

# INDIANA ECONOMIC ANALYSIS REPORT



INDIANA  
**WORKFORCE**  
DEVELOPMENT  
AND ITS **WorkOne** CENTERS

Commissioner, Steve Braun

October 2016

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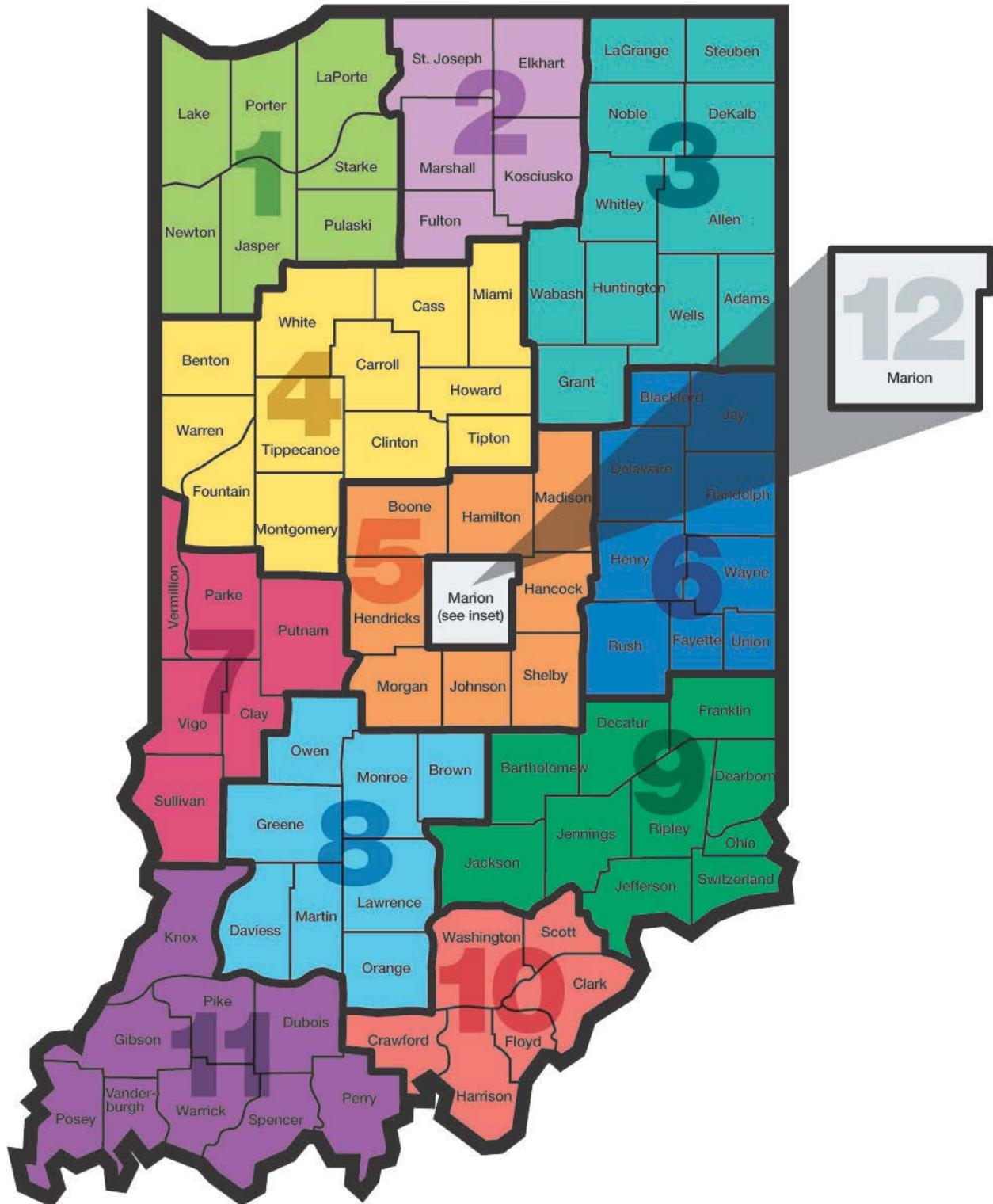
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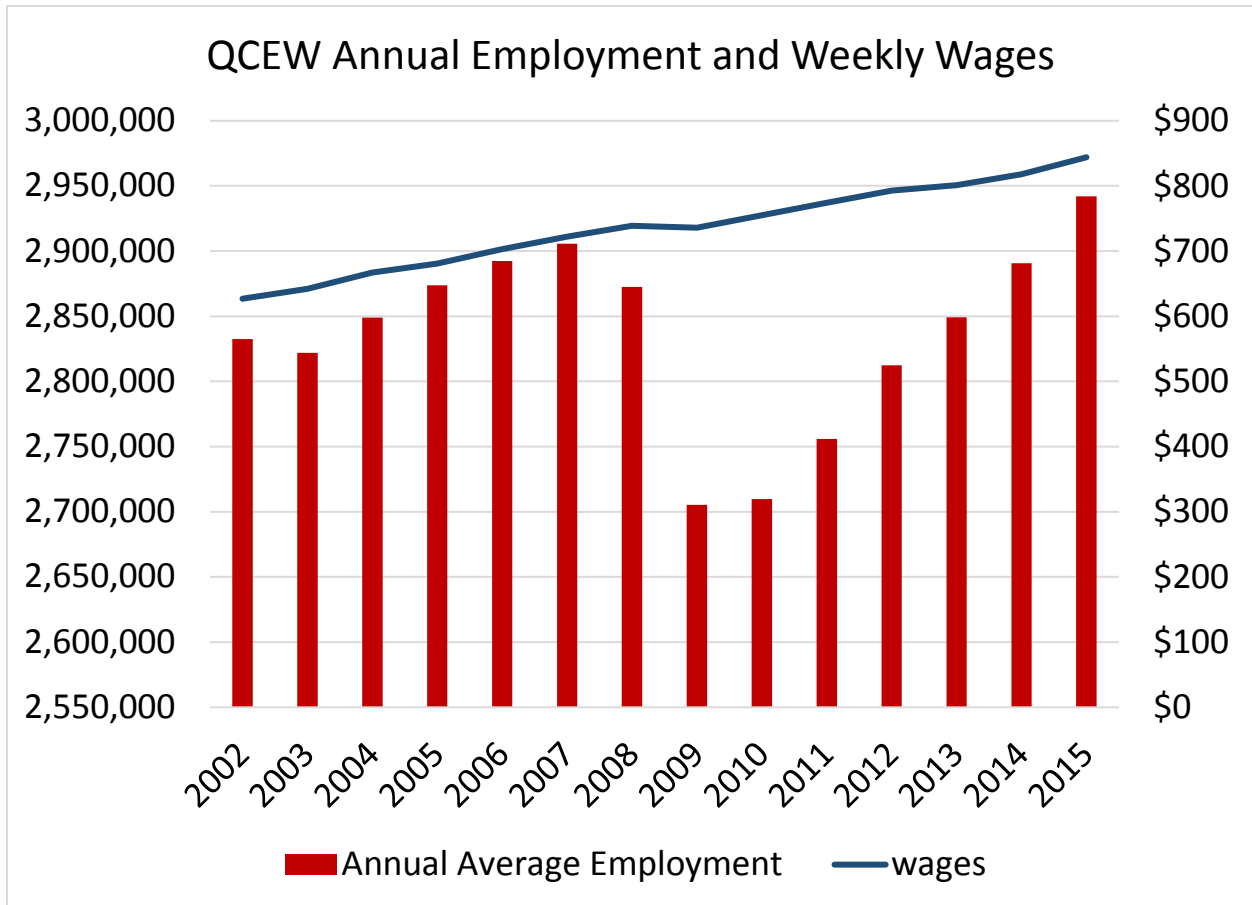
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### Economic Growth Regions



**2015 Indiana Employment in Brief:**

Indiana has seen steady employment recovery following the Great Recession. The average annual employment level for all industries was 2,942,077 annually in 2014; this is up 15% since 2009. This is also the highest this number has ever been. Average weekly wages have risen to \$844 for all Industries. The following charts summarize briefly Indiana's 2014 Employment from the Quarterly Census of Employment and Wage (QCEW) program.



Source IDWD Quarterly Census of Employment and Wages

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**Summary: Current Employment Statistics and Labor Force 2015**

2015 estimates from the Current Employment Statistics and Local Area Unemployment Statistics indicate growing private sector employment and falling unemployment. As of December 2015 Indiana's labor force is up 41,111 over the year, and has gained 100,795 since January 2013. Indiana's labor force stands at 3,274,687. Indiana's unemployment is down by 153,674 since January 2013, which is a decline of (51%).

From January 2015 to January 2016 Indiana's Total Non-Farm employment grew by 48,900 and the private sector employment grew by 46,000. Key growth sectors over the past year include private educational and health services, Trade, Transportation and Utilities and Leisure and Hospitality. Manufacturing also gained 2,900 jobs over that time.

Source: Current Employment Statistics 2015

| IN Employment Change Over the Month, Year-to-Date and Over the Year (seasonally adjusted) |              |               |              |              |               |               |
|---|--------------|---------------|--------------|--------------|---------------|---------------|
| Industry  | January 2015 | December 2015 | January 2016 | Month Change | Y-to-D Change | Y-to-Y Change |
| Private Educational & Health Services   | 443.2        | 459.5         | 458.9        | -0.6         | -0.6          | 15.7          |
| .....Private Educational Services   | 65.4         | 73.2          | 70.9         | -2.3         | -2.3          | 5.5           |
| .....Health Care & Social Assistance  | 377.8        | 386.3         | 388.0        | 1.7          | 1.7           | 10.2          |
| Manufacturing   | 517.4        | 520.2         | 520.3        | 0.1          | 0.1           | 2.9           |
| Professional & Business Services  | 328.5        | 327.9         | 326.3        | -1.6         | -1.6          | -2.2          |
| Financial Activities  | 129.6        | 131.3         | 132.9        | 1.6          | 1.6           | 3.3           |
| Construction  | 127.2        | 131.0         | 132.6        | 1.6          | 1.6           | 5.4           |
| Leisure and Hospitality   | 298.3        | 304.6         | 308.5        | 3.9          | 3.9           | 10.2          |
| Trade, Transportation & Utilities   | 578.7        | 592.9         | 591.0        | -1.9         | -1.9          | 12.3          |
| .....Trade  | 439.7        | 447.6         | 446.2        | -1.4         | -1.4          | 6.5           |
| .....Transportation, Warehousing & Utilities  | 139.0        | 145.3         | 144.8        | -0.5         | -0.5          | 5.8           |
| All Other   | 167.4        | 165.7         | 165.8        | 0.1          | 0.1           | -1.6          |
| Total Private   | 2,590.3      | 2,633.1       | 2,636.3      | 3.2          | 3.2           | 46.0          |
| Government (Includes Public Schools & Hospitals)  | 426.2        | 426.6         | 429.1        | 2.5          | 2.5           | 2.9           |
| Total Nonfarm   | 3,016.5      | 3,059.7       | 3,065.4      | 5.7          | 5.7           | 48.9          |
| United States Total Private   | 118,669.0    | 121,106.0     | 121,288.0    | 182.0        | 182.0         | 2,619.0       |

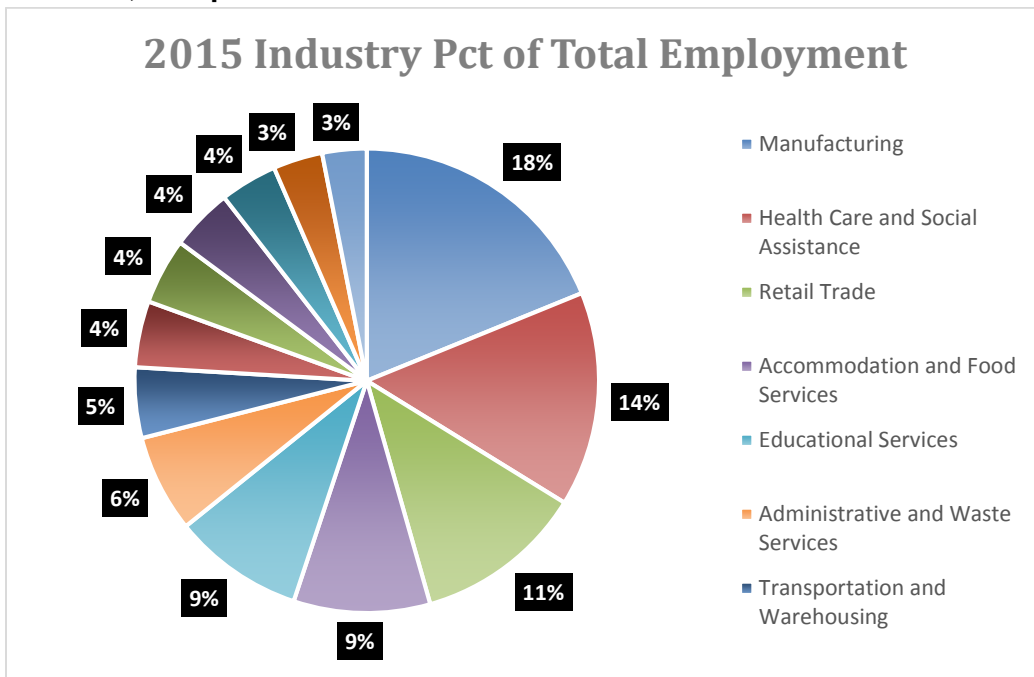
**SECTION A: ECONOMIC ANALYSIS**

**A1 Current (2014) Employment**

**Source: Quarterly Census of Employment and Wages**

| INDIANA EMPLOYMENT, FIRMS, AND WAGES BY INDUSTRY, 2015 |                     |         |                                  |                    |
|--|---------------------|---------|----------------------------------|--------------------|
| Industries   | Average Annual Wage | Units   | Total Annual Wages (in billions) | Average Employment |
| <b>Total</b>   | \$43,888            | 159,303 | \$129                            | 2,941,991          |
| <b>Manufacturing</b>                                   | \$59,020            | 8,409   | \$31                             | 518,865            |
| <b>Health Care and Social Assistance</b>               | \$45,760            | 13,166  | \$19                             | 411,935            |
| <b>Retail Trade</b>                                    | \$26,052            | 20,255  | \$9                              | 324,901            |
| <b>Accommodation and Food Services</b>                 | \$14,976            | 12,810  | \$4                              | 261,757            |
| <b>Educational Services</b>                            | \$39,104            | 3,111   | \$10                             | 251,390            |
| <b>Administrative and Waste Services</b>               | \$29,120            | 9,026   | \$5                              | 187,259            |
| <b>Transportation and Warehousing</b>                  | \$44,408            | 6,335   | \$6                              | 135,189            |
| <b>Public Administration</b>                           | \$44,564            | 2,836   | \$6                              | 126,583            |
| <b>Construction</b>                                    | \$53,768            | 14,422  | \$7                              | 127,091            |
| <b>Wholesale Trade</b>                                 | \$62,556            | 13,474  | \$8                              | 119,324            |

**Major Industries, Composition**



**Table 1 Indiana Statewide Employment Change**

Source: Indiana Quarterly Census of Employment and Wages (Public and Private)

| <b>INDIANA ANNUAL AVERAGE EMPLOYMENT BY INDUSTRY</b>      |                  |                  |                |                 |
|---|------------------|------------------|----------------|-----------------|
| <b>Sorted by Total Employment gains from 2009 to 2015</b> |                  |                  |                |                 |
| <b>Industry</b>   | <b>2010</b>      | <b>2015</b>      | <b>Change</b>  | <b>% Change</b> |
| <b>Total</b>  | <u>2,707,261</u> | <u>2,939,503</u> | <u>232,242</u> | 8.6%            |
| Manufacturing   | 448,191          | 518,865          | <u>70,674</u>  | 15.8%           |
| Administrative and Waste Services                         | 151,921          | 187,346          | <u>35,425</u>  | 23.3%           |
| Accommodation and Food Services                           | 232,526          | 261,823          | <u>29,297</u>  | 12.6%           |
| Health Care and Social Assistance                         | 384,126          | 411,908          | <u>27,782</u>  | 7.2%            |
| Retail Trade  | 304,717          | 324,881          | <u>20,164</u>  | 6.6%            |
| Professional and Technical Services                       | 96,781           | 109,838          | <u>13,057</u>  | 13.5%           |
| Transportation and Warehousing                            | 122,521          | 135,189          | <u>12,668</u>  | 10.3%           |
| Construction  | 115,662          | 127,091          | <u>11,429</u>  | 9.9%            |
| Management of Companies and Enterprises                   | 26,996           | 33,360           | <u>6,364</u>   | 23.6%           |
| Wholesale Trade   | 113,873          | 119,324          | <u>5,451</u>   | 4.8%            |
| Other Services  | 79,800           | 85,000           | <u>5,200</u>   | 6.5%            |
| Agriculture, Forestry, Fishing, and Hunting               | 12,951           | 14,745           | <u>1,794</u>   | 13.9%           |
| Finance and Insurance                                     | 93,221           | 94,959           | <u>1,738</u>   | 1.9%            |
| Real Estate and Rental and Leasing                        | 31,784           | 33,400           | <u>1,616</u>   | 5.1%            |
| Mining  | 6,269            | 6,525            | <u>256</u>     | 4.1%            |
| Arts, Entertainment, and Recreation                       | 42,273           | 41,697           | <u>-576</u>    | -1.4%           |
| Utilities   | 16,443           | 15,731           | <u>-712</u>    | -4.3%           |
| Educational Services                                      | 252,551          | 251,368          | <u>-1,183</u>  | -0.5%           |
| Information   | 42,351           | 39,864           | <u>-2,487</u>  | -5.9%           |
| Public Administration                                     | 132,304          | 126,589          | <u>-5,715</u>  | -4.3%           |



From 2010 to 2015 total employment grew by 8.6% overall for all industries, including both public and private employment. This is measured from the Quarterly Census of Employment and Wages, annual average employer reported data. This is the most recent full year of data at the time of this report. QCEW is the best measure of true employment levels, from which other surveys (such as the CES cited in the introduction) are benchmarked annually. Gains over this five year period of recession and recovery were dominated by growth in a few key sectors in Indiana. Manufacturing saw the largest declines throughout the recession, and has also seen the largest comeback in raw numbers with gains of over 70,000 (15.8%) since 2010. Administrative support services (which includes employment services and temp labor) also saw significant gains over this time frame, 23% growth. These two sectors alone account for over 105,000 of the 232,242 jobs gained in the past five years. Many of the temp jobs may be in manufacturing as some employers have moved away from full time labor; however there have also been significant gains in health care, social services, transportation and warehousing, and in retail and wholesale trade. Many of these industries have also begun to utilize temporary help services in recent years.

### **Industries showing the highest employment increases from 2010 to 2015:**

#### **Manufacturing**

Indiana manufacturers grew employment by 70,674 over this time frame, this was the largest increase in the recovery of total jobs of all industries. Manufacturing had, a growth rate of 15.8% as industry for Indiana. This is an industry that pays wages greater than average, with weekly wages at \$1,135 on average during 2015.

#### **Administrative Support and Waste Services**

This industry has grown by 35,425 over this five year period, at a rate of 23.3%. This is the highest percentage gain among all industries. Gains have been dominated by growth in temporary employment services. Once concentrated in office support or manufacturing, recent growth indicates employment services now provide temporary labor to a wide variety of industries throughout the state. Wages for these industries vary widely, and the weekly averages may include part time workers. During 2015 the average weekly wage for this industry was \$559.

#### **Health Care and Social Assistance**

Health care and social assistance facilities have grown by 7.2% in the last 5 years, an increase of 27,782 employed. This sector growth includes physicians' offices, hospitals, and a wide range of providers. Wages in this industry averaged just above the statewide total, at \$880 weekly for 2015.

#### **Accommodation and Food Services**

The hospitality and food service industries have rebounded at a rate of 12.6% since 2010, growing 29,297 jobs. While many of these jobs are lower or middle wage jobs, growth in these industries indicates growth in consumer spending and confidence and may indicate positive economic trends for the state. This industry includes many part time workers, and average weekly wages were just \$288 during 2015.

## **Industries showing decline from 2009 to 2014:**

The following industries are among those that have shown employment declines over the time frame from 2010 to 2015. This is based on the annual average estimates from QCEW, and includes public and private jobs.

### **Information**

The information sector is a small section of Indiana's economy, and lost 2,487 jobs at a rate of 5.9% decline from 2010 to 2015. This sector includes publishing, telecommunications, and internet broadcasting which all saw moderate declines over these years. Average weekly wages were above the state average, at \$977 during 2015.

### **Utilities**

This remains one of the highest paying, yet smallest sectors of the economy in Indiana. During 2010 to 2015 this industry declined by 4.3%, which was a loss of 712 jobs. Average weekly wages were \$1,698 in 2015.

### **Educational Services**

This sector declined at a rate of just 0.5%, losing 1,183 jobs over this five year period. The rate of decline has slowed down in 2015. The 2014 five year comparison showed a full 1% job loss. These jobs pay an average weekly wage under the statewide average at \$752 in 2015. Employment in this industry includes private schools, and may also include early education programs.

### **Public Administration**

Government, along with Utilities, saw the largest declines over this time frame, down 4.3% and 5,715 in employment. Wages in public administration are \$857 weekly which is slightly above the statewide average in 2015.

### **Wages**

Average annual/weekly wages are affected by the ratio of full-time to part-time workers as well as the number of individuals in high-paying vs. low-paying occupations. Table 2 below shows the historical annual averages from 2001-2015. 2015 showed a nice 3.2% increase from 2014.

For Table 2a below shows wage changes since the Great Recession. Some sectors experienced a more dramatic percentage change while other sectors were a little more modest in their increase. Finance and Insurance has gained 22.3% since 2009 and Real estate and rental and leasing gained 22% in wages over the same period. Agriculture, Forestry, Fishing and Hunting showed a strong 20.3% increase as well. The lowest percentage increases was educational services at 5.9%

**Table 2 Indiana Statewide Total Wages**

| Year | Employment | Average Weekly Wage | % Chg |
|------|------------|---------------------|-------|
| 2001 | 2,871,236  | \$611               | 2.4%  |
| 2002 | 2,832,553  | \$627               | 2.6%  |
| 2003 | 2,821,879  | \$642               | 2.4%  |
| 2004 | 2,848,873  | \$667               | 3.9%  |
| 2005 | 2,873,795  | \$681               | 2.1%  |
| 2006 | 2,892,419  | \$703               | 3.2%  |
| 2007 | 2,905,725  | \$722               | 2.7%  |
| 2008 | 2,872,442  | \$739               | 2.4%  |
| 2009 | 2,705,331  | \$736               | -0.4% |
| 2010 | 2,709,831  | \$755               | 2.6%  |
| 2011 | 2,755,826  | \$774               | 2.5%  |
| 2012 | 2,812,347  | \$793               | 2.5%  |
| 2013 | 2,849,311  | \$801               | 1.0%  |
| 2014 | 2,890,690  | \$818               | 2.1%  |
| 2015 | 2,942,077  | \$844               | 3.2%  |

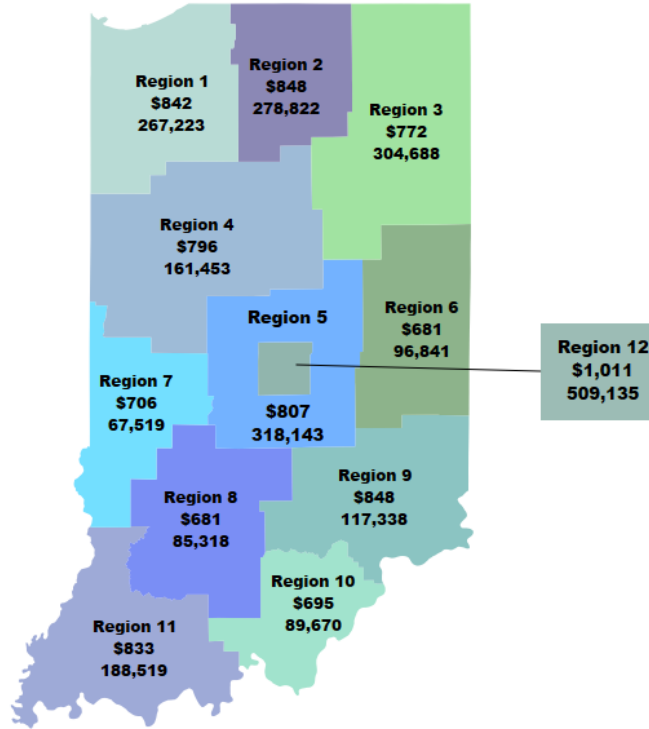
Source IDWD Quarterly Census of Employment and Wages, data not seasonally adjusted

**Table 2a Indiana Statewide Data**

| <b>INDIANA AVERAGE WEEKLY WAGES BY INDUSTRY (2010 and 2015 comparison)</b> |             |             |             |                           |
|--|-------------|-------------|-------------|---------------------------|
|  | <b>2009</b> | <b>2010</b> | <b>2015</b> | <b>% Change From 2009</b> |
| Finance and Insurance  | \$1,004     | \$1,044     | \$1,277     | <b>22.3%</b>              |
| Real Estate and Rental and Leasing   | \$632       | \$655       | \$799       | <b>22.0%</b>              |
| Agriculture, Forestry, Fishing, and Hunting                                | \$580       | \$586       | \$705       | <b>20.3%</b>              |
| Management of Companies and Enterprises                                    | \$1,387     | \$1,469     | \$1,758     | <b>19.7%</b>              |
| Utilities  | \$1,374     | \$1,435     | \$1,698     | <b>18.3%</b>              |
| Wholesale Trade  | \$1,000     | \$1,030     | \$1,203     | <b>16.8%</b>              |
| Professional and Technical Services  | \$1,029     | \$1,053     | \$1,221     | <b>16.0%</b>              |
| Other Services   | \$492       | \$503       | \$582       | <b>15.7%</b>              |
| Information  | \$840       | \$857       | \$977       | <b>14.0%</b>              |
| Health Care and Social Assistance  | \$770       | \$776       | \$880       | <b>13.4%</b>              |
| Transportation and Warehousing   | \$747       | \$764       | \$854       | <b>11.8%</b>              |
| Mining   | \$1,112     | \$1,182     | \$1,321     | <b>11.8%</b>              |
| Accommodation and Food Services  | \$249       | \$257       | \$287       | <b>11.7%</b>              |
| Retail Trade   | \$440       | \$452       | \$501       | <b>10.8%</b>              |
| Public Administration  | \$772       | \$782       | \$857       | <b>9.6%</b>               |
| Administrative and Waste Services  | \$512       | \$511       | \$559       | <b>9.4%</b>               |
| Construction   | \$905       | \$951       | \$1,034     | <b>8.7%</b>               |
| Manufacturing  | \$1,007     | \$1,046     | \$1,135     | <b>8.5%</b>               |
| Arts, Entertainment, and Recreation  | \$545       | \$564       | \$600       | <b>6.4%</b>               |
| Educational Services   | \$705       | \$710       | \$752       | <b>5.9%</b>               |

Source IDWD Quarterly Census of Employment and Wages

### Indiana Economic Growth Regions 2015 Annual Average Employment and Weekly Wage



Source: Indiana Quarterly Census of Employment and Wages  
Data is Total Private Employment only.

Self Employment

# A Closer Look at Self-Employment in Indiana

**DAVID WALDRON**

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Differing definitions of self-employment can make it tricky to pinpoint just how many of Indiana's 3.1 million employed workers are self-employed. The most commonly used measures of self-employment can be divided into two categories: estimates that are based on survey data (such as the Census Bureau's Current Population Survey and American Community Survey) and those compiled based on tax return data (the Census Bureau's nonemployer statistics or counts of Schedule C and Schedule SE income tax returns from the Internal Revenue Service). These measures each have their own advantages and disadvantages—and can yield very different results due to differences in the methodologies and definitions used. This article uses microdata from the American Community Survey (ACS) to analyze non-agricultural self-employment in Indiana.

The ACS is a Census Bureau survey that collects data on the demographic, social, economic and housing characteristics of American households each year. The survey measures self-employment based on whether individuals describe their current or most recent job activity as one of the following:

- “Self-employed, in own not incorporated business, professional practice, or farm”
- “Self-employed, in own incorporated business, professional practice, or farm”

Because of the different nature of self-employment in the agricultural sector, it is common to analyze agricultural self-employment and non-agricultural self-employment separately. This article focuses specifically on self-employment in non-agricultural industries, so individuals who identify as self-employed but work in an agricultural industry are not counted among the self-employed unless otherwise noted.

In 2014, approximately 13.4 million workers were self-employed in non-agricultural industries in the United States, accounting for 9.1 percent of employed people. In Indiana, the self-employed made up a smaller proportion of workers, with 207,148 self-employed non-agricultural workers (6.7 percent of total employment).

The ACS data allow us to distinguish between self-employed workers who have incorporated their businesses and those who have not. There are many reasons a person might incorporate a business, including reduction of personal liability, tax benefits and additional funding options. In 2014, an estimated 79,403 self-employed Hoosiers worked in a business that they had incorporated.

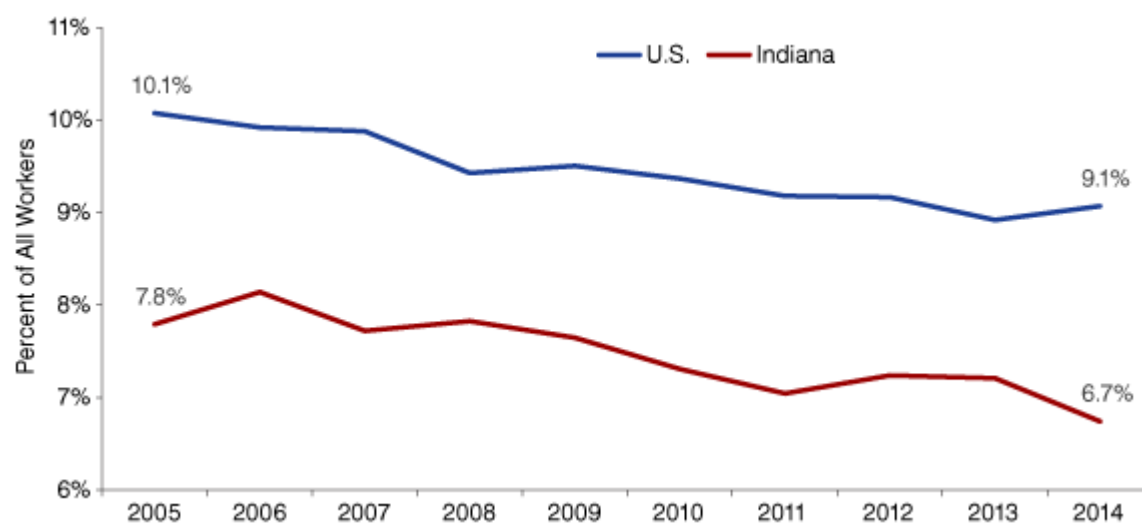
**Table 1: Indiana Employment Estimates, 2014**

|                                     | Number    | Percent of Total Employment |
|-------------------------------------|-----------|-----------------------------|
| Total Employment in Indiana         | 3,072,739 | 100.0%                      |
| Agricultural and Related Industries | 31,236    | 1.0%                        |
| Non-Agricultural Industries         | 3,041,503 | 99.0%                       |
| Not Self-Employed                   | 2,834,355 | 92.2%                       |
| Self-Employed                       | 207,148   | 6.7%                        |
| Self-Employed, Incorporated         | 79,403    | 2.6%                        |
| Self-Employed, Not Incorporated     | 127,745   | 4.2%                        |

Source: Indiana Department of Workforce Development, using U.S. Census Bureau ACS data

The percentage of workers who are self-employed has been declining over the past decade, both in Indiana and nationwide (see **Figure 1**). The trend seems to be ongoing and appears to be independent of the economic downturn of the late 2000s.

**Figure 1: Self-Employment Rates Are Declining, Both in Indiana and Across the Nation**



Note: These data show non-agricultural self-employment.

Source: Indiana Department of Workforce Development, using U.S. Census Bureau ACS data

## Who Are Indiana's Self-Employed Workers?

Using the five-year ACS Public Use Microdata Sample (PUMS) data, we can produce estimates that allow us to compare the demographics of self-employed Hoosiers to the rest of the workforce.

Comparing the age distribution of self-employed workers to that of other employees suggests that the self-employed tend to be older than other workers (see **Figure 2**). Self-employment seems to become more common as workers enter their 40s and remains relatively popular up to and beyond typical retirement ages.

### Figure 2: Age Distribution of the Self-Employed and Other Workers in Indiana



Source: Indiana Department of Workforce Development, using U.S. Census Bureau 2010-2014 PUMS data

In addition to being older, self-employed workers are predominantly male. Although men make up just 52 percent of total employment in Indiana, 63 percent of self-employed Hoosiers are male.

The self-employed don't seem to be remarkably different from other workers in terms of educational attainment, except that a higher percentage of self-employed workers (12.8 percent) hold a graduate or professional degree compared to all other workers (8.6 percent).



## Why Are People Self-Employed?

There are competing narratives regarding what leads people to become self-employed. Some see the self-employed as entrepreneurs—ambitious and willing to take on risks in order to achieve individual success and independence.<sup>1</sup> Others see self-employment as more of a fallback position for people who struggle to find or maintain other forms of employment. Since the self-employed are a diverse group, it is unlikely that a single characterization of the self-employed will accurately define this sector of the workforce. In a study of the relationship between self-employment rates and unemployment rates,<sup>2</sup> researchers confirmed that there are two distinct relationships:

- The effect of entrepreneurs whose innovation and effort ultimately drive unemployment rates down
- The effect of “refugees” who resort to self-employment due to necessity when unemployment rates rise

Ultimately, the researchers found that the “entrepreneurial” effect (self-employment that reduces unemployment) tends to be stronger than the “refugee” effect. So while reasons for being self-employed may be different for each individual worker, the overall description of the self-employed as entrepreneurs who contribute to economic growth may be more apt than the portrayal of the self-employed as workers who are out of options and work for themselves only out of necessity.

## What Do Self-Employed Workers Do?

Self-employment is much more common in some occupations than in others. Self-employment in Indiana is heavily concentrated among health care practitioners, as well as entertainers and artists (see **Figure 3**).

**Figure 3: Occupations with Highest Percentage of Self-Employed Workers in Non-Agricultural Industries in Indiana**



Source: Indiana Department of Workforce Development, using U.S. Census Bureau 2010-2014 PUMS data

**Figure 4** shows that the occupations accounting for the highest number of self-employed workers in Indiana include service occupations such as child care workers, hairdressers and real estate agents, as well as construction and transportation occupations like carpenters, construction workers and truck drivers.

But topping this list is the somewhat mysterious “miscellaneous managers” category. A closer analysis of this group indicates that self-employed miscellaneous managers worked in a variety of service industries, the most common being automotive repair, computer systems design, architecture and engineering, consulting, and advertising.

A similarly vague occupation group title is “first-line supervisors of retail sales workers.” Analyzing the most common industries of self-employed workers in this group indicates that these are likely people who run their own retail stores. The most common industry descriptions they chose include miscellaneous retail stores, used merchandise stores, gift shops, florists and electronic shopping.

### **Figure 4: Occupations with Highest Number of Self-Employed Workers in Non-Agricultural Industries in Indiana**



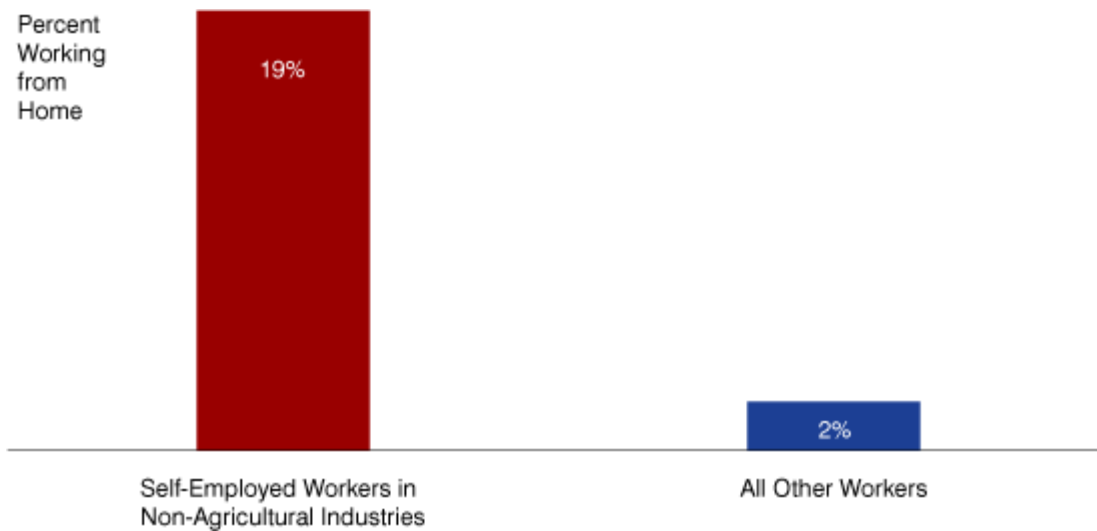
Source: Indiana Department of Workforce Development, using U.S. Census Bureau 2010-2014 PUMS data

## **The Self-Employed Lifestyle**

There are many known advantages and disadvantages to self-employment. Studies suggest that the self-employed feel they have more control over their lives and report higher levels of life satisfaction and work satisfaction—but they may also experience poorer work-life balance, with more stress, lost sleep and exhaustion.<sup>3</sup>

The benefits of self-employment include the flexibility and independence of being your own boss. In Indiana, self-employed workers are nearly 10 times as likely to work from home as other workers (see **Figure 5**).

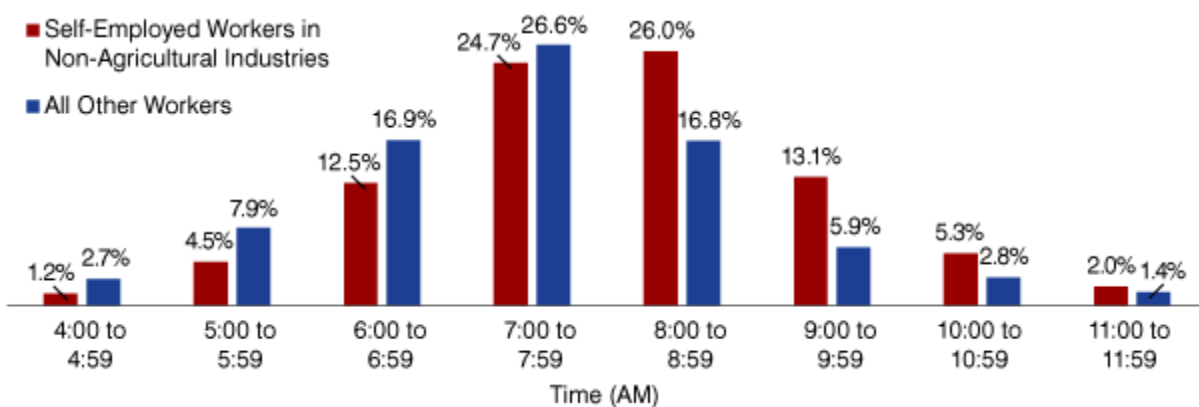
**Figure 5: Self-Employed Hoosiers Are Nearly 10 Times More Likely to Work from Home than Other Workers**



Source: Indiana Department of Workforce Development, using U.S. Census Bureau 2010-2014 PUMS data

And of those who don't work from home, the self-employed tend to begin working later in the day compared to their employee counterparts, with fewer workers starting work before 8 a.m. (see Figure 6).

**Figure 6: Self-Employed Hoosiers Tend to Arrive at Work Later than Other Workers**



Note: These data exclude those who work from home.

Source: Indiana Department of Workforce Development, using U.S. Census Bureau 2010-2014 PUMS data

One of the potential drawbacks of self-employment is the relative lack of fringe benefits, particularly health insurance. Research has shown that workers are less likely to

transition to self-employment when it means losing access to health insurance or when a member of their family is in bad health.<sup>4</sup> Some researchers have predicted that this barrier to self-employment will be broken down as the Affordable Care Act increases access to health insurance for self-employed workers.<sup>5</sup> Based on the ACS data, it is estimated that 78 percent of self-employed workers in Indiana have health insurance coverage, compared to 86 percent of other workers.

## Notes

1. Robert B. Reich, "Entrepreneur or Unemployed?," *New York Times*, June 1, 2010.
2. A. Roy Thurik, Martin A. Carree, André Van Stel, and David B. Audretsch. "Does Self-Employment Reduce Unemployment?," *Journal of Business Venturing* 23, no. 6 (2008): 673-686.
3. See David G. Blanchflower, *Self-Employment: More May Not Be Better*, NBER Working Paper No. 10286, National Bureau of Economic Research, 2004, [www.nber.org/papers/w10286](http://www.nber.org/papers/w10286), and Peter van der Zwan, Jolanda Hessels, and Cornelius A. Rietveld, *The Pleasures and Pains of Self-Employment: A Panel Data Analysis of Satisfaction with Life, Work, and Leisure*, Tinbergen Institute Discussion Paper No. 15-099/VII, 2015.
4. Robert W. Fairlie, Kanika Kapur, and Susan Gates. "Is Employer-Based Health Insurance a Barrier to Entrepreneurship?," *Journal of Health Economics* 30, no. 1 (2011): 146-162.
5. Linda J. Blumberg, Sabrina Corlette, and Kevin Lucia, *The Affordable Care Act: Improving Incentives for Entrepreneurship and Self-Employment*, Urban Institute, 2013.

This article was originally published in the May-June issue of INContext  
<http://www.incontext.indiana.edu/2016/may-jun/article2.asp>

## A3 Existing Demand

**Current demand from employers, as measured from online jobs postings:**

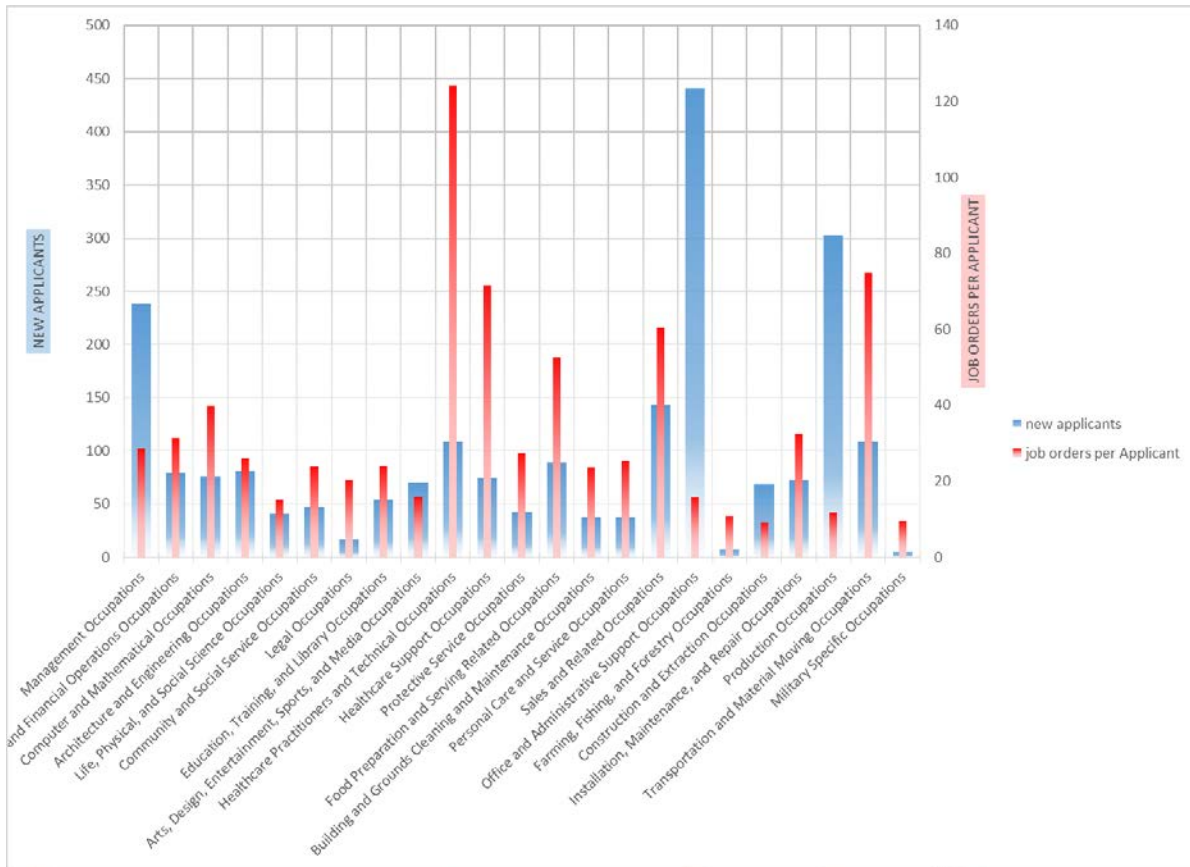
Online job postings for new jobs have increased over the last few years. This data from Indiana’s Labor Exchange System, Indiana Career Connect (ICC) The total over the year change for August 2016 is an increase of 37% over the prior year. This is down a bit from July which was 53% above last year. Healthcare and Social Assistance has the most current job postings and is always in the top three in this category.

| NAICS_title  | Aug-2016     |              |              | Prior Year   |               |               | Current Year |            |            | Change over Prior Year |      |        |
|--|--------------|--------------|--------------|--------------|---------------|---------------|--------------|------------|------------|------------------------|------|--------|
|  | June         | July         | August       | June         | July          | August        | June         | July       | August     | June                   | July | August |
| <b>Total</b>   | <b>6,716</b> | <b>6,616</b> | <b>7,394</b> | <b>9,511</b> | <b>10,144</b> | <b>10,109</b> | <b>42%</b>   | <b>53%</b> | <b>37%</b> |                        |      |        |
| <b>Health Care and Social Services</b>                           | 1,397        | 1,405        | 1,465        | 2,182        | 2,353         | 2,118         | 56%          | 67%        | 45%        |                        |      |        |
| <b>Manufacturing</b>   | 1,164        | 1,058        | 1,254        | 1,666        | 1,647         | 1,698         | 43%          | 56%        | 35%        |                        |      |        |
| <b>Admin. &amp; Support &amp; Waste Mgt. &amp; Rem. Services</b> | 992          | 833          | 955          | 1,193        | 1,032         | 1,244         | 20%          | 24%        | 30%        |                        |      |        |
| <b>Retail Trade</b>  | 574          | 601          | 708          | 826          | 835           | 911           | 44%          | 39%        | 29%        |                        |      |        |
| <b>Professional, Scientific, and Technical Services</b>          | 443          | 435          | 579          | 593          | 681           | 698           | 34%          | 57%        | 21%        |                        |      |        |
| <b>Educational Services</b>                                      | 154          | 171          | 135          | 644          | 752           | 663           | 318%         | 340%       | 391%       |                        |      |        |
| <b>Accommodation and Food Services</b>                           | 251          | 172          | 179          | 260          | 619           | 654           | 4%           | 260%       | 265%       |                        |      |        |
| <b>Transportation &amp; Warehousing</b>                          | 330          | 347          | 359          | 448          | 511           | 440           | 36%          | 47%        | 23%        |                        |      |        |
| <b>Wholesale Trade</b>   | 354          | 442          | 434          | 412          | 377           | 390           | 16%          | -15%       | -10%       |                        |      |        |
| <b>Information</b>   | 166          | 224          | 167          | 310          | 383           | 275           | 87%          | 71%        | 65%        |                        |      |        |
| <b>Finance and Insurance</b>                                     | 177          | 236          | 358          | 196          | 249           | 270           | 11%          | 6%         | -25%       |                        |      |        |
| <b>Other Services(Except Public Administration)</b>              | 154          | 157          | 216          | 160          | 170           | 171           | 4%           | 8%         | -21%       |                        |      |        |
| <b>Public Administration</b>                                     | 108          | 150          | 153          | 181          | 143           | 153           | 68%          | -5%        | 0%         |                        |      |        |
| <b>Construction</b>  | 197          | 176          | 212          | 165          | 124           | 147           | -16%         | -30%       | -31%       |                        |      |        |
| <b>Real Estate and Rental and Leasing</b>                        | 76           | 59           | 70           | 99           | 107           | 102           | 30%          | 81%        | 46%        |                        |      |        |
| <b>Utilities</b>   | 86           | 74           | 64           | 78           | 72            | 102           | -9%          | -3%        | 59%        |                        |      |        |
| <b>Arts, Entertainment, and Recreation</b>                       | 20           | 33           | 31           | 18           | 25            | 23            | -10%         | -24%       | -26%       |                        |      |        |
| <b>Mining</b>  | 26           | 2            | 9            | 25           | 20            | 18            | -4%          | 900%       | 100%       |                        |      |        |
| <b>Agriculture, Forestry, Fishing and Hunting</b>                | 30           | 19           | 23           | 17           | 15            | 18            | -43%         | -21%       | -22%       |                        |      |        |
| <b>Management of Companies and Enterprises</b>                   | 8            | 12           | 16           | 21           | 20            | 10            | 163%         | 67%        | -38%       |                        |      |        |
| <b>Unallocated</b>   | 9            | 10           | 7            | 17           | 9             | 4             | 89%          | -10%       | -43%       |                        |      |        |

**Supply and Demand as illustrated by Indiana Career Connect Job Postings and Applicants:**

Internal job orders for total positions are up by approximately 2,700 since August 2015. Online job posting demand varies by industry, and some industries often over represent true demand. Some employers may post a lot of openings as they search for the best candidate, and some industries such as construction and manufacturing may only hire locally via other avenues. Posting demand also varies significantly across urban and rural areas, as rural areas are underrepresented in online ads. Nevertheless, this data does illustrate employer demand by occupation and can be useful for career counselors and jobs seekers.

The chart below illustrates the occupations that have the most and least job orders per applicant.



## A3 Emerging Demand Hoosier Hot 50 Jobs

The 2014-2024 Hoosier Hot 50 Jobs is a list of high growth rate occupations (both short-term and long-term) with wages at or above the state median. The occupations are ranked according to a single index of weighted occupational measures of growth and opportunity. Interviews and descriptions of the full listing can be found online.

<https://netsolutions.dwd.in.gov/hh50/>

### Statewide Hoosier Hot 50

|    | Job Title  | 2024 Demand | Annual Openings | Average Wage | Education                         |
|----|--|-------------|-----------------|--------------|-----------------------------------|
| 1  | Registered Nurses  | 70,192      | 2,507           | \$57,890     | Bachelor's degree                 |
| 2  | Heavy and Tractor-Trailer Truck Drivers                                      | 58,049      | 1,443           | \$40,190     | Postsecondary non-degree award    |
| 3  | K-12 Teachers  | 70,316      | 1,974           | \$47,556     | Bachelor's degree                 |
| 4  | General and Operations Managers  | 37,590      | 1,229           | \$81,460     | Bachelor's degree                 |
| 5  | Postsecondary Teachers   | 36,941      | 980             | \$65,082     | Doctoral or professional degree   |
| 6  | Sales Rep, Wholesale and Manufacturing, Ex Technical and Scientific Products | 34,768      | 949             | \$56,110     | High school diploma or equivalent |
| 7  | Maintenance and Repair Workers, General                                      | 33,536      | 1,100           | \$36,800     | High school diploma or equivalent |
| 8  | Accountants and Auditors   | 24,835      | 889             | \$60,060     | Bachelor's degree                 |
| 9  | Physicians and Surgeons  | 17,841      | 658             | \$174,447    | Doctoral or professional degree   |
| 10 | First-Line Supervisors of Retail Sales Workers                               | 36,105      | 1,021           | \$35,000     | High school diploma or equivalent |

**Some variation among the Regional Hot 50 Lists. Some jobs making the top 10 in some of the Economic Growth Regions include:**

- Industrial Machinery Mechanics
- Construction Laborers
- First-Line Supervisors of Retail Sales Workers
- Inspectors, Testers, Sorters, Samplers, and Weighers
- Machinists
- Maintenance and Repair Workers
- Accountants and Auditors
- Team Assemblers
- Bookkeeping, Accounting, and Auditing Clerks
- Physicians and Surgeons
- Secretaries and Administrative Assistants
- Mechanical Engineers

Short Term Projections:

The occupational projections program provides projected job growth for approximately 800 SOC coded and defined occupations within Indiana. The Hot 50 Jobs is a subset of this list, to illustrate the jobs most in demand over the next decade, and those that will pay above average wages. The projections analysts can tailor these lists to economic growth regions throughout the state, and filter them according to industry or required educational attainment. The list below is similar to the Hot 50, but illustrates concentrated demand over a shorter-time frame to 2017.

|           | <b>Job Title</b>  | <b>2017 Demand</b> | <b>Annual Openings</b> | <b>Education</b>                  |
|-----------|---|--------------------|------------------------|-----------------------------------|
| <b>1</b>  | Truck Drivers   | 55,727             | 2,443                  | Postsecondary Vocational Training |
| <b>2</b>  | Registered Nurses   | 60,482             | 2,148                  | Associate's Degree                |
| <b>3</b>  | K-12 Teachers   | 69,242             | 2,108                  | Bachelor's/Master's degree        |
| <b>4</b>  | General and Operations Managers                                   | 35,136             | 1,508                  | Bachelor's degree                 |
| <b>5</b>  | Maintenance and Repair Workers General                            | 31,561             | 1,320                  | High School diploma or equivalent |
| <b>6</b>  | Sales Reps manufacturing except Technical and Scientific products | 33,127             | 1,298                  | High School diploma or equivalent |
| <b>7</b>  | First-Line Supervisors of Retail Sales Workers                    | 33,638             | 1,243                  | High School diploma or equivalent |
| <b>8</b>  | Machinists  | 16,698             | 1,058                  | High School diploma or equivalent |
| <b>9</b>  | Carpenters  | 20,085             | 1,037                  | High School diploma or equivalent |
| <b>10</b> | Electricians  | 18,136             | 913                    | High School diploma or equivalent |



## **Section B: Workforce Analysis**

### **B1 Labor Force Estimates**

Indiana's unemployment rate dropped from a 10 year peak of 10.3 in 2009, to 6.0% annually in 2014. By 2015 the rate has fell to below 5% and the labor force has surged to all-time highs.

| <b>INDIANA LABOR FORCE AND UNEMPLOYMENT Non-Seasonally Adjusted 1995 - 2015</b> |                    |                   |                     |                          |
|---|--------------------|-------------------|---------------------|--------------------------|
| <b>Year</b>   | <b>Labor Force</b> | <b>Employment</b> | <b>Unemployment</b> | <b>Unemployment Rate</b> |
| 1995  | 3,135,172          | 2,991,096         | 144,076             | 4.6                      |
| 1996  | 3,109,669          | 2,983,209         | 126,460             | 4.1                      |
| 1997  | 3,120,608          | 3,011,304         | 109,304             | 3.5                      |
| 1998  | 3,123,160          | 3,026,444         | 96,716              | 3.1                      |
| 1999  | 3,124,851          | 3,029,834         | 95,017              | 3.0                      |
| 2000  | 3,126,379          | 3,029,073         | 97,306              | 3.1                      |
| 2001  | 3,140,899          | 3,007,507         | 133,392             | 4.2                      |
| 2002  | 3,171,168          | 3,006,811         | 164,357             | 5.2                      |
| 2003  | 3,182,988          | 3,014,655         | 168,333             | 5.3                      |
| 2004  | 3,167,797          | 2,998,068         | 169,729             | 5.4                      |
| 2005  | 3,205,436          | 3,029,959         | 175,477             | 5.5                      |
| 2006  | 3,235,110          | 3,072,113         | 162,997             | 5.0                      |
| 2007  | 3,207,687          | 3,061,042         | 146,645             | 4.6                      |
| 2008  | 3,232,097          | 3,041,828         | 190,269             | 5.9                      |
| 2009  | 3,193,989          | 2,864,985         | 329,004             | 10.3                     |
| 2010  | 3,175,192          | 2,845,608         | 329,584             | 10.4                     |
| 2011  | 3,182,463          | 2,892,327         | 290,136             | 9.1                      |
| 2012  | 3,170,442          | 2,906,201         | 264,241             | 8.3                      |
| 2013  | 3,191,866          | 2,947,114         | 244,752             | 7.7                      |
| 2014  | 3,227,970          | 3,035,984         | 191,986             | 5.9                      |
| 2015  | 3,265,761          | 3,109,217         | 15,644              | 4.8                      |

Unemployment rates continued to fall statewide in 2015, with the lowest unemployment levels in Economic Growth Region 11, the southwest region of the state.

### Indiana Regional Labor Force Data

| <b>INDIANA ECONOMIC GROWTH REGIONS (EGRs), LABOR FORCE AND UNEMPLOYMENT (N.S.A.), 2015</b> |                    |                   |                   |                          |
|--|--------------------|-------------------|-------------------|--------------------------|
| <b>EGR</b>   | <b>Labor Force</b> | <b>Employment</b> | <b>Unemployed</b> | <b>Unemployment Rate</b> |
| EGR 1  | 402899             | 377487            | 25412             | 6.3                      |
| EGR 2  | 310330             | 296650            | 13680             | 4.4                      |
| EGR 3  | 378111             | 361427            | 16684             | 4.4                      |
| EGR 4  | 248172             | 237160            | 11012             | 4.4                      |
| EGR 5  | 984202             | 939995            | 44207             | 4.5                      |
| EGR 6  | 156068             | 147633            | 8435              | 5.4                      |
| EGR 7  | 100877             | 94943             | 5934              | 5.9                      |
| EGR 8  | 147599             | 139802            | 7797              | 5.3                      |
| EGR 9  | 166562             | 159150            | 7412              | 4.4                      |
| EGR 10   | 147015             | 140270            | 6745              | 4.6                      |
| EGR 11   | 223927             | 214701            | 9226              | 4.1                      |

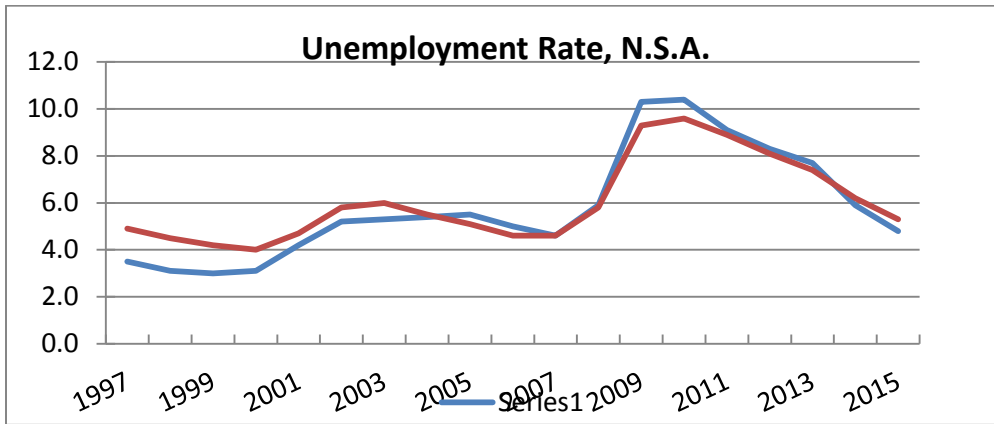
Source: IDWD, Local Area Unemployment Statistics (LAUS) Region 5 EGR data in this publication includes Marion County Region 12.

## Unemployment Rates Table 4

Over the decade from 1993 to 2004, Indiana's unemployment rate was below the national average. Although a national recession was a contributor to a rate climb beginning in 2001, the Hoosier state still managed to outperform the nation for the next four years. The unemployment rate went above the national average in 2005-06. During the Great Recession Indiana was above the national rate much of the time. Both the state and national rates have seen significant decreases beginning in 2011 and continuing through 2014. By 2014 and 2015 Indiana was below the US rate.

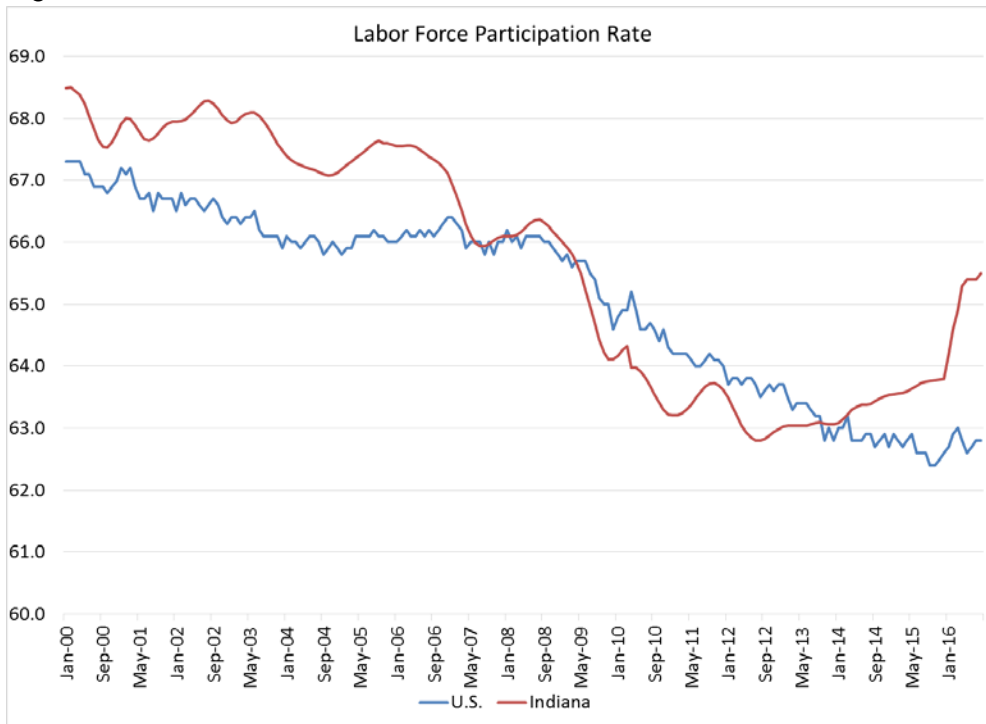
| <b>2014 INDIANA UNEMPLOYMENT RATES,<br/>NON-SEASONALLY ADJUSTED<br/>(ANNUAL AVERAGES OF MONTHLY DATA)</b> |                |             |
|---|----------------|-------------|
| <b>Year</b>   | <b>Indiana</b> | <b>U.S.</b> |
| 1994  | 4.9            | 6.1         |
| 1995  | 4.6            | 5.6         |
| 1996  | 4.1            | 5.4         |
| 1997  | 3.5            | 4.9         |
| 1998  | 3.1            | 4.5         |
| 1999  | 3.0            | 4.2         |
| 2000  | 3.1            | 4.0         |
| 2001  | 4.2            | 4.7         |
| 2002  | 5.2            | 5.8         |
| 2003  | 5.3            | 6.0         |
| 2004  | 5.4            | 5.5         |
| 2005  | 5.5            | 5.1         |
| 2006  | 5.0            | 4.6         |
| 2007  | 4.6            | 4.6         |
| 2008  | 5.9            | 5.8         |
| 2009  | 10.3           | 9.3         |
| 2010  | 10.4           | 9.6         |
| 2011  | 9.1            | 8.9         |
| 2012  | 8.3            | 8.1         |
| 2013  | 7.7            | 7.4         |
| 2014  | 5.9            | 6.2         |
| 2015  | 4.8            | 5.3         |

**Figure 4**



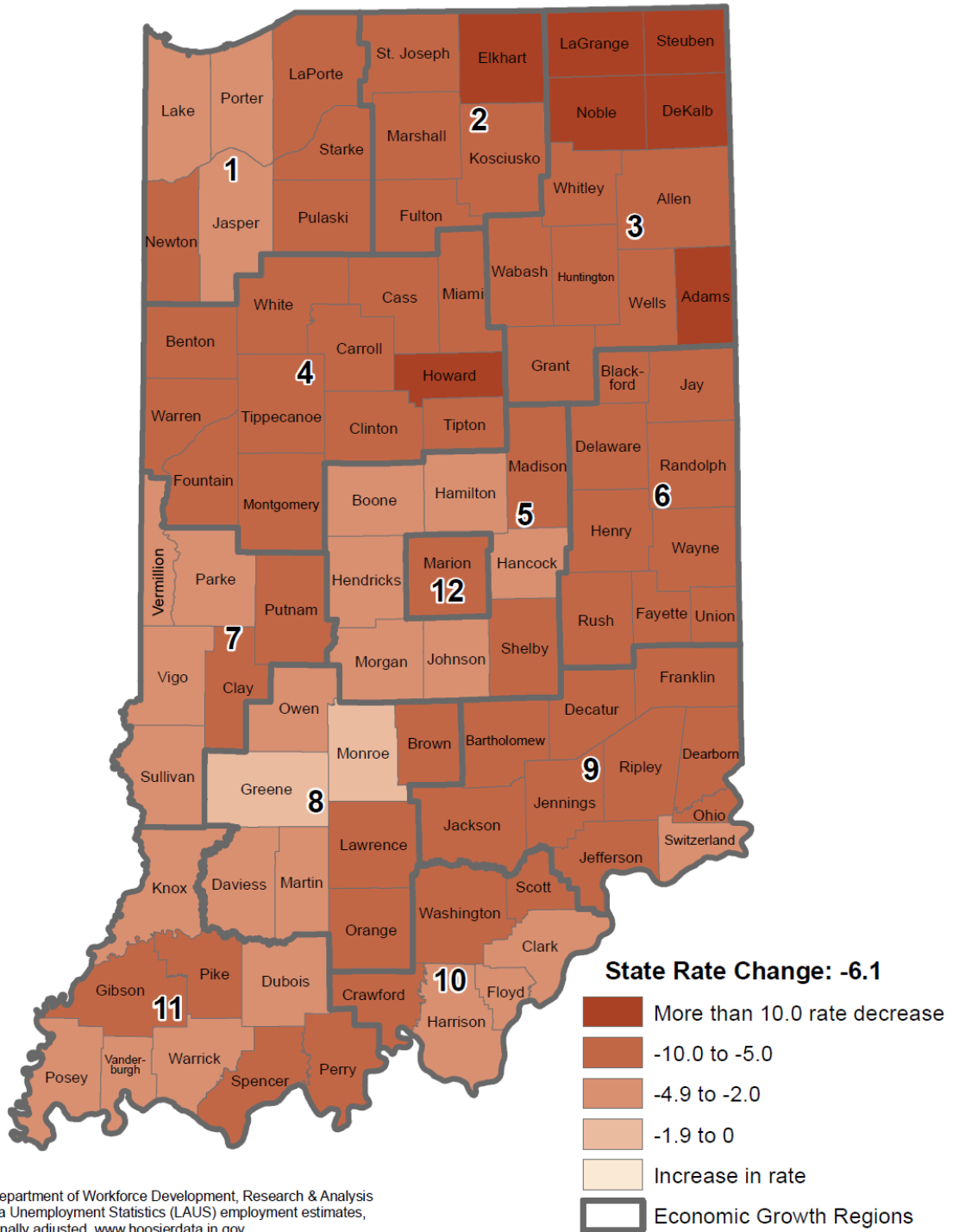
The gains to Indiana’s labor force are also significant. As Indiana’s labor force participation rate rose to over a full percentage point above the national average in 2015. Hoosiers are returning to the workforce, and looking for employment. The map below illustrates the variances in unemployment rates across the state. Despite the increased labor force, areas of the state with unemployment rates below 4.5% are beginning to suffer from labor shortages as employers compete for qualified workers.

Figure 5





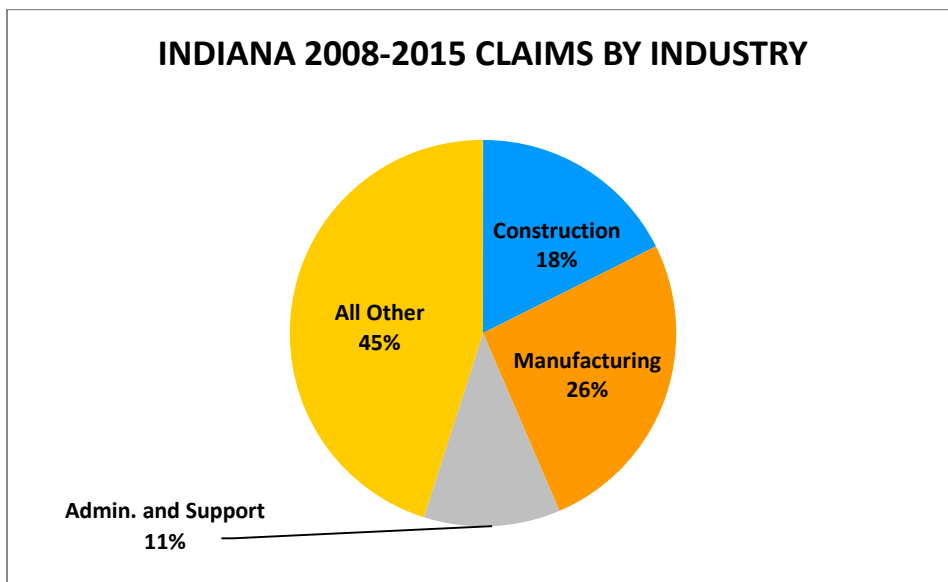
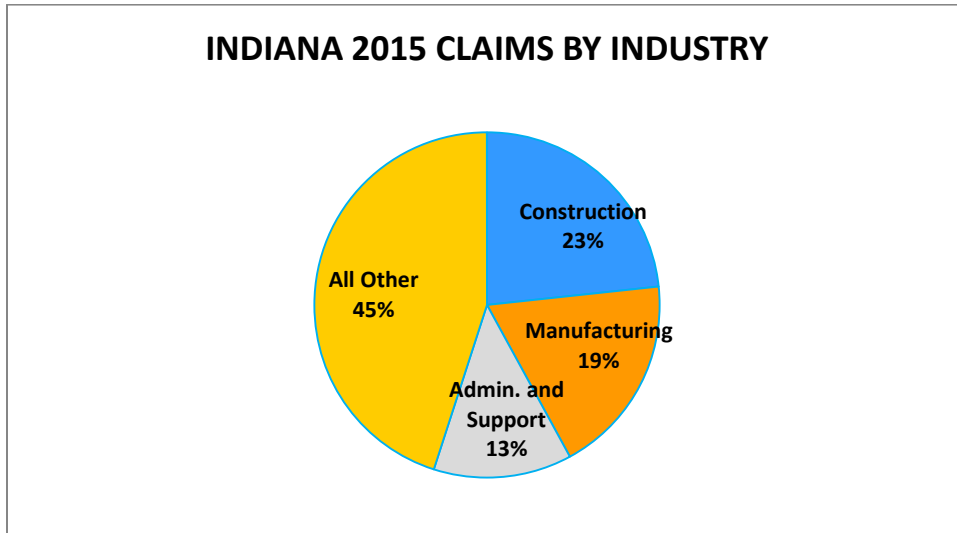
## Unemployment Rate Change in Indiana July 2009 to July 2016



### Unemployment Claims by Industry

Manufacturing and construction historically have been leading industries with unemployment claims. This is still true but in the post-recession era manufacturing has declined while construction has risen. From 2008-2015 manufacturing accounted for over a fourth of all claims but in 2015 this dropped to 19%. Conversely construction from 2008-2015 was at 18% but for 2015 alone it had risen to 23% of all claims.

Figure 5 & 6

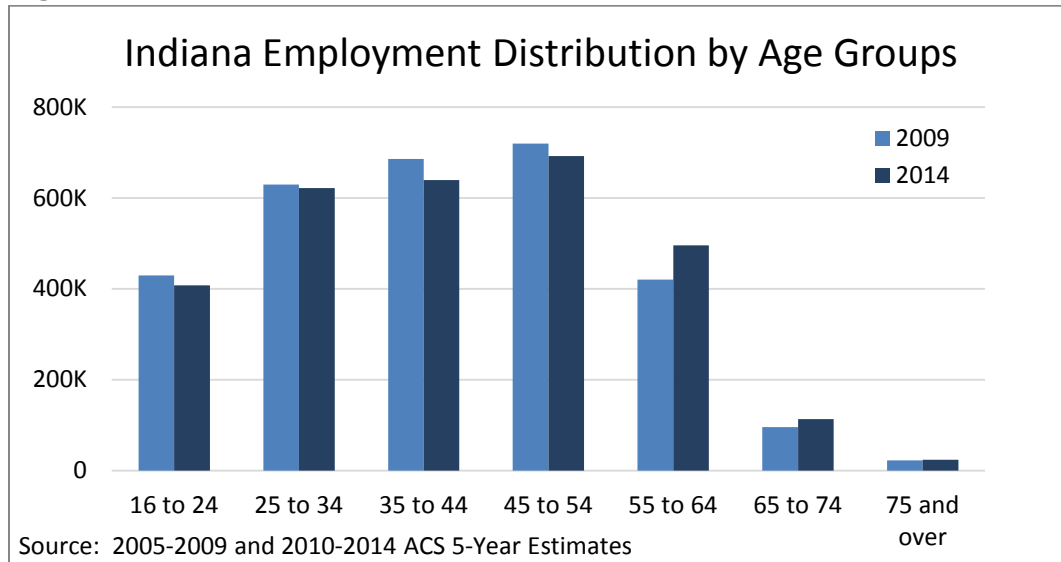


## B2 Workforce and Industry Composition

### Age Distribution of the Workforce

The age distribution of Indiana’s workforce is shown in Figure 7. Between the 2009 and 2014 estimates of the age distribution, Indiana’s workforce grew older. The number of workers age 55 and older increased from 538,613 to 632,899, while the workers under age 55 decreased from 2.46 million to 2.36 million. This shift reflects reduced participation in the labor force among younger workers, as well as the aging of Indiana’s population. Prime working age (25-54) employment now accounts for 65% of Indiana’s 3 million workers, down from 68% in 2005-2009.

**Figure 7**



As many young Hoosiers complete their college educations, there is a resulting surge in the employment in the 25-34 age groups. Employment of younger workers varies by industry sector. Table 7 lists the sectors employing the most workers in the 25-34 age group in 2015.

**Table 7 Top sectors employing workers age 25-34, 2015**

| Industry Sector  | Employment Age 25-34 | Employment All Ages | Age 25-34 as % of Total in Sector |
|--|----------------------|---------------------|-----------------------------------|
| Manufacturing  | 98,310               | 524,461             | 18.74%                            |
| Health Care and Social Assistance  | 93,443               | 408,456             | 22.88%                            |
| Retail Trade   | 67,560               | 323,405             | 20.89%                            |
| Accommodation and Food Services  | 58,182               | 258,616             | 22.50%                            |
| Administrative and Support and Waste Management and Remediation Services | 46,848               | 186,360             | 25.14%                            |



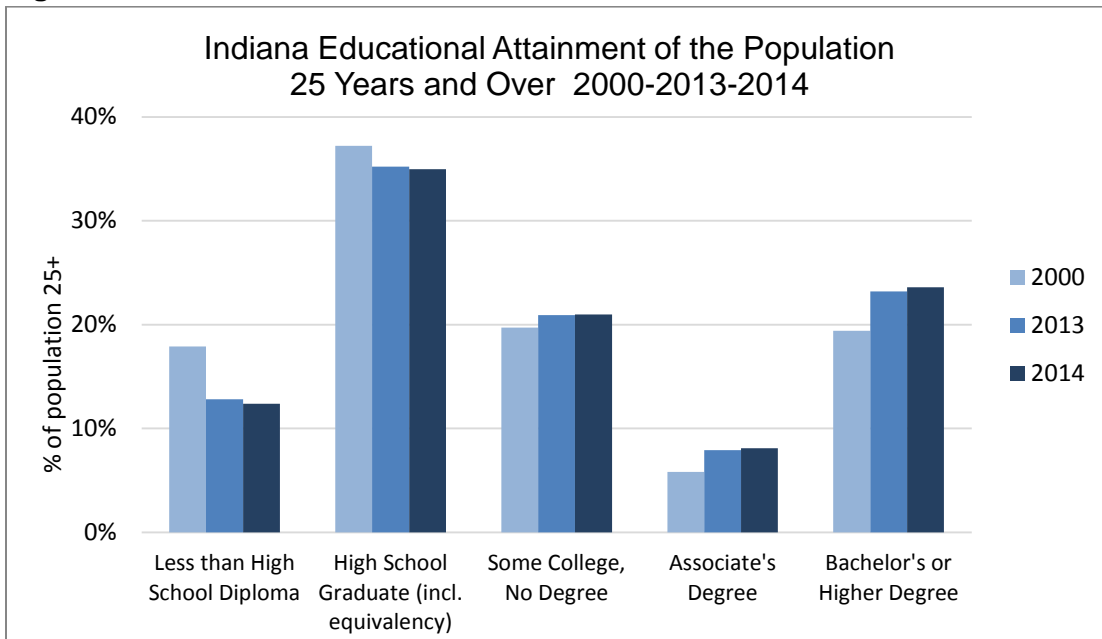
### B3 Education

Rates of educational attainment continue to rise in Indiana. Since 2000, the percent of the population 25 and older with at least a Bachelor's degree rose from 19.4% to 23.6% as illustrated below. The percent of the population without a high school diploma fell from 17.9% to 12.4%, but there are still significant portions of Indiana's population without a high school diploma. Certain areas of the state illustrate greater numbers at risk and in need of continued and higher education programs.

| EDUCATIONAL ATTAINMENT IN 2000, 2013, and 2014  |           |                  |           |                  |           |                  |
|---|-----------|------------------|-----------|------------------|-----------|------------------|
|   | 2000      | Pct. Of Pop. 25+ | 2013      | Pct. Of Pop. 25+ | 2014      | Pct. Of Pop. 25+ |
| <b>Total Population 25+</b>                     | 3,893,278 | 100.0%           | 4,258,878 | 100.0%           | 4,292,107 | 100.0%           |
| <b>Less than High School Diploma</b>            | 695,540   | 17.9%            | 545,136   | 12.8%            | 531,690   | 12.4%            |
| <b>High School Graduate (incl. equivalency)</b> | 1,447,734 | 37.2%            | 1,499,125 | 35.2%            | 1,500,737 | 35.0%            |
| <b>Some College, No Degree</b>                  | 768,856   | 19.7%            | 890,106   | 20.9%            | 900,442   | 21.0%            |
| <b>Associate's Degree</b>                       | 225,535   | 5.8%             | 336,451   | 7.9%             | 347,313   | 8.1%             |
| <b>Bachelor's or Higher Degree</b>              | 755,613   | 19.4%            | 988,060   | 23.2%            | 1,011,925 | 23.6%            |

Source: 2010 Census and 2013, 2014 ACS 5-year estimates

Figure 1



Source: 2010 Census and 2013, 2014 ACS 5-year estimates

## Adults Age 18 to 64 without a High School Diploma or HSE, 2014

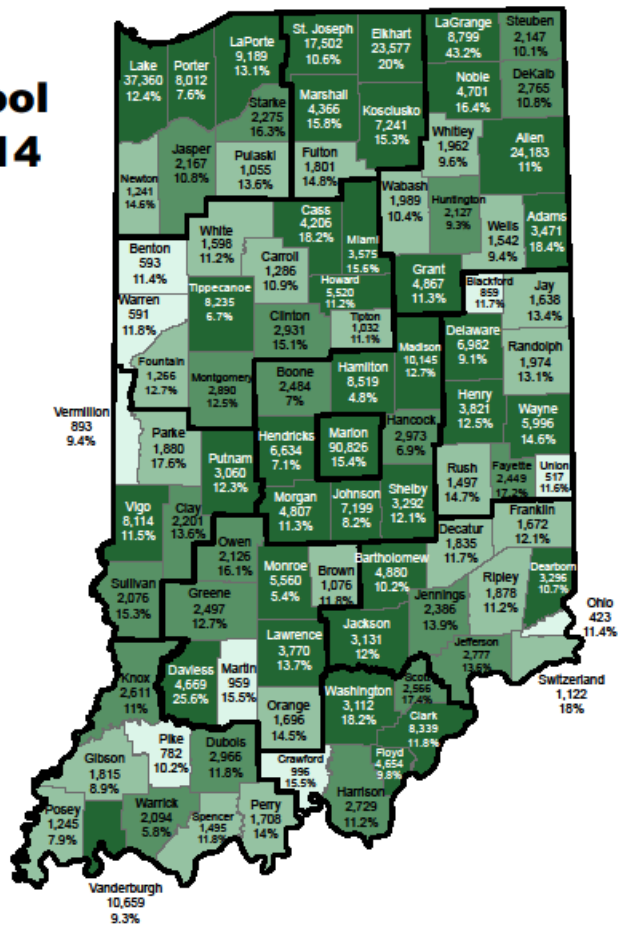
### Number of Adults

- 423 - 1,000 (9)
- 1,001 - 2,000 (24)
- 2,001 - 3,000 (21)
- 3,001 - 90,826 (38)

Economic Growth Region

*Labels also show the percent of adults in this age group without a high school diploma or high school equivalency (HSE).*

Map produced by the Indiana Business Research Center, using the American Community Survey 2010-2014 five-year estimates that were released by the U.S. Census Bureau in December 2015.

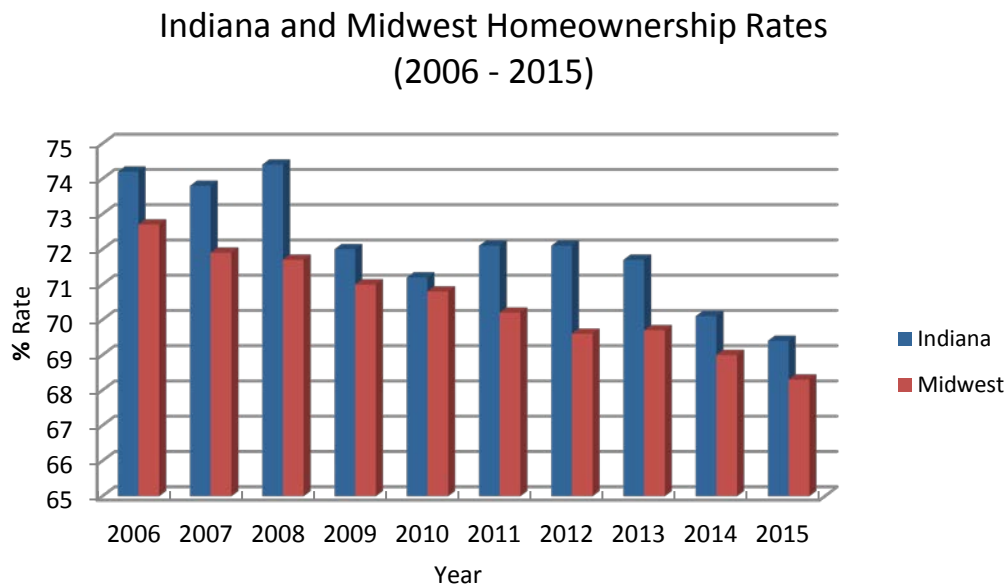


## B4 Housing

### Homeownership Rates

According to data from the U.S. Bureau of Census's Housing Vacancy Survey (HVS), from 2006 to 2015 Indiana maintained a higher percentage of homeownership in comparison to the Midwest region as a whole. However Indiana has shown declines in Homeownership the last three years. In 2006, Indiana had a rate of 74.2% in comparison to the Midwest's 72.7%. Indiana maintained the higher rate during the entire time frame from 2006-2015. In 2015, the state finished with a homeownership rate of 69.4% to the Midwest's 68.3%. For a year by year comparison, see Figure 7.

**Figure 7**



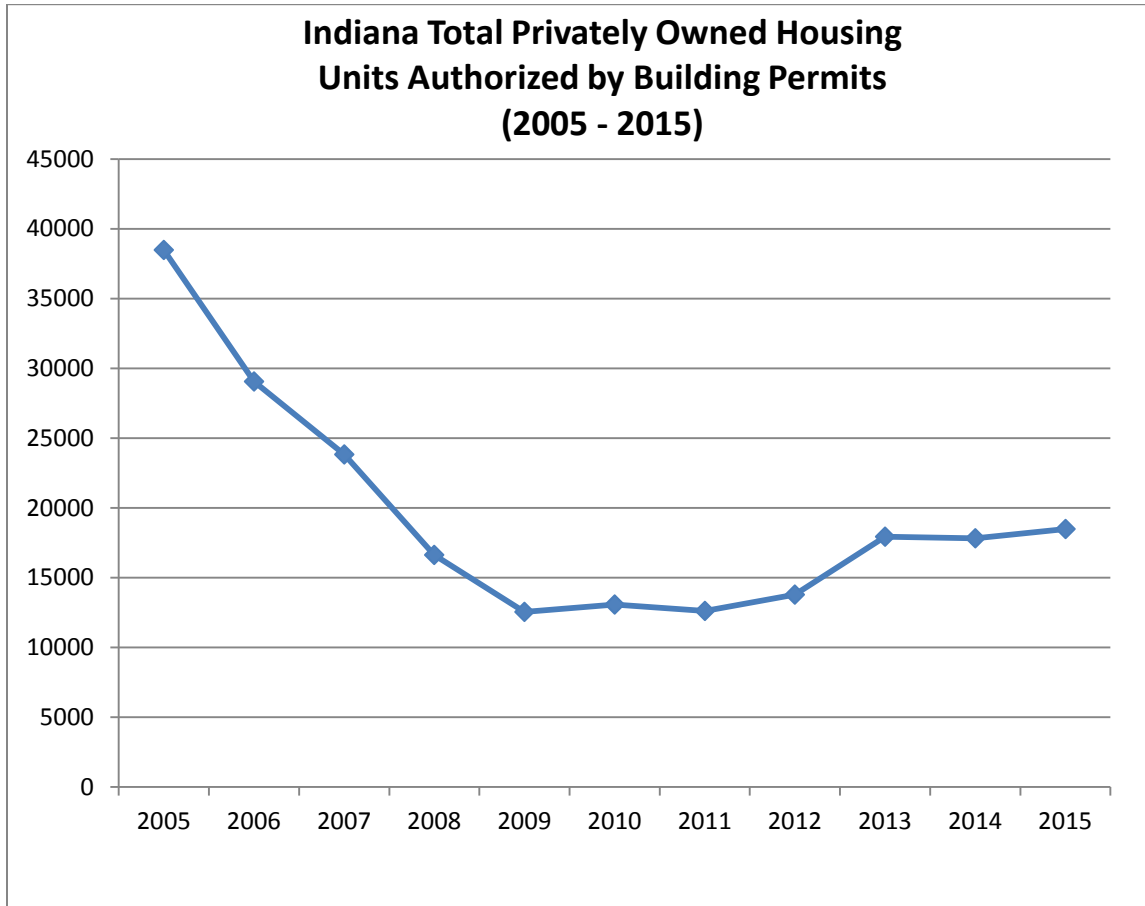
Source: U.S. Bureau of Census, Housing Vacancy Survey (HVS)

\*Midwest: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

**Housing Permits**

For the fourth straight year Indiana the number of home building permits grew. In 2015 there were 18,483 home building permits. This is the highest number of permits since 2007. As shown in Figure 8, the number of home building permits increased has been relatively flat but stable since 2013.

**Figure 8**



Source: U.S. Bureau of Census