THE HIGH COST OF BIG LABOR

An Interstate Analysis of Right to Work Laws

RICHARD VEDDER & JONATHAN ROBE

COMPETITIVE ENTERPRISE INSTITUTE

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The Competitive Enterprise Institute's *The High Cost of Big Labor* series analyzes and compares the economic impact of labor policies on the states, including right to work and public sector collective bargaining laws.

Executive Summary

THE COMPELLING PREPONDERANCE of evidence suggests there is a substantial, significant, and positive relationship between economic growth in a state and the presence of a right to work (RTW) law.

This paper presents a labor economics analysis of the effect of right to work laws on state economies, and ranks states' per capita income loss from *not* having an RTW law. People have been migrating in large numbers from non-RTW states to RTW ones. The evidence suggests that economic growth is greater in RTW states.

Currently, 24 states have RTW laws, which give workers the right to *not* join unions as a condition of employment and which prohibit the coercive collection of dues from workers who choose not to join.

RTW laws tend to lower union presence, reduce the adversarial relationship between workers and employers, and make investment more attractive. One would expect this scenario to have a positive effect on measures of economic performance such as job creation and, ultimately, on the population's standard of living.

Conversely, without an RTW law, the lack of complete worker freedom to contract individually may be a factor in the out-migration of labor from a state. More importantly, legislation favoring labor unions raises labor costs and makes employers less likely to invest. This perception, in turn, reduces the capital resources available for workers, lowers productivity growth and wealth creation, and makes people less well off than they would be in a fully free labor market.

Incomes rise following the passage of RTW laws, even after adjusting for the substantial population growth that those laws also induce. RTW states tend to be vibrant and growing; non-RTW states tend to be stagnant and aging.

To be sure, there are exceptions to every rule, and many other factors affect economic growth. Thus, much of New England is relatively prosperous despite the absence of RTW laws—though much of that growth is in industries where unions never gained a foothold, such as high technology. Nonetheless, even those areas likely would have benefited from RTW legislation. The evidence suggests that if non-RTW states had adopted RTW laws 35 years ago or so, income levels would be on the order of $3,000 per person higher today, with the overall effect varying somewhat from state to state.

The top 10 states most negatively affected by failure to adopt an RTW law are Alaska, Connecticut, California, New Jersey, Illinois, Hawaii, Maryland, Wisconsin, New York, and Michigan.

For all states, the median income loss per capita is $3,278, or more than $13,000 for a family of four. The total estimated income loss in 2012 from the lack of RTW laws in a majority of U.S. states was an extraordinary $647.8 billion—more than $2,000 for every American, including those in RTW states.

The application of right to work laws in all states would greatly benefit America.

—Aloysius Hogan

Introduction

ECONOMIC GROWTH ARISES FROM the accumulation of resources—human and physical capital—and through increased productivity, as new technologies allow for more outputs for any given amount of those resources. Many public policies affect growth, importantly including labor and employment policies that involve unionization and right to work laws.

A current total of 26 states allow labor unions to sign collective bargaining agreements that force workers to join the union shortly after becoming employed or, at a minimum, pay dues. The lack of complete worker freedom to contract individually may be a factor in the out-migration of labor from a state. More importantly, legislation favoring labor unions raises labor costs and makes employers less likely to invest. This, in turn, reduces the capital resources available for workers, lowers productivity growth and wealth creation, and makes people less well off than they would be in a fully free labor market.

Currently, 24 states have RTW laws, which give workers the right to *not* join unions as a condition of employment and prohibit the coercive collection of dues from workers who choose not to join. RTW laws tend to lower union presence, reduce the adversarial relationship between workers and employers, and make investment more attractive. One would expect this scenario to have a positive effect on measures of economic performance, such as job creation and, ultimately, on the population's standard of living. Although many factors besides labor laws affect economic change, the evidence suggests that there is a positive relationship between economic growth and the presence of an RTW law and that the magnitude of the legislation's effects may be substantial.

Historical Background

IN THE UNITED STATES, RIGHT TO work laws are, historically, a relatively recent phenomenon, having been around only a little more than half a century. Prior to the growth of organized labor during the New Deal era, such laws were not considered necessary because labor unions did not have the strong legal authority to coerce worker support as they do today. The rationale for RTW laws is largely expressed in terms of providing a mechanism for mitigating problems in the labor law—problems caused by a more coercive form of labor unionism that dates from the New Deal era.

Common Law Tradition

Prior to the federal legislation passed during the 1930s, labor unions were largely governed under the same common law principles that apply to ordinary citizens in all other legal cases. Under this tradition, there was no need for special labor laws because the Constitution guarantees property and contract rights. Disputes between labor and management were handled through private negotiations or, if necessary, in court. If employees thought they could be better represented by a union, they were free to join one, but unions were not permitted to make membership or payment of dues a requirement for employment. Similarly, employers were also free to decide whether they desired to enter into contractual agreements with unions.[1]

1920s Railroad Regulation

The first major movements undermining America's common law tradition with respect to labor relations began in the railroad industry in 1920, when Congress passed the Transportation Act establishing the Railroad Labor Board (RLB).[2] The RLB soon granted railroad unions the power of exclusive representation in labor disputes. This change departed abruptly from the common law tradition, as individual employees working for unionized railroad companies were no longer permitted to negotiate on their own behalf.

Although the exclusive representation provisions were ruled unconstitutional by the Supreme Court in 1923, railroad unions saw a victory in 1926 with the passage of the Railway Labor Act (RLA), which did not reinstate exclusive representation provisions, but granted workers the right to organize.[3] Furthermore, it replaced a *freedom of contract* for employers with a legal *duty to bargain*. In 1951, Congress amended the RLA to empower unions to force compulsory unionization on workers in the railroad and airline industries.[4] To this day, the RLA

The Railway Labor Act replaced a freedom of contract for employers with a legal duty to bargain.

allows compulsory unionization in the railroad and airline industries, including in RTW states.

Norris-LaGuardia Act

In 1932, President Herbert Hoover signed the Norris-LaGuardia Act, which further extended union power in America. In addition to banning worker agreements not to unionize, the Act also exempted unions from antitrust laws and freed unions from private damage suits or injunctions arising from their strikes. Unsurprisingly, incidents of union violence spiked in the year following the passage of the Norris-LaGuardia Act.[5]

National Labor Relations Act

In 1935, Congress passed and President Franklin D. Roosevelt signed what is now the nation's fundamental labor law, the National Labor Relations Act (NLRA, also known as the Wagner Act).[6] The Wagner Act provided for elections to determine whether a group of workers wanted to be represented by a labor union in negotiations with employers. If a majority of workers voted to allow union representation, the Wagner Act permitted unions to establish one of three different arrangements.

1. **Closed shop.** Workers must be members of the relevant union as a prerequisite for employment.
2. **Union shop.** Companies may hire nonunion members but workers must join the union within a predetermined amount of time following their hiring.
3. **Agency shop.** Unions may collect due payments from all workers but may not make union membership itself compulsory.

Taft-Hartley Act

In 1947, in response to growing public disillusionment with labor union power and perceived abuses, Congress amended the Wagner Act by passing the Labor Management Relations Act, better known as the Taft-Hartley Act. President Harry S. Truman vetoed the bill, but a Republican-controlled Congress mustered the necessary two-thirds vote in both houses to override Truman's veto and make the bill law. Taft-Hartley outlawed the closed shop, but still permitted union and agency shop arrangements.

Section 14(b) of Taft-Hartley is especially important. It allows individual states to go further in protecting workers' freedom of association. Specifically, it declares that the Wagner Act "shall not be construed as authorizing the execution or application of agreements requiring membership in a labor organization as a condition of employment in any State or Territory in which such execution or application is prohibited by State or Territorial law." This clause provides the legal foundation for states to enact right to work legislation, thereby ensuring that workers can decide for themselves whether they wish to support a union, even when collective bargaining agreements are in place.[7]

State Right to Work Laws

Florida and Arkansas both adopted RTW legislation in 1944, three years before the passage of the Taft-Hartley Act. Two years later, Arizona, Nebraska, and South Dakota followed suit, as did Georgia, Iowa, North Carolina, Tennessee, Texas, and Virginia in 1947. Union leaders quickly pushed back, challenging the RTW laws of Arizona, Nebraska, and North Carolina in court. The cases ran quickly through the courts, and in 1948 the U.S. Supreme Court upheld the constitutionality of the RTW laws in *Lincoln Federal Labor Union v. Northwestern Iron and Metal*.[8]

Today, the 24 RTW states are geographically concentrated in the southern and western portions of the country. However, the two states that most recently adopted RTW laws—Indiana and Michigan—are located in the midwest.[9]

Although the number of RTW states has grown only modestly in recent decades (only Oklahoma, Indiana, and Michigan have become RTW states in the past 25 years), the proportion of the American population living in a RTW environment has steadily grown, jumping from about 29 percent in 1970 to 46 percent by 2013.[10] Part of that growth reflects a growth in the geographic area covered by RTW laws and even slightly higher rates of fertility in those states. The fact remains that a majority of the growth results from very considerable migration of Americans out of non-RTW states and into RTW states.

Although the number of RTW states has grown only modestly in recent decades, the proportion of the American population living in a RTW environment has steadily grown

Right to Work Laws and Economic Growth

Basic Economic Principles

THE EFFECT OF RIGHT TO WORK laws on other economic indicators has been a subject of intense study since the laws were first introduced in the 1940s. A body of research suggests that RTW laws are a significant factor in explaining state variations in areas such as industry location, human migration, and economic growth.

Right to Work Laws' Contribution to Economic Growth

Historical evidence shows that unionization increases labor costs, perhaps 10 percent or more from what would otherwise be the case.[11] In turn, those increased labor costs make a given location a less attractive place to invest new capital resources and thus create jobs.

Suppose a firm is contemplating locating its operation in southwestern Ohio, where there is no RTW law, or just across the border in Indiana, which has a RTW law as of 2012. Suppose general labor market conditions are similar in both areas, with wages for most unskilled workers being about $10 an hour. Suppose, however, the firm considers the possibility of unionization to be high in Ohio, but low in Indiana, and that unionization will add at least 10 percent to labor costs. Because labor costs are perhaps 50 percent—or even more—of total costs, this concern means the firm considers it a real possibility that total per unit costs of producing output could be at least 5 percent higher in Ohio, therefore encouraging it to locate in Indiana instead.

Thus, other things being equal, capital will tend to migrate away from non-RTW states where the perceived costs of unionization are relatively high. Over time, in the absence of other changes, capital migration works to lower the ratio of capital to labor in non-RTW states relative to those with RTW laws. Because labor productivity is closely tied to the capital resources (machines and tools) that workers have available, it will tend to grow more in the RTW states, thus stimulating economic growth, which includes growth in wages and employment.

It is true that RTW laws could stimulate the migration of labor (and we will later show this to be the case). Workers—seeing the migration of capital resources to RTW states—may follow capital into those states, partly because they prefer the freedom not to join a union, though more likely because they perceive greater job opportunity. Total output also rises noticeably in the RTW states as a result of the influx of both labor and capital resources.

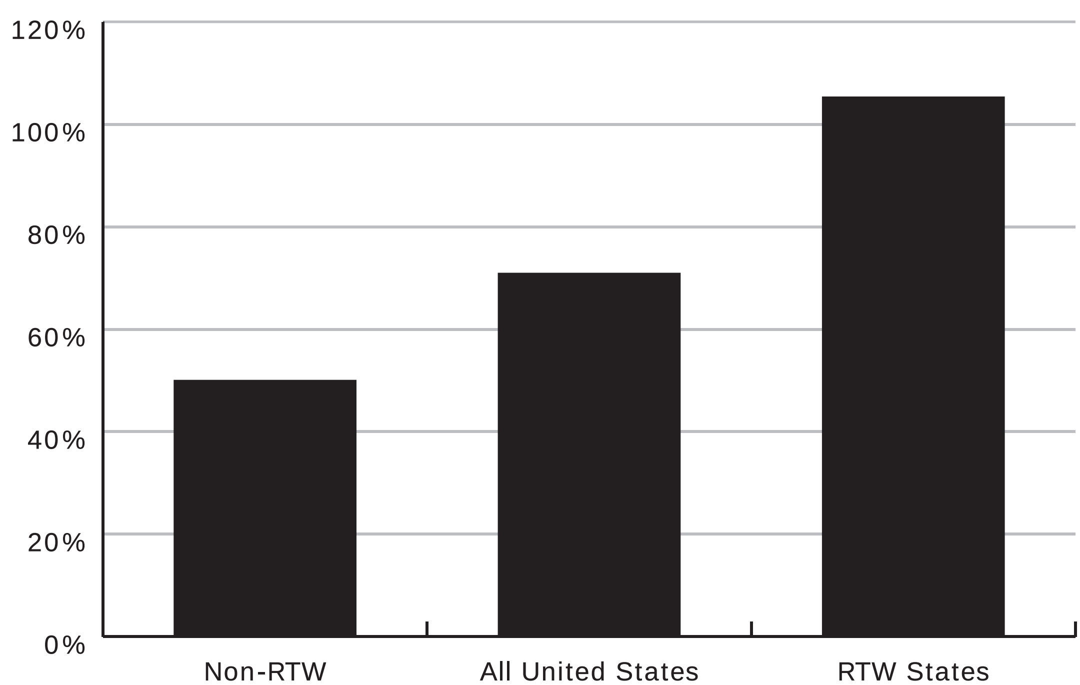
Plant Location and Employment Growth

Much evidence supports the notion that RTW laws attract industry to a state. In a 1983 econometric analysis of the movement of industry to Southern states throughout the 1960s and 1970s, Louisiana State University economist Robert Newman concluded, "RTW laws have not only affected movement *to* the South, but have also influenced movement *within* the South as well."[12] Newman further found that, "the RTW variable in both a South and non-South regression 'carries its own weight' and, hence, the widely held notion that RTW laws are a uniquely Southern phenomenon cannot be supported by these data."[13] These conclusions suggest that RTW laws themselves were a significant factor in attracting businesses to the South.

A more recent study tested the broader issue of the effect of business climate on industry plant location, but it used the existence or absence of a RTW law as a proxy for a favorable or unfavorable business climate. In the analysis, economist Thomas Holmes of the University of Minnesota and the Federal Reserve Bank of Minneapolis examined how manufacturing activity differs in counties that border each other but are located in states that have starkly contrasting business climates. The assumption is that any two bordering counties will be highly similar in most respects except for the policy environment businesses face. Holmes found: "On average, the manufacturing share of total employment in a county increases by about one-third when one crosses the border into the pro-business side."[14] Although this result is attributed to the overall state policy effects—and not specifically the existence of a RTW law—the finding is still strong that business-friendly states attract new industry.[15]

Another useful analysis is a comparison of total employment growth in RTW states versus that in non-RTW states. Using data from the Bureau of Economic Analysis from 1977 through 2012, Chart 1 displays this compari-

CHART 1. TOTAL EMPLOYMENT GROWTH, 1977–2012



Source: Bureau of Economic Analysis.

son. Over the 35-year period, nationwide total employment grew by 71 percent. RTW states significantly outpaced this average, with employment growing by 105.3 percent. Non-RTW states lagged behind both, with an employment growth of only 50.0 percent. More jobs were created in the RTW states, despite their having much smaller initial populations and labor force. Although this statistic alone cannot prove that RTW laws cause employment growth, because it does not control for other factors, it is another indicator that a significantly positive relationship likely exists between the two.

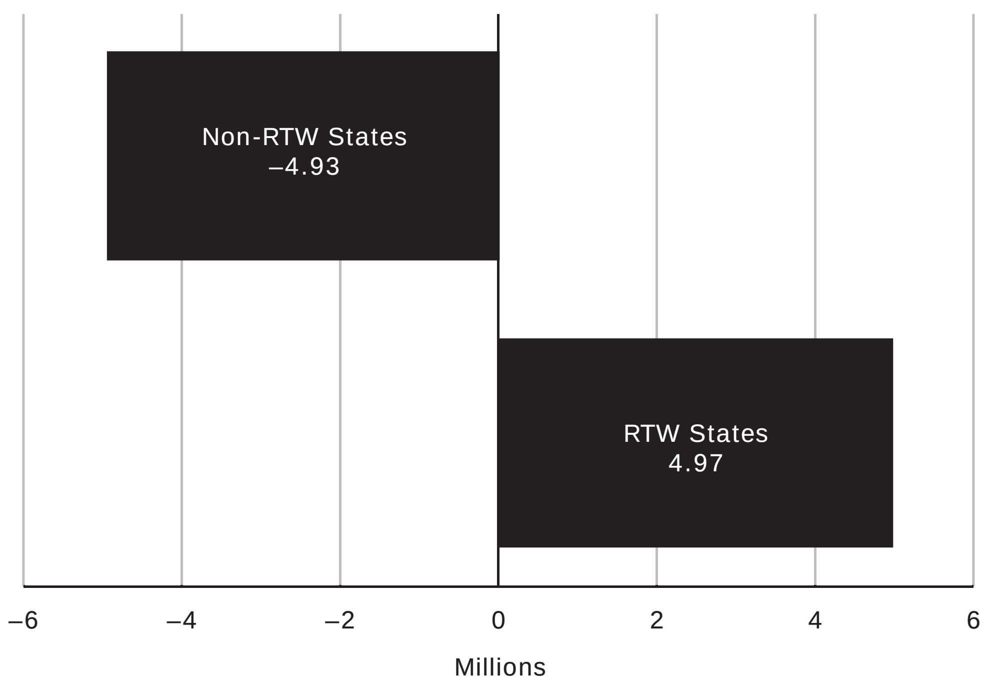
Migration into Right to Work States

As indicated, the rise in the capital-labor ratio associated with the lower perceived labor cost that arises from RTW laws is at least partially offset by the fact that workers, seeing greater economic opportunity in the RTW states, tend to migrate to them. Census data show, for example, that from 2000 to 2009 more than 4.9 million native-born Americans moved from non-RTW to RTW states—an average of more than 1,450 persons per day.[16]

The migration data are interesting in another respect. A person's movement from one geographic location to another can be reasonably considered evidence that the new location is preferred to the old one. At the very least, the massive migration to RTW states suggests that the economic vitality associated with RTW states appeals to large segments of the population.

Chart 2 displays net domestic migration for the period 2000–2009, comparing RTW and non-RTW states. Over this period, approximately 4.9 million people migrated from non-

CHART 2. NET DOMESTIC MIGRATION WITHIN THE UNITED STATES, 2000–2009*



Source: U.S. Census Bureau.
*Note: Data exclude the District of Columbia and all U.S. territories.

RTW states to states that had an RTW law. It appears that millions of Americans voted with their feet by moving away from non-RTW states throughout the first decade of the 21st century.

It is important to note that although Chart 2 gives the domestic migration rate for all migrants (regardless of age), a significant proportion are people of working age, including young, college-educated workers. In fact, a detailed Census Bureau analysis of the 2000 Census revealed that more than a third of all domestic migrants within the United States were between the ages of 25 and 39 and that no other segment of the population was more mobile than 25- to 39-year-olds.[17] Furthermore, the census analysis found that roughly 75 percent of young, college-educated adults moved at some point between 1995 and 2000.

Wage Effect

The effect of RTW laws on employee wages has been another topic of significant academic research. However, economists have not come to a consensus on the topic, because some studies conclude that there is a negative relationship while others argue that the relationship is positive.[18] A 2003 study by economist Robert Reed, then at the University of Oklahoma, helps clear some of the ambiguity by demonstrating that when one controls for the economic conditions of a state *prior to its adoption of a RTW law*, the relationship between RTW and wages is positive and statistically significant. Reed estimates that when "holding constant economic conditions in 1945—average wages in 2000 [were] 6.68 percent higher in RTW states than [in] non-RTW states."[19]

Controlling for economic conditions in a state prior to the enactment of a RTW law is important. A majority of RTW states, especially in the South, were historically poorer than states in the industrial Northeast and Midwest. Thus, without controlling for this condition, one would find that wages in RTW states would be lower than wages in other states, but such a "finding" would be gravely distorted by the lack of context. Reed's study, by taking this context into account, indicates that the passage of RTW laws may boost workers' wages.

This finding may seem to contradict the observation that, initially, workers' wages typically rise a bit after joining a union. However, there appears to be both a short-run and long-run effect. In the short run, unionization may force wages up for those involved, but in the long run the debilitating impact on capital formation and the movement of human capital—workers—leads to lower growth in per capita income, so the overall long-term effect of unionization is negative, implying a positive effect of RTW laws that reduce union labor market power.

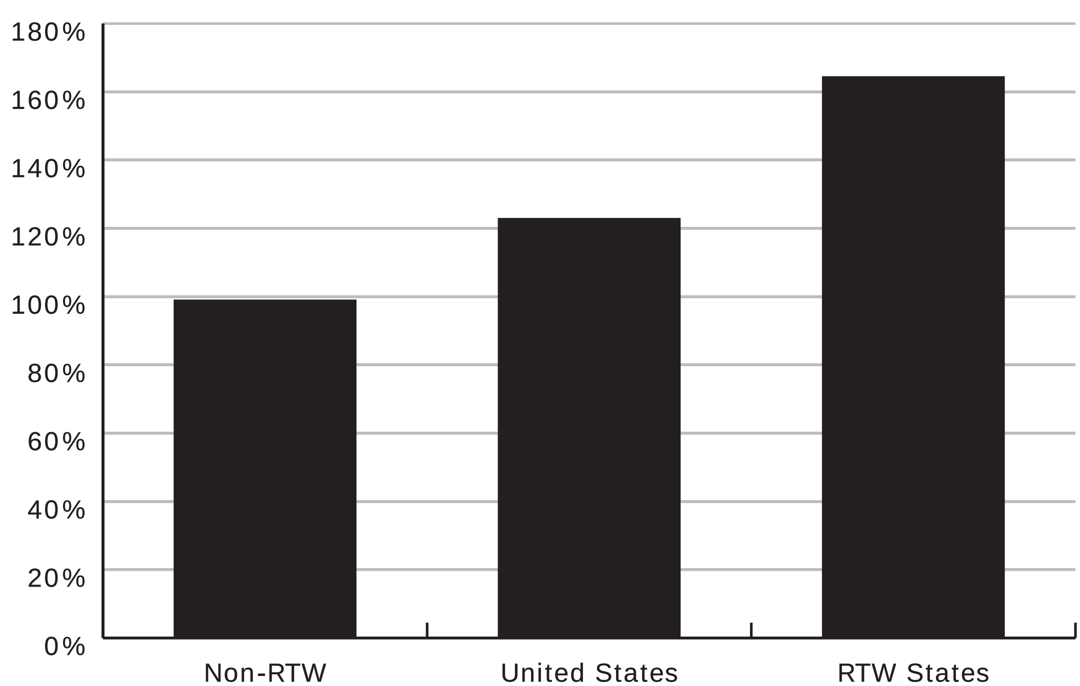
Right to Work Laws and Income Growth

A State-by-State Analysis

FOR ONE TO GET A BASIC PICTURE of the correlation between RTW laws and the growth in citizens' incomes, Chart 3 shows the long-term rates of economic growth, defined as the growth in inflation-adjusted total personal income between RTW and non-RTW states over the period 1977–2012.

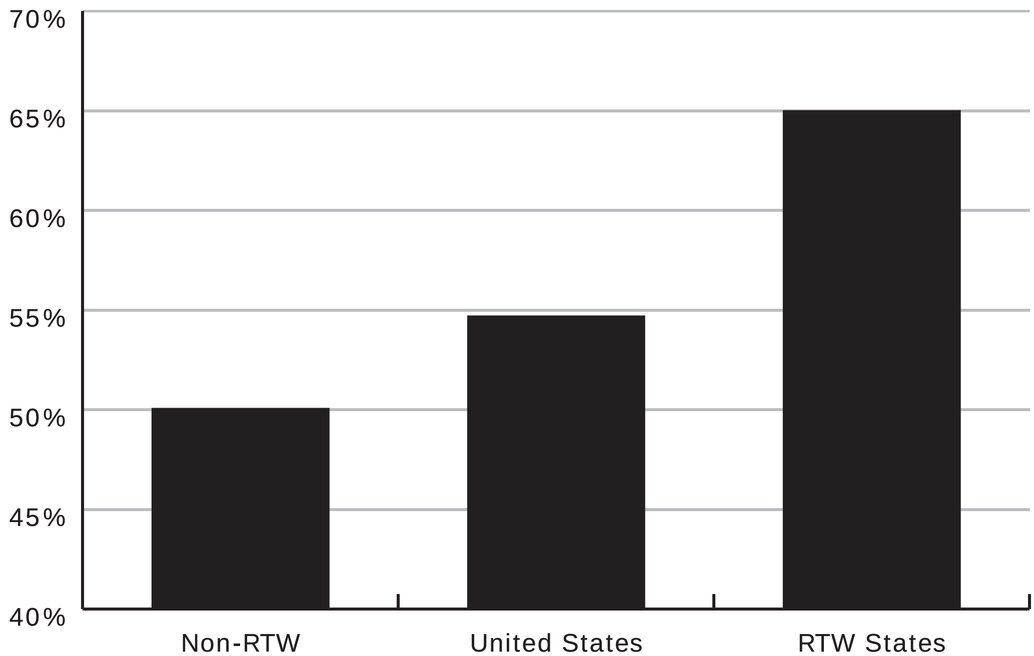
The data show that nationally, real total personal income grew by 123 percent, meaning that—after adjusting for inflation—total personal income in the United States more than doubled in this 31-year span. Compared to the national average, RTW states experienced substantially higher growth—at a rate of 165

CHART 3. GROWTH IN REAL PERSONAL INCOME, 1977–2012



Sources: Bureau of Economic Analysis, authors' calculations.

CHART 4. GROWTH IN REAL PER CAPITA INCOME, 1977–2012



Source: Bureau of Economic Analysis, authors' calculations.

percent—indicating that inflation-adjusted total personal income in those states was about 2.8 times higher in 2012 than in 1977. Conversely, non-RTW states saw below average growth of 99 percent, meaning that real total personal income did not quite double in those states during this same period.

Population growth is part of the driving force behind total growth in real personal income. Right to work states have experienced above-average population growth during this period, which would explain part of the above-average growth in real personal incomes shown in Chart 3. Perhaps a better way to measure economic growth is to measure the growth in *per capita income*, which allows us to examine how the average individual's personal income level changes over time. Chart 4 reports our results after adjusting for changes in population size.

Even after controlling for population growth, growth in real per capita incomes in RTW states is substantially higher than both the national average and non-RTW states. The real income for the average person in a RTW state was 65 percent higher in 2012 than it was in 1977, while for non-RTW states, it was only 50 percent higher.

Regression Analysis

Although Chart 4 suggests that there is an important and positive relationship between RTW laws and economic growth—that is, states with RTW laws have experienced above-average economic growth while states without such laws have seen below-average growth—it does not control for other factors that may have affected economic growth in the various states

TABLE 1. REGRESSION RESULTS FOR RIGHT TO WORK LAWS AND ECONOMIC GROWTH, 1977–2012

Dependent Variable: Growth in Real Per Capita Income
Ordinary Least Squares Estimation
N = 48[a]

Variable	Coefficient	T-ratio	Significance
Constant	0.0663751	0.5127	
Right to Work	0.114886	3.5736	***
Change in Employment-to-Population Ratio	1.47039	2.7535	***
Change in College Attainment	1.48377	2.9825	***
Age of State	0.00146862	3.0223	***
Average Manufacturing	−0.892472	−2.2535	**
Population Growth	−0.0589838	−1.3811	

Statistic	Value
R-squared	0.610115
Adjusted R-squared	0.553058
F(6, 41)	10.69318
P-value(F)	3.93e-07

a. This model includes only the 48 contiguous states, thus excluding Alaska and Hawaii, as well as the District of Columbia.
* $p < 0.1$, ** $p < 0.05$, ***$p < 0.001$

during this period. For instance, we might expect states with more highly educated populations to have higher levels of economic growth. We included this and other factors in our regression analysis to control for the effects they might have on growth. However, we should caution the reader that some possible determinants of growth are difficult to measure (for example, the extent of environmental regulations) and are not included in the analysis. Following accepted practice in building state-level growth models, we restricted our analysis to the 48 contiguous states for the regression. The results of our regressions are reported in Table 1.

We developed several regression models trying to explain interstate variations in the rate of personal income growth, including the existence or absence of an RTW law as the key variable, while also incorporating a series of other variables to control for other influences. In Table 1, we report one such model incorporating five non-RTW variables for control purposes:

1. Change in the employment-population ratio;
2. Change in the proportion of the adult population with bachelor's degrees or more;
3. Number of years since statehood ("age of state" in Table 1, in line with one thesis arguing that with the state aging, special interest groups coalesce and adopt policies inimical to growth);

4. Percentage of the nonagricultural working population in manufacturing ("Average Manufacturing"); and
5. Rate of population growth.

As Table 1 shows, our regression results indicate that states with RTW laws, on average, saw higher growth rates than did states without such a law. Our results suggest that the overall effect of a RTW law is to increase economic growth rates by 11.5 percentage points (for example, from 40.0 to 51.5 percent). This result is significant at the 99 percent confidence level.

Not surprisingly, we also see a positive relationship between economic growth and increases in both the employment-to-population ratio and the proportion of adults with college degrees. We see a negative relationship between manufacturing and growth, indicating that states that are more manufacturing intensive have seen lower levels of growth over the past 30 years. Similarly, states with higher levels of population growth have seen, on average, lower levels of real per capita income growth, though this relationship is not significant even at the 90 percent confidence level.

Although the relationship between RTW and economic growth in Table 1 is statistically significant and positive, is it meaningfully large? From the statistical results described earlier, we can provide insight into an answer to this question: "What would have happened to income levels over the 35-year period of 1977–2012 in states that did not have an RTW law in 1977 had they, in fact, adopted one by 1977?"

We converted per capita income levels in 1977 dollars to 2012 dollars and then calculated the actual rate of growth. We then calculated what per capita income would have been—based on the estimation in Table 1—if those states had an RTW law. We made the calculations based on the coefficient on the RTW variable in Table 1; specifically we assumed that the presence of an RTW law would add 11.49 percentage points to the observed rate of growth.

Next, we ranked the states by the lost per capita income associated with the absence of an RTW law (see Table 2). Excluded from the table are 20 states that already had RTW laws in 1977 (they had no income loss in the subsequent period). Two states, Idaho and Oklahoma, adopted RTW laws during that time span and, we estimate, faced some loss of income from not having adopted the laws earlier. Although Indiana and Michigan have adopted RTW, that adoption came at the very end of the period, so they did face full economic losses associated with the absence of a law allowing workplace freedom.

Most non-RTW states had an estimated loss in per capita income between $2,500 and $3,500. Idaho and Oklahoma had lower numbers because they had RTW laws in place for part of the period. Those numbers are large for *all* affected states. The median figure for all states, $3,278, implies an income loss per family of four of more than $13,000 a year ($3,278 times four). That is the difference between, say, living in a three-bedroom home with one car and taking only one, short, nearby vacation to living in a larger four-bedroom home with two cars and taking a longer European vacation or a cruise. It is the difference between sending your children to a low-cost nearby community college and sending them to live four years at the state's flagship university or even a private college.

The total estimated income loss in 2012 from the lack of RTW laws in a majority of U.S. states was an extraordinary $647.8 billion—more than $2,000 for every American, including those in RTW states. Table 2 fails to account for vast variations in population between the states.

Table 3 lists the 30 non-RTW states by the estimated annual income loss in total dollars, taking into account the population differences between the states.

More than half of the estimated economic damage from the absence of RTW laws, as measured by personal income, occurred in just five states: California, New York, Illinois, Penn-

TABLE 2. ESTIMATED PER CAPITA INCOME LOSS ASSOCIATED *WITH NOT HAVING A RIGHT TO WORK LAW, 30 NON-RTW STATES*

Rank	State	Per Capita Income Loss
1	Alaska	$5,238
2	Connecticut	3,752
3	California	3,732
4	New Jersey	3,674
5	Illinois	3,640
6	Hawaii	3,630
7	Maryland	3,560
8	Wisconsin	3,547
9	New York	3,539
10	Michigan	3,460
11	Delaware	3,436
12	Washington	3,393
13	Pennsylvania	3,373
14	Massachusetts	3,314
15	Colorado	3,280
16	Oregon	3,275
17	Ohio	3,260
18	Minnesota	3,223
19	Indiana	3,119
20	Missouri	3,040
21	Rhode Island	3,037
22	New Hampshire	2,988
23	Montana	2,883
24	Vermont	2,679
25	Maine	2,662
26	New Mexico	2,638
27	West Virginia	2,623
28	Kentucky	2,597
29	Oklahoma	1,961
30	Idaho	725

Source: Authors' calculations from Table 1; see text for details.

sylvania, and Ohio. This damage, of course, is mainly because those states have large populations. At the level of the individual, the damage from an absence of RTW laws is as great or greater in, say, Maryland or Hawaii as in New York. The 6th- and 11th-ranked states, Michigan and Indiana, have recently adopted RTW laws, and one would anticipate some economic revival in those states over time.

Michigan is the poster child for the devastating effects of unionism run amok, which priced iconic American businesses such as

TABLE 3. ESTIMATED INCOME LOSS FROM HAVING NO RTW LAW

Rank	State	Estimated Personal Income Loss ($ billions)
1	California	$141.969
2	New York	69.258
3	Illinois	46.865
4	Pennsylvania	43.053
5	Ohio	37.633
6	Michigan	34.195
7	New Jersey	32.570
8	Washington	23.402
9	Massachusetts	22.025
10	Maryland	20.310
11	Indiana	20.389
12	Wisconsin	20.310
13	Missouri	18.307
14	Minnesota	17.337
15	Colorado	17.015
16	Connecticut	13.471
17	Oregon	12.770
18	Kentucky	11.376
19	Oklahoma	7.481
20	New Mexico	5.502
21	Hawaii	5.054
22	West Virginia	4.867
23	New Hampshire	3.946
24	Alaska	3.831
25	Maine	3.538
26	Rhode Island	3.190
27	Montana	2.898
28	Delaware	2.896
29	Vermont	1.677
30	Idaho	1.157

Source: Authors' calculations from Table 1 and 2 for population during 2012.

General Motors out of the market and led to their bankruptcy. In 1977, Michigan's per capita income was 7.4 percent above the national average; by 2012, it was some 12.2 percent below the average. According to the statistical estimation in Table 1, about *two-thirds* of the current deficiency in Michigan's actual per capita income relative to the national average would have been eliminated if it had an RTW law. In 1977, Michigan had 14.5 percent higher income per capita than RTW Texas. By 2012, by contrast, income per capita was more than 10 percent higher in Texas than in Michigan.

Although less dramatic, the story is similar in Indiana. In 1977, Indiana was already slightly below the national average in income per capita, with a 3.2 percent gap, which had quadrupled to 13.6 percent by 2012. Again, our estimation is that a solid majority of the income deficiency relative to the national average would have been eliminated had the Hoosier State adopted an RTW law in 1977 or earlier.

As in most statistical analyses, some caveats are in order.

First, these numbers are meant to illustrate that the overall affect of RTW laws on economies is potentially very large. They are not meant to be an exact statement of the economic damage associated with the failure to adopt RTW laws but rather are an estimate with the maximum likelihood of being correct. Any statistical analysis involves some errors arising from chance, from failure to precisely measure relevant variables, from variables excluded from the analysis because of data limitations, and from other factors.

Second, there are many determinants of economic growth. Although labor laws are important, so are several other factors. Many prosperous states are without RTW laws, particularly in the northeast, and they have benefited from booms in particular sectors, such as financial services or high technology, where unions never gained a foothold. Yet our results suggest states would excel even more if they had the benefits of an RTW law. Also, in a few states with RTW laws, growth rates have not been particularly outstanding, in part because other factors have impeded growth. Again, the RTW environment helped to mitigate what otherwise would have been a sharp economic decline relative to other states.

The dollar amounts given earlier are estimates. They are heavily dependent on the regression coefficient in Table 1. Different models were also tried, always showing a positive relationship between the presence of an RTW law and economic growth—however the precise magnitude of the relationship varied with the model chosen. The one we chose had a coefficient on the critical RTW variable that was not at either extreme among the various models used, but the correct figure might be fairly substantially higher or lower than we used here.

The results in Table 1 explain only about 60 percent of the variation in growth rates over the period 1977–2008, which is a majority to be sure, but another 40 percent is still unexplained. There may be a significant "omitted variable bias" in this simple regression model.

That said, suppose we have grossly overestimated the effect of RTW laws, say by a factor of four, so the real effect is 75 percent lower than we estimated. Even so, the passage nationwide of RTW laws could have real substantial positive effect—instead of a negative impact of \$13,000 a family after 35 years, or as the numbers intimated earlier, "only" \$3,000. That is still a substantial positive effect for a legislative change that imposes no costs on taxpayers.

It is also true that the future effect of RTW laws may be different from that in the past. Labor union densities have declined substantially (by more than half) over the past 40 years, even in the non-RTW states, so the damage associated with union coercive powers would be smaller in the future than in the past. Similarly, the trend within the union movement from private to public employment is noteworthy. How that changing mix of employees influences the positive effects of RTW laws is not known with any certitude.

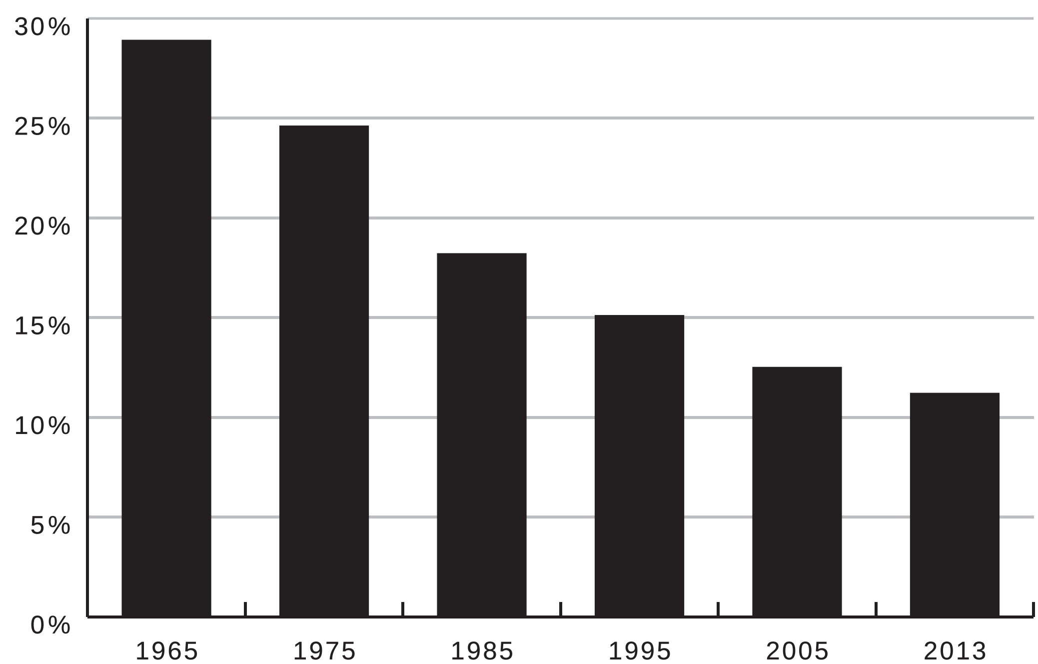
Finally, it is possible to perform more complex statistical analyses. One might question, for example, the direction of causation with respect to some of the variables included in the earlier analysis. Theoretically, a general equilibrium analysis is superior because it takes into account the complex interaction between many variables that affect economic growth.

Union Membership Trends in the United States

THE PERCENTAGE OF AMERICANS belonging to unions has declined sharply over time. Chart 5 shows the proportion of all nonagricultural wage and salary employees that are union members for all states in the nation. Chart 6 shows that in 2013 public union membership in the United States accounted for about half of all union membership; by contrast, in 1983, two-thirds of all union members in the United States were in the private sector.

This continuous and sharp decline in union membership suggests that despite all the privileges provided to unions under the Wagner Act "to encourage collective bargaining," Americans

CHART 5. UNION MEMBERSHIP IN THE UNITED STATES, 1965–2013[20]



Sources: http://unionstats.com/; also see Hirsch, Macpherson, Vroman (2001).

CHART 6. UNION MEMBERSHIP IN THE UNITED STATES, BY SECTOR (2013)

Sources: http://unionstats.com/; also see Hirsch, Macpherson, Vroman (2001).

are "just saying no" to unionization.[21] Thus, the notion that the public interest is served by providing special legal privileges to a sector that is increasingly unpopular with its potential client base is increasingly suspect. Moreover, the increasing domination of organized labor by government employee unions raises the possibility that public employers, not faced with the same market imperatives as private ones, will generally take the path of least resistance and accede to unions' high-compensation demands—such as fully employer-paid, luxury, health-insurance policies—thereby creating a protected class of workers.

Additionally, there is the purely political question of whether a diminished union membership has the political clout to stop a legislative change—RTW laws—that most likely would be popular among the general populace. The recent experiences in Indiana and Michigan suggest this question may be increasingly relevant to many Americans living in non-RTW states.

Regional Aspects of Declining Labor Union Membership

The long-term decline in union membership has been universal across the nation, but its severity has varied considerably. Looking at state labor union membership for the years 1978 and 2012, for example, we observe 31 states where (a) the proportion of the labor force in unions declined by at least one half, (b) fewer than 10 percent of workers were union members in 2012, or (c) both. Those states are ones where it can be said that unionism represents a small minority of workers, has been in severe decline, or both. Another eight states—Alaska, Hawaii, Michigan, New Jersey, New York, Oregon,

TABLE 4. TOP 10 STATES IN UNION MEMBERSHIP DECLINES, 1964–2012

State	Decline in Union Membersship (in percentage points)
Indiana	31.7
Michigan	28.0
Washington	25.7
Ohio	24.9
West Virginia	24.5
Pennsylvania	24.1
New Jersey	23.3
Montana	23.1
Oregon	22.8
Minnesota	22.6

Sources: http://unionstats.com/. See also Hirsch, Macpherson, Vroman (2001). Authors' calculations.

Rhode Island, and Washington—still have a relatively strong labor union presence of 15 percent or more. Michigan is unique in that it is on both lists—it has had sharply declining union membership but still maintains a significant union presence. Twelve states are on neither list; they had 10 to 15 percent of their work force in unions in 2012 and have witnessed meaningful but not drastic decline—below 50 percentage points—in the proportion of their population belong to unions.

The 31 states where unions are relatively weak or severely declining include 22 RTW states—all such states except Iowa and Nevada. It is interesting that all three states that have joined the ranks of the RTW states in the 21st century—Oklahoma, Indiana, and Michigan—are in the category of declining or weak union states. It would seem that being in that category increases the probability that political forces favoring the adoption of RTW laws are likely to succeed, because unions are relatively numerically weak or facing serious internal problems relating to massive membership decline. The nine non-RTW states among the 31 weak union states include Colorado, Delaware, Illinois, Kentucky, Missouri, Ohio, Pennsylvania, West Virginia, and Wisconsin. Those states contain more than 60 million people, which is more than one-third of the population in states without RTW laws. It is noteworthy that efforts to enact RTW are purportedly under way in several of those states.

If we look only at the 26 states where the density of union membership declined by more than 50 percent, 18 of the 22 long-term RTW states (those which have had RTW laws for at least 10 years), or 82 percent of the total, are included. Among the other 28 non-RTW states, only eight are included, 28 percent of the total. In short, the incidence of sharp union membership decline was more prevalent in states where workers faced no legal or contractual obstacles to forgo membership. As Table 4 shows, of the 10 states with the steepest declines in union membership from 1964 to 2012, none had RTW laws prior to 2012 (Indiana and Michigan both adopted their RTW laws in 2012).[22] This observation suggests that had RTW been universally adopted (meaning the Wagner Act's compulsory unionism provisions did not exist), it is likely that the decline in membership nationally would have been even more severe. When given a free choice, many workers choose not to join unions.

Conclusion

THE EVIDENCE IS COMPELLING that RTW laws add demonstrably to the material quality of people's lives. People have been migrating in large numbers from non-RTW states to RTW ones for years. Statistical evidence suggests that economic growth is greater in RTW states. Incomes rise following the passage of RTW laws—even after adjusting for the substantial population growth that those laws also induce. RTW states tend to be vibrant and growing; non-RTW states tend to be stagnant and aging.

To be sure, there are exceptions to every rule, and many other factors affect economic growth. Thus, much of New England is relatively prosperous despite the absence of RTW laws—though again, it is worth noting that unions never gained a foothold in the region's most thriving sectors such as high technology. Nonetheless, even those areas likely would have benefited from such legislation. The evidence suggests that if non-RTW states had adopted RTW laws 35 years ago or so, annual income levels would be perhaps $3,000 per person higher today, with the effect varying somewhat from state to state. Even if that conclusion seriously overstates the results of RTW laws, the true effect is still likely quite substantial.

Between 1977 and 2010, it seemed as if a delicate political balancing act precluded major legislative changes from occurring. Although public opinion increasingly favored RTW laws, the states without such laws had powerful unions that could exert enough political power to defeat efforts to enact RTW legislation. However, pro-RTW forces were gaining strength during this period. Idaho and Oklahoma adopted RTW laws. Millions of Americans migrated from non-RTW states to RTW states. Union membership has fallen sharply.

We have now entered a new era. Already, Indiana and Michigan have adopted RTW laws. Several states with sharp declines in union membership located near existing RTW states may adopt such laws in the future—Missouri and Ohio are two possibilities. The day is nearing when a majority of Americans could enjoy the full workplace freedoms that RTW laws accord. Drawing on the preponderance of statistical evidence, most people will find this change a welcome development.

Notes

1. George C. Leef, "Free Choice for Workers: A History of the Right to Work Movement" (Ottawa: Jameson Books, 2005).

2. For a discussion of the Transportation Act, see Philip Taft, *The AF of L from the Death of Gompers to the Merger* (New York: Harper and Brothers, 1959), p. 67 .

3. For a fairly detailed discussion of the 1923–1926 experience, including passage of the Railroad Labor Act from organized labor's perspective, see Taft, pp. 67–71.

4. Leef, p. 37.

5. Ibid., p. 7.

6. National Labor Relations Act, 29 U.S.C. §§ 151–169 [Title 29, Chapter 7, Subchapter II, United States Code], http://www.nlrb.gov/resources/national-labor-relations-act.

7. For a discussion of the provisions of the Taft-Hartley Act, see Gary M. Walton and Hugh Rockoff, *History of the American Economy*, Ninth edition (Toronto: Southwestern, 2002), pp. 558–562. On labor's attempt to defeat the law, see Taft, pp. 270–274.

8. Ibid., p. 29.

9. The right to work states include Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Louisiana, Michigan, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming.

10. Richard Vedder, "Right-to-Work Laws: Liberty, Prosperity, and Quality of Life," *Cato Journal*, Vol. 30, No. 1 (Winter 2010), pp. 171–180, http://object.cato.org/sites/cato.org/files/serials/files/cato-journal/2010/1/cj30n1-9.pdf. This study appeared before Indiana and Michigan became RTW states.

11. For the pioneering work, see H. Gregg Lewis, *Unionism and Relative Wages in the United States* (Chicago: University of Chicago Press, 1963). For a review of literature that for the most part confirms Lewis's observation, see C. J. Parsley, "Labor Union Effects on Wage Gains: A Survey of Recent Literature," *Journal of Economic Literature,* Vol. 18, No. 1 (March 1980), pp. 1–31. There is a big distinction, which Lewis emphasizes, from the micro effects that unions have on newly organized workers and the broader economic or "macro" effects. See, for example, Lewis, "Union Relative Wage Effects: A Survey of Macro Estimates," *Journal of Labor Economics*, Vol. 1, No. 1 (January 1983), pp. 1–27.

12. Robert J. Newman, "Industry Migration and Growth in the South," *The Review of Economics and Statistics*, Vol. 65, No. 1 (February 1983), pp. 76–86, http://www.jstor.org/discover/10.2307/1924411?uid=3739560&uid=2&uid=4&uid=3739256&sid=21102991069377.

13. Ibid., p. 85.

14. Thomas J. Holmes, "The Effect of State Policies on the Location of Manufacturing: Evidence from State Borders," *Journal of Political Economy,* Vol. 106, No. 4 (August 1998), pp. 667–705, http://www.jstor.org/discover/10.1086/250026?uid=3739560&uid=2&uid=4&uid=3739256&sid=21102991069377.

15. Ibid., pp. 702–704.

16. Vedder, "Right to Work Laws," p. 173.

17. U.S. Census Bureau, "Migration of the Young, Single, and College Educated: 1995 to 2000," Washington, DC: U.S. Department of Commerce, November 2003.

18. For a listing of previous empirical research on the relationship between RTW laws and wages, see Table 1 of W. Robert Reed, "How Right-to-Work Laws Affect Wages," *Journal of Labor Research*, Vol. 24 (2003), pp. 713–730.

19. Ibid.

20. Data for United States are data for "All States" published at http://unionstats.com/ and are for the proportion of all nonagricultural wage and salary employees who are union members. See Barry T. Hirsch, David A. Macpherson, and Wayne G. Vroman, "Estimates of Union Density by State," *Monthly Labor Review*, Vol. 124, No. 7 (July 2001). See also Barry T. Hirsch and David A. Macpherson, "Union Membership and Coverage Database from the Current Population Survey: Note," *Industrial and Labor Relations Review*, 56, no. 2 (January 2003), pp. 349–354, and Gerald Mayer, "Union Membership Trends in the United States" (2004), *Federal Publications*, Paper 174, http://digitalcommons.ilr.cornell.edu/key_workplace/174.

21. National Labor Relations Act.

22. It is interesting to note that Indiana and Michigan, the two states that adopted right to work in 2012, were the states with the largest and the second largest declines, respectively, in union membership over the past half century. This finding suggests that the states most likely to follow suit in the near future would also be the non-RTW states that appear in Table 4.

About the Authors

Richard K. Vedder studies higher education financing, labor economics, immigration, government fiscal policy, and income inequality. A distinguished professor of economics at Ohio University, he is the author of several books, including *Going Broke by Degree*; *The Wal-Mart Revolution: How Big Box Stores Benefit Consumers, Workers, and the Economy* (with Wendell Cox); and *Out of Work: Unemployment and Government in Twentieth-Century America* (with Lowell Gallaway). Dr. Vedder earned his Ph.D. in economics from the University of Illinois.

Jonathan Robe is a freelance public policy researcher. Currently a law student, he was previously a research associate at the Center for College Affordability and Productivity, where he wrote about higher education policy both in policy reports and in the popular press.

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1899 L Street NW, 12th Floor
Washington, DC 20036
202-331-1010
cei.org