

## IN the Spotlight:

### How Indiana's Economy Varies with the Nation's

When the U.S. economy is climbing, it's reasonable to expect that an individual state's economy would climb as well, staying somewhat in sync with the national climate. The same synchronicity would be expected when the national economy is in decline.

But does this expectation translate into reality? Since 1970, the vast majority of state economies, including Indiana's, have moved up or down in correlation with the national economy most of the time. Only a small minority of states' economies have not mirrored national trends.

On average, state economies have moved with the nation's economy 75% of the time since 1970. In that same time period, Indiana's economy has moved with the nation's 81.2% of the time (see Figure 1). At 93.5%, Pennsylvania's economy has reflected the nation's movement more than any other state, followed by South Carolina (92.8%) and Virginia (91.1%).

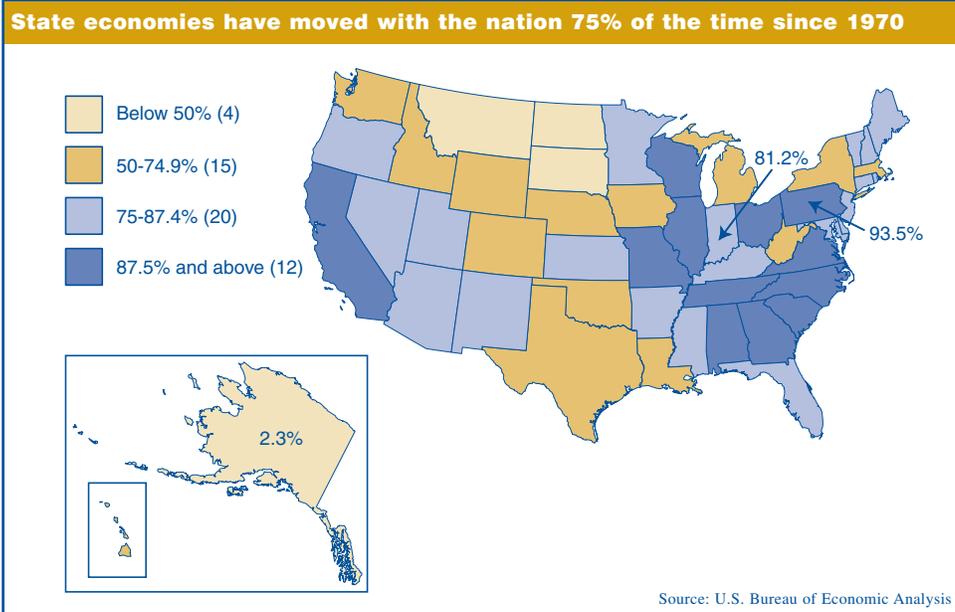
Showing the least correlation with the nation's economy over the past 30 years is Alaska, whose economy has moved in tandem with the country's only 2.3% of the time. Alaska is

*(continued on page 2)*

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Region Three: Northeastern Indiana

**Figure 1: Correlation of Changes in State Earnings with Changes in U.S. Earnings**



**Indiana  
Unemployment  
Rate for  
November 2001:  
4.7%**

**IN the Spotlight**

(continued from page 1)

followed at a considerable distance by North Dakota (38.8%) and South Dakota (47.8%).

Among Indiana's neighboring states, only Michigan's correlation percentage was lower than ours (74%). The economies of Illinois, Ohio and Kentucky were more in harmony with changes in the nation.

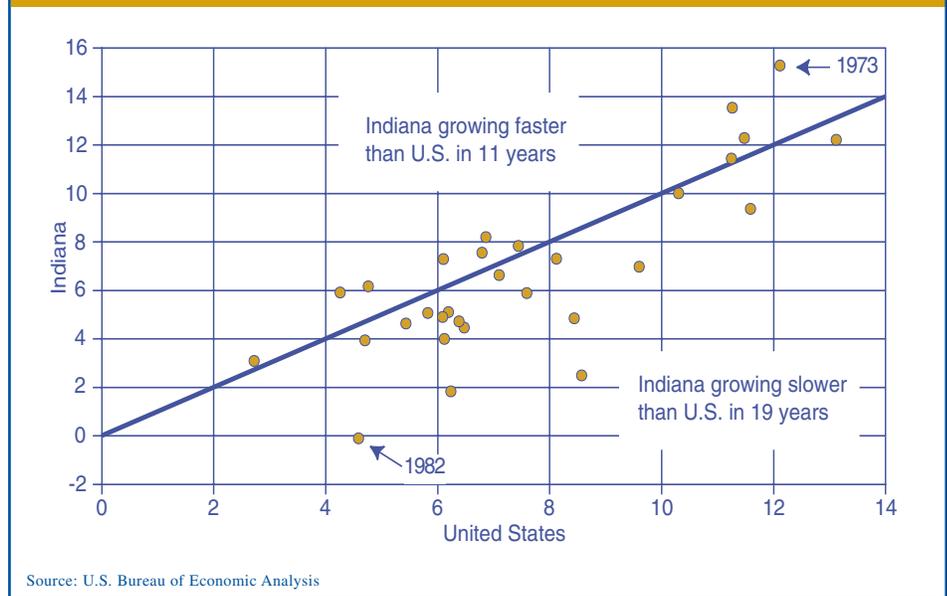
In this instance, the economy is measured by total earnings of those who work for themselves (proprietors) and those who work for others. Our measure of harmony or concurrence with the nation is the correlation coefficient between the annual percent change in earnings at the state level and the nation's percent change in earnings.

If earnings in Indiana grew and contracted at exactly the same rate as those in the U.S. as a whole, this measure would be equal to +100%. If there were no relation at all between Indiana and the nation, the value would be zero. Should Indiana expand and contract in a manner opposite but equal to the nation at all times, the value would be -100%.

Figure 2 plots the number of times Indiana's rate of earnings has been greater or less than the U.S. rate. Indiana's economy exceeded the U.S. growth rate 11 times in 30 years (indicated on the graph by circles above the line) and fell below the national rate in 19 years. Indiana's best year relative to the nation was 1973, when Hoosier earnings grew by 15.2% and U.S. earnings grew by 12.1%. By contrast, the greatest negative

**Figure 2: Comparison of Indiana and U.S. Earnings Growth Rates**

Indiana's economy exceeded the U.S. growth rate 11 times in 30 years



Source: U.S. Bureau of Economic Analysis

difference was in 1982 when the nation advanced by 4.6% and Indiana had a 0.2% decline.

**Manufacturing's Relationship to the General Economy**

Which states have experienced the strongest correlation between manufacturing performance and overall economic performance since 1970? Ohio and Michigan lead the nation with a 95% correlation between movements in manufacturing earnings and total earnings within the state (see Figure 3). Oregon, Wisconsin and Alabama round out the top five, and Indiana ranks sixth at 91%. North Dakota and South Dakota, where agriculture dominates the economy, experience little correspondence between manufacturing and the overall state economy (19% and 27% respectively). Alaska, with its dominant petroleum industry, is sandwiched between the Dakotas at

24%. The national average is 91%.

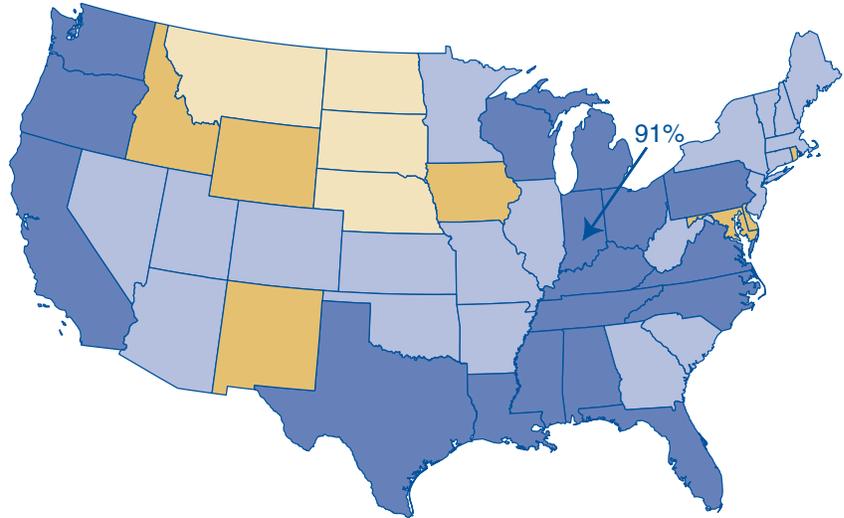
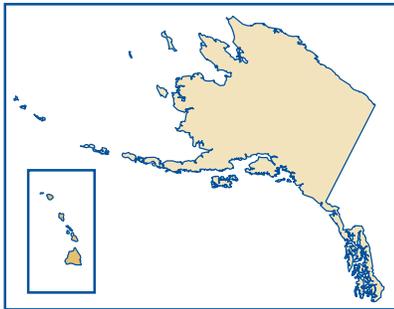
The correlation between manufacturing earnings in Indiana and the U.S. was 88%. Indiana ranks 12th in this measure while Ohio, Maryland and Minnesota lead at 94%. That Indiana is not among the leaders suggests that our particular mix of manufacturing is less coordinated with national swings in manufacturing earnings (see Figure 4).

Because Indiana is highly correlated with changes in the national economy, it can be expected that we will follow the pattern of the nation fairly closely in the recessionary and recovery periods now in progress. Manufacturing continues to play a major role in those cyclical movements.

**Figure 3: Correlation of Changes in Manufacturing and Total Earnings within Each State**

**Ohio and Michigan have a 95% correlation between movements in manufacturing earnings and total earnings**

-  Below 50% (6)
-  50-74.9% (8)
-  75-87.4% (20)
-  87.5% and above (17)

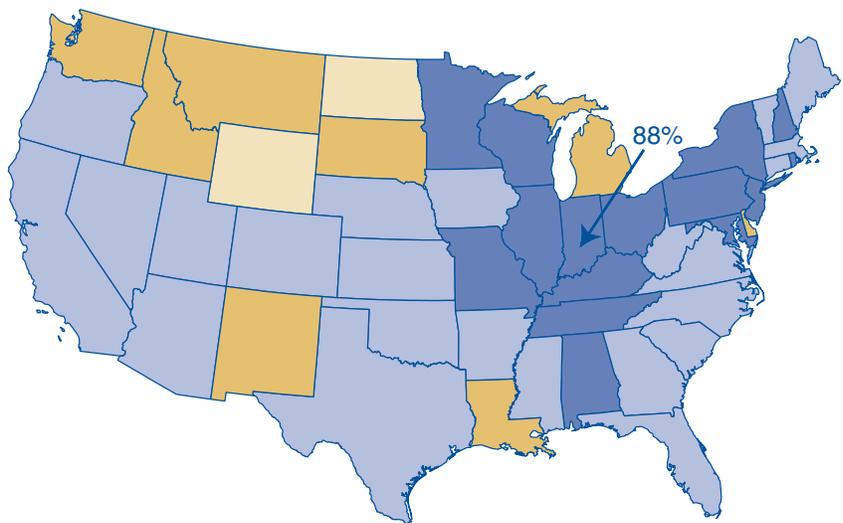
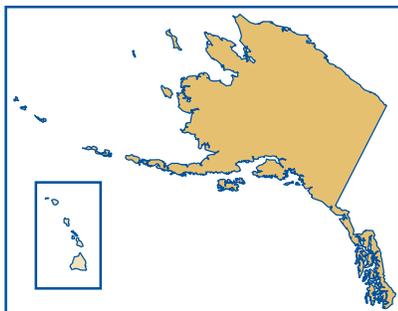


Source: U.S. Bureau of Economic Analysis

**Figure 4: Correlation of Changes in Manufacturing Earnings in Each State with National Manufacturing Earnings**

**Indiana's manufacturing mix is less coordinated with national swings in manufacturing**

-  Below 50% (4)
-  50-74.9% (9)
-  75-87.4% (23)
-  87.5% and above (15)



Source: U.S. Bureau of Economic Analysis

## Trash to Treasure: The Recycling and Reuse Industry

The recently completed Indiana Recycling Economic Information (REI) Study proves that efforts to recycle and reuse scrap add significantly to Indiana's economy. Materials that used to be considered waste have now become value-added raw materials and move through collection, processing, remanufacturing and sales—all the while adding to Indiana's economy. For many Indiana companies, recycling is a way of business.

Indiana's recycling and reuse industry includes 1,700 establishments, employs approximately 75,000 people and has an annual payroll of \$3 billion

while generating \$19 billion in annual revenues. The recycling industry contributes \$285 million in state government tax revenues on an annual basis.

The recycling and reuse industry is involved in metals, paper, plastics, glass, organic materials, computers and electronics, tires, and other post-consumer and post-industrial scrap. Jobs in this industry involve collection, processing, reuse, remanufacturing, sales and more.

### Per Capita Employment: Indiana Tops the List

The REI Study results indicate that Ohio has the largest number of recycling and reuse employees, followed

closely by California. Both states have much larger populations than Indiana. When employment data are adjusted to account for population differences, Indiana has the most recycling and reuse employees per capita of the states participating in the U.S. REI Study (see Figure 1).

### Comparing to Other Indiana Industries

The recycling and reuse industry compares favorably to several other strong Indiana industries. Comparisons by the number of jobs show that there are more recycling and reuse jobs in Indiana than there are jobs in the biomedical or insurance industries. Especially significant is the finding that recycling far outpaces the waste management industry because recycling adds value to materials, contributing to a growing labor force, and does not lose the value of the material through disposal.

### Supporting Diverse, Well Paying Jobs

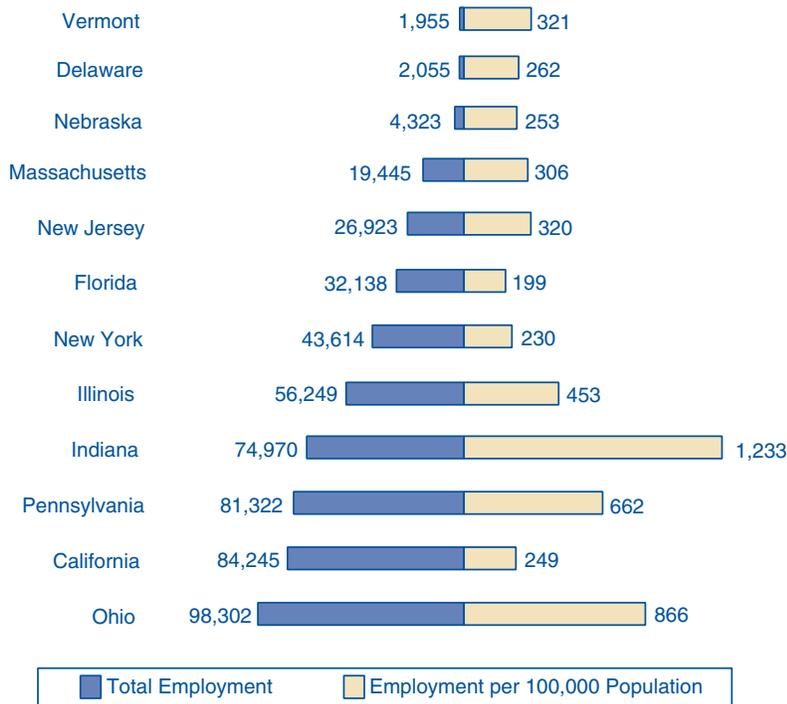
The study also shows that recycling and reuse jobs generally pay above the average state wage (see Figure 2). The average industry wage for Indiana recycling and reuse jobs is \$41,200—approximately \$14,000 or 52% more per year than the Indiana average wage. Figure 3 compares wages in the various recycling sectors.

Recycling and reuse jobs are found in businesses that collect, process, manufacture and reuse materials:

- Both public and private sector entities are involved in collection activities, which include collection

**Figure 1: Comparison of Total Employment to Normalized Employment**

**Indiana has the most recycling and reuse employees per capita**



Source: Recycling Economic Information Study

from local curbside and drop-off programs as well as collection from business and industry.

- Processors are companies or public entities that prepare materials to be sent to the marketplace for recycling. This includes facilities that separate recyclables generated by households and those that prepare industrial-generated scrap material, such as plastic converters, for reentry into the manufacturing process.
- Manufacturers use the scrap to make a new product, such as metals, paper, compost, plastics and rubber products.
- Reuse industries are widespread and range from the more traditional establishments such as local thrift stores and antique shops to more recent, dynamic operations such as computer demanufacturers, pallet rebuilders and material exchanges.

There are more companies in the reuse sector of this industry than in the other three sectors (see Figure 4).

There are a similar number of manufacturers and processors and a smaller number of entities that collect material. However, manufacturing entities have a significantly larger number of employees than the other sectors (see Figure 5). Reuse companies are smaller with few employees. The collection and processing sectors make up a smaller portion of total employment but have the very important job of providing feedstock material to the manufacturing and reuse sectors.

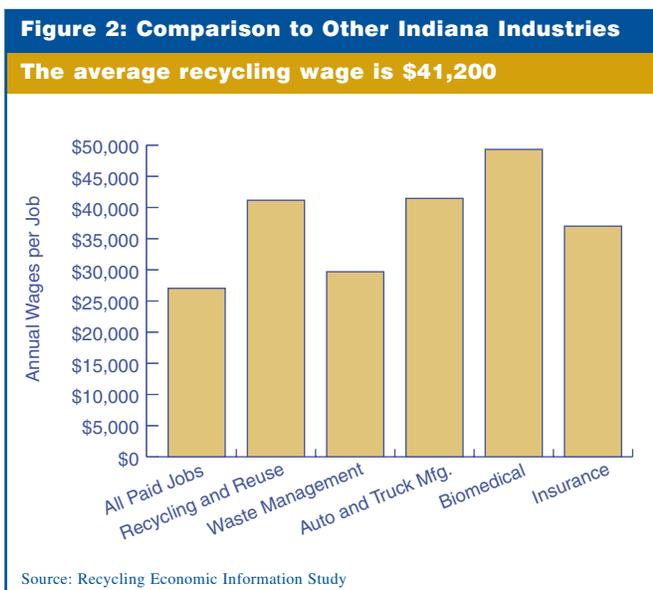
### Manufacturing Recyclables into New Products

The recycling manufacturing sector has a much greater impact on Indiana's economy than the recycling collection, processing and reuse sectors. The recycling manufacturing sector accounts

for 63,000 jobs, \$2.8 billion in payroll and \$16.8 billion in receipts each year. Ninety-two percent of Indiana's total recycling and reuse industry tax revenues arise from recycling manufacturing establishments and their indirect and induced economic activity.

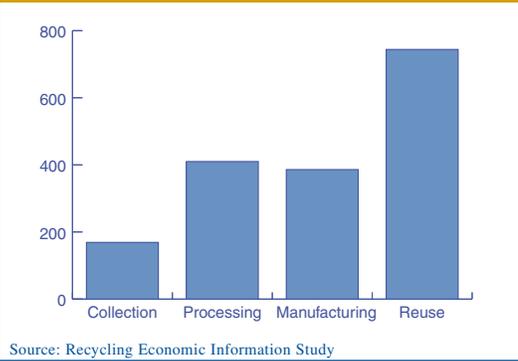
Indiana's recycling manufacturing sector is strong and covers a wide range of industries (see Figure 6). There are local markets for many of the recyclables generated by households as well as by the commercial and industrial sectors in Indiana. Recycling scrap materials feeds directly into building Indiana jobs. Local public and private investments in the collection and processing of recyclables, as well as public policies favoring recycling and reuse, are supporting larger private sector investments in downstream processing and manufacturing.

Recycling manufacturers are found in long-established sectors such as paper and steel making, as well as in



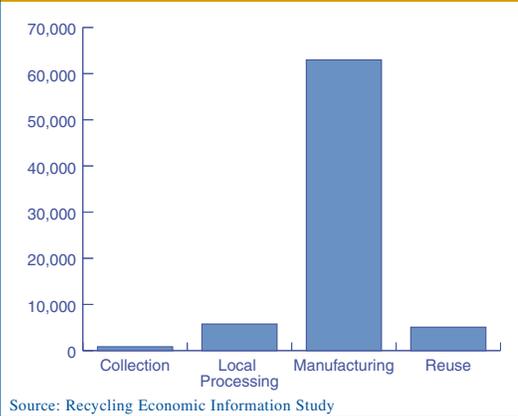
**Figure 4: Number of Establishments**

**Reuse outnumbers other sectors**



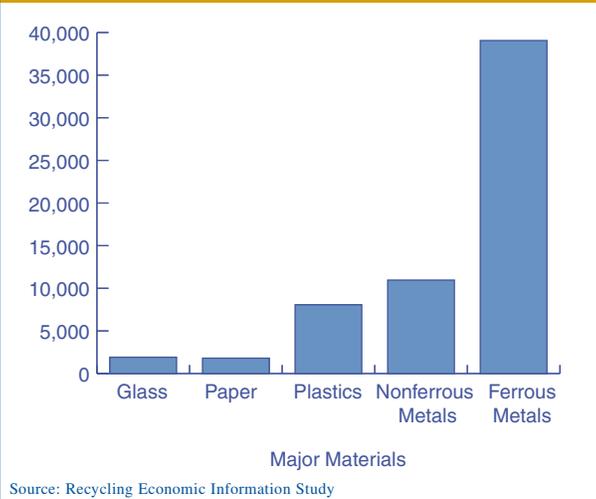
**Figure 5: Employment by Industry Sector**

**Manufacturing employment leads**



**Figure 6: Recycling Manufacturing Employment**

**Ferrous materials employment dominates**



new entrepreneurial fields such as composting and plastic and rubber product manufacturing. The recycling industry also includes companies that are quickly finding a market niche, such as computer demanufacturers, construction and demolition recyclers, and recycled plastic product manufacturers.

More than 70% of the economic activity in the recycling and reuse industry is accounted for by four recycling manufacturing sector categories: steel mills, iron and steel foundries, nonferrous metals foundries, and recycled plastics products manufacturers. These four categories alone account for 71% of all employees, 79% of wages and 75% of total receipts for Indiana’s recycling and reuse industry.

Although these industry categories make up the bulk of the economic activity, other recycling manufacturing industries exist in Indiana for many other materials. These also compare strongly with other states’ recycling activities.

Many of our industrial sectors have such a high demand for recovered materials that a significant amount of material is purchased and imported from other states and countries—to Indiana’s benefit. Many of these industries’ products support other manufacturing employment or bring profits into the state from the sale of those products outside

Indiana’s borders. Indiana’s economy significantly benefits from this industrial sector in terms of the jobs it provides, the support it gives to the state’s manufacturing base and other economic sectors, and tax revenues that flow to the state and local governments.

**Spurring ‘Downstream’ Economic Impacts**

Public and private sector investment in Indiana recycling and reuse collection, processing and manufacturing spurs significant ‘downstream’ economic activity: the indirect impact of recycling on support industries, such as accounting firms and office supply companies. The REI Study calculated the indirect economic impact of this industry, as well as the ‘induced’ impact—the economic effects of employee spending.

All told, the recycling and reuse industry supports 7.9% of the jobs in Indiana—2.5% through direct employment and 5.4% by industry and employee spending in the economy. Of Indiana’s gross state product, 7.2% is attributable to the industry, 2.8% provided directly and 4.4% through spending in the economy. The recycling and reuse industry also generates roughly \$285 million in state government tax revenues on an annual basis.

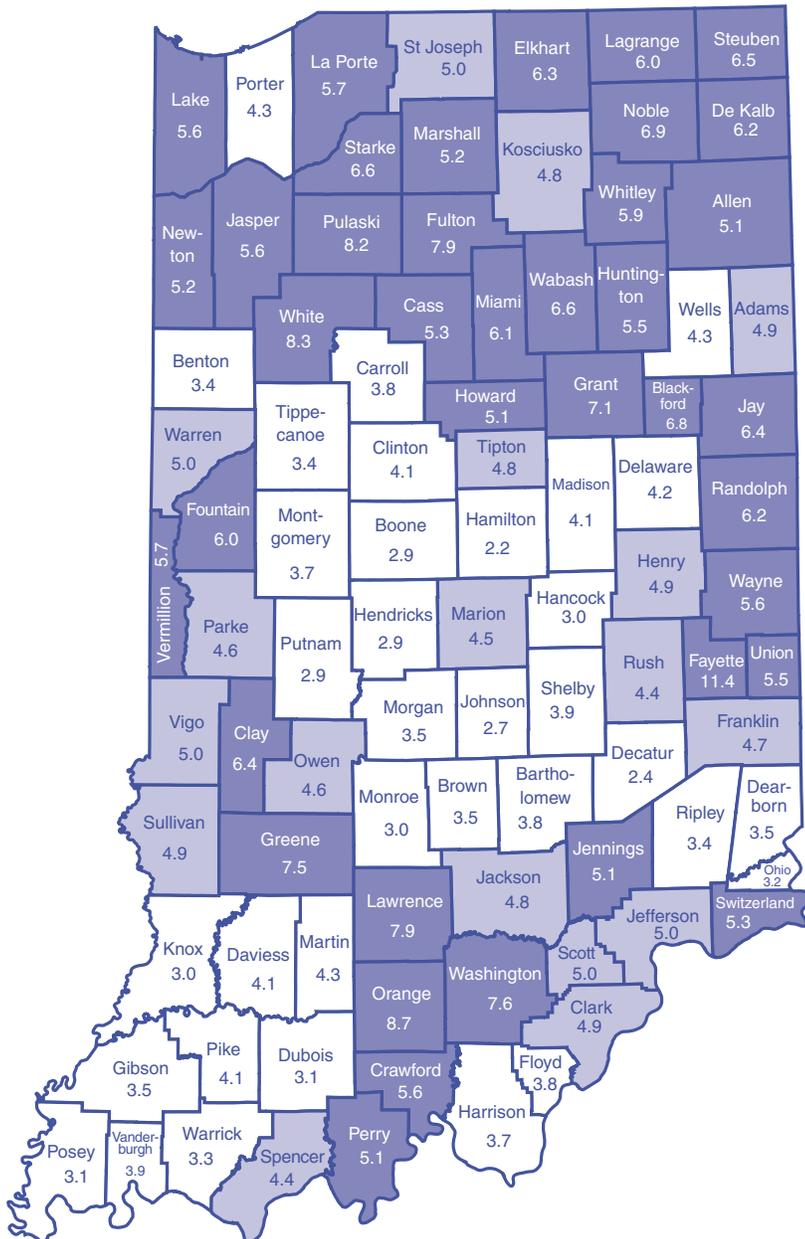
# Indiana Employment Snapshot

**Figure 1: November 2001 Unemployment Rates by County**

Indiana's unemployment rate was below the 5.3% national average

State Unemployment Rate = 4.7%

- Above State Rate (39 counties)
- Approx. Equal to State Rate (+/- 0.3) (18 counties)
- Below State Rate (35 counties)



Source: Indiana Department of Workforce Development

## Indiana's State Rate

- Indiana's unemployment rate rose to 4.7% in November, up about one percentage point from the state's average in first quarter 2001. (Data are not seasonally adjusted.)
- Indiana's unemployment rate was still below the 5.3% national average in November.
- In November, 21 states had higher unemployment rates than Indiana and 28 states had lower unemployment rates.

## Indiana Metro Area Rates

Among metro areas in November:

- Bloomington (3.0%) and Lafayette (3.5%) reported the lowest unemployment rates.
- Elkhart-Goshen (6.3%) and Terre Haute (5.4%) reported the highest unemployment rates.
- Indianapolis (3.8%) remained below the state average.
- Kokomo's unemployment rate was high throughout 2001 (5.0% in November), while most other metro areas saw unemployment rise during the year from low levels in the first quarter.

## Indiana County Rates

- The lowest county unemployment rate in November was found in Hamilton County (2.2%).
- The highest county unemployment rate was reported by Fayette County (11.4%).

## Income Data Revealed in Census Survey

Among all the data items collected in the decennial census and other ongoing government surveys, income is certainly one of the most important to business people. The population of a state or county represents more than just constituents, taxpayers, drivers or school children; it represents potential consumers of private sector goods and services as well. And, of course, income is a key factor in judging the attractiveness of a market for almost any provider of goods or services.

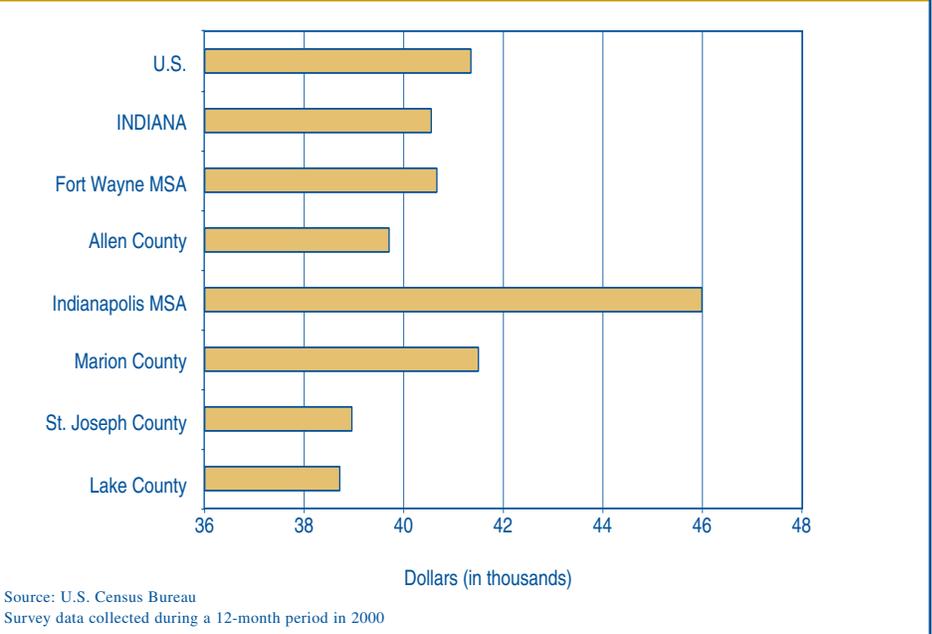
Income data from Census 2000 are not available yet, but results from a large household survey called the Census 2000 Supplementary Survey (C2SS) have been released for all 50 states, as well as for cities and counties with populations of 250,000 or more. For Indiana, income data are now available for the state, four counties, and two metropolitan areas.

The C2SS, like the census long form, includes questions about the income of each household member age 15 or older. Responses are aggregated and reported as household income. There are various measures of household income, but the single best summary measure for any given geographic area is probably the median: the dollar figure that splits the area's household income distribution in half.

Figure 1 compares the median household income estimate, as reported in C2SS, for the United States, Indiana, and the state's largest counties and metropolitan areas. Median household income was estimated at \$40,552 in Indiana and \$41,349 across the entire United States. The nine-county

**Figure 1: Median Household Income**

**High-income households in the suburbs lift the Indianapolis MSA median**



Indianapolis MSA surpassed the state and nation by a considerable margin, with an estimated median of \$45,990, while Marion County's median was \$41,500. Although the C2SS sample size was not large enough to provide a separate estimate for the eight "doughnut" counties surrounding Marion County, the wide difference between the MSA and Marion County can only be attributed to higher income levels in the suburban counties.

A unique feature of the C2SS data set is the inclusion of 90-percent confidence interval estimates along with the point estimate for each data item. Because of sample size limitations, the confidence interval can be quite wide for Indiana counties, while it is smaller for the state and much narrower for the nation. To illustrate, the confidence interval for Indiana's median house-

hold income ranges from \$39,414 to \$41,691, compared with the national figure of \$41,197 to \$41,501. Since there is some overlap in these two intervals, we cannot conclude that the difference in median household income between Indiana and the United States is statistically significant. Phrased another way, the difference between the U.S. and Indiana medians could be due to sampling error rather than any real differences in income characteristics. An examination of household income estimates for the eight areas reported in Figure 1 reveals that differences between and among seven areas are not statistically significant. Only the Indianapolis MSA median income can be asserted to be significantly different from the other areas.

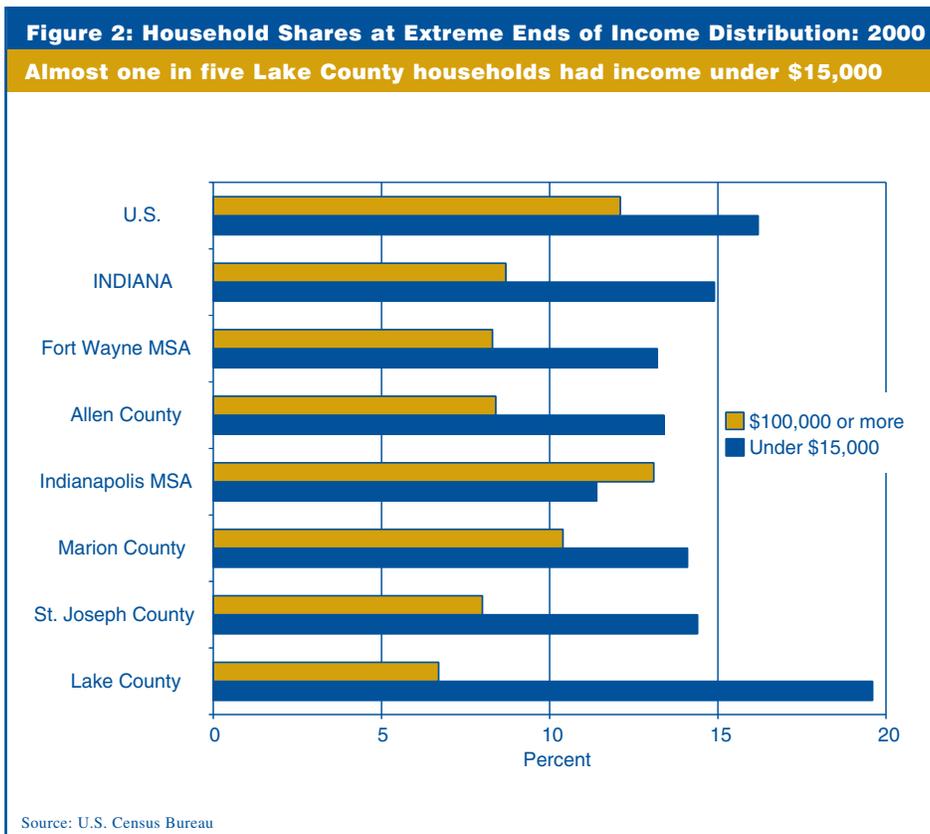
A second way to compare income across geographies is to examine the

distribution of households within defined income ranges. The share of households in the lowest income range presents an indicator of the prevalence of poverty in the area. Similarly, the household share in the highest income range can give a clue to the relative affluence of a state or county. A brief review of household shares at each extreme of the income distribution paints a picture, however incomplete, of relative equity or inequity in the distribution of income.

Figure 2 depicts C2SS household shares at extreme ends of the income spectrum, with the low end defined here as less than \$15,000 and the high end defined as more than \$100,000. The chart shows that in 2000, low-income households outnumbered those

at the high end in each of the reported geographies, with the exception of the Indianapolis MSA. The nine-county metropolitan area also appears to have the most equitable income distribution, based on the limited evidence presented here, because it has the smallest gap between the two income bars. The most inequitable distribution of income is found in Lake County, where almost one in five households had income under \$15,000 in the past 12 months, but only one in 15 had income over \$100,000. The Lake County gap between high- and low-income household shares was 13 percentage points, more than double the size of the next largest gap, six points, for the state and St. Joseph County.

A comparison between Indiana and the United States yields mixed results. The nation has higher household shares at each end of the spectrum, suggesting that Indiana is at once neither as wealthy nor as poor as the rest of the nation. In the sub-\$15,000 income category, the difference in household shares between the U.S. and Indiana was only one percentage point. At the high end, however, the spread between Indiana and the U.S. was three points. This means that low-income households are nearly as common in Indiana as they are at the national level, but households with six-figure incomes are considerably harder to find in the Hoosier state than in the rest of the nation.



## Region 3: Northeastern Indiana

### The Area

Region 3, bordering Michigan and Ohio, is comprised of nine counties in northeastern Indiana: Adams, Allen, DeKalb, Huntington, Lagrange, Noble, Steuben, Wells and Whitley. Region 3 is home to Pokagon, Chain O' Lakes and Ouabache State Parks as well as a large Amish population. Fort Wayne, the region's largest city, was built on the meeting-point of three rivers: Maumee, St. Mary's and St. Joseph.

Recent civic developments in the region include a \$24 million renovation of the Allen County Memorial Coliseum, and an \$84 million renovation of Allen County's main Public Library and its 13 branches. A juvenile correctional center is scheduled to be built in Fort Wayne, and a new Fort Wayne women's hospital recently opened along I-69.

### Population

Region 3 is dominated by Allen County and its largest city, Fort Wayne. In 2000, more than 600,000 people, or 10% of the Hoosier

population, resided in Region 3, making it the third most populated region in Indiana. Allen County is home to 331,849 people—almost 54% of the region's population. Fort Wayne has a population of 205,727. Each of the other eight counties' share of the regional population ranges from 5 to 7%.

The area population grew 11.9% from 1990 to 2000, making it the second fastest growing region in the state. This area is projected to grow another 6% by the year 2020. Census data also indicate the regional population is becoming more diverse. Although the majority of the population (89.5%) is of the white race, the number of residents of Hispanic origin increased 147% between 1990 and 2000.

### Industrial Mix, Jobs and Wages

Manufacturing is the dominant

industry in northeastern Indiana, accounting for 31% of average employment (see Table 1). The average income in the manufacturing sector is \$38,411. For more information on

### Workforce Planning Region 3:

Adams, Allen, DeKalb, Huntington, Lagrange, Noble, Steuben, Wells and Whitley counties

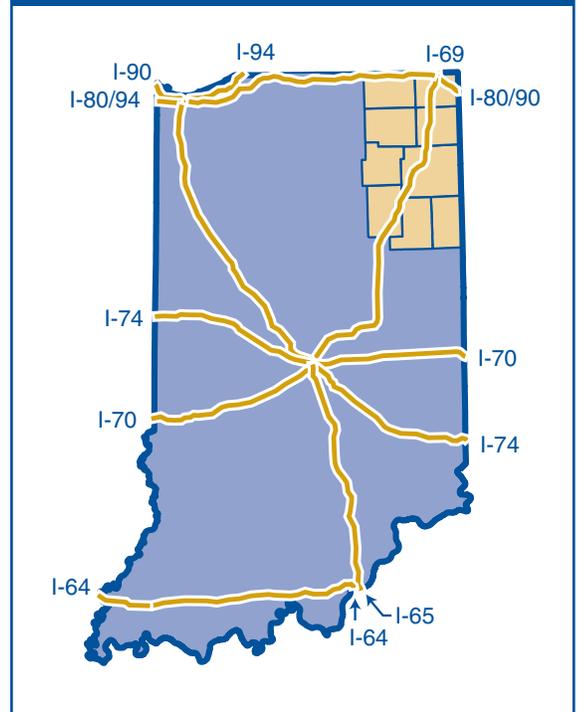


Table 1: 2000 Average Employment and Earnings for Region 3

Region 3	Employment	Percent	Earnings
<i>Average for Region</i>	319,289	100%	\$30,193
Agriculture	3,111	1%	\$20,593
Mining	337	0%	\$42,658
Construction	15,134	5%	\$33,521
Manufacturing	99,638	31%	\$38,411
Transportation, Communications and Public Utilities	14,778	5%	\$36,526
Wholesale Trade	17,079	5%	\$34,761
Retail Trade	56,226	18%	\$15,121
Finance, Insurance and Real Estate	15,156	5%	\$38,808
Services	67,170	21%	\$26,014
State and Local Government	30,660	10%	\$29,631

Source: Indiana Department of Workforce Development

employment, hours and earnings, see [www.stats.indiana.edu](http://www.stats.indiana.edu).

### Industrial Activity in Region 3: The Upside

Since 1983, 170 new industrial start-ups have occurred in Northeastern Indiana, 33 of which were automotive-related. The largest of these start-ups was the General Motors pickup truck assembly plant in Allen County in 1985.

Seventy companies invested almost \$133 million in Region 3 during the first nine months of 2001 and more than 1,500 Region 3 jobs were created or protected. Some of the more significant activity includes the following:

- AAA Galvanizing of Illinois brought 90 new jobs to Hamilton.
- Upon acquiring the K-Mart contract, the Fleming Company of Dallas, TX moved its food distribution group to Fort Wayne, adding 500 new jobs.
- Troyer Farms of Waterford, PA took over the former Seyferts Potato Chip facility, retaining production in Fort Wayne and saving 100 jobs.
- PepsiAmericas, a vending machine re-manufacturer from Rolling Meadows, IL, brought 150 new jobs to Fort Wayne.

The following companies expanded their physical facilities by a total of 297,000 square feet and created or retained more than 600 jobs:

- Custom Lights, Garrett
- Bushe Enterprises, Albion
- Forest River (RVs), Topeka
- Cirrus ABS (technology design),

**Table 2: Summary of Industrial Activity (Jan.—Sept. 1, 2001) in Region 3**

Region 3	Number of Projects	Investment	Jobs
New Industry	17	\$49,613,635	808
Expanding Industry	53	\$83,030,560	707
<i>Total</i>	<i>70</i>	<i>\$132,644,361</i>	<i>1,515</i>

Source: Indiana Department of Workforce Development

BAE Systems (electronic aircraft controls) and B&M Fine Pack (plastic food containers), Fort Wayne

- Schneider National, the largest truck carrier in North America, plans to hire 200 local employees to drive for the Garrett Wal-Mart.

**Seventy companies invested almost \$133 million in Region 3 during the first nine months of 2001.**

Meridian Automotive Systems of Ashley was acquired by its own management, thus saving 160 jobs.

Some of the recent nonindustrial activity in Region 3 includes the following:

- August 2001 saw the opening of Jefferson Pointe, a \$75 million, 64-store open-air mall in Fort Wayne, which is expected to create hundreds of retail-related jobs.
- McLeod USA of Iowa opened a 200-employee customer call center in Fort Wayne.

### Industrial Activity in Region 3: The Downside

As an economy evolves, the rise of new businesses and sectors is usually accompanied by declines in other businesses and sectors. The northwest regional economy is no exception to this rule. Unfortunately, in 2001, more than 1,900 jobs were lost in Region 3 through plant closings, downsizing or indefinite layoffs. Some of the companies involved include C.F. Comma of Columbia City; Colwell General in Fort Wayne and Garrett; Fleetwood Homes in Decatur; Fort Wayne Foundry in Fort Wayne and Columbia City; Supervalu in Fort Wayne; and Auburn Gear in Auburn.

# IN CONTEXT

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## NEW WEB SITE HELPS CLOSE THE RECYCLING LOOP

[www.CommerceRecycles.IN.gov](http://www.CommerceRecycles.IN.gov)

The Indiana Department of Commerce assists companies in finding markets for recyclables through the online *Recyclable Material Market Directory*, a searchable database of more than 230 brokers, processors and end-users who are seeking recyclables. Categories include glass, metals, paper, plastics, rubber, wood, construction and demolition debris, and other materials including electronics and textiles.

To help Indiana close the recycling loop and buy recycled, a Recycled Products Showroom has been added to the Web site. This expanding portal provides information on recycled products manufactured or distributed in Indiana.

### Indiana's Recycling and Reuse Industry

1,700 establishments

Approximately 75,000 employees

Payroll of approximately \$3 billion

Annual revenues of \$19 billion

Government tax revenues of \$285 million

FOR ALL THE LATEST STATE AND COUNTY FIGURES AND COMPLETE TIME SERIES DATA SETS RELATED TO THE INDIANA ECONOMY, VISIT THE FOLLOWING INTERNET SITES:

[www.ibrc.indiana.edu/incontext](http://www.ibrc.indiana.edu/incontext)

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