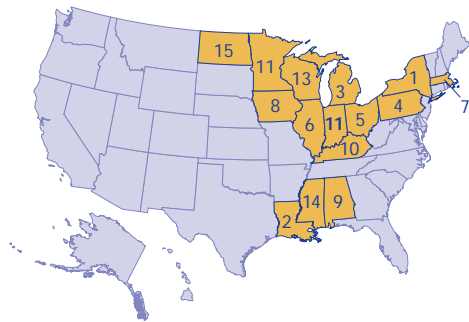


inside

- Coming and Going in Indiana: Recent Migration Trends 1
- Housing is Affordable in the Hoosier State 3
- Monthly Metrics: Indiana's Economic and Workforce Indicators 6
- The Muncie Metro Area 8
- Improving Our Understanding of Employment Changes 11
- Flooding: How Prepared are Hoosiers? 12

Hoosiers for Life

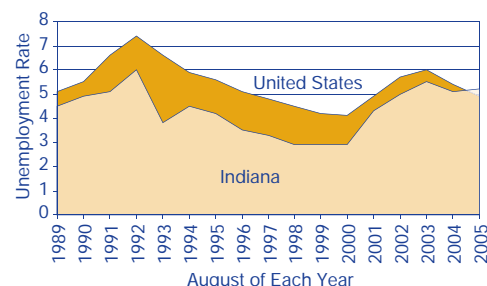
In 2004, Indiana tied with Minnesota for 11th place for the percent of native population still living in the state where they were born. See the map below for the top 15 states residents aren't leaving.



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

Unemployment for August 2005

Indiana's unemployment rate rose to 5.2 percent for August 2005, up 0.1 percentage points from the same time last year. Meanwhile, national unemployment dropped from 5.4 percent in 2004 to 4.9 percent in 2005, 0.3 percentage points lower than Indiana. For a map of the latest rates by county, visit www.incontext.indiana.edu.



*Not seasonally adjusted

Coming and Going in Indiana: Recent Migration Trends

Moving around within the United States is one advantage that comes with our freedom and independence. Hundreds of thousands of households move every year, either within their county or state or across states. More than 2 million tons of household goods were moved during 2003 by major carriers, according to a report from the American Moving and Storage Association, traveling 877 million highway miles in the process (see **Table 1**). Some of those major carriers include

Allied Van Lines, Mayflower, and North American Van Lines (in Fort Wayne).

While most Indiana households didn't move between 2001 and 2002, thousands of households (56,495) did move to Indiana from another state or country (see **Table 2**). Most came from neighboring states, such as Illinois, Ohio, Kentucky and Michigan. Illinois, as usual, topped the list with close to 19 percent of Indiana's in-migration.

While households were moving into our Hoosier state, 57,021 moved out *(continued on page 2)*

TABLE 1: MAJOR CARRIERS MOVEMENT, 2003

| | Shipments | Tonnage | Intercity Miles | Highway Miles |
|----------------|-----------|-----------|-----------------|---------------|
| Major Carriers | 1,066,489 | 2,289,024 | 458,053,837 | 877,620,234 |

Source: American Moving and Storage Association Annual Report

TABLE 2: TOP TEN STATES WITH HOUSEHOLDS COMING TO INDIANA

| State | Moving to Indiana | Percent of Indiana's in-migration | Median Adjusted Gross Income |
|----------------|-------------------|-----------------------------------|------------------------------|
| Illinois | 10,135 | 18.9 | \$25,138 |
| Ohio | 5,416 | 10.1 | \$24,266 |
| Kentucky | 4,525 | 8.4 | \$21,856 |
| Florida | 4,163 | 7.8 | \$18,032 |
| Michigan | 4,090 | 7.6 | \$22,320 |
| California | 2,713 | 5.1 | \$21,628 |
| Texas | 2,498 | 4.7 | \$20,159 |
| Tennessee | 1,487 | 2.8 | \$19,048 |
| Georgia | 1,281 | 2.4 | \$20,222 |
| North Carolina | 1,207 | 2.3 | \$22,654 |

Source: Internal Revenue Service

TABLE 3: TOP TEN STATES FOR HOUSEHOLDS LEAVING INDIANA

| State | Leaving Indiana | Percent of Indiana's out-migration | Median Adjusted Gross Income |
|------------|-----------------|------------------------------------|------------------------------|
| Illinois | 6,984 | 12.5 | \$22,576 |
| Florida | 6,679 | 12.0 | \$22,525 |
| Kentucky | 4,813 | 8.6 | \$20,205 |
| Ohio | 4,750 | 8.5 | \$22,799 |
| Michigan | 3,846 | 6.9 | \$24,552 |
| California | 2,814 | 5.0 | \$18,934 |
| Texas | 2,762 | 4.9 | \$20,477 |
| Tennessee | 2,070 | 3.7 | \$20,241 |
| Georgia | 1,598 | 2.9 | \$20,170 |
| Arizona | 1,569 | 2.8 | \$21,541 |

Source: Internal Revenue Service

of Indiana during the same year. Of those, most chose Illinois, Florida and Kentucky as their destination (see **Table 3**). California, often viewed as a major destination site for Indiana migrants, received the same proportion

of Hoosiers as came to us from that state (approximately 5 percent).

Figures 1 and 2 provide a more detailed view of the recent comings and goings of Hoosier households. Detailed spreadsheets are available for download

from STATS Indiana at www.stats.indiana.edu/migration_topic.html.

—Carol O. Rogers, Executive Editor,
Indiana Business Research Center, Kelley
School of Business, Indiana University

FIGURE 1: PERCENT OF TOTAL U.S. MIGRATION TO INDIANA

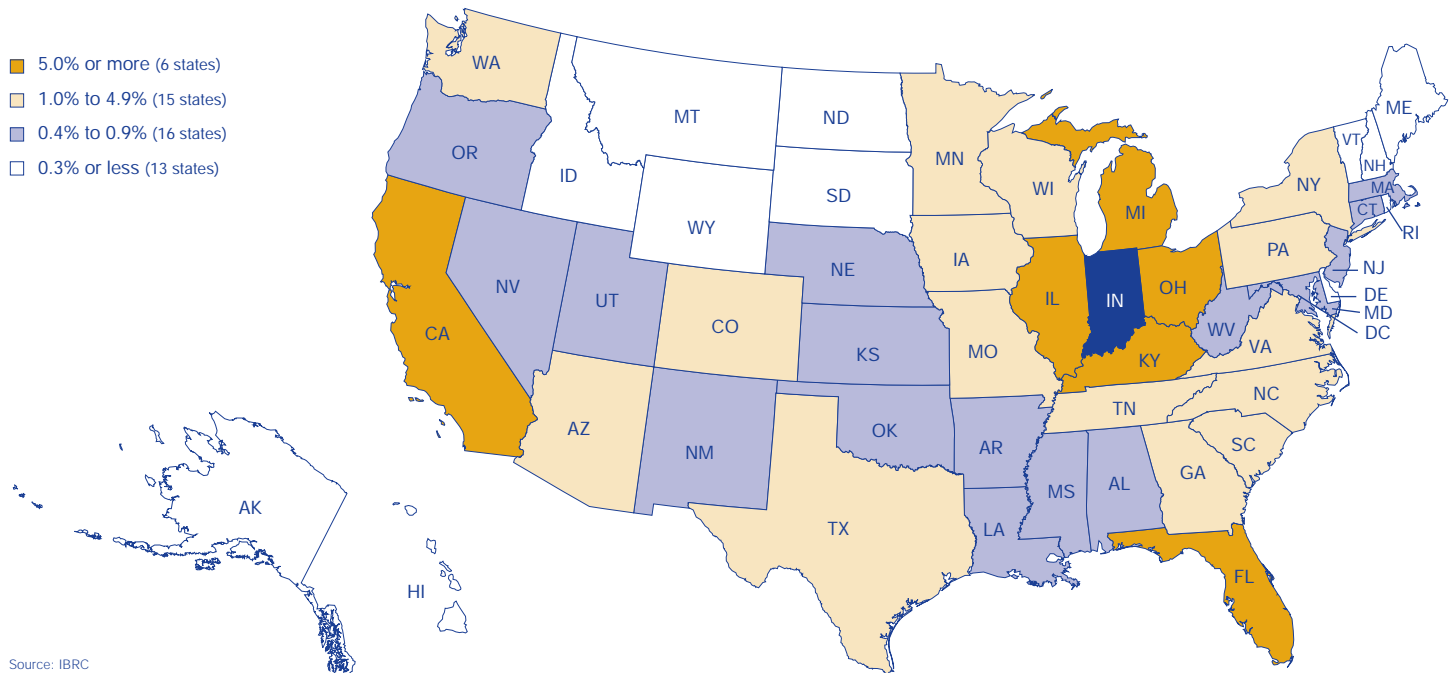


FIGURE 2: PERCENT OF TOTAL U.S. MIGRATION FROM INDIANA

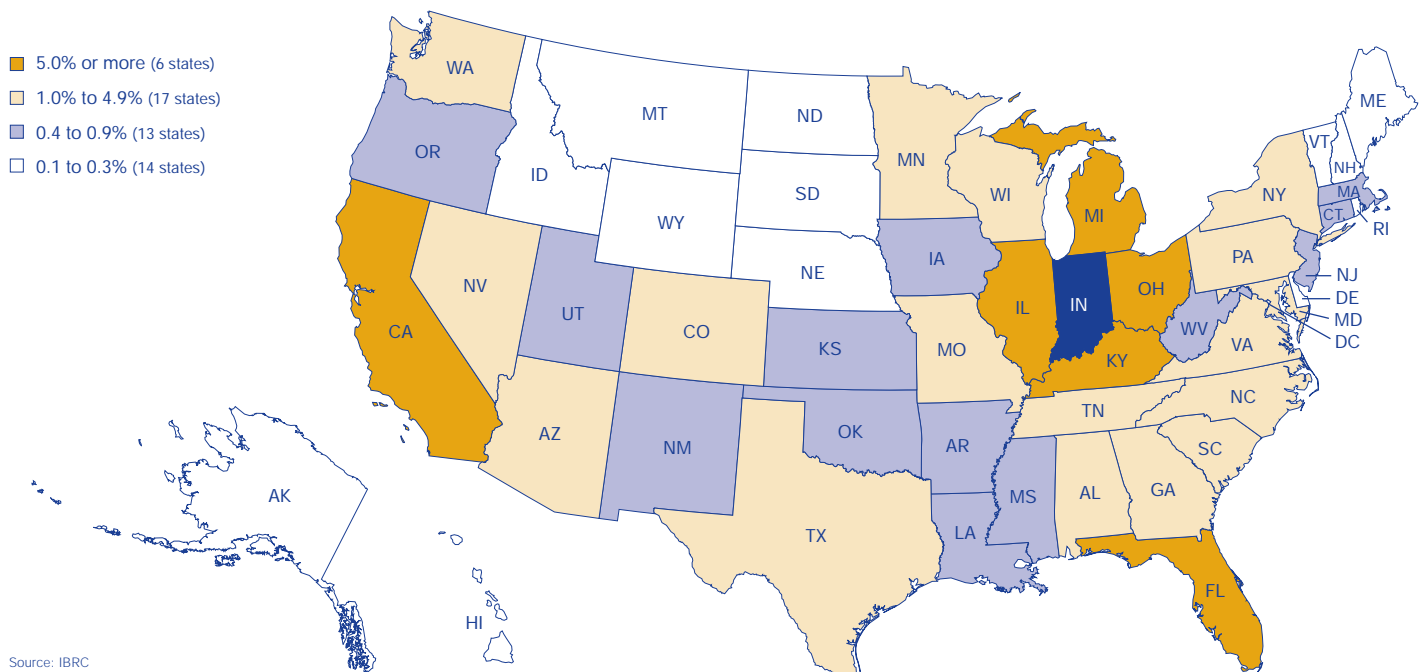
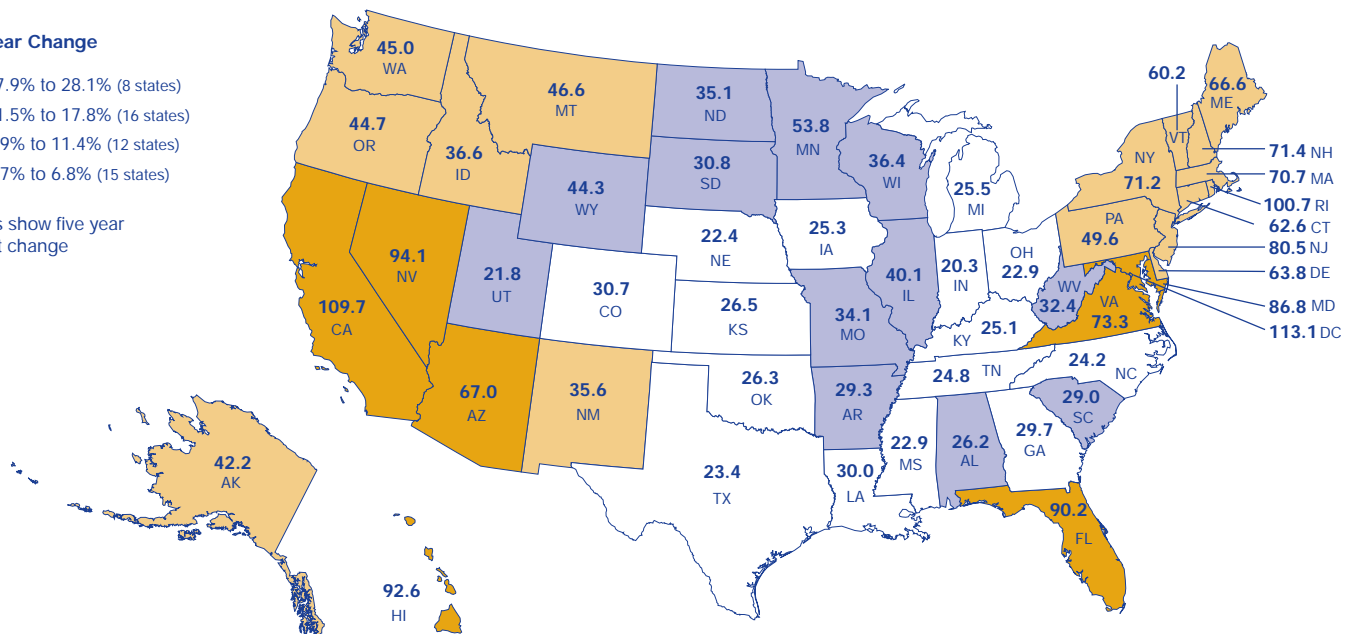


FIGURE 2: PERCENT CHANGE IN HOUSE PRICES THROUGH 2005:2

One Year Change

- 17.9% to 28.1% (8 states)
- 11.5% to 17.8% (16 states)
- 6.9% to 11.4% (12 states)
- 4.7% to 6.8% (15 states)

*Labels show five year percent change



Source: IBRC, using Office of Federal Housing Enterprise Oversight data

by 25 percent, whereas Indiana had a 4.7 percent net increase—a full 8.7 percentage points below the nation. California, District of Columbia and Rhode Island home prices doubled over the five-year period. Longevity seems to be the key in the Indiana housing market where Indiana's five-year appreciation rates were last in the nation but its 25-year rates earned the state a rank of 39.

Similarly, renting is an affordable option in Indiana (ranked 44th) where only 37.8 percent of renting households spend 30 percent or more on rent and utilities.

In Indiana, four counties (Allen, Lake, Marion and St. Joseph) were sampled by the ACS to produce estimates. However, more counties were used to derive the state numbers.⁴ **Figure 1** shows the four counties and their peers across the nation in the percent of mortgaged owners spending 30 percent or more of their income on

homeowner expenses, along with the state data.⁵ Only seven states are more affordable. Meanwhile, 50 percent of renters in Florida and California spent 30 percent or more of their household income on rent and utilities each month.

The median monthly owner cost for those with a mortgage in Indiana was \$963, an \$11 increase from 2003. Indiana ranked 36th on this measure, and Hoosiers paid \$884 dollars less than New Jersey residents, who had the highest monthly owner costs. Meanwhile, Hoosiers paid \$194 more than West Virginians who ranked 51st.

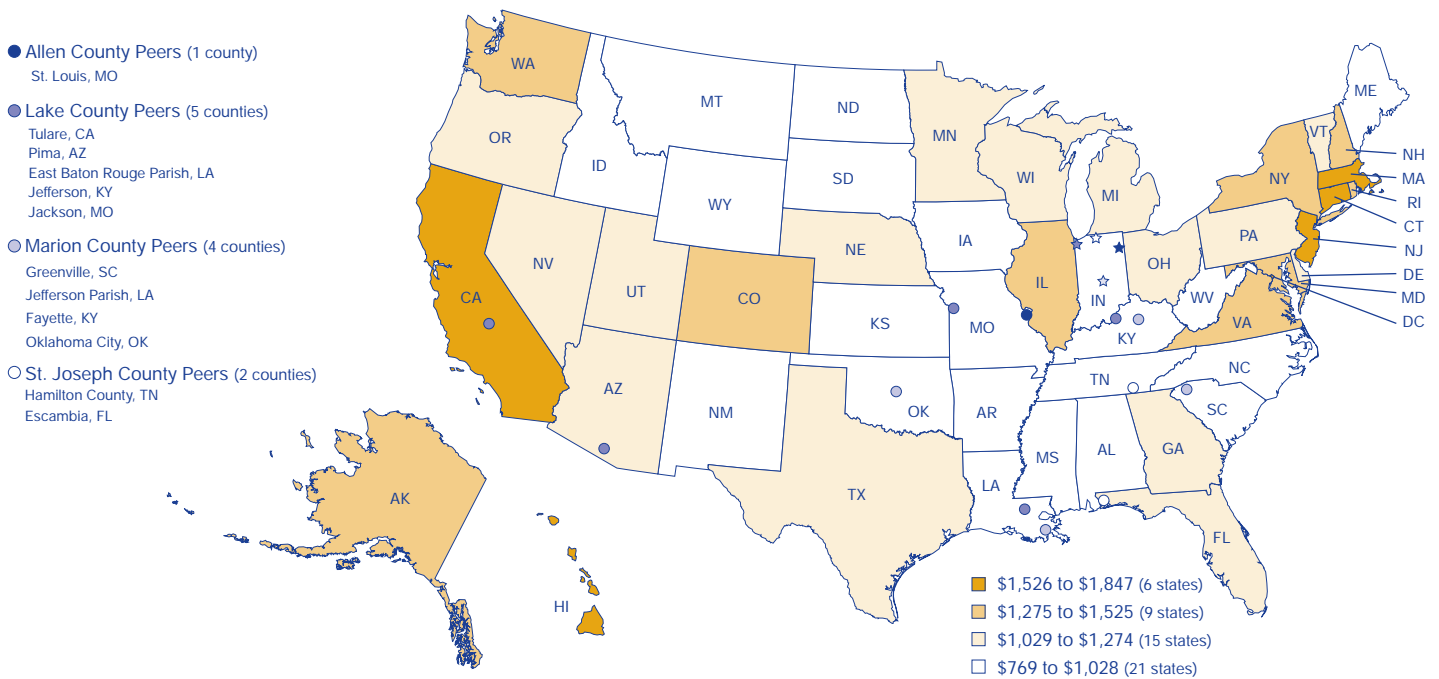
Out of 236 counties or county equivalents across the nation, Lake (\$1,034), Marion (\$1,016), St. Joseph (\$912) and Allen (\$896) counties were ranked 196th, 199th, 227th and 231st, respectively for median monthly owner cost for those with a mortgage. **Figure 3** shows the counties that are within 1 percent of the Indiana counties' values.

Comparatively, San Francisco had the highest median monthly housing cost (\$2,472).

A typical Indiana resident paid \$589 per month last year for rent and utilities,⁶ \$105 less than the U.S. average. In comparison, California renters paid \$914 per month, which was only \$49 less than what the typical Hoosier homeowner would pay in mortgage and other related costs.

In 2004, 71.8 percent of occupied housing units were owner-occupied, ranking the Hoosier state 12th in the nation. That is a 5.9 percentage point increase since Census 2000. Hawaii, California, New York and District of Columbia had the smallest percentage of owner-occupied housing. Of Indiana's owner-occupied housing units, the median home value was \$110,020, which was 72.7 percent of the U.S. value. **Table 2** shows the median home values of Indiana's neighboring states, along with Midwestern peer counties

FIGURE 3: MEDIAN MONTHLY HOUSING COSTS FOR OWNER-OCCUPIED HOUSING UNITS WITH A MORTGAGE, 2004



(within 1 percent of the Indiana counties' 2003 per capita income).

The old saying, "just because you can afford it doesn't mean you should buy it," probably applies here too. Hoosiers need to make sure they have all of their finances and debt in line

before taking on one of life's biggest debts.

Notes

1. In 2010, the ACS is scheduled to replace the long-form census questionnaire that was administered to one in six addresses in Census 2000.

2. Selected monthly owner costs are the sum of payments for mortgages, deeds of trust, contracts to purchase or similar debts on the property (including payments for the first mortgage, second mortgages, home equity loans and other junior mortgages); real estate taxes; fire, hazard and flood insurance on the property; utilities (electricity, gas, water and sewer); and fuels (oil, coal, kerosene, wood, etc.). It also includes, where appropriate, the monthly condominium fee for condominiums and mobile home costs (installment loan payments, personal property taxes, site rent, registration fees and license fees).
3. The Department of Housing and Urban Development (HUD) has determined that no more than 30 percent of income should go toward housing costs.
4. For a list of Indiana counties in the ACS sample, visit www.census.gov/acs/www/SBasics/county02.htm.
5. Peers were determined by being plus or minus 0.5 percentage points from the Indiana value.
6. The data for monthly housing costs are developed from a distribution of selected monthly owner costs for owner-occupied units and gross rent for renter-occupied units. Gross rent includes aggregates of payments for contract rent and the cost of utilities and fuels.

TABLE 2: INDIANA'S NEIGHBORING STATES MEDIAN HOME VALUE, 2004

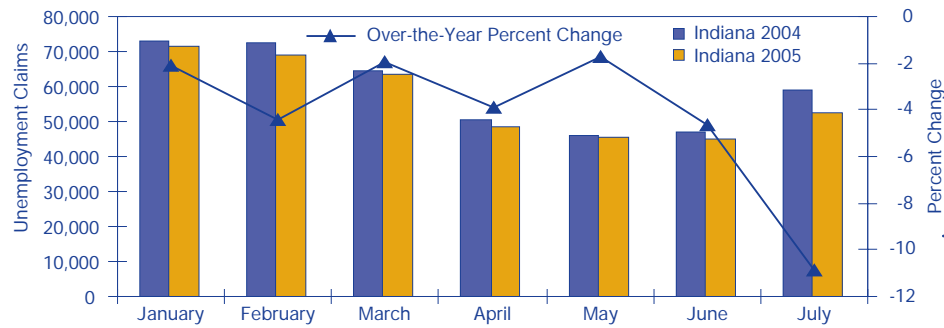
| Area | | Median Home Value | Percent of U.S. |
|--------------------------------|-----------------------|-------------------|-----------------|
| Midwest | United States | 151,366 | 100 |
| | Indiana | 110,020 | 72.7 |
| | Illinois | 167,711 | 110.8 |
| | Ohio | 122,384 | 80.9 |
| | Kentucky | 98,438 | 65.0 |
| | Wisconsin | 137,727 | 91.0 |
| | Michigan | 145,177 | 95.9 |
| Counties and Neighboring Peers | Lake County, IN | 113,021 | 74.7 |
| | St. Clair County, IL | 92,814 | 61.3 |
| | Mahoning County, OH | 89,633 | 59.2 |
| | Winnebago County, IL | 107,960 | 71.3 |
| | Marion County, IN | 112,559 | 74.4 |
| | Allen County, IN | 103,582 | 68.4 |
| | Kent County, MI | 145,091 | 95.9 |
| | St. Joseph County, IN | 95,430 | 63.0 |
| | Butler County, OH | 142,224 | 94.0 |
| | Kane County, IL | 216,218 | 142.8 |
| | Wayne County, MI | 130,633 | 86.3 |
| | Lucas County, OH | 115,816 | 76.5 |

Note: The peer counties shown are neighboring states only and are within 1 percent of the Indiana counties' 2003 per capita income. No Marion County peers made the American Community Survey list of counties.
Source: American Community Survey, U.S. Census Bureau

—Amber Kostelac, Data Manager, Indiana Business Research Center, Kelley School of Business, Indiana University

Monthly Metrics: Indiana's Economic and Workforce

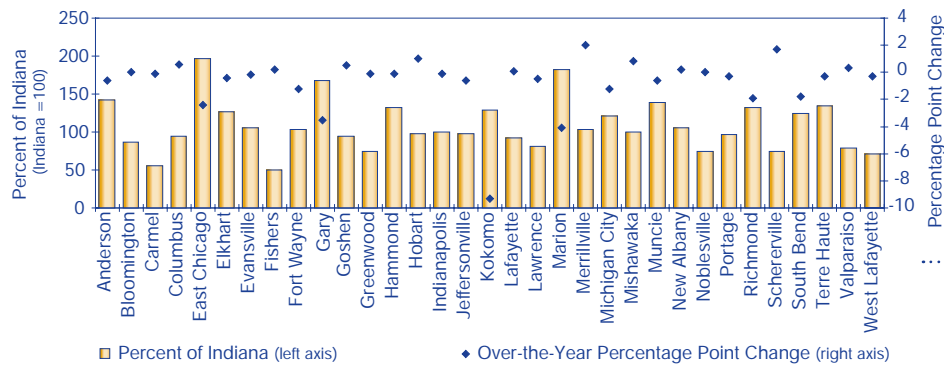
REGULAR UNEMPLOYMENT CLAIMS, 2004 TO 2005*



*Claimants have no earnings

Unemployment claims for the first half of the year have been lower than the previous year. July experienced the greatest decline in the number of claims being filed—a decline of 10.9 percent (- 6,391).

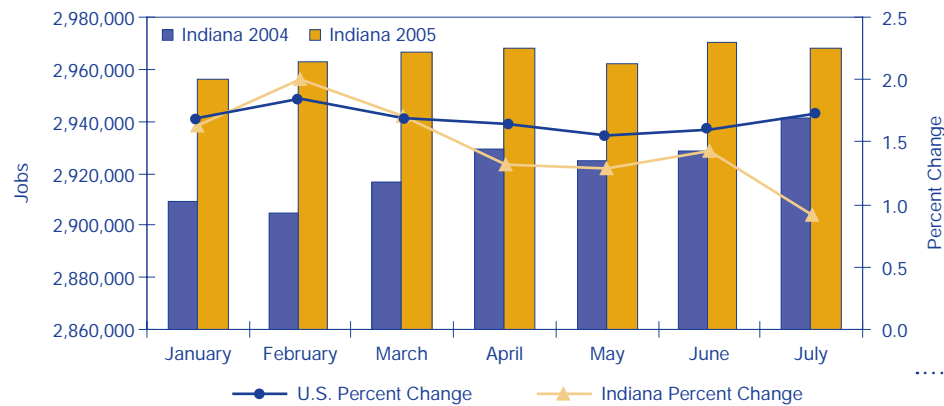
OVER-THE-YEAR UNEMPLOYMENT RATE PERCENTAGE POINT CHANGE BY CITY, JULY 2005



*Indianapolis Consolidated
Source: IBRC, using Indiana Department of Workforce Development data

Two cities in Lake County, East Chicago and Gary, had unemployment rates well above the state rate of 5.2 percent. The city of Marion in Grant County also had a rate significantly above the state. However, all three of these cities experienced a decline in the rate over the year. The city of Marion had the greatest percentage point decline (4.1 percentage points). In fact, of the 34 cities and towns, only 10 showed an increase over the year. Merrillville showed the largest over-the-year (OTY) percentage point increase (2.0), and Schererville showed the largest percent increase, although Schererville still remains a full 1.3 percentage points below the state. The decline in the Kokomo rate is due to manufacturing plant shutdowns last year.

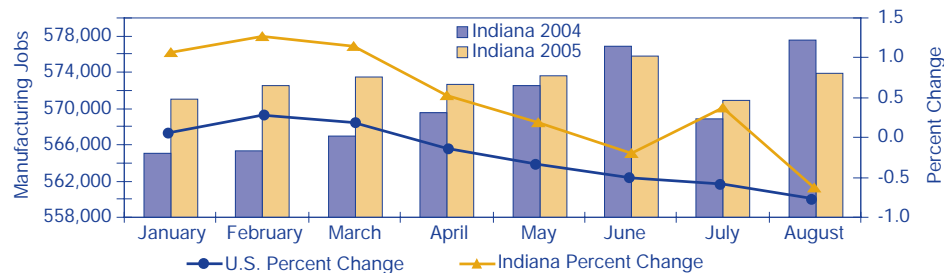
EMPLOYMENT, 2005*



*Seasonally Adjusted
Source: IBRC, using Bureau of Labor Statistics data

For the first half of 2005, the state significantly expanded jobs over the previous year; now, however, the expansion has tapered off a bit. Indiana closely tracked the nation in the rate of expansion in the first quarter but is now adding jobs at a slower rate than the United States.

MANUFACTURING EMPLOYMENT, 2005*

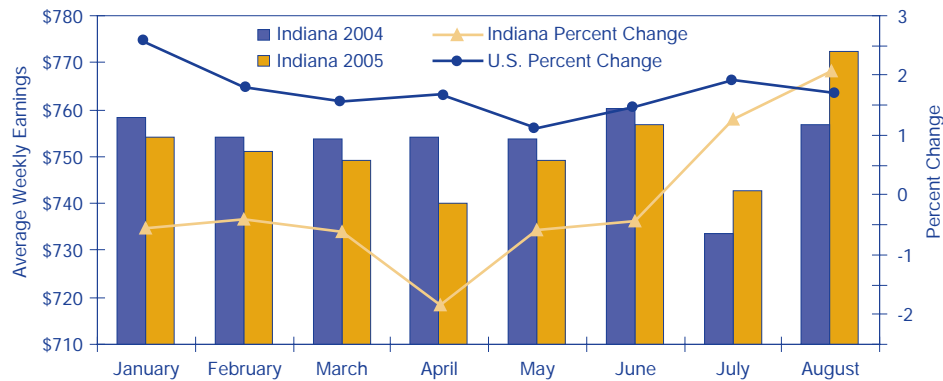


*Data are not seasonally adjusted
Source: IBRC, using Indiana Department of Workforce Development and Bureau of Labor Statistics data

Manufacturing jobs have increased almost every month for the first half of 2005. In May and July, the nation contracted and lost manufacturing jobs, while Indiana has expanded (most notably in July). However, Indiana's rate of expansion has slowed as the year has progressed, falling more in line with the nation.

Indicators

MANUFACTURING EARNINGS, 2005



Source: IBRC, using Indiana Department of Workforce Development and Bureau of Labor Statistics data

For the majority of 2005, Indiana's manufacturing earnings were lower than the previous year's earnings. However, the state has seen a reversal in July and August. Where Indiana's manufacturing earnings declined through June 2005, the United States has experienced increases. Even so, Indiana manufacturing workers still enjoy higher wages than other manufacturing workers throughout the nation. In August, a typical Indiana worker in the manufacturing industry earned \$100 more per week than a worker outside of the state.

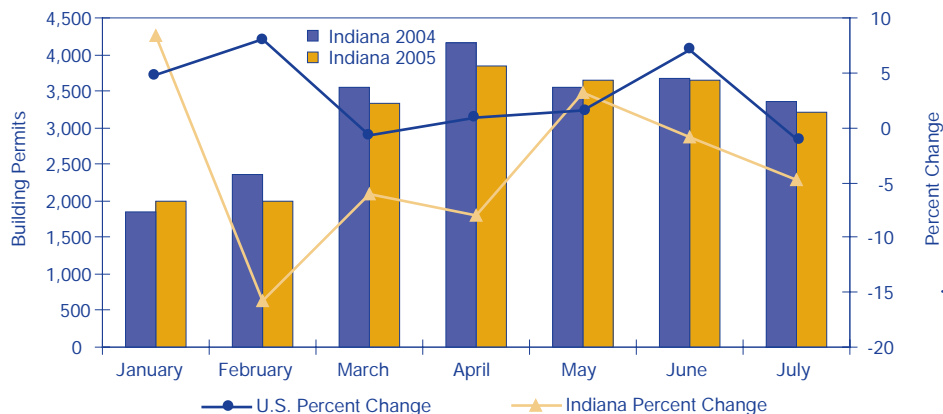
INDIANA EMPLOYMENT BY MAJOR SECTOR, JULY 2005*

| Indiana Employment | Jobs | Monthly Percent Change | Annual Percent Change |
|-------------------------------------|-----------|------------------------|-----------------------|
| Total Nonfarm | 2,968,200 | -0.1 | 0.9 |
| Construction | 153,600 | 0.0 | 3.1 |
| Manufacturing | 574,600 | 0.6 | 0.9 |
| Trade, Transportation and Utilities | 582,300 | -0.2 | 0.5 |
| Information | 41,000 | 0.0 | 0.2 |
| Financial Activities | 142,400 | -0.1 | 1.7 |
| Professional & Business Services | 271,800 | 0.1 | 1.2 |
| Educational and Health Services | 382,100 | -0.2 | 3.7 |
| Leisure and Hospitality | 282,300 | -0.2 | 2.4 |
| Other Services | 111,400 | 0.1 | 1.5 |
| Government | 423,600 | -0.2 | -1.2 |

*Data are seasonally-adjusted
Source: IBRC, using Bureau of Labor Statistics data

Trade, transportation and utilities was the leading Indiana sector in terms of number of jobs in 2005, followed closely by manufacturing. The educational and health services industry experienced the most growth over the year, while government employment decreased 1.2 percent.

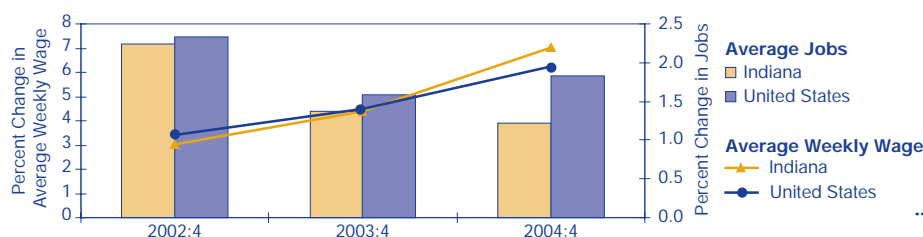
RESIDENTIAL BUILDING PERMITS ISSUED, 2004 TO 2005



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

The Indiana housing market has cooled off a bit since last year, while the nation continues to show healthy gains in the number of building permits being issued.

BIOMEDICAL/BIOTECHNICAL CHANGE IN JOBS AND AVERAGE WEEKLY WAGES, FOURTH QUARTER



Source: IBRC, using Bureau of Labor Statistics data

Indiana continues to add jobs in the biomedical/biotechnology cluster at a slower rate than the nation, a gap that widened in 2004. Indiana tracks the nation very closely in average weekly wages. Overall, Indiana has added 234 businesses and 4,400 jobs over the year.

The Muncie Metro Area

Delaware County, located in east central Indiana, is home to the Muncie Metropolitan Statistical Area (metro) and has a population of 117,774, as of the 2004 estimates. Since 2000, Indiana has grown by 2.4 percent while the metro has lost about 900 residents—a decline of 0.8 percent. The city of Muncie’s 2004 population surpassed 67,000, accounting for 57 percent of the county’s population.

Population projections from the Indiana Business Research Center calculate that, by 2020, the Muncie metro will have added about 8,200 residents, a 6.9 percent growth from its 2000 population. That isn’t bad, considering it is just a few percentage points lower than the state’s anticipated population gain (10.9 percent). However, the county has not, thus far, kept pace with its expected growth. To catch up to its projected 2005 population, the county would need to add nearly 3,200 people in the coming year—a far cry from the nearly 700-person decline experienced between 2003 and 2004.

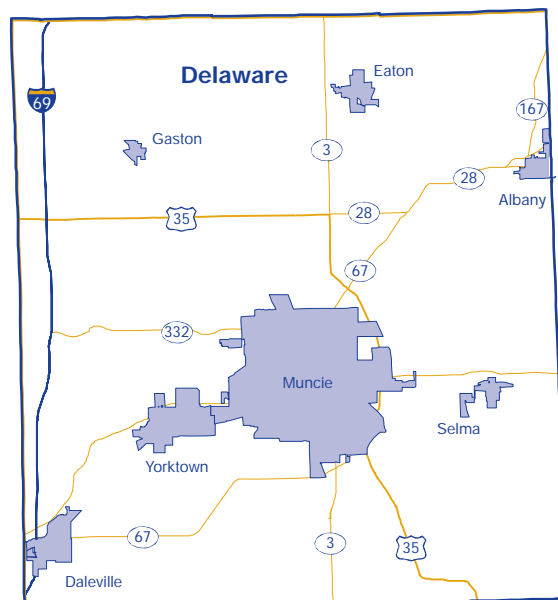
Industrial Mix and Jobs

People are not the only thing Muncie has been losing lately. Between the fourth quarters of 2003 and 2004, total payroll employment declined by 1,752 jobs, or 3.4 percent, according to the Covered Employment and Wages data set from the Indiana Department of Workforce Development.

As shown in **Table 1**, Muncie’s largest sectors include health care and social services (18.5 percent), manufacturing (14.2 percent) and educational services (14.1 percent). These three industries experienced the largest numeric employment declines between 2003 and 2004:

- Health care and social services: -727 jobs (-7.4 percent)
- Manufacturing: -585 jobs (-7.7 percent)
- Educational services: -401 jobs (-5.5 percent)

Administrative, support and waste management had the largest percentage



drop with a 10.5 percent decline, equivalent to 186 jobs.

Industries with the largest job gains in Muncie between 2003 and 2004 included professional, scientific and technical services (75 jobs, or 4.7 percent), arts, entertainment and recreation (58 jobs, or 14.6 percent), and transportation and warehousing (50 jobs, or 4.1 percent). Moreover, of the six industries that increased in employment, five grew at a faster rate in Muncie than they did statewide (see **Figure 1**).

Cardinal Health System and Ball State University are two major employers in the region. General Motor’s Manual Transmissions plant has been a significant player in the local economy since it opened in 1935 (then dubbed Chevrolet-Muncie). However, its workforce shriveled last year, and GM recently announced the plant will completely shut down at the end of March 2006.¹ On the positive side, a new \$55 million Magna DriveTrain plant is planned with the potential for employing around 300 workers by 2007. However,

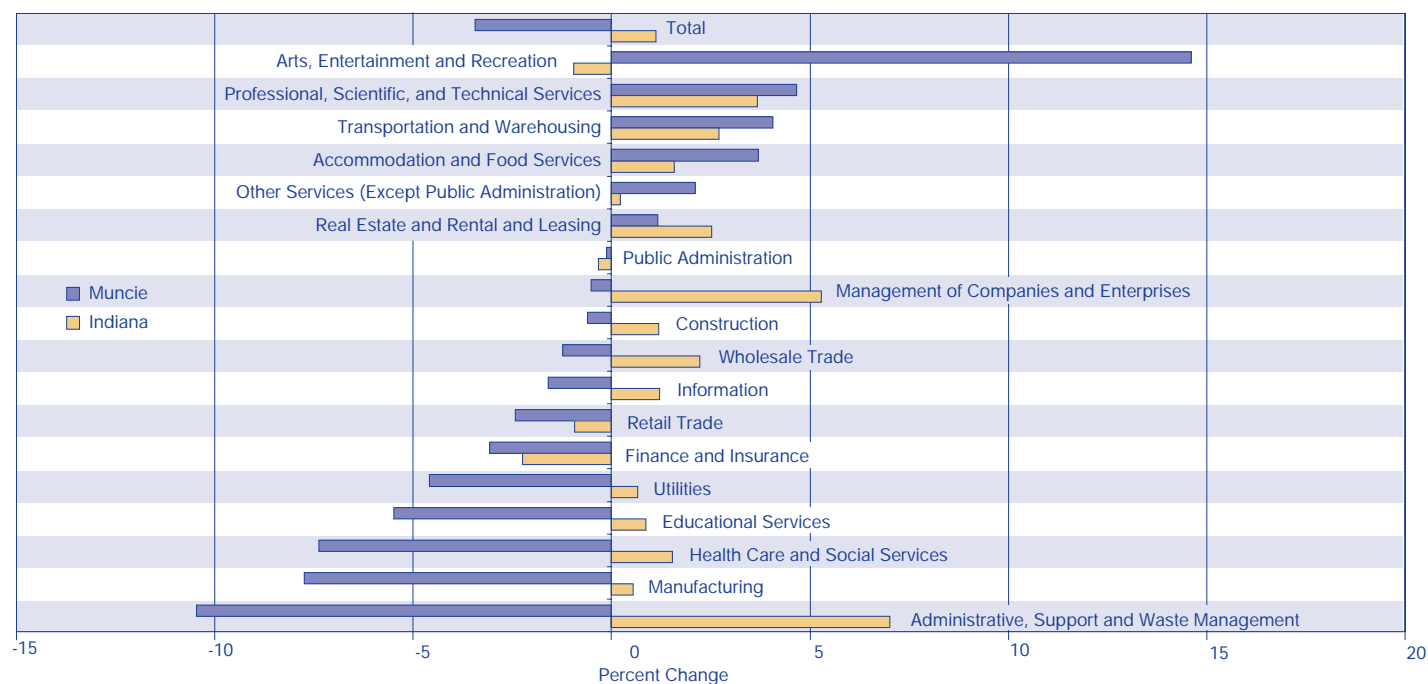


TABLE 1: MUNCIE METRO JOBS BY INDUSTRY

| Industry | Jobs, 2004:4 | Change in Jobs from 2003:4 |
|---|--------------|----------------------------|
| Total | 49,176 | -1,752 |
| Health Care and Social Services | 9,119 | -727 |
| Manufacturing | 6,966 | -585 |
| Educational Services | 6,914 | -401 |
| Retail Trade | 6,904 | -171 |
| Accommodation and Food Services | 4,518 | 161 |
| Construction | 2,113 | -13 |
| Professional, Scientific and Technical Services | 1,680 | 75 |
| Public Administration | 1,640 | -2 |
| Administrative, Support and Waste Management | 1,592 | -186 |
| Other Services (Except Public Administration) | 1,457 | 30 |
| Finance and Insurance | 1,450 | -46 |
| Transportation and Warehousing | 1,281 | 50 |
| Wholesale Trade | 1,200 | -15 |
| Real Estate, Rental and Leasing | 607 | 7 |
| Information | 555 | -9 |
| Arts, Entertainment and Recreation | 455 | 58 |
| Management of Companies and Enterprises | 391 | -2 |
| Utilities | 187 | -9 |

*Values for mining and agriculture, forestry, fishing and hunting were nondisclosable.
Source: IBRC, using Indiana Department of Workforce Development data

FIGURE 1: PERCENT CHANGE EMPLOYMENT BY INDUSTRY, 2003 TO 2004



*Values for mining and agriculture, forestry, fishing and hunting were nondisclosable.
Source: IBRC, using Indiana Department of Workforce Development data

since the plan was announced in 2004, the product line that was to be manufactured at the facility has been moved elsewhere; so, while the company has assured the city that it will continue with the plant as planned, the products to be manufactured are still unknown.²

New job creation has dropped slightly each year since 2001, according to Local Employment Dynamics (LED) data from the U.S. Census Bureau. The average quarterly new job creation for

2001 was almost 3,300. The average for 2003 was nearly 1,000 less at 2,363 new jobs created. Nearly 1,950 new jobs were created in Muncie during the first quarter of 2004 (the latest data available).

Commuting

Figure 2 shows that Randolph County sends the most commuters into Delaware County, while Delaware County itself sends the most commuters to the neighboring Anderson metro (Madison County). Despite fewer employment opportunities as evidenced by declines in total employment, the Muncie metro still has more people commuting into the county (9,853) than it has residents leaving to find

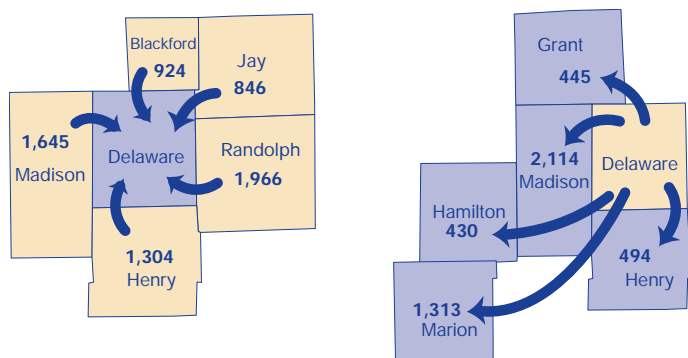
work in neighboring counties (6,679), according to the preliminary commuting data for 2003.

Wages and Compensation

The average weekly wage in Muncie for the fourth quarter of 2004 was \$631. This was up \$28 over the same quarter of the previous year, but still \$75 less than the Indiana average. As seen in Table 2, four Muncie area industries exceeded the statewide industry average: educational services, public administration, real estate, and transportation and warehousing.

Wage growth at the industry level shows that only arts, entertainment and recreation and administrative, support and waste management had average wage declines between 2003:4 and 2004:4. Transportation and warehousing saw the largest jump in wages with an 11.2 percent increase of \$76. Health care and educational services were next in line, with a 9.8 percent growth of \$64 and \$63, respectively (see Figure

FIGURE 2: DELAWARE COMMUTING, 2003



Source: STATS Indiana commuting profiles, tax year 2003

3). Thus, some of the largest increases in average wage occurred at a time when employment was decreasing. This is likely to be partly due to productivity enhancements resulting in higher wages. However, another factor could

be layoffs of the employees with the least seniority, who also happen to be the lowest-paid.

Looking at total compensation, including employer-payments for pensions and insurance, the average

compensation in Muncie for 2003 (latest data available) was \$37,030, a 10.8 percent increase from two years earlier (2001). While average compensation per job was about \$4,400 lower than in the state as a whole, it increased at a slightly faster rate between 2001 and 2003. The bulk of this increase did not show up in the pockets of Muncie employees, per se, but is attributable to higher contributions to pension and insurance funds, where spending increased 39 percent.

TABLE 2: WEEKLY WAGES IN MUNCIE AND INDIANA BY INDUSTRY, 2004:4

| Industry | Muncie | Indiana | Difference |
|---|---------|---------|------------|
| Total | \$631 | \$706 | \$75 |
| Utilities | \$1,112 | \$1,225 | \$113 |
| Manufacturing | \$958 | \$970 | \$12 |
| Management of Companies and Enterprises | \$926 | \$1,241 | \$315 |
| Wholesale Trade | \$805 | \$974 | \$169 |
| Transportation and Warehousing | \$756 | \$751 | -\$5 |
| Construction | \$735 | \$823 | \$88 |
| Professional, Scientific and Technical Services | \$731 | \$984 | \$253 |
| Health Care and Social Services | \$719 | \$743 | \$24 |
| Finance and Insurance | \$712 | \$971 | \$259 |
| Educational Services | \$704 | \$611 | -\$93 |
| Public Administration | \$686 | \$680 | -\$6 |
| Real Estate, Rental and Leasing | \$608 | \$603 | -\$5 |
| Information | \$591 | \$782 | \$191 |
| Other Services (Except Public Administration) | \$404 | \$460 | \$56 |
| Retail Trade | \$357 | \$436 | \$79 |
| Administrative, Support and Waste Management | \$355 | \$461 | \$106 |
| Arts, Entertainment and Recreation | \$274 | \$591 | \$317 |
| Accommodation and Food Services | \$212 | \$230 | \$18 |

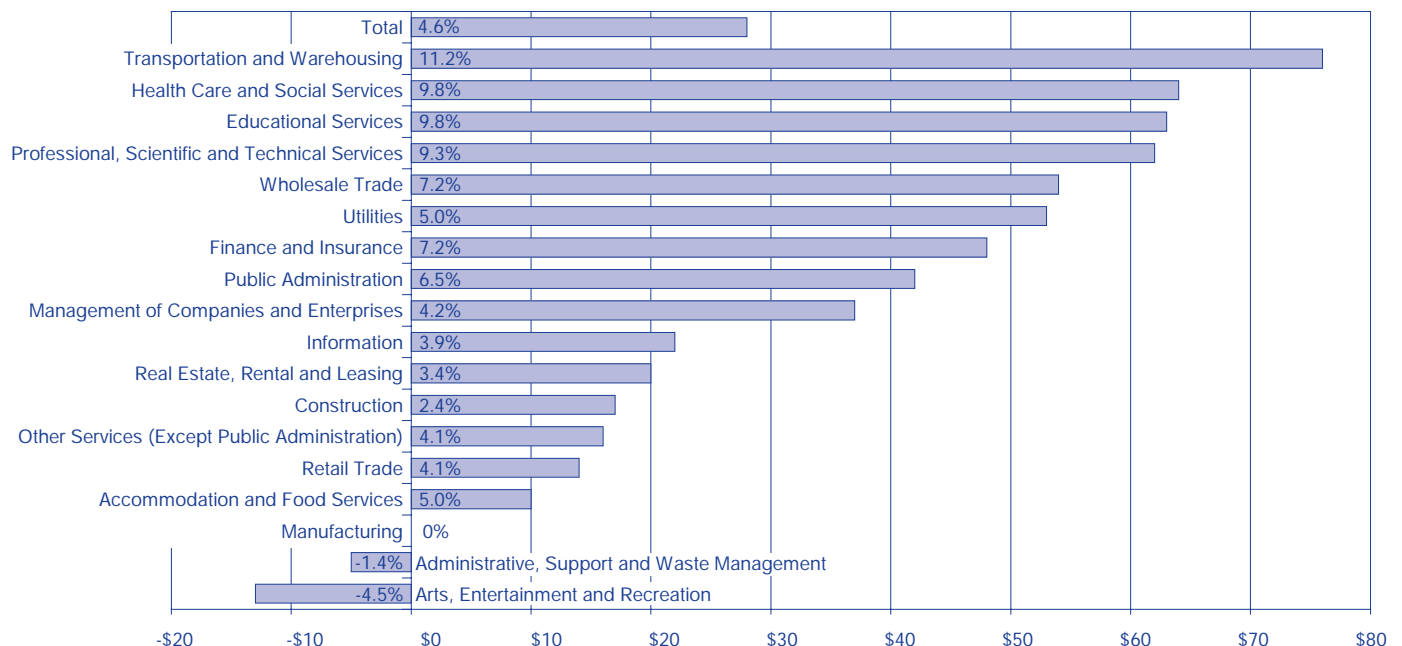
*Values for mining and agriculture, forestry, fishing and hunting were nondisclosable.
Source: IBRC, using Indiana Department of Workforce Development data

Notes

1. Rick Yencer and Michael McBride, "GM sets Muncie's Manual Transmissions plant shutdown for March, 2006" *Star Press* 2 August 2005.
2. Keith Roysdon, "Road work shows officials confident plant is still coming" *Star Press* 24 August 2005.

—Rachel Justis, Managing Editor, Indiana Business Research Center, Kelley School of Business, Indiana University

FIGURE 3: CHANGE IN AVERAGE WEEKLY WAGE, 2003:4 TO 2004:4



Source: IBRC, using Indiana Department of Workforce Development data

Improving Our Understanding of Employment Changes

Every month, state and federal agencies release data on employment changes. These data allow us to compare changes over time, and we put great weight on them for policy purposes; but the numbers can hide as much as they reveal.

Often, changes in the economy may be concentrated in one or a few sectors. The aggregate numbers hide that fact. We need a measure of dispersion to get deeper into the numbers, the breadth of a change across sectors of the economy.

For example, between July 2004 and 2005, Indiana's employment rose by 24,300 or 0.8 percent. It sounds dull, but when we get into the detail, we find that 39 of 84 industries increased in employment by more than 100 people, while only 24 declined by the same margin. At the same time, 21 sectors showed changes between -100 and +100, which we interpret as no change in employment (see **Figure 1**).

Several points are worth noting before we proceed. First, it is necessary to decompose the data provided by the Bureau of Labor Statistics (BLS) into more useful sectors. For example, we are given a figure for utilities and for electric power generation. However, our interest is in the residual: utilities

minus electric power generation, which we label "other utilities."

Second, BLS reports data in terms of hundreds of workers. That is perfectly understandable, but the difference between 1,500 and 1,600 may be nothing more than rounding. Hence, all changes of 100, positive or negative, are treated as no change.

A diffusion index takes the data in **Figure 1** and converts it into a single number that can be tracked over time. If the growth in a sector is greater than 100, then the sector is assigned a value of 100. If there is no change in the sector, it is assigned a value of 50; and if the sector declines in employment, it receives a value of zero. These values are then multiplied by the number of sectors in each classification. The sum of these products is divided by the number of sectors, resulting in a diffusion index (see **Table 1**).

The diffusion index has a maximum value of 100 and a minimum value of zero. The higher the index value, the greater the number of advancing sectors. Values close to 50 indicate most sectors show no change. The more

TABLE 1: CALCULATING THE DIFFUSION INDEX

| Sectors | Number | Value | Product | Diffusion Index |
|------------------|--------|-------|---------|-----------------|
| Advance | 39 | 100 | 3,900 | |
| Stable (+/- 100) | 21 | 50 | 1,050 | |
| Decline | 24 | 0 | 0 | |
| Sums | 84 | n/a | 4,950 | 58.9 |

Source: IBRC, using Bureau of Labor Statistics and Department of Workforce Development data

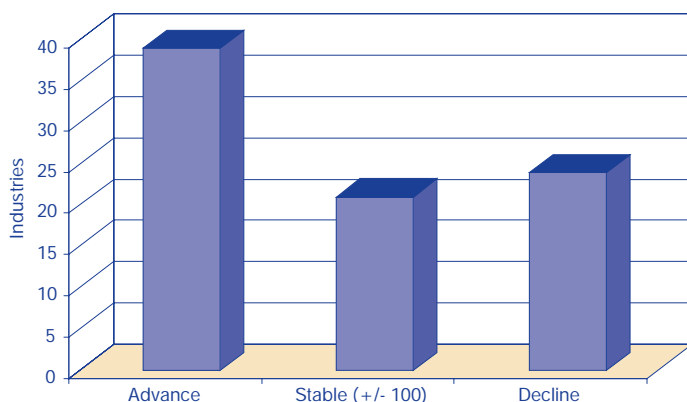
sectors in the analysis, the more likely the value of the diffusion will converge to 50 because there is more likelihood of individual sectors having little or no change. Similarly, diffusion indices calculated over short periods of time (a month or quarter) are likely to be closer to 50 for the same reason.

We can see how the diffusion index changes our perception in **Table 2**. Fort Wayne had an employment increase of 1.2 percent, fifth best in the state. The diffusion index, however, demonstrates that the Fort Wayne metro area led the state with a 70 in its diffusion index. Kokomo had the fastest rate of growth (10.3 percent), but a mediocre diffusion index of 56.3.

We may hope that diffusion indices will be produced with some regularity for Indiana so that our understanding of employment changes is enhanced.

—Morton J. Marcus, Director Emeritus,
Indiana Business Research Center, Kelley
School of Business, Indiana University

FIGURE 1: OVER-THE-YEAR EMPLOYMENT CHANGE, JULY 2005



Source: IBRC, using Bureau of Labor Statistics and Department of Workforce Development data

TABLE 2: METRO AREAS EMPLOYMENT MEASURES, JULY 2004 TO 2005

| Area | Percent Change | Rank | Diffusion Index | Rank |
|------------------------|----------------|------|-----------------|------|
| Anderson | 0.9 | 6 | 58.3 | 3 |
| Bloomington | -1.2 | 14 | 46.9 | 13 |
| Columbus | 1.9 | 3 | 53.1 | 11 |
| Elkhart-Goshen | 0.5 | 9 | 57.5 | 5 |
| Evansville | 0.7 | 7 | 65.2 | 2 |
| Fort Wayne | 1.2 | 5 | 70.0 | 1 |
| Gary Division | -0.1 | 12 | 57.7 | 4 |
| Indianapolis | 0.2 | 10 | 50.0 | 12 |
| Kokomo | 10.3 | 1 | 56.3 | 6 |
| Lafayette | -0.1 | 11 | 55.9 | 7 |
| Michigan City-La Porte | -0.4 | 13 | 46.7 | 14 |
| Muncie | -1.5 | 15 | 44.1 | 15 |
| South Bend | 2.0 | 2 | 55.6 | 8 |
| Terre Haute | 0.5 | 8 | 53.3 | 10 |
| New Albany Area | 1.5 | 4 | 53.6 | 9 |

Source: IBRC, using Bureau of Labor Statistics and Department of Workforce Development data

Indiana Department of Workforce Development

Commissioner..... Ronald L. Stiver
Deputy Commissioner, Strategic Research
and Development..... Andrew Penca
Research Director..... Dr. Hope Clark

10 N. Senate
Indianapolis, IN 46204

Web: www.in.gov/dwd

Indiana Economic Development Corporation

Secretary of Commerce Patricia Miller
President..... Mickey Maurer
Research Director..... Ryan Asberry

One North Capitol, Suite 700
Indianapolis, IN 46204

Web: www.iedc.in.gov

Indiana Business Research Center

Kelley School of Business, Indiana University

Director Jerry Conover
Executive Editor..... Carol O. Rogers
Managing Editor..... Rachel Justis
Graphic Design..... Molly Marlatt
Circulation..... Nikki Livingston
Quality Control..... Amber Kostelac, Joan
Ketcham, Eric Harris, and Brett Skilbred

Bloomington
1275 E. Tenth Street, Suite 3110
Bloomington, IN 47405

Indianapolis
777 Indiana Avenue, Suite 210
Indianapolis, IN 46202

Web: www.ibrc.indiana.edu
E-mail: context@indiana.edu

Flooding: How Prepared are Hoosiers?

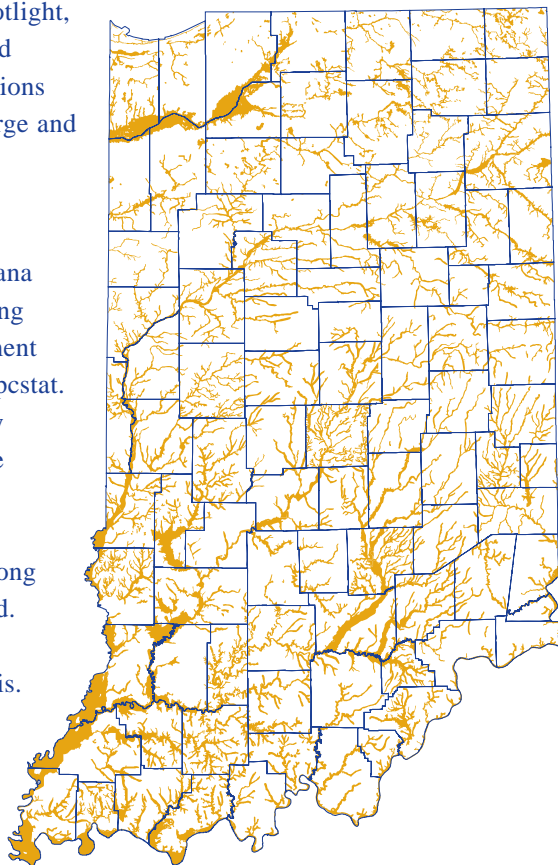
Hurricane Katrina brought many issues into the national spotlight, including floodplains, flood insurance and the important distinctions between wind-driven rain, storm surge and your run-of-the-mill flood.

While hurricanes do not threaten Hoosier possessions, flooding can. Floodplains are found in every Indiana county, as **Figure 1** shows. According to the Federal Emergency Management Agency (<http://www.fema.gov/nfip/pcstat.shtm>), 26,854 Hoosiers had a policy through the national flood insurance program, as of December 31, 2004. Not surprisingly, Florida, Texas and Louisiana had the most policies among the states, with Indiana ranking 23rd. Over one-fifth of the state's flood insurance policies are in Indianapolis.

Hoosier flood insurance amounts to nearly \$2.9 billion in coverage for a premium of \$14.9 million. Since 1978, Hoosiers have received payment on nearly 7,000 claims with total payments exceeding \$66.2 million.

—Rachel Justis, Managing Editor, Indiana Business Research Center,
Kelley School of Business, Indiana University

FIGURE 1: INDIANA FLOODPLAINS



Source: IBRC, using Indiana Geological Survey data

Digital Connections

IN Context

Current workforce and economic news with searchable archives.

www.incontext.indiana.edu

STATS Indiana

Award-winning economic and demographic site provides thousands of current indicators for Indiana and its communities in a national context.

www.stats.indiana.edu

Indiana Economic Digest

The news behind the numbers, the Digest is a unique partnership with daily newspapers throughout Indiana providing access to daily news reports on business and economic events.

www.indianaeconomicdigest.net

KELLEY
School of Business

Indiana University, Kelley School of Business
Indiana Business Research Center
777 Indiana Avenue, Suite 210
Indianapolis, IN 46202

Nonprofit Organization
U.S. Postage
PAID
Bloomington, Indiana
Permit No. 2

