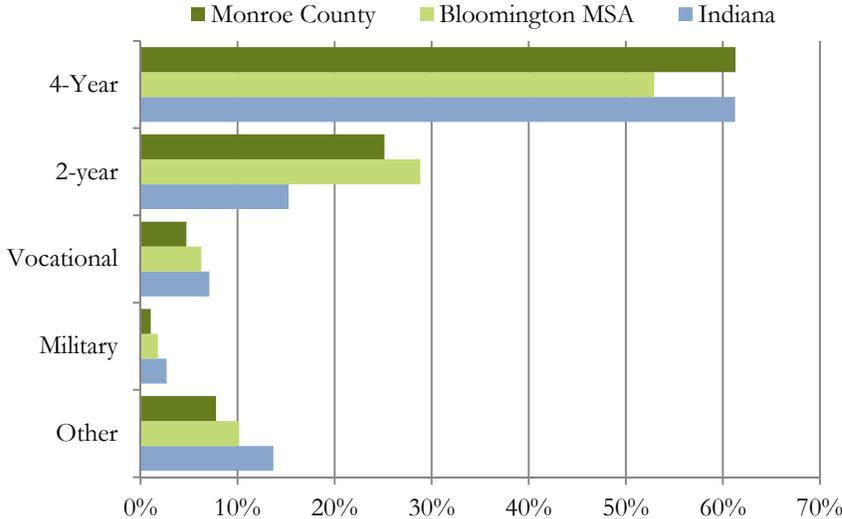
<sup>2</sup> Delinquency rates differ depending on the type of mortgage. For instance, delinquency rates for FHA and VA loans tend to be higher than for prime loans, while mortgages owned by Fannie Mae and Freddie Mac often have lower rates. Of course, subprime mortgages are the most likely to be delinquent or face foreclosure. According to the Mortgage Bankers Association, 25 percent of Indiana's subprime mortgages were seriously delinquent in the fourth quarter of 2010 compared to 27 percent nationally. Unfortunately, data on subprime mortgages at the county level are unavailable.

# Education

As the home of the state’s largest university, it is fitting that Monroe County excels in a variety of education indicators. For instance, the Monroe County School Corporation consistently ranks among the state’s top 15 school corporations for average SAT scores, and Richland-Bean Blossom Community School Corporation routinely places in the top half of corporations for this measure. Additionally, the latest five-year estimates from the American Community Survey show that 40 percent of Monroe County’s adult population has a bachelor’s degree or higher, ranking second in the state behind Hamilton County and in the top 3 percent of counties nationally.

**Figure 13** indicates that 61 percent of Monroe County’s high school graduates between 2006 and 2008 planned to pursue a higher education at a four-year institution, the same share as for all Indiana graduates. Another 25 percent of Monroe County graduates planned to attend a two-year institution while Indiana graduates as a whole were more likely to enroll in a vocational school, join the military or enter the labor force. The local numbers shift somewhat when looking at the Bloomington MSA. High School graduates in Greene and Owen counties were nearly as likely to pursue a two-year degree as the four-year option. When compared to Monroe County and the state, these students were also more likely to look towards vocational school or the military.

**Figure 13: Intentions of High School Graduates, 2006 to 2008**



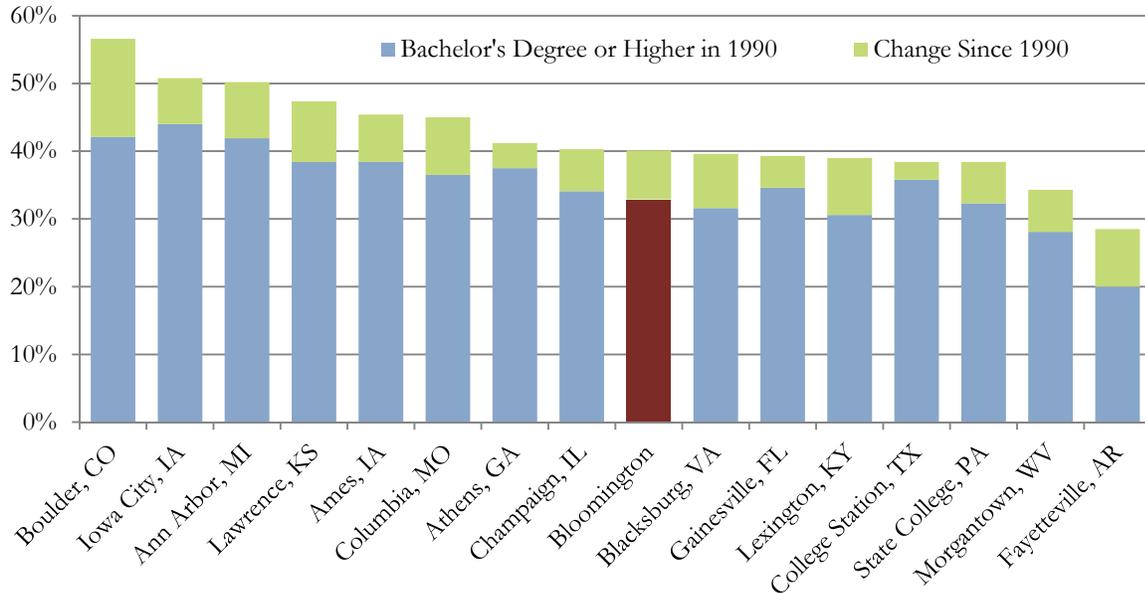
Source: Indiana Department of Education

## Bloomington in Perspective: Educational Attainment

Each of Bloomington’s national peers is also home to a major university. Accordingly, each community rates above the national average of 27.5 percent of adults with a bachelor’s degree or higher. Boulder, CO; Iowa City and Ann Arbor, MI, each have B.A. attainment levels above 50 percent to lead the peer set. Boulder also led this group with a 14.5 percentage point increase in B.A. attainment between 1990 and the 2005 to 2009

period. Bloomington placed in the middle of the pack in both B.A. attainment (40 percent) and percentage-point increase in attainment since 1990 (7.2).

**Figure 14: Educational Attainment: Adult Population with a B.A. or Higher, U.S. Peers, 2005 to 2009**

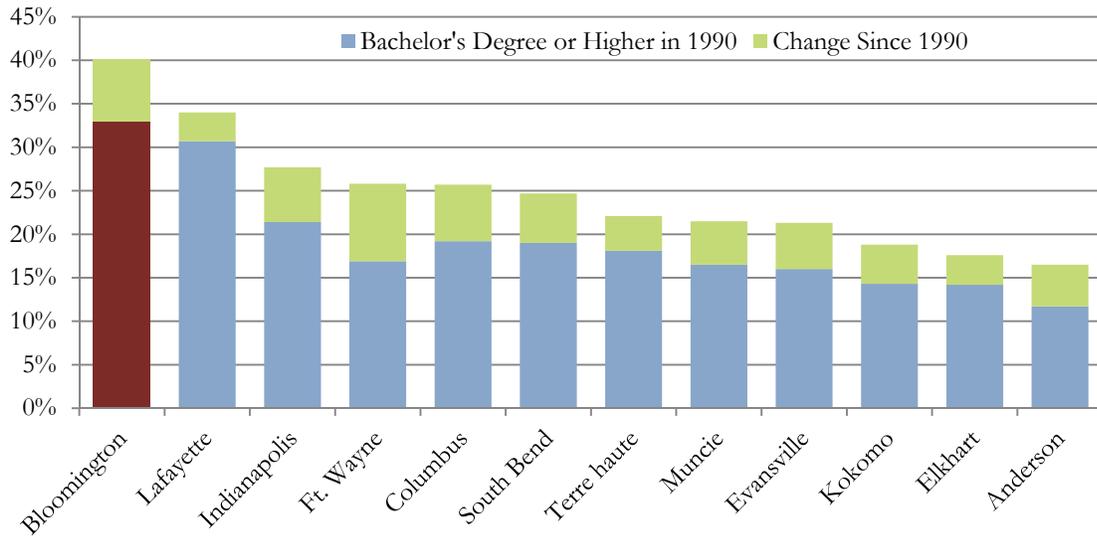


Note: The differences in 2005 to 2009 educational attainment estimates for Bloomington compared to Athens, Champaign, Blacksburg, Gainesville, Lexington and College Station are not statistically significant at a 90 percent confidence level.

Source: U.S. Census Bureau, 2009 American Community Survey 5-year estimates and 1990 Decennial Census

Bloomington ranks well ahead of its Indiana peers in terms of B.A. attainment, with Lafayette (34 percent) being the only other state peer to eclipse the 30 percent mark. Five peers have attainments below the state average of 21.9 percent: Muncie (21.5 percent), Evansville (21.3 percent), Kokomo (18.8 percent), Elkhart (17.6 percent) and Anderson (16.5 percent). Bloomington was second to Fort Wayne's 8.9 percentage point increase in attainment from the 1990s to the 2005 to 2009 period.

**Figure 15: Educational Attainment: Adult Population with a B.A. or Higher, Indiana Peers, 2005 to 2009**



Source: U.S. Census Bureau, 2009 American Community Survey 5-year estimates and 1990 Decennial Census

# Employment

Monroe County was home to 84,000 jobs in 2009 (see **Table 1**). The county added an average of 800 new jobs each year between 2001 and 2009, a 1 percent average annual rate of growth. Like most of the country, however, the county shed jobs during the recent recession, declining by an average annual rate of two-tenths of a percent between 2007 and 2009. The private sector added jobs at a slower rate than the public sector between 2001 and 2009; during the recession, the private sector lost jobs while employment in the public sector grew significantly.

**Table 1: Monroe County Employment by Sector, 2009**

	2009 Employment	Percent of Total	Average Annual Rate of Change, 2001 to 2009	Average Annual Rate of Change, 2007 to 2009
<b>Total employment</b>	<b>84,053</b>	<b>100%</b>	<b>1.0%</b>	<b>-0.2%</b>
<b>Private employment</b>	<b>60,972</b>	<b>72.0%</b>	<b>0.7%</b>	<b>-1.0%</b>
Government	23,081	27.5%	2.0%	2.1%
Health care and social assistance	9,156	10.9%	2.3%	2.8%
Retail trade	8,145	9.7%	-0.9%	-2.7%
Accommodation and food services	7,231	8.6%	1.3%	1.7%
Manufacturing	6,990	8.3%	-1.8%	-3.2%
Other services	4,409	5.2%	0.3%	-0.7%
Professional, scientific, technical services	3,832	4.6%	1.5%	3.0%
Administrative and waste services	3,641	4.3%	0.7%	-9.4%
Construction	3,599	4.3%	-1.0%	-8.0%
Real estate and rental and leasing	2,978	3.5%	2.1%	-2.0%
Finance and insurance	2,208	2.6%	3.8%	5.9%
Wholesale trade	1,731	2.1%	-1.0%	-4.7%
Information	1,574	1.9%	1.0%	NA
Arts, entertainment, and recreation	1,545	1.8%	2.9%	1.7%
Educational services (private)	1,342	1.6%	6.0%	-1.2%
Transportation and warehousing	1,014	1.2%	0.7%	-3.6%
Farming, forestry & fishing	586	0.7%	-3.6%	-0.8%
Utilities	349	0.4%	2.5%	4.2%
Mining	325	0.4%	2.5%	NA
Management of companies & enterprises	317	0.4%	2.7%	3.3%

Note: Employment figures include both payroll employees and the self-employed.

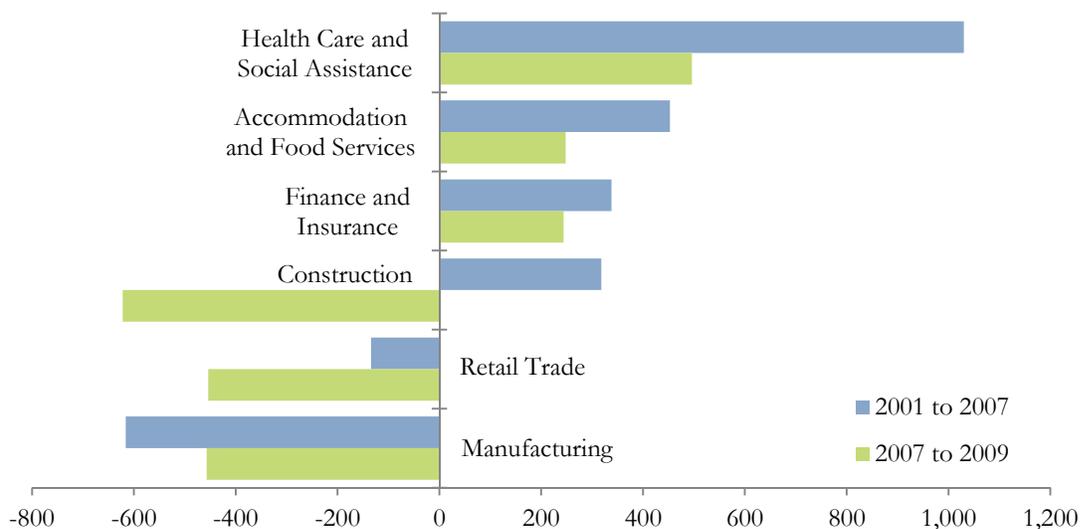
Source: Bureau of Economic Analysis

In all, 65 percent of Monroe County employment is concentrated in five industries: government, health care and social services, retail trade, accommodation and food service, and manufacturing. The government and

health care industries showed strong employment growth between 2001 and 2009 and job gains accelerated during the recession. Meanwhile, Monroe County’s manufacturing employment declined by an average annual rate of nearly 2 percent over much of the decade. Not surprisingly, the pace of manufacturing losses quickened during the recession.

Retail trade was another large industry in the county with employment declines (see **Figure 16**). This industry lost roughly 130 jobs between 2001 and 2007 and then shed another 450 jobs during the recession. Manufacturing employment dropped by nearly 1,100 over the eight-year period, with roughly 60 percent of these losses coming prior to the recession. The construction industry registered the third-largest employment decline between 2001 and 2009 even though this industry added jobs up through 2007. In terms of employment gains, the health care industry (1,500 new jobs), accommodation and food services (700 jobs), and finance and insurance (600 jobs) posted the largest increases between 2001 and 2009.

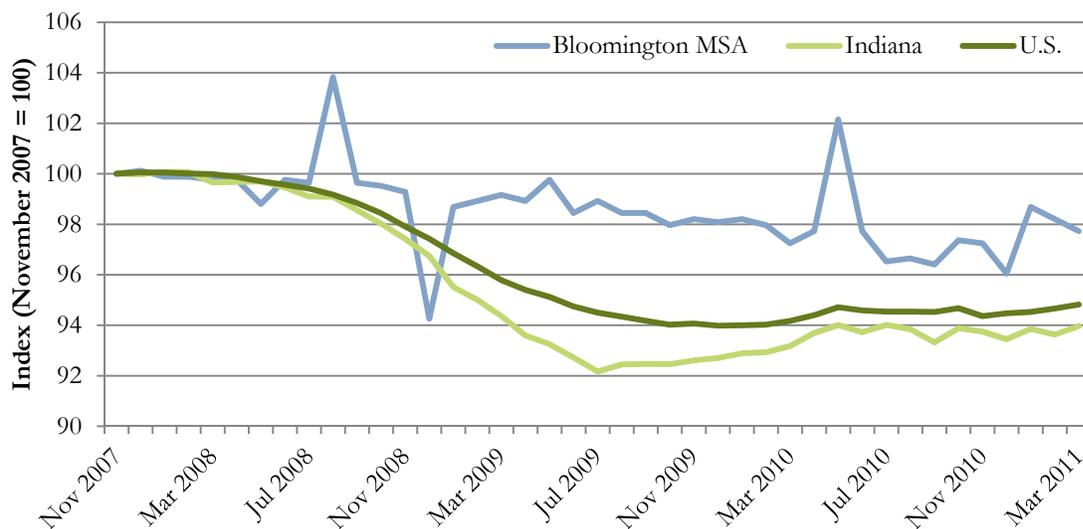
**Figure 16: Monroe County's Largest Employment Gains and Losses by Sector, 2001 to 2009**



Source: Bureau of Economic Analysis

The annual employment data examined thus far run through 2009 but we know much has changed since then. **Figure 17** details employment change in the Bloomington metro area through the economic downturn and the early stages of recovery. Outside of a few anomalous spikes (both positive and negative), the broad trend shows that the Bloomington area fared better over this period than did Indiana or the nation. One area of potential concern is that the Bloomington area has yet to show signs of a steady employment recovery, while data for Indiana and the U.S. indicate very modest yet sustained rebounds since at least March 2010. That said, employment in the Bloomington metro area did jump in January of this year and remains just 2 percent off of pre-recession levels. By contrast, employment levels in Indiana and the U.S. are both more than 5 percent below their November 2007 mark.

**Figure 17: Relative Monthly Employment Change, November 2007 to March 2011 (seasonally adjusted)**



Note: Seasonally adjusted monthly employment data are not available at the county level  
 Source: Bureau of Labor Statistics

As noted previously, government employment dominates the Bloomington economy. Public entities such as Indiana University, two school corporations and local government account for more than one of every four jobs in the county. That said, several other industries play a large role. The local health care and social services sector employs more than 9,000 and has grown each year. Manufacturing was once Bloomington’s largest sector but it has been in decline, as it has statewide and around the country. Despite this broad trend, Bloomington is home to many strong manufacturers that operate in dynamic industries. Chief among these are the local medical device and pharmaceutical manufacturers.

For this reason, it is useful to look beyond traditional sectors and examine industry clusters. An industry cluster includes a collection of firms from a variety of industries that are concentrated around a common activity. Take the life sciences as an example. A life science cluster would include companies engaged in specific types of manufacturing, research and development, logistics, and much more. Successful clusters should concentrate labor and talent, foster innovation and entrepreneurship, and attract similarly focused companies.

For this study, three industry clusters were examined: life sciences, information technology (IT), and travel and tourism. Each cluster is analyzed using location quotients (LQs), an indicator of industry specialization that compares, in this instance, the share of local employment accounted for by a particular sector or cluster to the share of total employment in that same sector or cluster nationally. A local industry with an LQ of 1.0 would have a share of total employment identical to the national average. A local industry with an LQ of 1.2 would have a 20 percent greater share of employment than its share nationally, which would indicate a degree of specialization.<sup>3</sup> Thus, the higher the LQ, the more concentrated an industry or cluster is in the local area

<sup>3</sup> For instance, if the retail sector accounted for 12 percent of workers locally but 10 percent nationally, its local LQ would equal 12/10, or 1.2.

relative to the national average. We include the total manufacturing sector in this analysis as well in order to provide insights into this important sector.

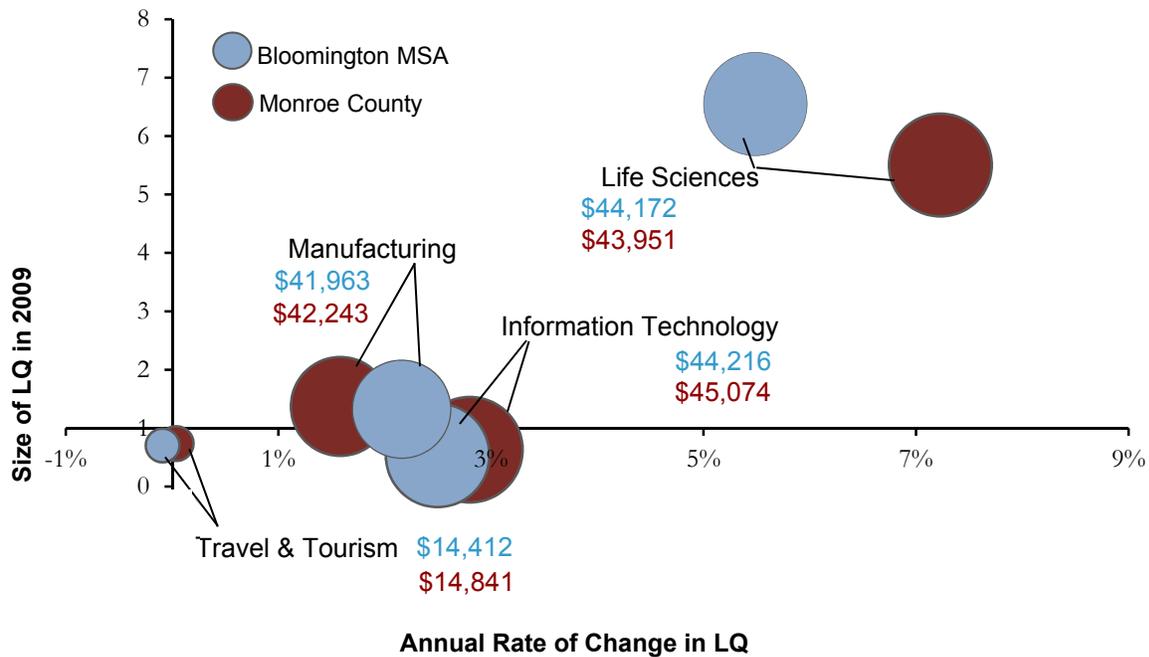
**Figure 18** displays local LQs in 2009 for these three clusters and one sector as well as their average annual change in LQ since 2001 for both Monroe County and the Bloomington MSA. The size of each “bubble” refers to the average wage per job of the cluster or sector. Bubbles centered above the x-axis represent local industry specialization, while those below it are less specialized locally. Those to the right of the y-axis have LQs that are growing over time—that is, those clusters or sectors are becoming relatively more concentrated.

At first glance, the activity in the life sciences cluster stands out. Monroe County and the Bloomington MSA have LQs of 5.5 and 6.6, respectively—that is, about six times the average concentration nationally. Additionally, the county’s LQ has increased by a rate of more than 7 percent per year since 2001 indicating that the local cluster has become more specialized. Monroe County’s employment total in the life sciences more than doubled between 2001 and 2009 to reach 3,800 jobs. By contrast, employment in this cluster nationally increased by 10 percent over the same period.

The one chink in the armor is that the average annual wage per job in the local life science cluster is barely half of the \$87,000 national average. This discrepancy reflects the dominance in the local life sciences cluster of production employment (92 percent of Monroe County’s life science employment is in manufacturing industries) rather than the higher-wage research and development jobs. However, these wages are still well above the local average for all employment.

Also noteworthy is Bloomington’s emerging IT cluster. The LQ for both Monroe County and the larger MSA are below one, meaning that this cluster is less concentrated locally. However, the Bloomington area has seen modest employment growth in this cluster at a time when IT employment nationally has declined. As a result, Monroe County’s LQ in this cluster has increased by an annual rate of nearly 3 percent since 2001. The majority of this growth occurred in the manufacturing aspects of this cluster, although IT-related professional services have grown slightly as well. Once again, however, local wages in this cluster are well below the national average of \$86,600.

**Figure 18: Location Quotients and Average Wage per Job for 2009, with Average Annual Change in LQ, 2001 to 2009**



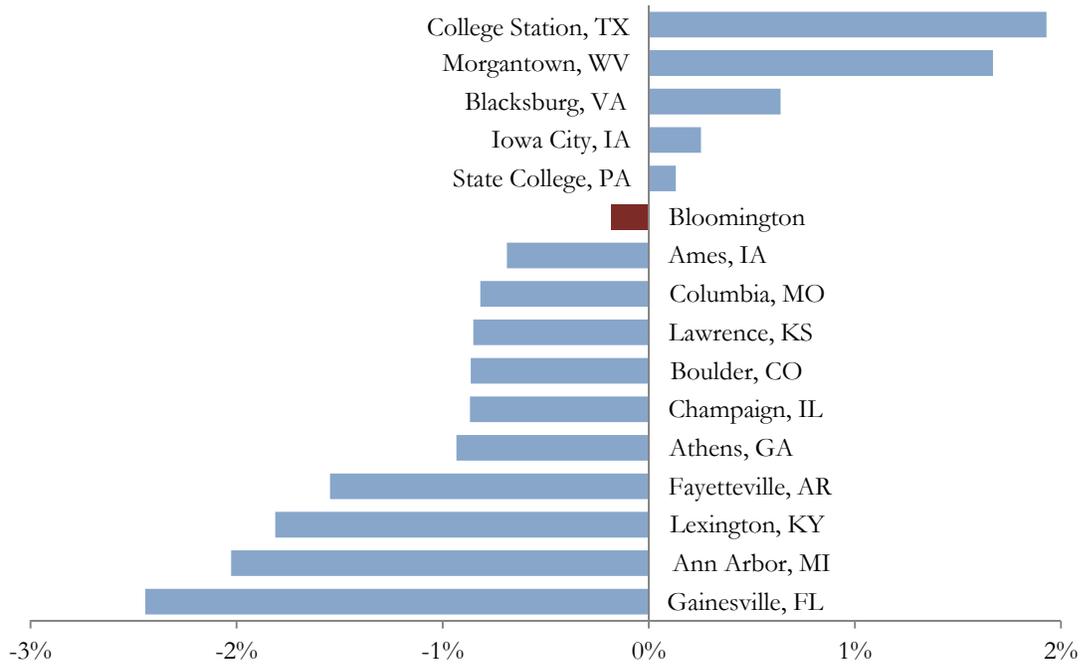
Source: IBRC, using Bureau of Labor Statistics Data

## Bloomington in Perspective: Employment

Bloomington’s 1 percent average annual rate of employment growth between 2001 and 2009 ranked ninth out of the 16 national peers. Growth rates for Morgantown, WV, and College Station, TX, exceeded 2 percent per year over this period, and Athens, GA, and Iowa City were both above 1.5 percent. On the low end, Lawrence, KS; Boulder, CO; and Ann Arbor, MI, each had a negative rate of change.

In terms of its rank among peers during the recent recession, Bloomington fared better—placing sixth—even while losing some jobs (see **Figure 19**). Employment growth in College Station and Morgantown barely missed a beat over this period, and Blacksburg, VA; Iowa City and State College, PA, added jobs as well. Gainesville, FL; Ann Arbor, MI; and Lexington, KY, were the only peers to lose jobs over this period at a greater rate than the U.S. mark of 1.7 percent.

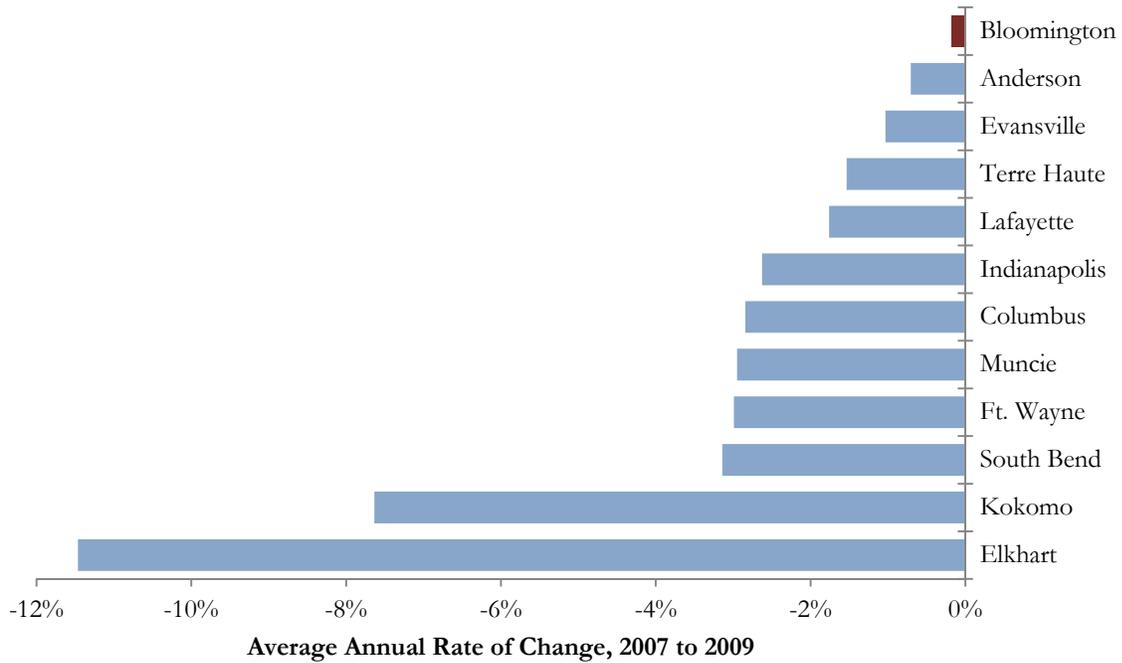
**Figure 19: Average Annual Employment Change, U.S. Peers, 2007 to 2009**



Source: Bureau of Economic Analysis

All of the Indiana peers lost jobs over the recession period. During the recession, few communities around the country were hit any harder than manufacturing-focused Elkhart and Kokomo. In fact, between 2007 and 2009, Elkhart lost 20 percent of its jobs. Employment in Kokomo declined by an average annual rate of nearly 8 percent over the same period. South Bend, Fort Wayne, Muncie and Columbus all lost employment at a greater pace than Indiana’s annual recession rate of -2.8 percent. As **Figure 20** shows, Bloomington’s comparatively slight employment loss during the recession was the top performance among state peers. Bloomington led this peer set in job growth over the 2001 to 2009 period as well.

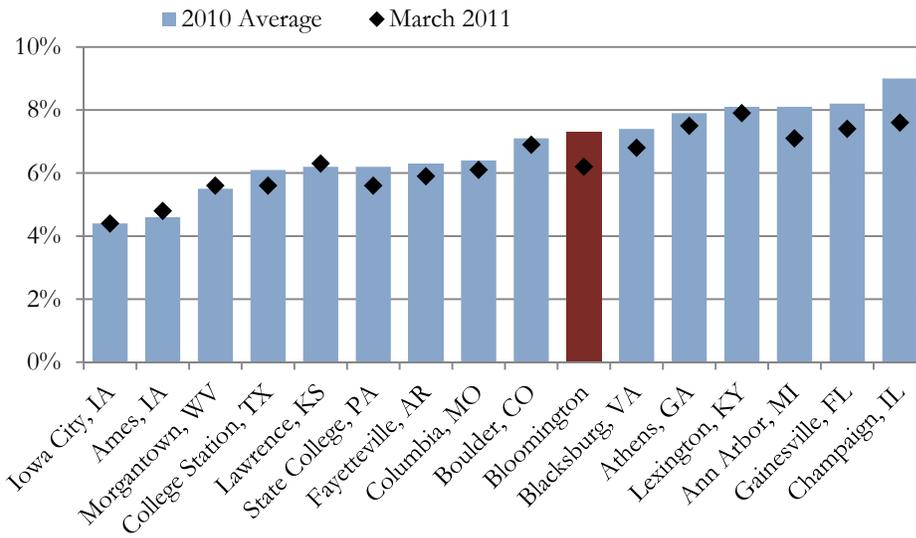
**Figure 20: Average Annual Employment Change, Indiana Peers, 2007 to 2009**



Source: Bureau of Economic Analysis

The national peers have performed relatively well in terms of unemployment with each community below the 2010 U.S. unemployment rate of 9.6 percent. With jobless rates just above 4 percent, the two Iowa peers had the lowest unemployment levels, while Champaign's 9 percent rate was the highest. Bloomington placed 10<sup>th</sup> best in this group with an average unemployment rate of 7.3 percent in 2010. Bloomington's jobless mark stood at 6.2 percent in March 2011.

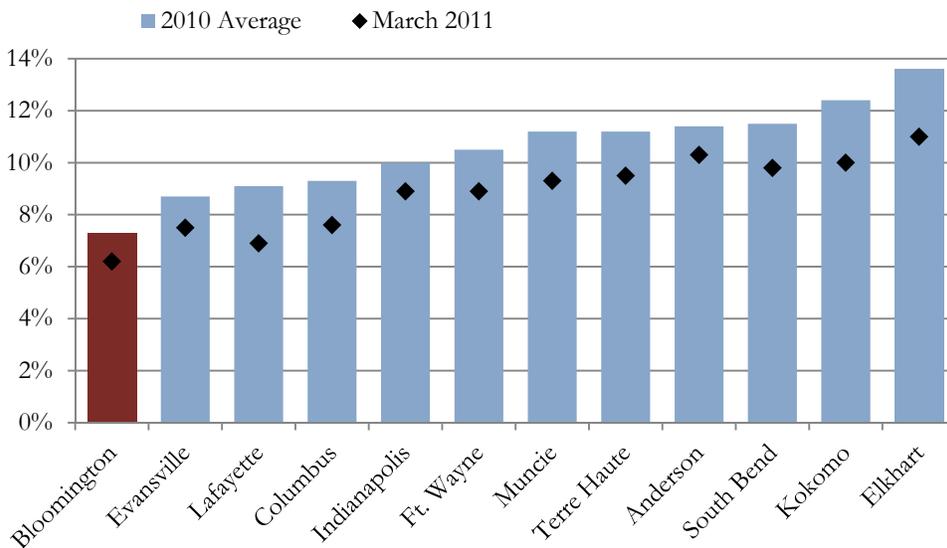
**Figure 21: Unemployment Rates, U.S. Peers, 2010 Average and March 2011**



Source: Bureau of Labor Statistics

As with many other indicators, Bloomington’s middle-of-the-pack performance within the national group is good enough to lead the way among Indiana peers. In 2010, eight local peers had double-digit unemployment rates led by Elkhart at 13.6 percent (see **Figure 22**). Elkhart, Anderson and Kokomo are still at or above the 10 percent mark as of March 2011. Bloomington’s 2010 unemployment rate was 1.4 percentage points better than second-ranked Evansville.

**Figure 22: Unemployment Rates, Indiana Peers, 2010 Average and March 2011**



Source: Bureau of Labor Statistics

# Income

The Bloomington area had an average wage per job of \$34,145 in 2009 (see **Table 2**). This mark represents a 31 percent increase in nominal wages over 10 years. The management of companies and the utilities sector offers the highest wages by a considerable margin but these industries combine to account for less than 1 percent of Monroe County's total employment. Additionally, these are the only local industries whose wages exceed the state average. Monroe County's average wage for all jobs in 2009 was more than \$4,000 below the Indiana mark.

Among Monroe County's largest industries, the average annual wages in health care and social services (\$38,143) and manufacturing (\$42,243) are well above the county average for all jobs, while government wages are a shade below the average for all industries. At the other end of the spectrum, wages in retail trade and accommodation and food service rank among the lowest in the county.

**Table 2: Monroe County Average Wage per Job by Sector, 2009**

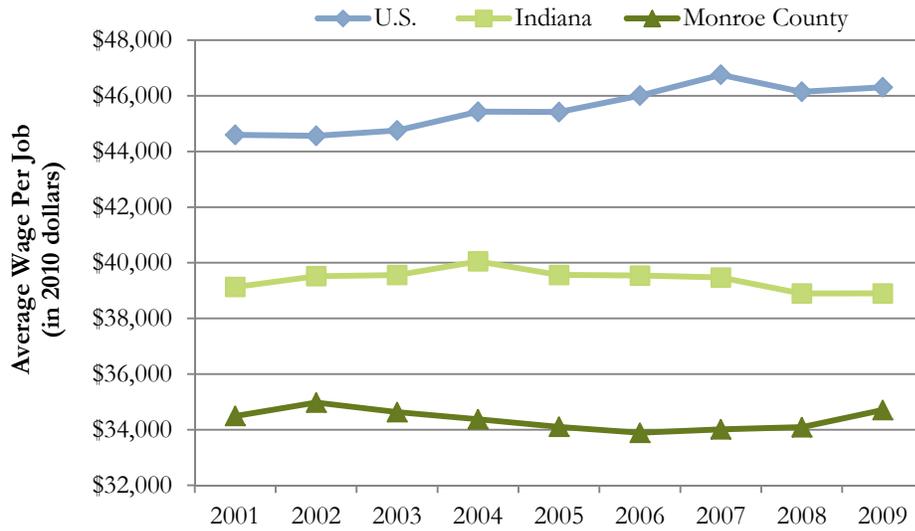
	Average Wage per Job	Percent of Indiana Avg. Wage
Management of Companies and Enterprises	\$131,582	182%
Utilities	\$78,882	110%
Professional, Scientific, and Technical Services	\$50,536	94%
Wholesale Trade	\$43,806	84%
Manufacturing	\$42,243	81%
Construction	\$41,334	88%
Information	\$41,295	95%
Finance and Insurance	\$41,210	79%
Mining	\$38,732	67%
Health Care and Social Services	\$38,143	95%
Transportation & Warehousing	\$37,154	96%
<b>Total Employment</b>	<b>\$34,145</b>	<b>89%</b>
Public Administration (Government)	\$33,602	84%
Educational Services	\$29,981	82%
Real Estate and Rental and Leasing	\$28,002	85%
Other Services(Except Public Administration)	\$24,595	96%
Agriculture, Forestry, Fishing and Hunting	\$23,629	78%
Admin. & Support & Waste Mgt. & Rem. Services	\$23,033	86%
Retail Trade	\$20,381	89%
Arts, Entertainment, and Recreation	\$18,683	66%
Accommodation and Food Services	\$12,361	96%

Source: Bureau of Labor Statistics

Wages in both Monroe County and Indiana trail the U.S. by a considerable margin. The county's average wage per job was roughly \$11,500 below the U.S. mark in 2009. The large supply of student workers may be partly to blame, yet the county also lags in industries that likely do not employ many students. The county's average manufacturing wage, for instance, trailed the U.S. by nearly \$13,000 in 2009. Local health care wages in 2009 fall nearly \$6,000 below the national average.

**Figure 23** indicates that this wage gap has been widening over the past decade. After adjusting for inflation, the U.S. average wage per job increased by \$1,700 between 2001 and 2009. Over the same period, Monroe County's average wage improved by just \$200.

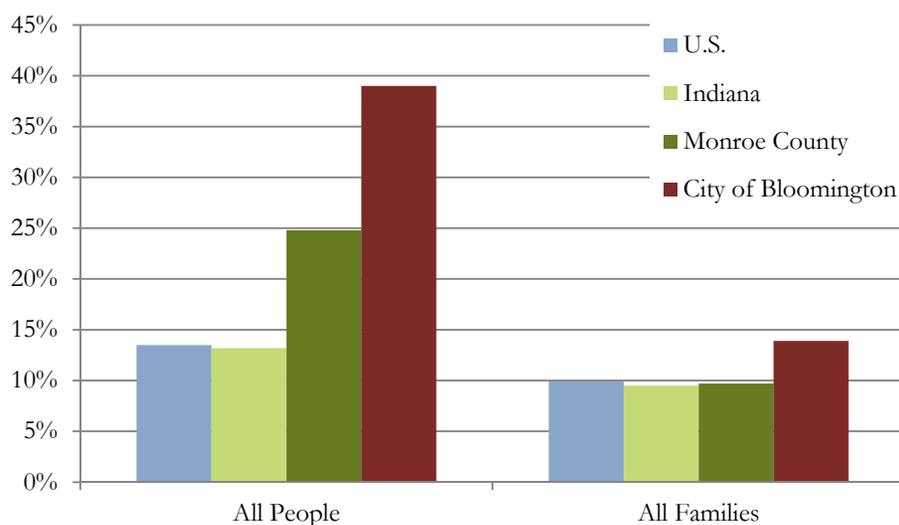
**Figure 23: Average Real Wage per Job, 2001 to 2009**



Source: Bureau of Labor Statistics

One statistic that receives a lot of attention around Bloomington is the local poverty rate, which tends to be alarmingly high. Between 2005 and 2009, the poverty rate for all residents within the City of Bloomington approached 40 percent while the Monroe County rate stood at 25 percent. By comparison, poverty rates for the U.S. and Indiana were both around 13 percent over this period. As **Figure 24** suggests, however, Bloomington’s large student population likely influences these high local rates. When the poverty measurement is restricted to families, the city’s mark drops to 14 percent—just four percentage points above the U.S. and Indiana rates. This rate is still a concern, but it is common to see higher levels of poverty in urban areas. Monroe County’s poverty rate for families was on par with the state and nation.

**Figure 24: Poverty Rates for All Residents and All Families, 2005 to 2009**



Note: The differences in 2005 to 2009 family poverty for Monroe County compared to Indiana and the U.S. are not statistically significant at a 90 percent confidence level.

Source: U.S. Census Bureau, 2009 American Community Survey 5-year estimates

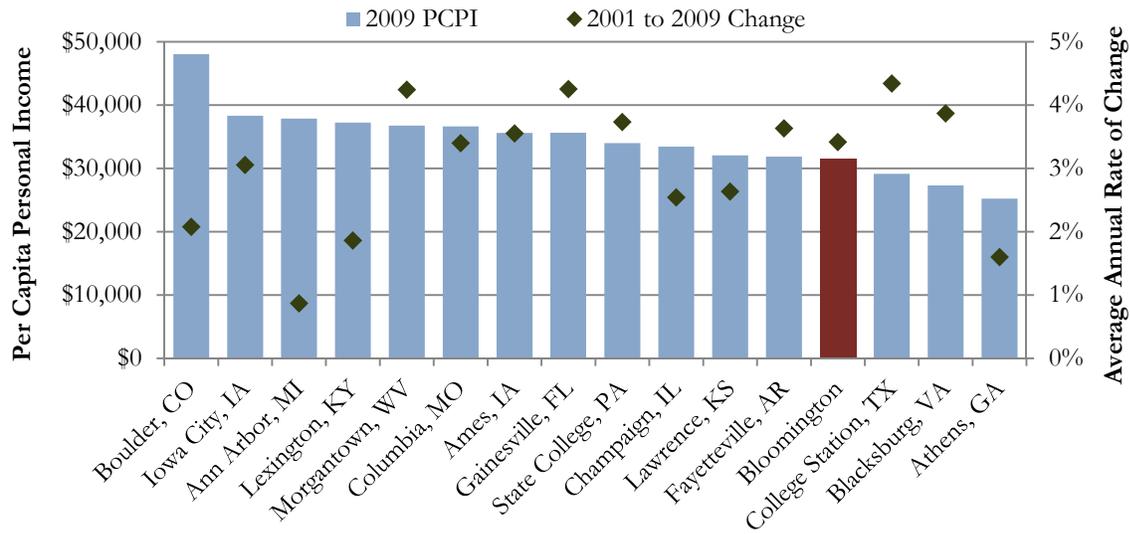
## Bloomington in Perspective: Per Capita Personal Income

The data on wages discussed previously give a sense of how well paid workers are, yet per capita personal income (PCPI) provides a more complete measure of economic well-being. In addition to wages, PCPI includes employer supplements to wages, investment income, government transfer payments, etc.

At \$31,424, Bloomington’s per capita personal income (PCPI) was lower than all but three of its national peers (see **Figure 25**). Boulder, CO, led all peers in this measure with a 2009 PCPI that was nearly \$10,000 greater than second-ranked Iowa City. Boulder has the high cost of living to match this lofty figure. As we saw earlier, the median home value in Boulder was roughly \$130,000 more than any other peer. Bloomington’s home values, meanwhile, ranked among the lowest of the peer set.

Bloomington’s 2009 PCPI is up from \$23,900 in 2001, a 3.4 percent average annual rate of growth. This pace ranked eighth in the peer set. College Station, TX; Gainesville, FL; and Morgantown, WV, led this group with growth rates above 4 percent over this same period.

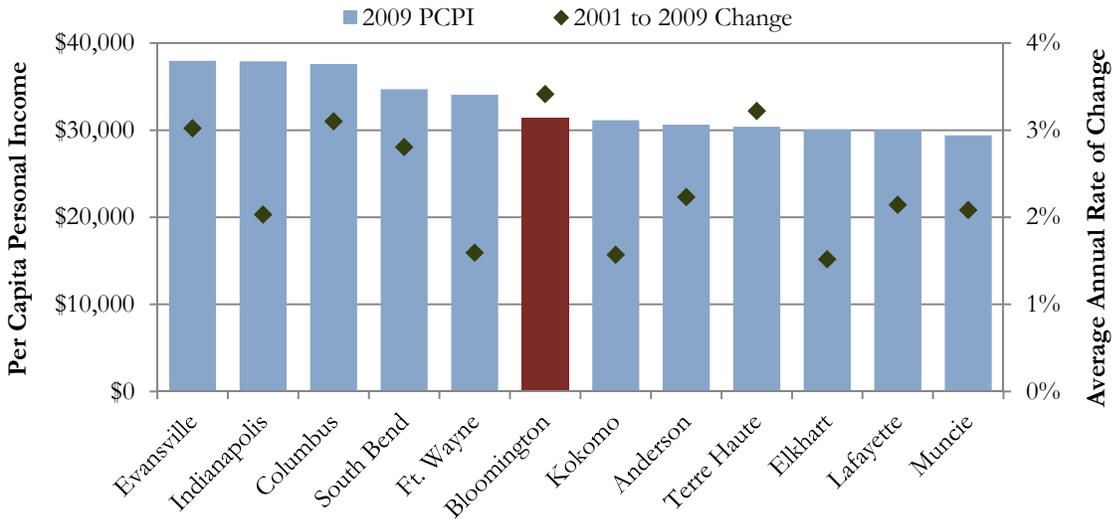
**Figure 25: 2009 PCPI and Annual Rate of Change for 2001 to 2009, U.S. Peers**



Source: Bureau of Economic Analysis

Bloomington’s PCPI growth between 2001 and 2009 led the state peers. Thanks to this comparatively swift income growth, Bloomington’s PCPI rank has improved from dead last among this set in 2003 to sixth in 2009. Indianapolis, Columbus and Evansville each recorded a PCPI above \$37,000 in 2009 to lead the state peers.

**Figure 26: 2009 PCPI and Annual Rate of PCPI Change for 2001 to 2009, Indiana Peers**



Source: Bureau of Economic Analysis

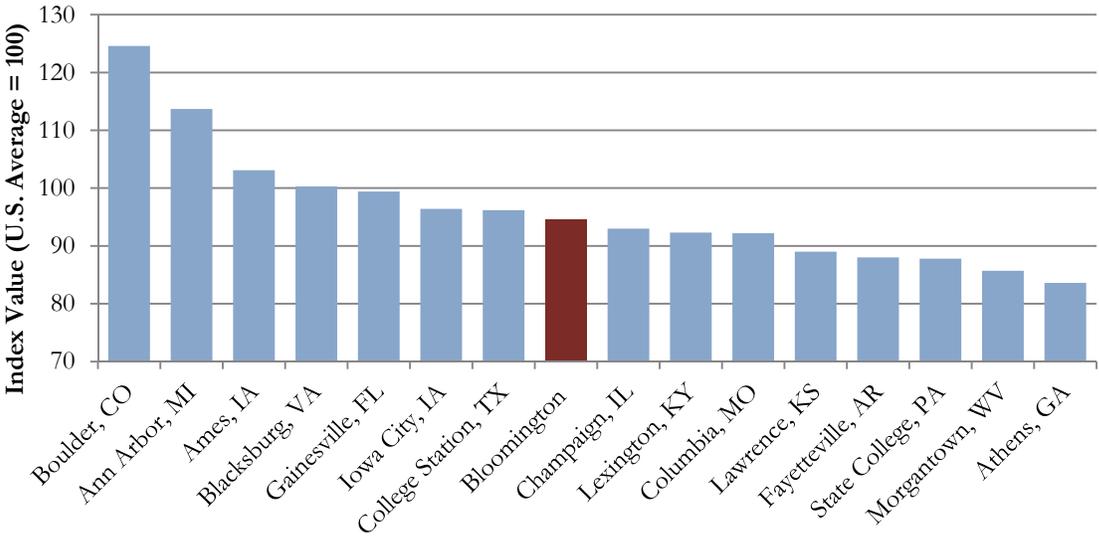
# Innovation

Despite being home to large state universities, only a handful of Bloomington’s national peers feature a local economy that is regarded as innovative (see **Figure 27**). An index value of 100 is equal to the U.S. average.

IBRC researchers developed the county-level Innovation Index presented here for a study conducted for the U.S. Economic Development Administration.<sup>4</sup> The index is a composite of a variety of data variables that measure both the inputs to innovation as well as outputs. The inputs, which can also be thought of as the local capacity for innovation, include measures such as venture capital, broadband penetration, investments in R&D and educational attainment. Outputs can be viewed as the local performance on measures believed to be the by-product of innovative economies. These measures include employment growth in high-tech firms, growth in output per worker, and creation of patents, to name a few. A more complete description of the Innovation Index is found in the appendix.

Bloomington places in the middle of the national peer set and its index score of 95 suggests that the local economy is somewhat less innovative than the U.S. economy. Among peers, only Boulder, CO; Ann Arbor, MI; Ames, IA; and Blacksburg, VA, had innovation scores above the U.S. average.

**Figure 27: Innovation Index, U.S. Peers, 2010**



Source: Indiana Business Research Center

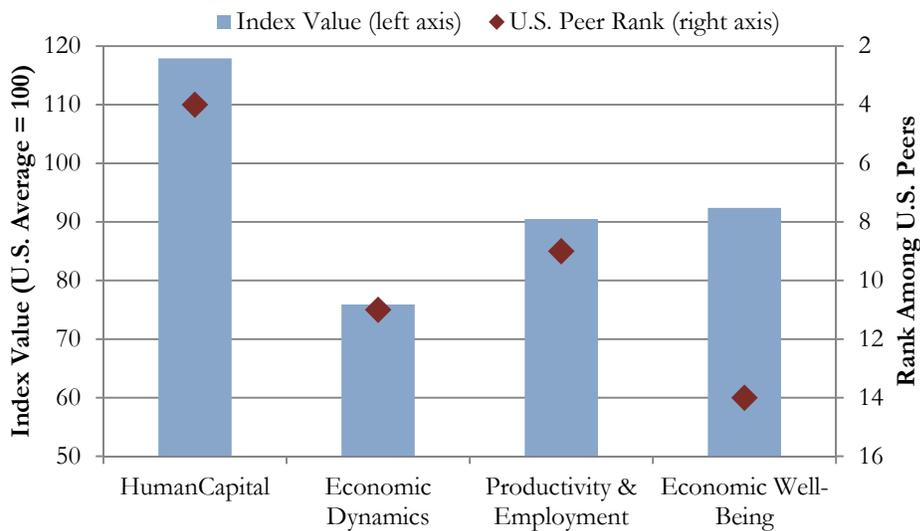
As discussed previously, the data that drive the innovation index are categorized as either inputs to innovation or outputs of innovation. The inputs are further divided into component indices titled “human capital” and “economic dynamism,” which are also individually indexed with the value of 100 again representing the national average. Not surprisingly, Bloomington excels in the human capital measure with an index value of

<sup>4</sup> The report, titled *Crossing the Next Frontier: Information and Analytics Linking Regional Competitiveness to Investment in a Knowledge-Based Economy*, and the index data can be accessed at <http://www.statsamerica.org/innovation/>.

118 (see **Figure 28**). The human capital category includes variables such as working-age population growth, educational attainment and high-tech and knowledge-based employment. In contrast, Bloomington’s economic dynamism score—which includes venture capital and R&D investments, broadband connectivity, and local business characteristics—is quite low at 76. These innovation input values ranked fourth and 11<sup>th</sup> among the peers, respectively.

Innovation outputs are also divided into two sub-indices: “productivity and employment” and “economic well-being.” Productivity and employment includes various measures of economic growth while economic well-being comprises data on poverty, unemployment and incomes. In both these areas, Bloomington had index scores around 90 and ranked in the bottom half of the peer group.

**Figure 28: Monroe County's Innovation Sub-Index Scores, 2010**



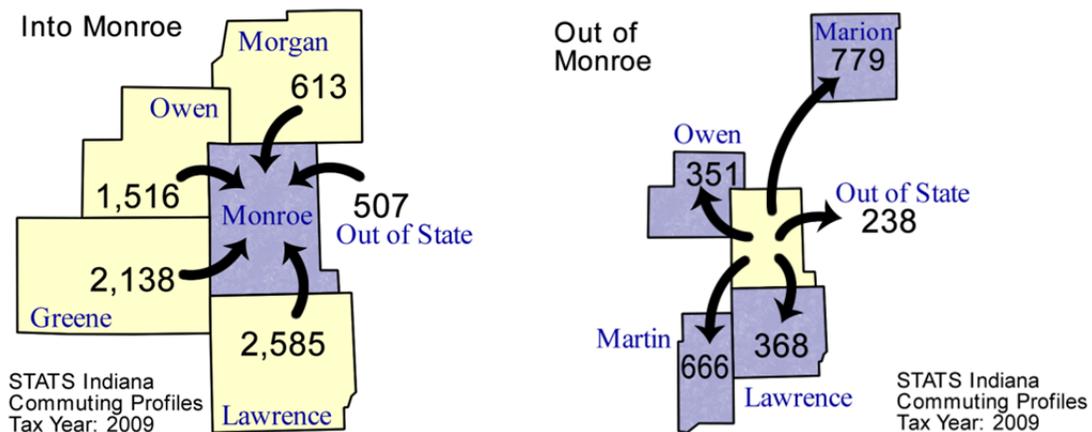
Source: Indiana Business Research Center

# Commuting Patterns

With nearly three times as many in-commuters (11,261) as out-commuters (3,942), Bloomington is a net importer of labor. In fact, commuters account for 18 percent of the local workforce, further proof of Bloomington's status as an important employment hub for south-central Indiana. As a result, a sizeable portion of the earnings generated by Monroe County employers flows to other counties. The U.S. Bureau of Economic Analysis estimates that residents of other counties claimed \$576 million in Monroe County earnings in 2009. This figure represents 17.8 percent of the county's total earnings. This measure has declined steadily since the share of total earnings that flow out of the county stood at 20.4 percent in 2001. When earnings that flow in are considered, Monroe County had a net outflow of earnings equal to 6.5 percent of the county's total in 2009.

Lawrence, Greene and Owen counties accounted for 55 percent of Bloomington's non-resident workforce in 2009 (see **Figure 29**). In terms of out-commuting, 780 Monroe County residents travel to Indianapolis for work. Another 670 Monroe County residents work in Martin County; most are likely engaged in high-wage professional and technical positions related to the Crane Naval Surface Warfare Center.

**Figure 29: Bloomington Area Commuting Patterns, 2009**



# Conclusion

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Since the release of the last Bloomington benchmarking report in 2007, the U.S. has endured a deep recession and sluggish recovery. Few regions of the country have been immune to these economic conditions. Against this backdrop, it is difficult to gauge Bloomington's economic standing. For instance, the county's employment has declined since 2007; however, most national peers—and all Indiana counterparts—shed jobs at a greater rate than Bloomington. We can make similar “it could be worse” statements for unemployment rates, house prices and foreclosures. So while Bloomington did not dodge the recession, it has weathered it comparatively well.

Taking the longer view, we see that Bloomington has enjoyed relatively strong job creation over the past decade. Bloomington's 1 percent annual rate of employment growth between 2001 and 2009 outpaced both the U.S. (0.6 percent) and Indiana (-0.3 percent). Bloomington's strongest sector—health care and social assistance—seems certain to continue its expansion. Furthermore, the rate of job growth in professional and scientific services accelerated during the recession, fueling optimism that this will be another area of strength for the local economy. Even within the declining manufacturing sector, Bloomington's ever-important life science manufacturers continue to expand.

All that said, there are still points of concern. The most glaring are lagging wages and personal income. Bloomington's average wage per job trails the state average in nearly all sectors. Furthermore, the local per capita personal income ranks among the lowest in the national peer set and mid-pack in the state comparison. Additionally, Bloomington's unemployment rate, though well below state and national levels, was relatively high when compared to its U.S. peers. Bloomington ranked poorly in these measures in the 2007 study as well, so these appear to be persistent concerns.

Within these same indicators, however, there are positive signs too. Bloomington's rate of per capita personal income growth ranked as the eighth fastest in the national peer set and first in the state comparison. Additionally, Bloomington's 2010 unemployment rate, though still in the bottom half of the national peer group, placed several spots higher than it did in the 2007 study.

Bloomington also emerges as a leader among its Indiana peers. It registered the lowest unemployment rate, the highest level of educational attainment, the lowest foreclosure rate and the highest owner-occupied home values of its statewide counterparts. Bloomington also had this group's strongest rate of employment growth over the last decade.

All told, these indicators give a sense that the Bloomington area economy is in a solid position. When (or if) the nation's weak economic recovery gathers steam, Bloomington should return to a period of job growth. This is not to suggest that there isn't plenty of work to do locally. Bloomington has the potential to be one of this country's truly dynamic local economies. It is a community with the assets to cultivate a 21<sup>st</sup> century R&D- and service-oriented economy while maintaining a piece of its industrial heritage. Continued efforts to address the area's weaknesses and capitalize on its strengths can help propel Bloomington to new heights.

# Appendix

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## 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. 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

## Industry Cluster NAICS Definitions

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### Information Technology

NAICS 33411: Computer and peripheral equipment mfg.

334210: Telephone apparatus manufacturing

334220: Broadcast and wireless communications equip.

334290: Other communications equipment manufacturing

33441: Semiconductor and electronic component mfg.

334611: Software reproducing

423430: Computer and software merchant wholesalers

NAICS 511210: Software publishers

517110: Wired telecommunications carriers

51721: Wireless telecommunications carriers

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### Information Technology

517310: Telecommunications resellers

517410: Satellite telecommunications

517910: Other telecommunications

518: ISPs, search portals, and data processing

5415: Computer systems design and related services

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### Life Sciences

NAICS 32541: Pharmaceutical and medicine manufacturing

334510: Electromedical apparatus manufacturing

334516: Analytical laboratory instrument mfg.

334517: Irradiation apparatus manufacturing

33911: Medical equipment and supplies manufacturing

423450: Medical equipment merchant wholesalers

541710: Physical, engineering and biological research

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### Travel & Tourism

NAICS	Ratio of Total Activity Applied to T&T Cluster	Description
7211	1.00	Traveler Accommodation
7212	1.00	
722	0.20	Food & Drink
481	1.00	Air Transportation
4881	1.00	
48211	1.00	Rail Transportation
48821	1.00	
483	0.90	Water Transportation
4883	0.90	
48521	1.00	Interurban Bus
48551	1.00	Interurban Charter Bus
4851	0.16	Urban Transit & Other Transportation
48532	0.16	
4859	0.16	
4884	0.16	
48531	0.30	Taxi Service
487	1.00	Scenic & Sightseeing Transportation
5321	0.91	Automotive Equipment Rental & Leasing

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NAICS	Ratio of Total Activity Applied to T&T Cluster	Description
81293	0.17	Parking Lots & Garages
5615	0.96	Travel Arrangement & Reservation Services
51213	0.37	Motion Pictures & Performing Arts
7111	0.37	
7115	0.37	
7112	0.43	Spectator Sports
7113	0.43	
7114	0.43	
71391	0.29	Participant Sports
71392	0.29	
71394	0.29	
7132	0.51	Gambling
1142	0.33	All Other Recreation & Entertainment
51912	0.33	
711212	0.33	
7121	0.33	
7131	0.33	
7139	0.33	

Note: NAICS definition developed by the U.S. Bureau of Economic Analysis for its Travel and Tourism satellite account.

## 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.

So, for example, economic dynamics play an important “input” role in innovation. Economic dynamics 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.

Innovation Index Variables			
Inputs to Innovation		Innovation Outputs	
Human Capital	Economic Dynamics	Productivity & Employment	Economic Well-Being
<ul style="list-style-type: none"> <li>• Mid-Aged Population Growth Rate, 1997 to 2009</li> <li>• Percent of Population Ages 25-64 with Some College or an Associate's Degree, 2000</li> <li>• Percent of Population Ages 25-64 with a Bachelor's Degree, 2000</li> <li>• Average High-Tech Employment Share, 1997 To 2009</li> <li>• Location Quotient for Knowledge Occupational Cluster, 2001 to 2009</li> </ul>	<ul style="list-style-type: none"> <li>• Average Venture Capital Investment per \$10,000 GDP, 2000 to 2006</li> <li>• Residential Broadband Connections, 2009</li> <li>• Change in Broadband Density, 2000 to 2009</li> <li>• Average Establishment Churn, 1999 to 2006</li> <li>• Average Small Establishments per 10,000 Workers, 1997 to 2008</li> <li>• Average Large Establishments per 10,000 Workers, 1997 to 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Job Growth to Population Growth Ratio, 1997 to 2008</li> <li>• Change in High-Tech Employment Share, 1997 to 2009</li> <li>• Average Annual Rate of Change in GDP (\$ Current) per Worker, 1997 to 2008</li> <li>• Gross Domestic Product (\$ Current) per Worker, 2008</li> <li>• Average Patents per 1,000 Workers, 1997 to 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Average Poverty Rate, 2006 to 2008, inverse</li> <li>• Average Unemployment Rate, 2007 to 2009, inverse</li> <li>• Average Net Internal Migration Rate, 2000 to 2009</li> <li>• Change in Per Capita Personal Income, 1997 to 2008</li> <li>• Change in Wage and Salary Compensation per Worker, 1997 to 2008</li> <li>• Change in Proprietors Income per Proprietor, 1997 to 2008</li> </ul>

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](http://www.statsamerica.org/innovation).

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