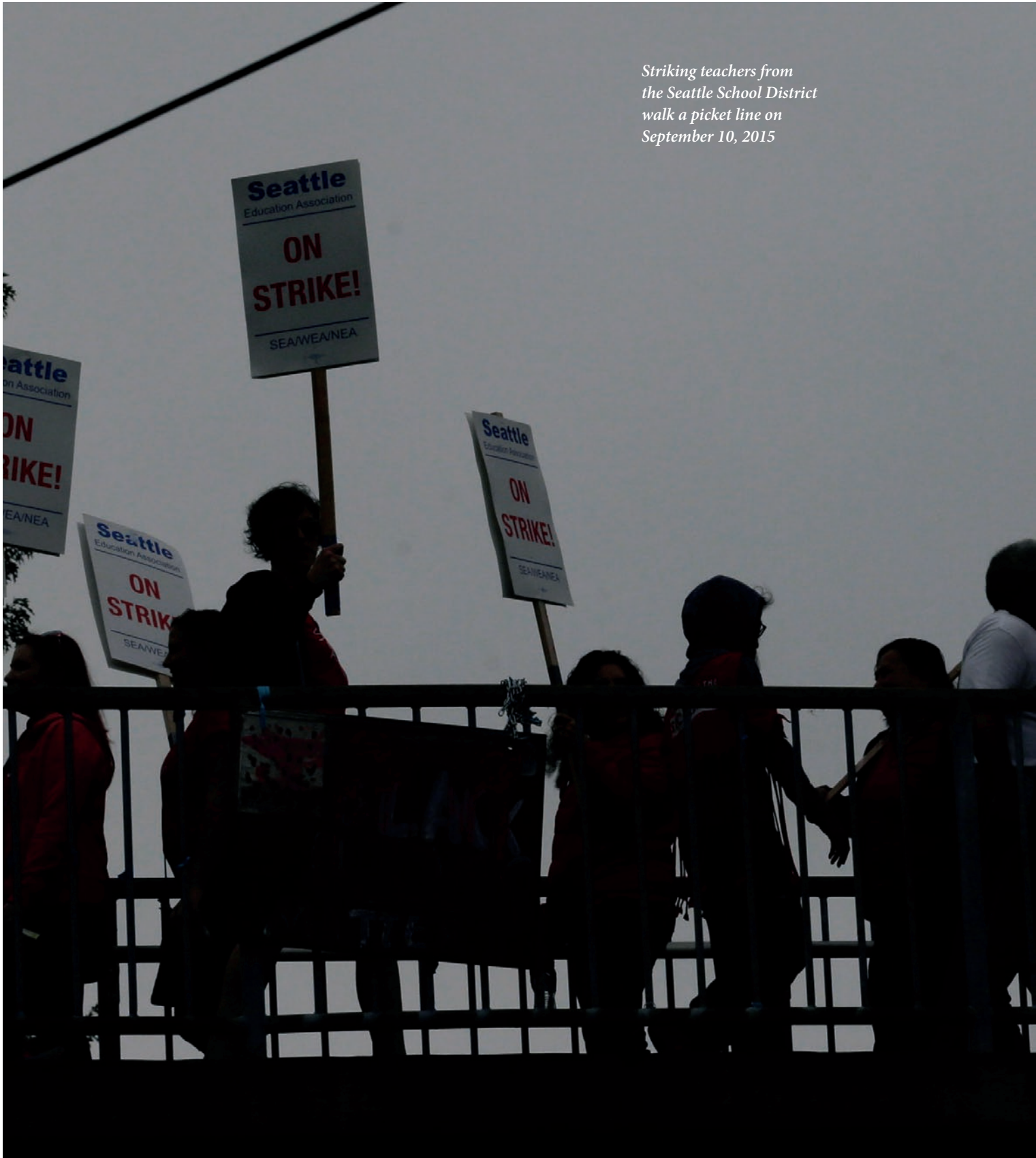


*Striking teachers from
the Seattle School District
walk a picket line on
September 10, 2015*



PHOTOGRAPH / ASSOCIATED PRESS; TED S. WARREN

A BAD BARGAIN

How teacher
collective bargaining
affects students'
employment and
earnings later in life

ON THE EVE of the Seattle teachers strike in September 2015, the *Seattle Times* condemned the impending walkout, accusing the union of “stiff-arming more than 50,000 kids and their families.” Yet the teachers insisted that their strike was about children’s education, not just teacher pay, and commanded widespread support from parents and the community at large.

Seattle teachers and administrators reached an agreement in one week, but the question of how unions affect public education is far from settled. According to the recent *Education Next* poll (see “The 2015 *EdNext* Poll on School Reform,” *features*, Winter 2016), the public is divided as to whether teachers unions have a positive or negative impact on schools, and, until now, researchers have been unable to document the effects of collective bargaining on students’ long-term outcomes.

Today, more than 60 percent of teachers in the United States work under a union contract. The rights of teachers to unionize and bargain together have expanded dramatically since the late 1950s, when states began passing “duty-to-bargain” (DTB) laws that required school districts to negotiate with teachers unions in good faith. Recently, though, states such as Wisconsin, Indiana, Michigan, and Tennessee have sought to weaken the ability of teachers unions to negotiate contracts in K–12 education.

Advocates for these restrictions claim that unions have a negative effect on the quality of public education and, therefore, students’ life chances. Those in favor of teacher collective bargaining, on the other hand, argue that unions



by MICHAEL F. LOVENHEIM AND ALEXANDER WILLÉN

make the education system more effective by empowering teachers who are in the classroom and by giving them a role in shaping their working conditions. Due to data limitations, however, empirical research has not credibly addressed the critical question of how teacher collective bargaining influences student outcomes.

In this study, we present the first evidence on how laws that support teacher collective bargaining affect students' employment and earnings in adulthood. We do so by first examining how the outcomes of students educated in a given state changed after the state enacted a duty-to-bargain law, and then comparing those changes to what happened over the same time period in states that did not change their collective-bargaining policies.

We find no clear effects of collective-bargaining laws on how much schooling students ultimately complete. But our results show that laws requiring school districts to engage in collective bargaining with teachers unions lead students to be less successful in the labor market in adulthood. Students who spent all 12 years of grade school in a state with a duty-to-bargain law earned an average of \$795 less per year and worked half an hour less per week as adults than students who were not exposed to collective-bargaining laws. They are 0.9 percentage points less likely to be employed and 0.8 percentage points less likely to be in the labor force. And those with jobs tend to work in lower-skilled occupations.

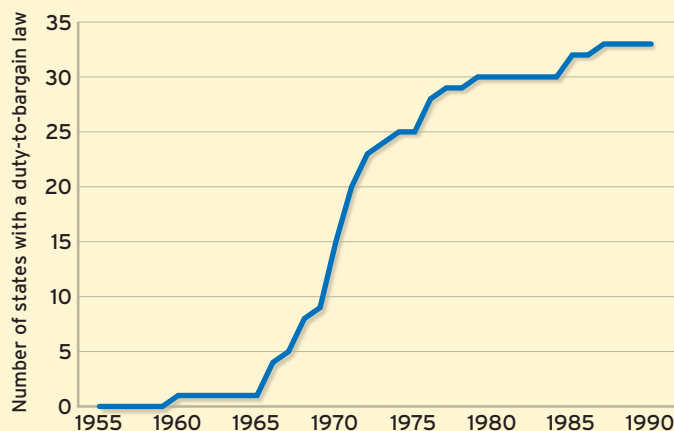
Teacher Collective Bargaining in the United States

In the first half of the 20th century, teachers unions in the United States were predominantly professional organizations that had little say in contract negotiations between teachers and school districts. Starting with Wisconsin in 1959, however, states began passing union-friendly legislation that either gave teachers the right to collectively bargain or explicitly mandated that districts negotiate with unions in good faith. Duty-to-bargain laws in particular give unions considerable power in the collective-bargaining process, because they make it illegal for a district to



Mandatory Bargaining Spreads (Figure 1)

Between 1959 and 1987, 33 states passed laws requiring schools to bargain with teachers.



SOURCE: NBER Public Sector Collective Bargaining Law Data Set (Valletta and Freeman 1988), updated by Kim Reuben

Starting in 1959, states began passing union-friendly legislation that led to a sharp rise in the prevalence of collectively bargained contracts.

refuse to bargain with a union, and because most of them require state arbitration if the two sides reach an impasse. The enactment of such laws led to a sharp rise in the number of teachers who joined unions and in the prevalence of collectively bargained contracts.

Between 1959 and 1987, 33 states passed duty-to-bargain laws (see Figure 1); just 1 (New Mexico) has done so since. Of the 16 states without such a law, 9 have legislation that permits teachers unions and districts to bargain if both sides agree to do so. In the remaining 7 states (Arizona, Georgia, Mississippi, North Carolina, South Carolina, Texas, and Virginia), collective bargaining is prohibited either by statute or by court ruling (see Figure 2).

How Might Collective Bargaining Affect Schools and Students?

Collective-bargaining laws strengthen teachers unions and give them greater influence over how school districts allocate their resources. A typical



Duty-to-bargain laws give unions considerable power in the collective bargaining process, because they make it illegal for a district to refuse to bargain with a union.

collective-bargaining agreement addresses a remarkably broad range of items: unions negotiate over salary schedules and benefits; hiring, evaluation, and firing policies; and rules detailing work and teaching hours, class assignments, class sizes, and nonteaching duties. By increasing union membership, collective-bargaining laws also heighten the influence of teachers unions in education politics at the state level.

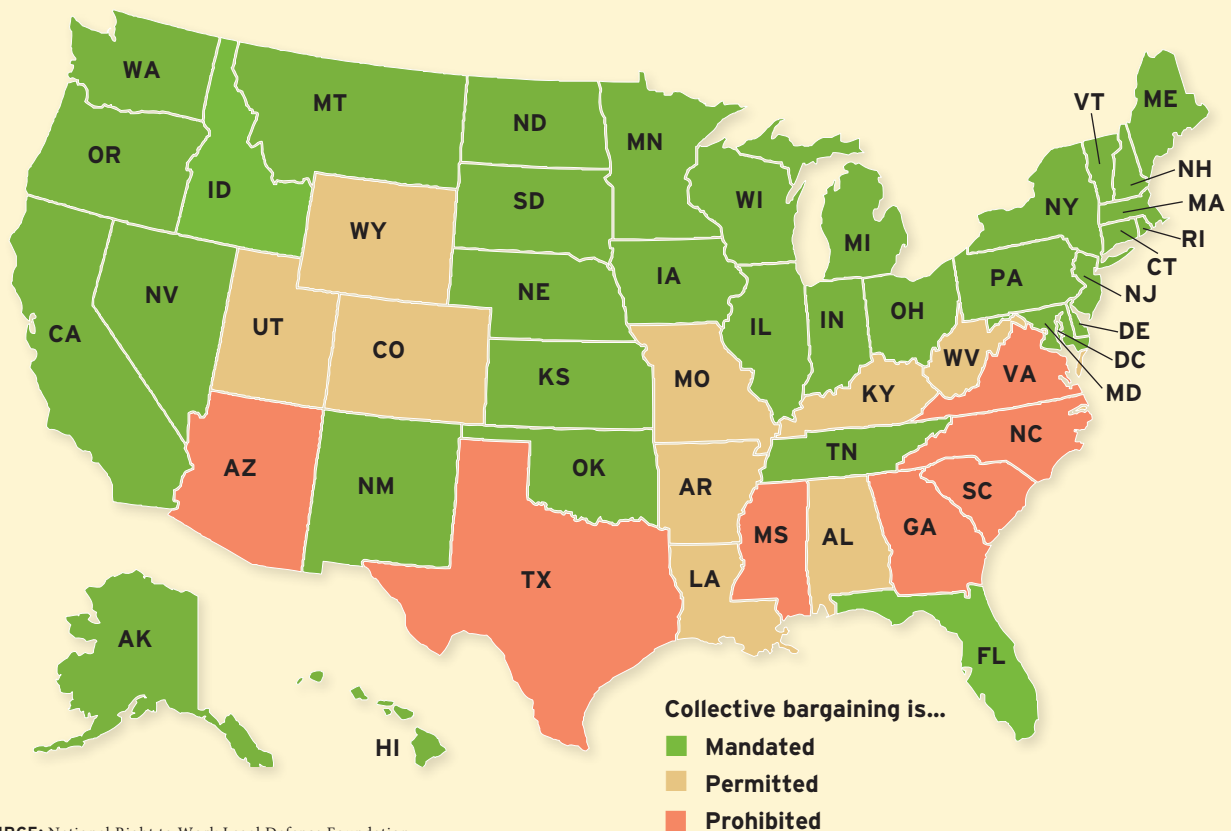
Critics of teacher unionization argue that collective bargaining in public education has reduced school quality by shifting

resources toward teachers and away from other educational inputs and by making it more difficult to fire low-performing teachers. Stronger unions may also have made it harder for states to adopt policies aimed at improving school quality through enhanced accountability or expanded school choice.

Other arguments, however, suggest that stronger unions may benefit students. First, to the extent that teachers have expertise in creating effective learning environments, giving them more say over how resources are allocated could lead to better

Collective Bargaining Mandatory in Some States, Prohibited in Others (Figure 2)

Thirty-four states have laws requiring schools to bargain with teachers, but in seven states, collective bargaining is prohibited either by statute or by a legal opinion. In the remaining states, collective bargaining is permitted if both the teachers union and the district agree to it.



SOURCE: National Right to Work Legal Defense Foundation

educational outcomes. Second, giving teachers a greater voice in the structure of their working environments could lead them to become more productive and could attract more effective teachers into the profession. Finally, teachers unions could use their political muscle to support additional investment in public education and other policies that might enhance school quality.

In sum, there's little dispute that collective bargaining alters how school districts operate and shifts the balance of power in state education politics, but there is wide disagreement over whether these changes affect student outcomes negatively or positively. This disparity of opinion highlights the importance of turning to empirical evidence.

Our Study

The central challenge in studying the effects of collective-bargaining policies is that states with strong protections for collective bargaining tend to be very different from states with weaker protections. For example, the states without duty-to-bargain laws are located mainly in the South, where student achievement has historically been low for reasons unrelated to collective bargaining. States such as Massachusetts and Minnesota demonstrate that it is possible to have a relatively high-performing school system in the presence of strong unions, but they tell us very little about the effects of collective bargaining itself.

any observed outcome differences could be the result of factors other than collective bargaining (for instance, social and political changes since the 1960s that affected K–12 education). Our strategy, therefore, is to compare the *differences* in outcomes for students educated in the same state (before and after the DTB law passed) to the *differences* in outcomes for students in non-DTB states over the same time period.

When making these comparisons, we adjust for the share of the student's state birth cohort that is black, Hispanic, and white, and the share that is male. We also take into account two policy changes enacted by many states during this same time period that may have affected student outcomes: school finance reforms and changes in the generosity of state earned-income tax credits. If the rollout of those policies coincided with the passage of duty-to-bargain laws, unadjusted before-and-after comparisons could yield misleading results. Adjusting for these two variables turns out to make little difference in our results but strengthens our confidence that collective bargaining is responsible for the effects we document.

Our measure of the extent to which each student is exposed to collective bargaining varies from 0 to 1 and is defined as the proportion of the student's school years in which a duty-to-bargain law was in effect in his or her state. A value of 1 means that a DTB law had been enacted by the time students in the birth cohort were



Students who spent all 12 years of grade school in a state with a duty-to-bargain law earn an average of \$795 less per year and worked half an hour less per week as adults.

Our study overcomes this hurdle by examining how the outcomes of students educated in specific states changed over the years when most states enacted collective-bargaining laws. We focus on duty-to-bargain DTB laws specifically because these laws led to greater growth in unionization and collective bargaining than did other forms of state union laws. And we focus on entire states rather than on specific school districts, because the passage of a duty-to-bargain law might have consequences even for students in districts that did not unionize. Unions' political activities influence education policies statewide, and nonunionized districts operating in a DTB state may tend to adopt policies supported by teachers in order to avoid unionization efforts.

We do not directly compare students educated in duty-to-bargain states with students in non-DTB states, because such comparisons would clearly yield outcome differences unrelated to collective bargaining (for instance, differences caused by higher or lower poverty rates). Also, we eschew simple "before and after" comparisons *within* a state, because again,

six years old (in time for first grade); thus, they were exposed to the law throughout their entire K–12 education. The variable is 0 for students whose birth cohorts had no exposure, either because they were over 18 when a DTB law was passed or because they were born in a state that did not impose a duty to bargain.

Data

The data for our analysis come from two main sources. The first is the National Bureau of Economic Research collective-bargaining law dataset that contains, for each state and year since 1955, collective-bargaining laws for each type of public-sector worker. We combine the collective-bargaining information for teachers with 2005–2012 American Community Survey (ACS) data containing detailed information on the educational attainment and labor market success of representative samples of adults in each state.

We look specifically at ACS data for individuals between the ages of 35 and 49, because people in this age group typically

have completed their education and are at a juncture when yearly earnings are indicative of lifetime earnings. We examine birth cohorts ranging from 1956 to 1977, which correspond to students who attended school from 1962 to 1995. As shown in Figure 1, these schooling years correspond with the dramatic rise in duty-to-bargain laws in the United States.

Results

These data enable us to examine the effects of teacher collective-bargaining policies on multiple indicators of students' labor-market success. Taken as a whole, our results clearly indicate that laws supporting collective bargaining for teachers have adverse long-term consequences for students.

Earnings. We find strong evidence that teacher collective bargaining has a negative effect on students' earnings as adults. Attending school in a state with a duty-to-bargain law for all 12 years of schooling reduces later earnings by \$795 dollars per year (see Figure 3). This represents a decline in earnings of 1.9 percent relative to the average. Although the individual effect is modest, it translates into a large overall loss of earnings for the nation as a whole. In particular, our results suggest a total loss of \$194 billion per year accruing to those who were educated in the 33 states with duty-to-bargain policies on the books.

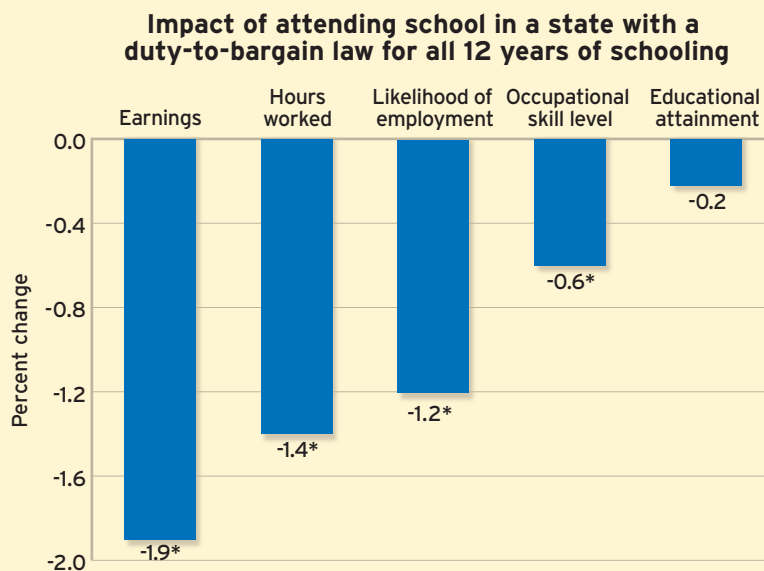
Hours worked. Consistent with this reduction in earnings, we also find that exposure to a duty-to-bargain law throughout one's school years is associated with a decline of 0.49 hours worked per week. This is a 1.4 percent decline relative to the average, and it suggests that a reduction in hours worked is a main driver of the lower earnings.

Wages. The reduced earnings caused by unionization could also reflect lower wages, and the evidence suggests a negative relationship between collective-bargaining exposure and wages. While this relationship is not statistically significant, it is consistent with our other results and suggests that teacher collective bargaining may also have a modest adverse effect on average wages.

Employment. The fact that teacher collective bargaining reduces working hours suggests that duty-to-bargain laws may also affect employment levels. In fact, when we use the share of individuals who are employed as the outcome variable, we find that duty-to-bargain laws reduce employment. Specifically, exposure to a duty-to-bargain law for all 12 years of schooling lowers the likelihood that a worker is employed by 0.9 percentage points. Duty-to-bargain laws have no impact on *unemployment*

Adverse Consequences of State-Mandated Collective Bargaining (Figure 3)

Collective bargaining depresses future earnings, hours worked, likelihood of employment, and occupational skill level, but has no clear effect on how much schooling students complete.



* Statistically significant at the 90 percent confidence level

NOTE: Occupational skill level is measured as the share of workers in that occupation who have any education beyond a high school diploma.

SOURCE: Authors' calculations

rates, however, suggesting that they reduce employment by leading some individuals to drop out of the labor force altogether.

Occupational skill level. Finally, we analyze the effects of collective bargaining on the skill level of a student's selected occupation, as measured by the share of workers in that occupation who have any education beyond a high school diploma. The results suggest yet another negative effect: being exposed to a duty-to-bargain law for all 12 years of schooling decreases the proportion of such workers in an occupation by almost half of a percentage point (or 0.6 percent relative to the average). This effect is modest in size, but it implies that teacher collective bargaining leads students to work in occupations requiring lower levels of skill.

Educational attainment. The reduced earnings and labor force participation associated with teacher collective bargaining raise the possibility that affected students may have completed less education. Our analysis, however, finds little evidence of bargaining power having a significant effect on how much schooling students

completed. This finding is surprising in light of the substantial labor-market effects we document, but it comports with prior research that has found no effect of duty-to-bargain law passage on high-school dropout rates.

Additionally, educational attainment is but one measure of the amount of human capital students accumulate. Even if students do not complete fewer years of education, they may be acquiring fewer skills while they are in school. We believe that our results concerning earnings and employment are driven by other aspects of school quality that are not reflected in educational attainment,

These results contribute new information to the contentious debate occurring in many states over limiting the collective-bargaining rights of teachers. For example, in 2011 Wisconsin passed legislation that greatly reduced the ability of teachers to bargain with school districts (see “Limits on Collective Bargaining,” *features*, Fall 2013), and in 2014 Michigan passed a public employee right-to-work law that sought to limit union negotiating power. Not surprisingly, teachers unions and their allies responded to these laws with fierce opposition.

At the core of this debate lies the question of how teacher



At the core of the debate over limiting the rights of teachers to bargain together lies the question of how this bargaining has affected student outcomes. This study shows that collective bargaining in public education has been a bad deal for American students.

and they reinforce the importance of studying labor-market outcomes directly in order to understand how major reforms such as the enactment of teacher collective-bargaining laws affect students' life outcomes.

Policy Implications

This study provides the first comprehensive analysis of the effect of teacher collective bargaining on the long-term educational and labor market outcomes of affected children. We find that exposure to a duty-to-bargain law while in grade school lowers earnings and leads to fewer hours worked, reductions in employment, and decreases in labor force participation. Occupational skill level also declines. However, educational attainment is unchanged by exposure to these laws.



In 2014 under Governor Rick Snyder, Michigan passed a law that sought to limit union negotiating power.

collective bargaining affects student outcomes. Our results suggest that lawmakers in Wisconsin and Michigan have evidence on their side. However, we urge caution when generalizing these findings to current students, because the cohorts we analyze in this study, most of whom attended school in the 1970s and 1980s, were educated in an environment very different from today's. Some of the adverse effects of teacher collective bargaining we document could be driven by how teachers unions interacted with aspects of the school system that are no longer relevant. On the other hand, the economy's growing demand for skilled workers may mean that policies affecting human capital accumulation matter more now than ever. Future research should investigate whether and how the effects of teacher collective bargaining have changed over time.

Moreover, our results say little about *why* the enactment of collective-bargaining laws has harmed student outcomes. Perhaps collective bargaining has made it more difficult for school districts to dismiss ineffective teachers or to allocate teachers among schools. Or perhaps the political influence of teachers unions at the state level has interfered with efforts to improve school quality. Identifying the factors at play could shed light on the most promising strategies for reform. In the meantime, however, our evidence points to the conclusion that collective bargaining in public education has been a bad deal for American students.

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