INDIANA ECONOMIC ANALYSIS REPORT



Regina Ashley, Interim Commissioner

October 2017

Acknowledgements

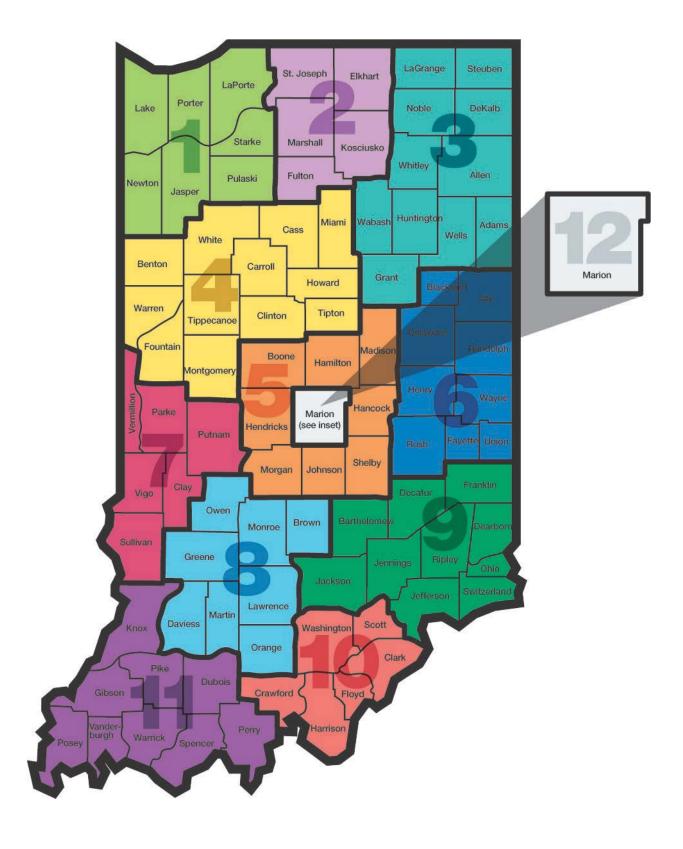
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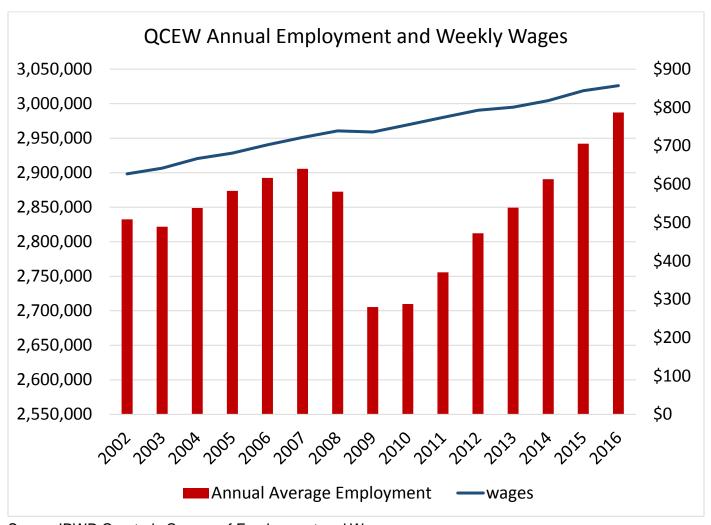
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Economic Growth Regions



2016 Indiana Employment in Brief:

Indiana has seen steady employment recovery following the Great Recession. The 2016 average annual employment level for all industries was 2,487,199 annually in 2016; this is up 10.4% since 2009. This is also the highest this number has ever been. Average weekly wages have risen to \$857 for all Industries. The following charts summarize Indiana's 2016 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 2016

2016 estimates from the Current Employment Statistics (CES) and Local Area Unemployment Statistics (LAUS) indicate growing private sector employment and falling unemployment. As of December 2016 Indiana's labor force is up 1,659 over the year, and has gained 127,427 since January 2013. Indiana's labor force stands at 3,308,196. Indiana's unemployment is down by 133,972 since January 2013, which is a decline of (50%).

From January 2016 to January 2017 Indiana's Total Non-Farm employment grew by 36,400 and the private sector employment grew by 31,200. Key growth sectors over the past year include Private Educational and Health services which gained 12,500, Manufacturing gained 4,800 and Construction gained 4,400.

Source: Current Employment Statistics 2016

IN Employment Change Over the Month, Year-to-Date and Over the Year (seasonally adjusted)

Industry	January 2016	December 2016	January 2017	Month Change	Y-to-D Change	Y-to-Y Change
Private Educational & Health Services	458.0	470.0	470.5	0.5	0.5	12.5
Private Educational Services	68.1	71.3	70.2	-1.1	-1.1	2.1
Health Care & Social Assistance	389.9	398.7	400.3	1.6	1.6	10.4
Manufacturing	521.4	526.9	526.2	-0.7	-0.7	4.8
Professional & Business Services	332.6	337.3	335.8	-1.5	-1.5	3.2
Financial Activities	132.8	134.8	136.1	1.3	1.3	3.3
Construction	130.5	128.8	134.9	6.1	6.1	4.4
Leisure and Hospitality	304.8	310.2	308.3	-1.9	-1.9	3.5
Trade, Transportation & Utilities	593.9	598.4	592.0	-6.4	-6.4	-1.9
Trade	448.6	455.2	452.1	-3.1	-3.1	3.5
Transportation, Warehousing & Utilities	145.3	143.2	139.9	-3.3	-3.3	-5.4
All Other	165.9	166.9	167.3	0.4	0.4	1.4
Total Private	2,639.9	2,673.3	2,671.1	-2.2	-2.2	31.2
Government (Includes Public Schools & Hospitals)	426.4	430.6	431.6	1.0	1.0	5.2
Total Nonfarm	3,066.3	3,103.9	3,102.7	-1.2	-1.2	36.4
	,	,				
United States Total Private	121,097.0	123,041.0	123,278.0	237.0	237.0	2,181.0

SECTON A: ECONOMIC ANALYSIS

A1 Current (2016) Employment

Source: Quarterly Census of Employment and Wages

INDIANA EMPLOYMENT, FIRMS, AND WAGES BY INDUSTRY, 2016								
Industries	Average Annual Wage	Units	Total Annual Wages (in billions)	Average Employment				
Total	\$43,888	159,303	\$129	2,941,991				
Manufacturing	\$59,020	8,409	\$31	518,865				
Health Care and Social Assistance	\$45,760	13,166	\$19	411,935				
Retail Trade	\$26,052	20,255	\$9	324,901				
Accommodation and Food Services	\$14,976	12,810	\$4	261,757				
Educational Services	\$39,104	3,111	\$10	251,390				
Administrative and Waste Services	\$29,120	9,026	\$5	187,259				
Transportation and Warehousing	\$44,408	6,335	\$6	135,189				
Public Administration	\$44,564	2,836	\$6	126,583				
Construction	\$53,768	14,422	\$7	127,091				
Wholesale Trade	\$62,556	13,474	\$8	119,324				

Major Industries, Composition

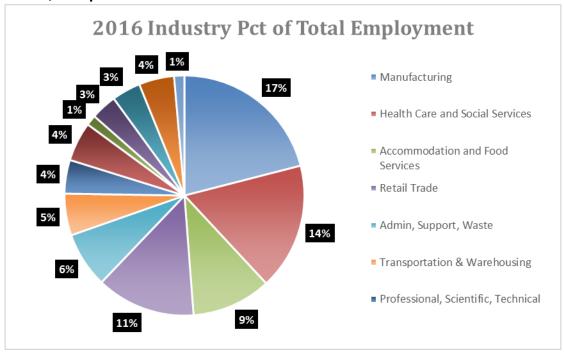


Table 1 Indiana Statewide Employment Change

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

INDIANA ANNUAL AVERAGE EMPLOYMENT BY INDUSTRY								
Sorted by Total Employme	Sorted by Total Employment gains from 2011 to 2016							
Industry	2011 Employment	2016 Employment	Change	% Change				
Total	2,755,826	2,987,014	231,188	8.4%				
Manufacturing	464,159	522,509	58,350	12.6%				
Health Care and Social Services	389,128	424,540	35,412	9.1%				
Accommodation and Food Services	237,980	266,731	28,751	12.1%				
Retail Trade	308,278	332,393	24,115	7.8%				
Admin, Support, Waste	162,275	186,325	24,050	14.8%				
Transportation & Warehousing	125,194	139,746	14,552	11.6%				
Professional, Scientific, Technical	98,774	112,997	14,223	14.4%				
Construction	120,083	131,670	11,587	9.6%				
Management of Companies and Enterprises	28,043	34,608	6,565	23.4%				
Other Services (Except Public Administration)	81,651	86,926	5,275	6.5%				
Finance and Insurance	92,570	96,791	4,221	4.6%				
Wholesale Trade	115,117	118,165	3,048	2.6%				
Real Estate and Rental and Leasing	31,968	34,534	2,566	8.0%				
Agriculture, Forestry, Fishing and Hunting	13,433	15,142	1,709	12.7%				
Public Administration	127,348	128,399	1,051	0.8%				
Arts, Entertainment, and Recreation	41,585	42,387	802	1.9%				
Unallocated	49	128	79	161.2%				
Mining	6,580	5,907	-673	-10.2%				
Utilities	16,294	15,556	-738	-4.5%				
Educational Services	251,223	250,187	-1,036	-0.4%				
Information	40,704	38,927	-1,777	-4.4%				

Industry Overview:

From 2011 to 2016 total employment grew by 231,188 jobs (8.4%) 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. Over the most recent five year period of recovery nearly 74% of this growth was 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 58,350 (12.6%) since 2011. Health Care and Social Services increased by 35,412 jobs or 12.6%. Accommodations and Food Services grew by 28,751. Retail Trade (7.8%) and Administrative and Support and Waste Management and Remediation services (14.8%) both increased over 24,000 jobs during this time frame.

Industries showing the highest employment increases from 2011 to 2016:

Manufacturing

Indiana manufacturers grew employment by 58,350 over this time frame, making it the largest increase in the recovery of total jobs of all industries. Manufacturing had, a growth rate of 12.6% as industry for Indiana and pays wages greater than average, with weekly wages at \$1,139 on average during 2016.

Health Care and Social Assistance

Health care and social assistance facilities have grown by 9.2% in the last 5 years, for an increase of 35,412 jobs. This sector growth includes physicians' offices, hospitals, and a wide range of providers. Wages in this industry averaged just above the statewide total, at \$897 weekly for 2016.

Accommodation and Food Services

The hospitality and food service industries have grown at a rate of 12.1% since 2011, growing 28,751 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 \$295 during 2016.

Retail Trade

The Retail Trade industry grew by 24,115 or 7.8% between 2011 and 2016. Much like Accommodation and Food Services, growth in this industry indicates confidence in consumer spending. The wages for this industry are at \$511 for 2016.

Administrative Support and Waste Services

This industry has grown by 24,050 over this five year period, at a rate of 14.8%. 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 2016 the average weekly wage for this industry was \$582.

Industries showing decline from 2011 to 2016:

The following industries are among those that have shown employment declines over the time frame from 2011 to 2016. This is based on the annual average estimates from QCEW, and includes public and private jobs.

Mining

Mining is the smallest industrial sector in Indiana. Over the 2011 to 2016 time frame this industry lost 673 jobs or a little over 10%. Mining does have a very high average wage of \$1,297 which has increased by 5.3% over the past five years.

Utilities

Utilities are next smallest sector the Indiana economy yet one of the highest paying. During 2011 to 2016 this industry declined by 4.5%, a loss of 738 jobs. Average weekly wages were \$1,693 in 2016.

Educational Services

This sector declined at a rate of 0.4%, losing 1,136 jobs over this five year period. These jobs pay an average weekly wage under the statewide average at \$777 in 2016. Employment in this industry includes private schools, and may also include early education programs.

Information

The information sector lost 1,777 jobs at a rate of 4.4% decline from 2011 to 2016. 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 \$987 during 2016.

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 2002-2016 with 2016 showed a 1.5% increase from 2015.

Table 2a below shows percentage growth of wage changes over the last five years (2011-2016). Ove this time several sectors experienced a more dramatic percentage change while other sectors were modest in their increase. Agriculture, Forestry, Fishing, and Hunting Finance wages grew by 19.9% over this time frame. Real Estate and Rental and Leasing wages increased by 18.8%. Finance and Insurance and Other Services categories both increase by more than 16% during this time. The slowest percentage increase was in Mining, Quarrying, and Oil and Gas Extraction at 5.3%.

Table 2 Indiana Statewide Total Wages

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Year	Employment	Average Weekly Wage	% Chg
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%
2016	2,987,199	\$857	1.5%

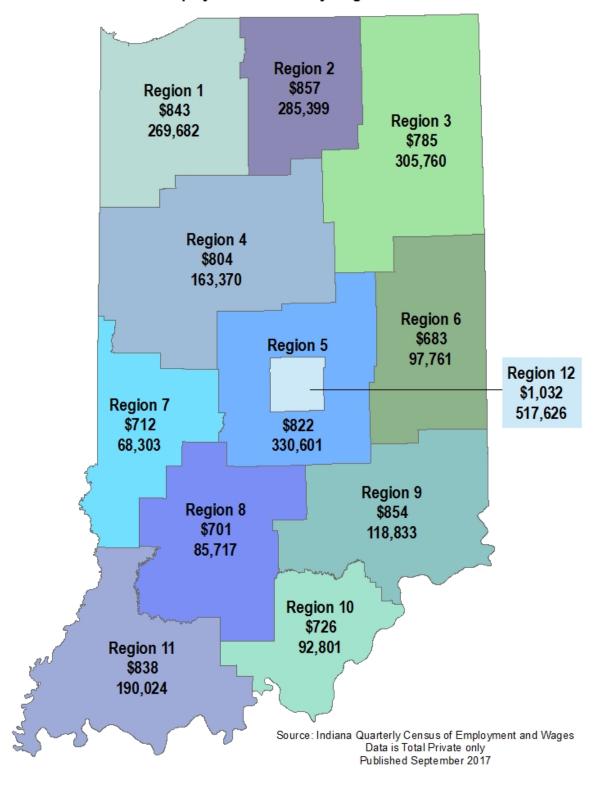
Source IDWD Quarterly Census of Employment and Wages, data not seasonally adjusted

Table 2a Indiana Statewide Data

INDIANA AVERAGE WEEKLY WAGES BY INDUSTRY (2011 and 2016 comparison)						
	2011	2016	% Change From 2009			
Indiana State Totals	\$774	\$858	10.9%			
Agriculture, Forestry, Fishing, and Hunting	\$602	\$723	19.9%			
Real Estate and Rental and Leasing	\$680	\$808	18.8%			
Finance and Insurance	\$1,095	\$1,278	16.7%			
Other Services	\$513	\$596	16.1%			
Wholesale Trade	\$1,066	\$1,233	15.7%			
Management of Companies and Enterprises	\$1,568	\$1,811	15.5%			
Utilities	\$1,481	\$1,693	14.2%			
Professional and Technical Services	\$1,101	\$1,258	14.2%			
Health Care and Social Assistance	\$793	\$897	13.0%			
Accommodation and Food Services	\$262	\$295	12.8%			
Information	\$882	\$987	11.9%			
Administrative and Waste Services	\$522	\$582	11.5%			
Retail Trade	\$458	\$511	11.5%			
Transportation and Warehousing	\$780	\$854	9.5%			
Arts, Entertainment, and Recreation	\$559	\$608	8.7%			
Educational Services	\$719	\$777	8.2%			
Public Administration	\$803	\$867	8.0%			
Manufacturing	\$1,065	\$1,139	6.9%			
Construction	\$990	\$1,054	6.5%			
Mining, Quarrying, and Oil and Gas Extraction	\$1,232	\$1,297	5.3%			

Source IDWD Quarterly Census of Employment and Wages

Indiana Economic Growth Regions 2016 Annual Average Employment and Weekly Wage



Apprenticeship employment and wage outcomes

DAVID WALDRON

Research Analyst, Research and Analysis Division of the Indiana Department of Workforce Development Sept-Oct INContext

Earlier this year, the White House described job-driven apprenticeship as being "among the surest pathways to provide American workers from all backgrounds with the skills and knowledge they need to acquire good-paying jobs and grow the economy." David Audretsch, an economist at Indiana University, identified Germany's apprenticeship system as one of the key components driving that country's economic resurgence following sluggish growth in the 1990s.²

Apprenticeships offer a combination of classroom instruction and on-the-job training to provide workers with the knowledge and skills necessary to succeed in various occupations, usually construction trades such as electricians, carpenters and plumbers. Apprenticeships vary in length, but typically last about four years.³ At Ivy Tech Community College, apprentices are awarded an apprenticeship certificate from the U.S. Department of Labor and an Associate of Applied Science degree.

This article provides a first look at employment and wage outcomes from Ivy Tech's apprenticeship program for participants in the 2009-2010 program year. Employment outcomes are measured by matching participants to state wage records in the year prior to the program year, and in each year following the program year. Measurable outcomes for each year include whether a participant was employed, what their annualized wages were and which industry they were employed in.

Participation in Ivy Tech apprenticeships

Ivy Tech's apprenticeship programs saw a decrease in participants from nearly 5,000 in 2009-2010 to less than 4,000 in 2014-2015. But reassuringly, participant numbers began to stabilize in 2011 following the Great Recession. This article focuses on outcomes for the 4,911 participants during the 2009-2010 program year.

4,911 5,000 3,753 2,500 0 2009-2010-2011-2012-2013-2014-2010 2011 2012 2013 2014 2015

Figure 1: Number of Ivy Tech apprenticeship participants

Source: Indiana Department of Workforce Development

The vast majority of apprenticeship participants during the 2009-2010 program year were male (98 percent) and white (92 percent). About 4 percent were black and the remainder were of another race.

80 women (2%) 218 black (4%) (3%)

4,534 white

(92%)

Figure 2: Race and gender of apprenticeship participants, 2009-2010 program year

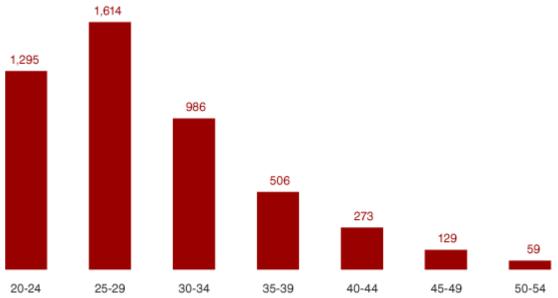
Source: Indiana Department of Workforce Development

4,831 men

(98%)

Apprenticeship participants also tend to be younger. Nearly 80 percent (3,895) of participants were in the 20-to-34 age group. Only 9 percent were between 40 and 54 years old.

Figure 3: Number of participants by age, 2009-2010 program year



Note: Some age groups are not shown to protect participant confidentiality.

Source: Indiana Department of Workforce Development

Employment outcomes

According to wage records, 3,974 of 4,911 participants (81 percent) were employed five years after program year 2009-2010. Employment rates were slightly higher among the 20-to-24 age group (83 percent) than in the older 50-to-54 age group (76 percent). The employment rate of black participants was 78 percent, slightly lower than the overall rate. Among other races (i.e., not white or black), only 57 percent were employed five years after the program year.

Table 1: Percent employed five years after 2009-2010 program year

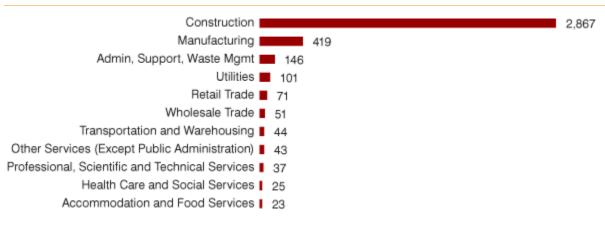
		Percent employed
All participants	81%	
Age		
20 to 24	83%	
25 to 29	82%	
30 to 34	81%	
35 to 39	77%	
40 to 44	78%	

45 to 49	74%
50 to 54	76%
Race	
White	81%
Black	78%
Other	57%

Source: Indiana Department of Workforce Development

The vast majority (72 percent) of employed participants ended up working in the construction industry. (Industry data were available for all but a few—0.3 percent—participants employed five years after the program year.) Approximately 11 percent worked in manufacturing, 4 percent in the administrative services, support and waste management sector, and 3 percent in utilities. The remaining 11 percent were spread across various sectors including retail trade, wholesale trade, transportation and warehousing, and various service industry sectors.

Figure 4: Top industries of employment, five years after 2009-2010 program year

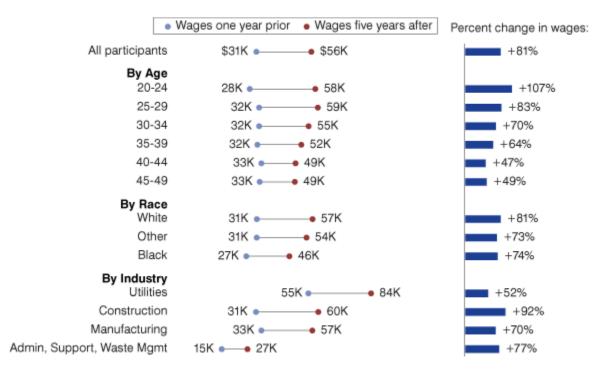


Source: Indiana Department of Workforce Development

Wage outcomes

The most notable outcome among the 2009-2010 apprenticeship participants was the increase in wages for employed participants from one year prior to the program year to five years after the program year. Among all employed participants, wages increased from an average of \$31,171 in the year prior to the program year to \$56,374 five years after the program year. This is an increase of 81 percent (or 10.4 percent annual wage growth over six years).

Figure 5: Wage outcomes by age, race, and industry, 2009-2010 program year



Note: Represents average wages among employed participants in each time period. Source: Indiana Department of Workforce Development

On average, younger participants saw larger wage increases. Wages jumped from \$28,119 to \$58,200 in the 20-to-24 age group (a 107 percent increase), while the 45-to-49 group saw a 49 percent increase from \$32,686 to \$48,781. Nevertheless, that 49 percent increase still represents a 6.9 percent annual growth rate over six years.

Nonwhite participants received somewhat smaller wage increases (73 to 74 percent) than white participants (81 percent).

Of the four most popular sectors of employment, the utilities sector stood out as a high-paying sector both for beginning wages and wages five years after the program year. Utilities employees saw a 52 percent wage increase from \$55,012 to \$83,707. This \$28,695 increase was the largest of the four sectors.

Construction, the most popular industry of employment among apprenticeship participants, saw an increase from \$31,004 to \$59,529 (a 92 percent increase).

Wages of participants in the manufacturing sector rose 70 percent from \$33,452 to \$56,793, while participants in the low-wage administrative services sector experienced a 77 percent increase from \$15,277 to \$27,110.

The future of apprenticeship in Indiana

In Indiana, the future of apprenticeship is bright. Two of the most popular occupations for apprentices—electricians and plumbers—are also among the Hoosier Hot 50 list of Indiana's fastest-growing, high-wage jobs of the future.⁵ These programs also tend to have some of the highest completion rates of all programs at Ivy Tech Community College.⁶

The Indiana Department of Workforce Development (DWD) sees apprenticeship as proven, on-the-job training that produces benefits for both apprentices and employers. DWD is committed to growing and expanding apprenticeship opportunities in the state, and was recently awarded a \$200,000 ApprenticeshipUSA State Accelerator Grant by the U.S. Department of Labor. This grant will provide technical assistance for planning and developing Indiana's state apprenticeship program.

In addition, the National Governor's Association Center for Best Practices selected Indiana as one of six states to participate in their Policy Academy on Work-Based Learning. Throughout this 18-month policy academy, Indiana will develop and refine strategies to elevate, define, enhance, scale and measure work-based learning opportunities that connect young adults (16-29) to quality work-based experiences.

DWD has submitted a formal proposal for up to \$3 million in additional funding in the form of ApprenticeshipUSA State Expansion Grants from the U.S. Department of Labor. This funding would be used to expand and diversify registered apprenticeship opportunities in Indiana. Visit www.mynextmove.org/ to find growing occupations with registered apprenticeship programs in Indiana.

Notes

- 1. The White House, Office of the Press Secretary, "FACT SHEET: Investing \$90 Million through ApprenticeshipUSA to Expand Proven Pathways into the Middle Class," April 21, 2016, www.whitehouse.gov/the-press-office/2016/04/21/fact-sheet-investing-90-million-through-apprenticeshipusa-expand-proven.
- 2. Indiana University press release, "IU Economist Reveals 'Seven Secrets' for Germany's Resurgence, Highlights Lessons for U.S." October 21, 2015, http://news.indiana.edu/releases/iu/2015/10/germany-seven-secrets-book.shtml.
- 3. U.S. Bureau of Labor Statistics, "Apprenticeship: Earn While You Learn," Summer 2013, www.bls.gov/careeroutlook/2013/summer/art01.pdf.
- 4. This includes anyone participating in an apprenticeship during the year, regardless of how far they are into the apprenticeship or whether they ultimately completed the program.
- 5. View all of the Hoosier Hot 50 Jobs at https://netsolutions.dwd.in.gov/hh50/joblist.aspx.
- 6. Indiana Commission for Higher Education, "Strengthening Indiana's Community College System: A Report in Response to House Enrolled Act 1001-2015," December 10, 2015, https://iga.in.gov/static-documents/0/f/b/d/0fbd3a26/lvy_Tech_Report_and_Recommendations_12_10_15_FINAL.pdf.

This article was originally published in the Sept-Oct INContext $\underline{\text{http://www.incontext.indiana.edu/2016/sept-oct/article2.asp}$

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) shows the total over the year change for August 2017 is an increase of 12% over the prior year. Manufacturing along with Healthcare and Social Assistance currently have the most current job postings.

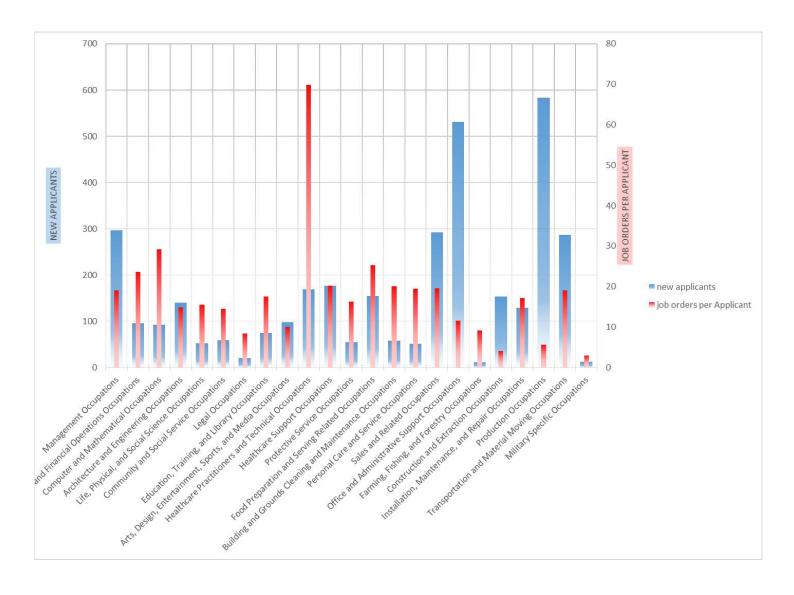
Aug-2017		Prior Year		(Current Year		Chang	e over Prio	r Year
NAICS_title	June	July	August	June	July	August	June	July	August
Manufacturing	1,666	1,647	1,698	1,852	1,564	1,906	11%	-5%	12%
Health Care and Social Services	2,182	2,353	2,118	2,270	2,292	2,413	4%	-3%	14%
Admin. & Support & Waste Mgt. & Rem. Services	1,193	1,032	1,244	989	1,131	1,266	-17%	10%	2%
Finance and Insurance	196	249	270	206	253	315	5%	2%	17%
Professional, Scientific, and Technical Services	593	681	698	716	714	876	21%	5%	26%
Transportation & Warehousing	448	511	440	406	354	469	-9%	-31%	7%
Public Administration	181	143	153	206	167	206	14%	17%	35%
Other Services(Except Public Administration)	160	170	171	186	170	162	16%	0%	-5%
Retail Trade	826	835	911	704	760	864	-15%	-9%	-5%
Educational Services	644	752	663	711	319	312	10%	-58%	-53%
Information	310	383	275	210	231	241	-32%	-40%	-12%
Accommodation and Food Services	260	619	654	1,276	305	200	391%	-51%	-69%
Construction	165	124	147	173	146	164	5%	18%	12%
Wholesale Trade	412	377	390	410	482	535	0%	28%	37%
Real Estate and Rental and Leasing	99	107	102	133	148	190	34%	38%	86%
Unallocated	17	9	4	4	4	4	-76%	-56%	0%
Mining	25	20	18	9	10	3	-64%	-50%	-83%
Utilities	78	72	102	87	88	82	12%	22%	-20%
Agriculture, Forestry, Fishing and Hunting	17	15	18	20	18	30	18%	20%	67%
Arts, Entertainment, and Recreation	18	25	23	26	27	6	44%	8%	-74%
Management of Companies and Enterprises	21	20	10	13	17	24	-38%	-15%	140%
Total	9,511	10,144	10,109	10,607	9,200	10,268	12%	-9%	2%

This does not include jobs scraped from other websites.

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

Online job posting demand varies by industry, and some industries often over represent true demand. Some employers may post for several 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. Please note these postings are limited to those that have been assigned an industry classification and do not reflect the grand total of all job postings from Indiana Career Connect.

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



INDemand Jobs

INDIANA CAREER READY is a new Indiana Department of Workforce Development website that focuses on high-demand, high-wage jobs for today and tomorrow. The INDemand focus will help ensure a long and rewarding career. The demand indicator used is based on a methodology that ranks all Indiana jobs based on future growth and wages. Whether you are searching for your first job, changing jobs, re-entering the workforce or planning a career change make the INDemand Jobs page the cornerstone of your efforts.

https://www.indianacareerready.com/Occupation/Demand?nav=jobseeker

Updated Methodology

Indiana has established an occupational demand ranking system designated by flames. An occupation will be assigned between 1 and 5 flames, depending on how "in demand" that occupation is in Indiana. The methodology for the occupational demand ranking system is detailed below.

Each occupation in Indiana is designated a 1-10 score in 5 categories: Total Openings (X2), Growth Openings, Percentage Change, Real Time Labor Market Information, and Wages for both Short Term and Long Term outlook using 2015-2017 Short Term Projections and 2014-2024 Long Term Projections and Bureau of Labor Statistics wage estimates. The scoring method is determined by deciles or, in other words, a percentile system ranging from the 90'th percentile down to the 10'th percentile and under. The averaged total for each occupation is then divided by 2 to produce an Indiana Demand Ranking in both outlooks. Lastly, both the short term and long term outlook Indiana Demand Ranking scores for each occupation are averaged to calculate the occupation's final rating.

SOCCode	SOCTitle	Stars
15-1132	Software Developers, Applications	****
13-1111	Management Analysts	****
11-1021	General and Operations Managers	****
13-1161	Market Research Analysts and Marketing Specialists	****
29-1171	Nurse Practitioners	****
29-1123	Physical Therapists	****
13-2011	Accountants and Auditors	****
13-2052	Personal Financial Advisors	****
15-1121	Computer Systems Analysts	****
17-2141	Mechanical Engineers	****
11-9111	Medical and Health Services Managers	****
47-2152	Plumbers, Pipefitters, and Steamfitters	****
49-9041	Industrial Machinery Mechanics	****
47-2111	Electricians	****
11-3021	Computer and Information Systems Managers	****
17-2112	Industrial Engineers	****
29-1069	Physicians and Surgeons, All Other	****
29-1141	Registered Nurses	****
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	****
47-2061	Construction Laborers	****

B1 Labor Force

Section B: Workforce Analysis

Estimates

Indiana's unemployment rate dropped from a 10 year peak of 10.3 in 2009, to 4.8% annually in 2015. By 2016 the rate has fell to 4.4% and the labor force surged to all-time highs. This trend has continued into 2017.

IND	INDIANA LABOR FORCE AND UNEMPLOYMENT Non-Seasonally Adjusted 1997 - 2017						
Year	Labor Force	Employment	Unemployment	Unemployment Rate			
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	3,181,991	2,891,945	290,046	9.1			
2012	3,169,835	2,905,549	264,286	8.3			
2013	3,190,963	2,946,557	244,406	7.7			
2014	3,227,194	3,035,178	192,016	5.9			
2015	3,271,536	3,114,002	157,534	4.8			
2016	3,326,893	3,179,806	147,087	4.4			

Unemployment rates continued to fall statewide in 2015, with the lowest unemployment levels in Economic Growth Region 2, Region 5 and Region all tied with 4.0% unemployment.

Indiana Regional Labor Force Data

INDIANA ECONOMIC GROWTH REGIONS (EGRs), LABOR FORCE AND UNEMPLOYMENT (N.S.A.), 2016						
EGR	Labor Force	Employment	Unemployed	Unemployment Rate		
EGR 1	407,773	383,630	24,143	5.9		
EGR 2	317,268	304,516	12,752	4.0		
EGR 3	380,276	364,550	15,726	4.1		
EGR 4	252,629	241,884	10,745	4.3		
EGR 5	1,012,790	971,908	40,882	4.0		
EGR 6	157,606	149,896	7,710	4.9		
EGR 7	101,560	96,190	5,370	5.3		
EGR 8	149,379	142,099	7,280	4.9		
EGR 9	169,052	162,118	6,934	4.1		
EGR 10	151,314	144,871	6,443	4.3		
EGR 11	227,247	218,145	9,102	4.0		

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

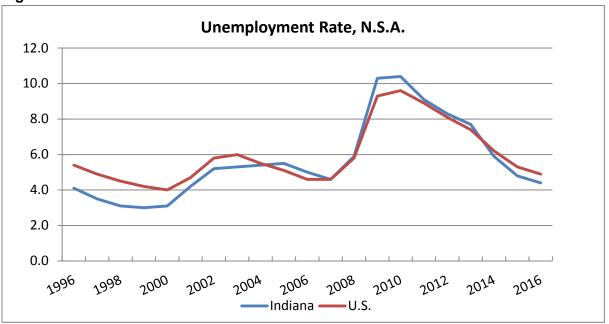
Unemployment Rates

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. Since 2014 has been Indiana below the US rate. The table and chart on the next page illustrates how Indiana's unemployment rate has compared to the Nation as a whole over this time frame.

Table 4

1994-2016 INDIANA UNEMPLOYMENT RATES, NON-SEASONALLY ADJUSTED						
(ANNUAL AVERAGES OF MONTHLY DATA)						
Year	Indiana	U.S.				
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				
2016	4.4	4.9				

Figure 4



The gains to Indiana's labor force are also significant. As Indiana's labor force participation rate remained over a full percentage point above the national average. As of December 2016 the Indiana rate was 64.1% and the U.S. rate was 62.7% indicating that 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 4.0% are beginning to suffer from labor shortages as employers compete for qualified workers.

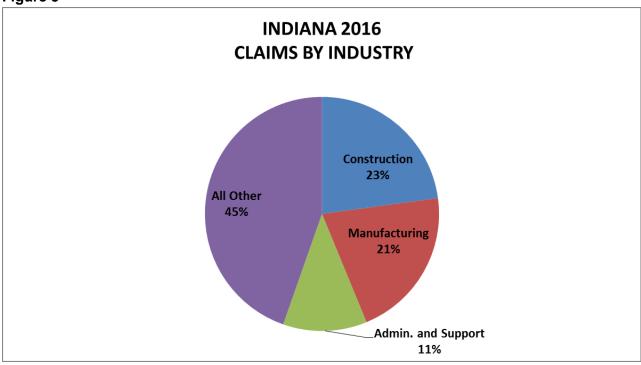
County Unemployment Rates August 2016

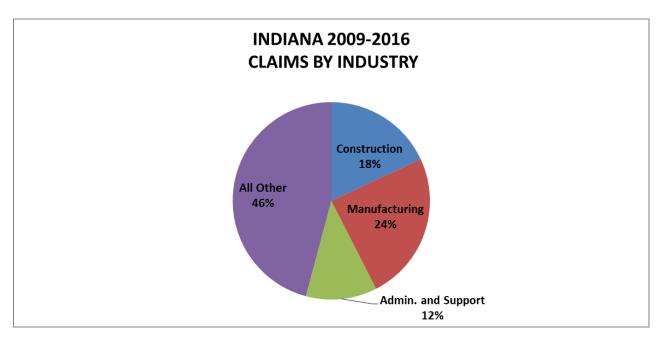


Unemployment Claims by Industry

The manufacturing and construction industries have 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 2009-2016 manufacturing accounted for over almost a fourth of all claims but in 2017 this dropped to 16%. Conversely construction from 2009-2016 was at 18% but for 2017 alone it had risen to 26% of all claims.

Figure 5



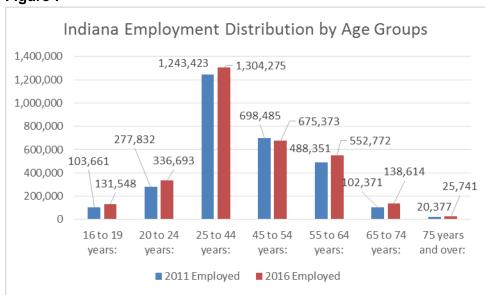


B2 Workforce and Industry Composition

Age Distribution of the Workforce

The age distribution of Indiana's workforce is shown in Figure 7. Between the 2011 and 2016 estimates of the age distribution, Indiana's workforce continued to grow older. The number of workers age 55 and older increased from 611,099 to 717,127. Workers under age 55 increased from 2.32 million to 2.45 million reversing a trend of recent years. This shift reflects an increased participation in the labor force among workers of all ages in 2016.

Figure 7



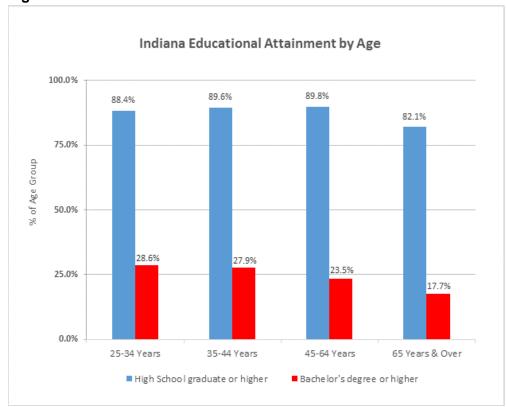
B3 Education

Rates of educational attainment continue to rise Indiana. Since 2000, the percent of the population 25 and older with at least a Bachelor's degree rose from 19.4% to 24.1% as illustrated below. The percent of the population without a high school diploma fell from 17.9% to 12.2%, 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, 2014, and 2016						
	2000	Pct. Of Pop. 25+	2014	Pct. Of Pop. 25+	2016	Pct. Of Pop. 25+
Total Population 25+	3,893,278	100.0%	4,292,107	100.0%	4,316,273	100%
Less than High School Diploma	695,540	17.9%	531,690	12.4%	524,854	12.2%
High School Graduate (incl. equivalency)	1,447,734	37.2%	1,500,737	35.0%	1,494,302	34.6%
Some College, No Degree	768,856	19.7%	900,442	21.0%	901,226	20.9%
Associate's Degree	225,535	5.8%	347,313	8.1%	355,635	8.2%
Bachelor's or Higher Degree	755,613	19.4%	1,011,925	23.6%	1,040,256	24.1%

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

Figure 1



Source: 2011 Census and 2013, 2015 ACS 5-year estimates

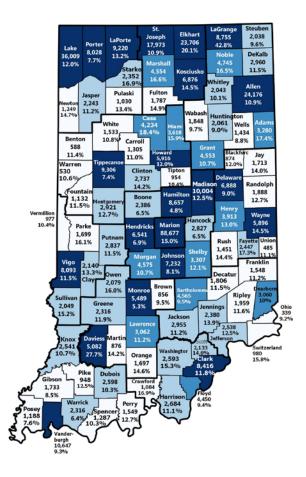
Adults Age 18 to 64 without a High School Diploma or GED, 2015

Number of Adults



Labels also show the percent of adults age 18 to 64 without a high school diploma or equivalent.

Source: Indiana Department of Workforce Development, using American Community Survey fiveyear estimates, September 2017

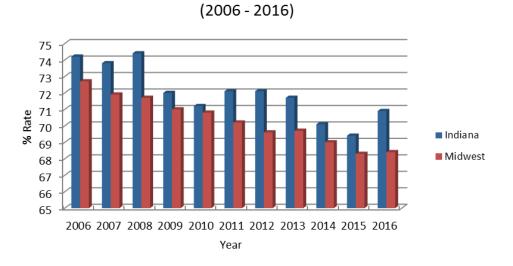


B4 Housing

Homeownership Rates

According to data from the U.S. Bureau of Census's Housing Vacancy Survey (HVS), from 2006 to 2016 Indiana maintained a higher percentage of homeownership in comparison to the Midwest region as a whole. Indiana showed declines in Homeownership from 2012-2015 but that has leveled off in 2016. 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 ten year time frame from 2006-2016. In 2016, the state finished with a homeownership rate of 70.9% compared to the Midwest's 68.4%. For a year by year comparison, see Figure 7.

Figure 7



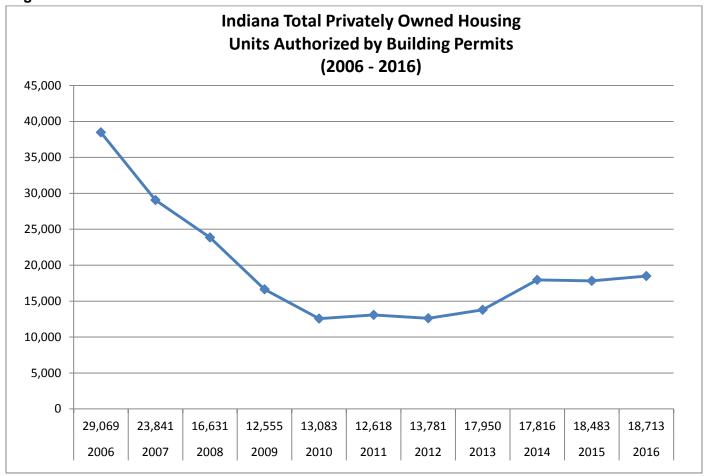
Indiana and Midwest Homeownership Rates

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 fifth straight year Indiana number of home building permits grew. In 2016 there were 18,713 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

Indiana Department of Workforce Development October 2017