

Teachers Unions and Student Performance: Help or Hindrance?

Randall W. Eberts

Summary

Randall Eberts explores the role of teachers unions in public education. He focuses particularly on how collective bargaining agreements shape the delivery of educational services, how unions affect both student achievement and the cost of providing quality education, and how they support educational reform efforts.

Eberts's synthesis of the empirical research concludes that union bargaining raises teachers' compensation, improves their working conditions, and enhances their employment security—while also raising the cost of providing public education by upwards of 15 percent. The effect of unions on student performance is mixed. Students of average ability who attend school in union districts perform better on standardized tests, whereas low-achieving and high-achieving students perform worse. However, the overall gain in achievement does not make up for the higher cost.

Of late, unions have begun to be more supportive of school reform, moving from an adversarial bargaining model to a more collaborative one in which teachers and administrators share common goals and hold joint responsibility. Yet unions' desire to participate in reform does not match their fervor to organize in the 1960s and 1970s. While national union leadership has talked about reform, local affiliates have initiated most of the reform efforts, pioneering reforms such as accountability and incentive pay. In Eberts's view, one reason that unions have been slow to embrace reform efforts is the lack of consensus on their effectiveness. He argues that many reforms have been too narrowly focused; rather, effective schools result from well-designed systems and processes. In principle, adopting standards that help teachers focus on lessons they want students to learn, aligning their teaching to the lessons, and devising measurements that demonstrate that students are responding to these lessons can improve teaching as long as the public, policymakers, and school administrators acknowledge the complexity of the learning process and the broad outcomes that society desires.

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America's need to provide high-quality education to its children has never been greater. In today's knowledge-based economy, education—and public education in particular—is at the center of U.S. efforts to maintain a competitive international edge. But many observers fear that those efforts are failing. In international tests, U.S. students rank only in the mid-range of nations in the critical areas of math and science. Public surveys reveal grave concern about the quality of public education—and also about efforts to improve it. Over the past several decades federal, state, and local policymakers have adopted one education reform after another, with little systemwide success. Some reforms focus on improving the existing system—for example, by adopting incentive pay and encouraging accountability. Others aim to create new systems—for example, by promoting vouchers and charter schools. So far, the public appears to prefer reforming the current system, not abandoning it.¹

Some observers blame specific groups linked with public education for the slow pace of improvement. Some of the strongest attacks have been reserved for teachers unions, which are said to have captured schools to advance their own interests, not those of the students. Many critics of unions believe that collective bargaining has created a tangled web of rules that keep public schools from being able to respond to the changing needs of students and that the bargaining process has influenced public education more than any other factor.² As a result, they say, public education is both more costly and less effective than it should be. Such criticisms are not new. In 1983 the landmark study *A Nation at Risk*, by the congressionally mandated National Commission on Excellence in Education, alerted Americans to a crisis in educa-

tion.³ The study, which challenged educators, policymakers, and parents to rethink the way students are educated, set in motion a wave of educational reform that continues to this day. Teachers, who had hitherto attracted little public notice, suddenly found themselves at center stage in the controversy over school quality. The nation's immediate response to the report was to set up systems to improve teacher and school accountability. Because the new focus—on monitoring and assessing teacher practices and on tying compensation to teachers' performance—was antithetical to two decades of work by teachers unions to decouple salaries from performance and to increase the autonomy of teachers in the classroom, teachers came to be perceived as reluctant participants in reform. Meanwhile, reform efforts gained little traction and yielded few, if any, sustained attempts at merit pay or systems of accountability. Today these same reforms remain under discussion and teachers unions continue to find themselves in the fray.

Aware of charges that they are resistant to change, teachers unions have voiced concern about school quality and urged the need for reform. Robert Chase, past president of the National Education Association (NEA), the nation's largest teachers union, called for a new unionism based on collaborative bargaining with school districts to help improve school performance. In an address at the National Press Club in 1997, he reminded his nearly 2.7 million members of the need for unions to take an active role in planning and implementing educational reforms.⁴

In this article I explore both the extent to which teachers' collective bargaining affects the quality of education and the role of bargaining in the educational reform movement. Beyond the rhetoric of union advocates and

opponents, what do researchers know about how unions affect student achievement and the cost of providing quality education? Are unions a help or a hindrance? To what extent are they promoting constructive change to improve public education and to what extent are they thwarting such efforts?

Collective Bargaining by Teachers

Collective bargaining is the process by which teachers and administrators agree on a set of regulations that govern working conditions and determine compensation and fringe benefits. Dubbed a “web of rules,” it can affect every dimension of the workplace and can subsequently influence educational outcomes.⁵ It defines the rights and duties of teachers to particular assignments, guarantees teachers’ participation in school governance and educational policymaking, establishes grievance procedures, and at times creates disciplinary sanctions for teachers’ failure to achieve certain standards. It also provides for teacher participation in restructuring the workplace. More specifically, the far-reaching web of rules may include working conditions, such as the length of the school day, hours of instruction and preparation time, and interaction time with parents; class size; the number and responsibility of supplemental classroom personnel, such as aides; employment protection; assignment to schools and grade levels; criteria for promotion; reductions in force; professional services; in-service and professional development; instructional policy committees; student grading and promotion; teacher evaluation; performance indicators; grievance procedures; student discipline and teacher safety; and the exclusion of pupils from the classroom. The list goes on. Suffice it to say that collective bargaining agreements, through negotiated rules and regulations, establish school policy and govern how teach-

ers, administrators, parents, and students interact in the delivery of educational services. As the *Wall Street Journal* noted nearly three decades ago, “Teachers’ unions have become crucial forces in deciding how public education should be run in the U.S.”⁶

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state governments. Although the National Labor Relations Act (NLRA) of 1935, as amended in 1947, required employers to meet and confer in good faith with respect to wages, hours, and other terms and conditions of employment, it did not include public sector employers. Congress has considered legislation to govern negotiations of public employees, but states have assumed leadership.

Meaningful state legislation giving public employees a voice in determining the conditions of their employment was first enacted in the 1960s. Before then, two states, Alaska and New Hampshire, had allowed local governments to negotiate with groups representing public employees, but neither state extended to public employees the same rights

as granted to private employees. Alaska's law (in 1935) and New Hampshire's law (in 1955) did not require or ensure bargaining; they only allowed local governments to negotiate under specified conditions. Permitting public employees to bargain, nonetheless, was a big step in treating private and public employees equally in the bargaining arena. Before passage of the two state collective bargaining

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laws, contracts between school boards and teachers unions were seen as an illegal delegation to school boards of local citizens' sovereign constitutional powers. Granting teachers and other public employees the power to bargain collectively was believed to give them clout over and above their private sector counterparts because they were already able, through the political process, to elect the public officials who would govern and manage the workplace.⁷

In 1962 Wisconsin became the first state to pass legislation governing public employee bargaining that resembled the language found in the NLRA. The Wisconsin statute required local governments to bargain in good faith with employee groups and also created administrative enforcement measures. It charged the Wisconsin Public Employee Relations Board with determining appropriate bargaining units, enforcing the prevention of prohibited practices, fact find-

ing, and mediating disputes. The law also marked the beginning of widespread recognition of the rights of public employees to bargain collectively. Within the next five years, New York and Michigan passed similar laws, and by 1974 thirty-seven states had passed legislation permitting public employee bargaining—a number that remains unchanged to this day.

After public sector collective bargaining was legally recognized, teacher representation grew significantly. In 1974 roughly 22 percent of public school teachers were covered by collective bargaining. That share doubled in six years and grew to more than 60 percent by the mid-1980s. Today unions represent 67 percent of the nation's 3 million active public elementary and secondary school teachers.⁸ The coverage rate for teachers is much higher than the average of 40 percent for all public sector employees. Representation varies geographically, with some teachers in all regions and all states reporting that they belong to a labor union or a similar association or else are nevertheless covered under a collective bargaining contract. The highest proportion of representation is in the Middle Atlantic region (88 percent), with the New England (82 percent), East North Central (81 percent), and Pacific (82 percent) regions close behind. Coverage is lowest in the West South Central region, at 40 percent, and slightly higher in the South Atlantic (47 percent) and East South Central (52 percent) regions.

Teachers were not always anxious to be a part of organized labor. In the early years of the NEA, members saw its role as promoting the professional side of teaching. Although NEA members were sensitive to their financial needs, the union's official posture was one of discourse, not collective action.⁹ The American Federation of Teachers (AFT), by con-

trast, tried from its inception to bring teachers into the mainstream of organized labor. Unlike the larger and more powerful NEA, the AFT advocated collective action as the best way to promote the interest of teachers.

Researchers generally cite four reasons for the growth of collective bargaining for teachers.¹⁰ The first, as noted, was the passage of state laws protecting teachers' rights to seek bargaining recognition. Second, declining enrollment and skyrocketing inflation in the 1970s eroded teachers' financial well-being, and general discontent with access to and influence over educational decisionmaking diminished teachers' sense of professionalism. Third, changing social conditions and workforce demographics and an increasing militancy and social awareness provided fertile ground for the union movement. Finally, as unionism in the private sector continually declined, union organizers came to see teachers and the public sector as ripe for organizing. And rivalry between the AFT and the NEA increased their fervor.¹¹

During their formative years of collective bargaining, teachers unions patterned themselves after their private sector counterparts, which followed what has been called an industrial bargaining model.¹² According to the NEA's Chase, "When we reinvented our association in the 1960s, we modeled it after traditional, industrial unions. Likewise, we accepted the industrial premise: Namely, that labor and management have distinct, conflicting roles and interests . . . that we are destined to clash . . . that the union-management relationship is inherently adversarial."¹³ The industrial model is based on an adversarial, not collaborative role, with management controlling the workplace and workers filling narrowly defined tasks. Such a model values standardized practice and views similarly

skilled workers as interchangeable, each to be treated alike. From the viewpoint of teachers in the classroom, administrators unilaterally set educational policy and teachers comply. Instruction is delivered uniformly to large groups of students, and the teaching force is undifferentiated. The primary role of unions is to protect workers from unrealistic demands of management, ensure a safe working environment, and extract the maximum compensation possible. Bargaining focuses more on teachers' interests and less on their performance and how that performance affects student outcomes. While perhaps more applicable to private sector production workers, such a stance places teachers at odds with their desire to be treated as professionals as they bargain in their self-interest.

The extent to which teachers unions affect school quality and ultimately student achievement depends on many factors. First, how successful are unions in negotiating higher salaries and fringe benefits? Second, how successful are they in negotiating provisions that affect workplace conditions, such as class size and transfers, which in turn may affect students' school-based learning environment? Third, how successful are unions in negotiating rules that govern teachers' interaction with students, parents, and other teachers? Fourth, how successful are they in shielding teachers from accountability for their own performance? All these factors and others must be considered to determine the bottom line of collective bargaining: what effect, if any, it has on student achievement.

Outcomes of Collective Bargaining Negotiations

I begin by examining the ability of teachers unions to affect their compensation, working conditions, employment security, and workplace governance through collective bargain-

ing and then look at the evidence of the overall effect of union bargaining on student achievement.¹⁴ I note at the outset that researchers at times draw a distinction between unionization and collective bargaining. Unionization is seen as the influence teachers exert on their school district through the bargaining power of their membership; collective bargaining, by contrast, has more to do with the establishment of rules governing the workplace and compensation through negotiated collective bargaining agreements. It is a subtle distinction, because the effects of bargaining power are seen in the ability of unions to negotiate higher compensation and to include key provisions in their contracts. Furthermore, bargaining power determines the strength with which contract provisions influence administrative decisions.¹⁵

A necessary foundation for bargaining power is the extent to which state laws permit and require collective bargaining. A recent review of state collective bargaining laws for the public sector found that the presence or absence of state laws governing union security and laws defining collective bargaining rights affects the wages of public sector employees.¹⁶ For example, earnings of union workers are between 4 and 11 percent higher where an agency or union shop is either compulsory or negotiable than where it is not. Consequently, given the legal right to bargain collectively, public sector unions are able to increase the wages of their members, which in turn affects the allocation of resources in the public sector.

Teachers unions may wield power at the polls and through the political process, as well as around the bargaining table. As noted, one argument against allowing public sector bargaining was that public employees have the ability to elect the government officials who

would govern and manage the workplace and allocate resources that directly affect the teachers' working conditions and compensation.¹⁷ In addition to their individual votes, in many local jurisdictions, teachers and other public employees have the opportunity to form a strong voting bloc that can disproportionately affect the outcomes of school board elections, school bond elections, and other referendum ballots directly affecting public schools. Teachers unions can, and have, come out strongly against state referenda to allow charter schools and voucher systems, which they believe could divert students away from traditional public schools and thus reduce public school resources, their union ranks, and their bargaining and political power.¹⁸ A state teachers union typically has a strong lobbying arm that finances media campaigns, supports political action committees, and contributes to specific campaigns through voluntary contributions from its members.¹⁹

Contract Provisions

Bargaining power may be reflected simply in the number of significant provisions found in contracts. One study of the collective bargaining contracts of New York State school districts, which are represented by either the NEA or AFT, found that these agreements are hierarchical, in that some provisions are more easily negotiated, while others, presumably more restrictive to management, are harder to include.²⁰ Thus contracts with more restrictive provisions, such as no reduction in the teacher workforce during the length of the contract, would seem to indicate greater bargaining power on the part of teachers unions. In fact, the study finds that the sheer number of contract provisions positively affects the negotiation of teacher salaries. Teachers in districts with fifty contract provisions (of a possible fifty-three predetermined categories) received \$1,900

more, on average, than those in districts with the minimum number of items. Budget allocations are also affected by the inclusion or removal of specific contract provisions through the negotiating process, providing further evidence of the link between bargaining power and contract provisions.

Teacher Pay and Benefits

Two detailed studies, one by William Baugh and Joe Stone and the other by Caroline Hoxby, using different techniques and data samples, find that teachers covered by collective bargaining tend to earn 5 to 12 percent more than those who are not covered.²¹ This is consistent with the typical range found for union pay premiums in other sectors.²² Evidence on the fringe benefit premium is not as extensive. One study, based on contracts for New York State public schools, finds that bargaining has a larger effect on fringe benefits than it does on pay.²³ This finding corresponds to evidence from other sectors, where the effect of bargaining on fringe benefits is typically larger than the effect on pay. As noted, higher pay and fringe benefits, although they increase educational costs, may also increase the quality of education if they attract better teachers.

Working Conditions

The working conditions about which teachers appear to be most concerned are class size, time for preparation and other activities away from students, and autonomy in the classroom.²⁴ Three studies, each relying on different data sets, find that student-teacher ratios are 7–12 percent lower for union teachers than for nonunion teachers.²⁵ Teachers have also successfully negotiated provisions that regulate instructional and preparation time and limit the time they must devote to administrative duties and meeting with parents. A study by Eberts and

Joe Stone found that elementary teachers in union districts spend 4 percent more time in class preparation and administrative duties but 3 percent less time in instruction than their nonunion counterparts.

Another aspect of working conditions is teachers' mode of instruction. The Eberts and Stone study finds that teachers unions tend to "standardize" the workplace, by relying more on traditional classroom organization than on other instructional methods. In national data for fourth-grade students, it also finds that union schools are less likely to rely on specialized, less standard instructional methods in mathematics. Students in union schools spend 42 percent less time with a specialist, 62 percent less time with a specialized aide, 26 percent less time with a tutor, and 68 percent less time in independent, programmed study.²⁶ Such standardization, common to unionized workplaces, may affect average and atypical students in different ways.

Employment Security

Unions and their members also seek job protection from temporary downturns in enrollment and from reductions in employment as the costs of union pay and fringe benefits rise. Many public school teachers, both union and nonunion, are granted tenure after a few years of regular employment, which protects them from dismissal except for specific causes, few of which are related to performance. But in addition, unions protect employment by negotiating lower class size and reduction-in-force provisions. As noted, student-teacher ratios tend to be lower in union schools, even in the face of higher pay and fringe benefits. Reduction-in-force provisions are also prevalent in many district contracts. Their effectiveness in protecting employment can be seen in

their positive effects on wages and their mitigating effects on terminations in districts with declining enrollments.²⁷

Cost of Instruction

In other unionized sectors, the increased pay, better fringe benefits, improved working conditions, more standardized and regulated workplace, and protections against job loss common in union contracts typically come at the expense of a higher cost of production.²⁸ The same is true for public education. Although a few early studies found little or no difference in the costs of operating unionized schools, the two most detailed studies provide consistent evidence of higher operating costs.²⁹ One finds that the operating cost of unionized elementary schools is about 15 percent higher; of unionized high schools, about 8 percent higher.³⁰ The other, relying on different, more recent data, finds that the costs of operating unionized high schools are about 12 percent higher.³¹

By negotiating higher salaries and smaller class size, teachers unions may influence the way schools allocate their resources. It is possible that higher payroll costs could be covered by raising taxes, leaving the same money available for other educational spending unrelated to teacher compensation. But studies show that teachers unions distort the way educational spending is allocated because the higher compensation typically reduces funds available for other instructional purposes.

Administrative Flexibility

By their very nature, contracts restrict the discretion of administrators. They can dictate class size and teacher assignments, impose restrictions on teacher dismissal and reduction in force, and determine the extent to which teachers participate in key decisions. Codifying strict rules into a contract, which

may be in place for up to three years, could be problematic for administrators seeking to adapt to change. But although these provisions reduce the discretion of administrators, they need not completely impede their effectiveness. As one study reports, “truly effective principals usually accept collective bargaining and use the contract both to manage their building more systematically and to increase teacher participation in school decisionmaking. Less effective principals may view the contract as an obstacle to a well-run school and then use it as an excuse for poor management.”³² Superintendents may use union rules to strengthen their control over principals and centralize decisionmaking within the district. Such efforts may lead to more effective schools if they are aligned with the desired outcomes and if teachers and principals share similar views. Whether this takes place is an empirical issue that few analysts have examined with any rigor. The Eberts and Stone study finds from a national survey that the gap in perceptions between elementary school teachers and principals about a principal’s active leadership is larger in union than in nonunion schools. The same is true for perceptions about teachers and principals working well together. By contrast, it finds no difference in perceptions regarding staff being well informed or identifying conflict. It also finds that time spent by principals in instructional leadership leads to higher test scores in union districts but lower scores in nonunion districts. These findings are only suggestive of the differences in attitudes and their effect on student achievement that stem from the greater structure introduced by collective bargaining contracts.³³

Student Achievement

The question that causes the most public concern, of course, is whether teachers unions affect student achievement. Evidence

on “productivity” from other (nonteacher) unionized sectors is mixed. In some sectors, union workers appear to be more productive; in others, less. In most cases, though, the differences are small, especially in the most rigorous studies.³⁴ For teachers the critical finding seems to be not whether teachers unions raise or lower student achievement, but how they influence the effectiveness of schools.

What is the evidence on student achievement? The evidence that is available is not ideal. One would like to assign students randomly to schools that are also randomly assigned to union or nonunion status and then observe student achievement over time. The best approximations to this ideal experiment use extensive statistical controls for both student and school attributes, as well as for the nonrandom assignment of students and schools. But even good approximations to the ideal have been difficult to achieve. Another approach has been to look at the effects of unions on schools’ ability to attract and retain more qualified teachers, through higher pay and fringe benefits, better working conditions, and a greater voice in decisionmaking and teacher transfers. One study, by Susanna Loeb and Marianne Page, finds that higher wages attract a better pool of teacher applicants.³⁵ But another, by Susan Moore Johnson and Morgaen Donaldson, finds no consistent evidence that the quality of teachers has increased or decreased as a result of collective bargaining.³⁶ Although other studies have shown that teachers contribute to student achievement, they have difficulty identifying which teacher attributes are responsible.³⁷ Therefore, I review studies that link collective bargaining directly to student achievement, instead of trying to piece together the effect of unions on the various factors affecting student achievement.

Often, the most widely reported evidence is based on state data for SAT or ACT scores. Three prominent state studies find roughly similar positive effects for teachers unions on average scores on either the SAT or the ACT—between 4.5 and 8 percent.³⁸ One of these also finds a similar positive effect (4.4 percent) on high school graduation rates.³⁹ These studies are problematic, however, be-

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cause they have few controls for student and district effects and aggregate the student outcomes of vastly different school districts into one measure of student outcomes for each state.

A few studies have looked at student achievement using individual student data with relatively detailed controls for both student and school attributes.⁴⁰ Across four different samples of students (the Sustaining Effects Survey, High School and Beyond, the National Assessment of Economic Education, and the National Educational Longitudinal Survey) and three different grade levels (fourth, tenth, and twelfth), these studies yield remarkably consistent results. Collectively, they find that teachers unions raise average student scores on various standardized exams between 1 and 2 percent. Some also estimate the effect of unions on gains in test scores from the beginning to the end of the school

year. Eberts and Stone, for example, find that students in union districts have a 5 percent higher gain in before and after testing than students in nonunion schools. Given the differences among samples, grade levels, test measures, and empirical methodologies, the similarity of these findings cannot be ignored. Yet the effects are relatively small. Furthermore, they are positive only for aver-

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age-achieving students. Low- and high-performing students fare worse in union schools.⁴¹

Caroline Hoxby uses a different measure of student outcomes: high school dropout rates. Using district-level data, she finds that teachers unions are associated with a 2.3 percent increase in dropout rates and infers that unionization reduces student achievement.⁴² Hoxby also finds that union effects on dropout rates are larger in areas with little interdistrict competition.

Hoxby's findings raise the question of how teachers unions can raise average student achievement on standardized exams (based on the four studies mentioned), yet also increase high school dropout rates. Given that her analysis is based on district data, one answer might be that low-scoring students are more likely to drop out, so that relatively higher-scoring students remain in the district to take the tests. But that does not explain the

positive achievement found in early grades (in the case of Eberts and Stone, fourth grade), where the dropout rates are much lower and the achievement results are still similar to those for high school.

Another explanation may lie in the methodologies used and the ability to control for factors affecting student achievement that are unrelated to unionization, as well as unobservable variables that may have caused teachers to unionize. A closer look at the two groups of studies—those based on individual student data and Hoxby's, based on district data—shows more similarities than differences in their methodologies.⁴³ Without considering the problems inherent in using student dropout rates to proxy student achievement, it is not apparent that one methodology is superior to another, because each has its advantage in controlling for important factors related to student achievement.⁴⁴

A more satisfactory answer may lie in the evidence on the effect of unions on the distribution of student achievement, rather than on average student achievement. The finding by Eberts and Stone and others of an inverted-U-shaped effect of teachers unions on student achievement may help to reconcile the evidence of positive effects on achievement for average students with negative effects on high school dropout rates. Dropout rates are highly correlated with student success in schools, and low-performing students are much more likely to drop out. If teachers unions tend to reduce the academic success of weak students, one would tend to expect the dropout rate to increase, because it is the weakest students who are the most likely to drop out.

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the standardizing effect of unions on schools. As noted, unionized schools rely to a greater extent on traditional classroom instruction and less on specialized modes of instruction. Because standard methods are likely to work best for the average student and specialized modes to work best for atypical students, one might expect the effects to differ by student ability.⁴⁵ This explanation is reinforced by Argys and Rees, who find that effects no longer differ after they take into account the type and size of the instructional setting and other related classroom factors.⁴⁶

The evidence on how unions affect student achievement leads to the general conclusion that there is no simple answer and that generalization is difficult. The average-achieving student does not appear to be harmed by attending union schools and may even fare slightly better, whereas low-achieving, at-risk students and high-achieving students tend to do better in nonunion schools. Even though some threads of evidence are promising, researchers have much to learn about how unions affect student outcomes. What is known with some certainty is that the productivity gains of unionization, if any, do not match the increase in cost, upward of 15 percent, that unions place on education through higher compensation and their influence on resource allocation within schools.

Reform Initiatives

In recent years, both the NEA and the AFT have advocated a new model for collective bargaining known as reform bargaining. Reform bargaining recognizes that management and labor are not adversaries but share common interests, are jointly responsible for the outcomes of their organization, and should find it useful to collaborate to pursue those common goals. Instead of a standardized workplace in which duties are rigidly defined and compart-

mentalized, both management and labor strive for flexibility, and workers participate in site-based decisionmaking. For teacher collective bargaining, the new model calls for teachers and administrators to hold joint responsibility for schooling, share common goals, and collaborate in determining governance, instructional, and personnel issues.⁴⁷

The first waves of reform initiatives, prompted in 1983 by *A Nation at Risk*, were not widely embraced by teachers unions. In many respects, the reform movement collided head-on with the union movement, which by the early 1980s included nearly two-thirds of the nation's public school teachers. As described by Lorraine McDonnell and Anthony Pascal in their study of the role of unions in implementing reform, the bargaining process continued to place material gain, such as higher salaries and benefits and better working conditions, over efforts to increase teacher professionalism and accountability.⁴⁸ Johnson and Kardos also conclude that many unions tried to stall reform in the belief that the public would soon lose interest. But they discovered that far from losing interest, the public instead began to call for sweeping changes, such as vouchers and charter schools, which could threaten the very existence of public schools and of the unions themselves.⁴⁹

As in the race to organize teachers, the NEA and AFT have continued to jockey for position in leading the reform effort. Sensing the nation's concern about teacher complacency during the 1980s, the AFT began to soften its strong activist and militant stand in bargaining. Instead of pushing for hard-line positions on wage demands and bargaining provisions, the AFT has urged its affiliates to establish higher standards—to police its ranks, hold teachers accountable to union standards, and bargain

cooperatively rather than contentiously with management.⁵⁰ The NEA, most recently with the public proclamations of President Chase, has echoed these sentiments while insisting on the urgent need for action.

Charles Kerchner and Julia Koppich note that union-sponsored reform does not have the momentum that collective bargaining had during the 1960s and 1970s.⁵¹ They see three

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internal challenges to union reform. The first is a lack of clarity about goals. While union leaders do not lack vision, say the authors, the complexity of the task of improving school quality makes it hard for them to discuss the issue without raising teachers' fears of how reform will affect their work life and compensation. The second challenge is organizational undercapacity, because union leaders and members have not embraced the urgency of reform. Many teachers do not believe that public schools need to be reformed. Third, without the vision and commitment of teachers and leaders, it is difficult to build a strong political coalition that would legitimate reform roles. Furthermore, the lack of agreement about the effectiveness of many reform initiatives makes it difficult to convince teachers to implement the changes.

While national union organizations have talked about reform, much of the effort has been initiated by local affiliates, sometimes with resistance from their parent organizations. In 1996, a group of reform-minded NEA and AFT local affiliates formed the Teachers Union Reform Network (TURN). The brainchild of two local union presidents, TURN is funded primarily by grants from private foundations, not from the parent organizations. Its twenty-plus members meet regularly to exchange ideas and promote reform initiatives. Its goals include "improving the quality of teaching" and "seeking to expand the scope of collective bargaining to include instructional and professional issues."⁵² Kerchner and Koppich have analyzed the collective bargaining contracts of twenty-one TURN members to see which types of provisions they find important for reform.⁵³ The provisions include (with the number of contracts in parentheses): shared decisionmaking and budgeting (21), uses of time (19), professional development (15), peer assistance and review (14), school-based staff and budget (14), intervention strategy for low-performing schools (10), alternative compensation, such as pay-for-performance (8), parent engagement (4), charter and pilot schools (4), and learning standards (2).

In many cases, success in including these provisions in collective bargaining agreements came about not from a broad acceptance of the new unionism at the national level, but from stances taken by local union leaders and school administrators. Several local unions and their districts stand out for pioneering initiatives addressing accountability and incentive pay. Both initiatives have gained considerable support among policymakers and have been implemented to varying degrees across the country; performance standards were most recently embodied in

the No Child Left Behind Act (NCLB) of 2001. After briefly describing these initiatives, I will focus on evidence of their effectiveness in improving student outcomes, in particular, test scores.

Accountability

Reforms to improve the accountability of schools have sought either to improve or replace the existing public education system. Improvements within the system involve changes that directly affect the internal operations of schools. Chief among these are standards for student performance, measurement tools to track student progress, and prescribed consequences for students, teachers, and schools if standards are not met. Reforms that go outside the system put competitive pressure on schools to improve, by enhancing parental choice. This latter wave of reform has created a number of different voucher programs that enable parents to use public dollars to send their children to private schools. It has also created publicly supported “charter” schools, outside the direct control of local school boards, as alternatives to conventional public schools.

Both types of reforms were proposed and adopted by local teachers unions before they were instituted as state or national policy. Toledo, Ohio, is generally credited with paving the way among teachers unions in holding its members more accountable for performance. Throughout the 1970s, the union pressed to expand its role in evaluating teachers. It finally codified a plan in its collective bargaining agreement in 1981. Known as the Toledo Plan, it included two separate programs—an intern program for first-year teachers and an intervention program for experienced teachers who need substantial remediation. Both use consulting teachers, who take a three-year leave from the classroom to

serve as both mentor and evaluator. A nine-member Intern Board of Review, including five teachers, makes the final decision to renew or dismiss an intern. The board also determines whether a tenured teacher who is seen by the principal or the union’s building committee as underperforming needs to undergo a performance review and get assistance. If performance does not improve sufficiently, the teacher may be let go.⁵⁴

Incentive Pay

Other school districts adopted the peer evaluation system initiated by Toledo and expanded it to link pay to performance. For example, the Columbus, Ohio, Education Association adopted a peer evaluation system in 1986 but later agreed to school-based salary incentives and limits on the impact of seniority.⁵⁵ The Cincinnati Federation of Teachers recently expanded its peer review process and professional development academy by implementing a compensation system based on professional development instead of seniority. Teachers are assessed on predetermined quality standards and paid accordingly when they have achieved them. Seattle has taken pay for performance one step further by including student achievement as a quality standard.

Denver, probably more than any other school district to date, has pursued an ambitious pay-for-performance experiment. Ironically, in 1921 Denver became the first school district to replace a merit pay approach with a single salary schedule based on seniority. Seventy-eight years later the district administration and teachers association agreed on a two-year pilot that would base teachers’ pay in part directly on the achievement of their students. As described by Donald Gratz, who was in charge of evaluating the Denver Incentive Program, the pilot provided small

bonuses for teachers who met either one or two student achievement objectives that they themselves chose.⁵⁶ These objectives had to be approved by their principals. For each objective met, teachers received \$750. For a school to join the pilot, 85 percent of its faculty had to vote for participation. Thirteen schools signed up.

The Denver Teachers Association had opposed the new compensation system as initially proposed but, wishing to avoid continued confrontation with the administration, agreed after winning three important concessions. One was that teachers' performance would be based on objectives of their own choice, with approval of their principals. Another was that an outside, objective party would evaluate the effectiveness of the pilot. The third was that the final plan would be subject to a general vote of the association's members. By the time the system was brought to a vote and approved in 2004, it had been modified extensively. The approved system included four components. Compensation was based on student growth objectives; on earned professional development units, including advanced degrees; and on two bonuses, one for serving in hard-to-staff assignments and the other for serving in hard-to-serve schools.

At first blush, it would seem that teachers unions should find standards-based systems attractive, because they promote standardization of the workplace. With clearly defined goals and objectives and mandates to adhere to these standards, teachers understand what is expected of them, are protected from capricious directives from administrators that may distract them from these goals, and can relate negotiated contract provisions, such as class size reduction, to the achievement of these standards. But teachers believe that standards-

based accountability intrudes into their autonomy in the classroom. It dictates curriculum and the tests that the teacher should administer, and it establishes the outcomes that are expected. The first two items—curriculum and testing—have normally been outside the immediate discretion of teachers, although teachers do participate in their design and implementation. The third—being held accountable for student outcomes—is the major point of contention. Teachers believe that such accountability can expose them to arbitrary treatment by administrators and make them responsible for things outside their immediate control. They also believe it can base compensation on ambiguous criteria.⁵⁷ The few teachers associations that have adopted accountability systems linked to pay have opted to maintain some control over determining objectives and how outcomes are measured.

The Effectiveness of Accountability and Incentive Pay

Between the mid-1990s, when Denver first pursued a performance-based compensation system, and 2004, when it approved it, nearly every state implemented a school accountability program with the help and encouragement of the federal government, although most have not been linked directly to teachers' pay. For the most part, then, the question of whether teachers unions will agree to such accountability systems is moot, because they are imposed by state and federal laws. The question is how effective these programs are, particularly when they are imposed and not necessarily agreed to by teachers.

According to a recent study by Julian Betts and Anne Danenberg, these programs are based on three elements: content standards that mandate what students should know and when they should know it; an assessment system that tracks the progress of students in

meeting the state standards; and a set of responses by the state that may include financial incentives, penalties, sanctions, or additional resources.⁵⁸ As the authors point out, supporters of such a system argue that making school performance more transparent to the public, including parents, can put needed pressure on schools to perform better. Proponents claim that schools will be forced to improve their operations and that teachers will be more productive when presented with well-defined goals and held accountable through close scrutiny of their adherence to these goals and a carefully designed system of consequences.

But critics point out that state standards may be unfair both to affluent districts with high expectations for their students and to low-income districts that lack adequate school- and home-based resources to meet student needs. For instance, they argue that imposing one standard on all students and penalizing districts that do not meet the standard while rewarding districts that do may divert resources from poor districts, which need the additional resources, to affluent districts, which do not. A related concern is that the state will be slow in adjusting these standards in response to changing times or the specific needs of selected school districts.

Critics are also concerned about the assessment system. Measuring a teacher's contribution to a student's progress is difficult because classrooms are not, as Gratz puts it, "scientifically controlled environments," but are subject to outside influences beyond the control of teachers.⁵⁹ Furthermore, critics worry about adverse incentives such as teaching to the test and focusing instruction on the narrower content covered by tests, rather than offering broader topics and more in-depth treatment of the material.

States have established standards-based accountability systems more on principle and their promise than on any evidence of their effectiveness. Evidence of the success of earlier accountability and incentive systems—those implemented before the recent adoption of high-stakes testing and accompanying incentive systems by states and the federal government—does not offer strong support. Even though most observers agree that it is

States have established standards-based accountability systems more on principle and their promise than on any evidence of their effectiveness.

human nature to respond to incentives, there may be several other factors that work against the effectiveness of performance measures in individual incentive-based compensation schemes—just as they often do in the private sector.

Four characteristics of teaching and learning in schools may reduce the effectiveness of incentive-based compensation: the reliance on subjectively measured outcomes; the need to perform multiple tasks during the day; the use of team teaching, where more than one teacher is responsible for the outcome of the student or the classroom; and the existence of multiple stakeholders with diverse objectives.⁶⁰ In addition, most school districts have little control over their revenue streams and cannot offer the sizable increases in compensation necessary to entice teachers to put forth the extra effort and to

assume the added risk inherent in a merit pay system.

The net result of all these forces remains an empirical issue. Yet little empirical evidence has been collected on the effects of merit pay on student achievement. Most of the early experiences with merit pay systems in school districts were rather short-lived and usually negative. For example, one major study found that 75 percent of merit pay programs that had been in existence in 1983 were no longer operational in 1993. An interesting self-described limitation of this study is that it did not examine student achievement. Its authors note: "We would especially have liked to have performed an in-depth analysis of the impact of incentive programs on student achievement. However, very few of the participating districts had attempted any systematic evaluation of the effects of their incentive plans on student achievement, even though a basic assumption behind incentive plans is that teachers can indeed significantly affect learning."⁶¹

A study of a Pennsylvania district found no gains in student achievement from a bonus system.⁶² An analysis of Dallas's performance-based system found an increase of 10 to 12 percent in the pass rate on selected statewide tests.⁶³

A recent evaluation of California's school accountability program, carried out by Betts and Danenberg, offers a more positive assessment of the effects of incentives.⁶⁴ The program, enacted in 1999, was based on highly specific and comprehensive standards, a new norm-referenced statewide test and high school exit exam, and a complex series of rewards and punishments for school staff and students. Betts and Danenberg analyze recent trends in test scores and school resources and

find two particularly important trends: test scores have risen significantly since implementation of the accountability program, whereas instructional resources have declined. Both trends are particularly evident for the lowest-performing schools. In their view, the accountability reforms and public scrutiny have spurred genuine growth in achievement. They recognize that the patterns are consistent with teaching to the test or a growing familiarity with the tests and testing process, possibilities that detract from the success of the program. Nonetheless, they find that testing and related aspects of accountability have neither diluted the high school curriculum nor widened inequality between top- and bottom-performing schools.

Donald Gratz, the evaluator of the Denver Incentive Program, concludes that a "system that attempts to closely measure and regulate instruction provides negative, rather than positive incentives," and that a complex system that tries to capture results in a single test score fails to meet its objective of improving education.⁶⁵ Gratz does not dismiss standards. On the contrary, he contends that clearly identified goals with which all parties are familiar and lessons and assessments designed to achieve these goals are a major advance over previous methods used by the district. Adopting standards that help teachers focus on lessons they want students to learn, aligning their teaching to these lessons, and devising measurements that demonstrate that students are responding to them can improve teaching. The message of the Denver experiment, as echoed in the private sector, is that a system of accountability needs to capture the contribution of employees to the entire bottom line. For schools, such a system must acknowledge the complexity of the learning process and the broad outcomes that society desires.

Katharine Boudett, Elizabeth City, and Richard Murnane set out similar standards for effective schools. Effective schools have “a coherent instructional program well-aligned with strong standards,” and in these schools “a community of adults committed to working together to develop the skills and knowledge of all students . . . have figured out how to find time to do this work and are acquiring the skills to do it well.”⁶⁶

There is a clear consensus that public education must be reformed. What is less clear is how to reform it. Evaluations of two reform efforts—accountability and incentive pay—show some signs of promise, but do not provide sufficiently convincing evidence of their effectiveness to elicit a groundswell of support from either union or nonunion school districts. In many instances, school reform initiatives have merely nibbled at the edges of the broader issues confronting improvements in school quality. The lessons learned from several attempts at accountability warn against adopting the narrow approach of linking teacher incentive pay directly to student test scores. They point instead to the ability to define and articulate the goals of education and align resources to accomplish those goals. Under current collective bargaining laws, for teachers and administrators to move toward more comprehensive reform, negotiations must allow for more shared responsibilities and greater flexibility in trying new approaches and responding to the students’ needs. Restrictive provisions, such as class assignment based on a teacher’s seniority and the rigid allocation of time among daily activities, must be replaced with provisions that allow for shared decisionmaking and budgeting between teachers and administrators, flexibility in the use of time, professional development, and peer assistance and review. Some teachers unions—but only a few—have

negotiated these items into their contracts. Some states, however, do not allow certain items, such as class size restrictions or class assignment based on seniority, to go unmentioned in the contract, and some do not allow teachers to evaluate their own peers and share in decisions reserved for management. Therefore, state laws may also need to be changed before teachers unions and administrators can negotiate more reform-minded contracts.⁶⁷

The Future of the New Unionism and School Reform

Returning to the question posed in the title—have unions been a help or a hindrance to student achievement?—average students appear not to have been harmed by attending union schools. If anything, the performance of average students on standardized tests is slightly higher, but below- and above-average students fare worse. Still, the overall increase in productivity does not offset the higher costs of unionized districts. Furthermore, teachers unions reduce the discretion of administrators, impose rigid standards, and reallocate school expenditures toward higher compensation and greater employment and away from resources for specialized and enhanced instruction.

A broader question is whether unions will help or hinder school reform. And to that question, the answer remains unclear and speculative. Ask the public, and the response is divided evenly. The last time the Phi Delta Kappa/Gallup poll posed that question, 27 percent responded that unions helped, 26 percent said that they hurt, and 37 percent said they made no difference.⁶⁸ Ask the experts, and one receives strong arguments on either side. Proponents argue that only by bringing teachers fully into the process can reform succeed; opponents claim that once

shared decisionmaking makes its way into collective bargaining contracts, flexibility is lost, reform initiatives are stifled, and attention soon shifts from what is right for the students to whether school administrators have adhered to the contract.⁶⁹

Yet ask the teachers and administrators of school districts—union or not—who have pursued reform to improve the quality of ed-

Effective schools are not honeycombs of individual autonomous classrooms, but rather well-designed and well-executed systems and processes.

ucation, and one finds stakeholders who understand the complexity of the educational process and recognize the need to build an organization that can deliver high-quality education. Too often school reform takes a simple and naïve approach—if only teachers were held accountable, if only teachers were paid for their performance, if only students and parents were given a choice in schools, if only unions were disbanded, then the quality of the educational system would vastly improve. Obviously, there are teachers who are not accountable, not working to their full potential, and hiding behind the protection of unions. There are unions that put teachers before students and stand in the way of improving the quality of education. The truth is that we know little about what works and what does not in the current reform movement. What we do know, however, is that education is a complex process that defies sim-

ple approaches. Effective schools are not honeycombs of individual autonomous classrooms, but rather well-designed and well-executed systems and processes.

Can unions fit into that type of environment? Can administrations and school boards? To both questions, the answer is that some can and have but many have not. The problem lies in the inability of many to identify their purpose, set goals and objectives, align resources and policies with them, and find the expertise and leadership to carry them out. Attempts at reform have come and gone with little progress in school improvement. In recent years, the leadership of both major teachers unions has shared the concern about the deteriorating quality of education and has called for more teacher participation and collaboration. But only a few local teachers unions have initiated true reforms—at times in the face of resistance from their national parent organizations. Policymakers have called for more accountability from teachers and administrators but have enacted an accountability system that makes little, if any, connection between the actions of teachers and the outcomes of their students.

While there are no quick fixes for improving school quality, with respect to unions and collective bargaining a few steps could be taken that focus on building a high-performance organization. First, school districts need organizational role models, leadership, and resources. Second, union leadership and the teacher membership need to realign their focus and attitudes by assuming more responsibility for the outcomes of their students. Third, administrators and school boards must affirm the importance of teachers as stakeholders in the educational process and recognize, as high-performance school districts have, that a high-performing work-

force requires a culture of teamwork and an understanding of what it takes to retain quality teachers. Fourth, teachers and administrators must work together to determine goals and objectives, and once established, align resources and activities to achieve them. Fifth, once resources and activities are aligned, a set of measures must be devised and used by the management team (which would include teachers and union leaders) to measure the performance of students and the level of satisfaction and professional growth of teachers and other staff. If properly implemented and followed, the goals and objectives and the monitoring system could serve

teachers much as collective bargaining provisions do now.

Finally, teachers unions must embrace the tenets of the new unionism and actively pursue them in their collaboration with districts. This means that teachers must be willing to move away from the security of their contracts and assume, with the administration, a joint responsibility for schooling. With empowerment must come responsibility, and only through systems of accountability in which risk is recognized and accepted can real progress be made in improving the education of the nation's children.

Notes

1. According to a Phi Delta Kappa/Gallup Poll (September 2003), 75 percent of respondents favored reforming the existing system, whereas 23 percent favored promoting alternative systems.
2. Helen Raham, "Teacher Bargaining Today and Tomorrow," *School Business Affairs* 65, no. 4 (1999): 24–27.
3. National Commission on Excellence in Education, *A Nation at Risk: The Imperative for Educational Reform*, A Report to the Nation and the Secretary of Education (U.S. Department of Education, 1983).
4. Robert Chase, "The New NEA: Reinventing Teachers Unions for a New Era," remarks before the National Press Club, Washington, February 5, 1997, www.nea.org/nr/sp970205.html (March 11, 2002).
5. John Dunlop, *Industrial Relations System* (New York: Holt, 1958).
6. Sewall Gilbert, "Teachers' Unions and the Issue of Academic Standards," *Wall Street Journal*, January 6, 1983.
7. Harry H. Wellington and Ralph K. Winter, "The Limits of Collective Bargaining in Public Employment," *Yale Law Journal* 77, no. 7 (1969).
8. To estimate union representation, I used the Outgoing Rotation Group of the Current Population Survey (CPS) for the years 1996–2005. I included a decade of data to ensure a large enough sample. Teachers were defined as local government employees who had occupation codes 155–59 for the period 1996–2002 and occupation codes 2300–40 in 2003–05. Following Barry T. Hirsch and David A. Macpherson, "Union Membership and Coverage Files from the Current Population Surveys: Note," *Industrial and Labor Relations Review* 46, no. 3 (April 1993): 574–78, I consider two questions from the CPS. One question relates to membership: "On this job are you a member of a labor union or of an employee association similar to a union?" Those who answered no to this question were asked: "On this job, are you covered by a union or employees association contract?" Therefore, the inference from the first question is that those answering yes are members of a union or employee association that negotiates a contract and are covered under that collective bargaining contract. Nationally, 61 percent report that they are members of a union and another 6 percent report that they are not members but are covered under a collective bargaining agreement. Interestingly, the two regions with the lowest percentage of membership and coverage—East South Central and West South Central—have the highest percentage of teachers who are covered but not members (11 percent and 10 percent, respectively). Of course, since this is self-reporting, there may be biases in the responses, as discussed by Edward C. Kokkelenberg and Donna R. Sockell, "Union Membership in the United States, 1973–81," *Industrial and Labor Relations Review* 38, no. 4 (July 1985): 497–543.
9. Bruce S. Cooper, "Collective Bargaining, Strikes, and Financial Costs in Public Education: A Comparative Review" (Clearinghouse on Educational Management, University of Oregon, 1982).
10. *Ibid.*; and Steve M. Goldschmidt, "An Overview of the Evolution of Collective Bargaining and Its Impact on Education," *Proceedings of a Conference on the Effects of Collective Bargaining on School Administrative Leadership* (University of Oregon, Center for Educational Policy and Management, 1982).
11. The turning point may have been AFT's major victory in organizing New York City teachers in 1961. M.O. Donley Jr., *Power to the Teacher: How America's Educators Became Militant* (Indiana University Press, 1976), describes it as probably the biggest single success in the history of teacher organizing in the United States.

12. Susan Moore Johnson and Susan M. Kardos, "Reform Bargaining and Its Promise for School Improvement," in *Conflicting Missions? Teachers Unions and Educational Reform*, edited by Tom Loveless (Brookings, 2000), pp. 7–46.
13. Chase, "The New NEA" (see note 4).
14. This section relies heavily on Randall W. Eberts and Joe A. Stone, *Unions and Public Schools: The Effect of Collective Bargaining on American Education* (Lexington, Mass.: Lexington Books, 1984). While this research examines the effects of teacher collective bargaining during the late 1970s, its relevance to more current times is supported by more recent research that follows similar methodology and finds similar results. Dan Goldhaber, "Are Teachers Unions Good for Students?" in *Collective Bargaining in Education: Negotiating Change in Today's Schools*, edited by Joan Hannaway and Andrew Rotherham (Cambridge, Mass.: Harvard Education Press, 2006), pp. 141–57, in a recent review of the literature of the effects of teacher collective bargaining on student achievement, states that "there is relatively little research that directly links unionization and student achievement" (p.142). Furthermore, there is even less research that attempts to provide a comprehensive analysis of the various aspects of teachers unions and the multiple ways in which collective bargaining may affect student achievement. A reasonable benchmark to determine teachers' success at the bargaining table is the private sector. Richard B. Freeman and James L. Medoff, *What Do Unions Do?* (New York: Basic Books, 1984), offer a useful perspective from the effects of unions in the private sector on pay and benefits, working conditions, cost of instruction, and productivity.
15. For instance, a provision on class size is found in many contracts and allowed by state laws. However, whether class size is a district average or a cap on any specific class, and the action taken after the class size limit has been exceeded, depends on the strength of the local union in negotiating those provisions. The enforcement of class size restrictions varies across bargaining units. For example, Susan Moore Johnson and Morgaen Donaldson, "The Effects of Collective Bargaining on Teacher Quality," in *Collective Bargaining in Education: Negotiating Change in Today's Schools*, edited by Hannaway and Rotherham (see note 14), pp. 111–40, report that the collective bargaining agreement in Branford, Connecticut, requires a new class after class size is exceeded by more than two students, whereas the teacher contract in Lowell, Massachusetts, states that the administration will work in good faith to reduce class size when contracts become available.
16. Henry Farber, "Union Membership in the United States: The Divergence between the Public and Private Sectors," in *Collective Bargaining in Education: Negotiating Change in Today's Schools*, edited by Hannaway and Rotherham (see note 14), pp. 27–51.
17. Heather Rose and Jon Sonstelie, "School Board Politics, School District Size, and the Bargaining Power of Teachers Unions," Working Paper (San Francisco: Public Policy Institute of California, May 2006), hypothesize that teachers unions will be more powerful in large districts than in small ones. Their analysis of California school districts shows that the salaries of teachers, as a measure of a union's success in collective bargaining, are positively related to the number of eligible voters in the jurisdiction.
18. Paul Courant and others, "Public Employee Market Power and the Level of Government Spending," *American Economic Review* 69, no. 5 (1979): 806–17, show that in states where local school districts may raise their own tax revenues by raising local taxes, teachers unions may also use their political power to encourage local voters to support tax increases. On the other hand, Daniel Hoskins and David Margolis, "The Efficiency of Collective Bargaining in Public Schools," Working Paper (U.S. Federal Trade Commission, December 1997), find that teachers unions operating in areas where school boards must have their budget

- approved by popular referendum tend to have significantly lower bargaining power than their counterparts in which the budget is implemented without being subject to public approval.
19. As a labor organization, a teachers union is not permitted to use member dues for political actions. However, members can voluntarily contribute to a political action committee, which is typically set up by the state affiliate of the local bargaining units for the purpose of political activism and fundraising to elect candidates who share the same goals as the teachers union. For example, the political action committee of the Michigan Education Association, the NEA-affiliated teachers union in Michigan, collected \$1 million from 25,000 of its 160,000 members during the first half of 2006, an election year.
 20. Eberts and Stone, *Unions and Public Schools* (see note 14).
 21. William H. Baugh and Joe A. Stone, "Teachers, Unions, and Wages in the 1970s: Unionism Now Pays," *Industrial and Labor Relations Review* 35 (1982): 368–6; and Caroline M. Hoxby, "How Teachers Unions Affect Education Production," *Quarterly Journal of Economics* 111 (1996): 671–718. Morris Kleiner and D. L. Petree, "Unionism and Licensing of Public School Teachers: Impact on Wages and Educational Output," in *When Public Sector Workers Unionize*, edited by Richard B. Freeman and Casey Ichniowski (University of Chicago Press, 1988), pp. 305–19, find only a small differential, but rely on aggregate data with few controls.
 22. Evidence in sectors other than education suggests that pay and fringe benefits for union workers typically exceed those of nonunion workers. While the magnitude of the differential can vary from one sector to another, Freeman and Medoff, *What Do Unions Do?* (see note 14), pp. 47, 67–68, find that the union pay differential is typically 8 to 10 percent higher for "identical" workers and the differential for fringe benefits is even higher.
 23. Eberts and Stone, *Unions and Public Schools* (see note 14).
 24. *Ibid.*
 25. *Ibid.* Eberts and Stone, relying on national data from the Sustaining Effects Survey of elementary schools, find that the student-teacher ratio is nearly 12 percent lower for union teachers. Kleiner and Petree, "Unionism and Licensing of Public School Teachers" (see note 21), p. 316, using state-level data, also find lower (7 percent) student-teacher ratios for union teachers. Similarly, Hoxby, "How Teachers Unions Affect Education Production" (see note 21), p. 695, uses district-level data and finds a decline of about 9 percent in her preferred specification.
 26. Eberts and Stone, *Unions and Public Schools* (see note 14), p. 156.
 27. *Ibid.*, pp. 119–20, 143–44.
 28. In some exceptional cases, total costs of unionized production are lower at very large scales of integrated operations, as found, for example, by Steven G. Allen, "Unionization and Productivity in Office Building and School Construction," *Industrial and Labor Relations Review* 39 (1986): 187–201, in construction; and Wesley W. Wilson, Joe A. Stone, and M. C. Mitchell, "Product Selection and Costs in a Partially Unionized Industry," *Journal of Labor Research* 16 (1995): 81–95, in sawmills.
 29. Jay G. Chambers, "The Impact of Collective Bargaining for Teachers on Resource Allocation in Public School Districts," *Journal of Urban Economics* 4 (1977): 324–39; and W. C. Hall and N. Carroll, "The Ef-

- fect of Teachers' Organizations on Salaries and Class Size," *Industrial and Labor Relations Review* 28 (1975): 834–41.
30. Randall W. Eberts and Joe A. Stone, "Teachers Unions and the Cost of Public Education," *Economic Inquiry* 24 (1986): 631–44.
31. Hoxby, "How Teachers Unions Affect Education Production" (see note 21).
32. Lorraine M. McDonnell and Anthony Pascal, *Organized Teachers in American Schools* (Santa Monica, Calif.: RAND, 1979), p. 83.
33. Eberts and Stone, *Unions and Public Schools* (see note 14).
34. Studies of unions and productivity include John H. Pencavel, "The Distribution and Efficiency Effects of Trade Unions in Britain," *British Journal of Industrial Relations* 40 (1977): 137–56, for British coal fields; Kim B. Clark, "Unionization and Productivity: Micro-Econometric Evidence," *Quarterly Journal of Economics* 95 (1980): 613–39, for cement producers; and Ronald G. Ehrenberg and others, "Unions and Productivity in the Public Sector: A Study of Municipal Libraries," *Industrial and Labor Relations Review* 36 (1983): 199–213.
35. Susanna Loeb and Marianne Page, "Examining the Link between Teacher Wages and Student Outcomes: The Importance of Alternative Labor Market Opportunities and Non-Pecuniary Variation," *Review of Economics and Statistics* 82, no. 3 (2000): 393–408.
36. Johnson and Donaldson, "The Effects of Collective Bargaining" (see note 15).
37. See Daniel Aaronson, Lisa Barrow, and William Sander, "Teachers and Student Achievement in the Chicago Public High Schools," paper presented at the Labor Market Policy/Princeton Industrial Relations Section Tenth Annual Policy Conference sponsored by the University of Chicago, DePaul University, the University of Illinois, and the Federal Reserve Bank of Chicago, 2003; and Steven Rivkin, Eric Hanushek, and John Kain, "Teachers, Schools, and Academic Achievement," *Econometrica* 73, no. 2 (2005): 417–58.
38. Kleiner and Petree, "Unionism and Licensing of Public School Teachers" (see note 21); F. H. Nelson and M. Rosen, "Are Teachers Unions Hurting American Education? A State-by-State Analysis of the Impact of Collective Bargaining among Teachers on Student Performance," Technical Report (Milwaukee: Institute for Wisconsin's Future, 1996); Lala C. Steelman, Brian Powell, and Robert M. Carini, "Do Teachers Unions Hinder Educational Performance?" *Harvard Educational Review* 70, no. 4 (2000): 437–66.
39. Kleiner and Petree, "Unionism and Licensing of Public School Teachers" (see note 21).
40. These studies include Randall W. Eberts and Joe A. Stone, "Teachers Unions and the Productivity of Public Schools," *Industrial and Labor Relations Review* 40 (1987): 354–63; Martin I. Milkman, "Teachers Unions, Productivity, and Minority Student Achievement," *Journal of Labor Research* 18 (1997): 247–50; P. W. Grimes and C. A. Register, "Teachers Unions and Student Achievement in High School Economics," *Journal of Economic Education* 21 (1990): 297–308; and L. M. Argys and D. I. Rees, "Unionization and School Productivity: A Re-examination," *Research in Labor Economics* 14, edited by S. Polachek (Greenwich, Conn.: JAI Press, 1995): 49–68.
41. Sam Peltzman, "Political Economy of Public Education: Non-College-Bound Students," *Journal of Law and Economics* 39 (1996): 73–120, also found negative effects of unions on low-achieving students. He

- used state-level data over several years, and his analysis may therefore be subject to the same estimation biases found in Kleiner and Petree and others using highly disaggregated data. It should also be mentioned that the effects of unions on these students varied over the period.
42. Hoxby, "How Teachers Unions Affect Education Production" (see note 21). H. L. Zwerling and T. Thomason, "The Effects of Teachers Unions on the Probability of Dropping Out of High School," *Journal of Collective Negotiations* 23 (1994): 239–50, also examined the effect of unions on dropout rates but found mixed results. Male students in union districts had lower dropout rates than those in nonunion districts, but female students did not. However, their controls for factors that could bias the estimates were not as extensive as Hoxby's.
 43. Both groups use difference-in-differences techniques to control for unobservable time-invariant factors. The student-level studies, such as Eberts and Stone and Milkman, use pre- and post-test score data, which in essence controls for student, class, parental, and district factors that may affect student achievement but do not vary over time. They also include a long list of explicit factors that affect student achievement. Hoxby does not control for student characteristics through differencing, but does include an abbreviated list of factors in her estimation. She uses a difference-in-differences and instrumental variables approach to control for unobservable and steadily trending school and state characteristics that may affect both educational outcomes and the decision to unionize. Eberts and Stone also use instrumental variables to control for underlying factors that may cause teachers to organize.
 44. Lawrence Mishel and Joydeep Roy, *Rethinking High School Graduation Rates and Trends* (Washington: EPI Press, April 2006), have compiled a list of issues regarding the measurement of high school dropout rates and their use as a measure of student achievement.
 45. One study, for example, finds that even within the traditional organization of classroom instruction, the use of hourly tutors for selected students improves student performance, especially among disadvantaged students. G. Farkas, "Structuring Tutoring for At Risk Children in the Early Years," *Applied Behavioral Science Review* 1 (1993): 69–2.
 46. Argys and Rees, "Unionization and School Productivity" (see note 40). Studies have found differential effects of union schools on minorities. Both Milkman and Grimes and Register (see note 40) find that African Americans do better in union than nonunion districts. Furthermore, Milkman finds that the union effect on minorities depends on the level of racial diversity in the school.
 47. Johnson and Kardos, "Reform Bargaining" (see note 12).
 48. Lorraine McDonnell and Anthony Pascal, "Teachers Unions and Educational Reform," Center for Policy Research in Education (Santa Monica, Calif.: RAND, 1988).
 49. Johnson and Kardos, "Reform Bargaining" (see note 12).
 50. Al Shanker, the long-time president of the AFT, was regarded by many as a champion of educational reform among the union movement. Like his later counterpart in the NEA, Robert Chase, Shanker believed that the future of public education and teacher collective bargaining depended on teachers unions taking more of a leadership role. Shanker died in 1997, the year in which Chase made his National Press Club speech. His successors, however, did not pursue the reform effort with the same fervor, according to Julia Koppich, "The As-Yet-Unfulfilled Promise of Reform Bargaining: Forging a Better Match between the Labor Relations System We Have and the Education System We Want," in *Collective Bargaining in Edu-*

cation: Negotiating Change in Today's Schools, edited by Hannaway and Rotherham (see note 14), pp. 203–27.

51. Charles Kerchner and Julia Koppich, “Organizing around Quality: The Struggle to Organize Mind Workers,” in *Teachers Unions and Education Policy: Retrenchment or Reform?*⁹ edited by Ronald Henderson, Wayne Urban, and Paul Wolman (London: Elsevier, 2004), pp. 187–221.
52. Koppich, “The As-Yet-Unfulfilled Promise of Reform Bargaining” (see note 50).
53. Kerchner and Koppich, “Organizing around Quality” (see note 51).
54. Christine Murray, “Innovative Local Teachers Unions: What Have They Accomplished?” in *Teachers Unions and Education Policy: Retrenchment or Reform?*⁹ edited by Henderson, Urban, and Wolman (see note 51), pp. 149–66.
55. J. Archer, “Districts Targeting Teacher Seniority in Union Contracts,” *Education Week*, April 12, 2000.
56. Donald Gratz, “Lessons from Denver: The Pay for Performance Pilot,” *Phi Delta Kappan* 86, no. 8 (April 2005).
57. Johnson and Kardos, “Reform Bargaining” (see note 12).
58. Julian Betts and Anne Danenberg, “School Accountability in California: An Early Evaluation,” *Brookings Papers on Education Policy* (2002).
59. Gratz, “Lessons from Denver” (see note 56).
60. In this discussion I rely heavily on arguments presented in Richard J. Murnane and David K. Cohen, “Merit Pay and the Evaluation Problem: Why Most Merit Pay Plans Fail and a Few Survive,” *Harvard Educational Review* 56, no. 1 (1986): 1–17. The analysis by Avinash Dixit, “Incentives and Organizations in the Public Sector: An Interpretative Review,” *Journal of Human Resources* 37, no. 4 (Fall 2002): 696–727, of incentives in education also coincides closely with ours. Dixit suggests four complications that confound the simple “principal-agent” model of implicit contracting in educational settings: multiple goals, multiple principals, lack of competition in the product market, and agents motivated by intrinsic values.
61. Harry P. Hatry, John M. Greiner, and Brenda G. Ashford, *Issues and Case Studies in Teacher Incentive Plans*, 2nd ed. (Washington: Urban Institute Press, 1994). Murnane and Cohen, “Merit Pay and the Evaluation Problem” (see note 60), also emphasize the short-lived nature of merit pay systems.
62. Dennis J. Tulli, “An Assessment of Student Achievement before and during a Merit Pay Program for Teachers of the Penn Manor School District,” Ed.D. diss. (Temple University, 1999).
63. Charles Clotfelter and Helen Ladd, “Recognizing and Rewarding Success in Public Schools,” in *Holding Schools Accountable, Performance-Based Reform in Education*, edited by Helen F. Ladd (Brookings, 1996), pp. 23–63. Unfortunately, the study did not use a true control group and there was a similar rate of improvement in the year prior to the implementation of the performance-based system. In contrast, Candice Prendergast, “The Provision of Incentives in Firms,” *Journal of Economic Literature* 37 (1999): 7–63, documents that private sector businesses reward workers more through promotions and group-based merit systems, such as gain sharing or profit sharing, than through individual merit rewards.
64. Betts and Danenberg, “School Accountability in California” (see note 58).

65. Gratz, "Lessons from Denver" (see note 56).
66. Kathryn Parker Boudett, Elizabeth A. City, and Richard J. Murnane, eds, *Data Wise: A Step-by-Step Guide to Using Assessment Results to Improve Teaching and Learning* (Cambridge, Mass.: Harvard Education Press, 2005).
67. Courts have interpreted the National Labor Relations Act to reserve functions such as peer review, curriculum development, resource allocation, and assessment as the sole prerogative of management, not labor. The Yeshiva University case, which went before the U.S. Supreme Court, denied faculty collective bargaining rights on the grounds that they exercise managerial decisions in their determination of tenure and the promotion of other faculty members. Some states, such as California, have passed legislation to circumvent this law and allow members of a bargaining unit to participate in decisions as listed above.
68. Phi Delta Kappa/Gallup Poll, September 1998.
69. Sandra Black, "Reforming the Unions," *American School Board Journal* (February 2002), offers several of these critical points.