in context

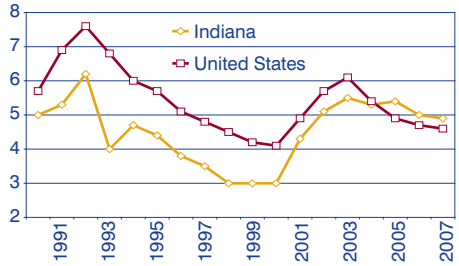
INDIANA'S WORKFORCE AND ECONOMY

OCTOBER 2007

inside

August Unemployment Rates

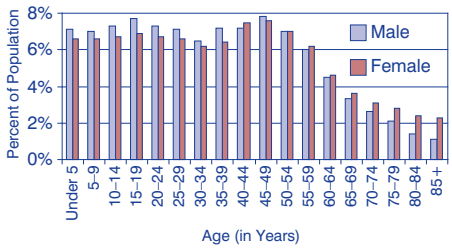
Indiana's seasonally adjusted unemployment rate was 4.9 percent for August 2007. This was lower than neighboring states, but slightly higher than the U.S. rate of 4.6 percent.



*seasonally adjusted

Population by Age

The percent of the U.S. population who are men consistently outnumber women from infant to age 39, according to the 2006 American Community Survey data recently released by the U.S. Census Bureau. However, women tend to live longer.



Note: Each age group has a margin of error between +/-0.1 and +/-0.2
Source: IBRC, using U.S. Census Bureau data

Offshoring and Near-Shoring: Movement of Work Studies

The national debate on offshoring continues as economists dispute the impact of the movement of jobs overseas. With each plant closing or bankruptcy discussed on the evening news, many Americans wonder if these job losses are a result of increasing global competition. What has been the impact on the Hoosier economy? Which industries have been hardest hit by offshoring events? How many workers have been affected? To answer these questions, Indiana's Department of Workforce Development needs solid information on job layoffs from employers. The agency tracks unemployment insurance statistics and mass layoff events for all industries. This will be the first in a series of articles on mass layoff statistics, job losses and the movement of work outside of Indiana.

While mass layoffs are always troubling, they impact less than 1 percent of the Hoosier workforce. With the right education and training programs, we can hope for newer, better jobs on the horizon for laid-off workers.

Mass Layoff Statistics

The Mass Layoff Statistics (MLS) Program identifies, describes and tracks the effects of major job cutbacks by monitoring initial unemployment insurance claims filed by employees. By identifying and analyzing the permanent mass layoffs in Indiana, the program seeks to help find employment and training solutions to problems created by major permanent job cutbacks. Economic developers can also use this data to determine the available labor supply for new employment opportunities.

Key points of the MLS program

- *A permanent or extended layoff is anyone who is laid-off longer than 30 days. Not everyone who is laid off longer than 30 days loses his/her job—some may be recalled.*
- *Employers who layoff 20 or more employees in a five-week rolling period are called 30 days after the event was triggered and they are asked how many people have or will be recalled. They are also asked how many permanent job separations there have been or will be.*
- *If the layoffs were temporary, it is not considered a mass layoff event.*
- *The program does not include all permanent layoffs. Exclusions include small businesses, those who may cutback a few jobs over an extended period of time, and employees receiving severance packages, or who never file a claim for a variety of reasons.*

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INDIANA WORKFORCE DEVELOPMENT

Total Layoffs[1]

Since 2004, Indiana has lost 44,808 jobs within 322 permanent (extended) mass layoff events. The number of layoff events varies from year to year. In 2004, 91 events resulted in 14,728 separations. In 2005, 70 events led to 11,033 separations. This was followed by 99 events totaling 13,396 separations in 2006. Although there have been 62 events in the first and second quarter of 2007, the current year has seen slightly lower numbers of separations over last year—only 5,651 jobs lost thus far.

So what is the context? Indiana total nonfarm employment in 2004 was 2,928,900 and 2,973,400 in 2006.[2] Only about 0.4 percent of the Hoosier nonfarm workforce filed for unemployment during these permanent mass layoff events. Although the number of impacted workers is undoubtedly larger, as workers may be let go over time and small businesses layoffs are not included, it is important to note the context. While these layoffs impact many workers and often create newsworthy events, the true picture of Indiana employment is more stable—and the unemployment rate has averaged 4.8 thus far in 2007.

Job Losses by Industry

Over this three-and-a-half year period, 67 percent of the jobs lost due to layoffs were in the manufacturing industry, and half of these mass layoff manufacturing jobs were lost in the transportation equipment industry. The retail trade industry permanently laid off 5,245 workers, which accounts for 12 percent of total separations since 2004. Employers in the finance sector provided 4 percent of the jobs lost, while 3 percent were in transportation and warehousing, and 2 percent were in health care. The food service industry lost just fewer than 400 jobs (mostly in 2004), while accommodation and other services let go a combined 320 workers since 2004 via mass layoffs.

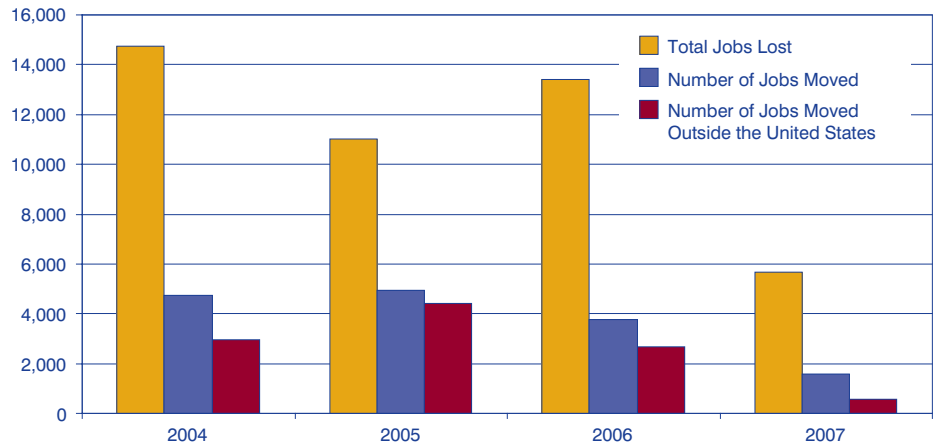
> ***Outsourcing*** *is the movement of work that was formerly conducted in-house by employees paid directly by a company to a different company. The different company can be located inside or outside the United States.*
>
> ***Offshoring*** *is the movement of work from within the United States to locations outside the United States. Offshoring can occur within the same company and involve movement of work to a different location of that company outside the United States, or to a different company altogether.*

Offshoring Trends

Since the 1980s, Midwestern manufacturing has experienced layoffs due to movement of work overseas. The widespread effects of offshoring (substituting foreign for domestic labor) is not news to Hoosiers. After the dot-com boom and bust, the offshoring issue became an important part of the national dialogue. While workers in manufacturing industries have long been exposed to foreign competition and technology advances, the rise of the information economy has widened the impact of globalization and created vulnerabilities among a variety of industries.

Although offshoring and plant closing activity has been going on for years, and may have even peaked in 2001, MLS did not begin capturing specific data on movement of work until January 2004. As a result, MLS is just starting to build its historical database, and we will be looking at a snapshot in time covering the last three years. Of the 44,808 total jobs lost since 2004, just over one-third of these were moved, and only 24 percent were moved offshore (see **Figure 1**). There is variability from year to year in both volume of jobs lost and in where the jobs move. Many of the jobs move out of Indiana, yet remain in the United States. Of the 14,728 jobs lost

FIGURE 1: Indiana Jobs Lost and Jobs Moved, 2004 to 2007



Source: MLS Program, Indiana Department of Workforce Development

in 2004, 32 percent moved, and only 20 percent were moved offshore. 2005 took the biggest loss from offshoring as 89 percent of the jobs that were moved relocated overseas. In 2006, that figure dropped to 70 percent of jobs moved. So far in 2007, just over one third of jobs moved left the country. The vast majority of the jobs leaving the country go to Mexico (see **Table 1**). The next largest percentage of jobs move to Canada, with few jobs leaving for India, China or other countries far overseas. This "local" movement of jobs is known as *near-shoring*.[3] Historically, jobs that leave the United States opt for a cheaper yet relatively close geographic locale. This has also been the case for those jobs leaving Indiana yet staying within the United States; many of these jobs stay in the Midwest.

The MLS data collected by Indiana mirrors our expectations of the impact of offshoring in the Midwest. Except for one event in wholesale trade and one event in air transportation, all offshore events over the past three years have been in the manufacturing industry (see **Figure 2**). Fifteen events and 4,855 jobs were moved offshore in transportation equipment manufacturing alone; but even though this sector was the hardest hit, those jobs accounted for approximately 1 percent of employment in that industry.

Reasons for Layoffs

The MLS program tracks the reasons for layoffs cited by employers to help explain developments or trends in the economy. The reasons are broken down into six categories:

1. Business Demand: Reasons include contract cancellation or completion, domestic or foreign competition, slack work, and insufficient demand or business slowdown.
2. Disaster/Safety: Reasons include natural disasters (weather and not weather related) and hazardous work environment.
3. Financial: Reasons include bankruptcy, cost control measures and financial difficulty.
4. Organizational: Reasons include a business ownership change, reorganization and restructuring.
5. Production: Reasons include technology advances, labor disputes, material shortages, discontinued product lines, government intervention, etc.
6. Seasonal or Vacation

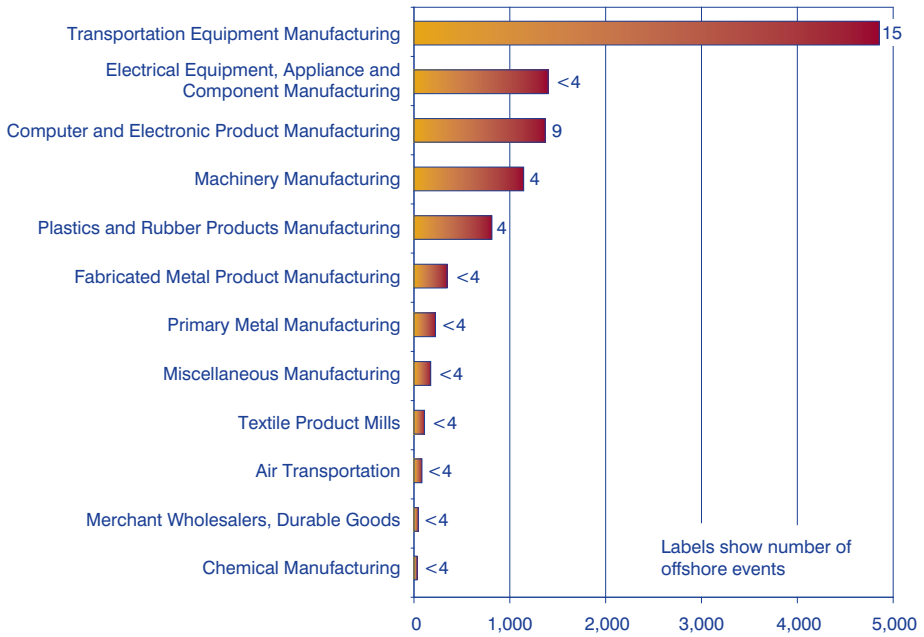
Information on worksite status is also collected, along with whether or not an employer anticipates any worker recalls. During the phone interview, states ask if any jobs are going to be moved or contracted out; if there is a movement of work, the employer is asked where anticipated relocation will occur. As illustrated in **Table 2**, the most commonly cited reason for a mass layoff is company reorganization. Fourteen of 44 offshore events cite import/foreign competition as a reason, and a few other offshore events are explained by business ownership change, slack work or completed contracts.

TABLE 1: WHERE DO JOBS LEAVING THE COUNTRY GO?

Location	Number of Events
Mexico	28
Canada	6
Unknown	5
China	2
England	1
Brazil	1
India	1

Source: MLS Program, Indiana Department of Workforce Development

FIGURE 2: JOBS MOVED OUT OF COUNTRY BY THREE-DIGIT NAICS, 2004 TO 2007



Source: MLS Program, Indiana Department of Workforce Development

Other Reasons for Job Losses

Productivity increases (the value of goods and services produced in a period of time, divided by the hours of labor used to produce them) may also impact

job growth. Recent national research indicates that in many cases, more jobs have been impacted by increases in productivity than movement of work. National data examining GDP shows that productivity in the nonfarm business sector rose 2.6 percent per year from 1995 to 2000. Over the next three years, it rose 4.1 percent. If productivity had been increasing at its previous rate on par with the historical trend, employment in the nonfarm business sector would have required approximately 2 million more persons to achieve the 2003 GDP levels.[4] Productivity is related to the concept of efficiency, yet productivity is defined by output relative to resources, and efficiency is the value of output relative to cost. As efficiency and productivity increase, whether by technology or process improvement, fewer workers are usually required.

As highlighted in the November 2006 issue of *InContext*, Indiana manufacturing productivity has been especially successful. The value added percent change in productivity per production worker increased by 30 percent from 1997 to 2002. Productivity and profit as measured by the economic census are increasing: during 2002 in Indiana, for every dollar paid to an Indiana production worker in wages, $3.41 of value added was generated. This is up from $3.04 in 1997, confirming that manufacturing is experiencing greater production with fewer workers.[5]

Hoosier workers have to compete with themselves, as well as the workforce of other states and other countries. Advances in technology and changes in the global economy increasingly impact domestic jobs. Only with increased skill development, education and training can we ensure a competitive Indiana workforce. Stay tuned for the next *InContext* article, which will go into additional detail about the movement of jobs to other states, along with an analysis of the skills our workforce will need to compete for the jobs that will be in demand in the future. Jobs are being lost here in Indiana, yet opportunities are opening daily in new industries, requiring new skills, and in many cases paying higher wages. Indiana continues to pursue attraction projects and plant expansions. Companies that have chosen to bring new jobs to Indiana include Honda, Toyota and WellPoint, which may bring over 4,000 jobs to Greensburg, Lafayette and Indianapolis. Yet we anticipate future employment growth to be dominated by the health care and social assistance industry, with over 80,000 new jobs projected between 2004 and 2014.

TABLE 2: REASONS FOR PERMANENT MASS LAYOFFS, 2004 TO 2007

Reason for Layoff	Events		Separations	
	Total	Moved Offshore	Total	Moved Offshore
Total	**322**	**44**	**44,808**	**10,594**
Automation				
Bankruptcy	22		3,947	
Business Ownership Change	28	1	5,400	440
Contract Cancellation	11		1,196	
Contract Completion	46	1	2,357	25
Energy Related				
Environment Related				
Financial Difficulty	34		4,622	
Import Competition	22	11	3,488	2,208
Labor Dispute	2		120	
Material Shortage	2		110	
Model Changeover				
Natural Disaster				
Non-Natural Disaster				
Plant or Machine Repair	1		26	
Product Line Discontinued	8		1,704	
Reorganization within Company	103	27	18,450	7,663
Seasonal Work				
Slack Work	23	1	1,094	40
Vacation Period				
Weather Related				
Other	3		229	
Not Reported	1		406	
New Reason Codes in 2007				
Cost Control	1		69	
Domestic Competition	2		159	
Excess Inventory	2		107	
Government Regulations	2		93	
Import/Foreign Competition	9	3	1,231	218

Source: MLS Program, Indiana Department of Workforce Development

Notes

1. For the purposes of this analysis, we examined permanent mass layoff events, those jobs that were lost and not anticipated to be recalled after 30 days. There are many more layoff events, initial claims and separations in which claimants are off work for more than 30 days, but in some cases they may still be called back to work. This analysis does not include layoffs where employees transfer, retire, become reemployed, have buy outs, or withdraw from the workforce, or layoffs where just a few employees leave each week gradually over a long period.
2. Hoosiers by the Numbers (CES not seasonally adjusted annual data). Available at www.hoosierdata.in.gov.
3. http://en.wikipedia.org/wiki/Nearshoring
4. The Brookings Institution Policy Brief #136: *Offshoring, Import Competition, and the Jobless Recovery*, August 2004.
5. Allison Leeuw and Jon Wright, "Measuring Worker Productivity: Comparing Indiana to Its Neighbors," *InContext*, November 2006, 7(11). Available at www.incontext.indiana.edu/2006/november/1.html.

—Joseph Roesler and Allison Leeuw, Research and Analysis, Workforce Transitions, Indiana Department of Workforce Development

Beyond the Front Desk of the Hospitality Industry

Lots of individuals entering the workforce, many of them young people, secure their first job in the accommodation and food services (A&FS) sector, also known as hospitality services. This wide-ranging industry is comprised of establishments providing customers with lodging and/or preparing meals, snacks and beverages for immediate consumption, and runs the gamut from five-star hotels to fast-food restaurants. As one industry giant reminds us in frequent commercials, experience in these first jobs builds foundational skills needed for later success, including responsibility, dependability, communication, working in teams and many others. Often viewed as stepping-stone employment due to low industry wages, the accommodation and food services sector, nevertheless, offers employment in selected occupations at wages that match or exceed the state median wage (the wage at which 50 percent of all workers earn less and 50 percent earn the same or more).

When we consider the occupational make-up of the accommodation and food services industry, the image that typically comes to mind is the person working behind the front desk or front counter in a hotel or fast-food restaurant. While there are unquestionably a lot of industry employees working in those jobs, A&FS also employs a variety of occupations embedded in almost all industries—such as accountants, financial managers and human resources professionals—plus some higher-paying jobs that are peculiar to this industry.

Before exploring those occupations, let's take a look at A&FS wages. One measure of industry wages comes from the Department of Workforce Development's Quarterly Census of Employment and Wages (QCEW) database, which tracks employment and payroll provided each quarter by virtually all Indiana employers. Using these data, one can calculate average wages by industry, bearing in mind that QCEW employment makes no distinction between full- and part-time employees.

For an industry sector which depends heavily on part-time employees, the calculated wages paint a rather gloomy picture when compared to industries with lower part-time participation. For 2006, annual average earnings for accommodation and food services workers in Indiana were $12,114, only one-third of the annual average wages ($36,551) across all industries.

If, however, we examine the estimated wages from Occupational Employment Statistics[1] we see that estimated annual salaries based on hourly wage averages for food prep and related occupations were $16,950 and the average for hotel, motel and resort desk clerks was $17,050. Both are about 48 percent of the all-occupation, all-industry average of $35,190. The hourly wages for these two sample occupations are still impacted by the high turnover and the large number of entry-level workers, but the survey's hourly-based rate does a better job of reflecting actual wages (including tips) for this industry sector than the quarterly averages from the QCEW program.

"Accommodation and food services employment maintains a firm footprint in Indiana's overall economy and is projected to grow by 23,690 jobs (10.3 percent) between 2004 and 2014, compared to a growth rate of 9.9 percent for all occupations."

Accommodation and food services employment maintains a firm footprint in Indiana's overall economy and is projected to grow by 23,690 jobs (10.3 percent) between 2004 and 2014, compared to a growth rate of 9.9 percent for all occupations (according to the Indiana 2004–2014 Occupational Projections). This growth places the industry third in line behind health care and social services and educational services in terms of the number of new workers needed (these estimates do not include replacements for workers who leave or retire, but only workers needed due to industry expansion). Average industry employment for the A&FS sector in 2006 was 237,664, with 2006 being the third consecutive year with annual average growth of at least 3,500 jobs. In line with that overall growth, each of the occupations in **Table 1** is expected to have a minimum of 200 total openings within the A&FS sector, a 2004–2014 growth rate of at least 9 percent, and pay at least the state median wage of $28,500 per year.

Occupations requiring work experience and/or on-the-job-training may become part of a career ladder for motivated workers within the industry. Depending on the employer's commitment to hiring from within, such positions may be posted for internal competition prior to, or instead of, external recruitment. The skills needed to succeed in these occupations are the skills developed and honed over time, starting from that first job. The Southwest Indiana Tech Prep

Consortium[2] surveyed employers a decade ago to identify qualities that define a "good" (i.e., promotable) employee, including:

- Coming to work every day and on time
- Making smart decisions
- Following directions
- Concentrating on the work and caring about the quality of the work
- Reading, writing and calculating well
- Recognizing problems and finding solutions
- Finishing a job as scheduled without sacrificing quality
- Honesty and dependability
- Taking the lead and working hard
- Communicating with other people, especially customers
- Dressing properly and practicing good grooming
- Being cooperative
- Bringing a positive attitude to the task at hand

Other desirable qualities in employees included a willingness to learn and accepting additional responsibilities over time. Many of these employee attributes are considered "soft skills" and recent skills projections by the Indiana Business Research Center suggests that such "soft skills" will be in great demand across occupations in the coming decade.[3]

A focus on skills, both in terms of their transferability across occupations and their use in identifying occupational clusters, has been a strong emphasis of the Department of Workforce Development over the past two years. The Indiana Career Guide (www.in.gov/dwd/careerguides/index.html) presents four skill pathways based on different clusters of skills, as well as information on building career ladders that move employees from entry-level to better-paying jobs as skills and training grow over time. The degree or level of the skills varies considerably across occupations, and successful employees will be those whose competency levels rise due to conscious effort and application on their part.

Regardless of the industry sector, opportunities for advancement and growth exist for motivated employees willing to develop skills and acquire appropriate training and experience. Accommodation and food services is no exception, including in its ranks many well-paying occupations outside the primary, stereotypical focus of the industry on food prep, reservations and housekeeping. For the emerging workforce, first jobs in the A&FS industry sector can provide a solid foundation and development of a skill pathway that leads to higher wages and increased income.

TABLE 1: FAST GROWING OCCUPATIONS IN THE HOSPITALITY INDUSTRY WITH ABOVE AVERAGE WAGES*

Training/Experience Needed	Occupation
Short Term On-the-Job Training	Payroll and Timekeeping Clerks
	Sales and Related Workers, All Other
Moderate Term On-the-Job Training	Executive Secretaries/Administrative Assistants
	Sales Representatives, Wholesale and Manufacturing (Excluding Technical)
Long Term On-the-Job Training	Maintenance and Repair Workers, General
Work Experience	First Line Supervisors—Housekeeping and Janitorial
	First Line Supervisors—Landscaping and Lawn Services
	Lodging Managers
	Food Service Managers
	First Line Supervisors—Mechanics, Installers
Post Secondary Vocational Training	Chefs and Head Cooks
Bachelor's Degree	Employment, Recruitment and Placement Specialists
	Public Relations Specialists
	Training and Development Specialists
	Dieticians and Nutritionists
	Market Research Analysts
	Accountants and Auditors
Bachelor's Degree Plus Work Experience	Financial Managers
Bachelor's Degree or Higher Plus Work Experience	Sales Managers

*Occupations with projected growth of at least 9 percent and above the state median wage are included
Source: Indiana Department of Workforce Development

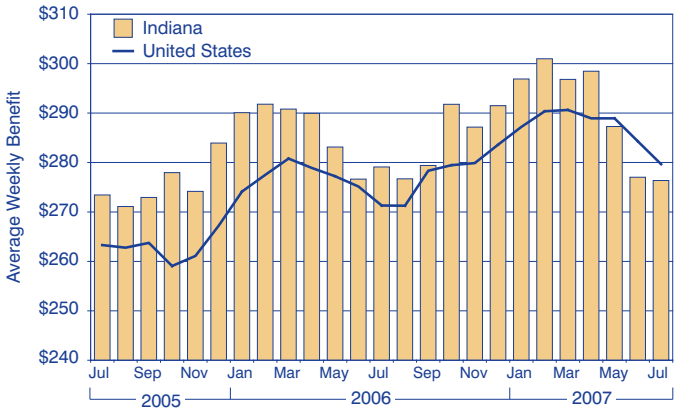
Notes

1. The Occupational Employment Statistics program is a survey-based Bureau of Labor Statistics federal/state cooperative program that produces annual estimates of employment and wages by occupation at the state and metropolitan statistical area level. Wages referenced in this article are from the May 2006 estimates.
2. The Indiana Tech Prep Consortium is no longer active; its executive director was Dr. Mimi Nicholson.
3. Michael Thompson, "The Demand for Soft Skills: Key Skills for Indiana's Growing Occupations through 2014," *InContext*, September 2007: 8(9). Available at www.incontext.indiana.edu/2007/september/1.html

—Cathy Boatman, Regional Market Analyst, Indiana Department of Workforce Development, with contributions from Vicki Seegert, Advanced Economic and Market Analysis, Indiana Department of Workforce Development and John Schroeder, Labor Market Analyst, Occupational Employment Statistics

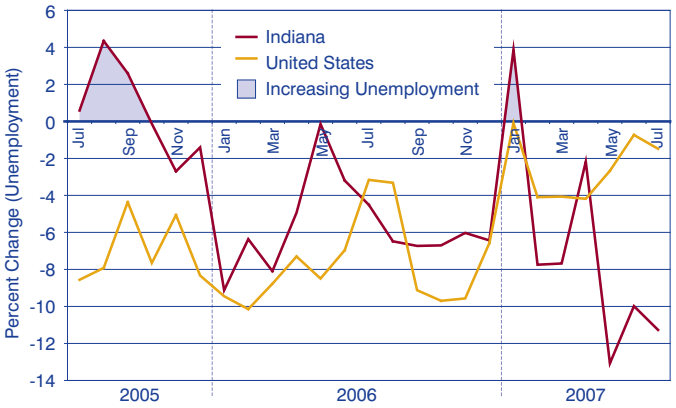
Monthly Metrics: Indiana's Economic Dashboard

Average Benefits Paid for Unemployment Insurance Claims



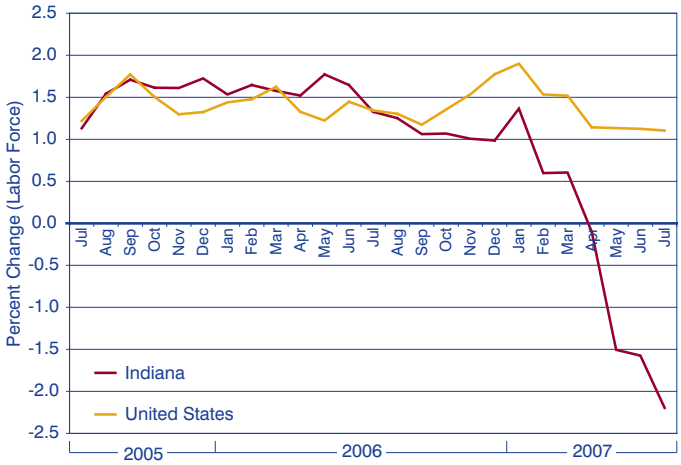
Source: IBRC, using U.S. Department of Labor data

Percent Change in Persons Unemployed from the Previous Year*



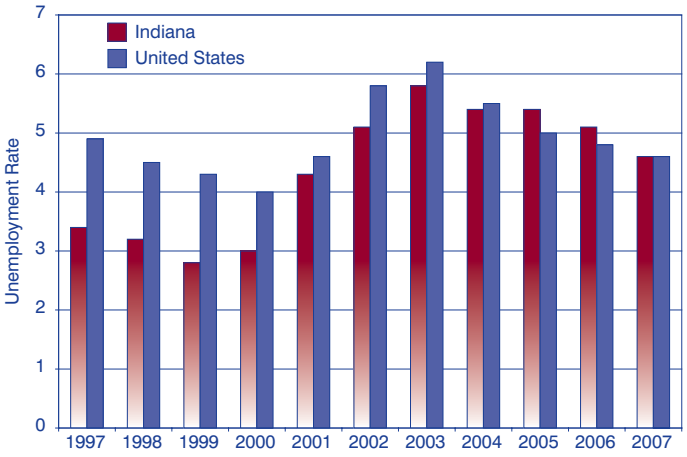
*seasonally adjusted
Source: IBRC, using Bureau of Labor Statistics data

Percent Change in Labor Force from Previous Year*



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

July Unemployment Rates



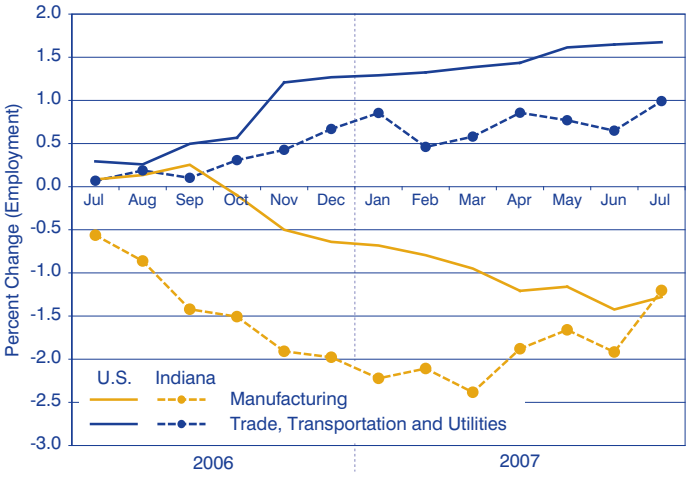
*seasonally adjusted
Source: IBRC, using Bureau of Labor Statistics data

Change in Employment by Industry Super-Sector, 2006 to 2007*

Industry	Indiana		United States
	Change in Jobs	Percent Change	Percent Change
Total Nonfarm	25,900	0.9	2.0
Natural Resources and Mining	300	4.3	6.3
Leisure and Hospitality	6,300	2.3	4.1
Government	7,300	1.7	1.2
Trade, Transportation and Utilities	5,800	1.0	1.7
Professional and Business Services	2,700	1.0	3.2
Other Services	1,000	0.9	1.6
Financial Activities	800	0.6	2.0
Information	200	0.5	1.3
Educational and Health Services	500	0.1	3.7
Manufacturing	-6,800	-1.2	-1.3

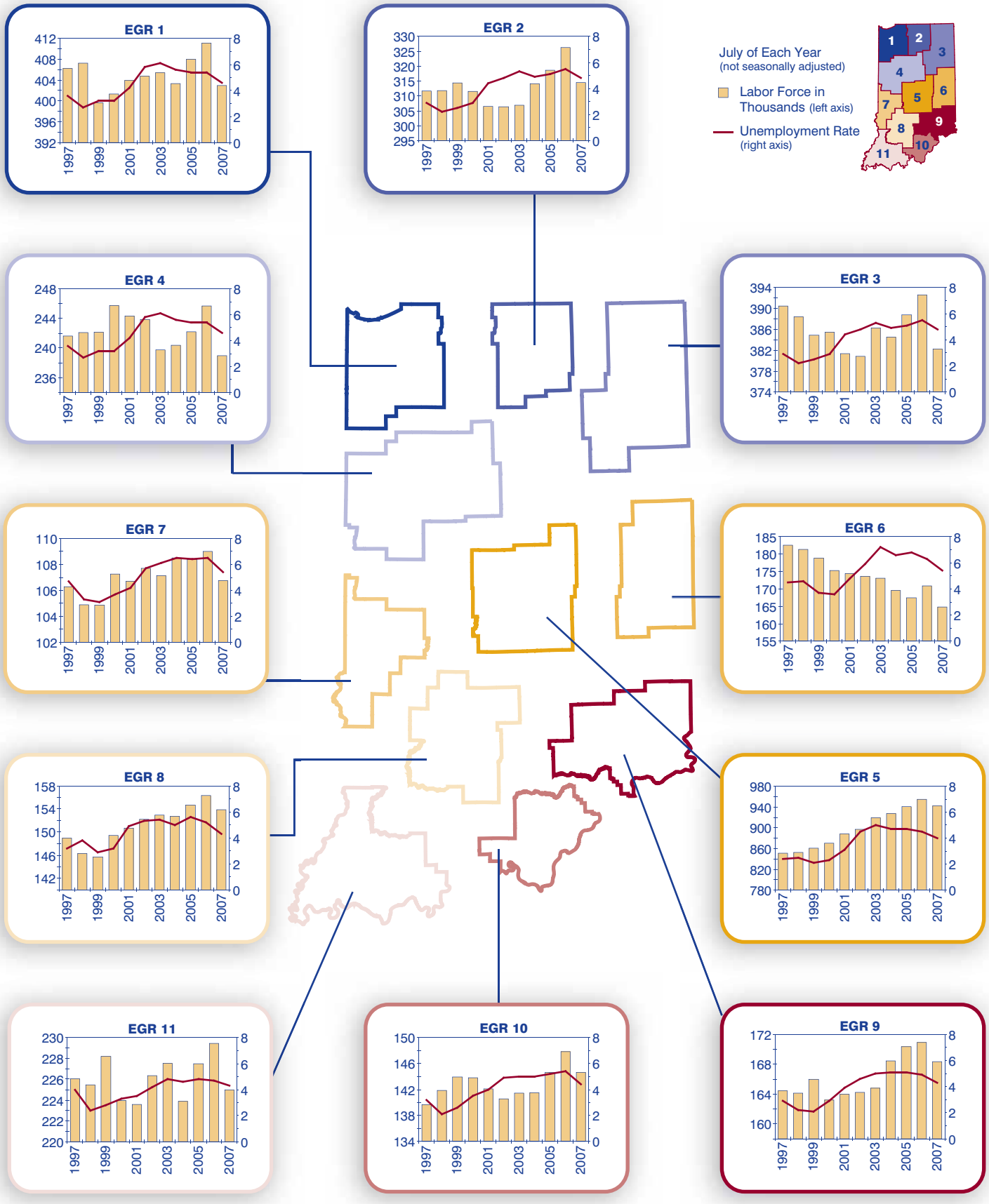
*July of each year, seasonally adjusted
Source: IBRC, using Bureau of Labor Statistics data

Over-the-Year Percent Change in Employment by Super-Sector*



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

Regional Labor Force and Unemployment Rates



Farming for Data: Agriculture in Indiana

In light of the 2007 Census of Agriculture approaching in December (the law requires every farmer and rancher to participate), it seems appropriate to highlight some of the useful data this census provides. Let's take a look at just some of the things we learned from the 2002 agriculture census.

The number of farms in the United States is on the rise: there were 2.1 million farms in 2002, up from 1.9 million in 1997. These farms covered more than 938 million acres of land (an increase of 6.5 million in five years). Only about 46 percent of that land was covered by crops, a percent that has remained fairly steady over that time frame.

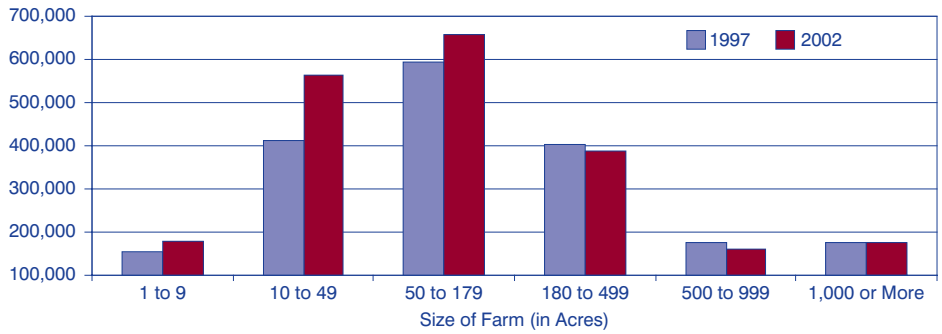
Smaller farms are growing at a faster rate than the large ones. Farms covering one to 49 acres of land increased by about 32 percent from 1997 to 2002. Meanwhile, the number of farms covering 180 to 499 acres and 500 to 999 acres decreased by more than 14,000 each. Farms with more than 1,000 acres of land saw a slight increase, adding 910 to the count since 1997 (see **Figure 1**).

Farms by State

Texas led the United States in number of farms, reporting nearly 229,000 in 2002. Second-place Missouri trailed behind that figure with about 107,000 farms. Indiana ranked 13th among the 50 states. Rhode Island and Alaska had the fewest number of farms, each with less than 1,000 (see **Figure 2**).

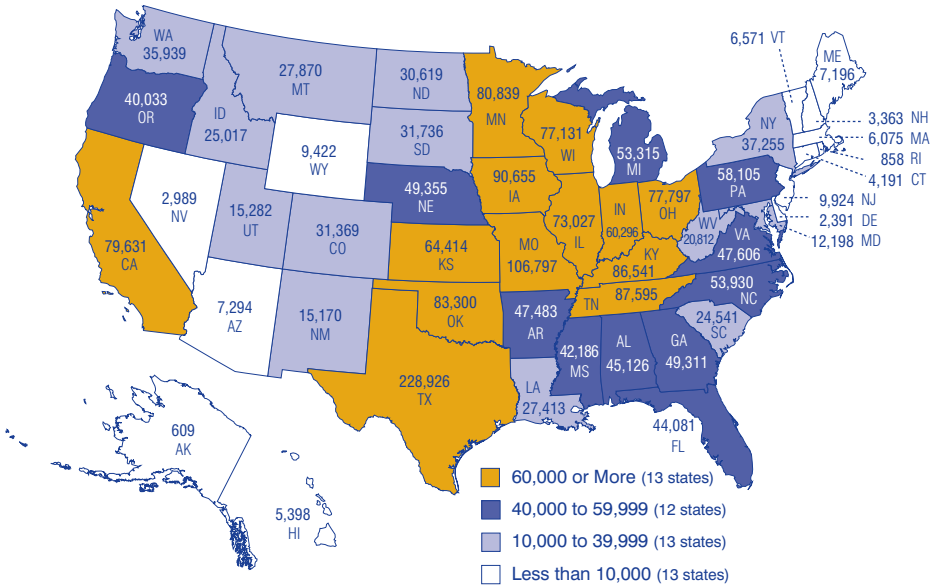
Looking at the average size of farms across the states tells a different story. The United States averaged 441 acres of land per farm. Indiana was well below that average coming in 26th with an average of 250 acres per farm. Part of this is likely due to the fact that

FIGURE 1: Number of Farms by Size in Indiana



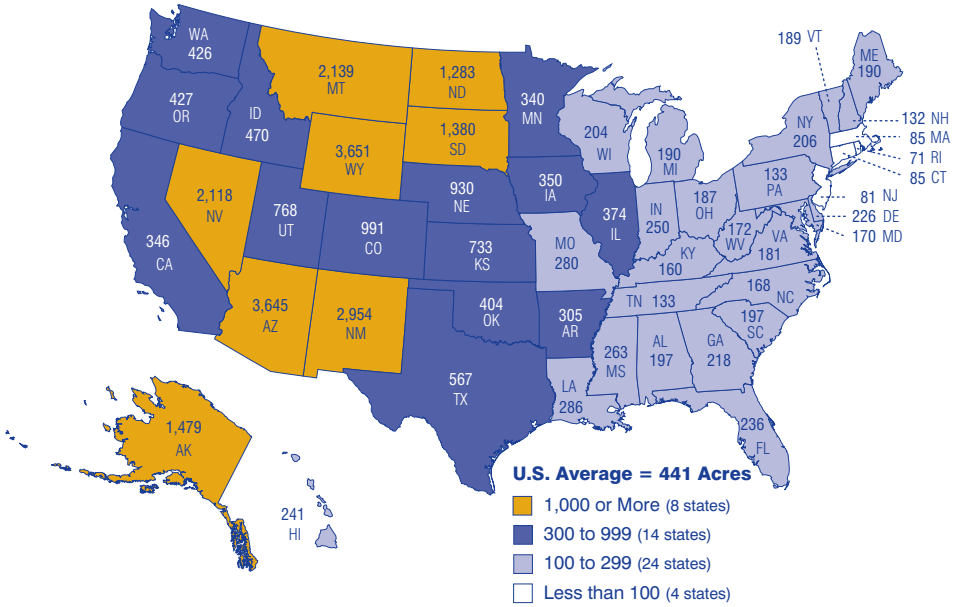
Source: IBRC, using U.S. Census of Agriculture data

FIGURE 2: Number of Farms by State, 2002



Source: IBRC, using U.S. Census of Agriculture data

FIGURE 3: Average Size of Farms by State, 2002



Source: IBRC, using U.S. Census of Agriculture data

there is simply more land area available in the western states. The states with the largest farms included Wyoming and Arizona. Not only did Rhode Island have very few farms, it also had very small farms, averaging 71 acres per farm (see **Figure 3**).

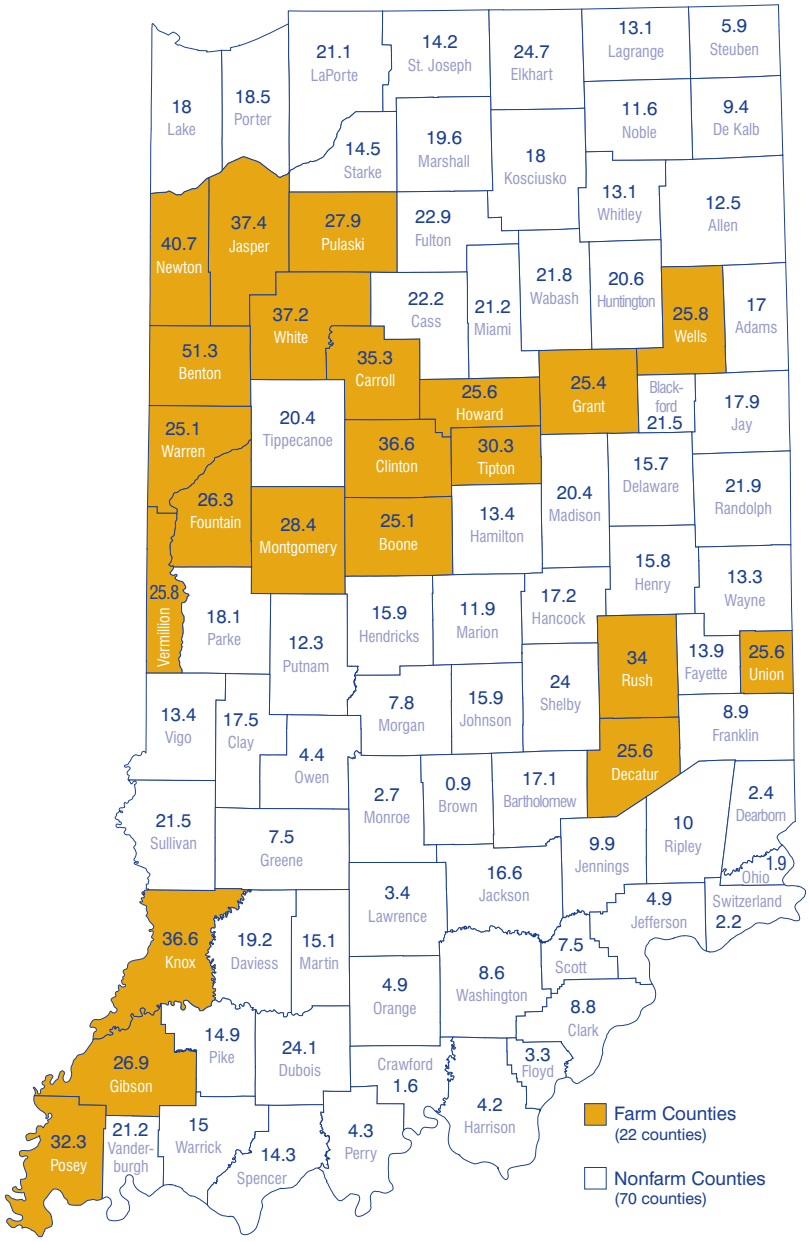
Indiana's Farming Counties

Let's dig deeper into Indiana's counties to find out which ones can be classified as farm counties vs. nonfarm counties. We will then look at more recent data for comparison. For the purposes of this article, a farming county is defined as one in which at least 25 percent of its farms have sales of at least $100,000, the highest classification offered for counties by the Census of Agriculture. Twenty-two of Indiana's 92 counties meet these criteria (see **Figure 4**). Benton County led the state on this measure, with more than half of its 394 farms producing at least $100,000 in sales. Of the farming counties, Vermillion had the fewest farms numerically with at least $100,000 in sales, reporting 57 farms meeting the criteria. At the other end of the spectrum, Jasper County had the most numerically with 240 of its 641 farms falling into that category.

Farm Counties vs. Nonfarm Counties

As a result of the nature of farms and the amount of land they require, it is not surprising that farm counties made up about 24.3 percent of land area in Indiana in 2006, while the population residing on that land only accounted for 10 percent of Hoosiers, down from 10.2 percent in 2001. This decrease is a result of the population of farm counties growing at a slower rate than the population of nonfarm counties, 0.6 percent growth compared to 3.3 percent growth, respectively.

FIGURE 4: INDIANA'S FARM COUNTIES, 2002



Labels show percent of farms producing at least $100,000 in sales

Source: IBRC, using U.S. Census of Agriculture data

Industry Employment

It can be expected that farm counties have a greater proportion of workers employed farming, but what percentage of total employment do those workers actually make up? According to the latest data available from the Bureau of Labor Statistics, the agriculture, forestry, fishing and hunting industry comprised 0.3 percent of all jobs in nonfarm counties in the second quarter of 2006; that number was 1.6 percent of total employment in farm counties. Nonfarm counties actually lost jobs in the agriculture, forestry, fishing and hunting industry, down 0.7 percent from the second quarter of 2001. Meanwhile,

farm counties added 130 jobs in the industry. However, other industry sectors did not fare so well in the farm counties. Percent change in total jobs from 2001 to 2006 in farm counties was -1.3 percent, whereas nonfarm counties increased employment across all industry sectors by 0.8 percent (see **Table 1**).

Industry Wages

Given the definition of farm counties, it makes sense that they pay higher wages in the agriculture, forestry, fishing and hunting industry than do nonfarm counties ($542 per week compared to $477 per week). However, as is true with jobs, overall average weekly wages are higher for nonfarm counties ($683 per week versus $668 per week). **Figure 5** shows the average weekly wages for farm vs. nonfarm counties.

Conclusion

The number of farms and the amount of land covered by farms changed in the United States from 1997 to 2002, and it is likely that more changes have occurred in the past five years. Have more farms emerged? Has the average size of farms decreased? The results of the upcoming Census of Agriculture should give us insight into these questions and can serve as a starting point in determining how farm and nonfarm counties compare demographically and economically in Indiana and across the United States. To learn more about the Census of Agriculture and how to participate, visit www.agcensus.usda.gov/About_the_Census/index.asp.

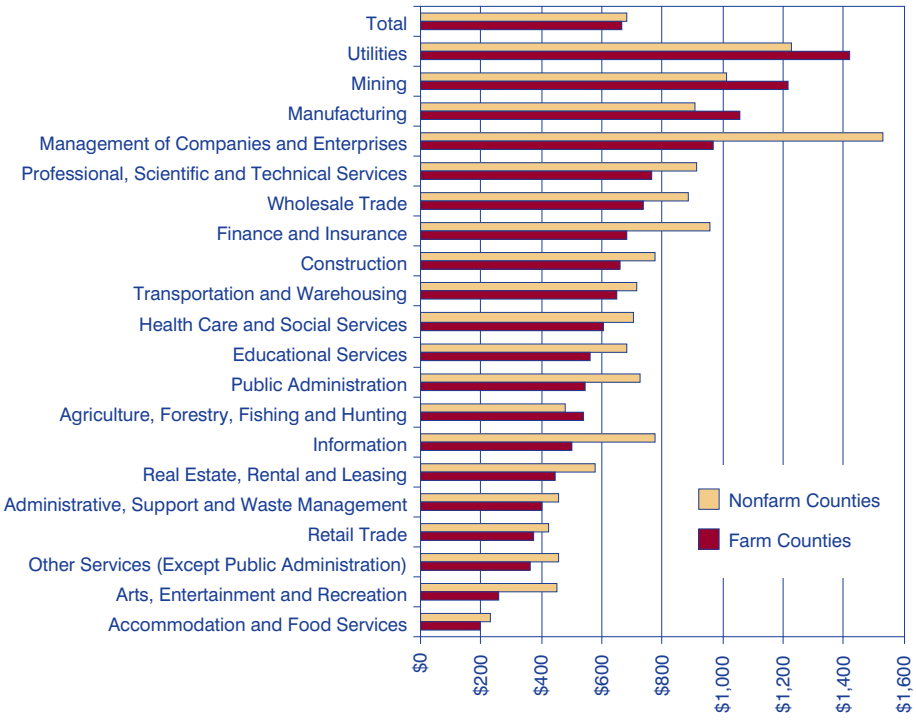
—Molly Manns, Associate Editor, Indiana Business Research Center, Kelley School of Business, Indiana University

TABLE 1: Jobs in Nonfarm and Farm Counties in Indiana, 2001:2 to 2006:2

Industry	Nonfarm Counties			Farm Counties		
	2006:2	Change Since 2001:2	Percent Change	2006:2	Change Since 2001:2	Percent Change
Total	2,598,696	21,296	0.8	241,152	-3,296	-1.3
Management of Companies and Enterprises	22,849	671	3.0	276	99	55.9
Administrative, Support and Waste Management	138,364	22,306	19.2	9,831	1,842	23.1
Professional, Scientific and Technical Services	82,117	3,463	4.4	4,944	620	14.3
Transportation and Warehousing	113,879	-2,403	-2.1	11,152	1,366	14.0
Educational Services	199,401	2,100	1.1	21,064	1,740	9.0
Health Care and Social Services	320,225	32,431	11.3	27,226	1,929	7.6
Construction	136,622	1,390	1.0	10,827	600	5.9
Wholesale Trade	104,206	-1,113	-1.1	7,640	419	5.8
Agriculture, Forestry, Fishing and Hunting	7,298	-50	-0.7	3,879	130	3.5
Arts, Entertainment and Recreation	37,110	198	0.5	1,957	50	2.6
Public Administration	117,920	4,311	3.8	11,213	286	2.6
Accommodation and Food Services	216,822	16,057	8.0	17,811	-156	-0.9
Finance and Insurance	92,175	-5,883	-6.0	5,221	-118	-2.2
Mining	3,088	-1,352	-30.5	795	-30	-3.6
Utilities	11,708	160	1.4	1,269	-48	-3.6
Other Services (Except Public Administration)	78,218	-1,182	-1.5	5,888	-353	-5.7
Retail Trade	293,095	-13,998	-4.6	26,287	-2,685	-9.3
Manufacturing	502,071	-48,171	-8.8	65,724	-7,937	-10.8
Information	42,956	-4,616	-9.7	2,793	-360	-11.4
Real Estate, Rental and Leasing	34,830	1,031	3.1	1,715	-267	-13.5

Source: Indiana Department of Workforce Development

FIGURE 5: Average Weekly Wages for Nonfarm and Farm Counties in Indiana, 2006:2



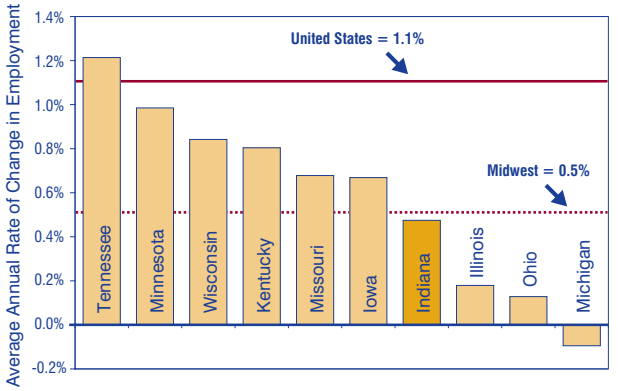
Source: IBRC, using Indiana Department of Workforce Development data

Recovery and Restructuring Part II: The Indiana Economy Since 2001

This is the second of two articles reporting on the trends in economic growth, employment and income for Indiana, Indiana's Midwestern neighbors, and the country as a whole. Data released earlier this year by the Commerce Department presents a picture of several economic transitions. Last month's article, for example, showed that economic output, or gross domestic product, has been gradually shifting from vehicle manufacturing to manufacturing related to the life sciences. Last month's article also showed that employment can decline even while economic output is increasing, as has been the case for manufacturing in Indiana and almost all other states.

This article tracks changes in employment by industry and compares how Indiana's employment growth and income growth stack up with the rest of the country from 2001 to 2005. This time period was chosen because 2001 was the nadir of the economic cycle; 2005 is the latest year for which all data are available.

FIGURE 1: Employment Growth in the Midwest, 2001 to 2005

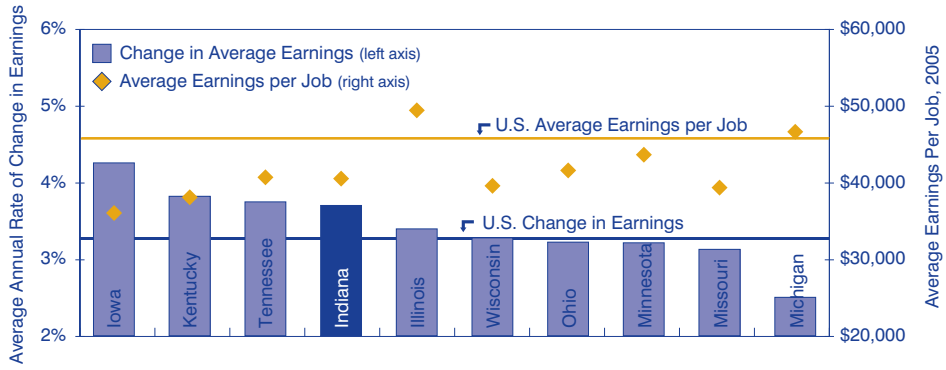


Source: IBRC, using Bureau of Economic Analysis data

Between 2001 and 2005, U.S. employment grew by 1.1 percent at an average annual rate. With the exception of Tennessee, employment growth for Midwestern states has lagged behind the U.S. average (see **Figure 1**). Indiana's employment growth also falls below the Midwestern average. (The Midwestern average was pulled down by lackluster growth in Illinois and Ohio, as well as job losses in Michigan over the period.)

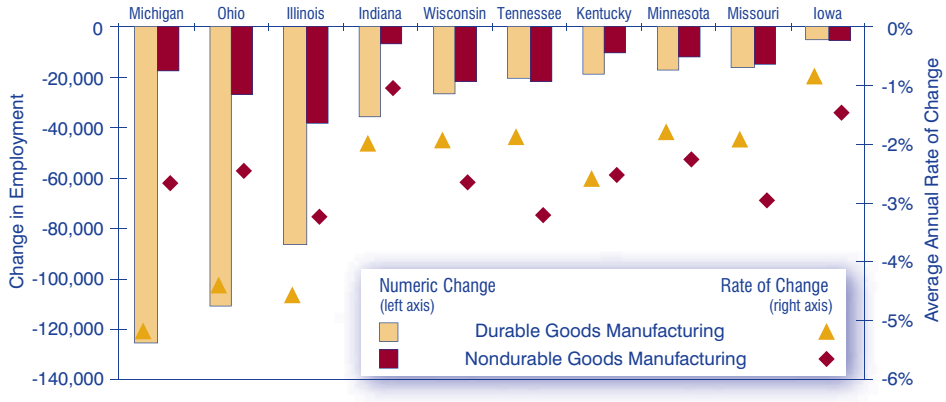
An *InContext* article in June by Morton Marcus made use of the same average earnings per job data presented in **Figure 2**, but this graph is presented for comparing with **Figure 1**. As one can see, **Figure 2** places Indiana in a slightly more positive light than **Figure 1**. In terms of average earnings per job, Indiana's average earnings per job increased at a faster rate than the U.S. average and a majority of Midwestern states. That said, average earnings per job in Indiana falls below the national average by more than $5,200 a year. Illinois and Michigan are the only Midwestern states that exceed the national average earnings per job, by over $5,000 and over $2,000, respectively. The majority of the Midwestern states are huddled around

FIGURE 2: Growth in Average Annual Earnings per Job in the Midwest and United States, 2001 to 2005



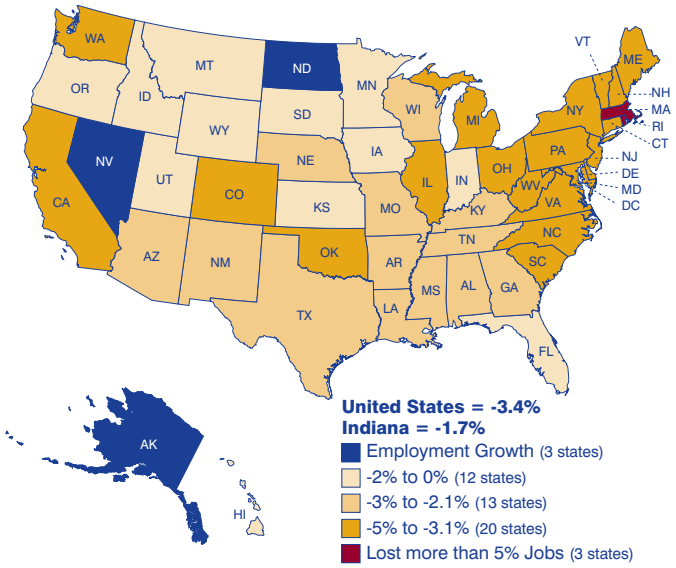
Source: IBRC, using Bureau of Economic Analysis data

FIGURE 3: Durable and Nondurable Goods Manufacturing Employment in the Midwest, 2001 to 2005



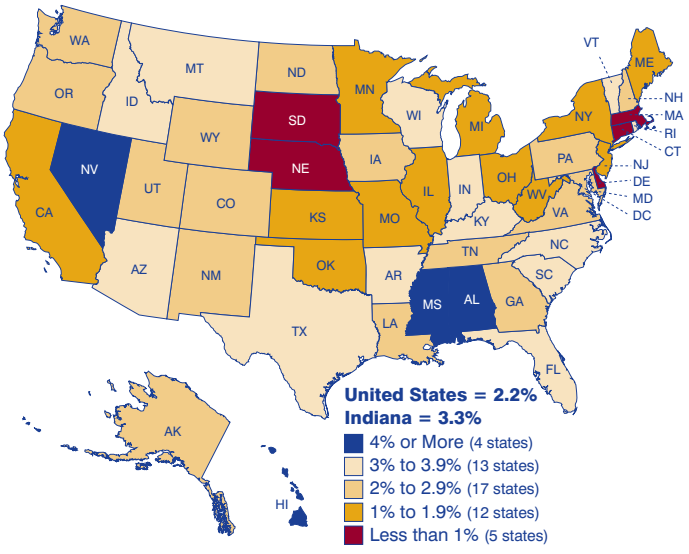
Source: IBRC, using Bureau of Economic Analysis data

FIGURE 4: MANUFACTURING EMPLOYMENT CHANGE, 2001 TO 2005



Note: Change expressed at average annual rate
Source: IBRC, using Bureau of Economic Analysis data

FIGURE 5: EMPLOYMENT IN PROFESSIONAL AND BUSINESS SERVICES, 2001 TO 2005



Note: Change expressed at average annual rate
Source: IBRC, using Bureau of Economic Analysis data

Indiana, with average earnings per job in the low $40,000s.

Figure 3 shows why the Midwest in general and the states of Michigan, Ohio and Illinois in particular, have had such disappointing job growth. Michigan, Ohio and Illinois were hard hit in both the rate of job loss as well as in absolute numbers in the manufacturing sector. Michigan, for example, lost over 125,000 jobs from 2001 to 2005 in durable goods manufacturing. The loss of jobs in nondurable goods was not as dramatic.

From the perspective of changes in manufacturing employment, Indiana has been doing better than both the Midwest and the nation. Only three states had an increase in manufacturing jobs from 2001 to 2005. Indiana is in the group with moderate job loss in manufacturing (see **Figure 4**). As presented in **Table 1**, not all manufacturing industries in Indiana lost jobs, and those minor increases in employment somewhat offset the large employment losses. Given the frequent news reports of plant closings in Indiana, it may come as a surprise that motor vehicle manufacturing employment increased from 2001 to 2005, albeit by less than 1,000 jobs.

The performance of the professional and business services sector is also noteworthy. In Indiana, job growth in this sector has been more robust than in the Midwest or the nation. As **Figure 5** shows, only four states had greater than 4 percent employment growth in this dynamic and fairly well-paying sector. Indiana registered a solid 3.3 percent growth in employment in this sector, well above the national average of 2.2 percent. However, income growth in Indiana in this sector lags behind the nation. The U.S. average earnings increased by 2.2 percent in professional and business services from 2001 to 2005, but Indiana's growth in average earnings ranked 44th in the country at 1.4 percent. Given that average earnings per job in professional and business services is more than 25 percent below the national average, the slower pace of earnings growth will mean that Indiana will continue to lose ground relative to the nation in this sector.

What could explain the rapid job growth but the lackluster earnings growth? A vast majority of employment growth in the professional and business services sector is attributed to the administrative and waste services industry. This industry consists of temporary services, landscaping, janitorial services, security guards and the like. These positions pay less on average than jobs like lawyers, management consultants and research

TABLE 1: GREATEST CHANGE IN JOBS IN THE MANUFACTURING INDUSTRY, 2001 TO 2005

Manufacturing Industry	Change from 2001 to 2005	
	Numeric	Average Annual Rate
Top Five with Growth		
Miscellaneous Manufacturing	1,765	1.4%
Motor Vehicles, Bodies, Trailers and Parts	924	0.2%
Food Manufacturing	716	0.5%
Chemical Manufacturing	601	0.5%
Beverage and Tobacco Products	276	1.8%
Ten with Greatest Employment Loss		
Furniture and Related Products	-1,306	-1.1%
Paper Manufacturing	-1,385	-2.8%
Nonmetallic Mineral Products	-1,608	-2.5%
Printing and Related Activities	-2,324	-2.7%
Plastics and Rubber Products	-4,220	-2.3%
Fabricated Metal Products	-5,189	-2.0%
Machinery Manufacturing	-5,321	-2.7%
Computer and Electronic Products	-5,499	-5.7%
Electrical Equipment and Appliances	-5,978	-9.3%
Primary Metal Manufacturing	-12,430	-5.7%

Source: IBRC, using Bureau of Economic Analysis data

and development scientists that fall in the category of professional and technical services. The national average earnings per job for professional and technical services is about $50,000 while average earnings per job for administrative and waste services is around $25,000. The differential for Indiana is not as dramatic, but it is significant, $34,000 vs. $21,000.

Figure 6 presents average earnings per job by industry for Indiana, the Midwest and the nation. Only in manufacturing are earnings per job greater in Indiana than the national average and the Midwest. Fortunately, the rates of change in earnings for several sectors are greater in Indiana than in the nation or Midwest. Given the low rates of earnings growth, compensation in the professional and business service sector and the finance, insurance and real estate sector will remain chronically below the national and Midwestern average. In addition, earnings growth in Indiana in those sectors fell short of the changes in the consumer price index.

The U.S. economy has been transitioning from a manufacturing-dominated to a service-dominated economy since World War II. In the last couple decades, the pace of that transformation has increased. As a result, the dynamics of employment in the service industries is increasingly important. Only in administrative and waste services is Indiana's rate of job growth significantly greater than the U.S. average. In wholesale and retail trade, and in finance and insurance, the nation has been adding jobs while Indiana has been experiencing job losses. Both the nation and Indiana lost jobs in the information industry. In this singular case, however, Indiana's rate of employment loss is lower than the national average.

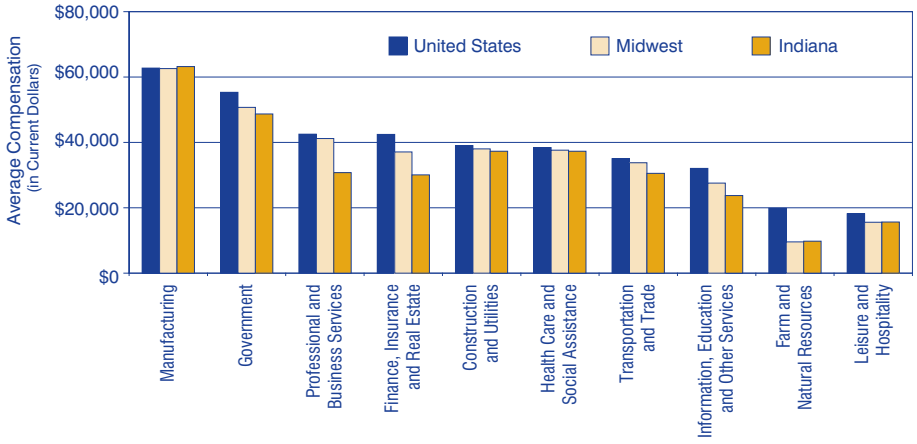
As noted above, for any particular industry, there can be dramatic differences in the level of earnings per job across geographic regions. As a result, one can expect that there would also be considerable differences in personal income between regions and states. In early August, the Commerce Department released per capita personal income for 2006 based on metropolitan statistical areas (MSAs).[1] Excluding the Gary metro division that is part of the Chicago MSA, Indiana has 15 MSAs, several of which are shared by adjoining states.

Figure 7 shows that no Indiana MSA has a per capita personal income greater than the national average for metropolitan areas. The larger MSAs in Indiana also lag behind the national average in per capita personal income growth.

In broad strokes, the MSAs with employment growth are also gaining population. In the case of Elkart-Goshen, job growth is almost twice the rate of population growth. Not surprisingly, U.S. population and employment growth track each other in lock-step. For smaller regions, however, there can be significant differences as large employers open or close plants and residents make decisions in response to economic incentives and opportunities.

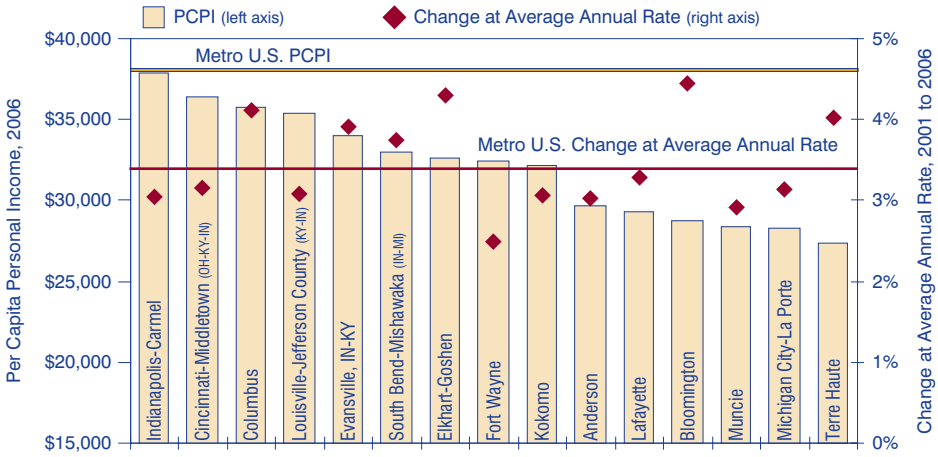
One of the fastest growing employment categories in the country is that for proprietors. While employment growth nationwide registered about 1.1 percent, proprietor employment increased by 4.5 percent from 2001

FIGURE 6: AVERAGE COMPENSATION BY INDUSTRY IN CURRENT DOLLARS, 2005



Source: IBRC, using Bureau of Economic Analysis data

FIGURE 7: PCPI AND CHANGE AT AVERAGE ANNUAL RATE, 2001 TO 2006



Source: IBRC, using Bureau of Economic Analysis data

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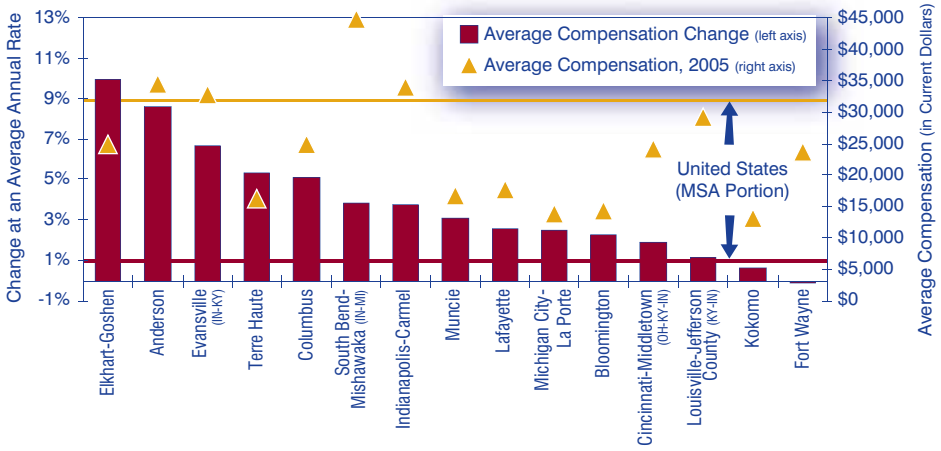
FIGURE 8: PROPRIETORS EMPLOYMENT AND INCOME BY MSA, 2001 TO 2006



Source: IBRC, using Bureau of Economic Analysis data

to 2005. (2005 is the last year for which there is complete data for proprietor income on a statewide basis.) For the entire state of Indiana, proprietor employment contributed significantly to job growth, adding over 66,000 jobs from 2001 to 2005, but the rate of growth was more moderate than the national average, 2.8 percent over the same period.

The picture doesn't change much through 2006 on an MSA basis. Data for proprietor employment and income show that all Indiana MSAs grew more slowly than the national metropolitan trend. Proprietor employment also grew more significantly in the larger metropolitan areas in, or adjoining, the state. While job growth may not be keeping pace with the national average, compensation growth has. According to **Figure 8**, proprietor income is growing more quickly than the national average in every Indiana-related MSA except Kokomo and Fort Wayne. While Indiana MSA income growth rates for proprietors are better than the national metropolitan average as a general rule, only a handful of MSAs beat the U.S. income average—South Bend, Anderson, Indianapolis and Evansville. Another handful of Indiana MSAs report an average proprietor income of less than half the national average.

What conclusions can be drawn from all these data? Given the greater reward from a job in manufacturing as opposed to a job in the hospitality and leisure sector, one can see why there is such a desire to maintain Indiana's manufacturing base. Whether policy makers and economic development proponents can forestall further erosion in manufacturing employment is an open question. Indiana has not kept pace with its peers in expanding employment opportunities in faster-growing, higher-wage service industries. Clearly, the restructuring of the Indiana economy from high-wage manufacturing to the high-wage service industries like professional and technical services has lagged. Without an acceleration in growth in employment and income in the dynamic service sectors that are growing elsewhere, Indiana could fall further behind national averages in earnings per job and per capita personal income.

Note

1. Personal income and per capita personal income estimates for the 363 metropolitan areas for 2006 were released on August 7, 2007. Indiana also shares the Chicago MSA but it was not included in this analysis because Indiana's contribution to the MSA is overwhelmed by Chicago.

—Timothy F. Slaper, Director of Economic Analysis, Indiana Business Research Center, Kelley School of Business, Indiana University