

A LOOK INSIDE THE BLOOMINGTON ECONOMY

June 2007

This report was prepared by the Indiana Business Research Center for the Bloomington Economic Development Corporation

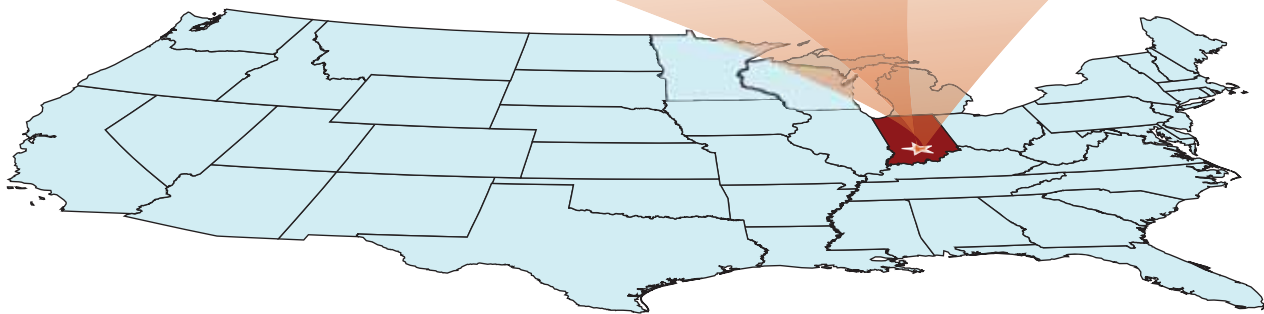
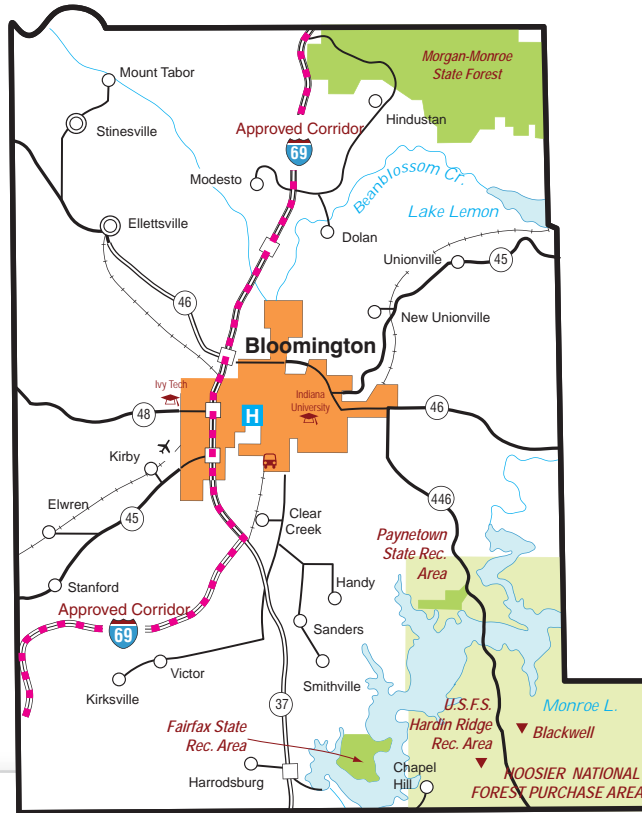


Table of Contents

Table of Contents	i
List of Figures in Report	i
List of Tables in Report	ii
Introduction.....	1
Population	3
Bloomington in Comparison	5
Housing	7
Bloomington in Comparison	7
Education	9
Employment	11
Bloomington in Comparison	13
Income.....	19
Bloomington in Comparison	21
Infrastructure & Commuting	25
Conclusion.....	27
Appendix	29
Companion Peer MSA Trends	30
Data Sources.....	36
Industry Cluster Definitions	38
Aggregated Sector Definitions (Figure 18, Industry Diversity)	40
Industry Diversity In-depth.....	41
Housing Affordability Index Methodology	42

List of Figures in Report

Figure 1. U.S. Peer Group	1
Figure 2. Indiana Peer Group	2
Figure 3. Population Distribution by Age & Gender, Monroe County 2005.....	3
Figure 4. Monroe County Population by Race, 2005	5
Figure 5. 2005 Population & Growth Rates by Race, U.S. Peers.....	5
Figure 6. 2005 Population & Growth Rates by Race, Indiana Peers	6
Figure 7. Number of Residential Building Permits Issued, Monroe County, 1995-2005.....	7
Figure 8. Median Home Value & Average Annual Residential Building Permits, U.S. Peers	8
Figure 9. Median Home Value & Average Annual Residential Building Permits, Indiana Peers	8
Figure 10. Intentions of Monroe County High School Graduates, 2004/05	9
Figure 11. 2000 Educational Attainment: B.A. or Higher, U.S. Peers.....	10
Figure 12. 2000 Educational Attainment: B.A. or Higher, Indiana Peers	10
Figure 13. Largest Gainers & Losers in Monroe County Employment.....	12
Figure 14. Sector & Cluster Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005— Monroe County & Bloomington MSA	13
Figure 15. Manufacturing Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—U.S. Peers.....	14
Figure 16. Health Care and Social Services Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—U.S. Peers.....	15
Figure 17. Business, Information, and Technical Services Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—U.S. Peers.....	16
Figure 18. Industry Diversity – U.S. Peers.....	17
Figure 19. 2005 Average Unemployment Rates—U.S. Peers.....	17

Figure 20. 2005 Average Unemployment Rates—Indiana Peers	18
Figure 21. Change in Total Employment—Indiana Peers, 1995-2005	18
Figure 22. Average Real Wage per Job, 2001 to 2005.....	20
Figure 23. Average Real Wage per Manufacturing Job, 2001 to 2005.....	20
Figure 24. Average Real Wage per Health Care and Social Services Job, 2001 to 2005.....	21
Figure 25. Monroe County Per Capita Personal Income as a Percent of the Nation, 1969 to 2004	21
Figure 26. 2005 Average Wage per Job and 10-year Growth in Real Wages—U.S. Peers.....	22
Figure 27. 2004 PCPI and 10-year Growth in Real PCPI—U.S. Peers	22
Figure 28. 2004 PCPI and 10-year Growth in Real PCPI—Indiana Peers	23
Figure 29. Bloomington Area Commuting Patterns, 2005	25
2005 Population & Growth Rates by Race, U.S. MSA Peers	30
2005 Population & Growth Rates by Race, Indiana MSA Peers	30
2005 Median Home Value & Average Annual Residential Building Permits (2003-2005), U.S. MSA Peers.....	31
2005 Median Home Value & Average Annual Residential Building Permits (2003-2005), Indiana MSA Peers	31
2000 Educational Attainment: B.A. or Higher, U.S. MSA Peers	32
2000 Educational Attainment: B.A. or Higher, Indiana MSA Peers	32
2005 Average Unemployment Rates, U.S. MSA Peers	33
2005 Average Unemployment Rates, Indiana MSA Peers	33
2005 Average Wage per Job and 10-year Growth in Real Wages, U.S. MSA Peers (2006 Dollars)	34
2004 PCPI and 10-year Growth in Real PCPI, U.S. MSA Peers (2006 Dollars)	34
2004 PCPI and 10-year Growth in Real PCPI, Indiana MSA Peers (2006 Dollars)	35

List of Tables in Report

Table 1. Population Projections by Age, Monroe County, 2005 to 2025	4
Table 2. Population Projections by Age, Bloomington MSA, 2005 to 2025	4
Table 3. Monroe County Employment by Sector, 2005	11
Table 4. Monroe County Average Wages per Job.....	19
Table 5. Cost of Living Indicators.....	24
Table 6. Approximate Distance to Nearest U.S. Interstate Exit—U.S. Peers	25
Table 7. Approximate Distance to Nearest Scheduled Air Service—U.S. Peers.....	26

Introduction

Beginning in 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 of the Bloomington area economy. This report marks the fourth edition in this effort.

The following pages provide a detailed account of the Bloomington economy by examining local demographic, housing, education, employment, and income characteristics and placing them within the context of similar communities from around the nation and state. Such an exercise gives local leaders and residents alike the opportunity to assess Bloomington’s performance and a platform from which they can plan for economic growth. Additionally, this study was conducted in conjunction with the City of Bloomington Commission on Sustainability’s (BCOS) first-ever sustainability assessment. The sustainability findings are not reported in this document, however, but will be released as a separate report by the BCOS.

Selecting Peer Communities

Previous studies used two distinct criteria for selecting Bloomington’s national economic development peers: either a community featured an industry makeup similar to Bloomington’s or the city was home to a major university. This time around, the BEDC and the IBRC settled on a single peer selection process, essentially combining these two approaches.

Figure 1. U.S. Peer Group



First, a multivariate statistical analysis was performed on all U.S. counties to determine which were most similar to Monroe County in terms of demographics, industry mix, and income characteristics. Next, the top 150 counties in this analysis were examined to determine which had population

attributes similar to Bloomington’s. Specifically, communities were sought with populations between 80,000 and 220,000 and a ratio of university enrollment to total population above 20 percent. Eleven of the 14 peers ultimately selected fit the criteria. Three selected communities—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.

The selection of Indiana peers was a much simpler process. The statewide counterparts are essentially the 12 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, February 2007

Because municipalities the size of Bloomington and its peers tend to dominate their county economies, drawing a line at the city limit does not always give an accurate picture of a community’s prosperity. Therefore, and also considering that detailed economic data are more available at the county level than for sub-county areas, the dominant city’s economic environment is analyzed in this report on a countywide basis. For the sake of simplicity, the dominant city will generally be referred to in the narrative although the data will reflect the entire county.

Furthermore, a city’s economic 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 MSAs (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 Bureaus 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 or industry clustering are often best viewed regionally and will be reported at the MSA level as well as the county.

In the body of this report, except where clearly indicated otherwise, data will be reported at the county level. To provide for easy comparison, many of the report's county-based tables and charts will have companion MSA-level graphics located in the appendix.

Population

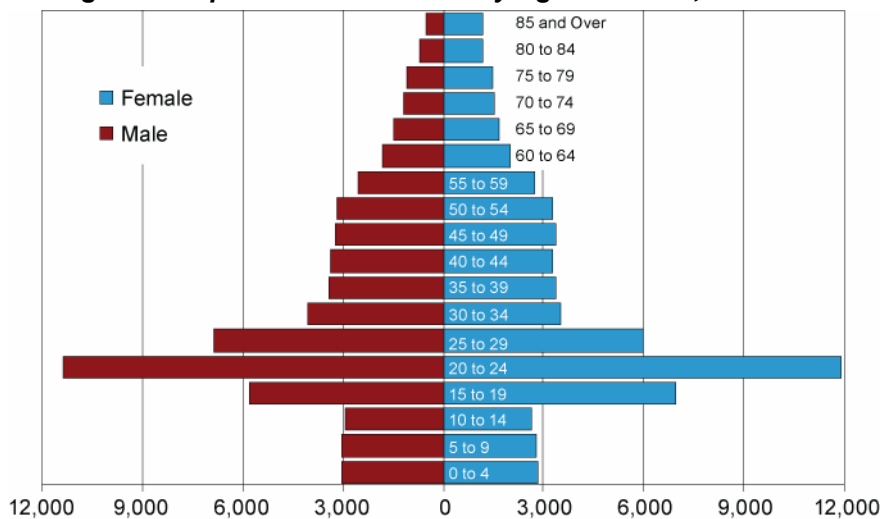
The City of Bloomington's population was estimated at 69,017 in 2005, making it Indiana's seventh-largest city. This is approximately 2,500 fewer residents than in 2000, a 3.5 percent decline.

Monroe County, meanwhile, has experienced a slight population growth over this period. The county's 2005 population was reported to be 121,473, an increase of 910 people (0.8 percent) since 2000. Monroe ranks as the state's 13th largest county and 473rd out of the nation's 3,141 counties.

The Bloomington MSA, which contains Greene and Owen counties in addition to Monroe, had an estimated 2005 population of 177,734, 68 percent of which resides in Monroe County. Greene County's population of 33,408 represents 19 percent of the MSA total while Owen County's 22,853 residents account for 13 percent. The MSA's fastest growing county in recent years has been Owen, which recorded a 5 percent increase from 2000 to 2005 compared to just 1 percent growth for the entire three-county region. In fact, with an estimated increase of 1,067 residents over this period, Owen County experienced the greatest actual population growth among the three counties as well.

Age Distribution. Monroe County's population distribution by age and gender is detailed in **Figure 3**. As one would expect, the distribution is greatly influenced by the presence of Indiana University. Nearly one-fifth of the county's population falls into the 20 to 24 age group while a full 40 percent of the population is between the ages of 15 to 29. This results in a median age for the county (27.4) much younger than that of the state (35.9).

Figure 3. Population Distribution by Age & Gender, Monroe County 2005



Source: U.S. Census Bureau

Population Projections. Although the 20 to 24 age group dominates Monroe County’s population, this segment is not expected to grow substantially over the next 20 years. As seen in **Table 1**, the most significant trend over the next two decades will be the aging of the Bloomington population. The segment of the local population above the age of 45 will increase to 50,000 residents in 2025, a 46 percent increase. The 65-and-over group alone is projected to grow by more than two-thirds and will account for nearly 15 percent of the county’s population.

Table 1. Population Projections by Age, Monroe County, 2005 to 2025

	2005 Population	2025 Population	Projected Growth: 2005 - 2025	Percent Change	Share of Projected growth
Total	121,407	145,687	24,280	20.0%	100.0%
Pre-School (0 to 4)	5,874	7,655	1,781	30.3%	7.3%
School Age (5 to 19)	24,121	29,882	5,761	23.9%	23.7%
College Age (20 to 24)	23,294	23,625	331	1.4%	1.4%
Young Adult (25 to 44)	33,817	34,585	768	2.3%	3.2%
Older Adult (45 to 64)	22,187	29,277	7,090	32.0%	29.2%
Seniors (65 plus)	12,114	20,663	8,549	70.6%	35.2%

Source: IBRC

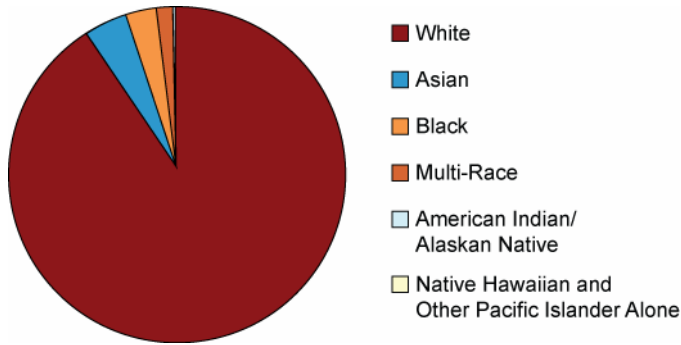
The Bloomington MSA’s population will exceed 200,000 by 2025, with Monroe County accounting for nearly 90 percent of the growth. The aging trend will be even greater at the MSA level, as over three-quarters of projected growth will occur in the 45-and-over age group.

Table 2. Population Projections by Age, Bloomington MSA, 2005 to 2025

	2005 Population	2025 Population	Projected Growth: 2005 - 2025	Percent Change	Share of Projected growth
Total	177,709	204,883	27,174	15.3%	100.0%
Pre-School (0 to 4)	9,126	11,078	1,952	21.4%	7.2%
School Age (5 to 19)	35,703	40,687	4,984	14.0%	18.3%
College Age (20 to 24)	26,605	26,342	-263	-1.0%	-1.0%
Young Adult (25 to 44)	49,053	48,563	-490	-1.0%	-1.8%
Older Adult (45 to 64)	37,105	45,330	8,225	22.2%	30.3%
Seniors (65 plus)	20,117	32,883	12,766	63.5%	47.0%

By Race. In Monroe County, 90.5 percent of residents identified themselves in 2005 as white, down slightly from 91.6 percent in 2000. The county’s largest minority group is Asian, which accounts for 4.5 percent of the total population, followed by blacks with a 3.2 percent share. Since 2000, the portion of Monroe County’s residents of any race that also identify themselves as Hispanic or Latino is estimated to have increased by 259 people (11 percent) to a total of 2,561.

Figure 4. Monroe County Population by Race, 2005



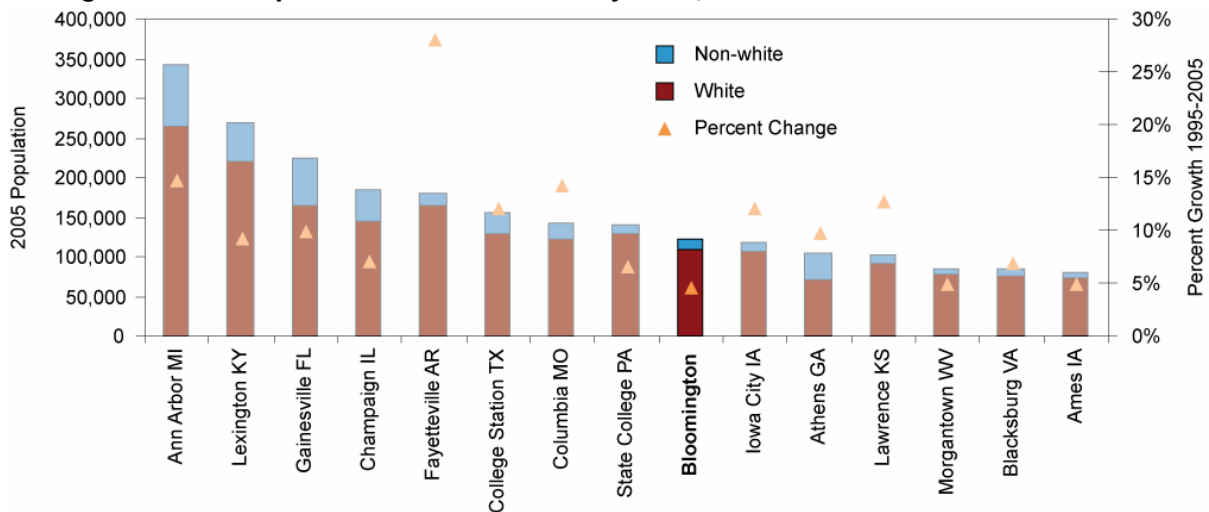
Source: U.S. Census

Bloomington in Comparison

Among the communities selected for the national peer set, Bloomington has the ninth largest population. Similarly, Bloomington ranks 10th in terms of minorities as a percent of total population with a 9.5 percent share. Communities with the greatest minority population include Athens, GA (30.9 percent); Gainesville, FL (26.3 percent); and Ann Arbor, MI (22.7 percent).

Bloomington’s population grew 4.5 percent between 1995 and 2005, the slowest growth rate among its peers. Fayetteville, AR led the pack with a dramatic 28 percent increase followed by the Midwestern communities of Ann Arbor, MI, and Columbia, MO.

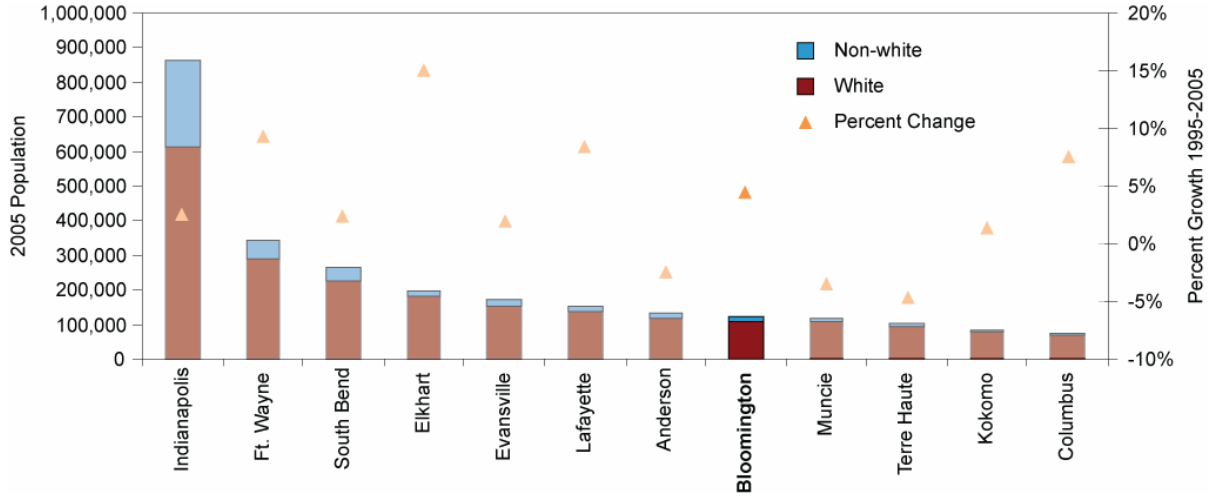
Figure 5. 2005 Population & Growth Rates by Race, U.S. Peers



Source: U.S. Census Bureau

Bloomington’s 10-year growth rate of 4.5 percent, however, ranks as the fifth highest among the Indiana peer set. The Indiana communities are led by Elkhart with an impressive 15 percent growth between 1995 and 2005 followed by Fort Wayne, Lafayette, and Columbus. Three Indiana peers—Anderson, Muncie, and Terre Haute—lost population over this period.

Figure 6. 2005 Population & Growth Rates by Race, Indiana Peers

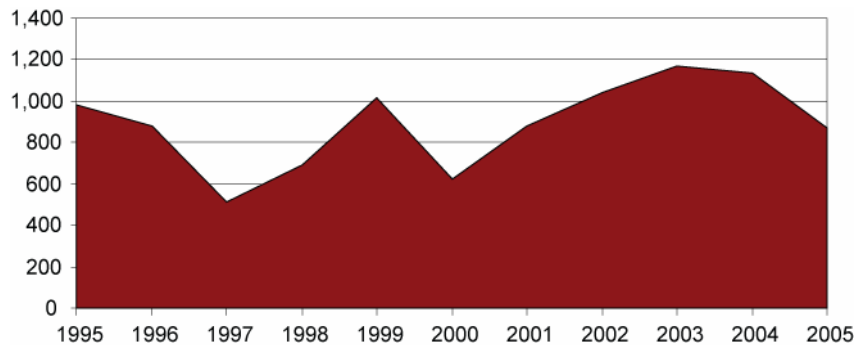


Housing

Like many communities with a large student population, Monroe County has a relatively low rate of home ownership. Of the county's estimated 47,062 occupied housing units in 2005, only 54 percent were owner-occupied compared to 72 percent for Indiana and 67 percent nationally. Monroe County's 2005 median home value as determined by the U.S. Census Bureau was \$135,100. The local home value is considerably higher than the Indiana mark of \$114,400 but well below the national median of \$167,500. The median home value for the Bloomington MSA was \$111,400.

The number of residential building permits issued in Monroe County in 2005 dropped to 868 permits, the fewest since 2000. This dip followed three straight years in which the county issued more building permits than at any other time in the past decade. Unfortunately, representative data are not available for the Bloomington MSA because Greene County does not issue building permits at this time.

Figure 7. Number of Residential Building Permits Issued, Monroe County, 1995-2005



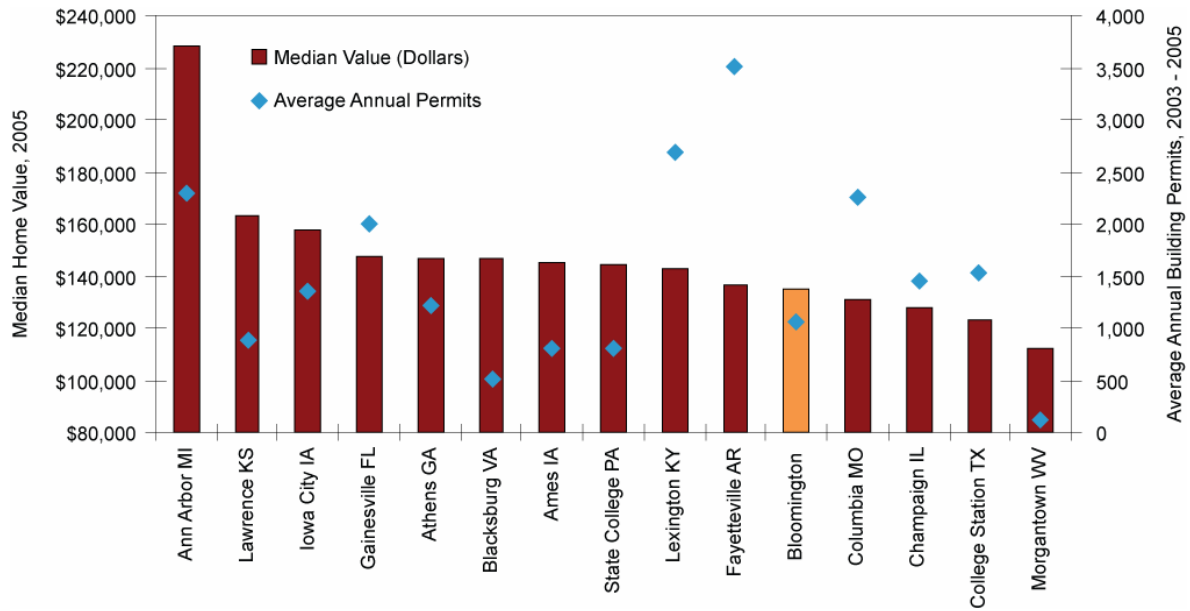
Source: U.S. Census Bureau

Bloomington in Comparison

Aside from Ann Arbor, MI, on the high end (\$227,900) and Morgantown, WV, on the low end (\$112,200), the peer set is fairly comparable in terms of median home value. Monroe County's mark of \$135,100 gives it the fifth lowest median home value among the national peer group.

It is not surprising that Fayetteville, AR, a community with nearly 30 percent population growth over the past 10 years, would lead the peer set in the average number of residential building permits issued between 2003 and 2005. Other communities with substantial residential building activity include Lexington, KY; Columbia, MO; and Ann Arbor, MI. Each of these either had a high 10-year growth rate (Columbia) or had one of the largest populations among the peer set to begin with (Lexington and Ann Arbor). Monroe County averaged the sixth fewest permits among the peer group over this three year period.

Figure 8. Median Home Value & Average Annual Residential Building Permits, U.S. Peers

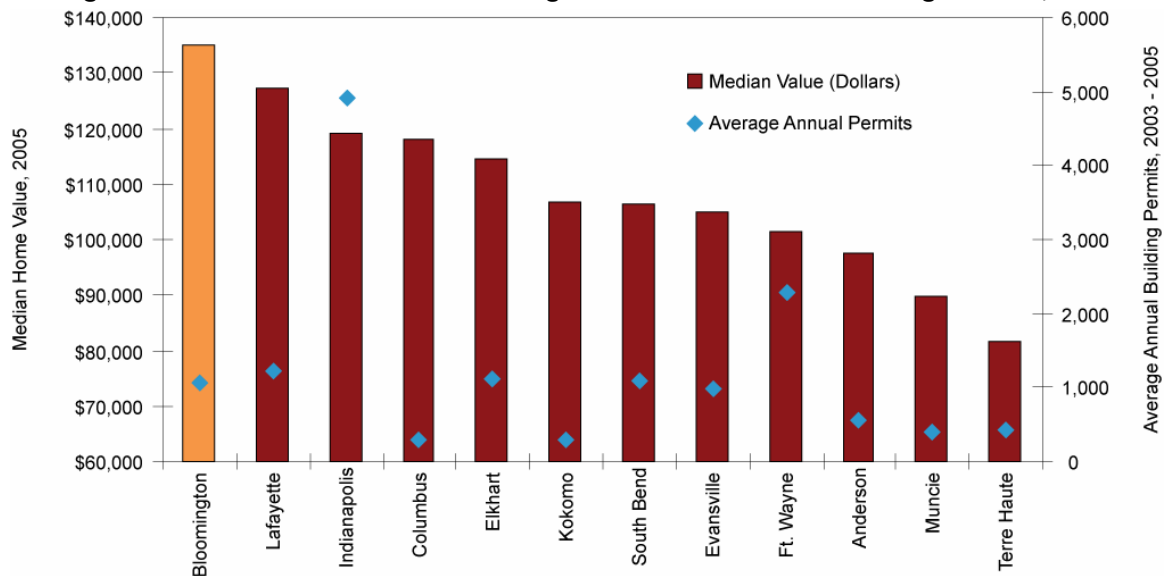


Source: U.S. Census Bureau

In sharp contrast to its standing among its national counterparts, Bloomington has the highest median home value of any of the Indiana peers. Bloomington home values are roughly \$8,000 higher than the second ranked Lafayette area and \$16,000 higher than Indianapolis. The lowest values among the Indiana peer set (below \$100,000) are found in Anderson, Muncie, and Terre Haute.

Indiana’s largest communities, Indianapolis and Fort Wayne, led the state peer set in the average number of building permits issued between 2003 and 2005. However, population alone does not always translate into robust construction activity. For instance, the Evansville area is 70 percent larger than Bloomington yet averaged fewer permits over this period. Bloomington’s annual average of 1,059 permits was sixth highest in this comparison.

Figure 9. Median Home Value & Average Annual Residential Building Permits, Indiana Peers



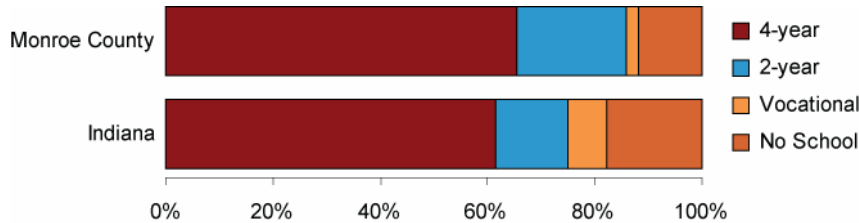
Source: U.S. Census Bureau

Education

As home to the state’s largest university, it is fitting that Bloomington excels in a variety of education indicators. For example, the percentage of Monroe County Community School Corporation students who have passed the ISTEP test has exceeded the state average in each of the last 10 years while Richland-Bean Blossom Community School Corporation students have outperformed the state average over the past two academic years. Additionally, the 2000 census indicates that 39.6 percent of Monroe County’s adult population has a bachelor’s or higher degree, ranking second in the state only to Hamilton County and 70th among the nation’s 3,141 counties.

Eighty-eight percent of the Bloomington area’s 2005 high school graduates planned to pursue some form of higher education. Of the 875 total graduates, 66 percent were headed to a four-year institution, 20 percent to a two-year program, and 3 percent to a vocational school.¹ At the state level, 82 percent of high school graduates in 2005 intended to pursue higher education.

Figure 10. Intentions of Monroe County High School Graduates, 2004/05

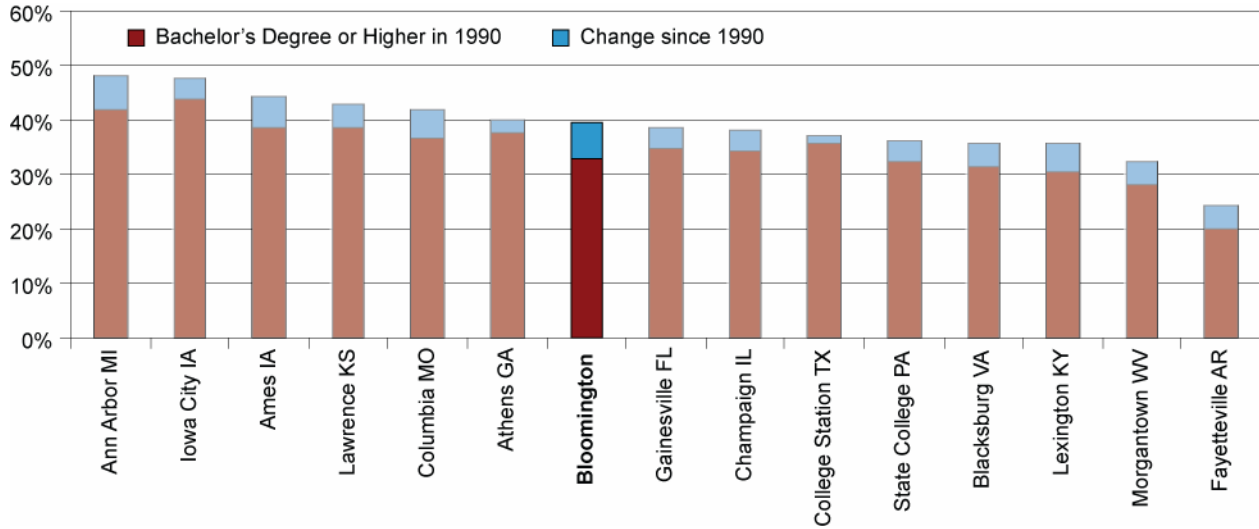


Source: Indiana Department of Education

Each of Bloomington’s national peers is home to a major university. Accordingly, each community, with the exception of Fayetteville, AR, rates well above the national average of 24 percent of adult residents with a bachelor’s or higher degree. Bloomington ranks seventh among the national peers with 39.6 percent. The peers are led by Ann Arbor, MI, and Iowa City, IA, which both have B.A. attainment levels approaching 50 percent. Between 1990 and 2000, Monroe County did record the greatest increase among its peers in the attainment of bachelor’s degrees with an increase of 6.7 percentage points.

¹ Totals may not add to 100 percent due to rounding.

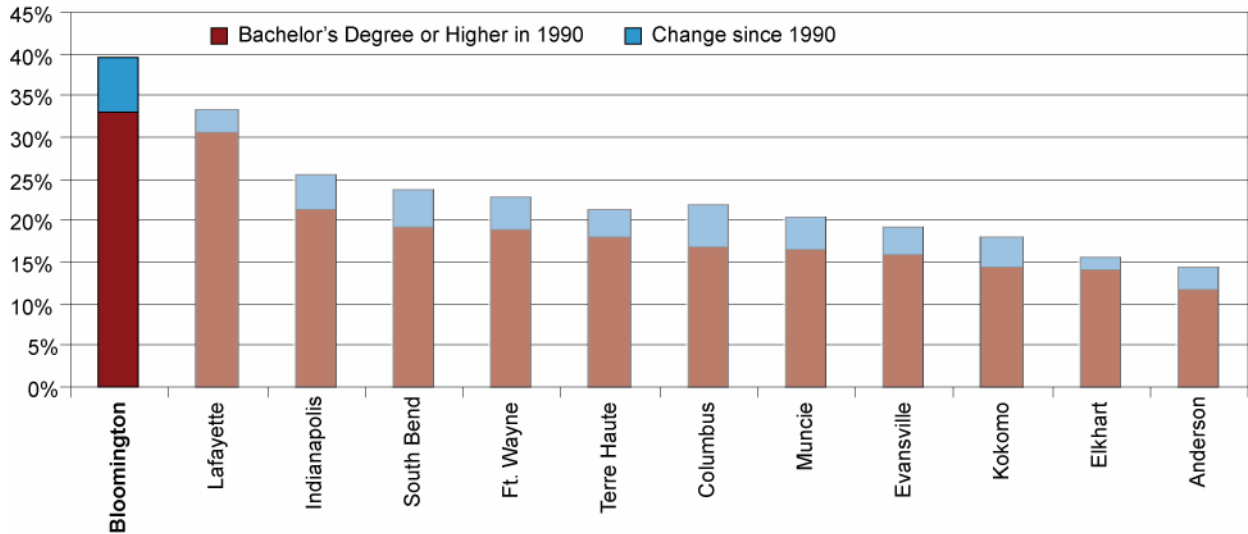
Figure 11. 2000 Educational Attainment: B.A. or Higher, U.S. Peers



Source: U.S. Census Bureau

Bloomington ranks well ahead of its Indiana peers in terms of B.A.+ attainment, with Lafayette being the only other community that registered above 30 percent. Four peers have attainments below the state average of 19.4 percent: Evansville (19.3 percent), Kokomo (18.1 percent), Elkhart (15.5 percent), and Anderson (14.4 percent). Columbus was second to Bloomington with a 5.1 percentage point increase in attainment from 1990 to 2000; Elkhart was last with a 1.3 percentage point increase.

Figure 12. 2000 Educational Attainment: B.A. or Higher, Indiana Peers



Source: U.S. Census Bureau

Employment

Employment by sector: Monroe County had an average of 61,460 nonfarm payroll jobs in 2005, an 11.2 percent increase over 1995. Nearly half of all jobs were concentrated in only four sectors: health care and social services, manufacturing, retail trade, and accommodation and food services.

Table 3 details the county’s employment picture.

Table 3. Monroe County Employment by Sector, 2005

	2005 Avg. Employment	% of Total	Change from 1995	% Change from 1995
Total	61,460	100.0%	6,194	11.2%
Health Care & Social Services	7,589	12.3%	2,190	40.6%
Manufacturing	7,192	11.7%	-2,342	-24.6%
Retail Trade	7,031	11.4%	-462	-6.2%
Accommodation & Food Services	6,503	10.6%	323	5.2%
Construction	2,947	4.8%	425	16.9%
Admin. & Waste Mgmt. Services	2,815	4.6%	1,299	85.7%
Educational Services	2,532	4.1%	769	43.6%
Professional, Scientific, & Technical Svcs.	2,060	3.4%	667	47.9%
Other Services (except Public Admin.)	1,910	3.1%	73	4.0%
Public Administration	1,818	3.0%	271	17.5%
Wholesale Trade	1,616	2.6%	522	47.7%
Finance & Insurance	1,287	2.1%	84	7.0%
Real Estate & Rental & Leasing	1,146	1.9%	156	15.8%
Information	1,092	1.8%	-68	-5.9%
Transportation & Warehousing	1,004	1.6%	45	4.7%
Utilities	298	0.5%	-4	-1.3%
Arts, Entertainment, & Recreation	228	0.4%	36	18.8%
Management of Companies & Enterprises	220	0.4%	117	113.6%
Mining	135	0.2%	-48	-26.2%
Agriculture, Forestry, Fishing, & Hunting	83	0.1%	38	84.4%

Source: Bureau of Labor Statistics

The most notable shift in Monroe County’s employment in 2005 is that the health care and social services sector overtook manufacturing as the largest employment sector. In fact, manufacturing employment declined in the county by 6 percent over the previous year and 24.6 percent since 1995. Health care and social service, meanwhile, has grown more than 40 percent since 1995.

The only other industry with a substantial drop in employment was retail trade, the county’s third largest sector overall. As **Figure 13** indicates, all other major shifts in employment have been positive.

Figure 13. Largest Gainers & Losers in Monroe County Employment



Source: Bureau of Labor Statistics

Industry Clusters: In order to get a better handle on local economic activity, it is often useful to look beyond traditional industry sectors by examining economic clusters. An economic cluster includes a collection of firms from a variety of industries that are concentrated around a common activity. Take information technology (IT) as an example. An IT cluster would include companies engaged in specific types of manufacturing, software development, provision of IT services, and much more. Successful economic clusters should concentrate labor and talent, foster innovation and entrepreneurship, and attract similarly focused companies.

For this study, four industry clusters were defined: life sciences, IT, travel and tourism, and business services. 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 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.² Thus, the higher the LQ, the more concentrated an industry or cluster is in the local area relative to the national average. The standard manufacturing and finance & real estate sectors are included in this analysis as well in order to provide insights into these important industries.

Figure 14 displays local LQs in 2005 for these four clusters and two sectors (manufacturing and finance/insurance/real estate) as well as their average annual change in LQ since 1995 and average wage 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 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.

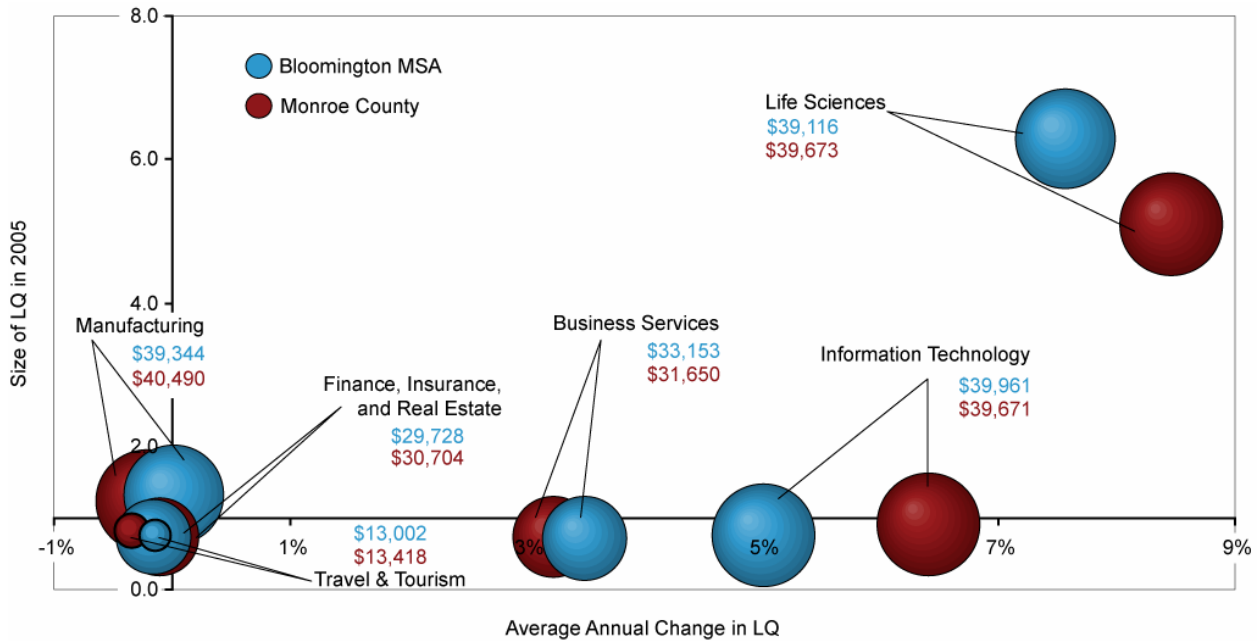
At first glance, the activity in the life sciences cluster jumps off the page. The shares of the county and MSA employment in this cluster are over five and six times greater than the national average,

² 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.

respectively. In addition, the county’s degree of specialization in this cluster has increased by an average of 8.5 percent annually. The lone sour note would be that the average local wages in this cluster are barely half of the \$76,201 national average. This discrepancy reflects the dominance of manufacturing and production employment (97 percent) rather than the higher-wage research and development jobs in the local life sciences cluster. However, these wages are still well above the local average for all employment.

Also noteworthy is the recent expansion of Bloomington’s IT cluster which, from 2003 to 2005, saw its employment increase 87 percent to its current level of nearly 1,400 jobs. Although the local share of employment in this industry remains slightly below the national average, its concentration is growing at an impressive rate. The majority of this growth occurred in the manufacturing aspects of IT, although increases have been seen in design, development, and service delivery as well. Once again, however, local wages in this cluster are well below the national average of \$78,905.

Figure 14. Sector & Cluster Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—Monroe County & Bloomington MSA



Source: IBRC, using Bureau of Labor Statistics data

Bloomington in Comparison

Like Bloomington, most of the national peers have experienced significant job growth over the past decade. Bloomington’s 11.2 percent employment growth between 1995 and 2005, while respectable, was below the peer average of 18.1 percent and ranked only twelfth among the 15 peers. Blacksburg, VA, led the pack with a 31.9 percent growth in employment over this period, followed by the rapidly growing Fayetteville, AR, area with 29.1 percent growth.

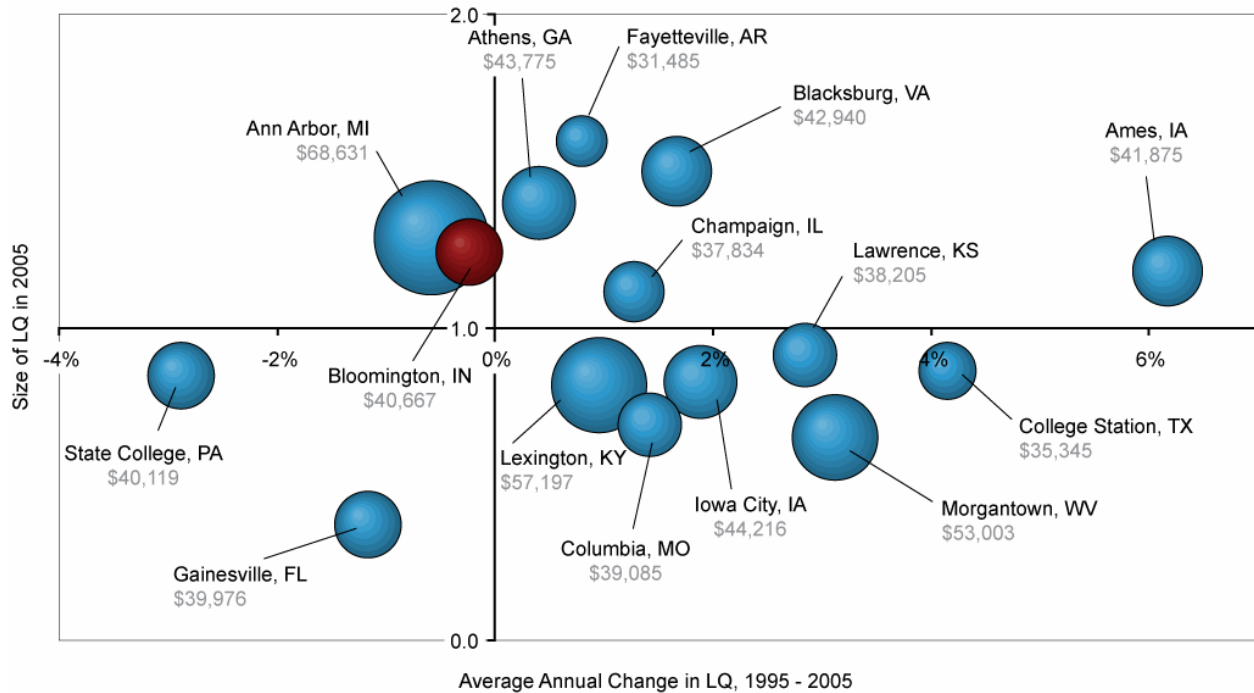
Figure 15 through Figure 17 take a closer look at employment by using location quotients to examine industry specialization and its change over time. Bloomington is compared with its national

peers in three key industry sectors: manufacturing; health care and social services; and business, information, and technical services.³

Bloomington was one of only four peer communities that saw its manufacturing LQ decline over the 10-year period. Despite this drop in manufacturing employment, the sector continues to play a larger role locally than it does nationally. Fayetteville, AR, has the peer set’s most highly specialized manufacturing sector while Ames, IA, experienced the greatest increase in specialization (a 6 percent average annual growth in LQ since 1995).

Fayetteville’s manufacturing base may well be built on low wages, however, as its average wage of \$31,485 is considerably lower than other peers. Bloomington’s average manufacturing wage of \$40,667 is eighth highest in this comparison.

Figure 15. Manufacturing Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—U.S. Peers



Source: IBRC, using Bureau of Labor Statistics data

Keep in mind that a growing LQ does not necessarily translate into actual growth in employment; it simply means that the share of local employment in a particular industry has increased when compared to the national share in that same industry. Athens, GA, for example, has experienced an average annual increase in its manufacturing employment LQ between 1995 and 2005. Athens’ manufacturing sector, however, actually employed 2,100 fewer people in 2005 than it did in 1995, which indicates that the U.S. is losing employment in this sector at a greater rate.

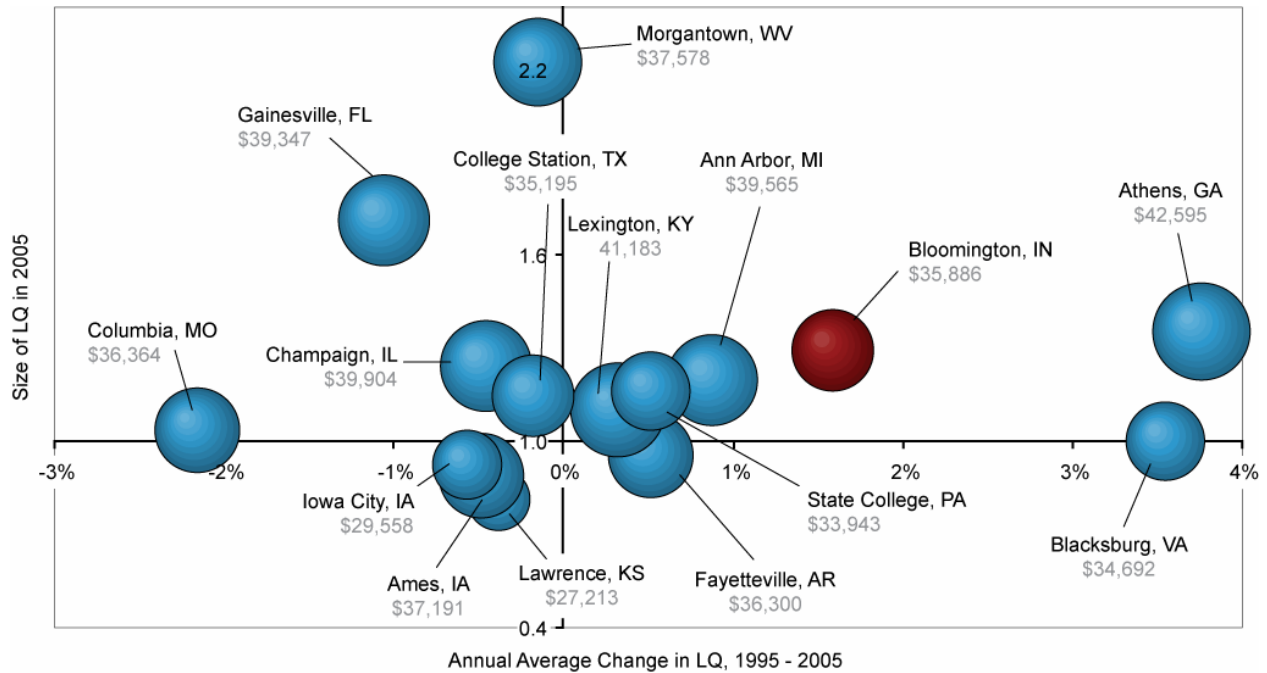
Bloomington’s health care and social services sector has expanded significantly over the past decade. **Figure 16** indicates that Bloomington’s performance in this sector compares favorably to the

³ Data for the life sciences cluster were not available for peers outside of Indiana. Analysis of this cluster requires aggregation of specialized industry data at levels often not disclosed by federal sources. For Monroe County, we were able to use a confidential Indiana database to analyze the life sciences cluster.

national peers as well with the fourth highest LQ in 2005 and the third highest rate of growth over the 10-year period. Morgantown, WV, shows a high degree of specialization in this industry with an LQ greater than 2.2.

Wages are fairly consistent among the peers in this sector. Bloomington places 10th in this comparison but is within 16 percent of Athens' leading wage of \$42,595.

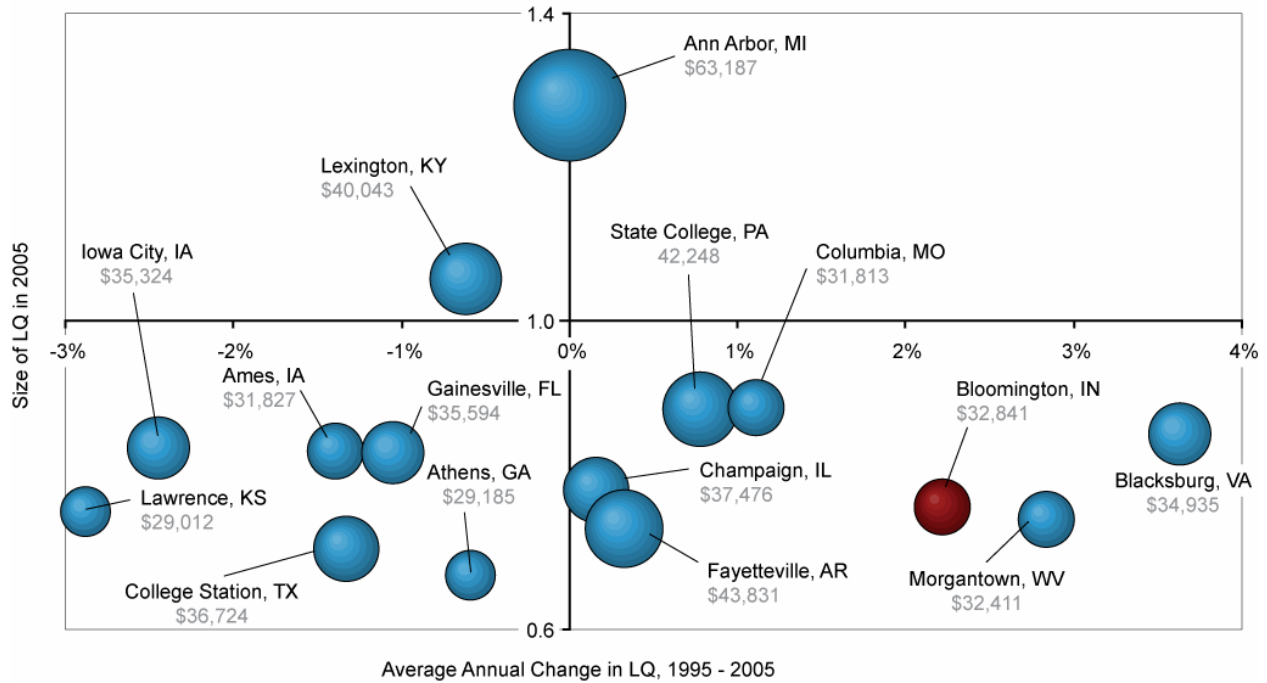
Figure 16. Health Care and Social Services Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—U.S. Peers



Source: IBRC, using Bureau of Labor Statistics data

Only two peer communities outperform the nation in the business, information, and technical services cluster, a broad grouping of industries ranging from software publishers to professional service providers (lawyers, architects, accountants, etc.) to waste management specialists. Ann Arbor, MI performs particularly well in this cluster with an average wage that is nearly \$20,000 higher than its nearest peer. Specialization in this cluster is increasing at a faster rate in Bloomington than in all but two of the peers.

Figure 17. Business, Information, and Technical Services Location Quotients and Average Wage per Job, 2005; Average Annual Change in LQ, 1995-2005—U.S. Peers

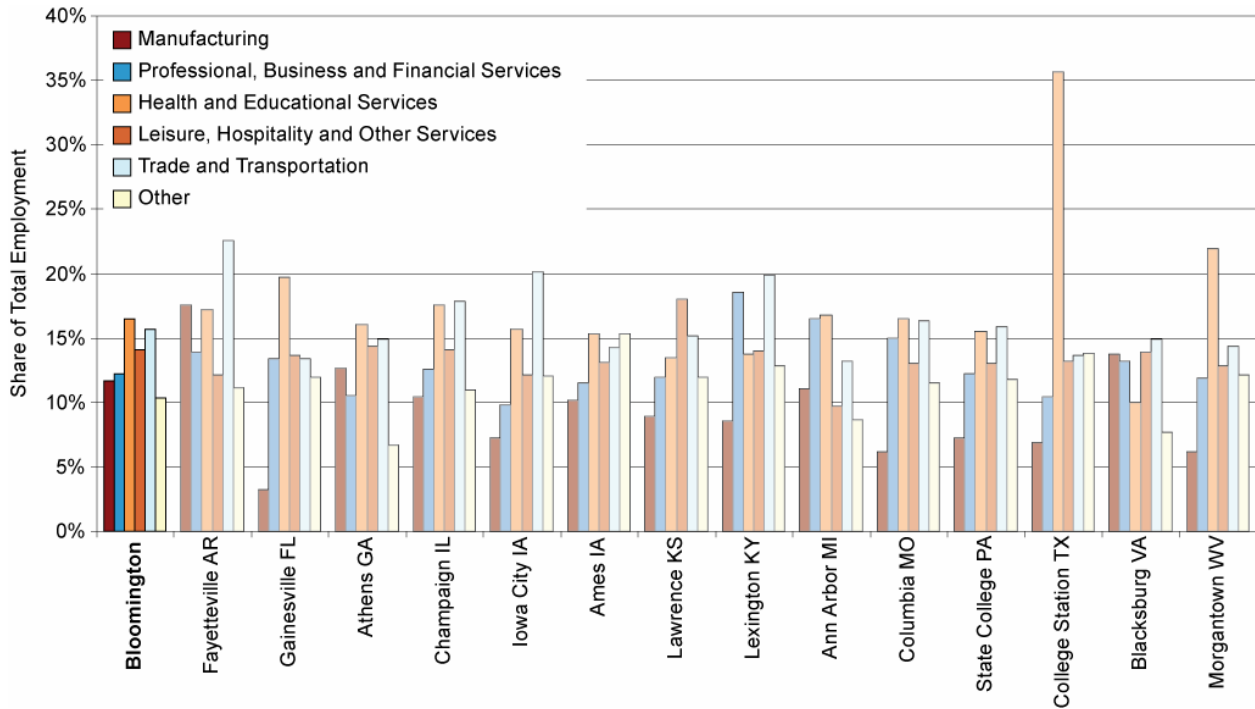


Source: IBRC, using Bureau of Labor Statistics data

Industry Diversity: Industry diversity is a difficult concept to gauge. There is no single recipe for an ideal local economy. Most economists and scholars, however, would argue that a diverse mix of industries buffers a community’s economic health from downturns in one particular sector. In this regard, Figure 18 shows that Bloomington appears to be in relatively good position—that is, no one sector has an excessively high or low share of total employment. This graph compares highly aggregated industry sectors across the peer set (see the appendix for sector definitions). Also in the appendix is a table that provides a more in-depth look at the importance each specific industry.

This analysis does raise two red flags. First, as seen earlier, only three peer communities have a greater concentration of manufacturing employment than does Bloomington. Manufacturing continues to be one of the more volatile industries in terms of employment loss. Given the integral role that manufacturing plays in the greater Indiana economy, however, its likely that this industry will always play an important role in Bloomington. Second, even among these “college towns,” Bloomington has the third highest concentration of leisure and hospitality service employment. These jobs are in little danger of being lost but they do provide substantially lower wages than do other sectors.

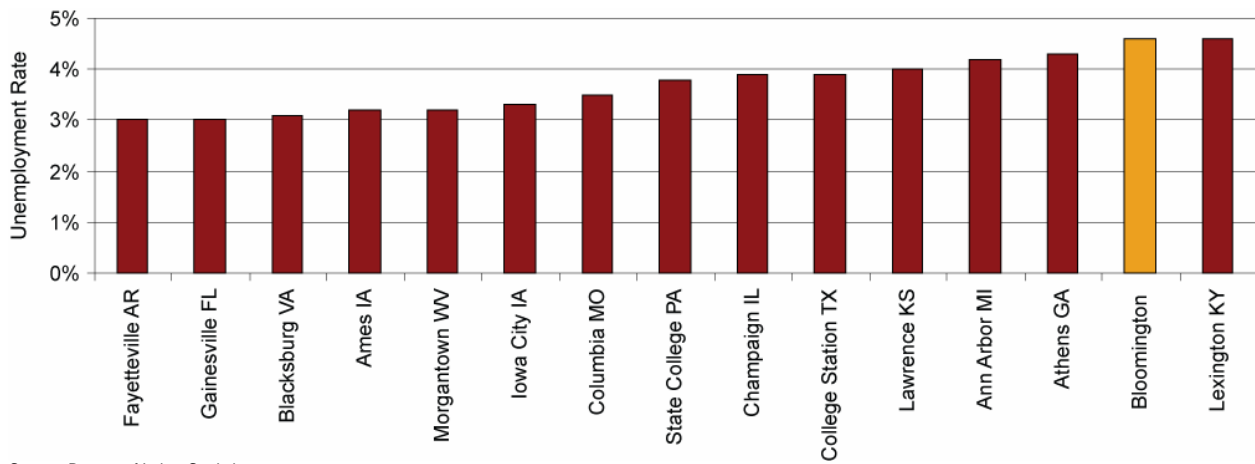
Figure 18. Industry Diversity – U.S. Peers



Unemployment: The national peers generally perform well in terms of unemployment with each community well below the 2005 U.S. unemployment rate of 5.1 percent. With unemployment rates of 3 percent, the southern towns of Fayetteville, AR, and Gainesville, FL, tied for the lowest rates of the group.

The Bloomington area, meanwhile, recorded an unemployment rate of 4.6 percent in 2005. This mark ties Bloomington with Lexington, KY, for the highest unemployment rate among the peer set.

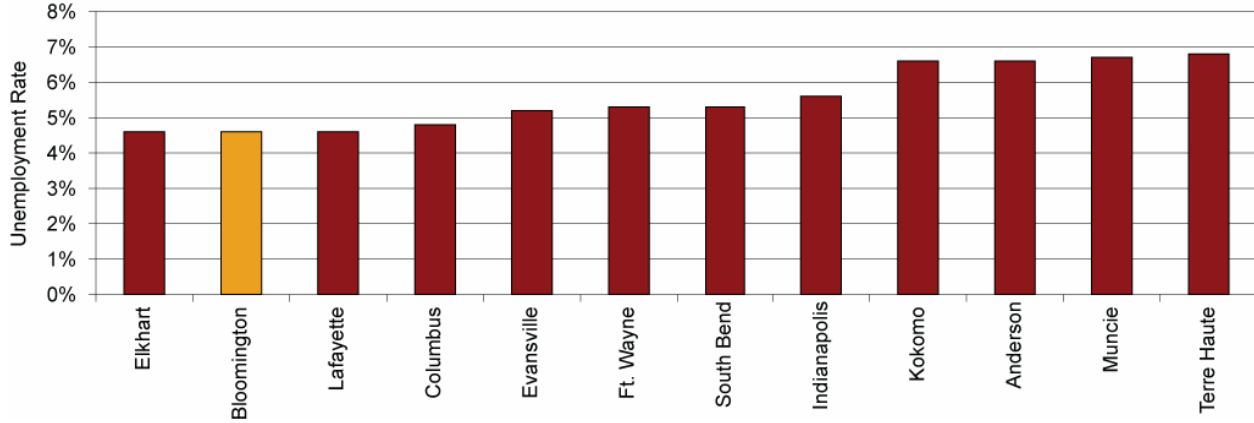
Figure 19. 2005 Average Unemployment Rates—U.S. Peers



Source: Bureau of Labor Statistics

In stark contrast to its rank among national peers, Bloomington is tied with Elkhart for the lowest unemployment rate among its Indiana counterparts. Led by Terre Haute, eight Indiana peers exceed the U.S. unemployment rate.

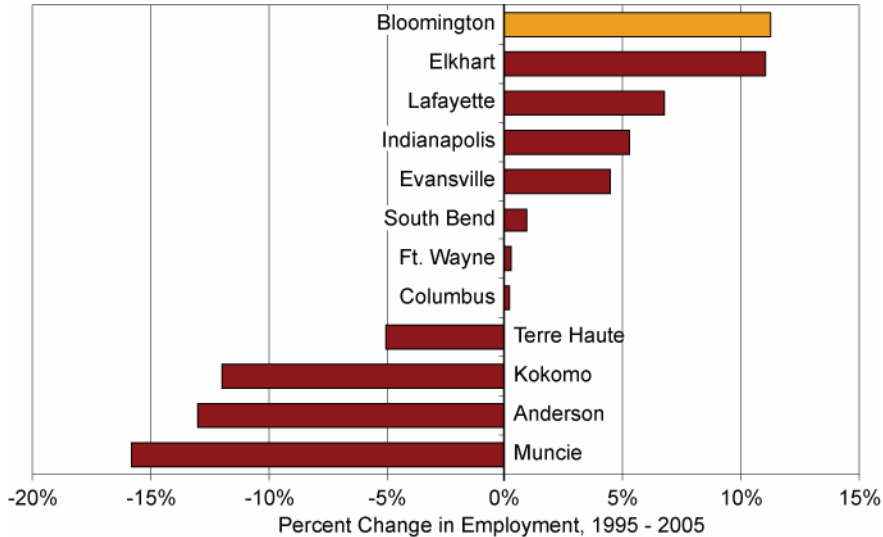
Figure 20. 2005 Average Unemployment Rates—Indiana Peers



Source: Bureau of Labor Statistics

Figure 21 provides another indication that Bloomington is successfully transitioning its economy. Even while losing nearly 25 percent of its local manufacturing employment, Bloomington’s employment growth on a percentage basis leads its state peers. As seen earlier, the lion’s share of this growth has occurred in mid- to high-wage industries, such as health care and social services, education services, professional and scientific services, and construction. To date, former manufacturing giants, such as Muncie, Anderson, and Kokomo, have been unable to rebound from their recent job losses.

Figure 21. Change in Total Employment—Indiana Peers, 1995-2005



Source: Bureau of Labor Statistics

Income

Average wages by industry: The Bloomington area had an average wage per job of \$30,544 in 2005. This mark represents a 35 percent increase in nominal wages over 10 years. The management of companies and utilities sectors offer the highest wages by a considerable margin, but these industries combine to account for less than one percent of Monroe County’s total employment. Nonprofessional service industries tend to provide the lowest wages. The Bloomington area’s two largest industries, health care and social services (\$35,886) and manufacturing (\$40,667), each have an average wage well above the all-industry county average.

Table 4. Monroe County Average Wages per Job

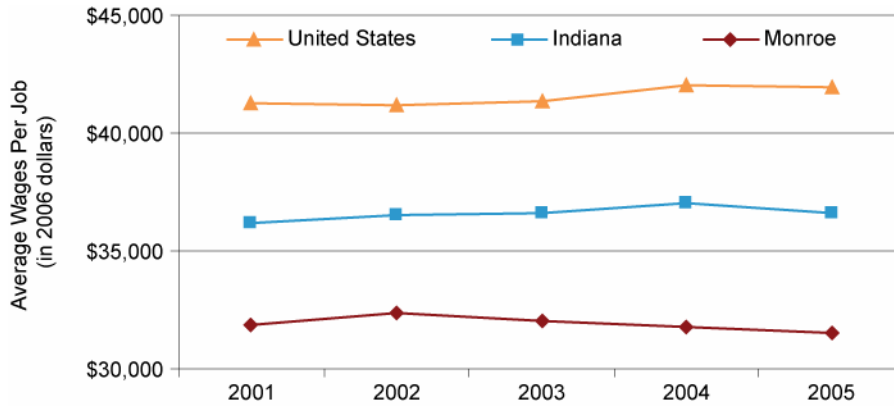
	Average Wage per Job		Change	
	2005	1995	avg. wage	percent
Management of Companies & Enterprises	\$131,232	\$56,753	\$74,479	131.2
Utilities	67,882	41,630	26,252	63.1
Manufacturing	40,667	29,515	11,152	37.8
Mining	39,157	37,596	1,561	4.2
Finance & Insurance	38,545	25,010	13,535	54.1
Professional, Scientific, & Technical Svcs.	38,422	27,646	10,776	39.0
Wholesale Trade	38,363	25,503	12,860	50.4
Information	37,883	28,613	9,270	32.4
Construction	37,597	25,648	11,949	46.6
Transportation & Warehousing	36,046	27,911	8,135	29.1
Health Care & Social Services	35,886	24,328	11,558	47.5
Total	30,544	22,584	7,960	35.2
Public Administration	29,412	20,400	9,012	44.2
Educational Services	27,190	25,863	1,327	5.1
Real Estate & Rental & Leasing	22,804	16,395	6,409	39.1
Other Services	20,960	15,061	5,899	39.2
Agriculture, Forestry, Fishing, etc.	19,866	12,822	7,044	54.9
Retail Trade	19,394	13,711	5,683	41.4
Admin. & Waste Management Services	19,160	13,274	5,886	44.3
Arts, Entertainment, & Recreation	18,620	10,996	7,624	69.3
Accommodation & Food Services	10,864	7,553	3,311	43.8

Source: Bureau of Labor Statistics

Bloomington’s wages, overall, have not stacked up well against state and national averages in recent years. Monroe County’s average wage has remained roughly \$5,000 below the Indiana average and a full \$10,000 below the nation between 2001 and 2005. The college town effect that provides a large supply of part-time workers willing to work for modest wages certainly plays a large role in lagging wages, but is not solely responsible. The county’s average manufacturing wage, for instance, trailed the state by nearly \$8,000 in 2005.

Figure 22 through **Figure 24** also indicate that wages in the Bloomington area are not keeping pace with inflation. When converted to 2006 dollars, the typical Monroe County employee earned roughly \$800 dollars less in 2005 compared to just three years earlier. Meanwhile, wages in Indiana and the nation managed to slightly outpace the rate of inflation between 2001 and 2004 before dipping modestly in 2005.

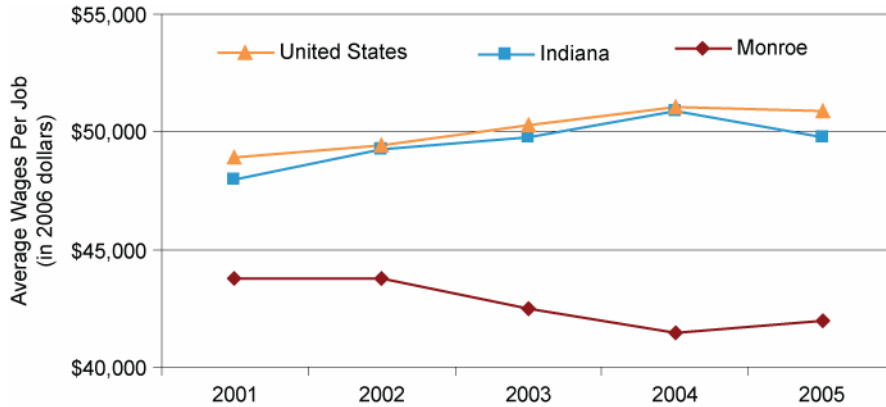
Figure 22. Average Real Wage per Job, 2001 to 2005



Source: Bureau of Labor Statistics

Employees in Bloomington’s manufacturing industry have experienced an even greater erosion of their purchasing power recently with a \$1,700 decline in real wages per job from 2001 to 2005.

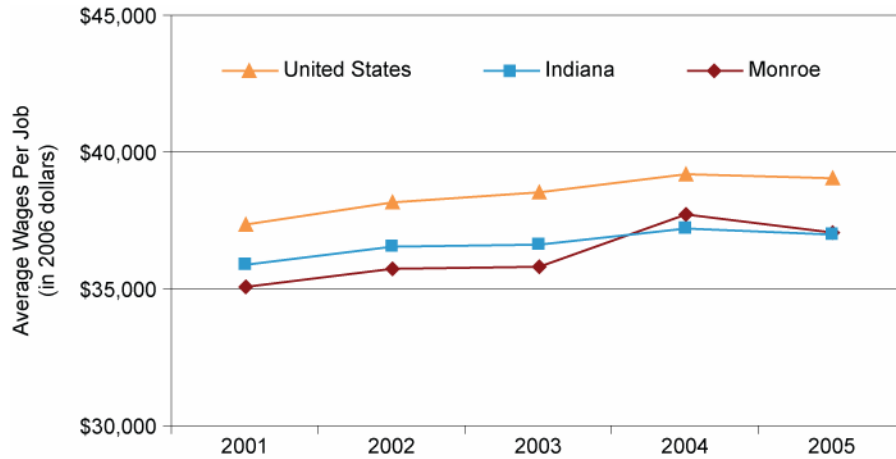
Figure 23. Average Real Wage per Manufacturing Job, 2001 to 2005



Source: Bureau of Labor Statistics

One sector in which local wages have outpaced inflation is health care and social services, Bloomington’s largest and highest-growth industry. Average real wages have increased by over \$1,900 per job over this time period. Perhaps more important, though, is the fact that Bloomington’s average real wage of \$37,042 in 2005 is comparable to state and national averages in this sector.

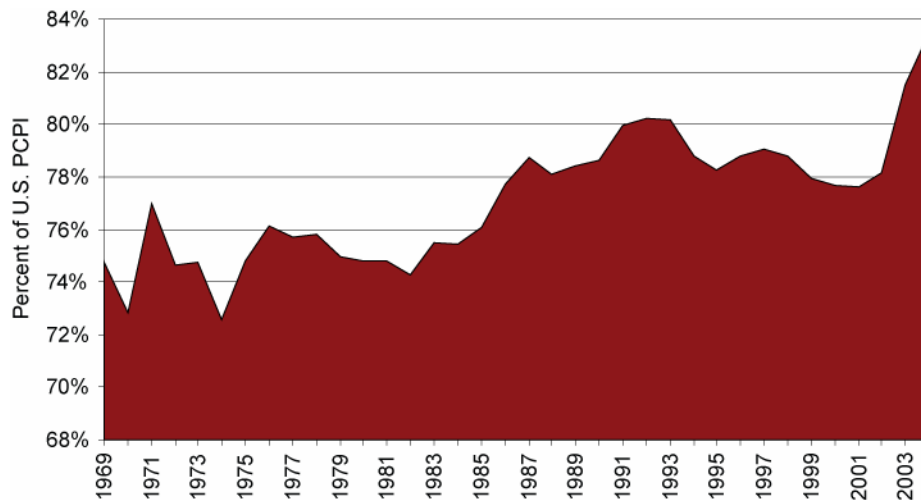
Figure 24. Average Real Wage per Health Care and Social Services Job, 2001 to 2005



Source: Bureau of Labor Statistics

Per Capita Personal Income: Figure 25 details the Bloomington area’s per capita personal income (PCPI) as a percent of the U.S. average since 1969. The county’s PCPI has consistently lagged the national average, which is not surprising for a community with a sizable student population. However, there has been an impressive upswing in this indicator since 2001, bringing the local PCPI to 83.5 percent of the national average—a gain of almost six percentage points in just a few years and the highest level in decades.

Figure 25. Monroe County Per Capita Personal Income as a Percent of the Nation, 1969 to 2004



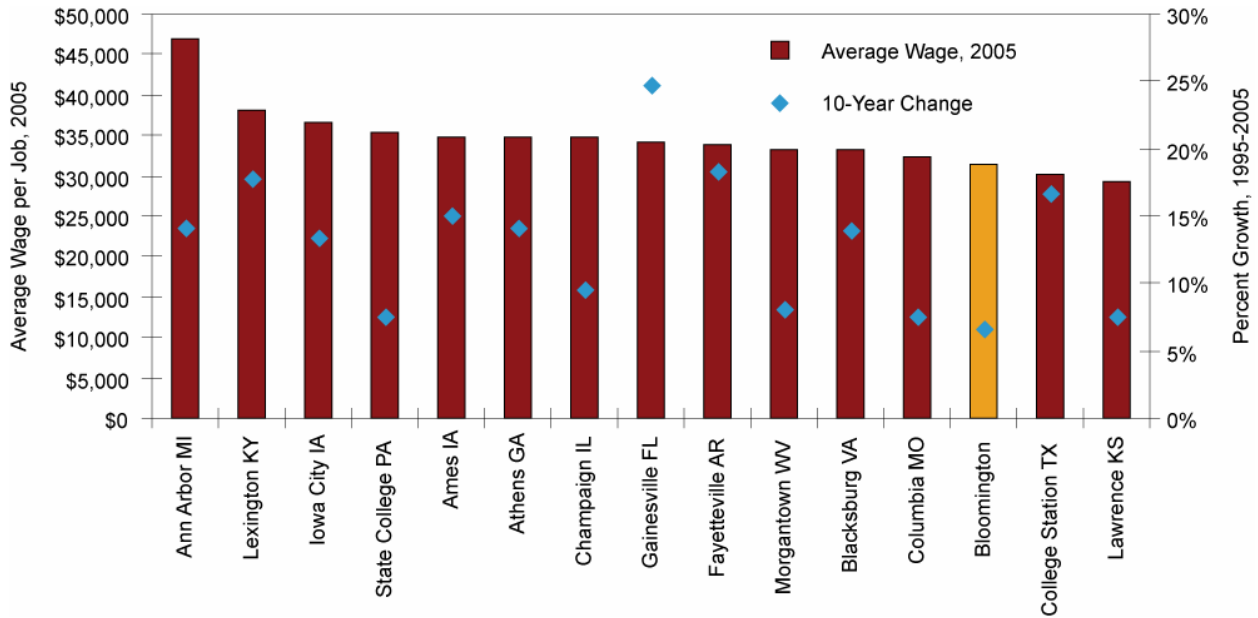
Source: Bureau of Economic Analysis

Bloomington in Comparison

Bloomington’s real average wage per job in 2005 was lower than those of all but two of its national peers. Furthermore, the county’s 6.5 percent growth in real wages since 1995 is the lowest among its counterparts. Once again, Ann Arbor leads the pack with an average wage of nearly \$47,000 followed by Lexington, KY, at just above \$38,000. Gainesville, FL average real wage grew by one-quarter over the 10-year period to reach \$34,000, by far the largest growth among the peers. These

figures are adjusted to 2006 dollars using the regional Consumer Price Index in order to account for cost of living disparities in different parts of the country.

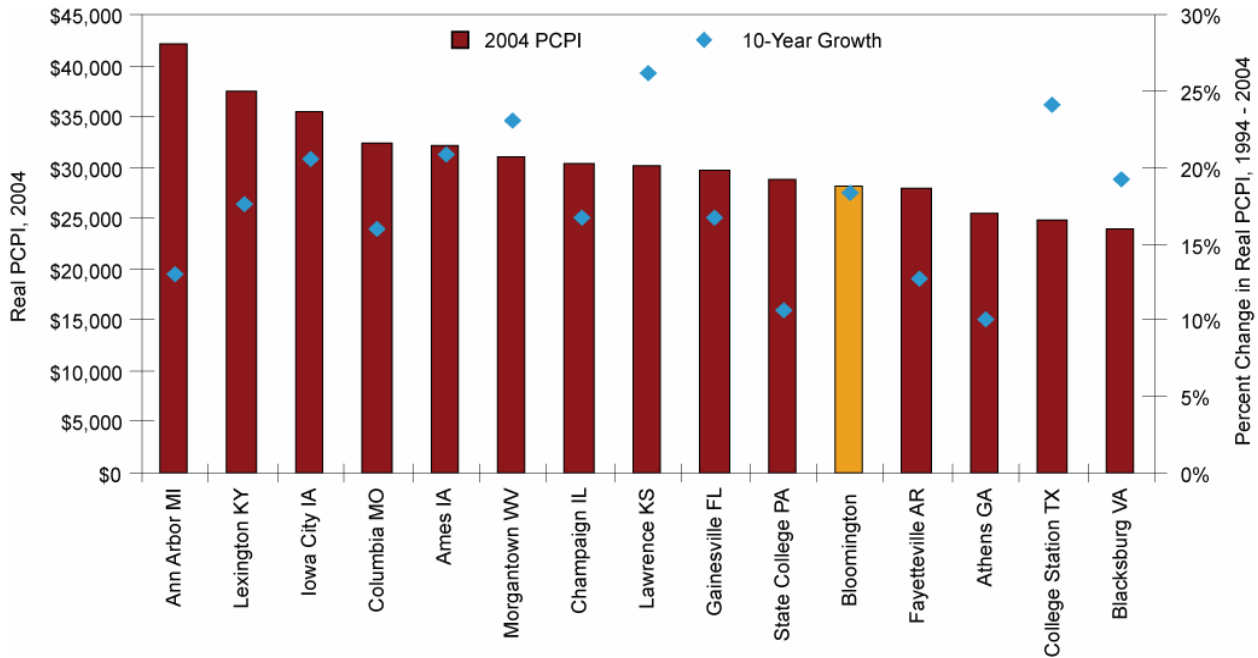
Figure 26. 2005 Average Wage per Job and 10-year Growth in Real Wages—U.S. Peers



Source: Bureau of Labor Statistics

Ranking 11th, Bloomington fared somewhat better in relation to its peers in terms of real per capita personal income (PCPI), a more comprehensive indicator of a community's economic well-being. In addition, the local area's 18 percent growth in real PCPI places it in the top half of this group.

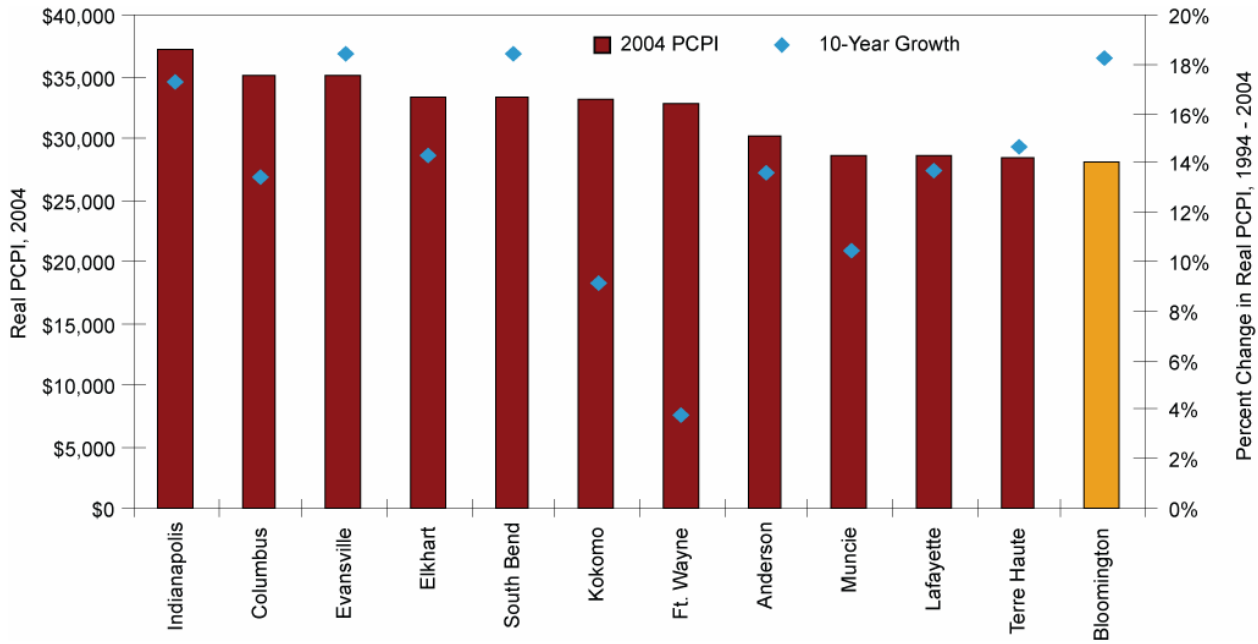
Figure 27. 2004 PCPI and 10-year Growth in Real PCPI—U.S. Peers



Source: Bureau of Economic Analysis

Indianapolis, Columbus, and Evansville each recorded a real PCPI above \$35,000 in 2004 to lead the state peers. Bloomington’s PCPI of \$28,100 was the lowest among its Indiana peers, but its 10-year growth rate of 18.3 percent trailed only Evansville and South Bend. It is likely no coincidence that the four communities in this comparison with the lowest real PCPIs—Bloomington, Terre Haute, Lafayette, and Muncie—are home to some of Indiana’s largest state universities.

Figure 28. 2004 PCPI and 10-year Growth in Real PCPI—Indiana Peers



Source: Bureau of Economic Analysis

Cost of Living: Income alone doesn’t tell the whole story, of course. Cost of living can vary dramatically from region to region. **Table 5** presents several cost of living indicators which allow us to compare Bloomington with some of its peers. Unfortunately, some data are not available for every community.

These measures provide mixed messages for Bloomington. The economy.com index of housing affordability, which analyzes housing sales figures along with local median incomes, suggests that local owner-occupied housing is among the most affordable of the national peer set. In contrast, the two cost of living indicators which measure the prices of a range of goods and services show Bloomington to have one of the highest costs of living among the peer communities for which data is available. Only one community in the ACCRA index and two in the Best Places comparison exceed Bloomington. If accurate, these are troubling indicators in light of Bloomington’s lagging income figures.

College Station, TX appears to be the most affordable of the peer communities while Gainesville, FL; Athens, GA; and Ann Arbor, MI look to be some of the more costly.

Table 5. Cost of Living Indicators

Source	Housing Affordability Index Economy.com, 2006 ⁴	Cost of Living Index ACCRA, 2006 ⁵	Cost of Living Calculator Bestplaces.net ⁶
College Station, TX	205.1	na	-17.4
Ames, IA	193.6	95.9	na
Bloomington, IN	186.9	96.8	0
Columbia, MO	186.4	91.5	-2.2
Morgantown, WV	185.0	100.9	na
Lawrence, KS	180.1	94.2	-3.3
Iowa City, IA	175.7	na	-5.4
Lexington, KY	164.1	95.8	-3.3
Fayetteville, AR	160.0	90.9	-5.4
Ann Arbor, MI	158.0	na	3.3
State College, PA	155.6	na	-3.3
Champaign, IL	153.9	95.7	-2.2
Athens, GA	132.7	na	-1.1
Gainesville, FL	111.6	95.2	2.2
Blacksburg, VA	106.0	na	na

⁴ The higher the number, the more affordable the housing. See the appendix for a methodology statement for this index.

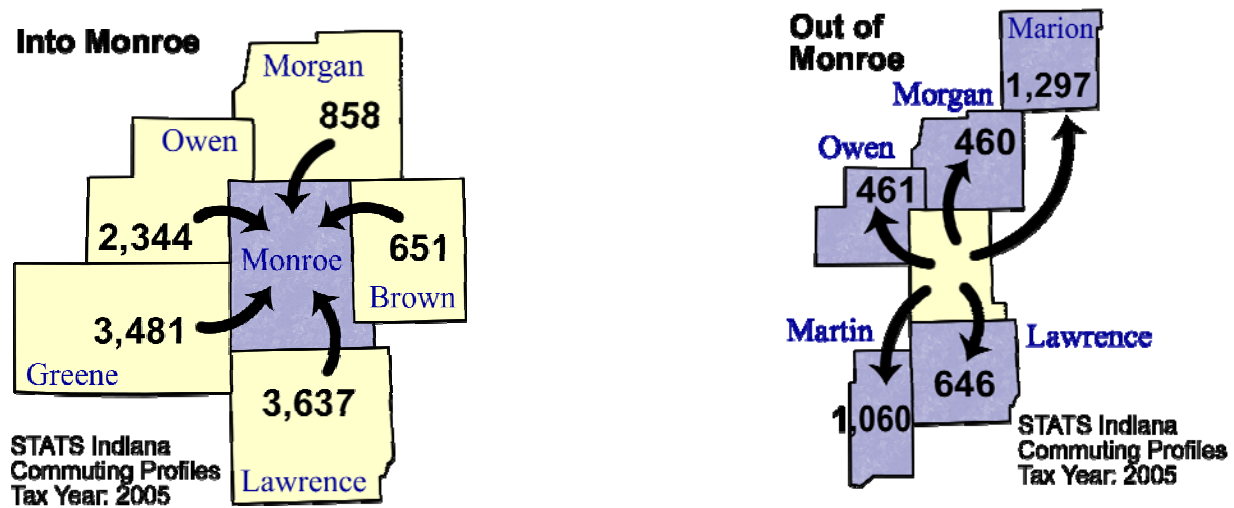
⁵ 100 represents the national average.

⁶ Each community was compared separately to Bloomington. Values below 0 have lower costs of living while those above 0 have higher costs of living

Infrastructure & Commuting

With nearly three times as many in-commuters (15,589) as out-commuters (5,530), Bloomington is a net importer of labor. In fact, commuters account for 19 percent of the local workforce, a further testament to Bloomington’s status as an important employment hub for south-central Indiana. Over 60 percent of Bloomington’s non-resident workforce comes from three counties: Lawrence, Greene, and Owen. In terms of out-commuting, nearly one-quarter of Bloomington area residents working outside the county travel to Indianapolis for employment. Another 1,000 Monroe County residents travel to Martin County for work; 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, 2005



The majority of peers are fairly near an interstate highway. Only residents of College Station, TX, have to travel further than Bloomingtonians to reach an interstate.

Table 6. Approximate Distance to Nearest U.S. Interstate Exit—U.S. Peers

City	Distance (miles)	Interstate	City	Distance (miles)	Interstate
Bloomington	34.4	I-65	Lawrence, KS	1.7	I-70
Ann Arbor, MI	2.0	I-94	Lexington, KY	4.7	I-75
Athens, GA	22.6	I-85	Morgantown, WV	2.7	I-79
Blacksburg, VA	13.9	I-81	State College, PA	24.5	I-80
College Station, TX	41.0	I-45	Champaign, IL	1.3	I-74
Columbia, MO	1.2	I-70	Iowa City, IA	2.3	I-80
Fayetteville, AR	9.7	I-540	Ames, IA	2.4	I-35
Gainesville, FL	5.7	I-75			

Source: Mapquest.com

Several of the peers have local airports with scheduled passenger airline service. A Bloomington resident’s 52-mile trip to the Indianapolis airport is the longest among this group.

Table 7. Approximate Distance to Nearest Scheduled Air Service—U.S. Peers

City	Distance (miles)	Airport Location	City	Distance (miles)	Airport Location
Bloomington	52.4	Indianapolis	Lawrence, KS	50.7	Kansas City
Ann Arbor, MI	25.9	Detroit	Lexington, KY	6.5	Lexington
Athens, GA	4.4	Athens	Morgantown, WV	3.2	Morgantown
Blacksburg, VA	33.6	Roanoke	State College, PA	6.3	State College
College Station, TX	3.9	College Station	Champaign, IL	6.1	Savoy
Columbia, MO	13.2	Columbia	Iowa City, IA	22.9	Cedar Rapids
Fayetteville, AR	28.9	Bentonville	Ames, IA	40.4	Des Moines
Gainesville, FL	4.9	Gainesville			

Source: Mapquest.com

Conclusion

Most indications suggest that the Bloomington area economy is performing reasonably well. Its unemployment rate, for example, is below the national average and per capita personal income as a percent of the U.S. average has increased impressively in recent years (though local PCPI is still well below the national figure). Bloomington also emerges as a leader among its Indiana peers. It registered the greatest 10-year employment growth, the second lowest unemployment rate, and the highest owner-occupied home values of its statewide counterparts. Bloomington does not compare quite as favorably against its national peers, however, with the second highest unemployment rate and the slowest 10-year population growth. Bloomington's average wage and personal income levels rank in the bottom third as well.

What do we learn from these mixed messages? First, the national peer set chosen for Bloomington is an ambitious one. Second, local economic performance is greatly influenced by the broader context within which it operates. Trends in Indiana will always have an impact on Bloomington's economic fortunes. Thus, the contrast in Bloomington's rankings between its state and national peer sets may well say as much about the state within which Bloomington operates as it does about Bloomington itself.

Other important findings include:

- **Bloomington's economy is in transition.** An economy which traditionally relied on manufacturing appears to be effectively diversifying to more service-oriented industries. Significant employment gains are evident in the health care, education, and professional and scientific service industries.
- **Manufacturing remains a vital industry locally.** While it is true that Bloomington's manufacturing employment has declined, this sector still accounts for 12 percent of total employment which is above the national average and 4th highest among national peers. Furthermore, manufacturing accounts for the majority of Bloomington's burgeoning life science cluster.
- **Growth in targeted industries.** The Bloomington area has experienced exceptional growth in two key industry clusters: life sciences and information technology. Monroe County life science employment has grown at an average annual rate surpassing 8 percent since 1995 while the IT cluster has grown nearly 7 percent annually over that time. Life sciences in particular stands out because the concentration of local employment in this cluster far exceeds the national average.
- **Slow population growth.** The City of Bloomington has lost more than 2,000 residents since 2000, while Monroe County's population grew by approximately 900 residents over this same period, less than a 1 percent increase. Moreover, Monroe County's 4.5 percent population growth between 1995 and 2005 was the lowest of the national peers. Slow population growth is typical throughout Indiana and the Midwest, and it has mixed consequences. Low growth reduces pressure on public infrastructure, but it also limits the ability of local businesses to grow by targeting the local market.

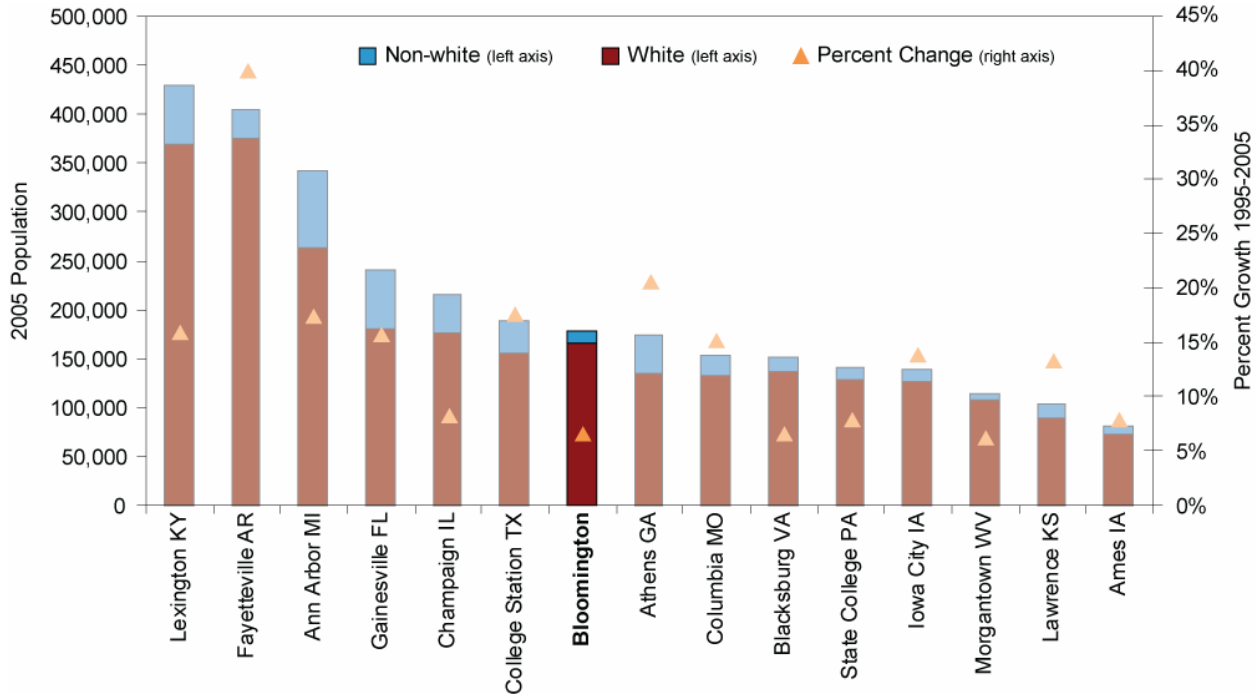
- **Relatively low wages in targeted industries.** Wages in these targeted industries, while above the average local wage, are barely half of the national figures in these same clusters. In the case of life sciences, it seems clear that this gap is due, in large part, to the dominance of production oriented employment locally and few research and development jobs. The local IT cluster is also geared somewhat more towards the production and repair side but the discrepancy in wages could be more a reflection of significantly higher costs of living in communities with traditionally strong IT clusters.
- **Low wages overall.** Bloomington lags behind in nearly all income and wage indicators. For instance, Bloomington registered the 3rd lowest average wage per job among the national peers and recorded the lowest 10-year growth in wages. Furthermore, local wages have not kept pace with inflation in recent years. Unfortunately, this cannot be blamed solely on the college town effect either, as each national peer has a comparable college enrollment-to-population ratio. Low wages are a double-edged sword: they may be frustrating for workers who see state and national wages well above what they earn locally, but they also lower the cost of doing business and make Bloomington a more attractive location for prospective firms.

Finally, the reader is reminded that the economic metrics forming the basis of this report reflect only a partial view of any community. Bloomington is blessed with many other qualities — cultural and natural amenities, for instance, and a very pleasant quality of life — not addressed in this analysis.

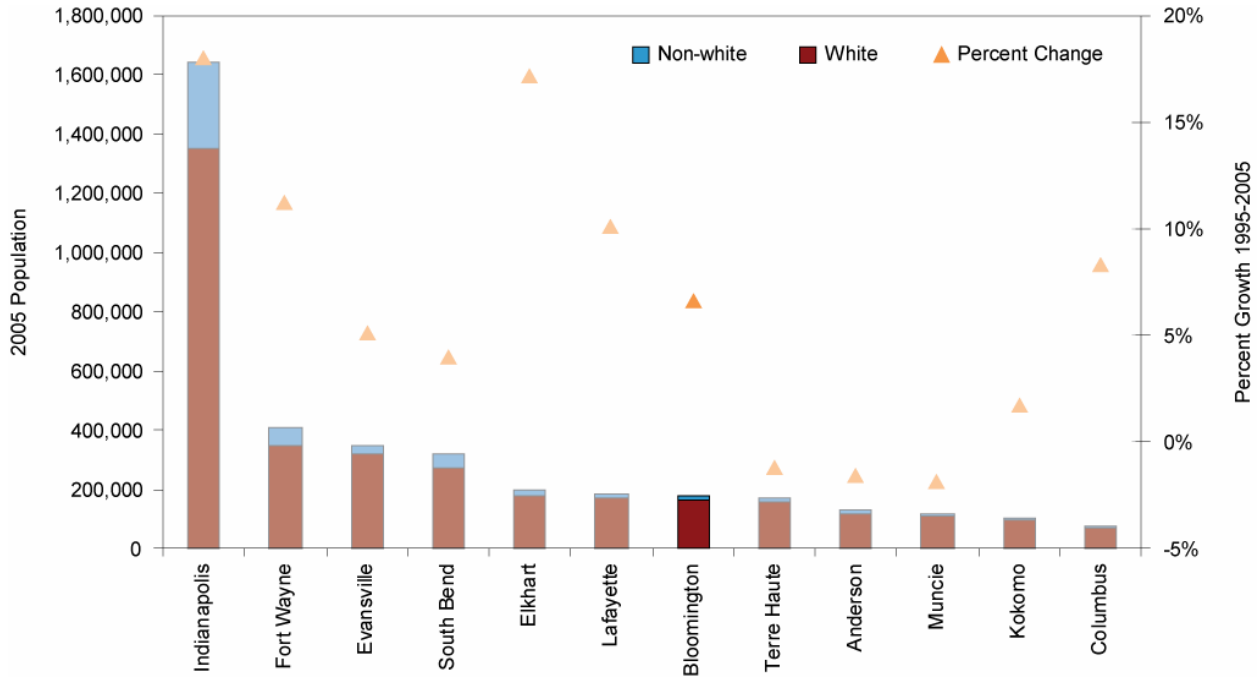
Appendix

Companion Peer MSA Trends

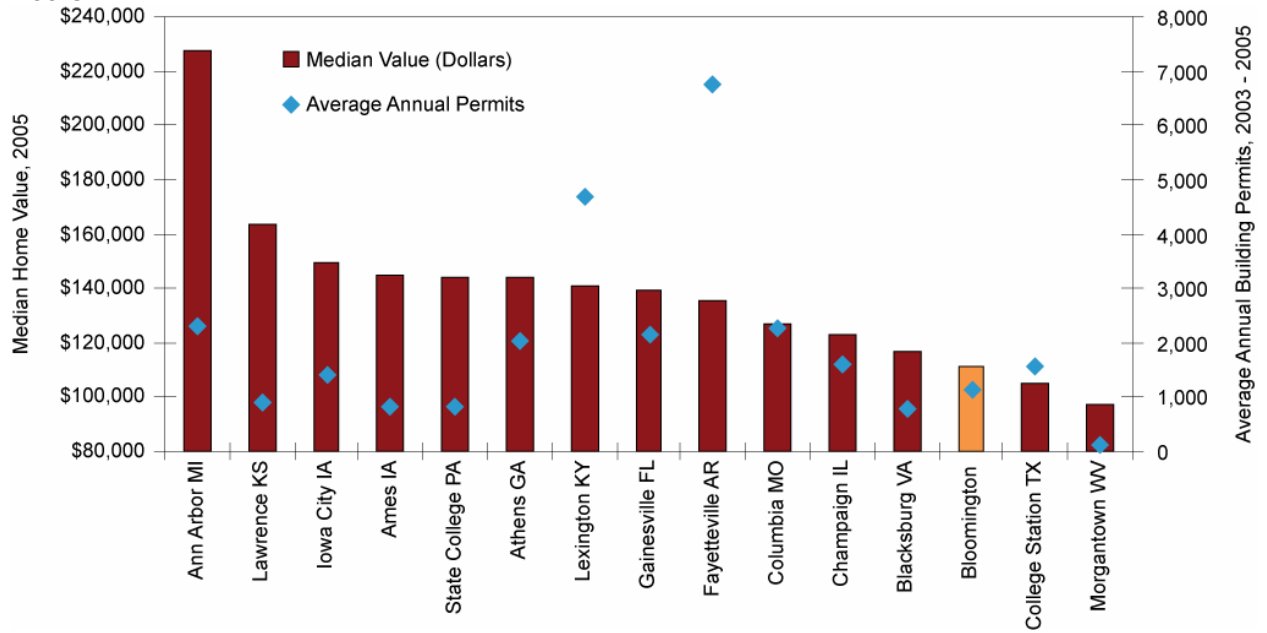
2005 Population & Growth Rates by Race, U.S. MSA Peers



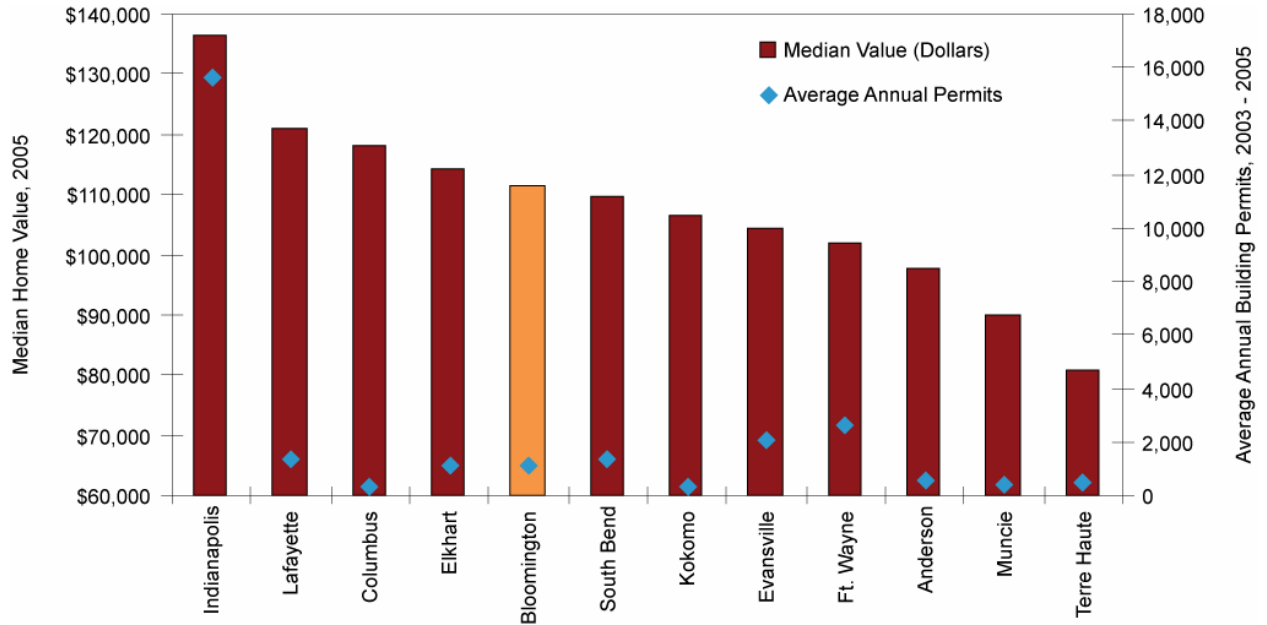
2005 Population & Growth Rates by Race, Indiana MSA Peers



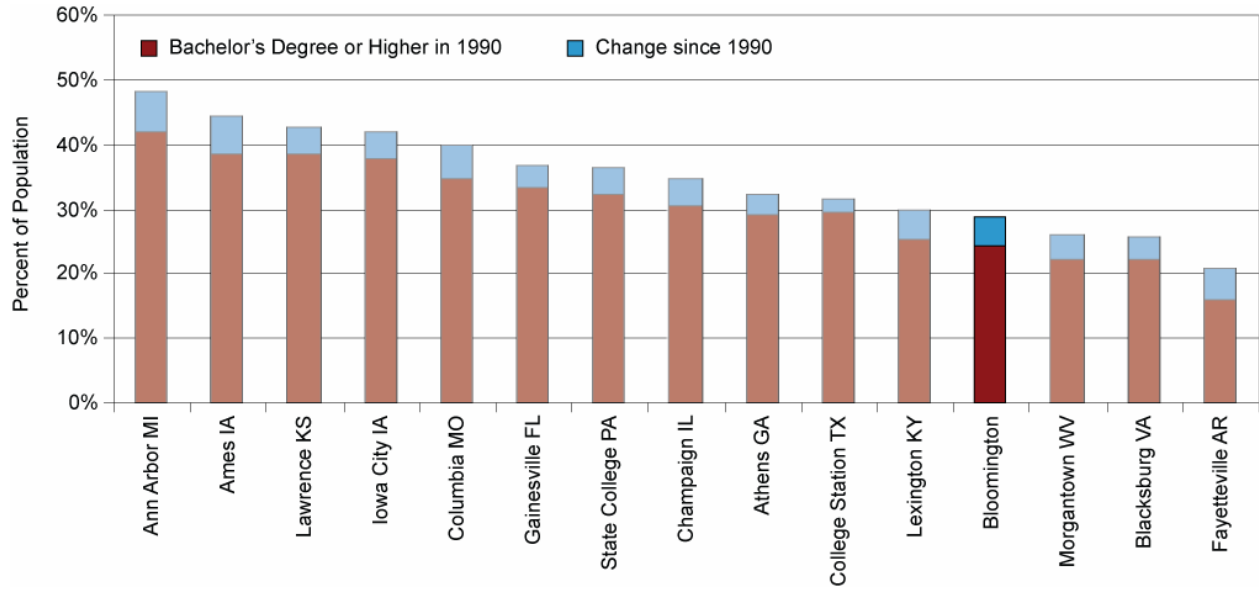
2005 Median Home Value & Average Annual Residential Building Permits (2003-2005), U.S. MSA Peers



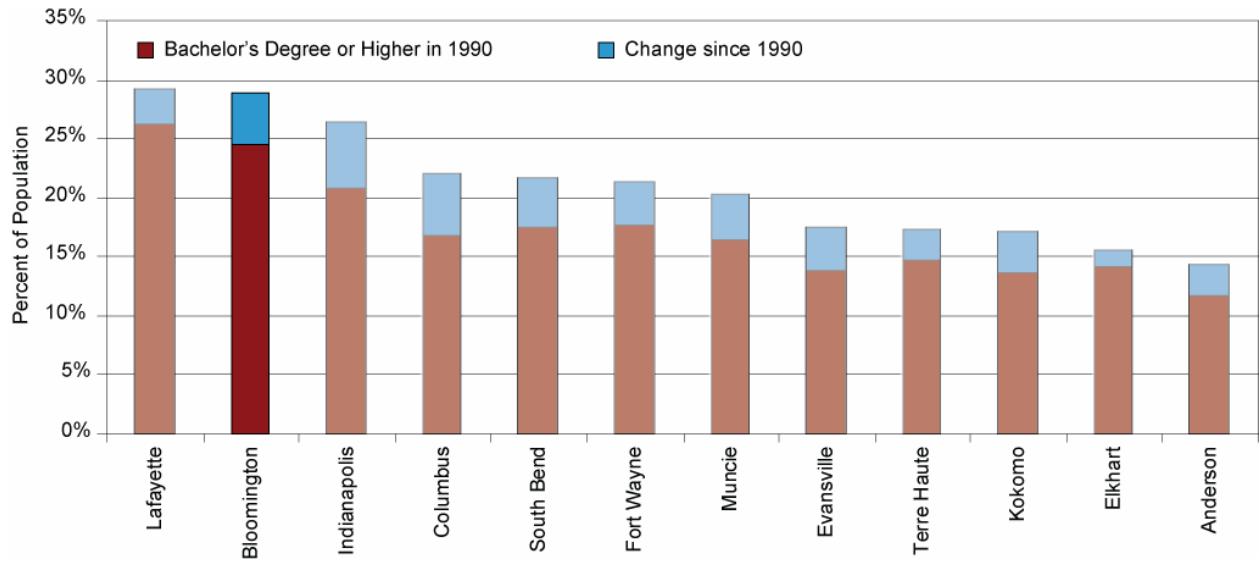
2005 Median Home Value & Average Annual Residential Building Permits (2003-2005), Indiana MSA Peers



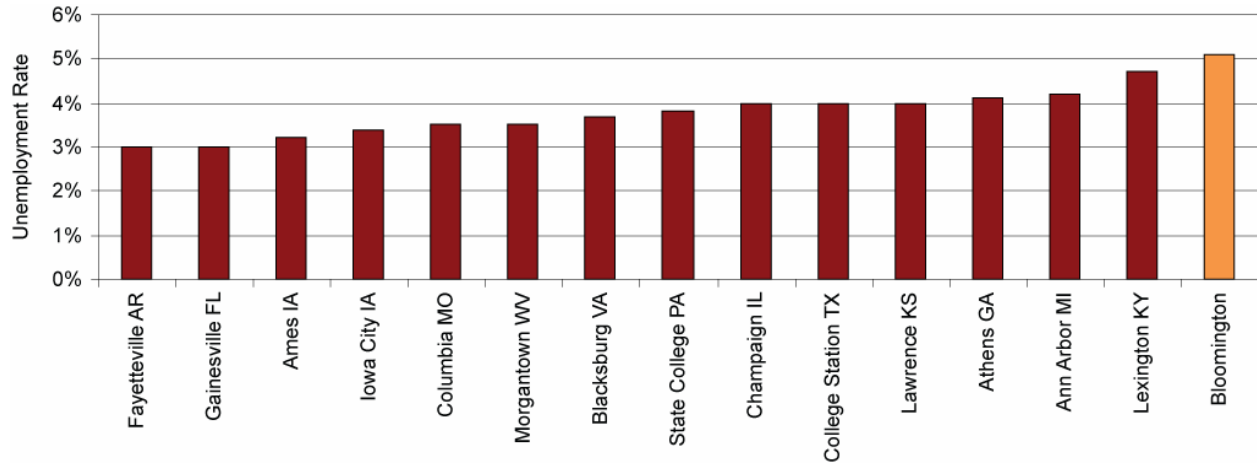
2000 Educational Attainment: B.A. or Higher, U.S. MSA Peers



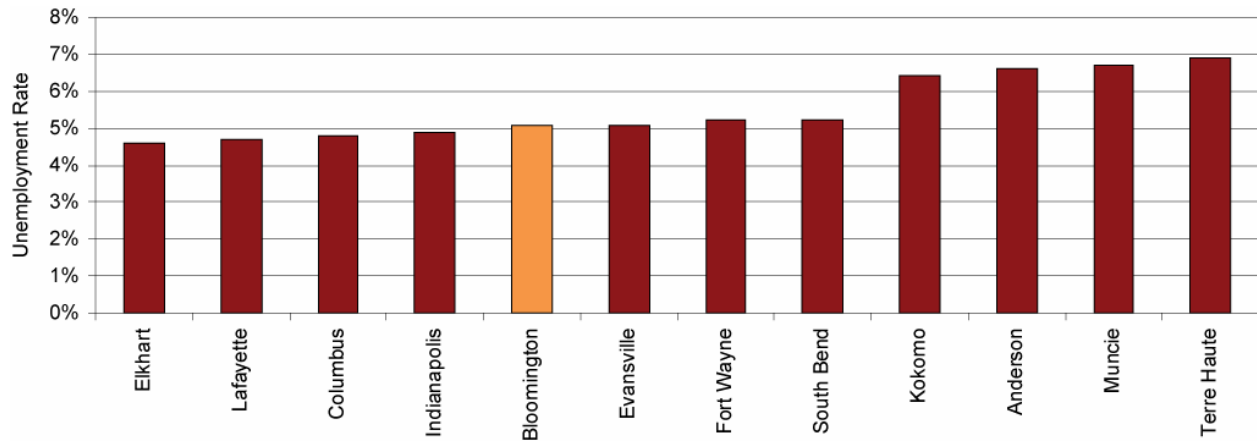
2000 Educational Attainment: B.A. or Higher, Indiana MSA Peers



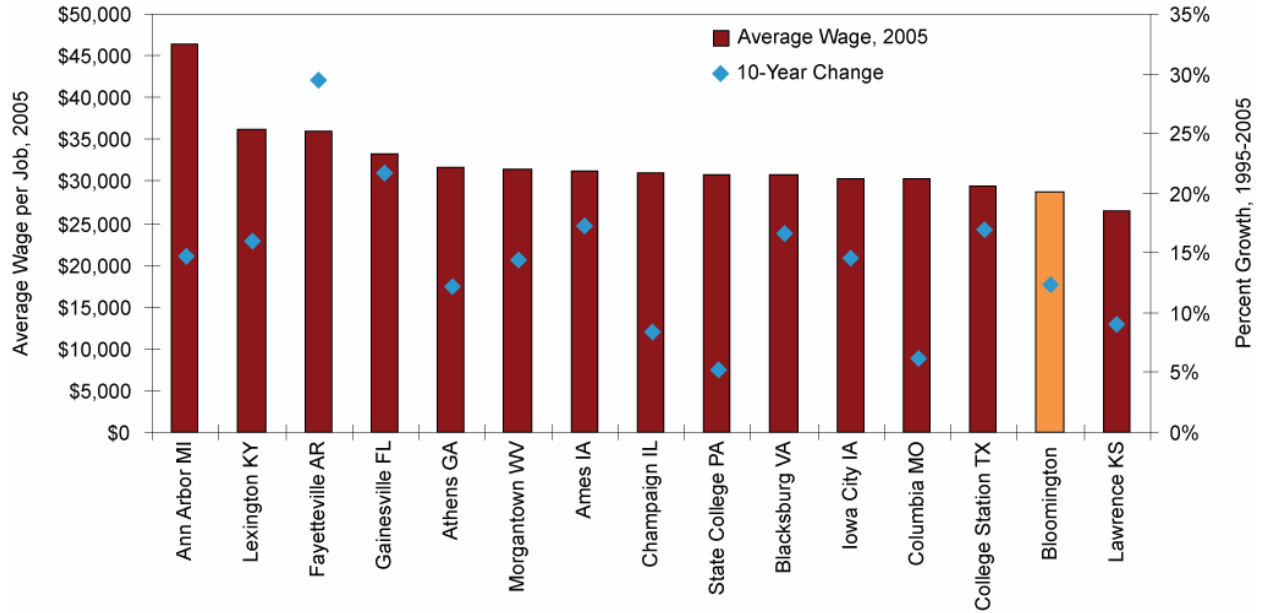
2005 Average Unemployment Rates, U.S. MSA Peers



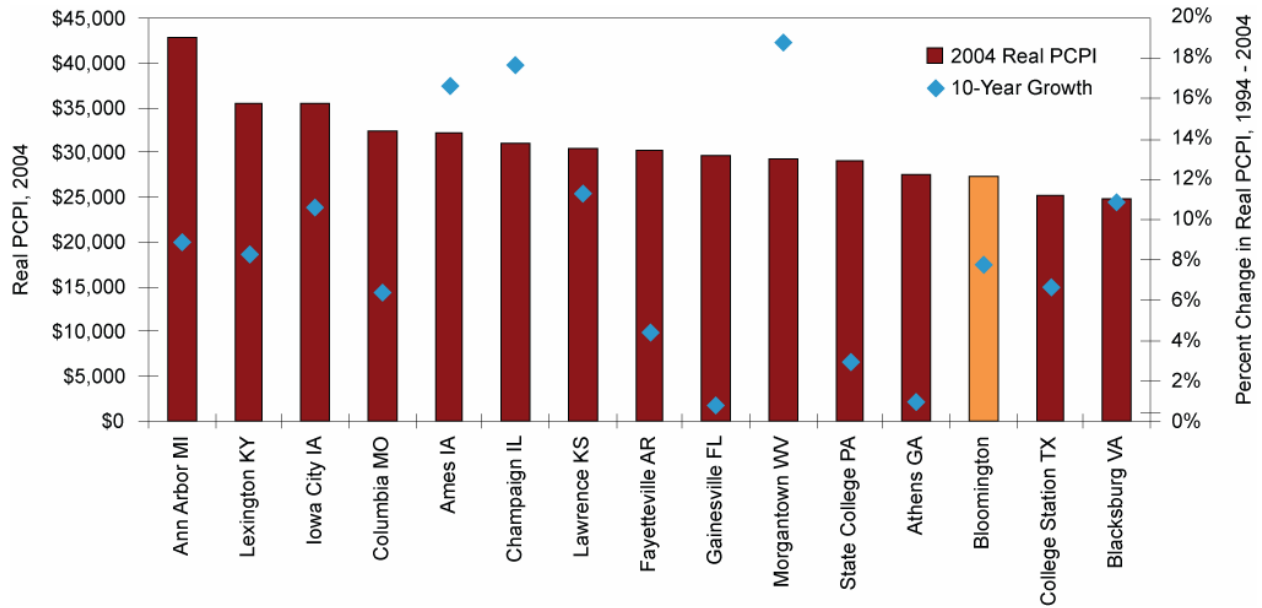
2005 Average Unemployment Rates, Indiana MSA Peers



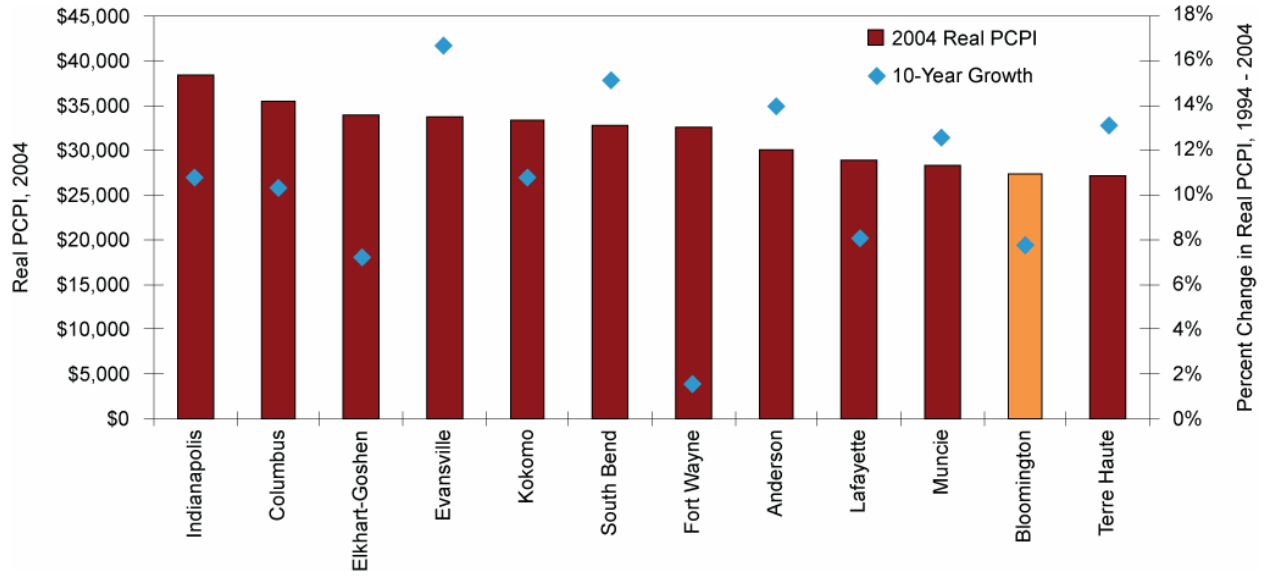
2005 Average Wage per Job and 10-year Growth in Real Wages, U.S. MSA Peers (2006 Dollars)



2004 PCPI and 10-year Growth in Real PCPI, U.S. MSA Peers (2006 Dollars)



2004 PCPI and 10-year Growth in Real PCPI, Indiana MSA Peers (2006 Dollars)



Data Sources

Figure 3: U.S. Census Bureau Population Estimates <http://www.census.gov/popest/estimates.php>

Table 1: Indiana Business Research Center, Population Projections
http://www.stats.indiana.edu/projections_topic_page.html

Table 2: Indiana Business Research Center, Population Projections
http://www.stats.indiana.edu/projections_topic_page.html

Figure 4: U.S. Census Bureau, Population Estimates <http://www.census.gov/popest/estimates.php>

Figure 5: U.S. Census Bureau, American Community Survey <http://www.census.gov/acs/www/>

Figure 6: U.S. Census Bureau, American Community Survey <http://www.census.gov/acs/www/>

Figure 7: U.S. Census Bureau, Building Permits
<http://www.census.gov/const/www/permitsindex.html>

Figure 8: U.S. Census Bureau, American Community Survey <http://www.census.gov/acs/www/>
U.S. Census Bureau, Building Permits
<http://www.census.gov/const/www/permitsindex.html>

Figure 9: U.S. Census Bureau, American Community Survey <http://www.census.gov/acs/www/>
U.S. Census Bureau, Building Permits
<http://www.census.gov/const/www/permitsindex.html>

Figure 10: Indiana Department of Education
<http://www.stats.indiana.edu/web/county/highered05.html>

Figure 11: U.S. Census Bureau, Decennial Census 2000
<http://www.census.gov/main/www/cen2000.html>

Figure 12: U.S. Census Bureau, Decennial Census 2000
<http://www.census.gov/main/www/cen2000.html>

Table 3: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 13: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 14: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 15: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 16: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 17: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 18: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 19: U.S. Bureau of Labor Statistics, Current Employment Statistics
<http://www.bls.gov/sae/home.htm>

Figure 20: U.S. Bureau of Labor Statistics, Current Employment Statistics
<http://www.bls.gov/sae/home.htm>

Figure 21: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Table 4: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 22: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 23: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 24: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 25: U.S. Bureau of Economic Analysis, State and Local Area Personal Income
<http://bea.gov/regional/index.htm#state>

Figure 26: U.S. Bureau of Labor Statistics, Census of Employment & Wages
<http://www.bls.gov/cew/home.htm>

Figure 27: U.S. Bureau of Economic Analysis, State and Local Area Personal Income
<http://bea.gov/regional/index.htm#state>

Figure 28: U.S. Bureau of Economic Analysis, State and Local Area Personal Income
<http://bea.gov/regional/index.htm#state>

Figure 29: IBRC, Indiana Commuting Profiles
http://www.stats.indiana.edu/commuting_topic_page.html

Table 5: www.economy.com, www.c2er.org, www.bestplaces.net

Table 6: Mapquest <http://www.mapquest.com>

Table 7: Mapquest <http://www.mapquest.com>

Industry Cluster Definitions

Information Technology
NAICS 33411: Computer and peripheral equipment mfg.
NAICS 334210: Telephone apparatus manufacturing
NAICS 334220: Broadcast and wireless communications equip.
NAICS 334290: Other communications equipment manufacturing
NAICS 33441: Semiconductor and electronic component mfg.
NAICS 334611: Software reproducing
NAICS 423430: Computer and software merchant wholesalers
NAICS 511210: Software publishers
NAICS 517110: Wired telecommunications carriers
NAICS 51721: Wireless telecommunications carriers
NAICS 517310: Telecommunications resellers
NAICS 517410: Satellite telecommunications
NAICS 517910: Other telecommunications
NAICS 518: ISPs, search portals, and data processing
NAICS 5415: Computer systems design and related services
Life Sciences
NAICS 32541: Pharmaceutical and medicine manufacturing
NAICS 334510: Electromedical apparatus manufacturing
NAICS 334516: Analytical laboratory instrument mfg.
NAICS 334517: Irradiation apparatus manufacturing
NAICS 33911: Medical equipment and supplies manufacturing
NAICS 423450: Medical equipment merchant wholesalers
NAICS 541710: Physical, engineering and biological research

Travel & Tourism		
NAICS	Ratio of Total Activity Applied to T&T Cluster	Description
NAICS 7211	1.00	Traveler
NAICS 7212	1.00	Accommodation
NAICS 722	0.20	Food & Drink
NAICS 481	1.00	Air Transportation
NAICS 4881	1.00	
NAICS 48211	1.00	Rail Transportation
NAICS 48821	1.00	
NAICS 483	0.90	Water Transportation
NAICS 4883	0.90	
NAICS 48521	1.00	Interurban Bus
NAICS 48551	1.00	Interurban Charter Bus
NAICS 4851	0.16	
NAICS 48532	0.16	Urban Transit & Other
NAICS 4859	0.16	Transportation
NAICS 4884	0.16	
NAICS 48531	0.30	Taxi Service
		Scenic & Sightseeing
NAICS 487	1.00	Transportation
		Automotive Equipment
NAICS 5321	0.91	Rental & Leasing
NAICS 81293	0.17	Parking Lots & Garages
		Travel Arrangement &
NAICS 5615	0.96	Reservation Services
NAICS 51213	0.37	
NAICS 7111	0.37	Motion Pictures &
NAICS 7115	0.37	Performing Arts
NAICS 7112	0.43	
NAICS 7113	0.43	Spectator Sports
NAICS 7114	0.43	
NAICS 71391	0.29	
NAICS 71392	0.29	Participant Sports
NAICS 71394	0.29	
NAICS 7132	0.51	Gambling
NAICS 1142	0.33	
NAICS 51912	0.33	
NAICS 711212	0.33	All Other Recreation &
NAICS 7121	0.33	Entertainment
NAICS 7131	0.33	
NAICS 7139	0.33	

Aggregated Sector Definitions (Figure 18, Industry Diversity)

NAICS	Name
31-33	Manufacturing
	Trade & Transportation
42	Wholesale Trade
44	Retail Trade
48	Transportation & Warehouse
	Professional, Business, & Financial Svcs.
52	Finance, Insurance
53	Real Estate, Rental, Lease
54	Professional, Scientific, Technical Services
55	Management of Companies
56	Administrative, support, waste mgmt, remediation svcs.
	Health & Education Svcs.
61	Education Services
62	Health, social services
	Leisure, Hospitality & Other Svcs.
71	Arts, Entertainment, Recreation
72	Accommodation, Food Service
81	Other Services
	Other
11	Agriculture, Forestry, Fishing, Hunting
21	Mining
22	Utilities
23	Construction
51	Information
92	Public Administration

Industry Diversity Detail: Percent of each U.S. Peer's Total Employment

	Bloomington	Fayetteville	Gainesville	Athens	Champaign	Iowa City	Ames	Lawrence	Lexington	Ann Arbor	Columbia	State College	College Station	Blacksburg	Morgantown
Health Care & Social Services	12.3%	11.7%	18.5%	12.4%	11.7%	9.9%	11.1%	8.0%	12.7%	11.1%	11.1%	10.2%	9.4%	9.2%	21.5%
Manufacturing	11.7%	17.5%	3.2%	12.6%	10.4%	7.2%	10.1%	8.9%	8.6%	11.1%	6.1%	7.2%	6.8%	13.7%	6.1%
Retail Trade	11.4%	12.8%	10.8%	11.6%	10.9%	12.3%	11.8%	12.1%	12.5%	9.1%	12.4%	12.2%	10.9%	13.0%	11.7%
Accommodation & Food Services	10.6%	9.2%	9.5%	10.3%	10.1%	9.1%	10.1%	12.4%	9.5%	6.2%	9.6%	9.4%	9.7%	9.9%	9.1%
Construction	4.8%	6.2%	4.8%	2.8%	4.1%	4.1%	5.0%	5.4%	5.1%	3.2%	5.5%	5.0%	5.3%	4.6%	4.5%
Admin. & Waste Mgmt. Services	4.6%	3.7%	4.0%	4.7%	3.0%	3.8%	4.3%	2.6%	6.6%	5.1%	3.9%	2.6%	2.7%	4.8%	3.6%
Educational Services	4.1%	5.5%	1.3%	3.7%	5.8%	5.7%	4.2%	5.4%	1.0%	5.6%	5.4%	5.3%	26.2%	0.7%	0.4%
Professional, Scientific, & Technical Services	3.4%	3.3%	4.4%	2.3%	4.0%	2.0%	3.4%	5.5%	5.8%	7.4%	2.9%	4.9%	3.7%	4.4%	3.7%
Other Services (except Public Admin.)	3.1%	2.2%	2.8%	3.5%	2.3%	2.2%	2.1%	4.7%	2.8%	2.4%	2.6%	2.7%	2.4%	2.7%	2.7%
Public Administration	3.0%	2.1%	5.5%	2.7%	3.6%	3.6%	8.6%	4.4%	4.0%	3.1%	4.2%	4.3%	4.8%	2.1%	4.4%
Wholesale Trade	2.6%	4.2%	2.0%	2.7%	3.3%	1.7%	2.1%	0.0%	3.6%	2.3%	3.3%	1.5%	1.6%	1.5%	1.7%
Finance & Insurance	2.1%	2.8%	3.4%	1.8%	3.0%	2.5%	2.2%	2.4%	3.5%	1.5%	3.9%	2.1%	2.2%	1.5%	1.8%
Real Estate & Rental & Leasing	1.9%	1.5%	1.5%	1.4%	1.6%	1.0%	1.0%	1.3%	1.7%	1.3%	1.5%	1.4%	1.7%	1.4%	1.3%
Information	1.8%	1.7%	1.6%	1.2%	2.7%	4.1%	1.7%	2.2%	2.4%	1.9%	1.5%	1.9%	1.4%	1.0%	1.2%
Transportation & Warehousing	1.6%	5.6%	0.6%	0.6%	3.7%	6.2%	0.4%	3.1%	3.8%	1.8%	0.6%	2.2%	1.2%	0.3%	1.0%
Utilities	0.5%	0.7%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.1%	0.3%	0.0%	0.2%	0.6%	0.0%	1.0%
Arts, Entertainment, & Recreation	0.4%	0.8%	1.4%	0.6%	1.7%	0.9%	0.8%	0.9%	1.7%	1.0%	0.8%	0.9%	1.1%	1.3%	1.0%
Management of Companies & Enterprises	0.4%	2.5%	0.1%	0.3%	1.0%	0.3%	0.7%	0.1%	1.0%	1.2%	2.8%	1.3%	0.1%	1.0%	1.4%
Mining	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	1.1%	0.0%	0.9%
Agriculture, Forestry, Fishing, & Hunting	0.1%	0.4%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	1.1%	0.1%	0.2%	0.3%	0.6%	0.0%	0.0%

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 price 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 U.S., 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 (see article on “Economy.com’s Estimates of Median Existing Home Prices”).

Published median family income data for U.S., regions, states, metropolitan and county areas are used to determine the income available for a home purchase. Since the Bureau of Census publishes median family income for metropolitan and county areas on a decennial basis Economy.com estimates the intercensal years (see article on “Economy.com’s Estimates of Median Household Income”).

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.

Economy.com Data Services