



THE STATE OF THE UNIONS 2019

A Profile of Unionization in Chicago, in Illinois, and in the United States

September 2019

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Research Report

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EXECUTIVE SUMMARY

Since 2009, unionization has declined in Illinois, in the Chicago region, and in the United States. There are approximately 165,000 fewer union members in Illinois today than there were in 2009. Between 2015 and 2018, the union membership rate declined from 15.2 percent to 13.8 percent.

Preliminary data suggests that the recent *Janus v. American Federation of State, County, and Municipal Employees, Council 31, et al.* Supreme Court decision that prohibited “fair-share fee” clauses in public sector collective bargaining agreements may have affected public sector union membership.

- In Illinois, the unionization rate of workers employed in the public sector fell by 4.5 percentage points from 2017 to 2018 - with all of the decrease occurring between July 2018 and December of 2018.
- About half of all public sector workers are unionized in both Illinois (46.4 percent) and the Chicago metropolitan area (46.2 percent), exceeding the national public sector unionization rate (33.9 percent).
- Just 8.7 percent of workers in Illinois’ private sector are union members.

Union membership is influenced by a number of factors.

- African Americans, U.S. citizens, military veterans, and rural workers are disproportionately more likely to be union members.
- Unionization rates are higher for men and middle-ages workers than for women and young workers.
- Workers in the public sector, construction, and transportation and utilities industries are statistically more likely to be union members.
- Workers employed in professional occupations, management and financial occupations, and sales occupations are less likely to be unionized.

Labor unions increase incomes by lifting hourly wages- particularly for middle-income workers.

- In Illinois, unions raise worker wages by an average of 11.0 percent.
- The state’s union wage effect is the 10th-highest in the nation.
- The union wage differential is highest for middle-class workers (between 10.7 percent and 11.3 percent), reducing income inequality in Illinois.

Unions play an important role in Illinois’ economy and communities. However, Illinois’ labor movement, however, faces challenges from both the political and economic spheres. Labor’s response to these challenges will define its influence and effectiveness in the decades to come and will have important implications for the state’s middle class.

TABLE OF CONTENTS

Executive Summary	ii
Introduction	1
Data and Limitations	1
Unionization Rates and Trends	2
Unionization by Demographics	3
Unionization by Education	7
Unionization by Sector, Industry, and Occupation	8
Predicting Union Membership in Illinois	12
Worker Wages	13
Conclusions	15
References	16
Cover Photo Credits	17
Appendix	18

INTRODUCTION

Over the past several years, there has been an assault on worker organizing rights across the United States. Since 2010, at least 16 states passed laws restricting the collective bargaining rights of public employees (Lafer, 2013; Bruno, 2015). Five states (Indiana, Michigan, Wisconsin, West Virginia, and Kentucky) passed so-called “right-to-work” legislation, which have statistically reduced the unionization rate by 2 percentage points and lowered worker wages by about 3 percent (Bruno, 2015; Manzo & Bruno, 2017).

In 2018, a 5-4 Supreme Court decision overturned more than four decades of labor precedent in *Janus v. American Federation of State, County, and Municipal Employees, Council 31, et al.*, striking down state laws and allowing public sector workers to “free ride” and receive services, benefits, and representation from unions for free without paying anything for them in the form of dues or “fair share fees.” As more employees decide to “free ride,” the financial resources of labor unions can become depleted, eroding worker bargaining power. As a result, research indicates that the *Janus* decision could reduce the public sector union membership rate by 8 percentage points and decrease the wages of state and local government employees by about 4 percent- exacerbating the pay penalty that already exists for workers in the public sector (Manzo & Bruno, 2018).

These new challenges have come amidst a gradual decline of the labor movement in both membership and influence. Almost one-in-four U.S. workers (23.0 percent) were members of labor unions in 1980. As of 2018, only one-in-ten workers (10.5 percent) are unionized (Hirsch & Macpherson, 2019). While recent research finds that unions have raised worker incomes (Farber et al., 2018). The decline of organized labor accounts for between one-fifth and one-third of the growth in economic 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).

There are signs, however, that 2018 may have been a turning point for the U.S. labor movement. According to a 2018 Gallup poll, 62 percent of Americans now approve of labor unions, the highest level of support since 2003 (Saad, 2018). This support was reflected in the 2018 wave of teachers’ strikes in places like West Virginia, Oklahoma, Arizona, North Carolina, and Los Angeles- where public school teachers won pay raises, additional resources for support staff, and increased levels of funding (Scheiber, 2018). Unions also scored a major electoral victory when Missouri residents overwhelmingly rejected the state’s “right-to-work” policy, with 67.5 percent of voters casting ballots against the law (Neuman, 2018). In total, “right-to-work” was rejected in 89 of Missouri’s 103 counties (86 percent) (Manzo, 2018).

This report, conducted by researchers at the Illinois Economic Policy Institute, the University of Illinois Project for Middle Class Renewal, and the University of California, Irvine, analyzes the course of unionization in Illinois, in the Chicago metropolitan statistical area (MSA), and in the United States from 2009 to 2018. It is the sixth annual report of its kind for union members in the Chicago area and in Illinois, following the September 2018 release of *The State of the Unions 2018: A Profile of Unionization in Chicago, in Illinois, and in America* (Manzo et al., 2018). The report 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 worker wages in Illinois and across the United States. The report concludes by recapping key findings.

DATA AND LIMITATIONS

This report 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, 2019).

The 10-year dataset from 2009 to 2018 captures information on 3,151,619 individuals aged 16 to 85 in the United States. These observations include 1,860,799 persons with a job, of whom 185,950 reported that they were union members. Survey responses include information from 56,090 employed individuals in Illinois. In 2018, respondents with at least one job totaled 5,120 in Illinois, 3,461 in the Chicago MSA, and 178,821 nationwide. “Chicago MSA” workers are defined as only those who live in the Illinois component of the Chicago-Naperville-Elgin metropolitan statistical area (i.e., no Indiana or Wisconsin residents are included).

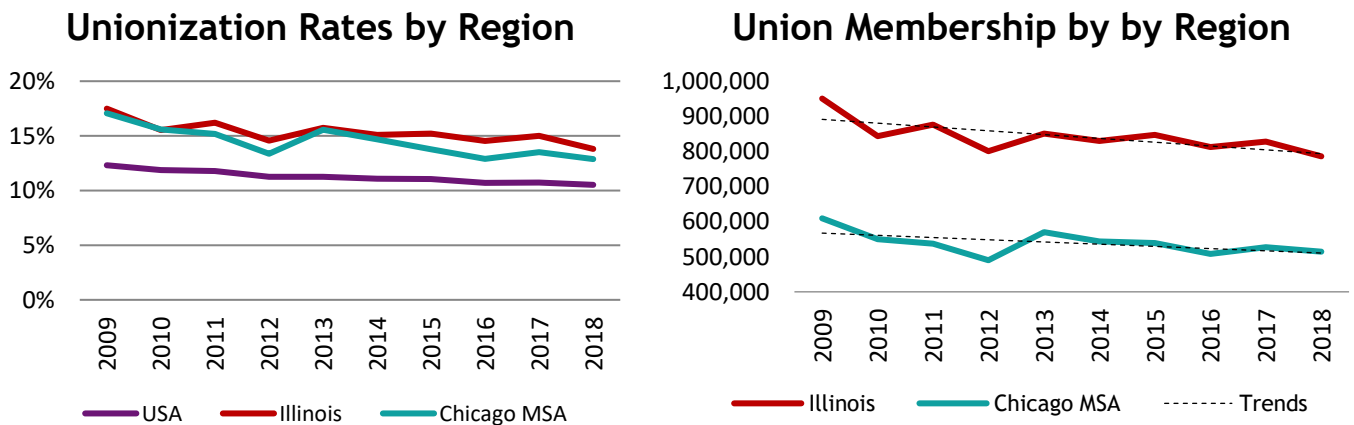
Analytic weights are provided by the Department of Labor to match the sample to the actual U.S. population 16 years of age or greater. These weights adjust the influence of an individual respondent’s answers on a particular outcome to compensate for demographic groups that are either underrepresented 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 Illinois but working in Missouri) and vice-versa. CPS-ORG data is also based on household survey responses. 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 2018, union membership data was only available for 4,646 of the 5,120 surveyed workers (90.7 percent) in Illinois. While this does not impact unionization rates, estimates are likely underreported for both total union workers and total nonunion employees.

UNIONIZATION RATES AND TRENDS

Since 2009, unionization has declined in Illinois, the Chicago metropolitan area, and the United States (Figure 1). The total union membership rate was 17.5 percent in Illinois, 17.1 percent in the Chicago region, and 12.3 percent nationwide in 2009. Ten years later, the unionization rate has fallen across all regions. Illinois’ rate has fallen to 13.8 percent, the Chicago area’s rate has fallen to 12.9 percent, and the United States’ rate has fallen to 10.5 percent. The gradual decline in the unionization rate has translated into a decrease in union membership of about 165,000 workers in Illinois since 2009, contributing greatly to the national decline of 587,000 union members over that time (Figure 2).

FIGURE 1: UNIONIZATION RATES AND TOTAL UNION MEMBERSHIP BY REGION, 2009-2018



Unionization rates in both Illinois and the Chicagoland area decreased from 2017 to 2018. Illinois’ union membership rate decreased to 13.8 percent in 2018, lower than at any other point during the past decade, with the state losing about 40,000 total union members over the year. The Chicago metropolitan area lost about 12,000 union members. The 10-year Illinois unionization rate was 15.3 percent on average, 4.0

percentage points higher than the 11.3 percent national average. On a year-by-year basis, Illinois' union membership rate has ranged from 3.3 to 5.2 percentage points higher than the nation (Figure 2).

FIGURE 2: TOTAL UNION MEMBERS AND OVERALL UNIONIZATION RATES BY REGION, 2009-2018

Year	Illinois		Chicago MSA		USA	
	Members	Rate	Members	Rate	Members	Rate
2009	950,586	17.5%	609,460	17.1%	15,327,280	12.3%
2010	843,807	15.5%	549,528	15.6%	14,715,061	11.9%
2011	875,891	16.2%	537,637	15.2%	14,754,673	11.8%
2012	800,434	14.6%	490,023	13.4%	14,349,358	11.3%
2013	850,557	15.7%	570,390	15.6%	14,515,755	11.2%
2014	829,757	15.1%	543,428	14.7%	14,569,936	11.1%
2015	846,984	15.2%	539,036	13.8%	14,786,281	11.1%
2016	812,397	14.5%	508,058	12.9%	14,549,640	10.7%
2017	828,006	15.0%	526,875	13.5%	14,811,525	10.7%
2018	785,966	13.8%	514,629	12.9%	14,740,188	10.5%
Average	842,444	15.3%	538,906	14.4%	14,711,969	11.3%

UNIONIZATION BY DEMOGRAPHICS

The unionization rate for employed men in Illinois has fallen from an estimated 20.4 percent in 2009 to 15.9 percent in 2018, a drop of 4.4 percentage points (Figure 3). The male unionization rate has also decreased in both the Chicago region and the nation as a whole. Since 2009, male union density has dropped by 3.9 percentage points in the Chicago area and by 2.2 percentage points in the United States. Similarly, the unionization rate of employed women has also declined in Illinois (2.9 percentage points), the Chicago region (4.5 percentage points), and nationwide since 2009 (1.4 percentage points).

African Americans are the most unionized racial or ethnic identity group (Figure 4). The unionization rate for African American workers is 18.1 percent in Illinois, 18.0 percent in the Chicago MSA, and 12.2 percent in the United States. In comparison, white non-Latinx union density is 14.2 percent in the state, 13.3 percent in Illinois' largest metropolitan area, and 10.8 percent across the nation. Respective unionization rates for Latinx workers are also lower, at 11.2 percent, 11.1 percent, and 9.1 percent.

Over time, union membership has marginally declined for every major racial or ethnic identity group in Illinois (Figure 5). From 2009 to 2018, unionization in Illinois fell by 2.2 percentage points for white workers, 8.6 percentage points for African American workers, and 6.6 percentage points for Latinx workers. In the Chicago area, trends have mostly mirrored the overall state labor market, with people of color seeing the largest percentage point drops in union membership.

Unionization rates are much higher for middle-aged workers than for young workers (Figure 6). For example, unionization rates are relatively high for workers between the ages of 45 and 54 years old. Of workers in this age cohort, 17.0 percent are unionized in Illinois, 15.4 percent are unionized in the Chicago MSA, and 12.9 percent are unionized across the United States. By contrast, for young workers aged 16-24, unionization rates are 5.3 percent or lower for Illinois, the Chicago MSA, and the nation.

Unionization rates have only recently increased for one age group in Illinois. From 2015 to 2018, the unionization rate of workers 65 years or older increased by 3.6 percentage points. Unionization rates declined for all other age cohorts from 2015 to 2018, with an average decline of 1.8 percentage points (Figure 7).

FIGURE 3: GRAPHS OF UNIONIZATION RATES BY GENDER, 2009-2018

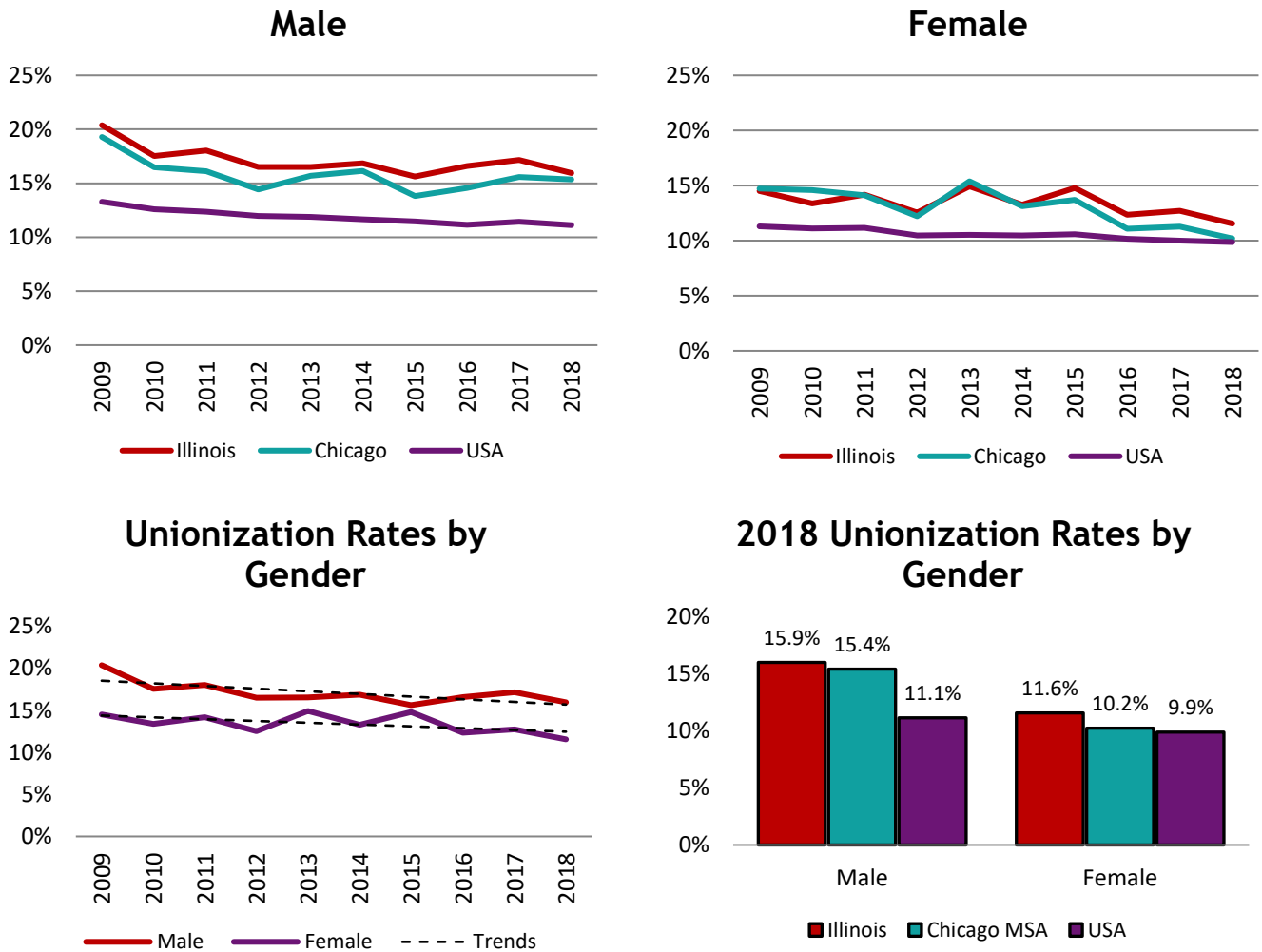


FIGURE 4: UNIONIZATION RATES BY RACIAL OR ETHNIC IDENTIFICATION BY REGION, 2018

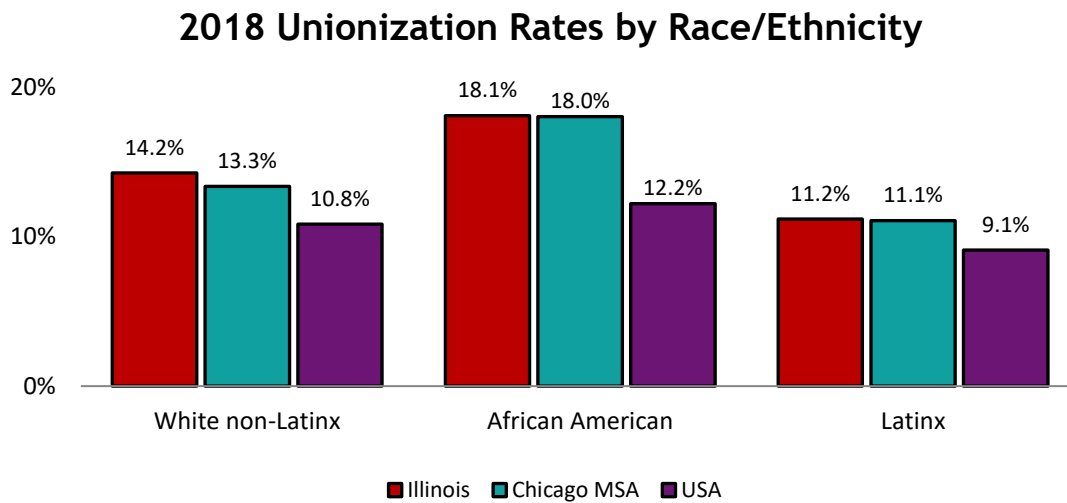


FIGURE 5: GRAPHS OF UNIONIZATION RATES BY RACIAL OR ETHNIC IDENTIFICATION, 2009-2018

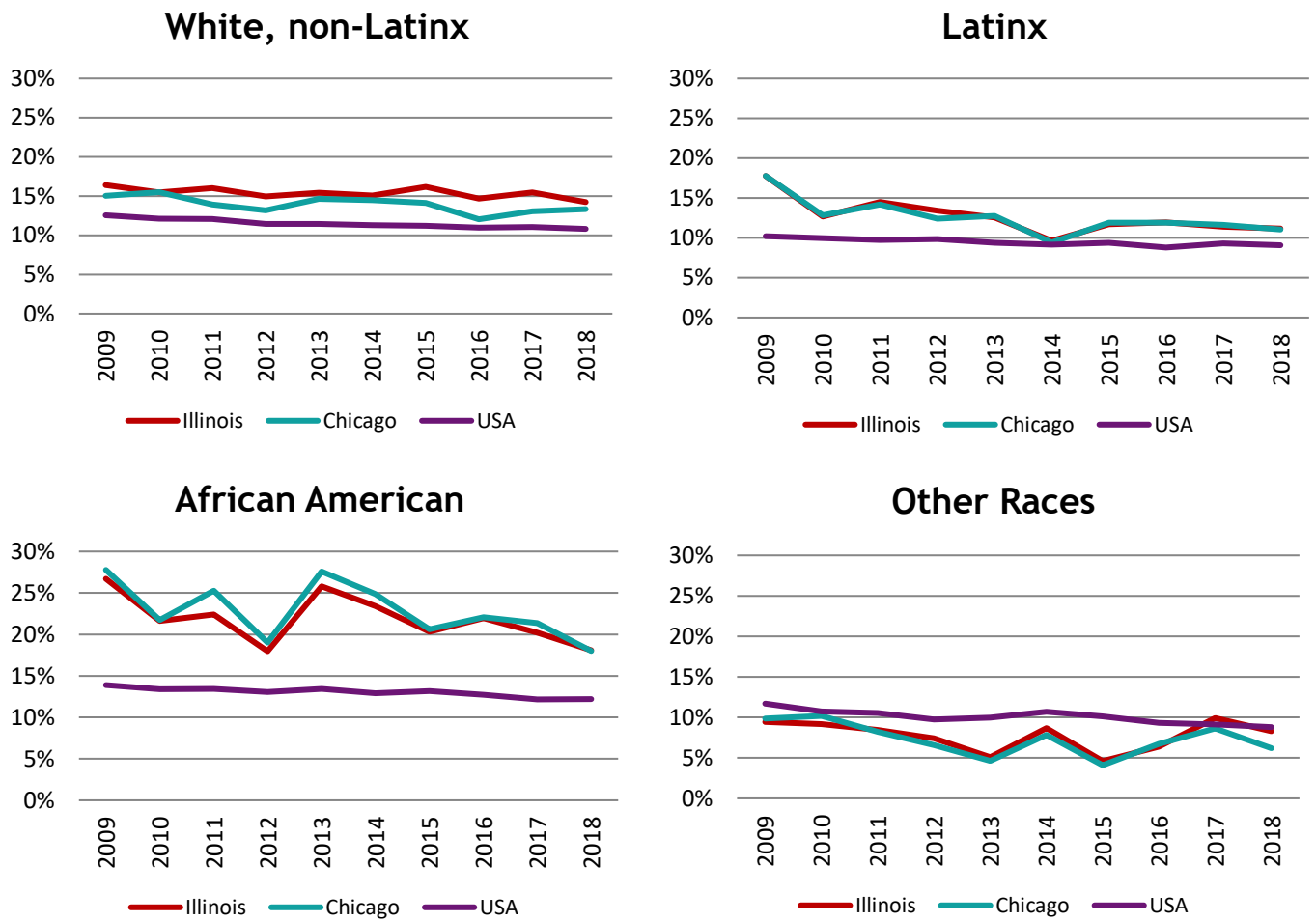


FIGURE 6: UNIONIZATION RATES BY AGE GROUP BY REGION, 2018

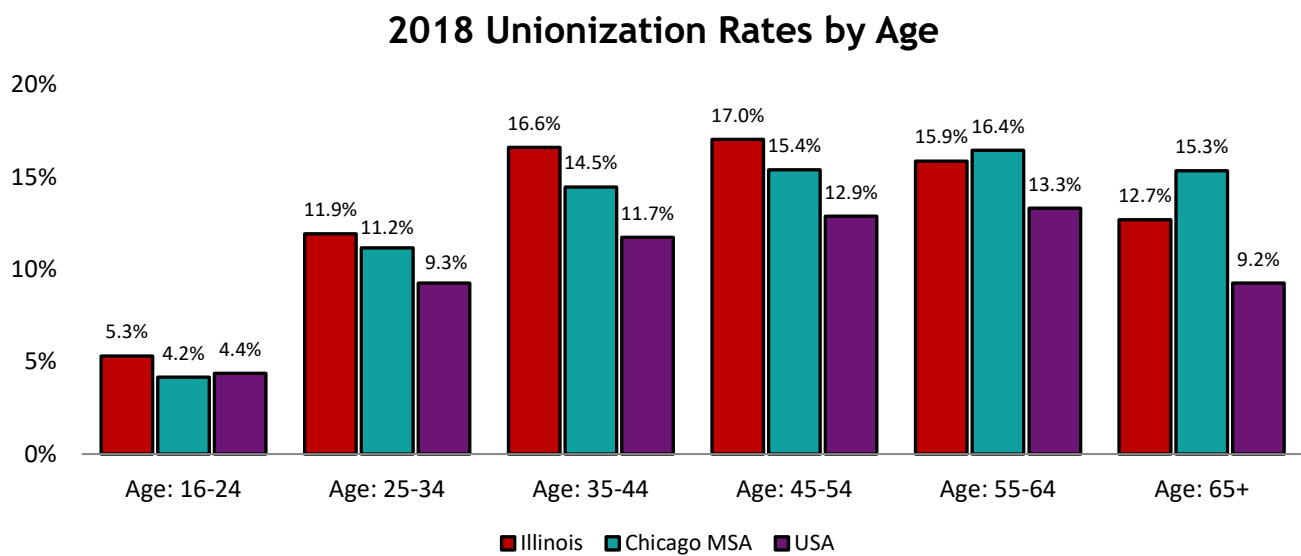
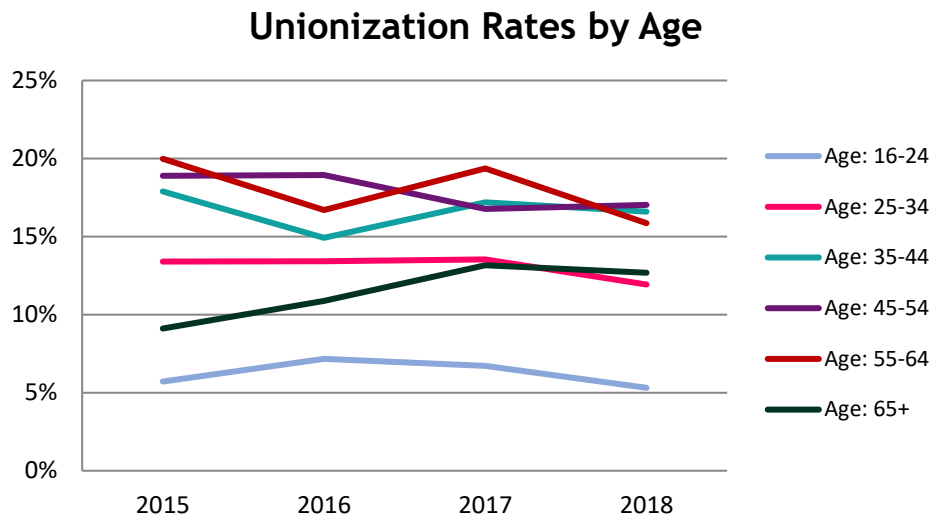


FIGURE 7: ILLINOIS UNIONIZATION RATES BY AGE GROUP, 2015-2018



Union membership varies across other demographic classifications as well (Figure 8). Among the most unionized groups are military veterans. Over one-in-four employed veterans are unionized in Illinois (27.1 percent) and in the Chicago metropolitan area (26.9 percent). For the United States, approximately 15.0 percent of employed veterans are members of unions. The unionization rate for married workers, foreign-born workers, and native-born and naturalized citizens are all above the national average for Illinois and the Chicago MSA. Native-born and naturalized citizens are more likely to be union members than foreign-born workers in Illinois, Chicago MSA, and the nation.

Figure 9 reveals that geographic distance from an urban core can be a factor in union membership. In the Chicago area, workers who reside in the central city are more likely to be unionized (13.5 percent) than those who live in the suburbs (12.5 percent). In Illinois overall, 13.3 percent of urban workers are members of unions, 13.0 percent of suburban workers are unionized, and 18.0 percent of rural workers belong to a union. The comparable figures for the United States are respectively 10.7 percent, 11.1 percent, and 9.3 percent.

FIGURE 8: UNIONIZATION RATES OF SELECT DEMOGRAPHIC VARIABLES BY REGION, 2018

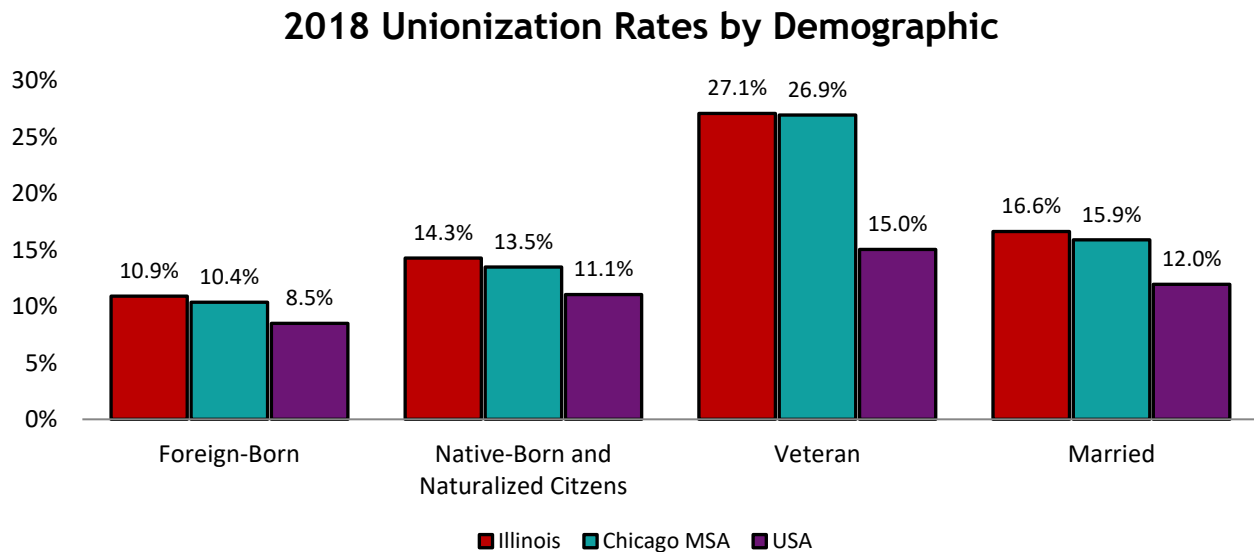
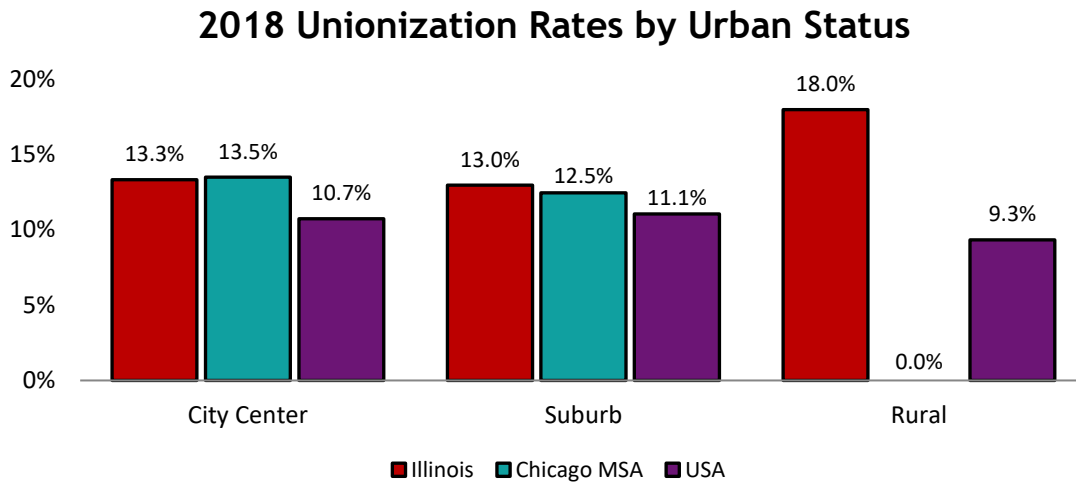


FIGURE 9: UNIONIZATION RATES BY URBAN STATUS BY REGION, 2018



UNIONIZATION BY EDUCATION

Workers with master’s degrees are the most unionized educational group (Figure 10). On average, 17.4 percent of master’s degree holders across the nation are union members. Approximately 21.8 percent of master’s degree holders are unionized in Illinois and 19.6 percent are unionized in the Chicago area. Workers with associate’s degrees are the second most unionized educational group, at 17.3 percent in Illinois, 17.0 percent in the Chicago MSA, and 11.6 percent in the United States. Workers with bachelor’s degrees and workers with professional or doctorate degrees comprise the two least-unionized educational groups in Illinois, with only 8.8 percent of workers with bachelor’s degrees and only 7.8 percent of workers with professional or doctorate degrees belonging to unions. In general, unionization rates are higher in Illinois than the national average across levels of educational attainment.

FIGURE 10: UNIONIZATION RATES BY EDUCATIONAL ATTAINMENT OR STATUS BY REGION, 2018

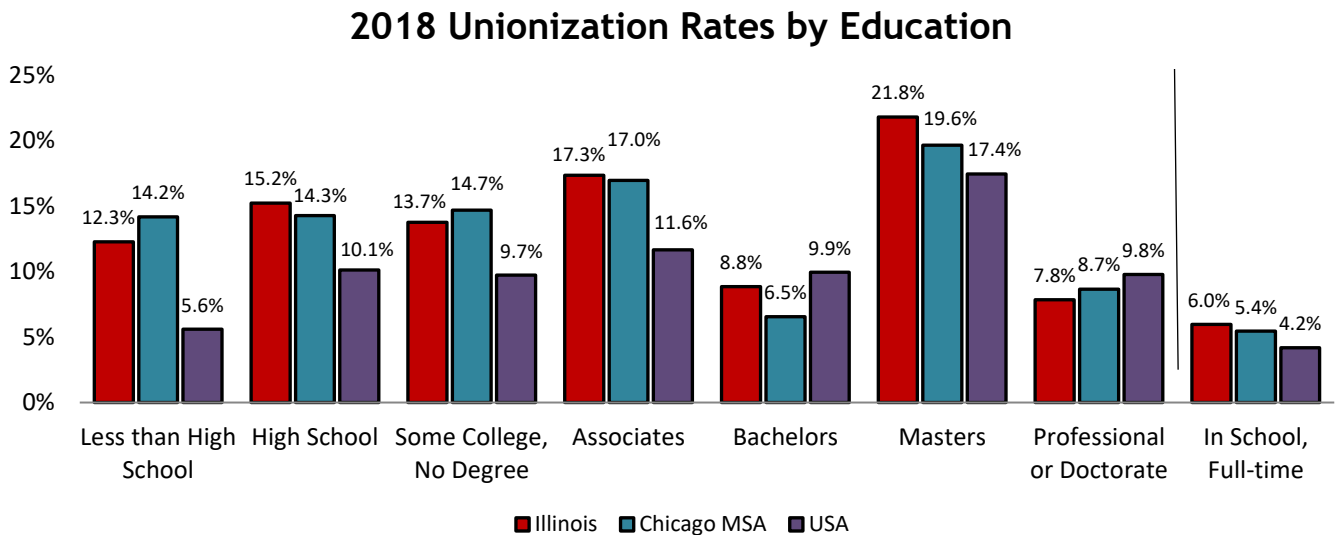


Figure 11 compares the three-year averages of union membership rates by educational attainment groups in Illinois for 2013-2015 and 2016-2018. The three years are grouped together to ensure statistical significance. Across the seven educational classifications, the union membership rate has decreased in

five cases: Workers with high school degrees (-1.1 percentage points), with some college (-1.0 percentage points), with bachelor’s degrees (-1.8 percentage points), with master’s degrees (-2.3 percentage points), and with professional or doctorate degrees (-1.1 percentage points). However, unionization increased for individuals with associate’s degrees (1.6 percentage points) and for those without high school diplomas or their equivalents (0.3 percentage points).

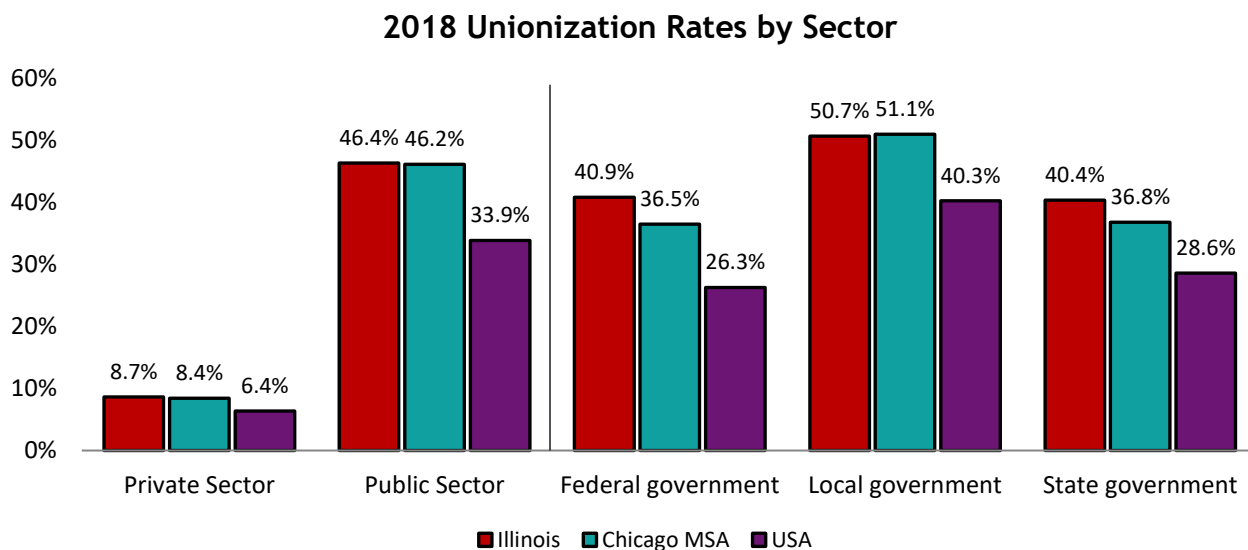
FIGURE 11: CHANGE IN UNIONIZATION RATES BY EDUCATION, THREE-YEAR AVERAGES, 2013-2018

Variable	Illinois		
	2013-15	2016-18	Change
Less than High School	10.0%	10.2%	+0.3%
High School	15.9%	14.8%	-1.1%
Some College, No Degree	15.4%	14.4%	-1.0%
Associates	17.4%	18.9%	+1.6%
Bachelors	12.5%	10.7%	-1.8%
Masters	24.2%	21.9%	-2.3%
Professional/Doctorate	11.0%	10.0%	-1.1%

UNIONIZATION BY SECTOR, INDUSTRY, AND OCCUPATION

While fewer than one-in-ten private sector workers is now a union member in Illinois (8.7 percent), the Chicago MSA (8.4 percent), the United States (6.4 percent), unionization rates are significantly higher for public sector workers (Figure 12). About half of all public sector workers are unionized in both Illinois (46.4 percent) and the Chicago region (46.2 percent), as are over one-third nationwide (33.9 percent). Across all regions studied, the most unionized public sector group is local government employees, with over five-in-ten of these workers belonging to a union in Illinois (50.7 percent) and the Chicago MSA (51.1 percent).

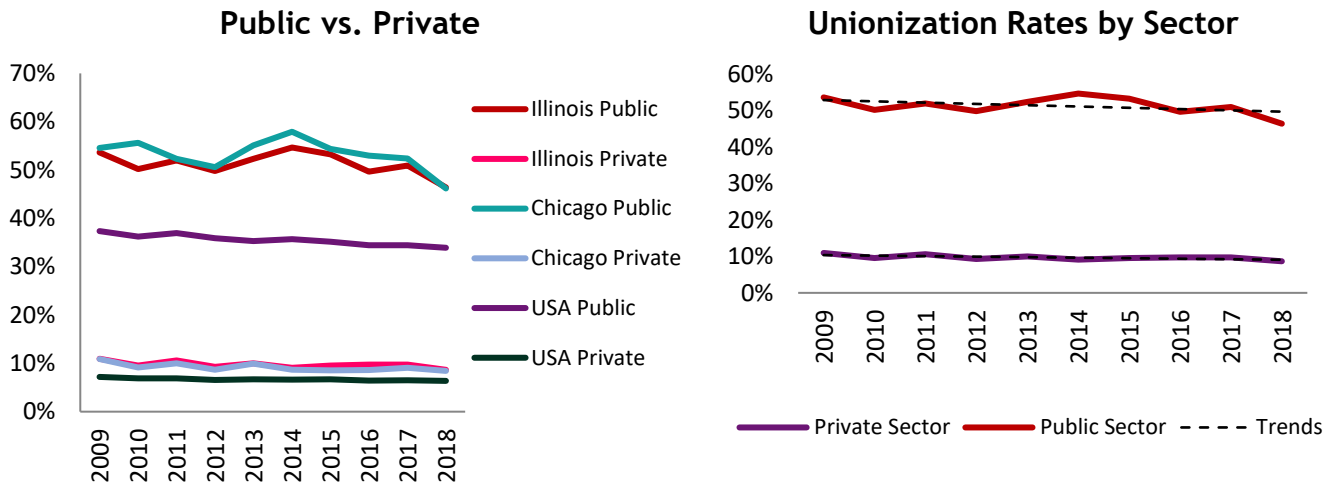
FIGURE 12: UNIONIZATION RATES BY SECTOR OR LEVEL OF GOVERNMENT BY REGION, 2018



Public sector unions experienced significant losses in Illinois from 2009 to 2018 (Figure 13). In 2009, union membership rates were 53.6 percent for public sector workers and 10.9 percent for private sector workers. Today, the union membership rate for public sector workers is 7.2 percentage points lower, at 46.4 percent. By contrast, private sector unionization has declined by 2.3 percentage points. Year-over-year data suggest that the June 2018 *Janus v. American Federation of State, County, and Municipal Employees*,

Council 31, et al. Supreme Court decision may have affected union membership in Illinois. Between 2017 and 2018, the unionization rate of workers employed in the public sector fell by 4.5 percentage points in Illinois. In the first six months of 2018, the public sector unionization rate (50.9 percent) statistically matched the comparable rate for 2017 (50.3 percent). The data suggest that all of the year-over-year decrease in public sector union membership actually occurred between July 2018 and December 2018.

FIGURE 13: UNIONIZATION RATES BY SECTOR BY REGION, 2009-2018



Union membership varies significantly by industry (Figure 14). The top four industries by unionization rates in Illinois are public administration (43.3 percent); construction (36.6 percent); transportation and warehousing (29.3 percent); and the combined educational and health services industry (19.9 percent). The national manufacturing workforce, associated historically as a leader in industrial unionization, is now only 9.1 percent organized, compared to 11.2 percent in the Chicago region and 13.9 percent across Illinois. The least-unionized industries generally are leisure and hospitality and financial activities.

Figures 15 and 16 present industry breakdowns of total union membership in Illinois compared to total employment in the state. In Figure 16, 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 engineers, architects, and office support workers. The top five industries with the most union members in Illinois are educational and health services (275,000 members), public administration (108,000), transportation and warehousing (106,000 members), manufacturing (96,000 members), and construction (94,000 members) (Figure 16).

Lastly, Figure 17 depicts unionization rates by occupation. In Illinois, the most unionized occupation groups are construction and extraction occupations such as operating engineers (44.6 percent); installation, maintenance, and repair occupations such as mechanics (26.6 percent); transportation and moving jobs such as truck drivers (18.0 percent); professional and related occupations such as teachers (17.5 percent); and production workers such as welders (15.6 percent). Compared to the nation, unionization rates in these five occupations are significantly higher in Illinois. Union membership in construction and extraction occupations, as an example, is 27.5 percentage points higher in Illinois than the comparable United States average.

FIGURE 14: UNIONIZATION RATES BY INDUSTRY BY REGION, 2018

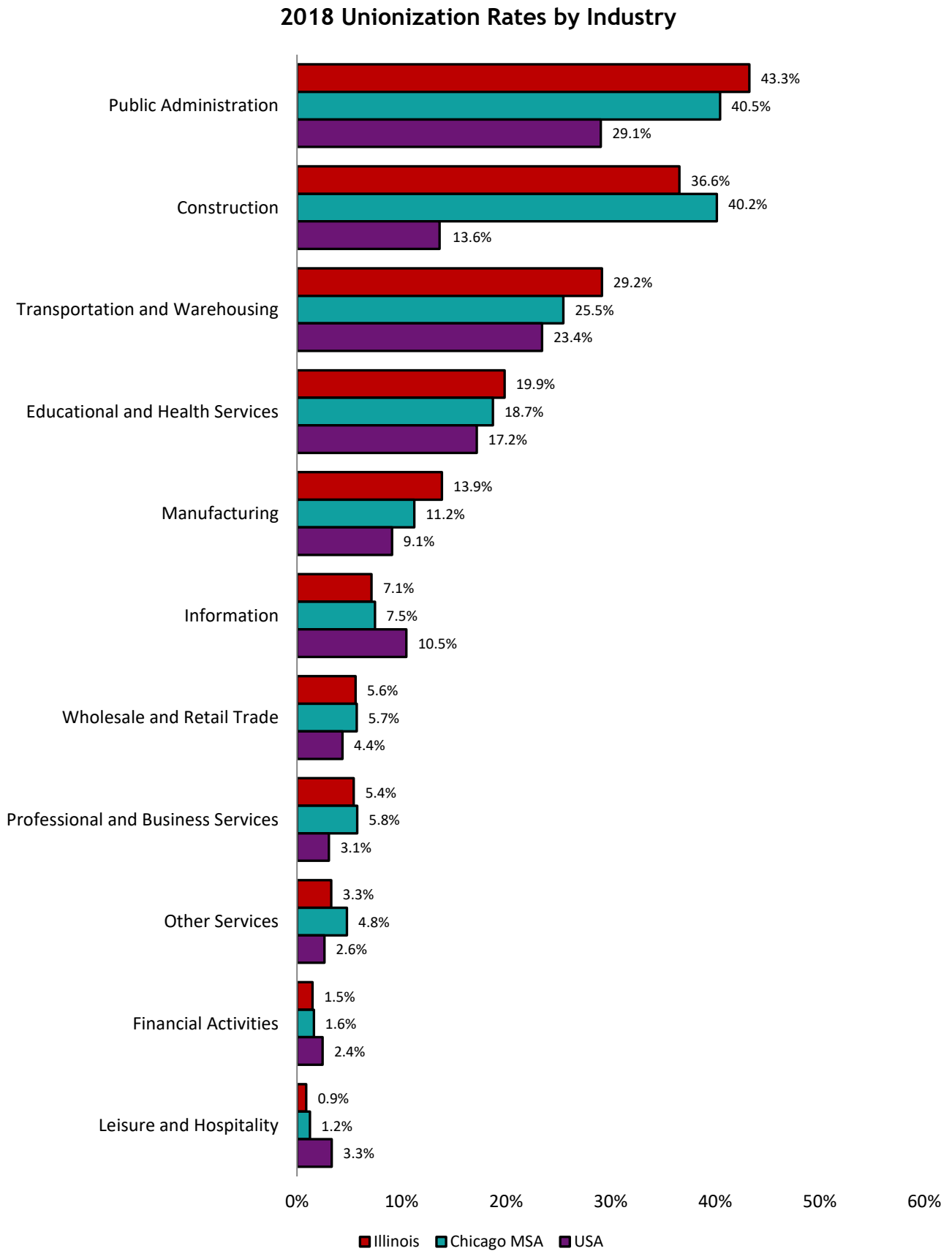


FIGURE 15: ILLINOIS INDUSTRY UNIONIZATION RATES, EMPLOYMENT, AND UNION MEMBERS, 2018

Illinois (2018)	Unionization Rate	Total Employment	Total Union Members	Total Sample
Public Administration	43.3%	250,000	108,000	211
Construction	36.6%	258,000	94,000	214
Transportation and Warehousing	29.2%	362,000	105,000	291
Educational and Health Services	19.9%	1,383,000	275,000	1,128
Manufacturing	13.9%	693,000	96,000	570
Information	7.1%	107,000	8,000	87
Wholesale and Retail Trade	5.6%	785,000	44,000	641
Professional and Business Services	5.4%	668,000	36,000	541
Other Services	3.3%	235,000	8,000	195
Financial Activities	1.5%	409,000	6,000	339
Leisure and Hospitality	0.9%	506,000	5,000	397

FIGURE 16: COMPOSITION OF ILLINOIS UNION WORKFORCE BY INDUSTRY, 2018

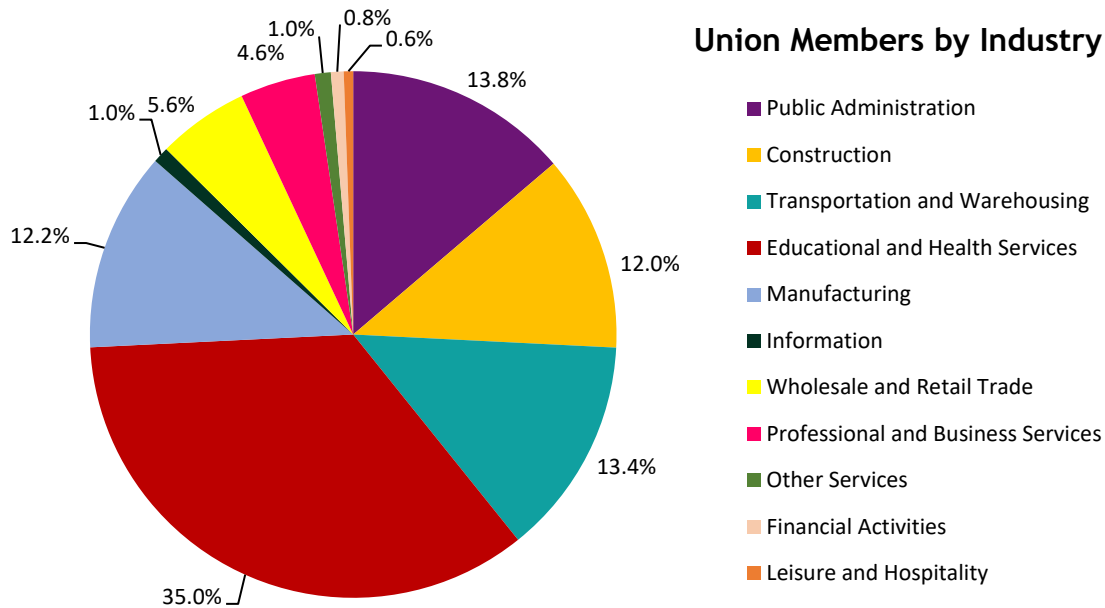


FIGURE 17: UNIONIZATION RATES BY OCCUPATION BY REGION, 2018

Occupation (2018)	Illinois	Chicago MSA	USA
Management, Business, & Financial	3.7%	2.8%	4.3%
Professional & Related	17.5%	16.0%	15.5%
Service	14.9%	14.0%	9.8%
Sales & Related	3.4%	3.6%	3.3%
Office & Administrative Support	10.4%	9.6%	9.0%
Construction & Extraction	44.6%	49.3%	17.1%
Installation, Maintenance, & Repair	26.6%	30.2%	15.1%
Production	15.6%	10.9%	11.9%
Transportation & Material Moving	18.0%	19.0%	14.5%

PREDICTING UNION MEMBERSHIP IN ILLINOIS

A statistical model is developed to predict the chances that any given worker is a union member in Illinois, using data from 2016 through 2018. The model, which is detailed in Table A of the Appendix, reports how certain factors statistically increase or decrease one's probability of being a union member. The analysis includes data on more than 12,000 Illinois workers, and weights are applied to match the sample to the actual Illinois population.

FIGURE 18: PROBABILITY OF BEING A UNION MEMBER IN ILLINOIS, LARGEST FACTORS, 2016-2018

Probability of Union Membership	Illinois Mean
<i>Predictor</i>	<i>Percentage Point Change</i>
Sector: Local government	+22.6%
Sector: State government	+18.1%
Sector: Federal government	+14.4%
Industry: Transportation & utilities	+8.4%
Occupation: Construction & extraction	+8.3%
Industry: Construction	+7.4%
Race: African American	+4.7%
Status: Native-Born and Naturalized Citizen	+4.0%
Occupation: Professional & related	-4.2%
Education: Professional & doctorate degrees	-5.4%
Industry: Professional & business services	-5.8%
Occupation: Other services	-6.9%
Occupation: Office & administrative support	-8.7%
Industry: Financial activities	-9.5%
Occupation: Sales & related	-10.2%
Industry: Leisure & hospitality	-12.0%
Occupation: Management, business, & financial	-15.7%
<i>Constant</i>	13.9%
<i>Observations</i>	12,407

Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2016-2018. Only statistically significant variables with a coefficient of over ± 4.0 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.

Many factors increase the likelihood that an employed person is a union member in Illinois (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 22.6 percentage points on average. State and federal government employment respectively increase the union probability by 18.1 percentage points and 14.4 percentage points relative to private sector workers. Employment in the transportation and utilities industry lifts the likelihood that a worker is a union member by 8.4 percentage points relative to workers in the manufacturing industry. Working in construction and transportation and utilities both improve the chances of being a union member by between 7.4 and 8.4 percentage points, relative to manufacturing. The industry factors reveal that employment growth in the public sector or through infrastructure investments (which primarily affect construction and transportation and utilities) are likely to increase overall unionization in Illinois.

Beyond sector and industry influencers, race and ethnicity and citizenship factor into the chances that a given worker in Illinois is unionized. African American workers are statistically the most likely racial or ethnic group to be union members in Illinois. African Americans are 4.7 percentage points more likely, on

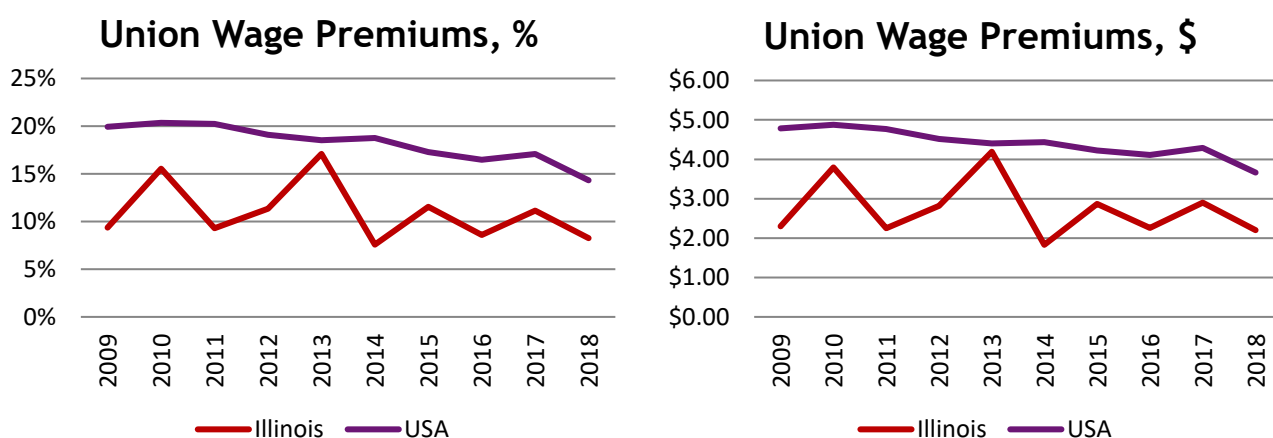
average, to be union members than all other non-white groups. In addition, native-born and naturalized citizens are 4.0 percentage points more likely to be union members in Illinois.

Some occupational and industry factors contribute negatively to the probability that a worker is in a union. Compared to the manufacturing industry, the professional and related services, leisure and hospitality, and financial activities industries reduce the chances by between 5.8 and 12.0 percentage points. Additionally, workers in professional, administrative support, sales, and management and financial occupations are all 4.2 to 15.7 percentage points less likely to be union members than similar workers in production occupations.

WORKER WAGES

Unionized workers 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 Illinois, the Chicago MSA, and the United States by both percentage gain and actual per-hour dollar difference. The results do not control for other factors that 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 approximately \$3.66 per hour, or by about 14 percent. The gap between union and nonunion wages appears to be smaller in Illinois, which is generally a high-wage state for both union and nonunion workers. As of 2018, Illinois’ union wage difference was \$2.20 per hour.

FIGURE 19: UNION WAGE DIFFERENCES BY REGION, PERCENTAGE AND DOLLAR VALUES, 2009 TO 2018



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 (Figure 21). For more on the union wage premium regressions, see Table B in the Appendix.

FIGURE 20: WAGES OF UNION AND NONUNION WORKERS BY REGION, 2018

Variable	Illinois		USA	
	Nonunion	Union	Nonunion	Union
Wage	\$26.60	\$28.80	\$225.58	\$29.24
Union Difference, %		+8.3%		+14.3%
Union Difference, \$		+\$2.20		+\$3.66

After controlling for education, demographics, and employment factors, the union wage premium 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 10.0 percent in the United States. In Illinois, the union wage premium is an estimated 11.0 percent on average, holding all else constant (including occupation and industry). Both results are statistically significant at the 99-percent level of confidence.

FIGURE 21: REGRESSIONS OF UNION WAGE PREMIUMS FOR THE UNITED STATES AND ILLINOIS, 2016-2018

Union Wage Premium: Ordinary Least Squares (OLS) and Quantile Regressions, 2016-2018						
USA		Illinois				
Mean	Mean	Bottom 10%	Bottom 25%	Median	Top 25%	Top 10%
10.0%***	11.0%***	10.4%***	10.7%***	11.3%***	11.7%***	9.9%***
R ² =0.444	R ² =0.445	R ² =0.173	R ² =0.258	R ² =0.305	R ² =0.314	R ² =0.296

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, 2016-2018. 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.

FIGURE 22: UNION WAGE PREMIUMS BY STATE, OLS REGRESSIONS, 2016-2018

Rank	State	Union Premium	Rank	State	Union Premium
	<i>United States</i>	10.0%	26	Texas	8.6%
1	Indiana	17.1%	27	South Carolina	8.5%
2	Nevada	16.3%	28	Michigan	8.4%
3	Mississippi	13.8%	29	Minnesota	8.3%
4	Wisconsin	13.8%	30	Pennsylvania	8.3%
5	Virginia	13.7%	31	Iowa	8.2%
6	Hawaii	11.6%	32	West Virginia	8.2%
7	Kentucky	11.4%	33	Ohio	8.2%
8	Montana	11.4%	34	New Hampshire	8.0%
9	Wyoming	11.2%	35	Connecticut	7.9%
10	Illinois	11.0%	36	Washington	7.8%
11	New Jersey	11.0%	37	Massachusetts	7.8%
12	Maryland	11.0%	38	South Dakota	7.6%
13	California	10.6%	39	North Dakota	6.8%
14	Arkansas	10.4%	40	Louisiana	6.6%
15	Oregon	10.4%	41	New Mexico	6.5%
16	Tennessee	10.4%	42	North Carolina	6.4%
17	Idaho	10.3%	43	Maine	6.3%
18	Arizona	10.2%	44	Delaware	6.1%
19	Utah	10.1%	45	Kansas	5.8%
20	Georgia	9.8%	46	Oklahoma	5.7%
21	Nebraska	9.6%	47	New York	5.4%
22	Missouri	9.5%	48	District of Columbia	4.7%
23	Vermont	8.9%	49	Alabama	4.3%
24	Alaska	8.8%	50	Colorado	3.8%
23	Rhode Island	8.7%	51	Florida	3.8%

All estimates are significant at the 1-percent level except for the following: South Carolina, New Mexico, Maine, Delaware, Kansas, the District of Columbia, Alabama, and Florida (which are all significant at the 5-percent level) and North Carolina, Oklahoma, and Colorado (which are significant at the 10-percent level). Source: CPS-ORG, Center for Economic and Policy Research Uniform Data Extracts, 2016-2018. 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 an 11.0 percent increase in the *average* Illinois worker's wage, the benefit is generally highest for those at the middle of the state's hourly income distribution (Figure 21). In fact, over the past three years, union membership statistically increases hourly earnings by 11.7 percent for workers in the top 25 percent and 10.7 percent for workers in the bottom 25 percent of the wage distribution. The union wage difference is 11.3 percent for the median worker. The bottom 10 percent see a higher union wage premium at 10.4 percent than the top 10 percent of workers (9.9 percent). The estimates corroborate national findings (Schmitt, 2008). The data strongly indicate that unionization boosts wages most for low-income and middle-class workers, contributing to reduced income inequality in the state.

How does the average Illinois union wage premium of 11.0 percent compare to the union effect in other states? Similar 2016-2018 ordinary least squares regression models are run to assess each of the 49 other states plus the District of Columbia against Illinois. The results, reported in Figure 22, lead to the conclusion that the Illinois union wage premium is the 10th-highest in the nation. Additionally, a total of 19 states have union wage premiums that are found to be higher than the national average of 10.0 percent. Importantly, a positive union wage premium exists in every state.

CONCLUSIONS

Since 2009, unionization has declined in Illinois, in the Chicago region, and in the United States. There are approximately 165,000 fewer union members in Illinois today than there were in 2009. From 2017 to 2018, the unionization rate decreased from 15.0 percent to 13.8 percent. Unionization has, however, recently increased for workers without high school degrees and workers with associate's degrees.

The recent *Janus v. American Federation of State, County, and Municipal Employees, Council 31, et al.* Supreme Court decision may have contributed to declining union membership in Illinois. The public sector unionization rate fell by 4.5 percentage points from 2017 to 2018, and all of the decrease occurred between July 2018 and December 2018. Still, about half of all public sector workers are unionized in both Illinois and the Chicago metropolitan area.

Labor unions increase individual incomes by lifting hourly wages- particularly for middle-income workers. Illinois has the 10th-highest union wage premium in the nation. Unions boost wages for all workers and help reduce income inequality in Illinois.

While unions play an important role in Illinois' economy and communities, the labor movement faces both short- and long-term challenges. In the short term, there are political pressures to weaken unions through various legal battles and corporate tactics. Over the long term, reversing the economic trend of declining union membership rates and reversing the rise in inequality remain critical if uncertain tasks. Labor's response to these challenges 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, ILLINOIS WORKERS, 2016-2018

Prob(Union Member)	Illinois	
	Coefficient	(St. Err.)
Age	0.0053***	(0.0013)
Age ²	-0.0001***	(0.0000)
Female	-0.0178**	(0.0065)
Citizen	0.0402***	(0.0130)
White	0.0106**	(0.0136)
African American	0.0471***	(0.0155)
Latinx	-0.0082	(0.0152)
Chicago MSA	0.0017	(0.0086)
Center City	0.0015	(0.0111)
Suburb	-0.0077	(0.0096)
Federal government	0.1444***	(0.0176)
State government	0.1808***	(0.0120)
Local government	0.2257***	(0.0091)
Usual hours worked	0.0018***	(0.0003)
Less than high school	0.0107	(0.0139)
Some college, no degree	0.0115	(0.0088)
Associate's	0.0271***	(0.0103)
Bachelor's	-0.0131	(0.0092)
Master's	0.0306***	(0.0104)
Professional/Doctorate	-0.0541**	(0.0170)
Industry/Occupation Dummies	Y	Y
Constant	0.1388***	(0.0027)
R ²	0.2612	
Observations	12,407	

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. Sampling 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, 2016-2018. Sampling 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, 2016-2018

Ln(Real Wage)	(1) USA Mean		(1) Illinois Mean		(2) Illinois Median, Q(.5)		(3) Minnesota Mean	
	Coefficient	(St. Err.)	Coefficient	(St. Err.)	Coefficient	(St. Err.)	Coefficient	(St. Err.)
Union member	0.0995***	(0.0030)	0.1105***	(0.0143)	0.1126***	(0.0170)	0.0831***	(0.0182)
Age	0.0384***	(0.0004)	0.0433***	(0.0022)	0.0400***	(0.0020)	0.0427***	(0.0027)
Age ²	-0.0004***	(0.0000)	-0.0004***	(0.0000)	-0.0004***	(0.0000)	-0.0004***	(0.0000)
Female	-0.1607***	(0.0020)	-0.1563***	(0.0104)	-0.1424***	(0.0109)	-0.1401***	(0.0133)
Veteran	0.0054	(0.0042)	0.0103	(0.0265)	0.0290	(0.0238)	-0.0380	(0.0304)
Citizen	0.0677***	(0.0044)	0.0499***	(0.0212)	0.0916***	(0.0249)	-0.0086	(0.0334)
Immigrant	-0.0231***	(0.0036)	-0.0687***	(0.0173)	-0.0618***	(0.0221)	-0.0859***	(0.0294)
White	0.0024	(0.0038)	-0.0305	(0.0204)	-0.0430*	(0.0232)	0.0332	(0.0259)
African American	-0.1193***	(0.0045)	-0.1696***	(0.0247)	-0.1656***	(0.0266)	-0.0843***	(0.0312)
Latinx	-0.0750***	(0.0040)	-0.0968***	(0.0218)	-0.1022***	(0.0241)	-0.0351	(0.0311)
Chicago MSA			0.0918***	(0.0142)				
Center City	0.0513***	(0.0025)	0.0054	(0.0180)	0.1068***	(0.0145)	0.1002***	(0.0177)
Suburb	0.0677***	(0.0022)	0.0201	(0.0158)	0.1107***	(0.0117)	0.1094***	(0.0129)
Federal government	0.0301***	(0.0062)	0.0605*	(0.0362)	0.0794*	(0.0339)	-0.0351	(0.0634)
State government	-0.1141***	(0.0043)	-0.0934***	(0.0284)	-0.0991***	(0.0247)	-0.1151***	(0.0312)
Local government	-0.0986***	(0.0038)	-0.1017***	(0.0216)	-0.0838***	(0.0214)	-0.1233***	(0.0257)
Usual hours worked	0.0044***	(0.0001)	0.0052***	(0.0006)	0.0066***	(0.0005)	0.0050***	(0.0008)
Involuntarily part-time	-0.1425***	(0.0047)	-0.1012***	(0.0258)	-0.1054***	(0.0235)	-0.1649***	(0.0327)
Less than high school	-0.1333***	(0.0032)	-0.1285***	(0.0170)	-0.1116***	(0.0157)	-0.0990***	(0.0245)
Some college	0.0342***	(0.0024)	0.0286**	(0.0128)	0.0350***	(0.0133)	0.0262	(0.0172)
Associate's	0.0843***	(0.0030)	0.0868***	(0.0163)	0.0845***	(0.0167)	0.0878***	(0.0186)
Bachelor's	0.2998***	(0.0028)	0.3097***	(0.0151)	0.3311***	(0.0175)	0.3291***	(0.0198)
Master's	0.4181***	(0.0038)	0.4321***	(0.0192)	0.4809***	(0.0213)	0.4225***	(0.0267)
Professional/Doctorate	0.5587***	(0.0061)	0.5804***	(0.0322)	0.6390***	(0.0369)	0.5963***	(0.0461)
Industry Dummies	Y		Y		Y		Y	
Occupation Dummies	Y		Y		Y		Y	
State Dummies	Y		N		N		N	
Constant	1.5373***	(0.0137)	1.3459***	(0.0736)	1.2781***	(0.0771)	1.6270***	(0.0793)
R ²	0.4437		0.4448		0.3050		0.4744	
Observations	403,330		12,294		12,294		5,987	
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, 2016-2018. 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 Illinois compared to the nation from OLS analyses, regression (2) provides the median regression as an example of outputs from the quartile regressions for Illinois from Figure 22, and regression (3) uses Minnesota 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.

