



# THE STATE OF THE UNIONS 2016

*A Profile of Unionization in Indianapolis, in Indiana, and in America*

May 23, 2016

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Research Report

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## **EXECUTIVE SUMMARY**

Unionization has significantly declined in Indiana. Today, there are approximately 52,000 fewer union members in Indiana than there were in 2006, contributing to the reduction of 573,000 union workers across the nation over the past ten years. The decline in union membership has occurred in both the public sector and the private sector in Indiana.

Consequently, the total number of labor unions and similar labor organizations has declined over the past decade. There are 448 labor unions and similar organizations in Indiana, a decline of 126 worker establishments over the past ten years (-22.0 percent). There are also 1,589 fewer individuals working for labor unions and similar organizations today than there were one decade ago.

Indiana's "right-to-work" law has contributed to lower union membership. After the policy was implemented, union membership fell from 11.2 percent in 2011 to 9.1 percent in 2012. An initial Lake Superior Court ruling by Judge Sedia in September 2013 struck down the law and union membership rebounded to 10.7 percent in 2014. However, a November 2014 decision by the Indiana Supreme Court reversed the lower court's ruling and deemed "right-to-work" constitutional. Union membership subsequently fell in 2015.

As of 2015, the overall union membership rate is 10.0 percent in Indiana:

- Men are much more likely to be unionized (13.2 percent) than women (6.6 percent) in the state.
- Veterans are among the most unionized socioeconomic groups in Indiana (20.1 percent).
- By educational attainment, the most unionized workers in Indiana hold Master's degrees (14.2 percent) and associate's degrees (13.6 percent).
- Public sector unionization (27.4 percent) is nearly four times as high in Indiana as private sector unionization (7.5 percent).

Union membership is influenced by a number of factors. Employment in the public sector and in manufacturing both raise the chances that a given worker is a union member. Native-born and naturalized citizens are also statistically more likely to be union members than their non-citizen counterparts. On the other hand, workers employed in management, business, financial, sales, office support, service, professional, and agricultural occupations are all less likely to be unionized than their counterparts in production jobs.

There is positive news for Indiana's labor movement. Labor unions increase individual incomes by lifting hourly wages. In Indiana, unions raise worker wages by an average of 15.1 percent. The state's union wage effect is the 2<sup>nd</sup>-highest in the nation and higher than all bordering states. The union wage differential is greatest for the middle 50 percent of workers, ranging from a 15.3 percent to a 17.9 percent increase in worker earnings. Unions therefore help in fostering a strong middle class in Indiana.

Organized labor still plays a considerable role in Indiana's economy. As long as Indiana remains a manufacturing hub of America, the presence of labor unions will be felt in communities across the Hoosier state. However, the trend of declining union membership is likely to persist. Labor's response to these challenges could define its influence and effectiveness in the decades to come.

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## **INTRODUCTION**

Organized labor has been the country's principal institution in fostering a middle-class society that protects the dignity of all work. Unions have fought on behalf of workers for better pay and fringe benefits, worked to increase health and safety conditions in U.S. workplaces, and provided workers with a voice in the direction of the economy and in the creation of public policy. Over the long run, the labor movement has contributed substantially to American families and communities.

Nevertheless, the labor movement has endured a gradual decline in both membership and influence. Almost one-in-four American workers (23.0 percent) were members of labor unions in 1980. Three and a half decades later, in 2015, only one-in-nine employed persons in America (11.1 percent) are unionized (Hirsch & Macpherson, 2016). Concurrently, as unionization rates have waned, income inequality has soared.

Declining unionization and polarizing worker incomes are linked: The decline of organized labor accounts for between one-fifth and one-third of the growth in inequality (Western & Rosenfeld, 2011). The divergence between worker productivity and worker pay has also been largest in states where collective bargaining coverage has declined the most (Cooper & Mishel, 2015). Indiana has not been immune to these trends. From 2009 to 2012, earnings for the top 1 percent increased by 26.3 percent, while incomes grew by just 4.2 percent for the bottom 99 percent of workers in Indiana- meaning that the richest 1 percent captured half of all the growth in income over that time (Sommeiller & Price, 2015).

The decline in unionization is likely to continue in Indiana. On February 1, 2012, the Governor signed a "right-to-work" law, which became effective beginning on March 15, 2012. The law is a statewide regulation that bars labor unions from including "union security" or "fair share" clauses in collective bargaining agreements with employers. These clauses ensure that all members of a bargaining union who receive the benefits of collective bargaining contribute their fair share of dues or membership fees. Without the clauses, workers can "free ride," enjoying all the benefits of unionization- e.g., a higher wage, better benefits, and a voice at work- without contributing.

An initial economic impact analysis of right-to-work in Indiana found that labor market performance in Indiana has not surpassed that of neighboring states. Wage and employment growth in the construction industry, in particular, fell significantly below the rest of the region. In addition, the policy lowered hourly wages in the state economy by between 1.1 percent and 1.5 percent. Indiana's experience illustrates that right-to-work is not a "quick fix" to poor labor market performance (Manzo, 2015).

Regardless of the economic data, Indiana's "right-to-work" legislation has faced legal battles. In September 2013, Lake Superior Judge John Sedia ruled the law unconstitutional (*Northwest Indiana Times*, 2014). Judge Sedia found that the law violated Article 1, Section 21 of Indiana's Constitution, which states that "No person's particular services shall be demanded, without just compensation." The law makes it illegal for unions to collect just compensation for services they are required to provide by law. However, in November 2014, the Indiana Supreme Court voted to reverse Judge Sedia's decision, deeming "right-to-work" constitutional in the state. These legal challenges had impacts on overall union membership.

This report, conducted by researchers at the Midwest Economic Policy Institute and the Project for Middle Class Renewal at the University of Illinois at Urbana-Champaign analyzes the course of unionization in Indiana and in the United States from 2006 to 2015. Data from 2015 are also analyzed for the Indianapolis metropolitan statistical area (MSA). The report is modeled off of *The State of the Unions 2016: A Profile of Unionization in Chicago, in Illinois, and in America* (Manzo et al., 2016). That study is itself a replication of both *The State of the Unions 2015: A Profile of Organized Labor in New York City, New York State, and the United States* by the Joseph S. Murphy Institute for Worker Education and Labor Studies at the City University of New York Graduate Center (Milkman & Luce, 2015)

and *From '15 to \$15: The State of the Unions in California and its Key Cities in 2015* by the Institute for Research on Labor and Employment at the University of California, Los Angeles (Adler et al., 2015). This version for Indiana tracks unionization rates and investigates union membership across demographic, educational, sectoral, industry, and occupational classifications. The study subsequently evaluates the impact that labor union membership has on a worker's hourly wage in Indiana and in America. Additionally, data on labor unions and similar labor organizations are included and analyzed. The report concludes by recapping key findings.

## **DATA AND LIMITATIONS**

Except in one section, this Research Report exclusively utilizes data from the *Current Population Survey Outgoing Rotation Groups* (CPS-ORG). The CPS-ORG is collected, analyzed, and released by the U.S. Department of Labor Bureau of Labor Statistics (BLS). CPS-ORG data reports individual-level information on 25,000 respondents nationwide each month. The records include data on wages, unionization, hours worked, sector, industry, and occupation, as well as other demographic, geographic, education, and work variables. The data was extracted from the user-friendly Center for Economic and Policy Research Uniform Data Extracts (CEPR, 2016).

The 10-year dataset from 2006 to 2015 captures information on 3,180,524 individuals aged 16 to 85 in the United States. These observations include 1,914,358 persons with a job, of whom 199,670 reported that they were union members. Survey responses include information from 28,922 employed individuals in Indiana and since 2006. In 2015, respondents with at least one job totaled 2,998 in Indiana and 184,915 nationwide. "Indianapolis MSA" workers are defined as only those who live in the Indianapolis-Anderson-Columbus, Indiana Metropolitan Statistical Area.

Analytic weights are provided by the Department of Labor to match the sample to the actual U.S. population 16 years of age or greater. These weights adjust the influence of an individual respondent's answers on a particular outcome to compensate for demographic groups that are either underrepresented or overrepresented compared to the total population. The weights are applied throughout the analysis.

There are limitations to the CPS-ORG dataset. First, the data reports a worker's state of residence rather than state of employment, so the results may be biased by workers who live in one state but work in another (e.g., living in Indiana but working in Illinois) and vice-versa. CPS-ORG data is also based on household survey responses, so the potential exists for respondents to be untruthful. Certain individuals such as undocumented workers may also be underreported if they are more difficult to reach by survey officials. Finally, every surveyed worker does not reply to the union membership question. For example, in 2015, union membership data was only available for 2,724 of the 2,998 surveyed workers (90.9 percent) in Indiana. While this does not impact unionization *rates*, estimates are underreported for both total union workers and total nonunion employees.

In addition, economic data from the *County Business Patterns* (CBP) series from the U.S. Census Bureau is also used (Census, 2016). The CBP provides annual statistics for businesses with paid employees that are used to study economic activity and market trends. The data are published between 18 months and 24 months after the reference year, so there is a longer time lag compared to the release of CPS-ORG information.

## **UNIONIZATION RATES AND TRENDS**

Since 2006, unionization has declined in Indiana and the United States (Figure 1). The total union membership rate was 12.0 percent in Indiana and 12.0 percent nationwide in 2006. Ten years later, both rates have fallen, to 10.0 percent in Indiana and 11.1 percent in America. Spurred by a "right-to-work"

law, the decline in Indiana’s unionization rate has translated into a decrease of about 52,000 union members in Indiana since 2006, contributing to the 573,000-member national decline in union workers over that time (Figure 2).

In 2011, the year prior to enacting a “right-to-work” law, Indiana’s unionization rate was 11.2 percent. Indiana’s “right-to-work” law became effective on March 15, 2012. After the policy was implemented, union membership plummeted to 9.1 percent in 2012. The economic recovery from the Great Recession and an initial ruling by Judge Sedia in September 2013 that struck down the “right-to-work” law spurred a rebound in union membership, as Indiana’s union membership rate improved to 10.7 percent in 2014. However, a November 2014 decision by the Indiana Supreme Court reversed the lower court’s ruling and deemed “right-to-work” constitutional. Union membership subsequently fell by 0.7 percentage points to 10.0 percent in 2015.

Indiana’s union membership rate has consistently been below the national average since 2008. The 10-year combined Indiana unionization rate was 10.8 percent, 0.9 percentage points lower than the 11.7 percent national rate. On a year-by-year basis, Indiana’s union membership rate ranged from 0.4 to 2.2 percentage points lower than the national average from 2011 to 2015 (Figure 2).

FIGURE 1: UNIONIZATION RATES AND TOTAL UNION MEMBERSHIP BY REGION, 2006-2015

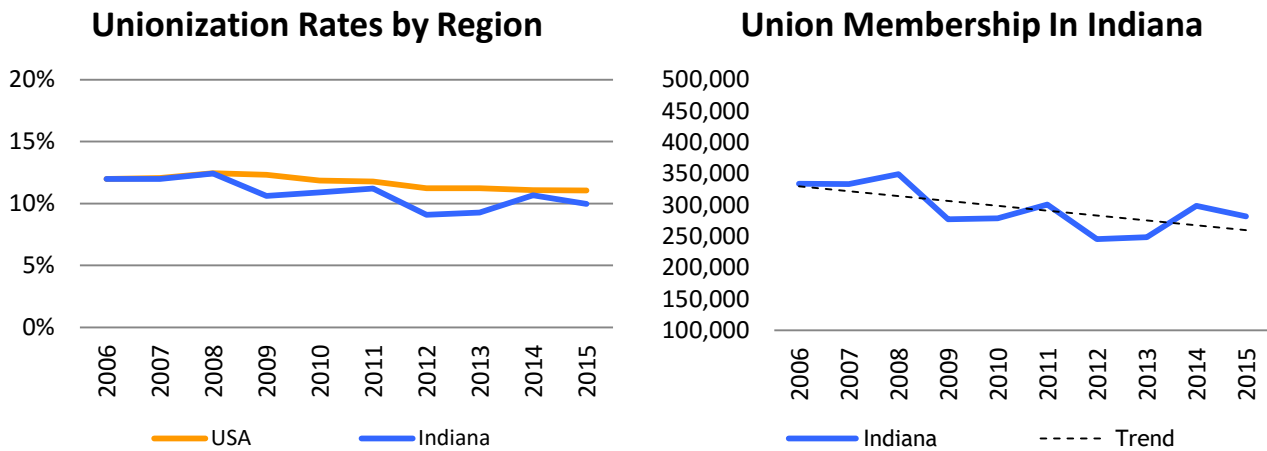


FIGURE 2: TOTAL UNION MEMBERS AND OVERALL UNIONIZATION RATES BY REGION, 2006-2015

Year	Indiana		USA	
	Members	Rate	Members	Rate
2006	334,078	11.99%	15,359,108	11.98%
2007	333,231	11.99%	15,670,352	12.08%
2008	349,316	12.43%	16,097,535	12.44%
2009	277,301	10.62%	15,327,280	12.31%
2010	278,577	10.91%	14,715,061	11.86%
2011	300,740	11.21%	14,754,673	11.78%
2012	245,383	9.08%	14,349,358	11.25%
2013	248,604	9.27%	14,515,755	11.24%
2014	298,886	10.67%	14,569,936	11.08%
2015	282,047	9.98%	14,786,281	11.05%
<b>Totals</b>	<b>2,948,162</b>	<b>10.82%</b>	<b>150,145,339</b>	<b>11.70%</b>

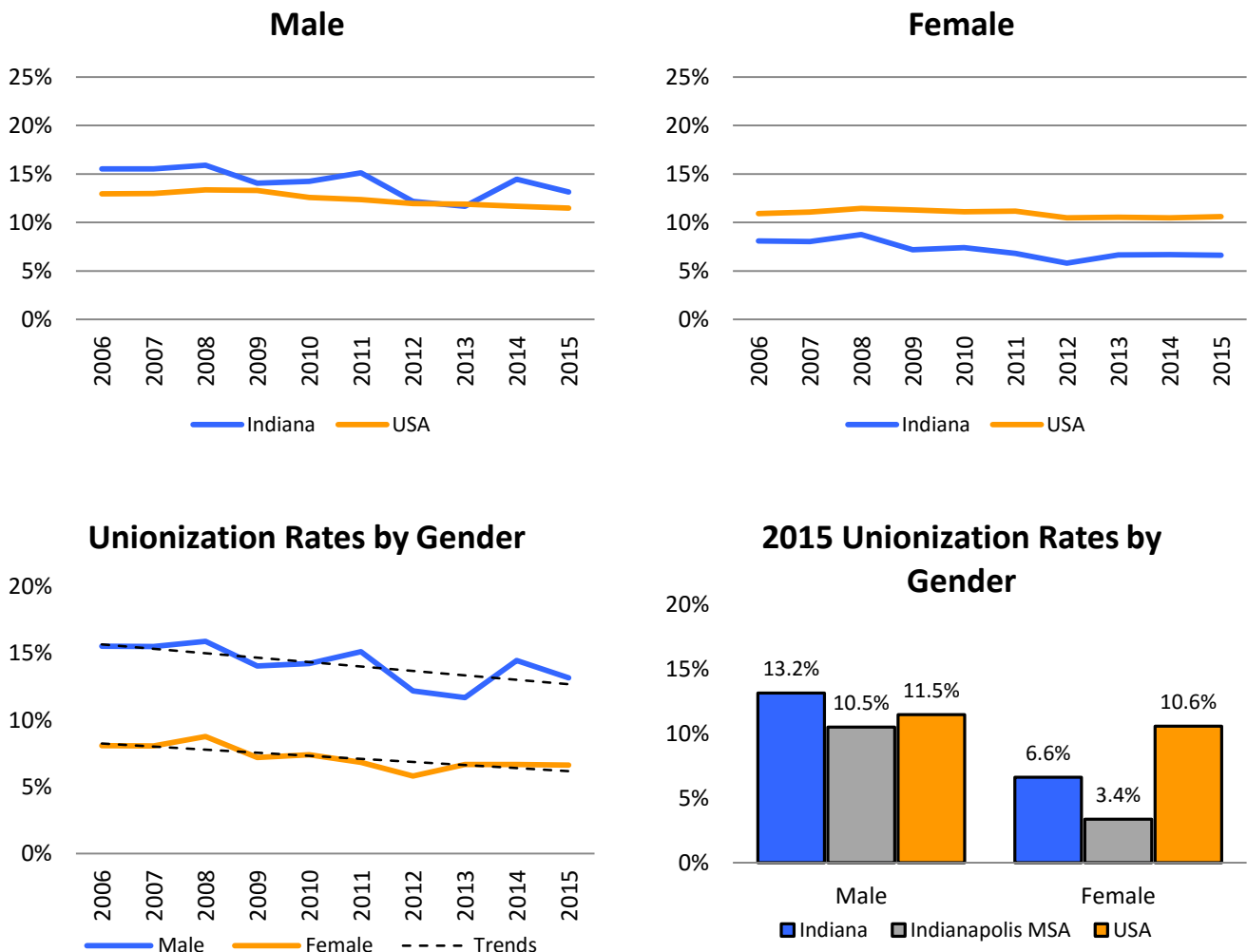
## UNIONIZATION BY DEMOGRAPHICS

Falling rates of unionization have reflected declines in union membership among both men and women (Figure 3). An estimated 15.5 percent of employed men were unionized in 2006, but the 2015 male unionization rate in Indiana fell to 13.2 percent. The male unionization rate has also decreased in the nation as a whole. Since 2006, male union density has dropped by 2.3 percentage points in Indiana and by 1.5 percentage points in the United States.

While men are much more likely to be unionized than women, the female union membership rate has also fallen (Figure 3). As of 2015, the female unionization rate is just 6.6 percent in Indiana and 10.6 percent nationwide. Since 2006, female union membership has decreased by 1.5 percentage points in Indiana and by 0.3 percentage points in the United States.

One of the reasons that Indiana’s overall union membership rate is below the national rate is because union density is relatively low in the Indianapolis MSA (Figure 3). At 10.5 percent, male unionization in the Indianapolis area is 2.7 percentage points lower than the comparable Indiana figure and 1.0 percentage points lower than the male unionization rate in America. Similarly, just 3.4 percent of female workers in the Indianapolis region are unionized - 3.2 percentage points lower than women in Indianapolis overall and 7.2 percentage points lower than women across America.

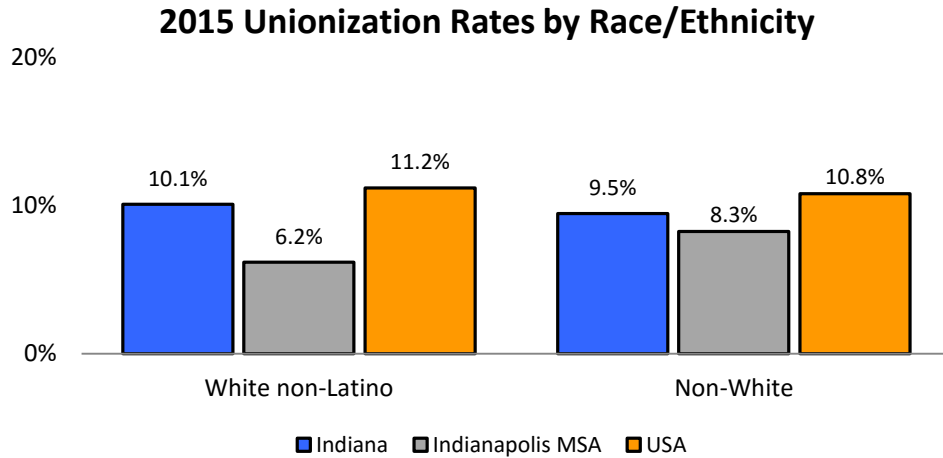
FIGURE 3: GRAPHS OF UNIONIZATION RATES BY GENDER, 2006-2015





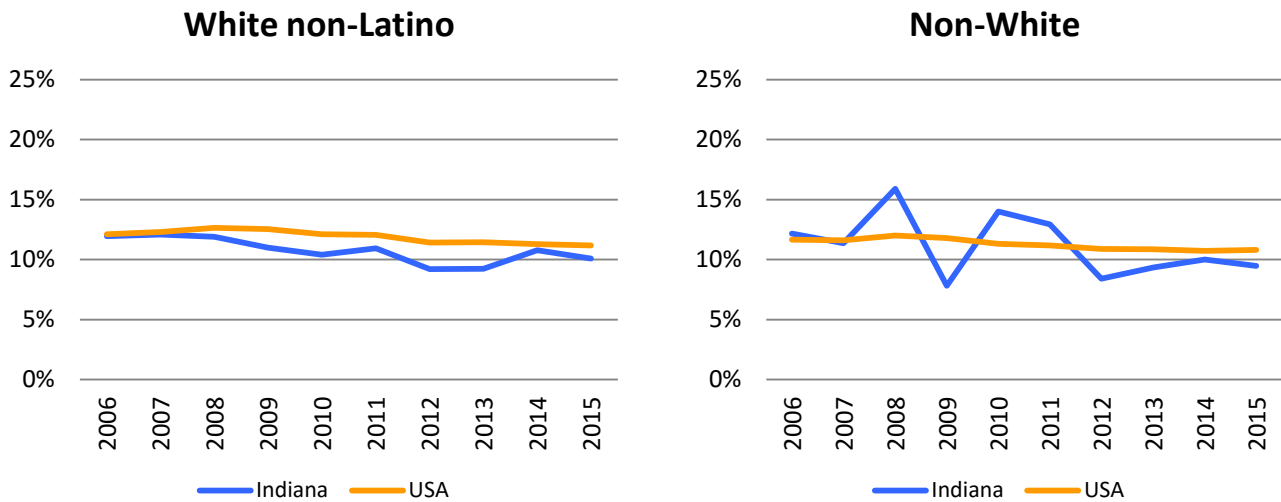
No racial or ethnic identity group is definitively more likely to be unionized in Indiana than any other (Figure 4). In Indiana, the unionization rate for white, non-Latino workers is 10.1 percent and the unionization rate for all non-white minorities was 9.5 percent - a difference that is not statistically significant. However, non-white workers are slightly more likely to be union members in the Indianapolis MSA (8.3 percent) than white employees (6.2 percent). For both the Indianapolis MSA and Indiana more broadly, racial or ethnic unionization rates are below the comparable national average.

FIGURE 4: UNIONIZATION RATES BY RACIAL OR ETHNIC IDENTIFICATION BY REGION, 2015



Over time, union membership has fallen for both racial identity groups (Figure 5). From 2006 to 2015, unionization in Indiana fell by 1.9 percentage points for white, non-Latino workers and by 2.7 percentage points for all other non-white workers. It is worth noting, however, that non-white union membership estimates fluctuate from year to year due to relatively smaller sample sizes.

FIGURE 5: GRAPHS OF UNIONIZATION RATES BY RACIAL OR ETHNIC IDENTIFICATION, 2006-2015



Unionization rates are higher for middle-aged workers than young workers (Figure 6). Except for the Indianapolis MSA, unionization rates are highest for workers between the ages of 35 and 64 years old. In Indiana, the most unionized workers by age are those between 45 and 54 years old (13.3 percent). However, in the Indianapolis economic regions specifically, the cohort with the highest unionization is workers aged 65 and older, with a union density of 12.3 percent. For young workers aged 16 to 24, unionization rates are only about 3 or 4 percent for Indiana, the Indianapolis MSA, and the nation. Overall, the average age of union workers is about 44 years old and the average age of nonunion workers

is about 41 years old, regardless of region studied (Figure 7). The findings generally indicate that union organizing of new workers in the labor force has been limited.

FIGURE 6: UNIONIZATION RATES BY AGE GROUP BY REGION, 2015

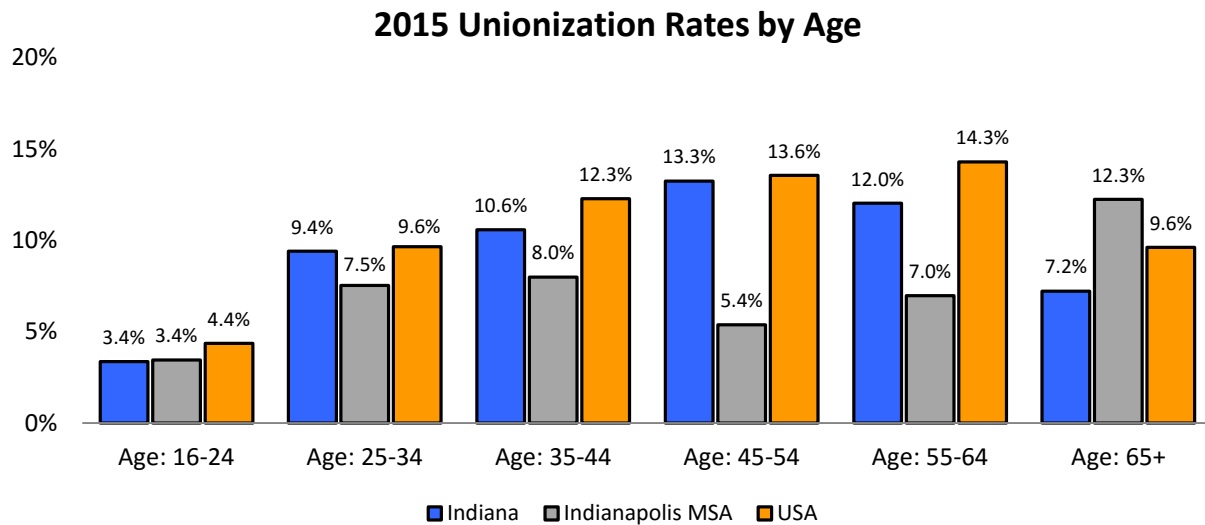


FIGURE 7: AVERAGE AGE OF UNION AND NONUNION WORKERS BY REGION, 2015

2015 Variable	Age (Years)	
	Nonunion	Union
Indiana	41.09	44.11
Indianapolis MSA	41.27	43.77
USA	40.94	44.51

Union membership varies across other demographic classifications as well (Figure 8). Among the most unionized socioeconomic groups are military veterans. About one out of every five employed veterans is in a union in Indiana (20.1 percent) and in the Indianapolis MSA (17.6 percent). For the United States, approximately 15.1 percent of employed veterans are members of unions. The unionization rate for married workers is also relatively high in Indiana and the United States. Conversely, foreign-born immigrant workers experience lower union membership rates. Interestingly, foreign-born workers are more likely to be unionized (8.6 percent) than native-born and naturalized citizens (6.2 percent) in the Indianapolis MSA. In the rest of Indiana and the rest of America, however, native-born and naturalized citizens are more likely to be union members than foreign-born workers.

FIGURE 8: UNIONIZATION RATES OF SELECT DEMOGRAPHIC VARIABLES BY REGION, 2015

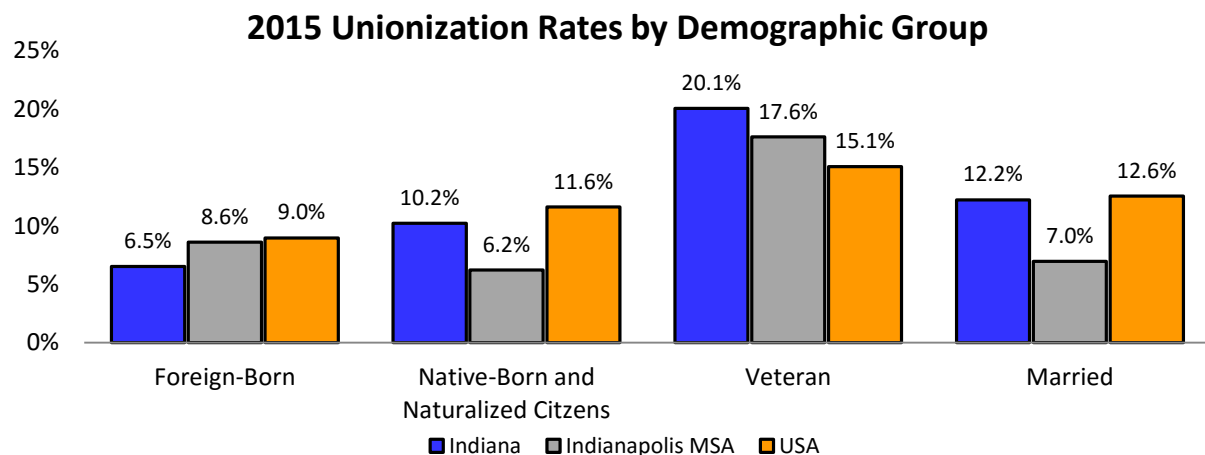
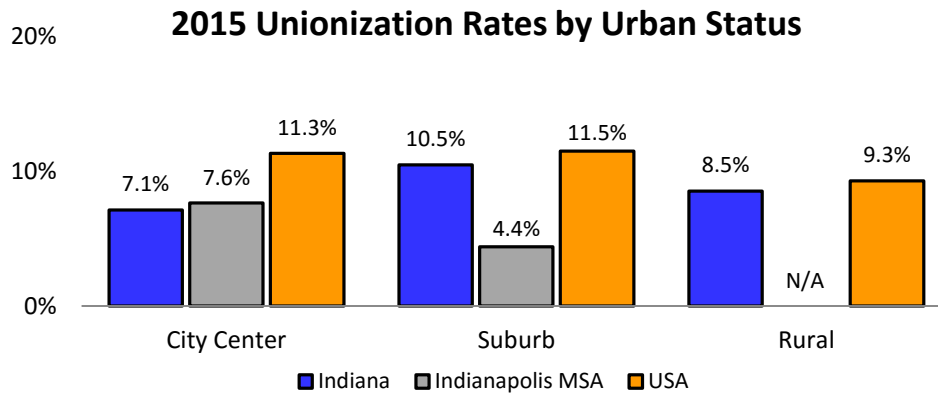


Figure 9 reveals that unionization is relatively weak in the suburbs of Indianapolis. In Indianapolis, workers who reside in the central city have a unionization rate of 7.6 percent compared to just 4.4 percent for those who live in the suburbs. Nevertheless, in Indiana overall, suburban areas are the *most* unionized (10.5 percent). This is largely due to the higher levels of union density in the northwestern Indiana suburbs of Chicago, Illinois. Rural Indiana has a lower unionization rate (8.5 percent) than suburban Indiana (10.5 percent), but a slightly higher rate compared to those in Indiana’s urban cores (7.1 percent). Regardless of urban status, the comparable figures for the United States as a whole are higher.

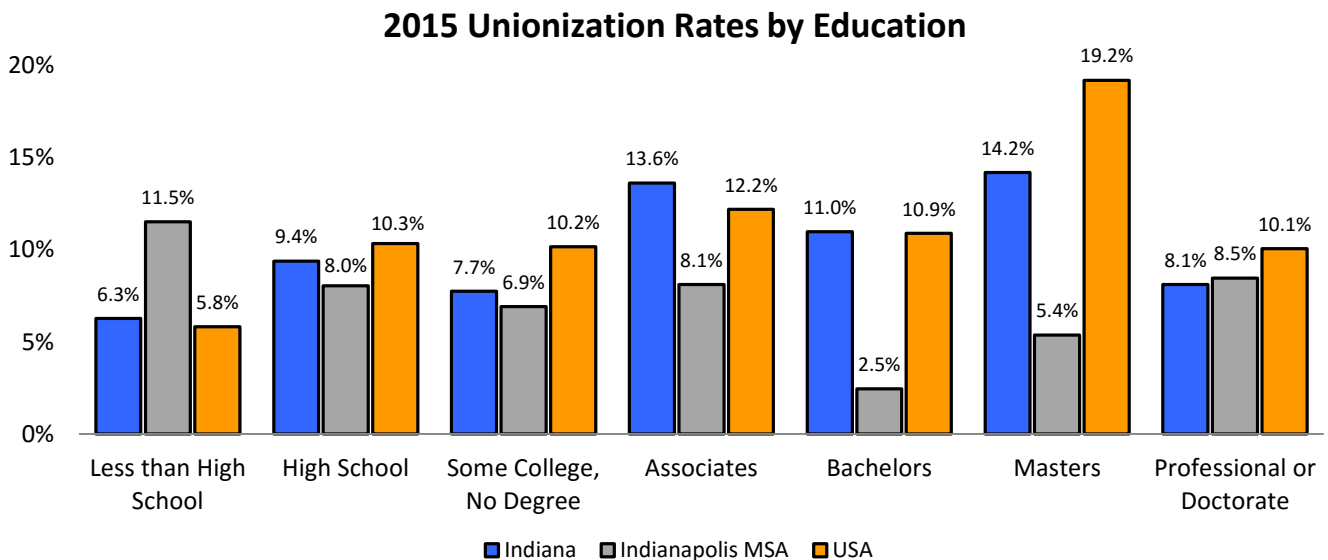
FIGURE 9: UNIONIZATION RATES BY URBAN STATUS BY REGION, 2015



### UNIONIZATION BY EDUCATION

Workers with master’s degrees are the most unionized educational group in Indiana and in America (Figure 10). At 14.2 percent and 19.2 percent respectively, unionization among master’s degree holders in Indiana and in America largely tower over the rates of all other educational attainment groups in each region studied. In Indiana and the United States, the second-most unionized employees by educational attainment are those with associate’s degrees. Those without a high school degree are the least unionized educational group in Indiana and in America. Only 6.3 percent of workers without a high school degree are union members in Indiana and just 5.8 percent are across the country.

FIGURE 10: UNIONIZATION RATES BY EDUCATIONAL ATTAINMENT OR STATUS BY REGION, 2015



According to the data, the Indianapolis region is a bit of an outlier. In the Indianapolis MSA, the most unionized educational group is those without a high school degree (11.5 percent). Workers who have earned a professional or doctorate degree are the second-most unionized in the Indianapolis area (8.5 percent), while those with a bachelor’s degree alone are the least unionized (2.5 percent).

Over the past six years, unionization rates have slightly declined for most educational groups (Figure 11). To ensure statistical significance, Figure 11 compares the three-year averages of union membership rates of educational attainment groups in Indiana for 2010-2012 and 2013-2015. Across the seven educational classifications, the union membership rate has increased in only two cases: Workers with less than a high school degree (0.5 percentage points) and with a bachelor’s degree (1.1 percentage points). The largest declines in unionization were for individuals with high levels of educational attainment, as workers with a Master’s degree experienced a 5.2 percentage-point decline and individuals with a professional or doctorate degree saw a 2.0 percentage-point drop in unionization.

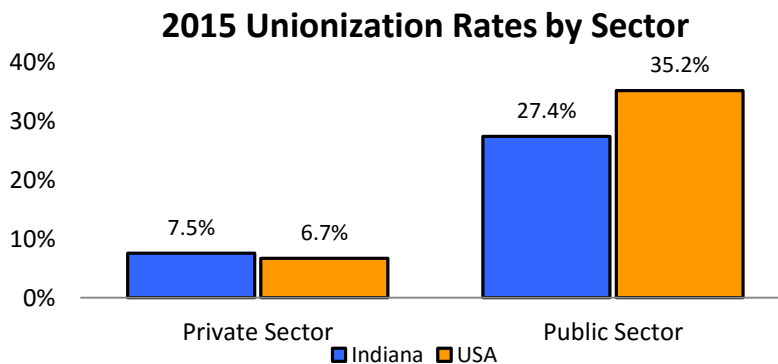
FIGURE 11: CHANGE IN UNIONIZATION RATES BY EDUCATION, THREE-YEAR AVERAGES, 2010-2015

Variable	Indiana		
	2010-12	2013-15	Change
Less than High School	5.9%	6.4%	+0.5%
High School	10.8%	10.8%	-0.0%
Some College, No Degree	9.5%	8.1%	-1.4%
Associates	12.6%	12.0%	-0.6%
Bachelors	8.2%	9.3%	+1.1%
Masters	20.8%	15.6%	-5.2%
Professional/Doctorate	7.2%	5.2%	-2.0%

### UNIONIZATION BY SECTOR, INDUSTRY, AND OCCUPATION

Unionization rates are significantly higher for public sector workers (Figure 12). About three-in-ten public sector workers are union members in both Indiana (27.4 percent) and America (35.2 percent). By contrast, fewer than one-in-ten private sector workers is now a union member in both Indiana (7.5 percent) and the United States (6.7 percent). In fact, the private sector unionization rates are closer to one out of every fifteen workers.

FIGURE 12: UNIONIZATION RATES BY SECTOR OR LEVEL OF GOVERNMENT BY REGION, 2015



Compared to the national average, Indiana has had consistently lower public sector unionization but consistently higher private sector unionization over time (Figure 13). Public sector unionization in Indiana peaked at 28.3 percent in 2011, before experiencing a trough of 21.9 percent in 2013. However, public sector unionization has rebounded to its current 27.4 percent rate. Private sector unionization, which has been between 0.4 and 2.5 percentage-points higher in Indiana than the United States every

year over the past decade, peaked at 10.1 percent in 2008 before declining to its current 7.5 percent rate.

FIGURE 13: UNIONIZATION RATES BY SECTOR BY REGION, 2006 TO 2015

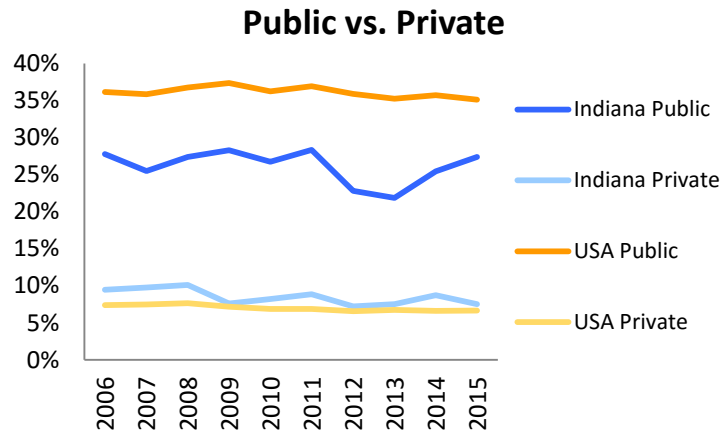
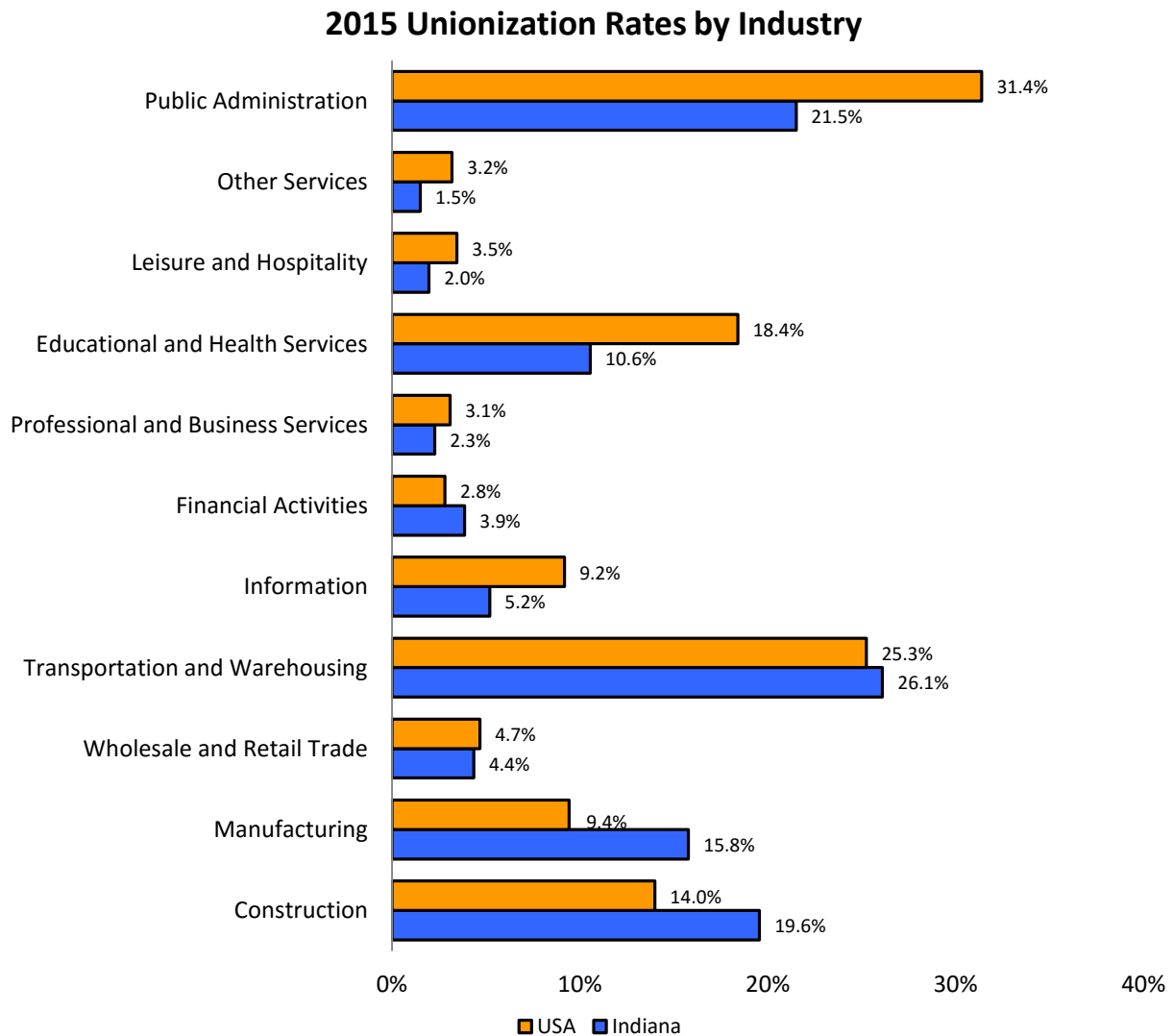


FIGURE 14: UNIONIZATION RATES BY INDUSTRY BY REGION, 2015



Union membership varies significantly by industry of employment (Figure 14). The top five industries by unionization rates in Indiana are transportation and warehousing (26.1 percent); public administration (21.5 percent); construction (19.6 percent); manufacturing (15.8 percent); and educational and health services (10.6 percent). The manufacturing workforce, associated historically as a leader in industrial unionization, is more unionized in Indiana (15.8 percent) than in America (just 9.4 percent). In addition, the manufacturing unionization rate across the border in Illinois is just 10.6 percent (Manzo et al., 2016). The least-unionized industries generally are professional and business services, financial activities, leisure and hospitality, and other services.

Figures 15 and 16 present industry breakdowns of total union membership in Indiana compared to total employment in the state. In Figure 15, industries are organized in descending order by unionization rate and weighted estimates are rounded to the nearest thousand. Note that the estimates include all *occupations* within an industry. The construction industry, for example, includes white-collar workers who typically are not union members, such as lawyers, office support workers, and architects. The top five industries with the most union members in Indiana are manufacturing (78,000 members), educational and health services (75,000 members), transportation and warehousing (35,000 members), construction (29,000 members), and public administration (25,000 members) (Figure 15). Together, union members from these five industries account for 86.8 percent of all union workers in Indiana (Figure 16).

FIGURE 15: INDIANA INDUSTRY UNIONIZATION RATES, EMPLOYMENT, AND UNION MEMBERS, 2015

Indiana (2015)	Unionization Rate	Total Employment	Total Union Members	Total Sample
Transportation & Warehousing	26.1%	135,000	35,000	128
Public Administration	21.5%	114,000	25,000	113
Construction	19.6%	146,000	29,000	138
Manufacturing	15.8%	496,000	78,000	484
Educational & Health Services	10.6%	715,000	75,000	700
Information	5.2%	41,000	2,000	39
Wholesale & Retail Trade	4.4%	390,000	17,000	375
Financial Activities	3.9%	140,000	5,000	135
Professional & Business Services	2.3%	228,000	5,000	214
Leisure & Hospitality	2.0%	257,000	5,000	234
Other Services	1.5%	122,000	2,000	119

One cautionary note must be mentioned, however. While the total sample included 2,998 respondents of persons living in Indiana who were employed (2,724 of whom offered their union membership status), cutting the data into industry-level investigations results in relatively small sample sizes. Thus, the statistics in Figure 15 are simply *estimates*. Nevertheless, they are informative in that they shed light on the state's union membership and provide, at the very least, general parameters on the composition of the union workforce.

Lastly, Figure 17 depicts unionization rates by occupation. In Indiana, the most unionized occupation groups are construction and extraction occupations such as carpenters and operating engineers (26.7 percent); production occupations such as machinists (18.9 percent); and installation, maintenance, and repair occupations such as mechanics (15.8 percent). In each of these three occupations, the unionization rate is higher in Indiana than the national average. Union membership in construction and extraction occupations, as an example, is 9.5 percentage points higher in Indiana than the comparable national average. However, every other major occupational grouping is less unionized in Indiana than the rest of the nation.

FIGURE 16: COMPOSITION OF INDIANA UNION WORKFORCE BY INDUSTRY, 2015

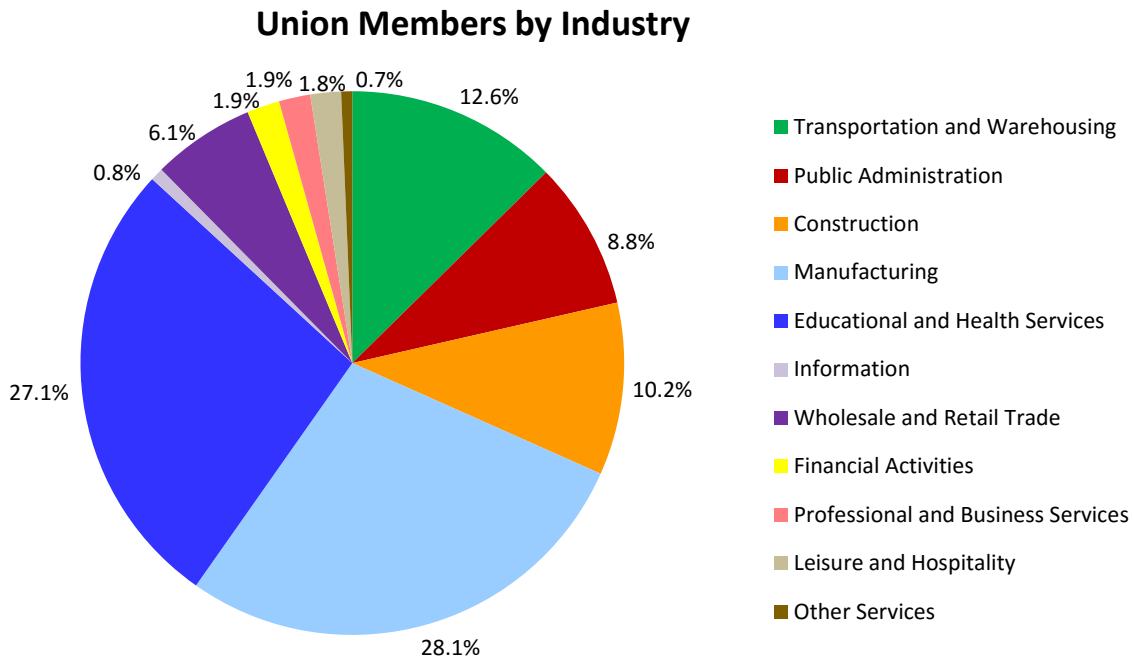


FIGURE 17: UNIONIZATION RATES BY OCCUPATION BY REGION, 2015

Occupation (2015)	Indiana	USA
Management, Business, & Financial	2.5%	4.4%
Professional & Related	12.1%	16.8%
Service	6.5%	10.6%
Sales & Related	2.2%	3.2%
Office & Administrative Support	6.7%	9.3%
Construction & Extraction	26.7%	17.2%
Installation, Maintenance, & Repair	15.8%	14.7%
Production	18.9%	12.6%
Transportation & Material Moving	15.4%	15.7%

## PREDICTING UNION MEMBERSHIP IN INDIANA

An advanced analytic model is developed to predict the chances that any given worker is a union member in Indiana, using data from 2013 through 2015. The model, which is detailed in the Table A of the Appendix, reports how statistically significant variables increase or decrease one’s probability of being a union member. The analysis includes data on over 6,000 Indiana workers, and weights are applied to match the sample to the actual Indiana population. Given that Indiana averaged about 3 million workers over this time, the sample size would yield a normal  $\pm 1.2$  percent margin of error in a standard survey report.

Many factors increase the likelihood that an employed person is a union member in Indiana (Figure 18). Relative to workers in the private sector, employment in local government, the largest contributor to an individual’s chances of being a union member, raises the probability by 14.0 percentage points on average. Federal and state government employment respectively increase the union probability by 12.8 and 9.3 percentage points relative to private sector workers. Generally, being a native-born or

naturalized U.S. citizen also increases the probability that a given Indiana worker is a union member by 9.4 percentage points compared to being a non-citizen.

Many occupational and industry factors contribute negatively to the probability that a worker is in a union. Figure 18 pits occupations against “production” jobs and industries against the “manufacturing” sector. Compared to those in production occupations, workers in the following jobs are all between 5 and 17 percentage-points less likely to be union members: public administration; professional and related; service; office and administrative support; farming, fishing, and forestry; sales and related; and management, business, and financial services. Similarly, compared to comparable workers in manufacturing, those in mining, financial activities, professional services, other services, leisure and hospitality, and agriculture are between 8 and 11 percentage-points less likely to be union members in Indiana (Figure 18).

FIGURE 18: PROBABILITY OF BEING A UNION MEMBER IN INDIANA, LARGEST FACTORS, 2013-2015

Probability of Union Membership	Indiana Mean
<i>Predictor</i>	<i>Percentage Point Change</i>
<i>Sector: Local government</i>	+13.97%
<i>Sector: Federal government</i>	+12.79%
<i>Demographic: Native-born and naturalized citizens</i>	+9.35%
<i>Sector: State government</i>	+9.26%
<i>Occupation: Public administration</i>	-6.99%
<i>Occupation: Professional and related</i>	-7.46%
<i>Industry: Mining</i>	-7.94%
<i>Occupation: Service</i>	-8.34%
<i>Industry: Other services</i>	-8.63%
<i>Industry: Financial activities</i>	-8.65%
<i>Industry: Professional &amp; related services</i>	-9.14%
<i>Industry: Leisure &amp; hospitality</i>	-10.76%
<i>Industry: Agriculture, forestry, fishing, &amp; hunting</i>	-10.80%
<i>Occupation: Office &amp; administrative support</i>	-11.31%
<i>Occupation: Farming, fishing, &amp; forestry</i>	-12.43%
<i>Occupation: Sales &amp; related</i>	-13.09%
<i>Occupation: Management, business, &amp; financial</i>	-16.89%
<i>Constant</i>	9.20%
<i>Observations</i>	6,472

Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. Only statistically significant variables with a coefficient over  $\pm 5.0$  percent are displayed in the figure. Occupation dummies are relative to “production” occupations and industry dummies are relative to “manufacturing.” For more, see the Appendix.

## UNION WAGES

Unionized workers typically earn more than their nonunion counterparts (Figure 19). Figure 19 graphically illustrates the difference between the average union wage and the average nonunion wage in Indiana and the United States by both percentage benefit and actual per-hour dollar benefit. The results do not control for other factors which may increase a worker’s wages (e.g., education, occupation, industry, age, etc.). The raw averages show that, regardless of geography and time, union membership has been positively correlated with increased worker wages. Nationwide, union membership continues to raise worker wages by about \$4.00 per hour, or by about 17 percent. The gap between union and nonunion wages appears to be larger in Indiana as of 2015: The wage difference is \$5.81 per hour in Indiana (Figure 20). Unions raise individual incomes by lifting wages per hour.



FIGURE 19: UNION WAGE DIFFERENCES BY REGION, PERCENTAGE AND DOLLAR VALUES, 2006 TO 2015

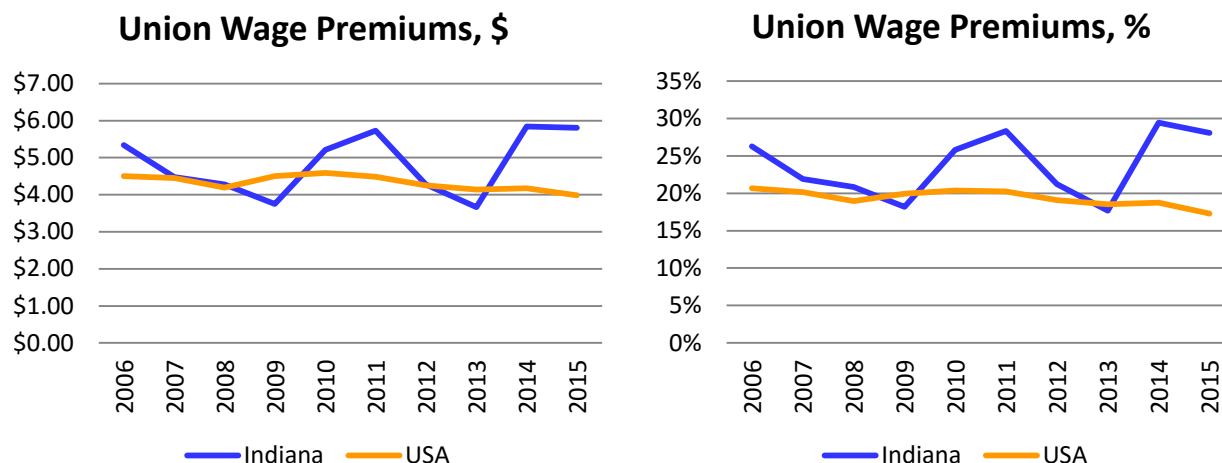


FIGURE 20: WAGES OF UNION AND NONUNION WORKERS BY REGION, 2015

Variable	Indiana		USA	
	Nonunion	Union	Nonunion	Union
Wage	\$20.70	\$26.51	\$23.05	\$27.03
Union Difference, %		+28.05%		+17.29%
Union Difference, \$		+\$5.81		+\$3.98

The data presented in Figure 20 may overstate or understate the union wage effect because union members may be more or less likely to have characteristics associated with higher wages such as age, education, job experience, and geographic location. Regression analyses (OLS and quantile regressions) are utilized to control for these and similar factors in order to isolate the independent effect of unionization on wages and report them in Figure 21. The national average further controls for an individual respondent’s state of residence. Data are for employed persons aged 16 and older from 2013 through 2015 and are based on the natural logarithm of hourly wages to “normalize the data” and analyze the results in percentage terms. For more on the union wage premium regressions, see Table B in the Appendix.

After controlling for education, demographics, and employment factors, the union wage premium is lower but still generally aligns with the differences reported in Figures 19 and 20 (Figure 21). On average, unions are found to increase a worker’s per-hour wage by 11.1 percent in the United States. In Indiana, the union wage premium is an estimated 15.1 percent on average, holding all else constant (including occupation and industry). Both results are statistically significant, even at the 1-percent level.

FIGURE 21: REGRESSIONS OF UNION WAGE PREMIUMS FOR THE UNITED STATES AND INDIANA, 2013-2015

Union Wage Premium: Ordinary Least Squares (OLS) and Quantile Regressions, 2013-2015						
United States	Indiana					
Mean	Mean	Percentile: 10 <sup>th</sup>	Percentile: 25 <sup>th</sup>	Median	Percentile: 75 <sup>th</sup>	Percentile: 90 <sup>th</sup>
11.06%***	15.06%***	10.43%***	15.32%***	16.88%***	17.87%***	14.21%***
R <sup>2</sup> =0.456	R <sup>2</sup> =0.431	R <sup>2</sup> =0.173	R <sup>2</sup> =0.262	R <sup>2</sup> =0.291	R <sup>2</sup> =0.293	R <sup>2</sup> =0.283

Three asterisks (\*\*\*) indicate significance at the 1-percent level. Two asterisks (\*\*) indicates significance at the 5-percent level. Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. Statistics are adjusted by the outgoing rotation group earnings weight to match the total population 16 years of age or older. For more, see the Appendix.

A unique analytical tool, called a quantile regression, permits evaluation of the union wage premium across the wage distribution. While union membership is statistically associated with a 15.1 percent increase in the *average* Indiana worker's wage, the benefit is actually higher for those in the middle of the state's hourly income distribution (Figure 21). In fact, over the past three years, the union wage effects produced raises of between 15.3 percent and 17.9 percent for the middle 50 percent of workers. The union wage difference was much smaller for the richest 10 percent of earners (14.2 percent) in Indiana. Thus, the data strongly indicate that unionization fosters a strong middle class, providing the most benefits to workers in the middle of the income distribution.

How does the average Indiana union wage premium of 15.1 percent compare to the union effect in other states? Similar 2013-2015 ordinary least squares regression models are run to assess each of the 49 other states plus the District of Columbia against Indiana. The results, reported in Figure 22, lead to the conclusion that the Indiana union wage premium is very high. In fact, Indiana's union wage premium is the 2<sup>nd</sup>-highest in the nation, behind only Louisiana (16.3 percent). The hourly wage benefit to being a union member is significantly higher in Indiana than in neighboring Illinois (10.5 percent), Ohio (9.8 percent), Michigan (9.3 percent), and Kentucky (8.2 percent). Importantly, a positive union wage premium exists in every state.

FIGURE 22: UNION WAGE PREMIUMS BY STATE, OLS REGRESSIONS, 2013-2015

Rank	State	Union Premium	Rank	State	Union Premium
	<i>United States</i>	11.06%	26	Arizona	9.38%
1	Louisiana	16.30%	27	Michigan	9.31%
2	<b>Indiana</b>	<b>15.06%</b>	28	Maryland	9.21%
3	Missouri	14.95%	29	Oregon	9.01%
4	Kansas	14.72%	30	Rhode Island	8.65%
5	Nevada	13.95%	31	West Virginia	8.35%
6	California	13.88%	32	Nebraska	8.23%
7	Arkansas	13.62%	33	Maine	8.20%
8	Idaho	11.94%	34	Kentucky	8.17%
9	Tennessee	11.68%	35	Georgia	7.91%
10	New Jersey	11.60%	36	Washington	7.64%
11	Minnesota	11.14%	37	Texas	7.54%
12	North Dakota	11.13%	38	Delaware	7.49%
13	Pennsylvania	11.02%	39	Connecticut	7.34%
14	Wisconsin	10.98%	40	District of Columbia	7.11%
15	Montana	10.75%	41	New Hampshire	6.46%
16	South Dakota	10.73%	42	Alaska	6.31%
17	Illinois	10.52%	43	North Carolina	5.48%
18	Hawaii	10.40%	44	Mississippi	5.20%
19	Alabama	10.19%	45	Vermont	5.15%
20	Oklahoma	10.14%	46	Florida	4.76%
21	Wyoming	10.13%	47	Iowa	4.75%
22	Ohio	9.75%	48	Colorado	3.83%
23	South Carolina	9.75%	49	Utah	1.75%
24	Massachusetts	9.55%	50	New Mexico	1.53%
25	New York	9.45%	51	Virginia	0.82%

All estimates are significant at least at the 5-percent level. Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. Statistics are adjusted by the outgoing rotation group earnings weight to match the total population 16 years of age or older. For more, see the Appendix.

## UNION AND NONUNION WAGES BY DEMOGRAPHIC GROUP

The union wage premium is positive in Indiana across both racial identification and gender identification. After controlling for education, demographics, and employment factors, the union wage premium is significantly higher for non-white workers in Indiana (Figure 23). While the personal benefit to being a union member is 15.1 percent on average for the entire state, the union advantage is 28.9 percent for non-white workers in Indiana. The union wage premium is also a strong 13.1 percent benefit on average for white, non-Latino workers. Accordingly, one of the most effective ways to reduce racial income inequality in the state would be to increase the unionization among non-white workers.

**FIGURE 23: REGRESSIONS OF UNION WAGE PREMIUMS BY RACIAL IDENTIFICATION, 2013-2015**

Union Wage Premium: Ordinary Least Squares (OLS), 2013-2015		
State Mean	Racial Identification: White	Racial Identification: Nonwhite
15.06%***	13.14%***	28.93%***
R <sup>2</sup> =0.431	R <sup>2</sup> =0.424	R <sup>2</sup> =0.446

Three asterisks (\*\*\*) indicate significance at the 1-percent level. Two asterisks (\*\*) indicates significance at the 5-percent level. Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. Statistics are adjusted by the outgoing rotation group earnings weight to match the total population 16 years of age or older. For more, see the Appendix.

Similarly the union wage premium is positive for both genders, after controlling for other observable factors (Figure 24). While the union wage premium is 15.1 percent in Indiana, the personal benefit to being a union member is 15.5 percent on average for men and 13.8 percent on average for women. Unionization thus helps female workers partially close the gender-based wage gap, especially compared to nonunion male workers.

**FIGURE 24: REGRESSIONS OF UNION WAGE PREMIUMS BY GENDER IDENTIFICATION, 2013-2015**

Union Wage Premium: Ordinary Least Squares (OLS), 2013-2015		
State Mean	Gender Identification: Male	Gender Identification: Female
15.06%***	15.52%***	13.78%***
R <sup>2</sup> =0.431	R <sup>2</sup> =0.417	R <sup>2</sup> =0.422

Three asterisks (\*\*\*) indicate significance at the 1-percent level. Two asterisks (\*\*) indicates significance at the 5-percent level. Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. Statistics are adjusted by the outgoing rotation group earnings weight to match the total population 16 years of age or older. For more, see the Appendix.

## ADDITIONAL INFORMATION: DATA ON LABOR UNION ESTABLISHMENTS

As a result of the long-term decline in union membership in Indiana, the total number of “labor unions and similar labor organizations” has declined over the past decade. Figure 25 presents *County Business Patterns* data on the number of establishments and paid employees in these organizations. An establishment is a single physical location where business is conducted or where services or operations are performed. Establishments include all the union halls, employees’ associations, worker centers, and similar offices of local or national labor unions, collective-bargaining units, and similar organizations.

The total number of establishments in 2014, the latest year for which data are available, was 448. This is down considerably from the 574 establishments of labor unions and similar labor organizations in Indiana in 2005. Over the past ten years, there has been a 126 establishment decline (-22.0 percent) in labor unions and similar labor organizations in Indiana - despite a rise in overall employment.

Consequently, the number of paid employees working directly for labor unions and similar labor organizations has fallen from 5,936 workers in 2005 to 4,347 workers in 2014 (-26.8 percent). There are thus 1,589 fewer individuals working for labor unions and similar organizations today than there were a decade ago. As unionization has decreased, revenue from membership dues has relatively declined, resulting in these nonprofit organizations closing down and laying off their workers (Figure 25).

FIGURE 25: UNIONS AND SIMILAR ORGANIZATIONS, ESTABLISHMENTS AND EMPLOYMENT, 2005-2014

Indiana	NAICS Code: 81393 - Labor Unions and Similar Labor Organizations	
Year	Establishments	Paid Employees
2005	574	5,936
2006	549	5,714
2007	553	5,108
2008	526	4,802
2009	501	4,856
2010	487	4,635
2011	480	4,466
2012	476	4,541
2013	466	4,181
2014	448	4,347
<b>2005-2014 Change</b>	<b>-126</b>	<b>-1,589</b>

## CONCLUSIONS

Unionization has significantly declined in Indiana. Today, there are approximately 52,000 fewer union members in Indiana than there were in 2006, contributing to the reduction of 573,000 union workers across the nation over the past ten years. The decline in union membership has occurred in both the public sector and the private sector in Indiana.

Consequently, the total number of labor unions and similar labor organizations has declined over the past decade. There are 448 labor unions and similar organizations in Indiana, a decline of 126 establishments over the past ten years (-22.0 percent). There are also 1,589 fewer individuals working for labor unions and similar organizations today than there were one decade ago.

Indiana's "right-to-work" law has contributed to lower union membership. After the policy was implemented, union membership fell from 11.2 percent in 2011 to 9.1 percent in 2012. An initial ruling by Judge Sedia in September 2013 that struck down the law spurred a rebound in union membership, as unionization improved to 10.7 percent in 2014. However, after a November 2014 decision by the Indiana Supreme Court reversed the lower court's ruling and deemed "right-to-work" constitutional, union membership experienced another drop in 2015.

As of 2015, the overall union membership rate is 10.0 percent in Indiana. Men are much more likely to be unionized (13.2 percent) than women (6.6 percent) in the state. Additionally, veterans are among the most unionized socioeconomic groups in Indiana, with a unionization rate (20.1 percent) that doubles the state average. By educational attainment, the most unionized workers in Indiana hold Master's degrees and associate's degrees. Finally, public sector unionization (27.4 percent) is nearly four times as high in Indiana as private sector unionization (7.5 percent). However, Indiana's public sector unionization rate is below the national average, while its private sector unionization rate is above the comparable national average.

Union membership is influenced by a number of factors. Employment in both the public sector and manufacturing raise the chances that a given worker is a union member. Native-born and naturalized citizens are also statistically more likely to be union members than their non-citizen counterparts. On the other hand, workers employed in management, business, financial, sales, office support, service, professional, and agricultural occupations are all less likely to be unionized than their counterparts in production jobs.

There is positive news for Indiana's labor movement. Labor unions increase individual incomes by lifting hourly wages - particularly for middle-class workers. In Indiana, unions raise worker wages by an average of 15.1 percent. The state's union wage effect is the 2<sup>nd</sup>-highest in the nation and higher than all bordering states. The union wage differential is greatest for the middle 50 percent of workers, ranging from a 15.3 percent to a 17.9 percent increase in worker earnings. Unions foster a middle-class lifestyle in Indiana.

Organized labor still plays a considerable role in Indiana's economy. As long as Indiana remains a manufacturing hub of America, the presence of labor unions will be felt in communities across the Hoosier state. However, the trend of declining union membership is likely to persist. Labor's response to this decline could define its influence and effectiveness in the decades to come.

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**APPENDIX**

TABLE A: PROBIT REGRESSION ON PROBABILITY OF UNION MEMBERSHIP, AVERAGE MARGINAL EFFECTS, INDIANA WORKERS, 2013-2015

<u>Indiana</u>		
Prob(Union Member)	Coefficient	(St. Err.)
Age	0.0026***	(0.0001)
Age <sup>2</sup>	-0.0000***	(0.0000)
Female	-0.0192***	(0.0004)
Citizen	0.0935***	(0.0014)
White, non-Latino	-0.0020	(0.0014)
African-American	0.0224***	(0.0015)
Latino or Latina	0.0132***	(0.0016)
Center City	-0.0083***	(0.0005)
Suburb	-0.0047***	(0.0004)
Federal government	0.1279***	(0.0011)
State government	0.0926***	(0.0008)
Local government	0.1397***	(0.0006)
Usual hours worked	0.0019***	(0.0000)
Less than high school	-0.0182***	(0.0008)
Some college, no degree	0.0039***	(0.0005)
Associate's	0.0292***	(0.0006)
Bachelor's	0.0259***	(0.0006)
Master's	0.0494***	(0.0007)
Professional/Doctorate	-0.0234***	(0.0013)
Industry/Occupation Dummies	Y	
Constant	0.0920***	(0.0002)
R <sup>2</sup>	0.2157	
Observations	6,472	

A probit regression model allows for analysis of the probability of a “binary” yes-or-no variable occurring. In this case, the model reports the (positive or negative) direction of the effect that a factor has on the probability of being a union member and whether the output is statistically significant. To determine the magnitude of statistically significant factors, average marginal effects (AMEs) are generated and reported using the *dydx, margins* command in STATA. Importance weights to match the sample size to the actual population are applied.

Three asterisks (\*\*\*) indicate significance at the 1% level, two asterisks (\*\*) indicates significance at the 5% level, and one asterisk (\*) indicates significance at the 10% level. Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. The total number of observations of employed persons was 6,472 in Indiana. Importance weights are applied to the probit model.

TABLE B: OLS AND QUANTILE REGRESSIONS OF THE IMPACT OF UNION MEMBERSHIP ON THE NATURAL LOG OF REAL HOURLY WAGES, 2013-2015

Ln(Real Wage)	(1) USA Mean		(1) Indiana Mean		(2) Indiana Median		(3) Illinois Mean	
	Coefficient	(St. Err.)	Coefficient	(St. Err.)	Coefficient	(St. Err.)	Coefficient	(St. Err.)
Union member	0.1106***	(0.0002)	0.1506***	(0.0011)	0.1688***	(0.0013)	0.1051***	(0.0007)
Age	0.0403***	(0.0000)	0.0399***	(0.0001)	0.0369***	(0.0002)	0.0390***	(0.0001)
Age <sup>2</sup>	-0.0004***	(0.0000)	-0.0004***	(0.0000)	-0.0004***	(0.0000)	-0.0004***	(0.0000)
Female	-0.1553***	(0.0001)	-0.1797***	(0.0007)	-0.1644***	(0.0008)	-0.1364***	(0.0005)
Veteran	0.0142***	(0.0002)	-0.0191***	(0.0013)	-0.0305***	(0.0015)	0.0585***	(0.0011)
Citizen	0.0725***	(0.0002)	0.1479***	(0.0025)	0.1565***	(0.0029)	0.0256***	(0.0011)
Immigrant	-0.0224***	(0.0002)	-0.0258***	(0.0022)	0.0696***	(0.0025)	-0.0766***	(0.0009)
White	0.01110***	(0.0002)	0.0318***	(0.0022)	0.0887***	(0.0026)	0.0038***	(0.0010)
African-American	-0.1039***	(0.0002)	-0.0784***	(0.0024)	0.0109***	(0.0028)	-0.1408***	(0.0012)
Latino	-0.0701***	(0.0002)	-0.0033	(0.0023)	0.0308***	(0.0027)	-0.0665***	(0.0011)
Chicago MSA							0.0066***	(0.0007)
Center City	0.0467***	(0.0001)	0.0258***	(0.0008)	0.0110***	(0.0009)	0.0255***	(0.0009)
Suburb	0.0650***	(0.0001)	0.0975***	(0.0007)	0.0951***	(0.0008)	0.0370***	(0.0008)
Federal government	0.0441***	(0.0003)	0.1145***	(0.0026)	0.1598***	(0.0030)	-0.0433***	(0.0019)
State government	-0.1060***	(0.0002)	-0.0985***	(0.0017)	-0.0960***	(0.0020)	-0.1169***	(0.0013)
Local government	-0.0932***	(0.0002)	-0.1130***	(0.0014)	-0.0797***	(0.0017)	-0.0771***	(0.0010)
Usual hours worked	0.0043***	(0.0000)	0.0033***	(0.0000)	0.0053***	(0.0000)	0.0053***	(0.0000)
Involuntarily part-time	-0.1454***	(0.0002)	-0.1400***	(0.0015)	-0.1273***	(0.0017)	-0.1579***	(0.0011)
Less than high school	-0.1411***	(0.0002)	-0.1265***	(0.0013)	-0.0983***	(0.0015)	-0.1125***	(0.0010)
Some college	0.0397***	(0.0001)	0.0391***	(0.0009)	0.0376***	(0.0010)	0.0576***	(0.0007)
Associate's	0.0919***	(0.0002)	0.0898***	(0.0011)	0.1137***	(0.0012)	0.0738***	(0.0009)
Bachelor's	0.3073***	(0.0001)	0.3058***	(0.0010)	0.2792***	(0.0011)	0.2946***	(0.0007)
Master's	0.4183***	(0.0002)	0.3949***	(0.0014)	0.4082***	(0.0016)	0.4259***	(0.0009)
Professional/Doctorate	0.5554***	(0.0003)	0.6151***	(0.0020)	0.6380***	(0.0024)	0.6318***	(0.0014)
Industry Dummies	Y		Y		Y		Y	
Occupation Dummies	Y		Y		Y		Y	
State Dummies	Y		N		N		N	
Constant	1.5691***	(0.0009)	1.5504***	(0.0049)	1.3940	(0.0057)	1.4112***	(0.0048)
R <sup>2</sup>	0.4558		0.4311		0.2908		0.4538	
Observations	409,959		6,420		6,420		13,196	
Weighted	Y		Y		Y		Y	

Three asterisks (\*\*\*) indicate significance at the 1% level, two asterisks (\*\*) indicates significance at the 5% level, and one asterisk (\*) indicates significance at the 10% level. Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2013-2015. The total number of observations of employed persons was 6,472 in Indiana. The data are adjusted by the outgoing rotation group earnings weight to match the total population 16 years of age or older.

Ordinary least squares and quantile regression models account for other variables to parse out the actual and unique causal effect that union membership has on hourly wages on average. The analyses control for a host of demographic, work, sector, industry, occupation, and education variables that could also have an impact a worker's wages. In the U.S. model, state indicator variables are included to factor in unmeasured state-specific characteristics. The sample, in all cases, is weighted to match the actual population. Regression (1) compares the impact of union membership on wages for Indiana compared to the nation from OLS analyses, regression (2) provides the median regression as an example of outputs from the quartile regressions for Indiana, and regression (3) uses Illinois as an example of OLS results from other states. For full (2) and (3) regression outputs in a .txt format, please contact author Frank Manzo IV at [fmanzo@illinoisepi.org](mailto:fmanzo@illinoisepi.org).



