

February 9, 2021

# Promoting Good Jobs and a Stronger Economy

*How Free Collective-Bargaining  
States Outperform "Right-to-  
Work" States*

**Frank Manzo IV, MPP**  
Policy Director  
Illinois Economic Policy Institute

**Robert Bruno, PhD**  
Director and Professor  
Project for Middle Class Renewal  
University of Illinois at Urbana-Champaign

**ILEPI**  
ILLINOIS ECONOMIC POLICY INSTITUTE

**I ILLINOIS** LABOR & EMPLOYMENT  
RELATIONS  
PROJECT FOR MIDDLE CLASS RENEWAL



## Executive Summary

The labor movement has historically provided U.S. workers with reliable pathways into good, middle-class jobs. Union membership, however, has gradually declined across America. A primary driver of this decline has been the spread of so-called “right-to-work” laws, which allow workers to receive all the services and benefits of collective bargaining—such as higher wages, better health care, and legal representation—without paying anything for them. By restricting the ability to collectively bargain, “right-to-work” laws weaken unions.

Currently, 27 states have so-called “right-to-work” laws while 23 states and the District of Columbia have collective-bargaining freedom laws. This allows researchers to assess the impact of “right-to-work” laws on wages, workplace safety, access to health care coverage, and the broader economy.

**Free collective-bargaining states provide greater financial security for workers.** “Right-to-work” states:

- Have 3 percent lower hourly wages for workers on average;
- Have 5 percent less health insurance coverage;
- Have 8 percent less retirement security; and
- Have larger pay penalties for workers deemed essential during the COVID-19 pandemic— including 16 percent for police officers and firefighters, 11 percent for construction workers, and 7 percent for registered nurses.

**Free collective-bargaining states have superior training and safety outcomes.** “Right-to-work” states:

- Have 11 percent fewer workers with bachelor’s degrees or higher;
- Have 31 percent fewer registered apprentices per 100,000 workers; and
- Have 50 percent more on-the-job fatalities per 100,000 workers.

**Free collective-bargaining states have stronger economies.** In “right-to-work” states:

- Economic productivity per worker is 17 percent lower;
- Economic growth was 3 percent slower during the pre-COVID-19 economic expansion;
- The consumer-debt-to-GDP ratio is 26 percent higher and loan delinquency rates are higher;
- The number of households falling below the poverty line is 15 percent higher;
- The number of households receiving food stamps is 10 percent higher; and
- There is no discernible impact on employment, with “right-to-work” ranking outside of the Top 10 factors cited by corporate executives in business location decisions.

**Free collective-bargaining states have healthier communities and fewer “deaths of despair.”** As of 2017:

- Life expectancy at birth is 2 years lower in “right-to-work” states;
- The top 10 states with the highest life expectancy are all free collective-bargaining states while 9 of the bottom 10 states with the lowest life expectancy are “right-to-work” states; and
- Infant mortality rates are 28 percent higher in “right-to-work” states.

**The voice of the middle class is more influential in free collective-bargaining states.** In “right-to-work” states:

- 3 percent fewer adults vote in national elections;
- 18 percent fewer adults contact their elected officials; and
- 3 percent fewer adults donate to charities, schools, or other nonpolitical organizations.

**Some free collective-bargaining states may consider “right-to-work.”** However, in 20 economic and social outcomes:

- Montana fares better than “right-to-work” states in 15 outcomes (75 percent).
- New Hampshire fares better than “right-to-work” states in 19 of 20 outcomes (95 percent).

The COVID-19 pandemic is a stark reminder that working people keep the economy functioning. States with collective-bargaining freedom laws have higher wages, greater health coverage, better retirement security, more investment in education and worker training, fewer on-the-job fatalities, faster-growing economies, higher life expectancies, lower infant mortality rates, and broader civic and political engagement. “Right-to-work” states, on the other hand, have worse economic outcomes and weaker communities.

## Table of Contents

Executive Summary	i
Table of Contents	ii
About the Authors	ii
Introduction	1
Free Collective-Bargaining States Are Better at Promoting Good Jobs	2
Free Collective-Bargaining States Have Superior Training and Safety Outcomes	5
Free Collective-Bargaining States Have Stronger Economies	7
Free Collective-Bargaining States Have Healthier Communities	11
The Voice of the Middle Class Is More Influential in Free Collective-Bargaining States	14
Comparing Montana and New Hampshire with “Right-to-Work” States	16
Conclusion	17
Sources	19
Cover Photo Credits	22
Appendix	23

## About the Authors

**Frank Manzo IV**, MPP is the Policy Director of the Illinois Economic Policy Institute. He earned a Master of Public Policy from the University of Chicago Harris School of Public Policy and a Bachelor of Arts in Economics and Political Science from the University of Illinois at Urbana-Champaign. He can be contacted at [fmanzo@illinoisepi.org](mailto:fmanzo@illinoisepi.org).

**Robert Bruno**, PhD is a Professor at the University of Illinois at Urbana-Champaign School of Labor and Employment Relations and is the Director of the Project for Middle Class Renewal. He earned a Doctor of Philosophy in Political Theory from New York University, a Master of Arts from Bowling Green State University, and a Bachelor of Arts from Ohio University. He can be contacted at [bbruno@illinois.edu](mailto:bbruno@illinois.edu).

## Introduction

Gallup, which has conducted public opinion polls around the world since 1935, has concluded that one of its most important findings is that “what the whole world wants is a good job” (Blanchflower, 2019; Clifton, 2015). A defining attribute of a *good job* is that it provides financial security, with a family-supporting income that covers food, water, shelter, security, leisure time, and the other basic necessities of life. While wages and salaries matter, access to quality health care coverage, the ability to retire with dignity, a schedule with stable and predictable hours, opportunities for professional development and career advancement, and a connection with a sense of purpose are all characteristics of a good job. Based on these criteria, only 40 percent of U.S. workers had good jobs during the most-recent economic expansion (Bernstein, 2019). The lack of good jobs has exposed millions of workers to historic levels of economic hardship brought on by the novel coronavirus disease (COVID-19). In the aftermath of the recession caused by the COVID-19 pandemic, the need for rapid growth in good jobs is unprecedented.

In America, strong unions have historically led efforts to help more workers access pathways into good, middle-class jobs. On average, union households earn between 10 percent and 20 percent more than nonunion households— an income premium that has been consistent since the 1930s (Manzo et al., 2020; Farber et al., 2018; Schmitt, 2008; Card, 1992). Additionally, the U.S. Department of Labor reports that 95 percent of union workers have access to health care coverage and 94 percent have access to retirement plans compared with just 68 percent health care access and 67 percent retirement plan access for nonunion workers (BLS, 2019). After controlling for measurable factors like demographic characteristics and educational attainment, union membership improves the likelihood that a worker will have employer-provided health insurance and pension coverage, while reducing their probability of being below the poverty line (Manzo & Bruno, 2014). Labor unions also give workers a voice and “creating publicly valuable outcomes relating to work” through collective bargaining (Budd, 2014; Rees, 1989). As a result, two-thirds of Americans (65 percent) approve of labor unions, with unions for teachers, nurses, and construction trade workers having the highest net favorability ratings (Brenan, 2020; Wang & Gould, 2019).

Union membership, however, has gradually waned across America. Almost one-in-four U.S. workers (23 percent) were members of labor unions in 1980. Four decades later, only one-in-ten workers (10 percent) are unionized (Hirsch & Macpherson, 2020). As union membership has declined, structural economic inequality has worsened— with the wealth of the top 1 percent of households surpassing the combined wealth of the bottom 80 percent. Worsening inequality has likely contributed to the fragility of the United States’ ability to respond to the COVID-19 pandemic (Babic, 2020; van Dorn et al., 2020).

A significant driver of the decline in union density has been the spread of so-called “right-to-work” laws, which are government regulations prohibiting workers and employers from including union security clauses in privately negotiated contracts. Union security clauses ensure that all workers who benefit from collective bargaining pay for the services provided in the form of membership dues or non-member “fair share” fees. “Right-to-work” laws allow workers in any bargaining unit to free ride on the contributions of others, taking all the services and benefits associated with collective bargaining— such as negotiated wage increases, benefits, and legal representation— without paying anything for them. When a significant number of employees decide to free ride, the financial resources of labor unions are reduced, weakening their bargaining power. Economic research has found that “right-to-work” laws reduce union membership by about 8 percentage points (Manzo & Bruno, 2018; Hogler et al., 2004; Davis & Huston, 1993).

U.S. Supreme Court Justice Louis Brandeis persuasively reasoned that the 50 states serve as “laboratories of democracy,” with different laws and public policies producing outcomes that could be tested to assess

their effectiveness (*New State Ice Co. v. Liebmann*, 1932). Currently, a total of 23 states and the District of Columbia have collective-bargaining freedom laws while 27 states have so-called “right-to-work” laws (NCSL, 2020). Five states— Indiana, Michigan, Wisconsin, West Virginia, and Kentucky— newly became “right-to-work” between 2012 and 2017, while Missouri residents overwhelmingly rejected “right-to-work” in 2018 when 67 percent of voters cast ballots against the measure, including majorities of voters in 89 of Missouri’s 103 counties (86 percent) (Neuman, 2018; Manzo, 2018).

On June 27, 2018, the U.S. Supreme Court upended decades of labor peace in a 5-4 decision in *Janus v. American Federation of State, County, and Municipal Employees, Council 31, et al.* (Oyez, 2018). The *Janus* ruling struck down a 41-year precedent, effectively imposing nationwide “right-to-work” in the public sector (Oyez, 1977). After *Janus*, state and local government employees can now free ride on the contributions of others, taking all the services and benefits associated with collective bargaining without paying anything for them in the form of membership dues or “fair-share” fees.

In early 2020, a bipartisan majority in the U.S. House of Representatives passed the Protecting the Right to Organize (PRO) Act, which would strengthen the ability of private sector workers to collectively bargain by establishing stiffer penalties on corporations for violating the National Labor Relations Act (NLRA) and repealing state “right-to-work” laws (McNicholas et al., 2020). However, the measure was never voted on in the U.S. Senate.

This report, conducted by researchers at the Illinois Economic Policy Institute (ILEPI) and the Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign, takes advantage of the natural experiment created by these differences between jurisdictions to analyze whether free collective-bargaining (CB) states or so-called “right-to-work” (RTW) states are better at providing good jobs and fostering strong communities. Impacts on job quality, workplace safety and training, employment outcomes, health and well-being, and civic engagement are all assessed. All impacts are assessed over eight years from the beginning of 2011 through the end of 2018, which was a period of economic expansion prior to the COVID-19 pandemic. This report thus provides an assessment of the differences between free collective-bargaining states and “right-to-work” states during “normal” times (Pinsker, 2020). Comparisons of Montana and New Hampshire with “right-to-work” states are also presented before a concluding section recaps key findings.

## Free Collective-Bargaining States Are Better at Promoting Good Jobs

Workers have greater financial security in free collective-bargaining (CB) states than in so-called “right-to-work” (RTW) states (Figure 1). In 2018, workers in RTW states earned 13 percent lower wages than their counterparts in CB states. While workers in CB states earned nearly \$28 per hour on average, those in RTW states received just over \$24 per hour. The average worker consequently brings home about \$7,500 more annually over a full-time workload if he or she is employed in a free collective-bargaining state. Similarly, the median worker in RTW states earns below \$19 per hour, 11 percent less than the \$21 per hour earned by his or her counterpart in CB states.



Average worker wages are **3 percent higher** in free collective-bargaining states.

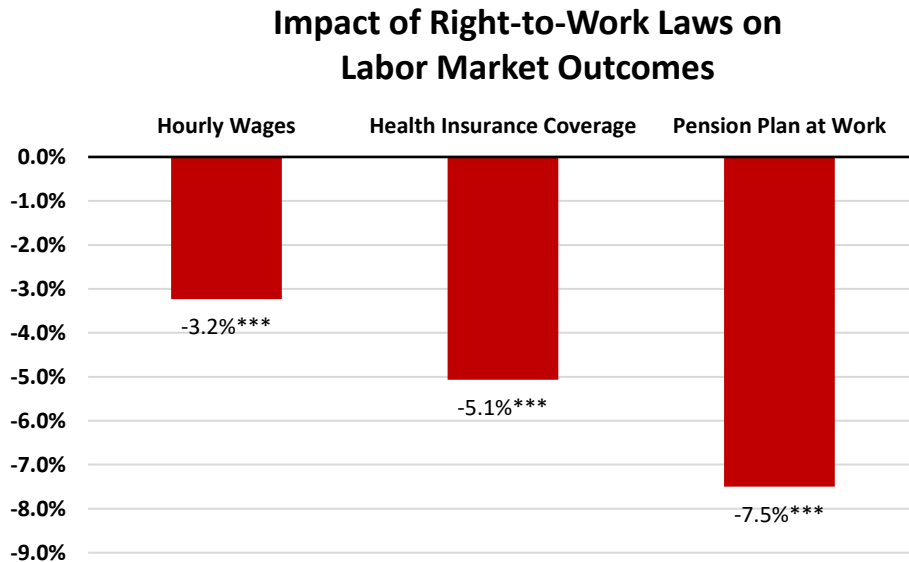
Workers in free collective-bargaining states also have greater health care and retirement coverage (Figure 1). In CB states, 89 percent of workers have health insurance coverage and 44 percent have access to a pension plan at work. By contrast, only 85 percent of workers have health insurance coverage and under 41 percent of workers have a pension plan at work in RTW states. An estimated 4 percent fewer workers in “right-to-work” states have health care coverage and 8 percent fewer workers have retirement benefits, while their counterparts in free collective-bargaining states are better protected from unexpected medical costs and better able to retire with dignity.<sup>1</sup>

**Figure 1: Labor Market Outcomes in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2018**

Good Job Metric: Financial Security	Free Collective-Bargaining States	So-called "Right-to-Work" States	Absolute Difference	Percent Difference
Average Hourly Wage	\$27.74	\$24.15	-\$3.59	-12.9%
Median Hourly Wage	\$21.00	\$18.75	-\$2.25	-10.7%
Health Insurance Coverage	88.9%	85.4%	-3.6 p.p.	-3.9%
Pension Plan at Work	44.3%	40.6%	-3.7 p.p.	-8.4%

Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019) and 2018 *Current Population Survey Annual Social and Economic Supplement* (ASEC) data (Flood et al., 2019). Percentage point differences are denoted by “p.p.”

**Figure 2: The Impact of “Right-to-Work” Laws on Worker Wages, Health Insurance, and Retirement Security, 2018**



Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019), 2018 *American Community Survey* (1-Year Estimates) (Ruggles et al., 2019), and 2018 *Current Population Survey Annual Social and Economic Supplement* (ASEC) data (Flood et al., 2019). \*\*\*p≤|0.01|; \*\*p≤|0.05|; \*p≤|0.10|. To determine the percent differences for health insurance coverage and pension coverage, the “right-to-work” law coefficient was divided by the constant term, or the baseline probability of any given worker having each benefit. For full regression results, see Table 1 in the Appendix.

Statistical regression results on the impact of so-called “right-to-work” laws on average hourly wages, health insurance coverage, and pension plan coverage are reported in Figure 2. Many factors have an impact on a worker’s hourly wage, including level of educational attainment, age, gender identification,

<sup>1</sup> The 3.6 percentage-point gap divided by the 88.9 percent health insurance rate in free collective-bargaining states yields a 4.0 percent difference in health coverage. Similarly, the 3.7 percentage-point gap divided by the 44.3 percent pension plan rate in free collective-bargaining states yields an 8.4 percent difference in retirement coverage.





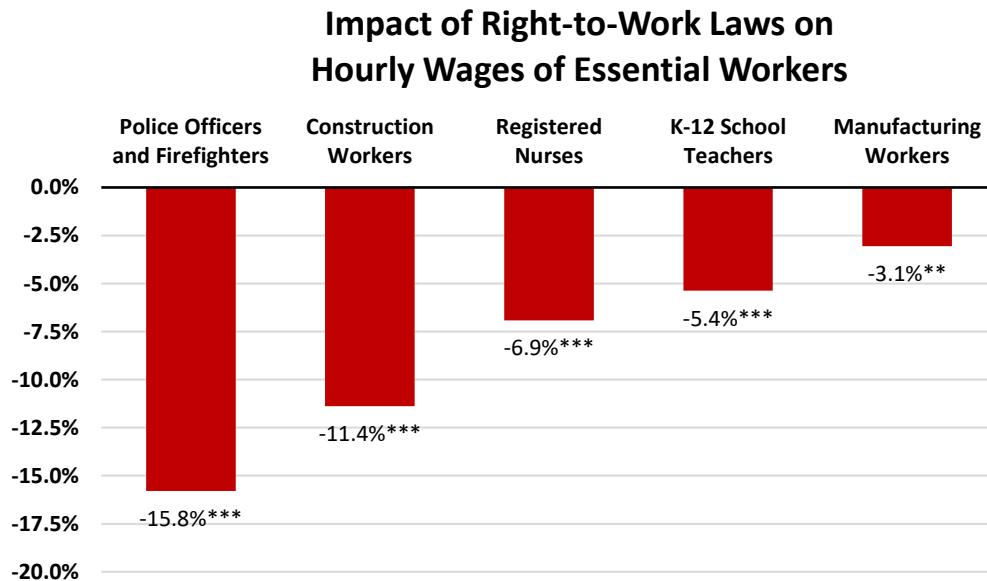
“Right-to-work” laws are associated with **7 percent lower** wages for registered nurses.

racial and ethnic background, immigration status, citizenship status, veteran status, marital status, sector of employment, urban status, occupation, industry of employment, and average hours worked per week. Additionally, RTW laws tend to exist in states with relatively lower costs of living (Gould & Kimball, 2015). After accounting for both observable factors and the local cost of living, so-called “right-to-work” laws statistically reduce workers’ hourly wages by 3 percent on average, a result that is significant at the 99-percent level of confidence. Similarly, RTW decreases health insurance coverage by 5 percent and pension plan coverage by 8 percent— and both results are statistically significant at the 99-percent level of confidence.

These findings align with previous economic research on so-called “right-to-work” laws. By reducing unionization, RTW laws have consistently been shown to reduce worker earnings by between 2 percent and 4 percent on average, including reducing the wages of nonunion workers by 3 percent (Manzo & Bruno, 2017; Gould & Kimball, 2015; Shierholz & Gould, 2011; Lafer, 2011; Stevans, 2009). Furthermore, RTW laws have also been found to lower the share of workers who are covered by employer-provided health plans and by employer-sponsored pension plans (Manzo & Bruno, 2014; Shierholz & Gould, 2011).

Free collective-bargaining states pay significantly higher wages for workers in essential middle-class occupations (Figure 3). After adjusting for cost-of-living differences and controlling for other observable factors, RTW laws are statistically associated with 16 percent lower wages for police officers and firefighters, 11 percent lower wages for blue-collar construction tradespeople, 7 percent lower wages for registered nurses, 5 percent lower wages for elementary and secondary school teachers, and 3 percent lower for blue-collar manufacturing workers. The right to collectively bargain promotes ladders into the middle class, particularly for teachers, nurses, public safety workers, construction workers, and manufacturing workers— all of whom were deemed essential during the height of the COVID-19 pandemic.

**Figure 3: The Impact of “Right-to-Work” Laws on the Wages of Essential Middle-Class Occupations, 2018**



Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019). \*\*\* $p \leq |0.01|$ ; \*\* $p \leq |0.05|$ ; \* $p \leq |0.10|$ . For examples of full regression results, see Table 2 in the Appendix.


Hourly wages have also grown faster in free collective-bargaining states than in “right-to-work” states since the worst of the Great Recession (Figure 4). In 2011, the year before Indiana became the first new RTW state since 2001, workers in the 23 current CB states and the District of Columbia earned \$25.62 per hour in inflation-adjusted terms. By 2018, inflation-adjusted wages had increased to \$27.74 per hour, a gain of \$2.12 per hour. By contrast, the average worker in the 27 current RTW states saw hourly earnings grow by just \$1.61 per hour, from \$22.54 to \$24.15. During this time, the five states that passed RTW legislation— Indiana, Michigan, Wisconsin, West Virginia, and Kentucky— experienced even smaller wage gains. Between 2011 and 2018, real wage growth was just 6 percent in the newest “right-to-work” states, 7 percent in the states that were “right-to-work” prior to the decade, and 8 percent in the states that had and maintained collective-bargaining freedom laws.

**Figure 4: Wage Growth in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2011 to 2018**

Good Job Metric: Average Wage Growth	2011 Real Hourly Wage	2018 Real Hourly Wage	Dollar Change: 2011 to 2018	Percent Growth: 2011 to 2018	Percentage Point Difference
CB States	\$25.62	\$27.74	+\$2.12	+8.3%	--
RTW States	\$22.54	\$24.15	+\$1.61	+7.1%	-1.1 p.p.
• Previous RTW States	• \$22.57	• \$24.21	• +\$1.64	• +7.3%	• -1.0 p.p.
• Five New RTW States	• \$22.43	• \$23.88	• +\$1.46	• +6.5%	• -1.8 p.p.

Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019).

## Free Collective-Bargaining States Have Superior Training and Safety Outcomes



So-called “right-to-work” states have **50 percent more** on-the-job fatalities.

In free collective-bargaining states, the workforce is better educated than in so-called “right-to-work” states (Figure 5). In 2018, 38 percent of all workers in CB states had earned bachelor’s degrees or higher. By contrast, just over 34 percent of those in RTW states had achieved comparable levels of educational attainment, a difference of 4 percentage points (or 10 percent). After accounting for other observable factors, RTW laws are associated with an 11 percent decrease in the total number of workers with bachelor’s degrees or higher. This result is statistically significant at the 99-percent level of confidence (Figure 5).

**Figure 5: Educational Attainment in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2018**

Good Job Metric: Bachelor’s Degree or Higher	Bachelor’s Degree or Higher	Percentage Point Difference	Percent Difference
CB States	38.4%	--	--
RTW States	34.5%	-3.9 p.p.	-10.2%
• Previous RTW States	• 34.8%	• -3.6 p.p.	• -9.4%
• Five New RTW States	• 33.3%	• -5.1 p.p.	• -13.3%
<b>Impact of RTW Law</b>	<b>-11.5%***</b>		

Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019). \*\*\*p≤|0.01|; \*\*p≤|0.05|; \*p≤|0.10|. For full regression results, see Table 2 in the Appendix.



Similarly, free collective-bargaining states have a greater investment in apprenticeship training than “right-to-work” states (Figure 6). This is likely a function of the fact that many collective bargaining agreements prescribe employer hourly contributions into joint labor-management training programs. The U.S. Department of Labor reports that in 2018, there were about 286,500 active apprentices in CB states and 74.5 million total workers. In RTW states, there were about 185,700 active apprentices out of 70.2 million total workers. Accordingly, while CB states had 385 apprentices per 100,000 workers, RTW states had just 264 apprentices per 100,000 workers (31 percent less).<sup>2</sup>



“Right-to-work” states have **31 percent fewer** registered apprentices per 100,000 workers.

**Figure 6: Apprenticeship Training in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2018**

Good Job Metric: Apprenticeship Training	Active Registered Apprentices (FY 2018)	Total Employment (May 2018)	Apprentices Per 100,000 Workers	Percent Difference
CB States	286,522	74,491,770	384.6	--
RTW States	185,726	70,241,540	264.4	-31.3%
• Previous RTW States	• 129,021	• 57,440,560	• 224.6	• -41.6%
• Five New RTW States	• 56,705	• 12,800,980	• 443.0	• +15.2%

Source(s): Authors’ analysis of fiscal year 2018 Apprenticeship Statistics from the U.S. Department of Labor Employment and Training Administration data (DOLETA, 2019) and May 2018 *Occupational Employment Statistics* (OES) data from the U.S. Department of Labor Bureau of Labor Statistics (BLS, 2020a). For a full list of states by active apprentices per 100,000 workers, see Table C in the Appendix.

Registered apprenticeships also grew faster in CB states (Figure 7). In the states that maintained free collective-bargaining policies over the decade, apprenticeship systems grew from about 177,400 active apprentices to more than 286,500 active apprentices, an increase of more than 61 percent. In RTW states, apprentices increased by 57 percent, or 4 percent slower than CB states. For the 22 states that had RTW laws in 2011, apprenticeship growth was even slower, at 56 percent (5 percent slower than CB states). The five states that adopted RTW laws between 2011 and 2018— Indiana, Michigan, Wisconsin, West Virginia, and Kentucky— saw a growth of less than 61 percent (about 1 percent slower than CB states).<sup>3</sup>

**Figure 7: Apprenticeship Growth in Free Collective-Bargaining States and “Right-to-Work” States, 2011 to 2018**

Good Job Metric: Apprenticeship Growth	Active Registered Apprentices (FY 2011)	Active Registered Apprentices (FY 2018)	Growth in Active Apprentices	Percentage Point Difference
CB States	177,419	286,522	+61.5%	--
RTW States	117,988	185,726	+57.4%	-4.1 p.p.
• Previous RTW States	• 82,718	• 129,021	• +56.0%	• -5.5 p.p.
• Five New RTW States	• 35,270	• 56,705	• +60.8%	• -0.7 p.p.

Source(s): Authors’ analysis of fiscal year 2011 and fiscal year 2018 Apprenticeship Statistics from the U.S. Department of Labor Employment and Training Administration data (DOLETA, 2019). For a full list of states by growth in active apprentices, see Table D in the Appendix.

The vast majority of construction apprentices come from joint labor-management programs that are cooperatively administered by labor unions and signatory employers. For example, joint labor-management programs account for 97 percent of all active construction apprentices in Illinois, 93 percent

<sup>2</sup> For a full list of states by active apprentices per 100,000 workers, see Table C in the Appendix.

<sup>3</sup> For a full list of states by growth in active apprentices, see Table D in the Appendix.

in Minnesota, and 78 percent in Michigan (Manzo & Bruno, 2020; Manzo & Duncan, 2018; Bilginsoy, 2017). Because “right-to-work” regulations reduce unionization and the resources available for workers to collectively bargain for training investments, they weaken apprenticeship systems that are critical to skills development in the blue-collar trades.

**Figure 8: On-the-Job Fatalities in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2018**

Good Job Metric: Workplace Fatalities	On-the-Job Fatalities (2018)	Total Employment (May 2018)	Fatalities Per 100,000 Workers	Percent Difference
CB States	2,169	74,491,770	2.91	--
RTW States	3,077	70,241,540	4.38	+50.4%
• Previous RTW States	• 2,521	• 57,440,560	• 4.39	• +50.7%
• Five New RTW States	• 556	• 12,800,980	• 4.34	• +49.2%

Source(s): Authors’ analysis of *Census of Fatal Occupational Injuries* (CFOI) data for 2018 and May 2018 *Occupational Employment Statistics* (OES) data from the U.S. Department of Labor Bureau of Labor Statistics (BLS, 2020b). For a full list of states by on-the-job fatality rate per 100,000 workers, see Table E in the Appendix.

With better-trained workers, free collective-bargaining states also have safer workplaces than so-called “right-to-work” states (Figure 8). In 2018, there were 5,246 on-the-job fatalities in the 50 U.S. states plus the District of Columbia. A total of 2,169 fatalities were in CB states while 3,077 occurred in RTW states. CB states had 2.9 on-the-job fatalities per 100,000 workers. In comparison, RTW states suffered 4.4 on-the-job fatalities per 100,000 workers, 50 percent more than CB states. The occupational fatality rate was similar for the 22 states with RTW laws prior to the decade (4.4 fatalities per 100,000 workers) and the five newest RTW states in the Midwest (4.3 fatalities per 100,000 workers).<sup>4</sup>

### Free Collective-Bargaining States Have Stronger Economies

In addition to being better educated, higher skilled, and safer, workers in free collective-bargaining states post higher levels of productivity than their counterparts in so-called “right-to-work” states (Figure 9). In 2018, the 50 U.S. states plus the District of Columbia produced \$20.5 trillion in gross domestic product (GDP) and had 144.7 million workers (BEA, 2020; BLS, 2020a). Dividing total GDP by total employment yields an average economic output of about \$141,400 per worker across the United States. Free collective-bargaining states generated \$11.5 trillion in economic activity (56 percent) from their 74.5 million workers in 2018. By contrast, “right-to-work” states, with 70.2 million workers, accounted for \$9.0 trillion (44 percent) of the nation’s GDP. Consequently, workers produced an average of \$154,300 in economic activity in CB states and just \$127,700 in RTW states in 2018. Productivity per worker was 17 percent lower in RTW states.

The economies of free collective-bargaining states **grew 3 percent faster** between 2011 and 2018.



The economies of states with collective-bargaining freedom laws also grew faster than those in so-called “right-to-work” states during the economic expansion that followed the Great Recession (Figure 10).<sup>5</sup>

<sup>4</sup> For a full list of states on-the-job fatality rate, see Table E in the Appendix.

<sup>5</sup> The authors selected 2011 as the starting year for two reasons. First, 2011 is the last full year before the recent wave of “right-to-work” activity, with Indiana enacting a RTW law in February 2012 (NRTWC, 2017). Second, September 2010 was last month in

Between 2011 and 2018, CB states grew from \$8.6 trillion in economic activity to \$11.5 trillion, an increase of \$2.9 trillion (34 percent). By contrast, RTW states grew from \$6.8 trillion to \$9.0 trillion, an increase of \$2.1 trillion (31 percent). Free collective-bargaining states grew 3 percent faster than “right-to-work” states. Of the five fastest-growing states, four were free collective-bargaining states: Washington (49 percent), California (46 percent), Colorado (43 percent), and Oregon (41 percent).<sup>6</sup> Importantly, CB states experienced better economic growth (34 percent) than both the 22 states with RTW laws prior to the decade (32 percent) and the five newest RTW states in the Midwest (27 percent).

**Figure 9: Economic Activity Per Worker in Free Collective-Bargaining States and “Right-to-Work” States, 2018**

Good Job Metric: Worker Productivity	Gross Domestic Product (2018)	Total Employment (May 2018)	Economic Activity Per Worker	Percent Difference
CB States	\$11,492,382,500,000	74,491,770	\$154,277	--
RTW States	\$8,971,074,500,000	70,241,540	\$127,718	-17.2%
• Previous RTW States	• \$7,455,359,100,000	• 57,440,560	• \$129,793	• -15.9%
• Five New RTW States	• \$1,515,715,400,000	• 12,800,980	• \$118,406	• -23.3%

Source(s): Authors’ analysis of 2018 “GDP & Personal Income” data from the Bureau of Economic Analysis at the U.S. Department of Commerce (BEA, 2020) and May 2018 *Occupational Employment Statistics* (OES) data from the U.S. Department of Labor Bureau of Labor Statistics (BLS, 2020b). For a full list of states by gross domestic product (GDP), see Table F in the Appendix.

**Figure 10: Economic Growth in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2018**

Strong Community Metric: Economic Growth	Gross Domestic Product (2011)	Gross Domestic Product (2018)	Growth in State GDP	Percentage Point Difference
CB States	\$8,586,554,700,000	\$11,492,382,500,000	+33.8%	--
RTW States	\$6,844,837,800,000	\$8,971,074,500,000	+31.1%	-2.8 p.p.
• Previous RTW States	• \$5,652,636,100,000	• \$7,455,359,100,000	• +31.9%	• -1.9 p.p.
• Five New RTW States	• \$1,192,201,700,000	• \$1,515,715,400,000	• +27.1%	• -6.7 p.p.

Source(s): Authors’ analysis of 2011 and 2018 “GDP & Personal Income” data from the Bureau of Economic Analysis at the U.S. Department of Commerce (BEA, 2020). For a full list of states by gross domestic product (GDP), see Table f in the Appendix.

**Figure 11: Consumer-Debt-to-GDP Ratios in Collective-Bargaining States and “Right-to-Work” States, 2018Q4**

Strong Community Metric: Consumer Debt (2018 Q4)	Auto, Credit Card, and Student Loan Debt	Gross Domestic Product (2018)	Consumer-Debt-to-GDP Ratio	Percent Difference
CB States	\$2,218,004,090,200	\$11,492,382,500,000	+19.4%	--
RTW States	\$2,180,470,170,600	\$8,971,074,500,000	+24.3%	+25.9%
• Previous RTW States	• \$1,831,853,449,200	• \$7,455,359,100,000	• +24.6%	• +27.3%
• Five New RTW States	• \$348,616,721,400	• \$1,515,715,400,000	• +23.0%	• +19.2%

Source(s): Authors’ analysis of “State-Level Household Debt Statistics” data from the New York Fed Consumer Credit Panel and Equifax for the fourth quarter of 2018 (CMD, 2019). “Percent Difference” is determined by dividing the percentage point gap by the consumer-debt-to-GDP ratio in CB states. For a full list of states by consumer-debt-to-GDP ratio, see Table G in the Appendix.

States with collective-bargaining freedom laws have stronger economies in part because they have relatively lower levels of household debt (Figure 11). According to “State-Level Household Debt Statistics”

which the U.S. economy did not add jobs prior to the 701,000 jobs lost in March 2020 due to the novel coronavirus disease (COVID-19) pandemic (BLS, 2020b). 2011 was thus the first year during the economic expansion that job growth was positive over all 12 months.

<sup>6</sup> For a full list of states by gross domestic product, see Table F in the Appendix.



“Right-to-work” states have more household debt and higher loan delinquency rates.

for the fourth quarter of 2018 compiled and released by the Federal Reserve Bank of New York, CB states had \$2.2 trillion in combined credit card, auto loan, and student loan debt. The consumer-debt-to-GDP ratio is 19 percent of GDP in these states. By contrast, RTW states also had \$2.2 trillion in combined credit card, auto loan, and student loan debt, accounting for 24 percent of total GDP. The consumer-debt-to-GDP ratio is thus 26 percent higher in “right-to-work” states.<sup>7</sup>

States with so-called “right-to-work” laws have more household debt and lower household incomes, contributing to higher loan delinquency rates (Figure 12). In RTW states, the 90-day delinquency rate— which captures borrowers who have missed three or more payments— was 5 percent for auto loans, 8 percent for credit card loans, and 13 percent for student loans in 2018. By contrast, CB states had lower 90-day delinquency rates across the board: 4 percent for auto loans, 7 percent for credit card loans, and 10 percent for student loans. Households in “right-to-work” states are significantly more likely to be behind on their loans.

**Figure 12: Consumer Loan Delinquency Rates in Collective-Bargaining States and “Right-to-Work” States, 2018Q4**

Strong Community Metric: Loan Delinquency Rates	90-Day Auto Loan Delinquency (2018Q4)	90-Day Credit Card Loan Delinquency (2018Q4)	90-Day Student Loan Delinquency (2018Q4)
CB States	3.7%	7.2%	9.9%
RTW States	4.9%	7.8%	13.0%
• Previous RTW States	• 4.4%	• 6.4%	• 12.8%
• Five New RTW States	• 5.0%	• 8.2%	• 13.1%
RTW Difference	+1.2%	+0.6%	+3.1%

Source(s): Authors’ analysis of “State-Level Household Debt Statistics” data from the New York Fed Consumer Credit Panel and Equifax for the fourth quarter of 2018 (CMD, 2019). For a full list of states by 90-day delinquency rates for auto loans, credit card loans, and student loans, see Table H in the Appendix.

While some proponents of “right-to-work” laws assert that they attract businesses and increase employment, the nonpartisan Congressional Research Service has concluded that “existing empirical research is inconclusive” and does not support this claim (Collins, 2014). In fact, in the 34<sup>th</sup> Annual Corporate Survey by *Area Development*, “right-to-work state” ranked outside of the Top 10 factors cited by corporate executives in business location decisions (Gambale, 2020). Business location decisions are primarily driven by other considerations, such as infrastructure accessibility, the availability of skilled labor, and quality-of-life factors (Figure 13). A “right-to-work” law has little to no effect on firm location.

The working-age employment rate— or the share of all people between 25 years old and 64 years old with at least one job— is higher in free collective-bargaining states than in “right-to-work” states (Figure 14). In 2018, the working-age employment rate was 76 percent in CB states and 75 percent in RTW states. Moreover, after accounting for age, gender identification, racial and ethnic background, immigration status, citizenship status, veteran status, marital status, sector of employment, urban status, and level of educational attainment, there is no statistically significant difference in the likelihood of U.S. residents being employed due to RTW laws. Previous research has reached similar conclusions (Jones & Shierholz, 2018; Eren & Ozbeklik, 2011). “Right-to-work” laws have no discernible impact on employment.

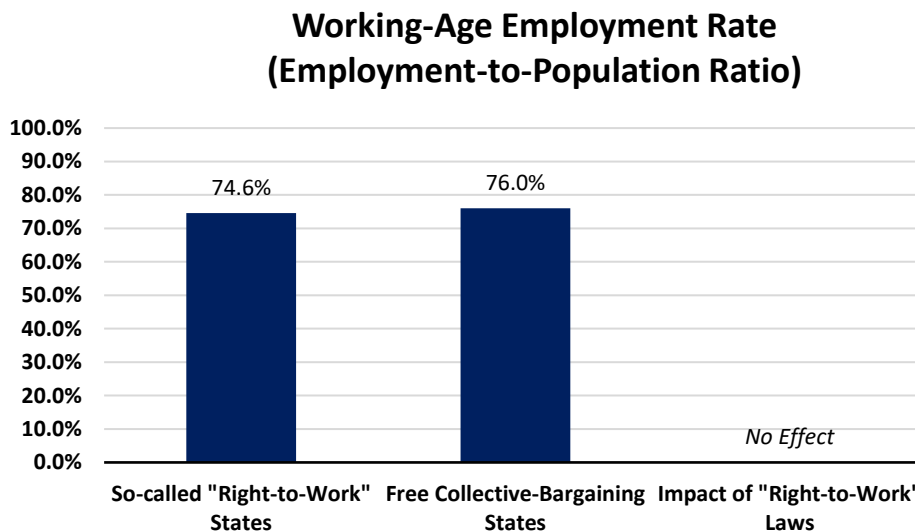
<sup>7</sup> The consumer-debt-to-GDP ratio is 5.0 percentage points higher in RTW states, which is 25.9 percent higher than the 19.4 percent consumer-debt-to-GDP ratio in CB states.

**Figure 13: Top 10 Business Location Decisions, Survey of U.S. Corporate Executives, 2019**

Strong Community Metric: Business Location Decisions	“Very Important” or “Important” Factor	2019 Rank
Highway Accessibility	92.4%	1
Availability of Skilled Labor	92.3%	2
Labor Costs	87.1%	3
Quality-of-Life	82.2%	4
Occupancy of Construction Costs	80.3%	5
Corporate Tax Rate	79.7%	6
Energy Availability and Costs	79.5%	7
Tax Exemptions	75.0%	8
Environmental Regulations	73.0%	9
Proximity to Major Markets	72.6%	10

Source(s): “34<sup>th</sup> Annual Corporate Survey & the 16<sup>th</sup> Annual Consultants Survey” by *Area Development* (Gambale, 2020). \*“Right-to-work state” and “low union profile” both ranked outside of the Top 10 factors and have in nearly all previous years.

**Figure 14: Working-Age Employment Rate in Free Collective-Bargaining States and “Right-to-Work” States, 2018**



Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019). The “working-age population” is defined as all residents between the ages of 25 years old and 64 years old. \*\*\* $p \leq |0.01|$ ; \*\* $p \leq |0.05|$ ; \* $p \leq |0.10|$ . “No Effect” indicates that the difference (i.e., regression) was not statistically significant. For full regression results, see Table 3 in the Appendix.

Not only do so-called “right-to-work” states have lower wages, lower rates of health insurance coverage, less-skilled workers, slower economic growth, and greater levels of consumer debt, but they also produce greater reliance on government assistance programs (Figure 15). In 2018, fully 16 percent of all households in RTW states were below the official poverty line and 14 percent were on Supplemental Nutrition Assistance Program (SNAP) food stamps. By contrast, in CB states, 14 percent of households were in poverty and 13 percent received food stamps. After accounting for other observable factors, RTW laws statistically increase the number of households below the official poverty line by 12 percent.<sup>8</sup>

<sup>8</sup> “Right-to-work” is statistically associated with a 1.9 percentage-point increase in the likelihood of a household falling below poverty. Dividing this difference by the baseline poverty rate (15.4 percent) produces a 12.3 percent impact of RTW laws.

Similarly, RTW laws are associated with a 6 percent increase in overall food stamp reciprocity.<sup>9</sup> These results, which are both significant at the 99-percent level of confidence, corroborate previous research which has found that workers in “right-to-work” states contribute less in tax revenue but receive more in government assistance, straining public budgets (Manzo & Bruno, 2014). Ensuring that workers have the freedom to collectively bargain tends to reduce reliance on government assistance programs.

**Figure 15: Household Poverty and Assistance in Collective-Bargaining States and “Right-to-Work” States, 2018**

Strong Community Metric: Household Poverty	Below the Federal Poverty Line	Percent Difference	Receives Food Stamp Assistance	Percent Difference
CB States	14.3%	--	12.8%	--
RTW States	16.4%	+14.6%	14.0%	+10.2%
• Previous RTW States	• 16.4%	• +14.7%	• 14.2%	• +10.9%
• Five New RTW States	• 16.2%	• +13.3%	• 13.2%	• +3.1%
<b>Impact of RTW Law</b>	<b>+12.3%***</b>		<b>+6.1%***</b>	

Source(s): Authors’ analysis of 2018 data from the *American Community Survey* (1-Year Estimates) (Ruggles et al., 2019). \*\*\*p≤|0.01|; \*\*p≤|0.05|; \*p≤|0.10|. For full regression results, see Table 3 in the Appendix. “Percent Difference” is determined by dividing the percentage point gap by the poverty rate and food stamp reciprocity rate in CB states.

## Free Collective-Bargaining States Have Healthier Communities



Life expectancy is **2 years longer** in free collective-bargaining states.

After decades of improving health outcomes, life expectancy in the United States has decreased. From 1959 through 2014, U.S. life expectancy at birth increased from 69.9 years to 78.9 years, an improvement of 9.0 years. Life expectancy, however, declined for three straight years in 2015, 2016, and 2017, falling to 78.6 years (Woolf & Schoemaker, 2019). The decline in life expectancy has been driven by higher rates of mortality among middle-aged Americans. While deaths from cancer and heart disease declined, these gains were offset by marked increases in drug overdoses, suicides, and alcohol-related liver mortality (Case & Deaton, 2017).

Researchers find that these “deaths of despair” are the result of “cumulative disadvantage” as workers without college degrees tend to have worse labor market, marriage, and health outcomes (Case & Deaton, 2017). In the 1970s and 1980s, blue-collar workers began to suffer from a deterioration of available “good jobs” due to rising globalization and the weakening of worker bargaining power from the gradual decline of labor unions (Case & Deaton, 2017). While men and women with bachelor’s degrees or more have seen big decreases in mortality, their counterparts with only high school degrees or less have experienced dramatic increases in mortality.

Additionally, while the data in this report preceded the novel coronavirus disease (COVID-19), the pandemic significantly affected low-income individuals and vulnerable Americans. As businesses closed, workers in the lowest-paying industries experienced mass layoffs and furloughs. Workers in the leisure and hospitality, food services and drinking places, and arts, entertainment, and recreation industries all

<sup>9</sup> “Right-to-work” is statistically associated with a 0.8 percentage-point increase in the probability of a household receiving food stamp assistance from a baseline probability of 13.4 percent. Mathematically, 0.8 is 6.1 percent of 13.4.



experienced significant rises in unemployment (BLS, 2020c). Similarly, for those who remained employed, 30 percent of white workers were able to work from home compared with just 20 percent of Black and African American workers and 16 percent of Hispanic and Latinx workers (Gould & Shierholz, 2020). Employees who could not work remotely either had to stay at home and lose their incomes or go to work and risk infection. This dynamic has disproportionately impacted Black Americans and African Americans. For example, as of January 2021, while Black Americans and African Americans comprise 15 percent of Illinois’ population, they have accounted for 18 percent of all COVID-19-related deaths (IDPH, 2020; Census, 2020). In Michigan, Black Americans and African Americans comprise 14 percent of the population but have accounted for 21 percent of all deaths (State of Michigan, 2020; Census, 2020).

**Figure 16: Life Expectancy at Birth in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2017**

Strong Community Metric: Life Expectancy at Birth	Life Expectancy at Birth (2017)	Absolute Difference	Percent Difference
CB States	79.6 years	--	--
RTW States	77.7 years	-1.9 years	-2.4%
• Previous RTW States	• 77.8 years	• -1.8 years	• -2.2%
• Five New RTW States	• 77.3 years	• -2.3 years	• -2.9%

Source(s): Authors’ analysis of 2017 data provided by the Institute for Health Metrics and Evaluation at the University of Washington (IHME, 2019). For a full list of states by life expectancy at birth, see Table I in the Appendix.

**Figure 17: Top 10 States and Bottom 10 States by Life Expectancy at Birth and State Labor Policy, 2017**

Best and Worst States By Life Expectancy	2017 Rank	Life Expectancy at Birth (2017)	Labor Policy in the State
<i>Top 10 States</i>			
Hawaii	1	81.5 years	Collective-Bargaining
California	2	80.9 years	Collective-Bargaining
Minnesota	3	80.7 years	Collective-Bargaining
New Jersey	4	80.7 years	Collective-Bargaining
New York	5	80.6 years	Collective-Bargaining
Connecticut	6	80.4 years	Collective-Bargaining
Massachusetts	7	79.9 years	Collective-Bargaining
Vermont	8	79.9 years	Collective-Bargaining
Colorado	9	79.9 years	Collective-Bargaining
Washington	10	79.9 years	Collective-Bargaining
<i>Bottom 10 States</i>			
Ohio	41	76.6 years	Collective-Bargaining
South Carolina	42	76.2 years	“Right-to-Work”
Tennessee	43	76.0 years	“Right-to-Work”
Arkansas	44	75.4 years	“Right-to-Work”
Oklahoma	45	75.4 years	“Right-to-Work”
Louisiana	46	75.4 years	“Right-to-Work”
Kentucky	47	75.0 years	“Right-to-Work”
Alabama	48	74.9 years	“Right-to-Work”
West Virginia	49	74.8 years	“Right-to-Work”
Mississippi	50	74.5 years	“Right-to-Work”

Source(s): Authors’ analysis of 2017 data provided by the Institute for Health Metrics and Evaluation at the University of Washington (IHME, 2019). For a full list of states by life expectancy at birth, see Table I in the Appendix.

**Figure 18: Infant Mortality Rate in Free Collective-Bargaining States and So-called “Right-to-Work” States, 2017**

Strong Community Metric: Infant Mortality Rate	Infant Mortality Per 1,000 Live Births (2017)	Absolute Difference	Percent Difference
CB States	5.1 deaths	--	--
RTW States	6.5 deaths	+1.4 deaths	+28.3%
• Previous RTW States	• 6.4 deaths	• +1.4 deaths	• +27.1%
• Five New RTW States	• 6.8 deaths	• +1.7 deaths	• +34.2%

Source(s): Authors’ analysis of 2017 data provided by the Centers for Disease Control and Prevention (CDC, 2019). For a full list of states by infant mortality per 1,000 live births, see Table I in the Appendix.

**Figure 19: Top 10 States and Bottom 10 States by Infant Mortality Rate and State Labor Policy, 2017**

Best and Worst States By Infant Mortality Rate	2017 Rank	Infant Mortality Per 1,000 Live Births (2017)	Labor Policy in the State
<i>Top 10 States</i>			
Massachusetts	1	3.7 deaths	Collective-Bargaining
Washington	2	3.9 deaths	Collective-Bargaining
California	3	4.2 deaths	Collective-Bargaining
New Hampshire	4	4.2 deaths	Collective-Bargaining
North Dakota	5	4.3 deaths	“Right-to-Work”
Colorado	6	4.5 deaths	Collective-Bargaining
Connecticut	7	4.5 deaths	Collective-Bargaining
New Jersey	8	4.6 deaths	Collective-Bargaining
Idaho	9	4.6 deaths	“Right-to-Work”
New York	10	4.6 deaths	Collective-Bargaining
<i>Bottom 10 States</i>			
Louisiana	41	7.1 deaths	“Right-to-Work”
Georgia	42	7.2 deaths	“Right-to-Work”
Ohio	43	7.2 deaths	Collective-Bargaining
Indiana	44	7.3 deaths	“Right-to-Work”
Alabama	45	7.4 deaths	“Right-to-Work”
Tennessee	46	7.4 deaths	“Right-to-Work”
Oklahoma	47	7.7 deaths	“Right-to-Work”
South Dakota	48	7.7 deaths	“Right-to-Work”
Arkansas	49	8.2 deaths	“Right-to-Work”
Mississippi	50	8.6 deaths	“Right-to-Work”

Source(s): Authors’ analysis of 2017 data provided by the Centers for Disease Control and Prevention (CDC, 2019). For a full list of states by infant mortality per 1,000 live births, see Table I in the Appendix.

Public health outcomes are superior in free collective-bargaining states (Figure 16). In 2017, life expectancy at birth averaged 79.6 years in CB states compared with 77.7 years in RTW states, a difference of 1.9 years, or 2 percent. In fact, the top 10 states with the highest life expectancies are all free collective-

bargaining states while 9 of the bottom 10 states with the lowest life expectancies are “right-to-work” states (Figure 17).<sup>10</sup> States with collective-bargaining freedom laws have more “good jobs” with family-supporting incomes and higher retirement coverage, providing greater financial security both during and after residents’ working years and reducing financial stressors that can contribute to higher risks of mortality (Argys et al., 2016). Higher health insurance coverage in these states may also contribute to higher life expectancy, since having health coverage has been found to increase the odds of having a regular health care provider and of receiving preventative care such as diagnostic tests, checkups, and influenza vaccines (Courtemanche et al., 2018; Hudson et al., 2017). On the other hand, states with “right-to-work” laws have fewer workers with four-year college degrees, lower rates of unionization, and more working poverty— all of which put workers at a cumulative disadvantage and produce the “deaths of despair” that have lowered life expectancy in the United States (Case & Deaton, 2017). The end result is that people live nearly two years longer in states that support collective bargaining than in states with “right-to-work” laws.



Infant mortality is **28 percent higher** in “right-to-work” states.

Free collective-bargaining states also have lower infant mortality rates than so-called “right-to-work” states (Figure 18). In 2017, the number of infant deaths per 1,000 live births was 5.1 in CB states compared with 6.5 in RTW states, a difference of 1.4 deaths per 1,000 births. Infant mortality is thus 28 percent higher in RTW states than CB states. In addition, 8 of the top 10 states with the lowest infant mortality rates are free collective-bargaining states while 9 of the bottom 10 states with the highest infant mortality rates are “right-to-work” states (Figure 19).

### The Voice of the Middle Class Is More Influential in Free Collective-Bargaining States

People in “right-to-work” states are **less likely to vote** in national elections and **less likely to donate to charity.**



In public opinion polls, Americans overwhelmingly believe that the working class and the middle class have far too little influence in the U.S. economy (Igielnik, 2020). Fully 75 percent of Americans say that the amount of “power and influence” that low-income people have in today’s economy is “not enough” compared with just 5 percent who think they have “too much.” Another 72 percent say that the middle class does not have enough power and influence today compared with just 5 percent who think it has too much. By contrast, 70 percent of Americans state that the U.S. economic system “unfairly favors powerful interests,” including 82 percent who

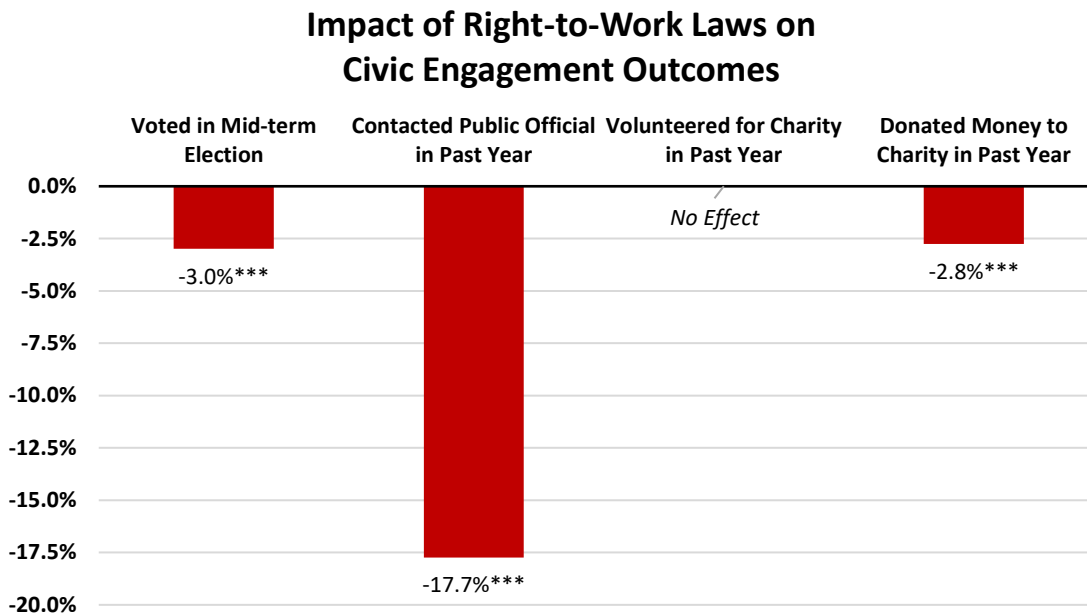
say that large corporations have too much influence and another 82 percent saying that wealthy individuals have too much influence (Igielnik, 2020). Given that about half of the United States resides in the 23 states with collective-bargaining freedom laws and the other half is located in the 27 states with so-called “right-to-work” laws, it is possible to assess whether one of these labor policies gives greater voice to working-class and middle-class interests.

<sup>10</sup> For a full list of states by life expectancy at birth and infant mortality per 1,000 live births, see Table G in the Appendix.

Figure 20 utilizes data from three supplemental questionnaires to the *Current Population Survey* conducted jointly by the U.S. Census Bureau and the Bureau of Labor Statistics at the U.S. Department of Labor. These include the 2018 Voter supplement, the 2017 Civic Engagement supplement, and the 2017 Volunteer supplement. The analyses assess the impact that “right-to-work” laws have on whether an individual voted in the 2018 midterm elections, whether an individual contacted any elected officials in 2017, and whether an individual either volunteered their time or donated money to a charity in 2017.

Both election turnout and civic engagement are higher in states with collective-bargaining freedom laws than in states with so-called “right-to-work” laws (Figure 20). After accounting for age, gender identification, racial and ethnic background, veteran status, immigration status, employment status, urban status, and educational attainment, RTW laws reduced the number of adults voting in the 2018 midterm elections by 3 percent. Similarly, adults in RTW states were also statistically 18 percent less likely to have contacted at least one public official in 2017. Both of these results are statistically significant at the 99-percent level of confidence.

**Figure 20: The Impact of “Right-to-Work” Laws on Voting, Engagement, Charitable Activity, 2017 or 2018**



Source(s): Authors’ analysis of 2018 *Current Population Survey Voter Supplement* data, 2017 *Current Population Survey Civic Engagement Supplement* data, and 2017 *Current Population Survey Volunteer Supplement* data (Flood et al., 2019). \*\*\* $p \leq |0.01|$ ; \*\* $p \leq |0.05|$ ; \* $p \leq |0.10|$ . Effects are percent difference, determined by dividing the “right-to-work” law coefficient by the constant term, or the baseline probability of a given adult resident voluntarily participating in each activity. “No Effect” indicates that the difference (i.e., regression) was not statistically significant. For full regression results, see Table 4 in the Appendix.

“Right-to-work” laws also have an interesting effect on volunteerism (Figure 20). After accounting for observable factors, RTW laws had no statistical impact on whether an adult resident volunteered for an organization or association in the past 12 months.<sup>11</sup> However, RTW laws are statistically associated with a 3 percent decrease in adult residents making at least one contribution of more than \$25 to a nonpolitical

<sup>11</sup> An estimated 71.9 percent of people aged 18 years or older volunteered for a charity in CB states compared with 72.6 percent in RTW states, a difference that is not statistically significant.

group, such as a charity, school, or religious organization.<sup>12</sup> This result is significant at the 99-percent level of confidence. People in free collective-bargaining states volunteer their time just as much as their counterparts in “right-to-work” states but—because they have more disposable income to spend, invest, and donate—contribute more money to charitable causes.

These findings generally align with recent research on the political effects of “right-to-work” laws (Feigenbaum et al., 2018). In a seminal 2018 study, researchers compared counties in CB states with border counties in RTW states and found that RTW laws have palpable electoral consequences. RTW laws reduce turnout in federal and state elections by between 2 percent and 3 percent, reduce union political contributions by up to 3 percent, and reduce “get-out-the-vote” (GOTV) contact to middle-class Americans by 11 percent. Furthermore, RTW laws reduce the share of Congressmen and Congresswomen who come from blue-collar occupations by between 1 percent and 3 percent. The takeaway is that unions increase political engagement and involvement among middle-class workers. By hampering labor unions, “right-to-work” laws weaken the voice of middle class in American democracy and civic life.

### Comparing Montana and New Hampshire with “Right-to-Work” States

Some free collective-bargaining states may be considering so-called “right-to-work” legislation in 2021. In Montana, Governor Greg Gianforte “has signaled that he will place restrictions on workers’ right to organize” (Kim, 2020). In New Hampshire, there may be another push by some lawmakers to enact a “right-to-work” like there was in Governor Chris Sununu’s first term (Rogers & Quirk, 2020). Given that there may be legislative activity in 2021, Figure 21 presents data on 20 economic and community outcomes in these two states versus their 27 counterparts with so-called “right-to-work” laws.<sup>13</sup>

Montana fares better than so-called “right-to-work” states in 15 of the 20 economic and community outcomes (75 percent). Although hourly earnings are marginally lower in Montana due to the lower average cost of living, inflation-adjusted wages grew by 15 percent in Montana between 2011 and 2018, nearly double the 7 percent wage growth of “right-to-work” states. More workers have health insurance coverage (90 percent) and access to a pension plan (47 percent) in Montana than in “right-to-work” states (87 percent and 41 percent, respectively). Montana also has 414 apprentices per 100,000 workers and the number of active apprentices has grown by 87 percent since 2011—both significantly more than “right-to-work” states, which have just 264 apprentices per 100,000 workers and experienced a growth of 57 percent. Montana also has much more civic engagement and noticeably lower poverty, food stamp reliance, and loan delinquency rates than “right-to-work” states (Figure 21).

In New Hampshire, economic and community outcomes surpass those in so-called “right-to-work” states in 19 of the 20 metrics analyzed (95 percent). New Hampshire has higher wages, faster wage growth, more health insurance coverage, greater access to pension plans at work, higher-educated workers, more union members, a higher working-age employment rate, lower poverty rates, less reliance on SNAP government assistance, more civic engagement in terms of voting and contacting public officials, higher

<sup>12</sup> An estimated 54.9 percent of people aged 18 years or older donated money to a charity in CB states compared with 52.1 percent in RTW states, a difference that is statistically significant.

<sup>13</sup> Though not shown, Illinois fares better than the 27 states with so-called “right-to-work” laws on 90 percent of the economic, health, and community outcomes. In particular, wages are 11 percent higher, health coverage is higher, consumer debt levels and loan delinquency rates are lower, and productivity per worker is 13 percent higher. Illinois also has less poverty, fewer on-the-job fatalities, a higher life expectancy, and more civic engagement. For more, please see Table B of the Appendix.

levels of charitable giving, a higher apprenticeship ratio, fewer on-the-job fatalities, greater levels of productivity per worker, lower auto loan and credit card loan delinquency rates, a higher life expectancy at birth, and a lower infant mortality rate than “right-to-work” states (Figure 21). The slower growth in apprenticeship training may be caused by the lack of a state prevailing wage law in New Hampshire. State prevailing wage laws— which establish local minimum wages for different types of skilled construction work on public construction projects—are associated with higher enrollments and faster completion rates among construction apprentices (Duncan & Ormiston, 2017; Bilginsoy, 2003).

**Figure 21: 20 Metrics Comparing Montana and New Hampshire with the 27 “Right-to-Work” States**

20 Economic and Community Outcomes	Montana	New Hampshire	RTW States
Average Hourly Wages	\$23.55	<b>\$28.15</b>	\$24.15
Average Wage Growth (2011-2018)	<b>+14.8%</b>	<b>+7.2%</b>	+7.1%
Workers with Health Insurance	<b>89.8%</b>	<b>94.0%</b>	86.9%
Workers with Access to a Pension Plan	<b>46.6%</b>	<b>50.9%</b>	40.6%
Workers with Bachelor’s Degree or More	34.0%	<b>40.6%</b>	34.5%
Workers Who Are Union Members	<b>11.8%</b>	<b>10.2%</b>	6.1%
Working-Age Employment Rate	<b>75.3%</b>	<b>82.5%</b>	74.6%
Household Poverty Rate	<b>14.3%</b>	<b>10.6%</b>	16.4%
Households Receiving SNAP Food Stamps	<b>10.0%</b>	<b>7.5%</b>	14.0%
Adult Population Voted in 2018 Midterms	<b>72.4%</b>	<b>66.4%</b>	63.5%
Population Contacting Public Official	<b>20.3%</b>	<b>16.9%</b>	10.7%
Population Donated in Past Year	<b>55.0%</b>	<b>67.2%</b>	52.1%
Ratio of Apprentices to 100,000 Workers	<b>414.4</b>	<b>425.2</b>	264.4
Active Apprenticeship Growth (2011-2018)	<b>+86.8%</b>	+56.4%	+57.4%
On-the-Job Fatalities Per 100,000 Workers	6.0	<b>3.1</b>	4.4
Gross Domestic Product (GDP) Per Worker	\$108,631	<b>\$129,363</b>	\$127,718
Auto Loan Delinquency Rate (2018Q4)	<b>3.4%</b>	<b>2.4%</b>	4.9%
Credit Card Delinquency Rate (2018Q4)	<b>6.4%</b>	<b>5.8%</b>	7.8%
Life Expectancy at Birth	76.9	<b>79.1</b>	77.4
Infant Mortality Per 1,000 Live Births	<b>5.4</b>	<b>4.2</b>	6.5
<i>Better Outcomes than “Right-to-Work” States</i>	<i>15 (75%)</i>	<i>19 (95%)</i>	--

Source(s): Authors’ analysis of *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) (CEPR, 2019), *American Community Survey* (1-Year Estimates) (Ruggles et al., 2019); *Current Population Survey Annual Social and Economic Supplement* (ASEC), *Voter Supplement*, *Civic Engagement Supplement*, and *Volunteer Supplement* (Flood et al., 2019), 2018 Apprenticeship Statistics (DOLETA, 2019); *Census of Fatal Occupational Injuries* (CFOI) (BLS, 2020b); “GDP & Personal Income” (BEA, 2020); Institute for Health Metrics and Evaluation at the University of Washington data (IHME, 2019); and Centers for Disease Control and Prevention data (CDC, 2019). For data comparing Illinois to the 27 “right-to-work” states, please see Table B in the Appendix.

## Conclusion

The coronavirus pandemic is a stark reminder that working people keep the economy functioning during crises. Doctors, nurses, paramedics, and frontline health care workers— often with inadequate personal protective equipment— have saved countless lives. Construction and maintenance workers have built hospital facilities and critical infrastructure. Manufacturing workers have changed production lines to deliver life-saving supplies, from ventilators to hand sanitizer. Grocery clerks, warehouse workers, and



truck drivers have risked infection to ensure that homes have food and other essential goods. Teachers and professors have adjusted their routines to ensure children and young adults receive quality education through remote learning. Police officers and firefighters have patrolled temporarily-closed businesses and protected distressed communities. Many low-income and middle-class workers have risked their lives to lift up the economy for the rest of America, who can shelter and work at home. These frontline employees should be commended for their hard work and courage.

In that context, this report has examined whether free collective-bargaining states or so-called “right-to-work” states offer these essential workers access to good jobs that provide family-supporting incomes, quality health coverage, retirement security, stable and predictable hours, professional development opportunities, and safe workplaces. In “normal” economic expansions, the data shows that the states that are most effective at improving job quality are those that support collective bargaining. States that have collective-bargaining freedom laws have higher wages, greater health insurance coverage, better retirement security, more investment in education and worker training, fewer on-the-job fatalities, faster-growing economies, less consumer debt, higher life expectancies, lower infant mortality rates, and broader civic and political engagement than “right-to-work” states. By imposing “right-to-work” conditions in state and local governments, however, the June 2018 *Janus v. AFSCME Council 31* decision is likely to degrade these outcomes in the 23 free collective-bargaining states over time.

Through collective bargaining, labor unions have long proven effective at ensuring access to good jobs for American workers. The data shows that these institutions provide benefits far beyond the workers they represent. States with collective-bargaining freedom laws have stronger economies, less reliance on public assistance, and better health outcomes. Businesses have greater access to a high-skilled and productive labor supply and workers have higher earnings and a stronger voice in civic life. To develop and protect good jobs, policymakers should ensure that all workers have the right to join a union and collectively bargain.

## Sources

- Argys, Laura; Andrew Friedson; and M. Melinda Pitts. (2016). *Killer Debt: The Impact of Debt on Mortality*. Federal Reserve Bank of Atlanta; University of Colorado Denver.
- Babic, Mary. (2020). "COVID-19 Illustrates Stark Inequality in the U.S." Oxfam America.
- Bernstein, Jared. (2019). "Commentary: America Has Plenty of Jobs Right Now. But How Many of Them Are Good Jobs?" *Chicago Tribune*.
- Bilginsoy, Cihan. (2017). *The Performance of ABC-Sponsored Registered Apprenticeship Programs in Michigan: 2000-2016*. University of Utah.
- Bilginsoy, Cihan. (2003). *Wage Regulation and Training: The Impact of State Prevailing Wage Laws on Apprenticeship*. University of Utah.
- Blanchflower, David. (2019). *Not Working: Where Have All the Good Jobs Gone?* Princeton University Press: 1-15.
- Brenan, Megan. (2020). "At 65%, Approval of Labor Unions in U.S. Remains High." Gallup.
- Budd, John. (2014). "Implicit Public Values and the Creation of Publicly Valuable Outcomes: The Importance of Work and the Contested Role of Labor Unions." *Public Administration Review*, July/August: 507-516.
- Bureau of Economic Analysis (BEA). (2020). Regional Data: GDP & Personal Income. U.S. Department of Commerce.
- Bureau of Labor Statistics (BLS). (2020) (a). Occupational Employment Statistics: OES Data for May 2018. U.S. Department of Labor.
- Bureau of Labor Statistics (BLS). (2020) (b). Databases, Tables & Calculators by Subject: Employment, Hours, and Earnings - State and Metro Area (Current Employment Statistics - CES) and Census of Fatal Occupational Injuries (2011 forward). U.S. Department of Labor.
- Bureau of Labor Statistics (BLS). (2020) (c). "Employment Situation News Release: April 2020." U.S. Department of Labor.
- Bureau of Labor Statistics (BLS). (2019). *National Compensation Survey: Employee Benefits in the United States, March 2019*. U.S. Department of Labor.
- Card, David. (1992). *The Effect of Unions on the Distribution of Wages: Redistribution or Relabeling?* Princeton University.
- Case, Anne and Angus Deaton. (2017). "Mortality and Morbidity in the 21<sup>st</sup> Century." *Brookings Papers on Economic Activity*, Spring: 397-476.
- Census. (2020). QuickFacts: Michigan; Illinois. U.S. Census Bureau.
- Center for Economic and Policy Research (CEPR). (2019). 2011-2018 CPS ORG Uniform Extracts, Version 2.5. Washington, DC.
- Center for Microeconomic Data (CMD). (2019). Data Bank: Quarterly Report on Household Debt and Credit. State-Level Household Debt Statistics from the New York Fed Consumer Credit Panel and Equifax. Federal Reserve Bank of New York.
- Centers for Disease Control and Prevention (CDC). (2019). Infant Mortality Rates by State. National Center for Health Statistics.
- Clifton, Jim. (2015). "What the Whole World Wants." *Gallup*.

- Collins, Benjamin. (2014). *Right to Work Laws: Legislative Background and Empirical Research*. Congressional Research Service. U.S. Congress.
- Courtemanche, Charles; James Marton; Benhamin Ukert; Aaron Yelowitz; and Daniela Zapata. (2018). *Early Effects of the Affordable Care Act on Health Behaviors After Three Years*. Georgia State University; University of Kentucky; University of Pennsylvania; Impaq International.
- Davis, Joe and John Huston. (1993). "Right-to-Work Laws and Free Riding." *Economic Inquiry* 31:1, 52-58.
- Department of Labor Employment and Training Administration (DOLETA). Data and Statistics: Registered Apprenticeship National Results – Fiscal Year (FY) 2018 (10/01/2017 to 9/30/2018). (2019). U.S. Department of Labor.
- Duncan, Kevin and Russell Ormiston. (2017). *Prevailing Wage Laws: What Do We Know?* Institute for Construction Economics Research (ICERES); Colorado State University-Pueblo; Allegheny College.
- Eren, Ozkan and Serkan Ozbeklik. (2011). *Right-to-Work Laws and State-Level Economic Outcomes: Evidence from the Case Studies of Idaho and Oklahoma Using Synthetic Control Method*. University of Nevada, Las Vegas.
- Farber, Henry; Daniel Herbst; Ilyana Kuziemko; and Suresh Naidu. (2018). *Unions and Inequality Over the Twentieth Century: New Evidence from Survey Data*. Princeton University.
- Feigenbaum, James; Alexander Hertel-Fernandez; and Vanessa Williamson. (2018). *From the Bargaining Table to the Ballot Box: Political Effects of Right to Work Laws*. Boston University; Columbia University; Brookings Institution.
- Flood, Sarah; Miriam King; Renae Rodgers; Steven Ruggles and J. Robert Warren. (2019). Integrated Public Use Microdata Series; Current Population Survey: Version 7.0 [dataset]. Minneapolis, MN: IPUMS. <https://doi.org/10.18128/D030.V7.0>
- Gambale, Geraldine. (2020). "34<sup>th</sup> Annual Corporate Survey & the 16<sup>th</sup> Annual Consultants Survey." *Area Development*.
- Gould, Elise and Heidi Shierholz. (2020). "Not Everybody Can Work from Home: Black and Hispanic Workers Are Much Less Likely to Be Able to Telework." *Working Economics*. Economic Policy Institute.
- Gould, Elise and Will Kimball. (2015). "Right-to-Work" States Still Have Lower Wages. Economic Policy Institute.
- Hirsch, Barry and David Macpherson. (2020). *Union Membership and Coverage Database from the CPS*. Unionstats.com. Georgia State University; Trinity University.
- Hogler, Raymond; Steven Shulman; and Stephan Weiler. (2004). "Right-to-Work Legislation, Social Capital, and Variations in State Union Density." *The Review of Regional Studies* 34, (1): 95-111.
- Hudson, Andrea; Kenneth Hudson; Marcellus Hudson; Destini Smith; Alan Akira; Marcus Mitchell; and Errol Crook. (2017). "The Effect of Health Insurance Coverage and the Doctor-Patient Relationship on Health Care Utilization in High Poverty Neighborhoods." *Preventative Medicine Reports*, 7: 156-161.
- Igielnik, Ruth. (2020). "70% of Americans Say U.S. Economic System Unfairly Favors the Powerful." Pew Research Center.
- Illinois Department of Public Health (IDPH). (2020). "COVID-19 Statistics." State of Illinois.
- Institute for Health Metrics and Evaluation (IHME). (2019). US Data for Download. University of Washington.
- Jones, Janelle and Heidi Shierholz. (2018). *Right-to-Work is Wrong for Missouri: A Breadth of National Evidence Shows Why Missouri Voters Should Reject RTW Law*. Economic Policy Institute.
- Kim, E. Tammy. (2020). "Opinion: Montana's New Governor Could Remake the State." *The New York Times*.

- Lafer, Gordon. (2011). *“Right-to-Work”: Wrong for New Hampshire*. Economic Policy Institute.
- Manzo IV, Frank. (2018). “Analysis: 86% of Republican Counties in Missouri Voted Against Right-to-Work.” *Illinois Insights*. Illinois Economic Policy Institute.
- Manzo IV, Frank and Kevin Duncan. (2018). *An Examination of Minnesota’s Prevailing Wage Law: Effects on Costs, Training, and Economic Development*. Midwest Economic Policy Institute; Colorado State University-Pueblo.
- Manzo IV, Frank and Robert Bruno. (2020). *The Apprenticeship Alternative: Enrollment, Completion Rates, and Earnings in Registered Apprenticeship Programs in Illinois*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank and Robert Bruno. (2018). *After Janus: The Impending Effects on Public Sector Workers from a Decision Against Fair Share*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank and Robert Bruno. (2017). *The Impact of “Right-to-Work” Laws on Labor Market Outcomes in Three Midwest States: Evidence from Indiana, Michigan, and Wisconsin (2010-2016)*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank and Robert Bruno. (2014). *Free-Rider States: How Low-Wage Employment in “Right-to-Work” States Is Subsidized by the Economic Benefits of Collective Bargaining*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo, Frank; Robert Bruno; Virginia Parks; and Jill Gigstad. (2020). *The State of the Unions 2020: A Profile of Unionization in Chicago, in Illinois, and in the United States*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign; University of California, Irvine.
- McNicholas, Celine; Lynn Rhinehart; Margaret Poydock; Heidi Shierholz; and Daniel Perez. (2020). *Why Unions Are Good for Workers—Especially in a Crisis Like COVID-19: 12 Policies that Would Boost Worker Rights, Safety, and Wages*. Economic Policy Institute.
- National Conference of State Legislatures (NCSL). (2020). “Right-to-Work Resources.”
- National Right to Work Committee (NRTWC). (2017). “State Right to Work Timeline.”
- Neuman, Scott. (2018). “Missouri Blocks Right-to-Work Law.” *NPR*.
- New State Ice Co. v. Liebmann*. (1932). U.S. Supreme Court. Published online by the Cornell Law School.
- Oyez. (2018). *Janus v. American Federation of State, County, and Municipal Employees, Council 31*. U.S. Supreme Court.
- Oyez. (1977). *Aboud v. Detroit Board of Education*. U.S. Supreme Court.
- Pinsker, Joe. (2020). “The Four Possible Timelines for Life Returning to Normal.” *The Atlantic*.
- Rees, Albert. (1989). *The Economics of Trade Unions*. (Third Edition). University of Chicago Press.
- Roger, Josh and Emily Quirk. (2020). “Republicans Appear Poised To Seize Majorities In N.H. Legislature, Executive Council.” *New Hampshire Public Radio*.
- Ruggles, Steven; Sarah Flood; Ronald Goeken; Josiah Grover; Erin Meyer; Jose Pacas and Matthew Sobek. (2019) IPUMS USA: Version 10.0 [dataset]. Minneapolis; MN.
- Schmitt, John. (2008). *The Union Wage Advantage for Low-Wage Workers*. Center for Economic and Policy Research.
- Shierholz, Heidi and Elise Gould. (2011). *The Compensation Penalty of “Right-to-Work” Laws*. Economic Policy Institute.

State of Michigan. (2020). Coronavirus: Michigan Data.

Stevens, Lonnie. (2009). "The Effect of Endogenous Right-to-Work Laws on Business and Economic Conditions in the United States: A Multivariate Approach." *Review of Law and Economics* 5, (1): 595-614.

van Dorn, Aaron; Rebecca Cooney; and Miriam Sabin. (2020). "COVID-19 Exacerbating Inequalities in the U.S." *The Lancet*, 395(10232): 1245-1244.

Wang, Angela and Skye Gould. (2019). "Americans Have a Very Favorable View of Almost All Labor Unions." *Business Insider*.

Woolf, Steven and Heidi Schoomaker. (2019). "Life Expectancy and Mortality Rates in the United States, 1959-2017." *JAMA*, 322(20): 1996-2016.

### Cover Photo Credits

Adobe Stock. (2019). "Builder Working with Cutting Grinder – 35937002." Adobe stock image available with 30-day free trial.

## Appendix

### DATA AND METHODOLOGY

This analysis primarily uses data between 2011 and 2018— or, at times, 2017. The authors selected 2011 as the starting year for two reasons. First, 2011 is the last full year before the recent wave of “right-to-work” activity, with Indiana enacting a RTW law in February 2012 ([NRTWC, 2017](#)). Second, September 2010 was last month in which the U.S. economy did not add jobs prior to the 701,000 jobs lost in March 2020 due to the novel coronavirus disease (COVID-19) pandemic ([BLS, 2020b](#)). 2011 was thus the first year during the economic expansion that job growth was positive over all 12 months.

The authors selected 2018 (or 2017) for three reasons. First, 2018 was the latest year for which most data was available. For example, while hourly wage data and health insurance data were available for 2019, apprenticeship data and occupational fatalities were not (e.g., [CEPR, 2019](#); [DOLETA, 2019](#); [BLS, 2020a](#)). Second, cost-of-living data from “regional price parities” was only available through 2018 ([BEA, 2020](#)). The authors made the subjective determination that adjusting 2019 wages by 2018 regional price parties could distort the findings. Third, the economic expansion that followed the Great Recession continued into 2018 and the economic threat posed by the novel coronavirus disease (COVID-19) had not materialized. Scientists and public health officials had become aware of a possible global virus outbreak by the end of 2019, however. As a result, the 2011 through 2018 years of economic expansion may be an appropriate period to understand the economic “normalcy” to which many U.S. residents desire a return ([Pinsker, 2020](#)).

This analysis also uses two types of common but advanced statistical techniques called “regressions.” Regressions are used to parse out the actual and unique impact that certain variables— such as so-called “right-to-work” law— have on economic and social outcomes at the individual-level or household-level. Regressions describe “how much” the variable is responsible for a change. For example, an ordinary least squares (OLS) regression can help determine how much the presence of a “right-to-work” law in a state raises or lowers average hourly wages for workers, after accounting for all other observable factors. In addition to OLS regressions, this analysis also uses probabilistic models called probit regressions. Probits help in calculating how much a certain factor increases a given individual’s chance of achieving a certain binary outcome. For example, there are several factors that influence whether a U.S. resident will be employed, including educational and demographic factors. Probits control for these other variables and separate out, for example, the effect that a so-called “right-to-work” law has on the likelihood that an individual is employed. All regressions are weighted to match the actual U.S. population using sampling weights provided by either the U.S. Census Bureau or the Bureau of Labor Statistics (BLS) at the U.S. Department of Labor.

There are limitations to the regression analyses. First, data from the *Current Population Survey* and the *American Community Survey*— which are used in the majority of the results— report a worker’s state of residence rather than state of employment, so the results may be biased by workers who live in so-called “right-to-work” states but work in free collective-bargaining states (e.g., living in Indiana but working in Illinois) and vice-versa. The data is also based on household survey responses rather than on administrative payroll reports, so there may be more potential for human error. The final concerns are those associated with all regression models, such as lurking and unobservable variables.

Finally, all state-level analyses are weighted by either total employment or total population in the state. For example, the average life expectancy at birth for so-called “right-to-work” states is not the simple average of states because states like Texas and Florida are much larger than states like Wyoming and Idaho. As a result, the life expectancy at birth is weighted by the total population in each state to produce the average of 77.7 years in so-called “right-to-work” state and 79.6 years in free collective-bargaining states.



**SUMMARY TABLES**

**Table A: Summary of All Data Results, By Type of Analysis, with Significance, Sample Size, and Source Noted**

RTW Impact (Coefficient) or Difference on Outcome	Significance	R <sup>2</sup>	Observations	Source
<i><u>Robust OLS Regressions</u></i>				
Average Hourly Wages	-0.032 ***	0.418	131,904	CPS-ORG
Wages for Police Officers and Firefighters	-0.158 ***	0.165	887	CPS-ORG
Wages for Construction Workers	-0.114 ***	0.164	6,073	CPS-ORG
Wages for Registered Nurses	-0.069 ***	0.144	2,935	CPS-ORG
Wages for K-12 School Teachers	-0.054 ***	0.221	5,907	CPS-ORG
Wages for Production Workers	-0.031 **	0.226	7,437	CPS-ORG
<i><u>Probit Regressions</u></i>				
Probability of Having Health Insurance	-0.046 ***	0.181	1,423,429	ACS
Probability of Access to a Pension Plan	-0.034 ***	0.090	76,676	CPS ASEC
Probability of Having Bachelor's Degree	-0.037 ***	0.072	296,223	CPS-ORG
Probability of Being a Union Member	-0.086 ***	0.216	159,111	CPS-ORG
Probability of Being Employed	0.000	0.144	296,223	CPS-ORG
Probability of Being Below Poverty	0.019 ***	0.142	3,214,539	ACS
Probability of Receiving SNAP Food Stamps	0.008 ***	0.117	3,214,539	ACS
Probability of Voting in 2018 Midterms	-0.019 ***	0.122	73,943	CPS Voter
Probability of Contacting Public Official	-0.021 ***	0.085	59,449	CPS Civic Engagement
Probability of Volunteering in Past Year	0.000	0.076	59,654	CPS Volunteer
Probability of Donating in Past Year	-0.015 ***	0.110	59,274	CPS Volunteer
<i><u>Weighted State-Level Summary Statistics</u></i>				
Average Wage Growth (2011-2018)	-0.011 --	--	131,904	CPS-ORG
Ratio of Apprentices to 100,000 Workers	-0.313 --	--	51	DOLETA
Active Apprenticeship Growth (2011-2018)	-0.041 --	--	51	DOLETA
On-the-Job Fatalities Per 100,000 Workers	0.504 --	--	51	CFOI
Gross Domestic Product (GDP) Per Worker	-0.172 --	--	51	BEA
State GDP Growth (2011-2018)	-0.028 --	--	51	BEA
Life Expectancy at Birth	-0.023 --	--	50	IHME
Infant Mortality Per 1,000 Live Births	0.283 --	--	50	CDC
<p>***p≤ 0.01 ; **p≤ 0.05 ; *p≤ 0.10 </p> <p>CPS-ORG: <i>Current Population Survey Outgoing Rotation Groups</i> (CPS-ORG) (CEPR, 2019).</p> <p>ACS: <i>American Community Survey</i> (1-Year Estimates) (Ruggles et al., 2019).</p> <p>CPS ASEC: <i>Current Population Survey Annual Social and Economic Supplement</i> (ASEC) (Flood et al., 2019).</p> <p>CPS Voter: <i>Current Population Survey Voter Supplement</i> (Flood et al., 2019).</p> <p>CPS Civic Engagement: <i>Current Population Survey Civic Engagement Supplement</i> (Flood et al., 2019).</p> <p>CPS Volunteer: <i>Current Population Survey Volunteer Supplement</i> (Flood et al., 2019).</p> <p>DOLETA: 2018 Apprenticeship Statistics (DOLETA, 2019).</p> <p>CFOI: <i>Census of Fatal Occupational Injuries</i> (CFOI) (BLS, 2020b).</p> <p>BEA: "GDP &amp; Personal Income" (BEA, 2020).</p> <p>IHME: Institute for Health Metrics and Evaluation at the University of Washington (IHME, 2019).</p> <p>CDC: Centers for Disease Control and Prevention (CDC, 2019).</p>				

**Table B: Summary Statistics Comparing and Contrasting Illinois with the 27 So-Called “Right-to-Work” States**

Economic and Community Outcomes	Illinois	RTW States	Illinois vs. RTW	Better Outcome
Average Hourly Wages	\$26.90	\$24.15	+11.4%	Illinois
Wages for Police Officers and Firefighters	\$35.39	\$24.81	+42.6%	Illinois
Wages for Construction Workers	\$29.11	\$22.12	+31.6%	Illinois
Wages for Registered Nurses	\$33.01	\$29.11	+13.4%	Illinois
Wages for K-12 School Teachers	\$26.86	\$24.98	+7.5%	Illinois
Wages for Production Workers	\$20.52	\$20.06	+2.3%	Illinois
Workers with Health Insurance	91.7%	86.9%	+4.8 p.p.	Illinois
Workers with Access to a Pension Plan	43.2%	40.6%	+2.6 p.p.	Illinois
Workers with Bachelor’s Degree or More	41.6%	34.5%	+7.1 p.p.	Illinois
Workers Who Are Union Members	13.8%	6.1%	+7.7 p.p.	Illinois
Working-Age Employment Rate	77.1%	74.6%	+2.5 p.p.	Illinois
Average Home Values	\$277,717	\$249,988	+11.1%	Illinois
Consumer-Debt-to-GDP Ratio	19.2%	24.3%	-5.1 p.p.	Illinois
90-Day Delinquency Rate on Auto Loans	4.1%	4.9%	-0.8 p.p.	Illinois
90-Day Delinquency Rate on Credit Cards	6.1%	7.8%	-1.8 p.p.	Illinois
90-Day Delinquency Rate on Student Loans	9.6%	13.0%	-3.4 p.p.	Illinois
Household Poverty Rate	14.2%	16.4%	-2.2 p.p.	Illinois
Households Receiving SNAP Food Stamps	14.2%	14.0%	+0.2 p.p.	RTW States
Adult Population Voted in 2018 Midterms	66.4%	63.5%	+2.9 p.p.	Illinois
Population Contacting Public Official	13.7%	10.7%	+3.0 p.p.	Illinois
Population Volunteering in Past Year	72.6%	72.6%	+0.1 p.p.	Illinois
Population Donated in Past Year	56.5%	52.1%	+4.4 p.p.	Illinois
Average Wage Growth (2011-2018)	9.8%	7.1%	+2.6 p.p.	Illinois
Ratio of Apprentices to 100,000 Workers	265.5	264.4	+0.4%	Illinois
Active Apprenticeship Growth (2011-2018)	33.6%	57.4%	-23.8 p.p.	RTW States
On-the-Job Fatalities Per 100,000 Workers	3.1	4.4	-29.9%	Illinois
Gross Domestic Product (GDP) Per Worker	\$144,429	\$127,718	+13.1%	Illinois
State GDP Growth (2011-2018)	25.7%	31.1%	-5.3 p.p.	RTW States
Life Expectancy at Birth	79.0	77.4	+2.1%	Illinois
Infant Mortality Per 1,000 Live Births	6.1	6.5	-5.7%	Illinois

\*Analysis: Illinois outperforms so-called “right-to-work” states on 27 of the 30 economic and community outcomes (91 percent). Percentage-point differences are denoted by “p.p.”

**Table C: Active Apprentices, Total Employment, and Apprentice Ratio by State, 2018**

State Name	Active Apprentices (Fiscal Year 2018)	Total Employment (May 2018)	Apprentices Per 100,000 Workers
<b>23 CB States and D.C.</b>	<b>286,522</b>	<b>74,491,770</b>	<b>384.6</b>
Alaska	1,946	315,250	617.3
California	89,949	17,007,690	528.9
Colorado	6,315	2,620,640	241.0
Connecticut	5,528	1,660,200	333.0
Delaware	1,394	448,510	310.8
District of Columbia	9,214	712,370	1,293.4
Hawaii	7,499	641,790	1,168.5
Illinois	15,905	5,991,270	265.5
Maine	602	605,550	99.4
Maryland	8,567	2,684,010	319.2
Massachusetts	12,096	3,571,360	338.7
Minnesota	12,793	2,867,700	446.1
Missouri	14,599	2,804,780	520.5
Montana	1,920	463,280	414.4
New Hampshire	2,776	652,920	425.2
New Jersey	7,729	4,050,170	190.8
New Mexico	2,284	811,680	281.4
New York	18,337	9,385,620	195.4
Ohio	19,081	5,416,810	352.3
Oregon	9,609	1,886,090	509.5
Pennsylvania	17,948	5,847,690	306.9
Rhode Island	2,026	482,030	420.3
Vermont	1,783	305,210	584.2
Washington	16,622	3,259,150	510.0
<b>27 RTW States</b>	<b>185,726</b>	<b>70,241,540</b>	<b>264.4</b>
Indiana	16,973	3,048,100	556.8
Kentucky	3,674	1,889,870	194.4
Michigan	20,576	4,317,830	476.5
West Virginia	4,358	696,620	625.6
Wisconsin	11,124	2,848,560	390.5
Alabama	4,130	1,943,760	212.5
Arizona	4,111	2,789,520	147.4
Arkansas	5,750	1,210,120	475.2
Florida	12,207	8,608,660	141.8
Georgia	8,529	4,394,740	194.1
Idaho	1,434	706,140	203.1
Iowa	7,971	1,541,700	517.0
Kansas	2,135	1,375,380	155.2
Louisiana	3,868	1,913,770	202.1
Mississippi	2,293	1,123,830	204.0
Nebraska	1,591	978,290	162.6
Nevada	4,858	1,347,130	360.6
North Carolina	7,039	4,383,210	160.6
North Dakota	1,038	416,550	249.2
Oklahoma	1,516	1,594,370	95.1
South Carolina	20,763	2,062,280	1,006.8
South Dakota	526	422,310	124.6
Tennessee	5,590	2,956,920	189.0
Texas	17,767	12,113,810	146.7
Utah	3,532	1,455,910	242.6
Virginia	11,971	3,832,840	312.3
Wyoming	402	269,320	149.3

Source(s): U.S. Department of Labor Employment and Training Administration data ([DOLETA, 2019](#)) and May 2018 *Occupational Employment Statistics* (OES) data from the U.S. Department of Labor Bureau of Labor Statistics ([BLS, 2020a](#)).

**Table D: Change in Active Apprentices by State, 2011 to 2018**

State Name	Active Apprentices (Fiscal Year 2011)	Active Apprentices (Fiscal Year 2018)	Apprenticeship Growth
<b>23 CB States and D.C.</b>	<b>177,419</b>	<b>286,522</b>	<b>61.5%</b>
Alaska	2,017	1,946	-3.5%
California	36,129	89,949	149.0%
Colorado	3,945	6,315	60.1%
Connecticut	4,538	5,528	21.8%
Delaware	953	1,394	46.3%
District of Columbia	4,879	9,214	88.9%
Hawaii	7,099	7,499	5.6%
Illinois	11,906	15,905	33.6%
Maine	891	602	-32.4%
Maryland	14,329	8,567	-40.2%
Massachusetts	5,974	12,096	102.5%
Minnesota	6,894	12,793	85.6%
Missouri	8,859	14,599	64.8%
Montana	1,028	1,920	86.8%
New Hampshire	1,775	2,776	56.4%
New Jersey	7,449	7,729	3.8%
New Mexico	1,886	2,284	21.1%
New York	16,671	18,337	10.0%
Ohio	9,995	19,081	90.9%
Oregon	5,261	9,609	82.6%
Pennsylvania	11,938	17,948	50.3%
Rhode Island	1,416	2,026	43.1%
Vermont	650	1,783	174.3%
Washington	10,937	16,622	52.0%
<b>27 RTW States</b>	<b>117,988</b>	<b>185,726</b>	<b>57.4%</b>
Indiana	11,954	16,973	42.0%
Kentucky	2,735	3,674	34.3%
Michigan	8,424	20,576	144.3%
West Virginia	4,311	4,358	1.1%
Wisconsin	7,846	11,124	41.8%
Alabama	3,421	4,130	20.7%
Arizona	2,933	4,111	40.2%
Arkansas	3,024	5,750	90.1%
Florida	7,848	12,207	55.5%
Georgia	4,732	8,529	80.2%
Idaho	770	1,434	86.2%
Iowa	4,743	7,971	68.1%
Kansas	1,515	2,135	40.9%
Louisiana	2,867	3,868	34.9%
Mississippi	1,683	2,293	36.2%
Nebraska	2,863	1,591	-44.4%
Nevada	3,587	4,858	35.4%
North Carolina	3,868	7,039	82.0%
North Dakota	776	1,038	33.8%
Oklahoma	1,520	1,516	-0.3%
South Carolina	3,198	20,763	549.2%
South Dakota	954	526	-44.9%
Tennessee	4,285	5,590	30.5%
Texas	10,602	17,767	67.6%
Utah	2,778	3,532	27.1%
Virginia	14,415	11,971	-17.0%
Wyoming	336	402	19.6%

Source(s): U.S. Department of Labor Employment and Training Administration data ([DOLETA, 2019](#)).

**Table E: On-the-Job Fatalities, Total Employment, and Fatality Rate by State, 2018**

State Name	On-the-Job Fatalities (2018)	Total Employment (May 2018)	Fatalities Per 100,000 Workers
<b>23 CB States and D.C.</b>	<b>2,169</b>	<b>74,491,770</b>	<b>2.91</b>
Alaska	32	315,250	10.15
California	422	17,007,690	2.48
Colorado	72	2,620,640	2.75
Connecticut	48	1,660,200	2.89
Delaware	7	448,510	1.56
District of Columbia	10	712,370	1.40
Hawaii	22	641,790	3.43
Illinois	184	5,991,270	3.07
Maine	17	605,550	2.81
Maryland	97	2,684,010	3.61
Massachusetts	97	3,571,360	2.72
Minnesota	75	2,867,700	2.62
Missouri	145	2,804,780	5.17
Montana	28	463,280	6.04
New Hampshire	20	652,920	3.06
New Jersey	83	4,050,170	2.05
New Mexico	43	811,680	5.30
New York	178	9,385,620	1.90
Ohio	91	5,416,810	1.68
Oregon	177	1,886,090	9.38
Pennsylvania	9	5,847,690	0.15
Rhode Island	98	482,030	20.33
Vermont	157	305,210	51.44
Washington	57	3,259,150	1.75
<b>27 RTW States</b>	<b>3,077</b>	<b>70,241,540</b>	<b>4.38</b>
Indiana	173	3,048,100	5.68
Kentucky	83	1,889,870	4.39
Michigan	155	4,317,830	3.59
West Virginia	114	696,620	16.36
Wisconsin	31	2,848,560	1.09
Alabama	89	1,943,760	4.58
Arizona	82	2,789,520	2.94
Arkansas	76	1,210,120	6.28
Florida	332	8,608,660	3.86
Georgia	186	4,394,740	4.23
Idaho	45	706,140	6.37
Iowa	77	1,541,700	4.99
Kansas	61	1,375,380	4.44
Louisiana	98	1,913,770	5.12
Mississippi	78	1,123,830	6.94
Nebraska	44	978,290	4.50
Nevada	39	1,347,130	2.90
North Carolina	35	4,383,210	0.80
North Dakota	158	416,550	37.93
Oklahoma	62	1,594,370	3.89
South Carolina	32	2,062,280	1.55
South Dakota	122	422,310	28.89
Tennessee	488	2,956,920	16.50
Texas	49	12,113,810	0.40
Utah	11	1,455,910	0.76
Virginia	86	3,832,840	2.24
Wyoming	271	269,320	100.62

Source(s): *Census of Fatal Occupational Injuries (CFOI)* data for 2018 and May 2018 *Occupational Employment Statistics (OES)* data from the U.S. Department of Labor Bureau of Labor Statistics ([BLS, 2020b](#)).

**Table F: Gross Domestic Product (GDP), Total Employment, and GDP Per Worker by State, 2018**

State Name	Gross Domestic Product (2011)	Gross Domestic Product (2018)	Change in GDP (2011 to 2018)	Percent Growth	RTW State	2018 Total Employment	GDP Per Worker (2018)
District of Columbia	\$110,076,200,000	\$140,660,900,000	\$30,584,700,000	27.8%	0	712,370	\$197,455
New York	\$1,236,061,400,000	\$1,668,866,200,000	\$432,804,800,000	35.0%	0	9,385,620	\$177,811
California	\$2,050,056,800,000	\$2,997,732,800,000	\$947,676,000,000	46.2%	0	17,007,690	\$176,257
Alaska	\$56,259,900,000	\$54,734,100,000	-\$1,525,800,000	-2.7%	0	315,250	\$173,621
Washington	\$379,539,000,000	\$565,831,000,000	\$186,292,000,000	49.1%	0	3,259,150	\$173,613
Connecticut	\$236,523,700,000	\$275,726,900,000	\$39,203,200,000	16.6%	0	1,660,200	\$166,081
Delaware	\$60,357,400,000	\$73,481,300,000	\$13,123,900,000	21.7%	0	448,510	\$163,834
Massachusetts	\$425,593,200,000	\$569,488,000,000	\$143,894,800,000	33.8%	0	3,571,360	\$159,460
Maryland	\$328,058,400,000	\$412,584,200,000	\$84,525,800,000	25.8%	0	2,684,010	\$153,719
New Jersey	\$499,114,900,000	\$622,002,800,000	\$122,887,900,000	24.6%	0	4,050,170	\$153,574
Texas	\$1,331,220,600,000	\$1,802,511,200,000	\$471,290,600,000	35.4%	1	12,113,810	\$148,798
Hawaii	\$70,482,600,000	\$93,797,900,000	\$23,315,300,000	33.1%	0	641,790	\$146,150
Wyoming	\$39,370,700,000	\$39,118,500,000	-\$252,200,000	-0.6%	1	269,320	\$145,249
Illinois	\$688,288,900,000	\$865,310,400,000	\$177,021,500,000	25.7%	0	5,991,270	\$144,429
Colorado	\$264,431,600,000	\$371,749,600,000	\$107,318,000,000	40.6%	0	2,620,640	\$141,855
Virginia	\$432,392,700,000	\$532,892,500,000	\$100,499,800,000	23.2%	1	3,832,840	\$139,033
Georgia	\$429,574,000,000	\$592,153,400,000	\$162,579,400,000	37.8%	1	4,394,740	\$134,741
North Dakota	\$41,179,200,000	\$56,082,300,000	\$14,903,100,000	36.2%	1	416,550	\$134,635
Louisiana	\$228,987,500,000	\$257,287,800,000	\$28,300,300,000	12.4%	1	1,913,770	\$134,440
Pennsylvania	\$618,987,700,000	\$783,167,800,000	\$164,180,100,000	26.5%	0	5,847,690	\$133,928
New Hampshire	\$65,430,500,000	\$84,463,900,000	\$19,033,400,000	29.1%	0	652,920	\$129,363
Minnesota	\$283,807,300,000	\$368,852,400,000	\$85,045,100,000	30.0%	0	2,867,700	\$128,623
North Carolina	\$427,205,600,000	\$563,690,500,000	\$136,484,900,000	31.9%	1	4,383,210	\$128,602
Oregon	\$170,621,300,000	\$239,782,800,000	\$69,161,500,000	40.5%	0	1,886,090	\$127,132
Oklahoma	\$165,035,600,000	\$202,554,100,000	\$37,518,500,000	22.7%	1	1,594,370	\$127,043
Nebraska	\$99,613,400,000	\$123,977,900,000	\$24,364,500,000	24.5%	1	978,290	\$126,729
Rhode Island	\$50,175,900,000	\$60,587,600,000	\$10,411,700,000	20.8%	0	482,030	\$125,693
Nevada	\$126,657,100,000	\$169,309,900,000	\$42,652,800,000	33.7%	1	1,347,130	\$125,682
Arizona	\$257,947,800,000	\$348,297,100,000	\$90,349,300,000	35.0%	1	2,789,520	\$124,859
Ohio	\$525,388,400,000	\$675,905,200,000	\$150,516,800,000	28.6%	0	5,416,810	\$124,779
New Mexico	\$86,625,000,000	\$100,296,800,000	\$13,671,800,000	15.8%	0	811,680	\$123,567
South Dakota	\$41,541,500,000	\$52,014,900,000	\$10,473,400,000	25.2%	1	422,310	\$123,168
Tennessee	\$267,659,100,000	\$364,104,900,000	\$96,445,800,000	36.0%	1	2,956,920	\$123,137
Iowa	\$147,227,000,000	\$189,701,600,000	\$42,474,600,000	28.8%	1	1,541,700	\$123,047
Kansas	\$135,315,300,000	\$168,318,000,000	\$33,002,700,000	24.4%	1	1,375,380	\$122,379
Utah	\$124,539,400,000	\$178,137,600,000	\$53,598,200,000	43.0%	1	1,455,910	\$122,355
Michigan	\$401,105,400,000	\$527,095,800,000	\$125,990,400,000	31.4%	1	4,317,830	\$122,074
Florida	\$746,787,500,000	\$1,039,236,400,000	\$292,448,900,000	39.2%	1	8,608,660	\$120,720
Indiana	\$288,749,100,000	\$366,800,500,000	\$78,051,400,000	27.0%	1	3,048,100	\$120,337
Wisconsin	\$263,881,600,000	\$336,294,000,000	\$72,412,400,000	27.4%	1	2,848,560	\$118,058
Alabama	\$181,349,800,000	\$221,735,500,000	\$40,385,700,000	22.3%	1	1,943,760	\$114,076
Missouri	\$260,093,500,000	\$318,921,000,000	\$58,827,500,000	22.6%	0	2,804,780	\$113,706
South Carolina	\$170,087,200,000	\$233,929,900,000	\$63,842,700,000	37.5%	1	2,062,280	\$113,433
West Virginia	\$68,524,900,000	\$77,437,600,000	\$8,912,700,000	13.0%	1	696,620	\$111,162
Kentucky	\$169,940,700,000	\$208,087,500,000	\$38,146,800,000	22.4%	1	1,889,870	\$110,107
Idaho	\$56,488,100,000	\$77,052,000,000	\$20,563,900,000	36.4%	1	706,140	\$109,117
Vermont	\$28,135,100,000	\$33,256,300,000	\$5,121,200,000	18.2%	0	305,210	\$108,962
Montana	\$40,579,300,000	\$50,326,600,000	\$9,747,300,000	24.0%	0	463,280	\$108,631
Maine	\$51,866,700,000	\$64,856,000,000	\$12,989,300,000	25.0%	0	605,550	\$107,103
Arkansas	\$106,085,400,000	\$128,418,900,000	\$22,333,500,000	21.1%	1	1,210,120	\$106,121
Mississippi	\$96,371,600,000	\$114,834,200,000	\$18,462,600,000	19.2%	1	1,123,830	\$102,181
<b>CB States and D.C.</b>	<b>\$8,586,554,700,000</b>	<b>\$11,492,382,500,000</b>	<b>\$2,905,827,800,000</b>	<b>33.8%</b>	<b>24</b>	<b>74,491,770</b>	<b>\$154,277</b>
<b>RTW States</b>	<b>\$6,844,837,800,000</b>	<b>\$8,971,074,500,000</b>	<b>\$2,126,236,700,000</b>	<b>31.1%</b>	<b>27</b>	<b>70,241,540</b>	<b>\$127,719</b>

Source(s): 2018 "GDP & Personal Income" data from the Bureau of Economic Analysis Statistics ([BEA, 2020](#)) and May 2018 Occupational Employment Statistics (OES) data from the U.S. Department of Labor Bureau of Labor Statistics ([BLS, 2020b](#)).



**Table G: Total Consumer Debt, Gross Domestic Product (GDP), and Consumer-Debt-to-GDP Ratio by State, 2018Q4**

State Name	Private Household Debt Excluding Mortgages (2018Q4)	Gross Domestic Product (2018)	Consumer-Debt-to-GDP Ratio	RTW State
District of Columbia	\$12,892,822,000	\$140,660,900,000	9.2%	0
New York	\$268,905,179,200	\$1,668,866,200,000	16.1%	0
Alaska	\$9,108,573,600	\$54,734,100,000	16.6%	0
California	\$499,370,551,600	\$2,997,732,800,000	16.7%	0
Wyoming	\$6,685,837,200	\$39,118,500,000	17.1%	1
Massachusetts	\$100,374,053,200	\$569,488,000,000	17.6%	0
Washington	\$99,806,591,800	\$565,831,000,000	17.6%	0
Nebraska	\$22,172,642,800	\$123,977,900,000	17.9%	1
North Dakota	\$10,064,012,400	\$56,082,300,000	17.9%	1
Delaware	\$13,780,350,000	\$73,481,300,000	18.8%	0
Connecticut	\$52,853,999,000	\$275,726,900,000	19.2%	0
Illinois	\$166,472,867,000	\$865,310,400,000	19.2%	0
Wisconsin	\$66,130,075,000	\$336,294,000,000	19.7%	1
Kansas	\$33,531,856,800	\$168,318,000,000	19.9%	1
Iowa	\$38,137,773,600	\$189,701,600,000	20.1%	1
Minnesota	\$76,184,070,200	\$368,852,400,000	20.7%	0
Utah	\$36,868,468,400	\$178,137,600,000	20.7%	1
Hawaii	\$19,548,861,000	\$93,797,900,000	20.8%	0
Texas	\$377,331,289,000	\$1,802,511,200,000	20.9%	1
South Dakota	\$11,069,676,800	\$52,014,900,000	21.3%	1
Colorado	\$81,206,371,800	\$371,749,600,000	21.8%	0
New Jersey	\$136,723,373,600	\$622,002,800,000	22.0%	0
Indiana	\$81,663,660,800	\$366,800,500,000	22.3%	1
Nevada	\$37,837,596,000	\$169,309,900,000	22.3%	1
Oregon	\$54,885,428,600	\$239,782,800,000	22.9%	0
Oklahoma	\$46,695,156,200	\$202,554,100,000	23.1%	1
Rhode Island	\$14,381,074,800	\$60,587,600,000	23.7%	0
Missouri	\$75,837,627,600	\$318,921,000,000	23.8%	0
Pennsylvania	\$186,326,630,400	\$783,167,800,000	23.8%	0
Virginia	\$127,077,539,400	\$532,892,500,000	23.8%	1
Ohio	\$161,667,971,200	\$675,905,200,000	23.9%	0
Michigan	\$126,683,673,600	\$527,095,800,000	24.0%	1
Tennessee	\$87,553,286,400	\$364,104,900,000	24.0%	1
Maryland	\$99,354,578,400	\$412,584,200,000	24.1%	0
New Mexico	\$24,465,780,800	\$100,296,800,000	24.4%	0
Louisiana	\$63,244,410,000	\$257,287,800,000	24.6%	1
North Carolina	\$140,289,494,400	\$563,690,500,000	24.9%	1
Kentucky	\$52,168,272,000	\$208,087,500,000	25.1%	1
Montana	\$12,896,910,400	\$50,326,600,000	25.6%	0
Arizona	\$89,634,917,200	\$348,297,100,000	25.7%	1
New Hampshire	\$22,513,857,600	\$84,463,900,000	26.7%	0
Arkansas	\$34,857,179,400	\$128,418,900,000	27.1%	1
Georgia	\$160,878,007,200	\$592,153,400,000	27.2%	1
Vermont	\$9,154,101,600	\$33,256,300,000	27.5%	0
West Virginia	\$21,971,040,000	\$77,437,600,000	28.4%	1
Idaho	\$21,928,008,000	\$77,052,000,000	28.5%	1
Alabama	\$64,868,151,200	\$221,735,500,000	29.3%	1
Maine	\$19,292,464,800	\$64,856,000,000	29.7%	0
Florida	\$310,038,891,000	\$1,039,236,400,000	29.8%	1
South Carolina	\$71,451,352,000	\$233,929,900,000	30.5%	1
Mississippi	\$39,637,903,800	\$114,834,200,000	34.5%	1
<b>CB States and D.C.</b>	<b>\$2,218,004,090,200</b>	<b>\$11,492,382,500,000</b>	<b>19.3%</b>	<b>24</b>
<b>RTW States</b>	<b>\$2,180,470,170,600</b>	<b>\$8,971,074,500,000</b>	<b>24.3%</b>	<b>27</b>

Source(s): Authors' analysis of "State-Level Household Debt Statistics" data from the New York Fed Consumer Credit Panel and Equifax for the fourth quarter of 2018 (CMD, 2019).

**Table H: 90-Day Loan Delinquency Rates for Auto Debt, Credit Card Debt, and Student Debt by State, 2018Q4**

State Name	Auto Loan Delinquency Rate (2018Q4)	Credit Card Delinquency Rate (2018Q4)	Student Loan Delinquency Rate (2018Q4)	RTW State
Alabama	6.15%	7.73%	15.17%	1
Alaska	2.29%	6.34%	9.38%	0
Arizona	4.75%	9.87%	12.64%	1
Arkansas	4.97%	9.06%	14.37%	1
California	4.15%	8.23%	9.44%	0
Colorado	3.09%	6.19%	10.56%	0
Connecticut	2.73%	6.70%	9.71%	0
Delaware	5.13%	8.46%	10.35%	0
District of Columbia	8.60%	5.60%	8.54%	0
Florida	5.27%	9.67%	13.65%	1
Georgia	5.93%	7.66%	13.09%	1
Hawaii	3.71%	6.24%	9.15%	0
Idaho	2.37%	6.34%	11.59%	1
Illinois	4.10%	6.06%	9.65%	0
Indiana	4.70%	6.49%	13.95%	1
Iowa	2.59%	6.31%	12.60%	1
Kansas	3.14%	6.02%	13.11%	1
Kentucky	4.63%	7.40%	16.00%	1
Louisiana	6.42%	8.06%	15.20%	1
Maine	2.65%	5.94%	9.91%	0
Maryland	4.66%	7.01%	10.37%	0
Massachusetts	2.27%	6.58%	7.58%	0
Michigan	4.95%	6.31%	12.23%	1
Minnesota	1.99%	5.75%	9.26%	0
Mississippi	6.60%	8.39%	18.34%	1
Missouri	4.32%	7.10%	12.63%	0
Montana	3.43%	6.35%	10.49%	0
Nebraska	2.48%	5.48%	9.24%	1
Nevada	5.15%	10.37%	14.27%	1
New Hampshire	2.37%	5.84%	8.00%	0
New Jersey	3.44%	7.34%	8.57%	0
New Mexico	6.35%	8.90%	15.21%	0
New York	3.64%	8.35%	8.61%	0
North Carolina	5.40%	7.68%	10.42%	1
North Dakota	2.29%	4.68%	8.54%	1
Ohio	4.30%	6.89%	13.31%	0
Oklahoma	5.36%	8.74%	15.63%	1
Oregon	2.38%	6.10%	11.67%	0
Pennsylvania	4.01%	7.49%	10.60%	0
Rhode Island	2.68%	7.80%	10.40%	0
South Carolina	6.09%	7.77%	13.13%	1
South Dakota	2.97%	5.79%	9.87%	1
Tennessee	4.36%	7.17%	13.86%	1
Texas	5.35%	8.65%	13.75%	1
Utah	2.26%	5.39%	8.48%	1
Vermont	2.92%	5.81%	7.90%	0
Virginia	3.72%	6.26%	9.70%	1
Washington	2.25%	5.47%	8.79%	0
West Virginia	5.01%	7.82%	18.01%	1
Wisconsin	2.49%	5.06%	8.57%	1
Wyoming	3.50%	7.20%	11.41%	1
<b>CB States and D.C.</b>	<b>3.70%</b>	<b>7.23%</b>	<b>9.91%</b>	<b>24</b>
<b>RTW States</b>	<b>4.90%</b>	<b>7.84%</b>	<b>13.03%</b>	<b>27</b>

Source(s): Authors' analysis of "State-Level Household Debt Statistics" data from the New York Fed Consumer Credit Panel and Equifax for the fourth quarter of 2018 (CMD, 2019). Rates for CB states and RTW states are weighted by state population.

**Table I: Life Expectancy at Birth and Infant Mortality Per 1,000 Live Births by State, 2017**

State Rank	State Name	Life Expectancy at Birth in Years (2017)	State Name	Infant Mortality Per 1,000 Live Births (2017)
1	Hawaii	81.5	Massachusetts	3.7
2	California	80.9	Washington	3.9
3	Minnesota	80.7	California	4.2
4	New Jersey	80.7	New Hampshire	4.2
5	New York	80.6	North Dakota	4.3
6	Connecticut	80.4	Colorado	4.5
7	Massachusetts	79.9	Connecticut	4.5
8	Vermont	79.9	New Jersey	4.5
9	Colorado	79.9	Idaho	4.6
10	Washington	79.9	New York	4.6
11	Wisconsin	79.5	Wyoming	4.6
12	Iowa	79.4	Minnesota	4.8
13	Utah	79.3	Vermont	4.8
14	Rhode Island	79.3	Hawaii	5.3
15	Arizona	79.2	Iowa	5.3
16	Oregon	79.2	Montana	5.4
17	New Hampshire	79.1	Oregon	5.4
18	Nebraska	79.1	Alaska	5.6
19	Florida	79.1	Nebraska	5.6
20	Virginia	79.1	Arizona	5.7
21	Idaho	79.0	Maine	5.7
22	Illinois	79.0	Nevada	5.8
23	Maryland	78.8	New Mexico	5.9
24	North Dakota	78.6	Texas	5.9
25	Texas	78.5	Utah	5.9
26	Kansas	78.2	Virginia	5.9
27	Delaware	78.2	Florida	6.1
28	South Dakota	78.1	Illinois	6.1
29	Maine	78.0	Kansas	6.1
30	Pennsylvania	78.0	Pennsylvania	6.1
31	Wyoming	78.0	Missouri	6.2
32	Nevada	77.9	Rhode Island	6.2
33	Alaska	77.8	Maryland	6.4
34	North Carolina	77.8	Wisconsin	6.4
35	New Mexico	77.7	Kentucky	6.5
36	Michigan	77.6	South Carolina	6.5
37	Missouri	77.1	Delaware	6.6
38	Georgia	77.1	Michigan	6.8
39	Indiana	77.0	West Virginia	7.0
40	Montana	76.9	Louisiana	7.1
41	Ohio	76.6	North Carolina	7.1
42	South Carolina	76.2	Georgia	7.2
43	Tennessee	76.0	Ohio	7.2
44	Arkansas	75.4	Indiana	7.3
45	Oklahoma	75.4	Alabama	7.4
46	Louisiana	75.4	Tennessee	7.4
47	Kentucky	75.0	Oklahoma	7.7
48	Alabama	74.9	South Dakota	7.7
49	West Virginia	74.8	Arkansas	8.2
50	Mississippi	74.5	Mississippi	8.6
<b>CB</b>	<b>CB States (Weighted)</b>	<b>79.6</b>	<b>CB States (Weighted)</b>	<b>5.1</b>
<b>RTW</b>	<b>RTW States (Weighted)</b>	<b>77.7</b>	<b>RTW States (Weighted)</b>	<b>6.5</b>

Source(s): 2017 data provided by the Institute for Health Metrics and Evaluation at the University of Washington ([IHME, 2019](#)) and 2017 data provided by the Centers for Disease Control and Prevention ([CDC, 2019](#)).

**REGRESSION TABLES**

**Table 1: Regression Results for Labor Market Outcomes, Robust OLS and Probit Regressions, 2018**

Robust OLS and Probit Regressions	Real Hourly Wage		Prob(Health Insurance)		Prob(Pension at Work)	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Right-to-Work Law	-0.0323***	0.004	-0.0457***	0.001	-0.0335***	0.004
Age	0.0057***	0.000	Y	Y	Y	Y
Female	-0.1546***	0.003	Y	Y	Y	Y
White	N	N	Y	Y	Y	Y
African American	-0.1094***	0.005	Y	Y	Y	Y
Latinx	-0.0743***	0.005	Y	Y	Y	Y
Asian	-0.0058	0.007	N	N	N	N
Other Race	-0.0356***	0.013	N	N	N	N
Foreign Born	-0.0190***	0.007	N	N	Y	Y
Citizen	0.0618***	0.008	Y	Y	N	N
Military Veteran	0.0022	0.008	Y	Y	Y	Y
Married	0.1069***	0.003	Y	Y	Y	Y
Works in Federal Government	0.0423***	0.011	Y	Y	Y	Y
Works in State Government	-0.0952***	0.008	Y	Y	Y	Y
Works Local Government	-0.0845***	0.007	Y	Y	Y	Y
Located in City	0.0052	0.004	Y	Y	N	N
Located in Rural Area	-0.0605***	0.004	Y	Y	N	N
High School Degree	0.1411***	0.006	Y	Y	N	N
Some College, No Degree	0.2094***	0.006	Y	Y	N	N
Bachelor's Degree	0.4452***	0.007	Y	Y	N	N
Advanced Degree	0.6124***	0.008	Y	Y	N	N
Less than High School	N	N	N	N	Y	Y
Bachelor's Degree or More	N	N	N	N	Y	Y
Ln(hours)	0.1700***	0.006	-0.0364***	0.000	0.0048*	0.005
Ln(wage)			0.0225***	0.001	0.0704***	0.003
Weeks Worked Variables	N	N	Y	Y	N	N
Regional Price Parity Variables	Y	Y	N	N	N	N
Major Industry Variables	Y	Y	Y	Y	Y	Y
Major Occupation Variables	Y	Y	Y	Y	Y	Y
Constant	1.6092***	0.040	0.9025***	0.000	0.4466***	0.002
R <sup>2</sup>	0.417		0.181		0.090	
Observations	131,904		1,423,429		76,676	
Weighted	Y		Y		Y	
Source	CPS-ORG		ACS		CPS ASEC	

Source(s): Authors' analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019), 2018 *American Community Survey* (1-Year Estimates) (Ruggles et al., 2019), and 2018 *Current Population Survey Annual Social and Economic Supplement* (ASEC) data (Flood et al., 2019). \*\*\*p<|0.01|; \*\*p<|0.05|; \*p<|0.10|. "SE" denotes the standard error. The models control for differences in the cost of living between states by including "regional price parities" in the regression, which compare buying power across the 50 states and the District of Columbia and are expressed as a percentage of the overall national level. Regional price parities are for 2018, the latest year for which data was available from the Bureau of Economic Analysis at the U.S. Department of Commerce (BEA, 2020). The probabilistic models require two steps—the probit regression and average marginal effects (*margins, dy/dx*)—so only relevant variables are shown. Y indicates that the variable(s) is (are) included in the regression, N indicates that the variable(s) is (are) not included or not available. To arrive at a *percent* difference from the probit regressions, divide the "Right-to-Work Law" coefficient by the constant term ("Constant" coefficient), which is the baseline probability independent of all other factors.

**Table 2: Regression Results for Selected Essential Workers’ Hourly Wages (Robust OLS Regressions) and Probability of Having at Least a Bachelor’s Degree (Probit Regression), 2018**

Robust OLS and Probit Regressions	Construction Occupation Wage		Registered Nurse Occupation Wage		Prob(Bachelors’ Degree or More)	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Right-to-Work Law	-0.1137***	0.019	-0.0692***	0.023	-0.0369***	0.002
Age	0.0058***	0.001	0.0033***	0.001	-0.0004***	0.001
Female	-0.0756*	0.040	-0.0717**	0.031	0.0209***	0.002
African American	-0.1669***	0.032	-0.0923***	0.034	-0.1289***	0.003
Latinx	-0.0490**	0.022	-0.1349***	0.040	-0.2217***	0.003
Asian	-0.0980*	0.051	-0.0466	0.043	0.0826***	0.005
Other Race	-0.0314	0.052	-0.0749	0.084	-0.1583***	0.008
Foreign Born	-0.0804***	0.030	-0.0149	0.039	0.0155***	0.004
Citizen	0.0617**	0.029	0.1316**	0.057	0.0456***	0.005
Military Veteran	0.0063	0.031	0.0725	0.053	-0.0137***	0.004
Married	0.1270***	0.014	0.0496**	0.020	0.1431***	0.002
Works in Federal Government	0.0995	0.079	0.0346	0.062	N	N
Works in State Government	0.0041	0.037	-0.0199	0.041	N	N
Works Local Government	-0.0655*	0.036	-0.0862*	0.050	N	N
Located in City	-0.0433***	0.017	-0.0035	0.023	0.0753***	0.002
Located in Rural Area	-0.0491***	0.018	-0.0651**	0.026	-0.1517***	0.003
High School Degree	0.1427***	0.018	0.3973**	0.161	N	N
Some College, No Degree	0.2403***	0.022	0.7281***	0.115	N	N
Bachelor’s Degree	0.2082***	0.032	0.9407***	0.115	N	N
Advanced Degree	0.2692***	0.080	0.9750***	0.119	N	N
Ln(hours)	0.1286***	0.039	-0.0169***	0.035	N	N
Regional Price Parity Variables	Y	Y	Y	Y	N	N
Major Industry Variables	Y	Y	Y	Y	N	N
Major Occupation Variables	Y	Y	Y	Y	N	N
Constant	2.1366***	0.040	1.6545***	0.232	0.3216***	0.001
R <sup>2</sup>	0.164		0.144		0.072	
Observations	6,073		2,935		296,223	
Weighted	Y		Y		Y	
Source	CPS-ORG		CPS-ORG		CPS-ORG	

Source(s): Authors’ analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019). \*\*\*p≤|0.01|; \*\*p≤|0.05|; \*p≤|0.10|. “SE” denotes the standard error. The models control for differences in the cost of living between states by including “regional price parities” in the regression, which compare buying power across the 50 states and the District of Columbia and are expressed as a percentage of the overall national level. Regional price parities are for 2018, the latest year for which data was available from the Bureau of Economic Analysis at the U.S. Department of Commerce (BEA, 2020). The probabilistic models require two steps– the probit regression and average marginal effects (*margins, dy/dx*)– but all variables are shown. Y indicates that the variable(s) is (are) included in the regression, N indicates that the variable(s) is (are) not included, not available, or not applicable.

**Table 3: Probit Regression Results for the Probability of an Individual Being Employed, a Household Being Below the Official Poverty Line, and a Household Receiving SNAP Food Stamp Assistance, 2018**

Probit Regressions: Prob(Dependent Variable)	Employment Rate		Below Poverty		Food Stamps	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Right-to-Work Law	-0.0002	0.002	0.0189***	0.001	0.0082***	0.000
Employed	N	N	-0.1515***	0.001	-0.0458***	0.001
Age	Y	Y	Y	Y	Y	Y
Female	Y	Y	Y	Y	Y	Y
White	N	N	Y	Y	Y	Y
African American	Y	Y	Y	Y	Y	Y
Latinx	Y	Y	Y	Y	Y	Y
Asian	Y	Y	N	N	N	N
Other Race	Y	Y	N	N	N	N
Foreign Born	Y	Y	N	N	N	N
Citizen	Y	Y	Y	Y	Y	Y
Military Veteran	Y	Y	Y	Y	Y	Y
Married	Y	Y	Y	Y	Y	Y
Located in City	Y	Y	Y	Y	Y	Y
Located in Rural Area	Y	Y	Y	Y	Y	Y
High School Degree	Y	Y	Y	Y	Y	Y
Some College, No Degree	Y	Y	Y	Y	Y	Y
Bachelor's Degree	Y	Y	Y	Y	Y	Y
Advanced Degree	Y	Y	Y	Y	Y	Y
Constant	0.6106**	0.001	0.1536***	0.000	0.1339***	0.000
R <sup>2</sup>	0.144		0.142		0.117	
Observations	296,223		3,214,539		3,214,539	
Weighted	Y		Y		Y	
Source	CPS-ORG		ACS		ACS	

Source(s): Authors' analysis of 2018 *Current Population Survey Outgoing Rotation Groups* (CPS-ORG) data (CEPR, 2019) and 2018 data from the *American Community Survey* (1-Year Estimates) (Ruggles et al., 2019).. \*\*\*p≤|0.01|; \*\*p≤|0.05|; \*p≤|0.10|. "SE" denotes the standard error. The models require two steps—the probit regression and average marginal effects (*margins, dy/dx*)—so only relevant variables are shown. Y indicates that the variable is included in the regression, N indicates that the variable is not included or not applicable. To arrive at a *percent* difference from the probit regressions, divide the "Right-to-Work Law" coefficient by the constant term ("Constant" coefficient), which is the baseline probability independent of all other factors.



**Table 4: Probit Regression Results Probability of an Individual Voting in the 2018 Midterms and Contacting at Least One Public Official, Volunteering for a Charity, and Donating at Least \$25 to a Charity in 2018**

Probit Regressions: Prob (Dependent Variable)	Voted in 2018 Midterms		Contact Public Official in 2017		Volunteered for Charity in 2017		Donated to Charity in 2017	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Right-to-Work Law	-0.0194***	0.004	-0.0209***	0.003	0.0001	0.004	-0.01472***	0.005
Age	Y	Y	Y	Y	Y	Y	Y	Y
Female	Y	Y	Y	Y	Y	Y	Y	Y
White	Y	Y	Y	Y	Y	Y	Y	Y
African American	Y	Y	Y	Y	Y	Y	Y	Y
Latinx	Y	Y	Y	Y	Y	Y	Y	Y
Foreign Born	Y	Y	Y	Y	Y	Y	Y	Y
Employed	Y	Y	Y	Y	Y	Y	Y	Y
Less than High School Degree	Y	Y	Y	Y	Y	Y	Y	Y
College Degree	Y	Y	Y	Y	Y	Y	Y	Y
Advanced Degree	Y	Y	Y	Y	Y	Y	Y	Y
Lives in Rural Area	Y	Y	Y	Y	Y	Y	Y	Y
Lives in City	Y	Y	Y	Y	Y	Y	Y	Y
Lives Suburb	Y	Y	Y	Y	Y	Y	Y	Y
Central City Status Unknown	Y	Y	Y	Y	Y	Y	Y	Y
Constant	0.6595***	0.001	0.1177***	0.001	0.7223***	0.002	0.5350***	0.002
R <sup>2</sup>	0.122		0.085		0.076		0.110	
Observations	73,943		59,449		59,654		59,274	
Weighted	Y		Y		Y		Y	
Source	CPS Voter		CPS Civic Engagement		CPS Volunteer		CPS Volunteer	

Source(s): Authors’ analysis of 2018 *Current Population Survey Voter Supplement* data, 2017 *Current Population Survey Civic Engagement Supplement* data, and 2017 *Current Population Survey Volunteer Supplement* data (Flood et al., 2019). \*\*\*p≤|0.01|; \*\*p≤|0.05|; \*p≤|0.10|. “SE” denotes the standard error. The probabilistic models require two steps– the probit regression and average marginal effects (*margins, dy/dx*). Only the “right-to-work” and constant variables are shown. Y indicates that the variable is included in the regression, N indicates that the variable is not included or not applicable. To arrive at a *percent* difference from the probit regressions, divide the “Right-to-Work Law” coefficient by the constant term (“Constant” coefficient), which is the baseline probability independent of all other factors.