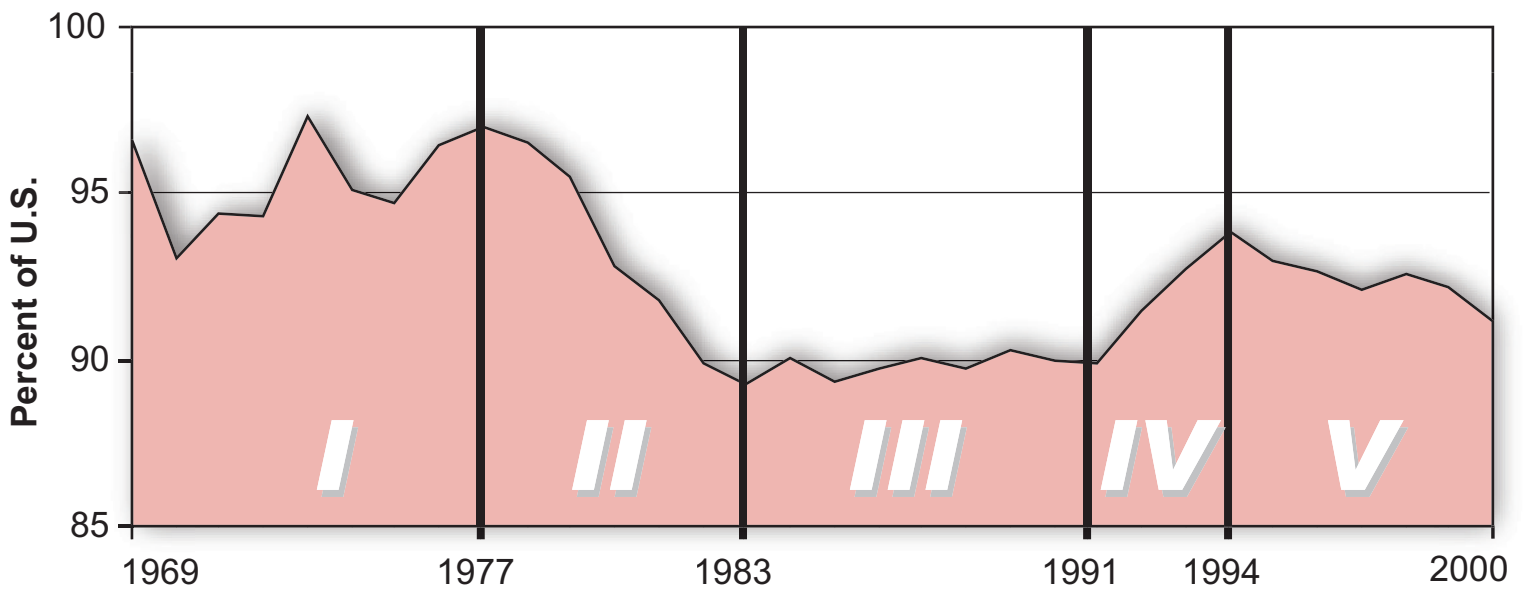




Indiana Business Review

An In-depth Look at Indiana's Per Capita Personal Income



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Indiana's Population Tops 6.1 Million

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For the Record:

Each year a full cycle of state, county, city and township population estimates are reviewed by this office, which serves as the state's official representative to the Federal-State Cooperative on Population Estimates, a program of the U.S. Census Bureau.

IBRC demographer, John Besl, submits questions and comments on those estimates that may be out of sync with what we know about population dynamics in the Hoosier State. When the Bureau publishes without revision, we use these pages (and our web site) to put our research-based disagreements on the record.

With the latest release of 2001 county-level estimates, Starke County showed a loss of more than 1,700 persons since the census in 2000. Vital events data and other information, including conversations with people in Starke County, did not yield confirmation of such a significant (7.53%) loss. Demographic questions focused on the IRS migration data, since the out-migration figure resulting from those data seem to be the driving force in the decline. While the Census Bureau did respond to challenge, it wasn't by much. Two points: (1) Indiana has a voice in the population estimates. (2) When the Census Bureau does not or is not able to make changes to these estimates, we put our disagreements, on behalf of the state, on the research record.

On the economic front, research by Indiana Business Research Center economist Jim Smith recently appeared in print and on television news shows, becoming the talk of the state. His findings focused on the decline in Indiana's per capita personal income relative to the nation (the Indiana Fiscal Policy Institute also released its income study about the same time) and the significant job losses Indiana has suffered since January 2000. Interestingly, the 90,000+ Indiana job loss was predicted in these pages by Smith in the Outlook 2002 issue published just last December.

As it has since 1925, the Indiana Business Research Center remains committed to research that provides an accurate representation of what is occurring in our state's economy and population. - Ed.

Dissecting Indiana's Decline in Personal Income

Morton J. Marcus

Executive Director, Indiana Business Research Center, Kelley School of Business, Indiana University, Bloomington and Gary

The fact that Indiana's share of the U.S. personal income and population has been declining is not news any longer. Even the fact that Indiana's per capita personal income (PCPI), relative to the nation's PCPI, is also in decline has become widely understood.

But, to date, pinpointing the components of that relative decline has not been undertaken. Hop on for a ride through the data. As you fasten your seat belts, remember that we are discussing relative decline. Indiana and the nation have both been making progress. Our search is for the components of personal income and sectors of the economy where Indiana has had its strongest and weakest performance compared to the nation as a whole.

If, however, such a journey seems too laborious, we recommend you flip to the summary and see all revealed in one simple table (see **Table 2** on page 6).

Personal Income, Population, and PCPI

In 1969, Indiana enjoyed 2.47 percent of the nation's personal income. At the time we had 2.55 percent of the U.S. population. By the year 2000, our share of personal income had fallen 1.97 percent and our population was but 2.16 percent of the nation (see **Figure 1**).

A declining share of the nation's income or population is not a sign of being worse off in absolute terms. During this period Indiana grew in both measures, only at a rate that was slower than the rest of the nation. Thus, the state was in a condition of relative decline.

Personal income divided by population yields per capita personal income (PCPI). When a state's share of the nation's income is less than its share of the nation's population, then its PCPI will be less than the nation's PCPI. Thus in 1969, Indiana's PCPI was \$3,714 while the nation's was at \$3,846. Setting the U.S. equal to 100, Indiana's relative PCPI index value was at 96.57 or 3.43 percent below the nation's. By 2000, Indiana's PCPI index was 91.13 or 8.87 percent below the U.S. (see **Figure 2**).

If Indiana had started above the national average in PCPI, we could claim that this was just a case of the rest of the nation catching up with us. That was not a luxury we enjoyed.

As seen in **Figure 2**, there were five different periods over the span of years from 1969 to 2000. During the first period, 1969 to 1977, Indiana hit 97 percent of the nation three times, slipping down during recessions and fighting back to the 97 percent level. But the next recession knocked Indiana down to 89 percent of the U.S. in 1982. During the third period, Indiana stayed on the canvas through 1991. Then, in the fourth period, Indiana climbed back to 94 percent of the nation, but the recovery was short-lived. By 2000, the Hoosier state was again in a sinking mode, falling to 91 percent.

Figure 1 showed us that the changes in population are fairly regular but that the movements of personal income are what direct the variations of PCPI seen in **Figure 2**. A closer look at personal income and its components is warranted.

Figure 1
Indiana's Share of U.S., 1969-2000

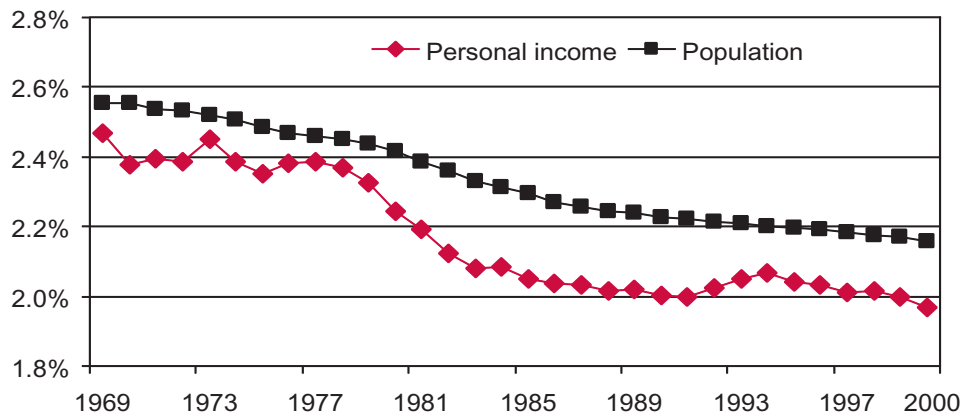


Figure 2
Five Distinct Periods: Indiana's Per Capita Personal Income as a Percent of U.S.

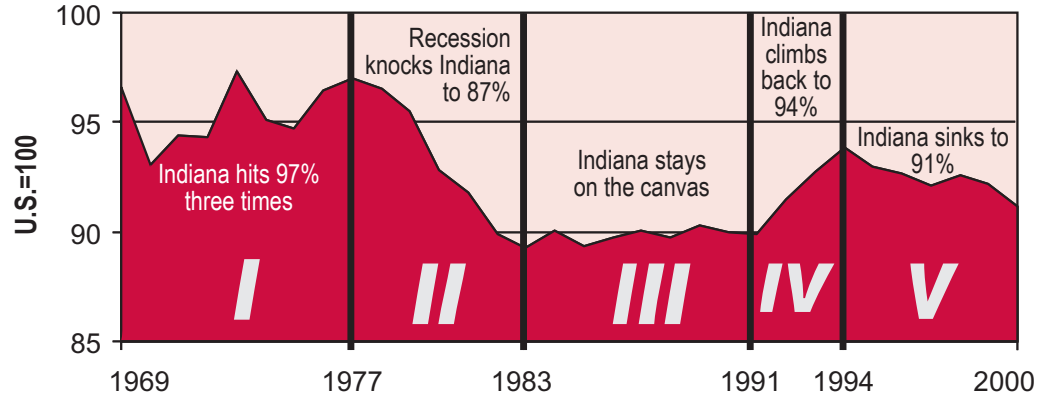
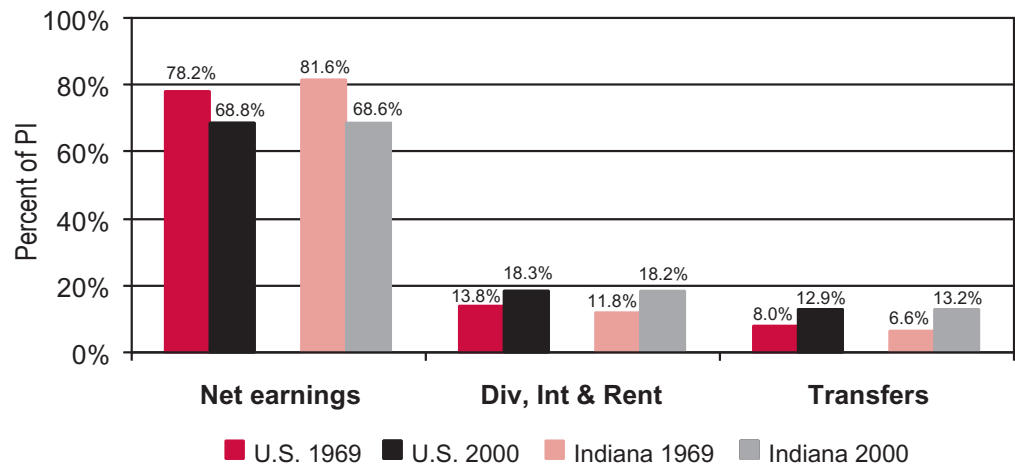


Figure 3
Components of Personal Income, 1969 and 2000



Components of PI

Like Gaul, personal income is divided into three parts:

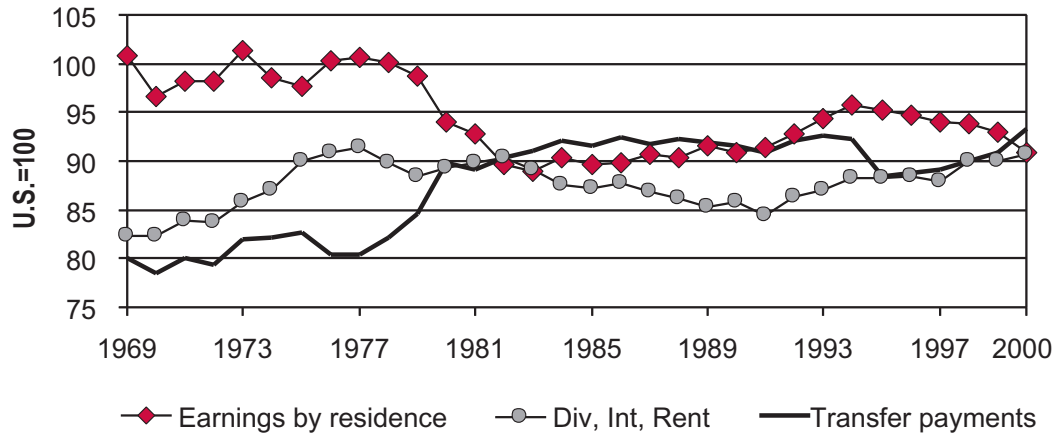
- Earned income—what we make working for ourselves or others
- Dividends, interest, and rent—the returns on capital we own
- Transfer payments, government payments for unemployment and social security

In 1969, earnings were a larger component of personal income in Indiana (81.6 percent) than in the nation (78.2 percent) (see **Figure 3**). By 2000, Indiana and the nation were close in earnings, dividends, interest, and rent as well as in transfer payments.

In both dividends, interest and rent (DIR) and transfer payments Indiana tended toward the national average per capita while slipping in earnings per capita¹ (see **Figure 4**). The result was an upward movement in Indiana's PCPI relative to the nation.

But together these two components still only accounted for 30 percent of total personal income. Hence what happened to earned income dominated the movement of PCPI. Between 1969 and 2000, Indiana's earnings per capita fell from 100.73 percent of the national level to 90.85 percent. This decline overwhelmed the positive effects of upward movements in the other two components.

Figure 4
Indiana's Per Capita Personal Income Components as a Percent of U.S.



What Happened to Earnings?

The slide of earnings in Indiana has several components to consider; to understand this decline we must look at the starting point and go through the steps until we get to the earnings component of personal income.

The earnings we have been discussing are known as *Net earnings by place of residence*. They are computed this way:

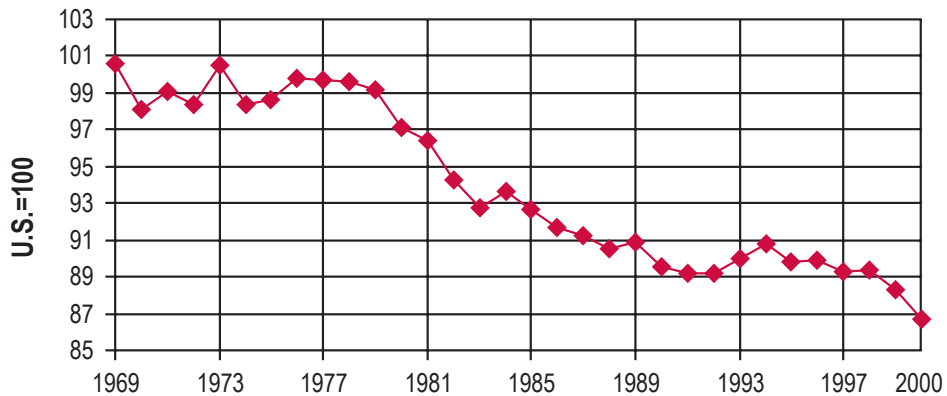
- Earnings by place of work
- Less** Contributions for social insurance
- Plus** Residence adjustment
- Equals** *Net earnings by place of residence*

Earnings by place of work is the total payroll, contributions by employers to pensions and health plans, bonuses, and other payments for labor where the firm is located. They may be examined as the product of number of workers and the average wage (compensation) per worker.

Between 1969 and 2000 the average wage per worker in Indiana relative to the nation fell from parity (100.6) down to 86.7 (see **Figure 5**). The decline in earnings per job is probably the most important single factor in the decline of per capita personal income.

With Hoosier earnings per job not keeping pace with earnings across the nation, Indiana became less

Figure 5
Earnings Per Job—All Jobs
Indiana Relative to the U.S.



attractive as a place to work. This might have been offset by more firms willing to move to Indiana to take advantage of its low paid workforce. But that was not the case. Indiana's share of total U.S. employment fell from 2.56 percent to 2.2 percent, although it seems to have stabilized since 1981 (see **Figure 6**).

Put these two negative factors together and the decline in relative earnings becomes clear. Indiana's

share of total earnings in the U.S. fell from 2.6 percent to 1.9 percent between 1969 and 2000 (see **Figure 7**). Although most of that fall occurred in the late '70s and early '80s, there would seem to be no suggestion of an upward movement despite the employment bump of the early '90s. The inexorable decline in relative earnings per job (**Figure 5**) has offset any employment gains that have been made.

The decline of Hoosier earnings per job relative to those in the nation was widespread across industry groups (see **Column 3, Table 1**). At the same time, employment in Indiana failed to keep pace with the nation in all sectors other than Agricultural Services and Wholesale Trade (see **Column 6, Table 1**). Together these deficiencies yielded shortfalls in total earnings, relative to the nation in each sector of the Indiana economy (see **Column 9, Table 1**). Hardest hit was Finance, Insurance and Real Estate. Manufacturing, despite popular hand-wringing, did not fare poorly in comparison.

Figure 6
Indiana's Share of U.S. Employment

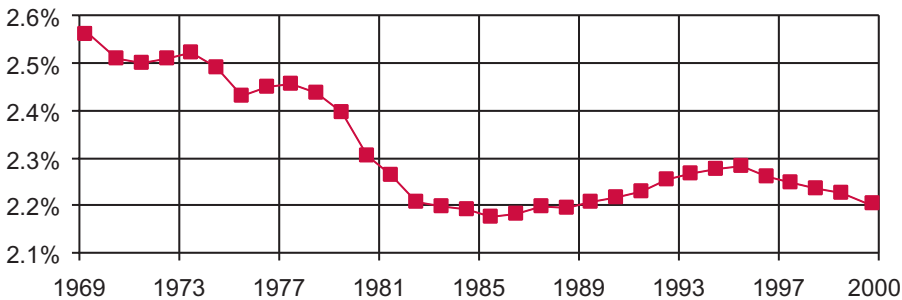
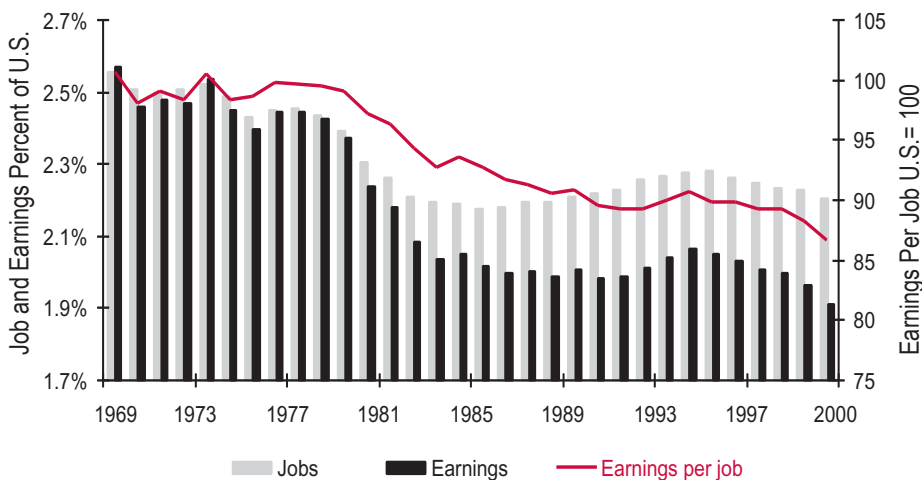


Figure 7
All Jobs—Indiana Compared to the U.S.



The Remaining Components of Earnings

If you have been struggling through this article, the hard work is now over, and that clear summary, promised earlier, will emerge soon.

Now that we have seen the dramatic relative decline of earnings by place of work in Indiana, we can proceed to the components that get us to earnings by place of residence.

Contributions for social insurance are the payments made for social security, Medicare, and unemployment compensation by the employer or the employee. They are deducted from earnings by place of work. We would expect that these deductions would be the same percent of income for all states. But that is not the case (see **Figure 8**).

Contributions for social insurance in both Indiana and the U.S. are rising as a percent of total earnings by place of work. But Indiana has a higher rate and the differential between Indiana and the U.S. has also been rising (see **Figure 9**). This rising differential, although small, decreases our per capita personal income relative to the nation.

Why is there a differential between the Indiana and the U.S. and why is it rising? There are no known answers, but we can make some good guesses.

First, social security taxes are capped at a given income figure each year. Currently that number is around \$84,000. If a Hoosier earns \$80,000, all of that income is taxed for social security. If a Buckeye earns \$100,000, then only the income up to \$84,000

Figure 8
Contributions for Social Insurance as a Percent of Earnings by Place of Work

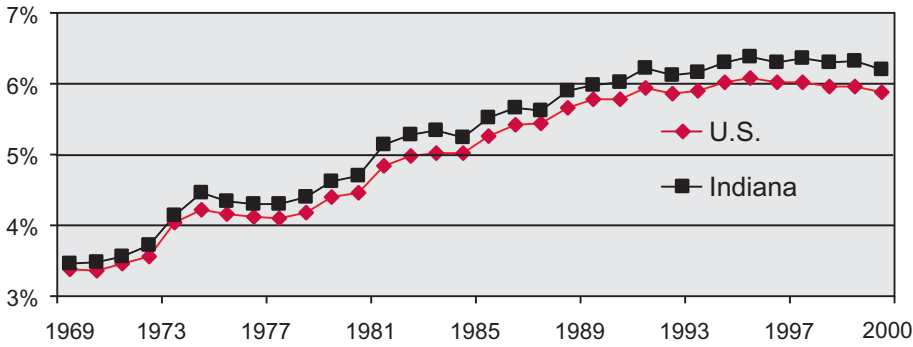
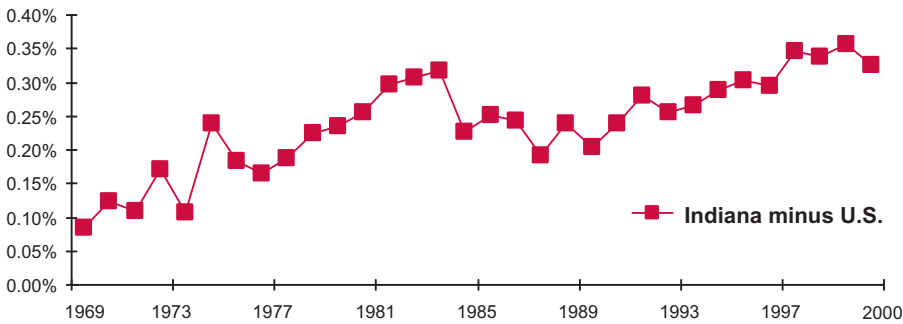


Figure 9
Differential Between Indiana and the U.S. in Contributions for Social Insurance as a Percent of Total Earnings by Place of Work



is taxed and the remaining \$16,000 is not taxed for social security. If Indiana has a smaller percentage of persons earning over \$84,000 than does Ohio, our percent of earnings for social contributions will be higher than that percentage for Ohio because more income in Ohio escapes social security taxes. Persons making high incomes, including big bonuses, often have a large portion of their earnings not taxed for social security purposes. Indiana may have a smaller portion of its work force earning these big bucks.

Second, not all persons are subject to social security taxes. In some states, employees of state and local governments have been exempted from social security taxes. This is not common in Indiana and could be another factor increasing the percent of earnings going to social contributions.

Another adjustment to earnings by place of work is one made for commuting behaviors. Many people work in one county and live in another. Sometimes these counties are in different states.

On balance, Indiana is a net gainer from commuting. Our workers bring in more money than leaves the state as a result of the daily traffic crossing the Illinois, Michigan, Ohio, and Kentucky borders of Indiana. In addition, our gains from commuting have been rising over time, while the nation as a whole has shown virtually no change in this factor (see **Figure 10**). Residence adjustment also tends to increase Indiana's PCPI relative to the nation.

Figure 10
Residence Adjustment as a Percent of Net Earnings by Place of Residence

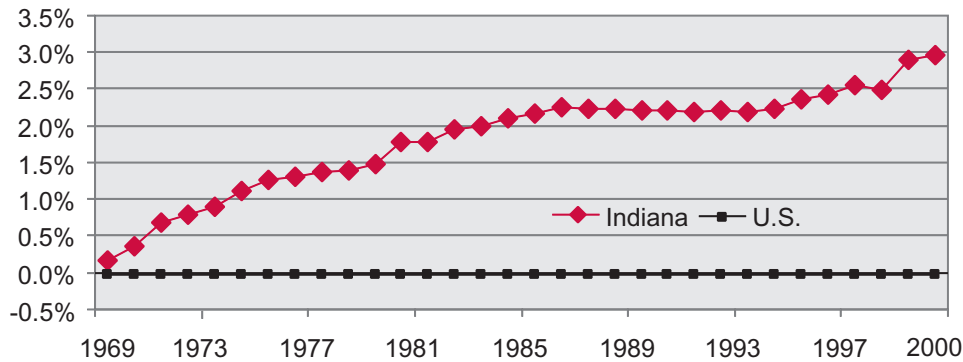


Table 1
Percent Change in Earnings Per Job and Number of Jobs from 1969 to 2000

Industry	Earnings per job			Number of jobs			Earnings		
	U.S.	Indiana	IN-U.S.	U.S.	Indiana	IN-U.S.	U.S.	Indiana	IN-U.S.
All jobs	427%	354%	-73%	84%	59%	-25%	869%	620%	-249%
Farming	251%	54%	-197%	-22%	-33%	-11%	173%	2%	-171%
Ag. services, forestry, fishing	242%	144%	-98%	328%	460%	132%	1,364%	1,266%	-97%
Mining	645%	506%	-139%	8%	-7%	-15%	707%	467%	-241%
Construction	317%	275%	-43%	115%	87%	-27%	797%	602%	-194%
Manufacturing	493%	440%	-54%	-7%	-8%	-1%	452%	396%	-56%
Transportation and public utilities	454%	355%	-99%	72%	55%	-17%	853%	607%	-246%
Wholesale trade	455%	386%	-69%	85%	88%	3%	928%	815%	-113%
Retail trade	285%	240%	-45%	103%	86%	-18%	684%	532%	-152%
Finance, insurance, and real estate	660%	526%	-133%	128%	90%	-38%	1,634%	1089%	-545%
Services	481%	414%	-66%	219%	197%	-22%	1,751%	1,425%	-325%
Government and govt. enterprises	506%	494%	-12%	44%	41%	-2%	770%	738%	-32%

Table 2
Changes in Per Capita Personal Income, 1969-2000

<i>All data in per capita terms</i>	United States		Indiana		Indiana minus U.S.	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Earnings by place of work	18,426	591%	15,918	508%	-2,508	-84%
Less: Contributions for social insurance	1,160	1,101%	1,073	987%	-87	-114%
Plus: Residence adjustment	(3)	364%	541	11,290%	544	10,926%
Equals: Net earnings by place of residence	17,263	574%	15,387	508%	-1,876	-66%
Plus: Dividends, interest, & rent	4,856	915%	4,447	1,018%	-409	103%
Plus: Transfers	3,486	1,139%	3,291	1,342%	-195	203%
Equals: Total per capita personal income	25,605	666%	23,125	623%	-2,480	-43%

Summary

How do all these factors come together to yield a decline in Indiana's PCPI relative to the nation? **Table 2** tells all. Where Indiana's percent change in a component (on a per capita basis) did not keep pace with the nation, our relative position slipped. The change in dollar amounts may have a different sign from the percent change because, although we may be growing faster than the nation, we remain behind it in level of income. For example, if a Hoosier has an income of \$1,000 and it doubles to \$2,000, she will still be behind a Buckeye who started with \$10,000 and only saw her income increase by just 30 percent.

The Hoosier will have a change of \$1,000 while the Buckeye will enjoy change of \$3,000.

Compensation for workers in the Hoosier state has not risen as fast as elsewhere. No other factor has greater impact on PCPI.

Indiana made some gains from the residence adjustment, largely because workers in Chicago, Cincinnati, and Louisville choose Hoosier homesites. At the same time, Indiana lost ground (relatively) in contributions for social insurance, probably because of our relatively low total income levels per worker.

Indiana also outpaced the nation in transfer payments and returns on capital (dividends, interest and rent). These may be demographically driven factors as the Hoosier state aged more rapidly in the latter part of the 20th century than did the U.S. as a whole.

The bottom line: if we are concerned about per capita personal income, we should focus on earnings per worker and more workers in higher paying jobs. If that comes as a surprise to anyone, he or she has been asleep for past twenty years.

Endnotes

1. Although below the national figure in each component of personal income per capita, the state has shown an upward trend in two elements that may be related to a population growing older faster than the nation as a whole. As the population ages, social security payments become more important and citizens tend to be owners of financial and real assets that earn dividends, interest, and rent. During the period under study, Indiana went from being a state with a younger population to one with a population older than the national average.

2. Source: Base data taken from the U.S. Bureau of Economic Analysis.

Indiana's Population Tops 6.1 Million

New population estimates issued by the U.S. Census Bureau on December 28, 2001 indicate that Indiana's population increased by 34,000 between April 1, 2000 and July 1, 2001. Since the census count in 2000, Indiana's population continued its climb over 6 million. As of midyear 2001, the Census Bureau estimates the state's population at 6,114,745 (see **Figure 1**).

The State's Ranking

Indiana ranks 14th among the states in population size, unchanged from its ranking on Census 2000 population. As recently as 1980, Indiana ranked 11th.

Our rank was only 23rd on numeric change and ranked only 31st among 51 states (including the District of Columbia) in percent population change

between April 1, 2000 and midyear 2001. With so many other states gaining population faster than Indiana, it's likely that the Hoosier State will slip out of the top 15 by the time of the next census in 2010.

Population Growth Rate

Since the 2000 census, Indiana's population growth has slowed to an average annual rate of 0.4 percent, down from 0.9 percent per year in the 1990s. The national growth rate is considerably higher than Indiana's, both before and after the 2000 census. A slowdown in the rate of population growth is also evident across the United States, but the decline has been more moderate at the national level, from 1.2 percent per year in the 1990s to 1.0 percent since Census 2000 (see **Figure 2**).

John Besl

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Bloomington

Figure 1
Indiana's Total Population by Decade(with July 1, 2001)

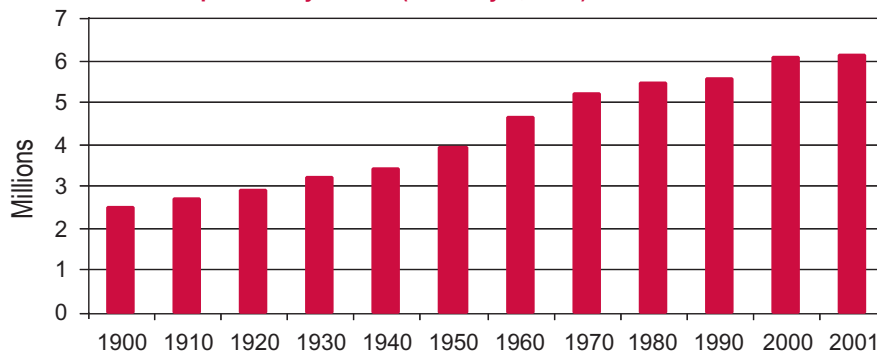
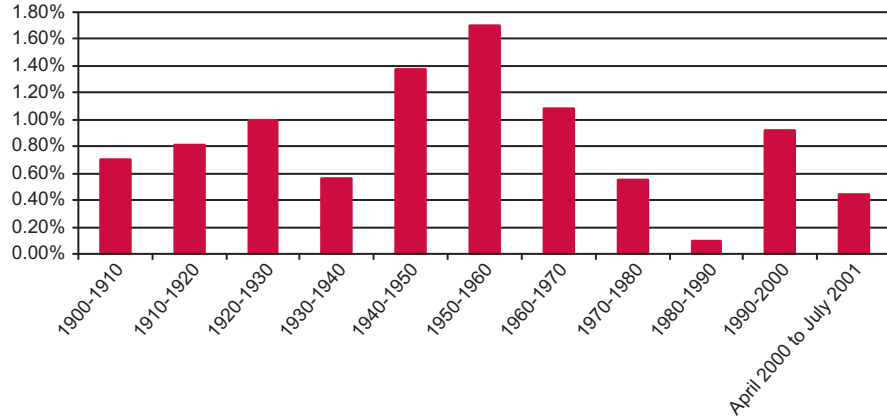


Figure 2
Average Annual Rate of Population Change, Indiana



Although Indiana's post-census population growth has slowed, Hoosiers are keeping pace with neighboring states. Michigan and Illinois matched Indiana's average annual growth rate of 0.4 percent since April 1, 2000, but Ohio's population has been anemic, increasing at a rate of only 0.1 percent per year. In contrast, Kentucky has grown by 0.5 percent per year, slightly faster than Indiana.

One might think there isn't much difference between 0.9 and 0.4 percent, so it is helpful to extrapolate from 2000 to 2010 and calculate Indiana's population change under the two alternative growth scenarios. If the current trend reflected by the new Census Bureau estimates persists through 2010, the state's population will increase by 280,000 over the decade. If, however, the more rapid growth witnessed in the 1990s returns, Indiana's population would grow by about 590,000.

Births, Deaths and Migration The Components of Population Change

The Census Bureau estimates that persons moving out of Indiana outnumbered those moving in by about 4,000 between April 1, 2000 and July 1, 2001. The net loss due to migration was more than offset by an estimated gain of 38,000 persons through natural increase, the balance of births over deaths. The Census Bureau estimates that Indiana and the other seven states that border the Great Lakes combined to lose over 150,000 residents through migration in the 15 months following the April 1, 2000 census. Among Indiana's neighboring states, only Kentucky was given a positive net migration estimate (see Figure 3 below, and Figures 4, 5 and 6 on the inside back cover).

Figure 3
Increases in Population
April 1, 2000 to April 1, 2001

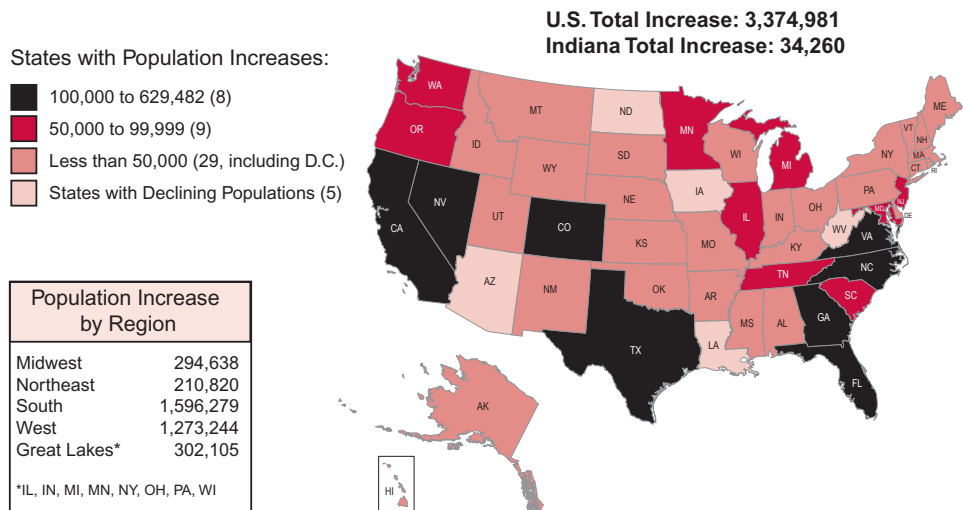
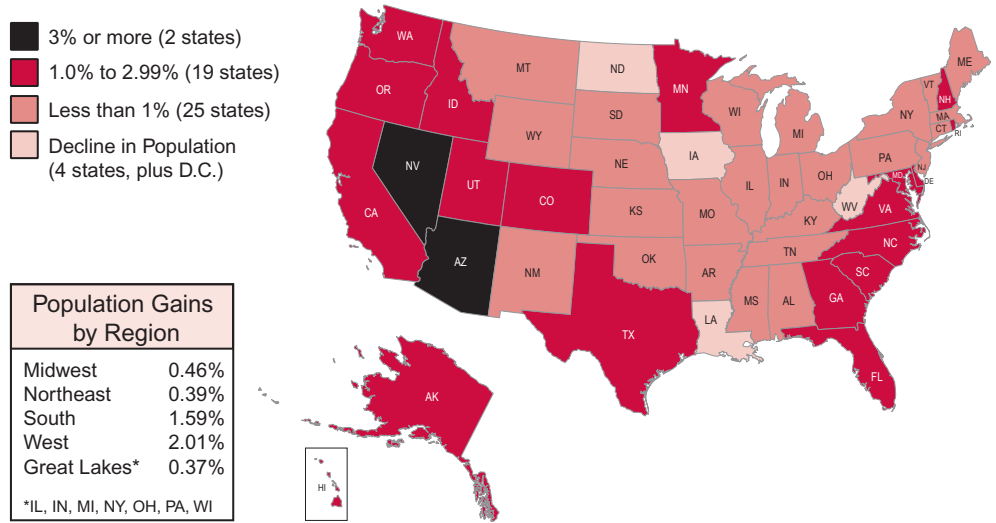


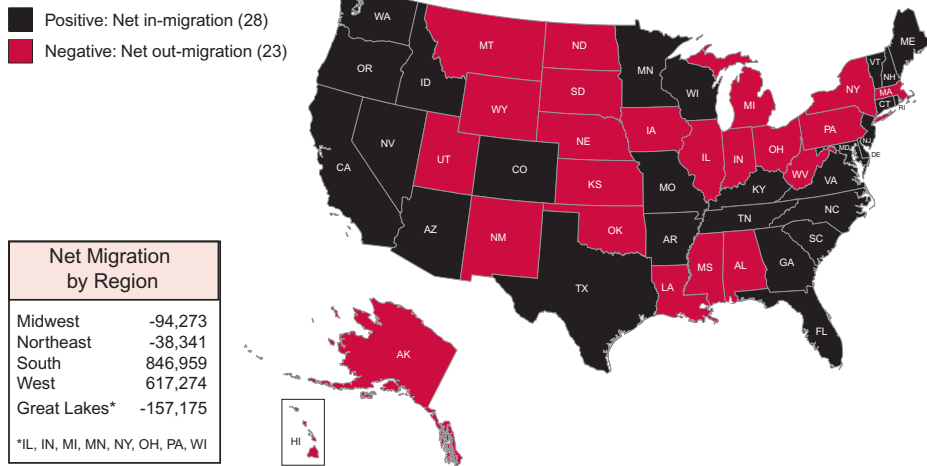
Figure 4
Population Change (percent)
April 1, 2000 to April 1, 2001



Population Gains by Region	
Midwest	0.46%
Northeast	0.39%
South	1.59%
West	2.01%
Great Lakes*	0.37%

*IL, IN, MI, NY, OH, PA, WI

U.S. Net Migration: 1,331,619
Indiana Net Migration: -3,687

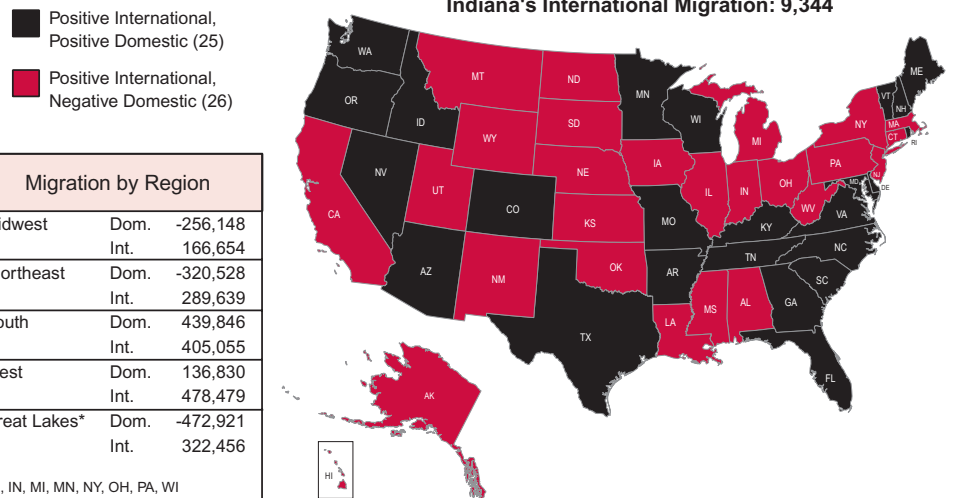


Net Migration by Region	
Midwest	-94,273
Northeast	-38,341
South	846,959
West	617,274
Great Lakes*	-157,175

*IL, IN, MI, MN, NY, OH, PA, WI

Figure 5
Net Migration
April 1, 2000 to April 1, 2001

Indiana's Domestic Migration: -12,522
Indiana's International Migration: 9,344



Migration by Region		
Midwest	Dom.	-256,148
	Int.	166,654
Northeast	Dom.	-320,528
	Int.	289,639
South	Dom.	439,846
	Int.	405,055
West	Dom.	136,830
	Int.	478,479
Great Lakes*	Dom.	-472,921
	Int.	322,456

*IL, IN, MI, MN, NY, OH, PA, WI

Figure 6
Migration: Domestic and International as of July 1, 2001

SPRING 2002

Inside.....

- **Dissecting Indiana's Decline in Personal Income**

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