

**The Relationship Between Teacher Unionism  
and Educational Quality:  
A Literature Review**

Charles Taylor Kerchner  
Claremont Graduate University

Prepared for:  
NEA CB&MA  
November, 2004

Copyright © 2004 by the National Education Association

**Note: The opinions expressed in this paper are those of the author and should not be construed as representing the policy or position of the National Education Association.**

*Executive Summary*  
***Research on the Relationship Between Teacher Unionism and Educational Quality:  
A Literature Review***

The 2003 NEA Representative Assembly passed a new business item that directed the organization to produce a literature review “on the effects of collective bargaining on the learning environment,” which would “include but not be limited to issues such as student performance, employee morale, and the recruitment and retention of quality teachers.” In response, the NEA commissioned Charles Taylor Kerchner<sup>1</sup> to produce a thorough literature review on the effects of collective bargaining and teacher unions in the educational environment in order to provide a convenient reference for state affiliate researchers and other interested parties. This report is the result of that work, and is briefly summarized below.

At the outset, the author notes that while “it is easy to find assertions” about the effects of unionism and bargaining in education, “it is much harder to find credible evidence.” The author reviews 30 years of academic research on the connection between teacher unionism and academic achievement, activities associated with increased student progress, and the bargaining process and its impacts on school governance and management. To conclude, the author lays out “a practical means for union locals to answer for themselves the question of how their activities, including their contracts, intersect with educational quality.”

***Effects on Student Achievement***

There are numerous studies that attempt to estimate the direct effect unionization or collective bargaining has on student achievement, carried out at both the state and school district level of analysis. A variety of indicators have been used to measure unionization, such as the percentage of the teachers covered by bargaining agreements, degree of unionization of instructional staff, the strength of the labor law in a state, and the presence of a bargaining agreement in a school district. To measure student achievement, researchers usually use student scores on standardized tests, though one researcher used student dropout rates over time as a measure of academic productivity. The studies utilized regression analysis to estimate the impact of unionization on these outcomes, while drawing inferences about *why* this relationship would occur. Major studies have found both positive and negative effects of unionization on student achievement, with considerable debate over methodological issues and differences. Overall, the author observes that on the basis of these studies, “researchers tend to find evidence that coincides with their predispositions about teacher unions” and that, in general, the estimated “effect size of teacher unions on student achievement is not huge,” with most studies finding effects below two percent. The author concludes that “the quality of the data does not warrant the strength of the assertions that are attached to them.”

***Union Contributions to the Antecedents of Achievement***

After examining the evidence regarding the direct effect of unionization, the author reviews research on the “antecedents of achievement.” These antecedents are seen as the actual behaviors and activities undertaken by unions that impact on educational outcomes. By examining these antecedents, researchers may draw conclusions about what unions do that may have positive or negative effects on student achievement.

---

<sup>1</sup> Charles Taylor Kerchner is the Hollis P. Allen professor of education at The Claremont Graduate School in Claremont, California. He is co-author of *The Changing Idea of a Teachers’ Union, A Union of Professionals, United Mind Workers*, and *Taking Charge of Quality*, and is an advocate for a greater role for teachers in education policy making.

First, several studies have “sought to document the union’s transformation from negotiating wages and working conditions to an interest in school operations and educational quality.” While these studies did not specifically measure the effect of union reforms on student achievement, the “tacit assumption has been that by working on the elements of schooling -- such as professional development or teacher evaluation -- student achievement would increase, too.”

Several case studies document reform efforts in various school districts during the 1980s and 1990s, involving a variety of labor-management approaches to professional issues. While these efforts were not systematically followed over time, informal communications have found that many reform efforts “withered when the school superintendent or the union leadership that initiated them left office.” Some reform efforts have continued despite “system shocks” and other challenges. Generally, the author finds that “where reform efforts were anchored in contract or other written agreements, they tended to last longer.” A distinction between traditional “industrial style unionism” and the emerging “union of professionals” is drawn along three lines: separateness versus collectiveness of workers and managers, emphasis on the adversarial versus interdependent nature of labor-management relationships, and the protection of individual teachers versus the protection of the occupation of teaching.

The author examines research involving additional outcomes of teacher unionization and collective bargaining, including:

***Professional development:*** one study identified three types of professional development: traditional, new unionism, and organizational involvement. These activities range from isolated workshops to the inclusion of teachers and unions in planning and executing comprehensive professional development programs. However, the author “found few studies about the efficacy of professional development.”

***Salaries and benefits:*** the author found that “while there is some disagreement about the size of the union effect on teacher salaries, it is generally agreed that the effects are positive. But it is also clear that collective bargaining has not brought about a massive shift in the economic fortunes of teachers.” Thus, the author concludes that “the union wage effect is ‘not the stuff out of which Porsches are purchased,’ but they do reflect a handsome return on amount teachers spend on union dues.” The exact amount of the union wage differential is difficult to pin down, but it appears to be generally about 5 to 10 percent, with some variation depending on the data and methodology used and the time period of the analysis.

***Teacher compensation systems:*** the growth of teacher unionism has coincided with the development of the single salary schedule. Historically, efforts to introduce merit pay plans “have been short lived, largely because of the difficulty in measuring outcomes and the perception that they are not particularly good motivators.”

***Job satisfaction:*** The author notes that “a bargained contract, better wages and benefits, a grievance system, and an organizational voice in their future *does not* appear to be strongly associated with employee satisfaction, either in the private sector or in public school teaching.” However, one study found that teachers “who perceived that their union was effective were more satisfied than those who did not.”

***The attraction to teaching:*** some studies have found that the presence of reductions-in-force provisions, class-size limitations, and strong grievance procedures are associated with reduced teacher resignations or dismissals.

**Teacher assessment:** in several unionized school districts, systems of peer assistance and review have been implemented. The author described research that was largely descriptive in nature, with mixed reviews and opinions.

### ***The Bargaining Process and Impact***

After examining the antecedents of achievement, the author reviewed numerous studies that examined how the collective bargaining process had affected behaviors and outcomes of labor and management in the educational field. First, an early investigation of the interaction between bargaining, teaching, and school operations concluded that bargaining had “not produced armed camps, and that... contract negotiations were always linked to a school district’s economic and social context.” Later studies in the 1980s found that settlements “have extended well beyond traditional bread-and-butter issues into areas of organizational policy. Over time the scope of bargaining expands in most jurisdictions.” Later studies examined bargaining behaviors, finding, for example, that “districts with strong unions produced behaviors that were associated with high trust more than did districts with weak teacher organizations.”

### ***Conclusion: A “Bargaining Book” for Student Achievement***

Overall, the author concludes that “the results of most social science research are ultimately not very helpful to unionists or public policy makers who have to deal in practical ways with the impacts of unions and their rights to represent public school employees... Or in the common teacher refrain, ‘it doesn’t tell us what to do on Monday.’” To get answers to questions about how to conduct labor relations, the author suggests that practitioners keep track of educational topics as they arise in daily labor-management interactions, just as the parties keep “bargaining books” about issues that impact negotiations and grievance handling. This would produce “both a reflective work and an agenda for action.”

With regard to tracking educational outcomes, the author suggests going beyond the “current test-score mania” to look at data on outcomes for former students, such as asking the simple question: “how are students doing who left this school five years ago?” Researchers should then examine specific activities that link student achievement, such as how that topic is treated in negotiations or training. Further, at the level of policies and procedures, areas commonly thought to influence student achievement should be examined, such as teacher recruitment and induction, professional development, evaluation, rewards and incentives, the extent to which schools are organized around learning, the use of time, class size, meetings, and providing a safe and orderly environment.

*Donovan King*  
*Labor Relations Research Specialist*  
*NEA Department of Collective Bargaining*  
*and Member Advocacy*

*November, 2004*

# **The Relationship Between Teacher Unionism and Educational Quality: A Literature Review**

November, 2004

Charles Taylor Kerchner  
Claremont Graduate University

With the assistance of Deborah Baroi

## **Introduction**

It's very easy to find assertions about the effects of unions on academic achievement, on schools, and on teachers. It is much harder to find credible evidence. A review of 30 years' research into the effects of teacher unionism has yielded more assertions than research and conflicting claims among social scientists. People who want to believe that unions are vital to schools, to America, to democracy, and to social justice will want to believe that teacher unionization also leads to higher student achievement. The majority of academic studies support that position. People who demonize unions, however, will remain unconvinced, and they will be able to point to research undertaken by credible academics that supports their beliefs.

In the body of this report, I review the social science research from the last three decades—the most salient published work we have been able to find from various bibliographic sources and selected unpublished research, mostly recent doctoral dissertations. The report omits the large body of political and social commentary about unions, except in a few cases where comments about unions are used as illustrations. It also omits most research conducted outside the United States, and research about unions and the labor movement outside of education. For an overview of international teacher unionism, see Cooper [1992, 2000]. The review draws on a number of earlier reviews, most particularly Kerchner (1986) and Bascia (2004), which includes literature on Canadian as well as U.S. unions.

It will be immediately apparent that the body of research is not large, for teacher unionism is in many ways a neglected corner in education research. The report contains five sections. It begins with a review of the evidence on the connection between teacher unionism and academic achievement. The second section contains a review of research on union effects on the antecedents of achievement: school and teaching properties associated with increased student progress. The third section contains a report on research on the bargaining process and its impacts, and the fourth section contains a review of work on governance and school management. The concluding section of the report lays out a practical means for union locals to answer for themselves the question of how their activities, including their contracts, intersect with educational quality.

It is relatively novel to even *ask* about a relationship between teacher unions and student achievement. Early collective bargaining research concentrated on the governance impacts of teacher unions precisely because that is where the effects were thought to have been. The first major book on collective bargaining in public education, Anthony Cresswell and Michael Murphy's *Teachers, Unions, and Collective Bargaining*, (1980) hardly mentioned classroom impacts. Issues of educational production and student achievement were supposed to be beyond the reach of unions and collective bargaining. Unionization was variously perceived as a social revolution or an occupational turf fight, and the emergence of unionized teachers raised two central problems: conflict management and the protection of school governance from the power of the union. Conflict management became an issue because collective bargaining opened the door for legitimate and open disagreement between teachers and school managers (Perry & Wildman, 1970). The possibility of strikes and the means of workplace peacemaking became a central focus of research (Bruno & Melkin, 1975; Burton & Krider, 1970; Cole, 1969; Delaney, 1983; Richardson, 1977).

Governance was a central issue because it was assumed that the collectivization of public-sector workers posed a real threat to the orderly and democratic operation of school government. Probably more than any other single work, Wellington and Winter's essay (1969; expanded in 1971) set the tone for much research and commentary over the succeeding decades. Allowing employee strikes, they asserted, would skew the results of the "normal American political process," because other interest groups would not have

the same political power that teacher unions possess. Teacher unionism was thus viewed almost exclusively as political force, and in the minds of conservatives an illegitimate one, a view that has only intensified. Issues of union impacts on school governance, continue, of course, but academic achievement has become the new criterion for all educational policy. Process and attitudinal measurements no longer suffice; the critical public wants to know if students are doing better. For labor relations, the new criterion asks whether unionization creates schools that are *productive* as well as *just*.

There is little question that the union contracts set the context for academic achievement or that unions effectively negotiate academic policy in those states where collective bargaining is legal. Kerchner & Mitchell (1988) characterized the educational impacts as “accidental policy making” (p. 140). In recent years, however, both public policy and unionists have been more conscious of the relationships between labor relations processes and school outcomes. In recent years, there has been a substantive public policy divide between those who think that the union connection to student achievement ought to be aggressively pursued and that unions should be seen and should see themselves as instruments of educational reform and those who believe that the union role in education should be highly constrained (see Kerchner, 2001; Moe, 2001; Urbanski, 2001; in *Education Next* for differing points of view).

As teacher unions moved from engaging in initial contracts to involvement in school operations, attention turned to what has been called the “second face of unionism.” Scholars became interested in how unions changed work places, the nature of the work being undertaken, and the quality of what was produced. Both substantively and methodologically, *What Unions Do* by Richard Freeman & James Medoff (1979, 1984) set the tone for research that followed. Their study of manufacturing unions wrote of a “collective voice/institutional response” face to unionism that requires researchers in education to consider how the beliefs and activities of unions are integrated into school operations as a whole. Methodologically, they were among the first to use large-scale data sets to make inferences about union effects. Their work was a departure from the older tradition of descriptive research in looking at union effects. These two research traditions are reflected in the work reviewed here. Almost all of the research on the effects of unions on student achievement use *indirect* evidence of union effects, in which

the presence of a phenomenon, such as reduced class sizes or higher pay, is linked to a union activity, such as collective bargaining, even though the activity itself has not been observed or documented. Instead, researchers rely on an economic or behavioral theory or inference from observed behavior in other settings to make judgments. Thus, authors reason that a rise in test scores must be the effect of more dedicated or experienced teachers or that a rise in dropouts must be the effect of teacher power putting their desires ahead of what parents want. For example, in one study it was found that students that were in the middle of their classes academically apparently did better in unionized school districts than did those on the top or bottom of the class. The authors inferred that these middling students did better because they thrived on order, regularity and standardization, and they associated the rules and regulations brought forth by union contracts with these organizational characteristics. This explanation may sound a bit fanciful, but inferences such as these are common in social science research.

Most of those who have looked at teachers' collective voice and the way schools have responded have not used Freeman and Medoff's methods but instead have used smaller samples and case studies of specific districts. These studies have the advantage of more *direct observation*: one knows what the union actually did. But the reader is forced into different kinds of inferences about the effects of unionism. Often changes in student results are not reported at all, and when they are reported, there is little that can be said with certainty about the effect of a particular union activity on achievement. One kind of study has a clear measure of student achievement, but tells us little about what the union actually did. The other tells us in some detail about union activities, but leaves the relationship to student achievement in doubt. Each has something to tell us; each presents an incomplete picture of union effects.

### ***Effects on Student Achievement***

The debate about whether unions help or hinder student achievement rests on 16 cross-state comparative studies. Of these, two studies have captured attention and comment, partly because they come to opposite conclusions. In 2000, *Harvard Education Review* published an article by Lala Steelman, Brian Powell, & Robert Carini that found that the presence of teacher unions was linked to stronger performance on the Scholastic Assessment Test (SAT) and the American College Test (ACT). Liberals and



unionists point to this research as clear affirmation of their point of view. In a similar fashion, conservatives point to the work of Harvard economics professor Caroline Minter Hoxby when making the claim that teacher unions deter student performance.

Steelman, Powell, & Carini (2000) analyze the relationship between the interstate variation in teacher union representation and their measurement of educational productivity: how well students in those states do on the SAT and ACT. Teacher unionization is measured by the percentage of teachers in a state covered by collective bargaining and meet-and-confer agreements. The authors say that the exams are the “gold standard” of educational performance since completion is required for college admission, and educators and policy makers monitor the state rankings of test results closely. They note that several factors led to their use of state level indicators: education is increasingly governed and financed at the state level; bargaining laws and rules are set by state government; interstate variation is a topic of public policy discussion; and good data are available.

They used data from the Schools and Staffing Survey, 1993-1994, from the U.S. Bureau of Census and the National Center for Educational Statistics. In gathering these data, school administrators were asked whether teachers in their district were represented by collective bargaining or meet-and-confer agreements. The data were aggregated to the state level. SAT scores were taken from College Bound Seniors, 1993. They relied on unpublished data from the American College Testing Program for ACT data.

Steelman, Powell, & Carini—as well as virtually all research reviewed in this section—use multiple regression, a statistical technique that weights the effect of a number of predictor variables on a dependent variable, in this case student performance on SAT tests. They first asked how much unionization alone contributed to the differences in state test scores and found that the unionization effect was positive and that it accounted for very little of the differences in test scores among states ( $R^2=.015$ ). Then they complicated the regression model by adding in other variables: the percentage of students taking the exam, the square root of that percentage, the percentage of test takers whose parents attended college, the percent of African Americans taking the test, the percentage of Latinos taking the test, and the median family income.

The regression model that included only the percentage of teachers unionized, the percentage of students taking the test, and the square root of that percentage accounted for over 85 percent of the variation in SAT scores across the states ( $R^2=.852$ ). The unionization coefficient was quite large and highly significant (.516  $p<.01$ ). This, the authors note, “indicates that a state in which all its teachers are covered by collective bargaining or meet-and-confer agreements has an average SAT score that is 51.6 points higher than its counterpart in which none of its teachers are covered” (p. 448). (The use of the square root of the percentage of teachers unionized is meant to recognize the fact that the relationship between test scores and unionization may not be a linear one, and indeed other research has found it not to be.) The extent of unionization in a state remained positive and significant even when all the sociodemographic variables were introduced.

To check their model, the authors tried different measures of selectivity: percentage of students taking the SAT versus the percentage of test takers in the top 10 percent of their high school class, or the grade point average of test takers. Regardless of the measure of selectivity used, the unionization variable remained strong and statistically significant.

There are large differences in unionization by region, and the authors checked to see if those are more associated with some unspecified regional effect or whether they remain a unionization effect. In the regression models in which unionization does not appear as a variable, the differences between Southern and non-Southern states appear very large, but when unionization is introduced the regional variation becomes insignificant.

Finally, the authors looked at different measures of unionization. Other authors have asserted that the unionization effect rests largely on what measure of unionization was used, so Steelman, Powell, & Carini examined the effects of changing the definition of unionization from the percentage of teachers in a state recorded as having collective bargaining or meet-and-confer coverage. As alternatives, the authors looked at the percentage of teachers covered by collective bargaining agreements only, the percentage of all school district employees represented by bargaining units, and the percentage of unionized full-time instructional staff in a state. They also tried looking at unionization

in states dichotomously: whether meeting with the union was required or not. Finally, they looked at unionization based on the strength of the labor law in the state. Regardless of the measure of unionization used, when the control variables are introduced, the effects of unionization remain positive and significant.

The authors then turned their attention to the ACT, and they find that in large part the regression models produce similar results. However, the union effects are much smaller. Indeed, the ACT may not be a particularly good interstate test of achievement because that examination is used by relatively few colleges in their admissions decisions and those colleges are concentrated in a few states, mostly in the Midwest.

In their conclusion, Steelman, Powell, & Carini state that their study challenges the view that teacher unions are “at odds with what parents desire from schooling, namely, the educational advancement of their children” (p. 458). The authors note that they did not expect to find either a positive or negative relationship between unionization and student outcomes, but rather they had expected that there would be no relationship at all. “That we found such a strongly consistent positive relationship across so many permutations of analysis should give pause to those who characterize teacher unions as adversaries to educational success and accountability” (p. 459).

The most commonly cited study reaching a contrary conclusion comes in the 1996 article “How Teachers’ Unions Affect Education Production” by Caroline Minter Hoxby published in the *Quarterly Journal of Economics*. Her work contrasts with Steelman, Powell, & Carini in several ways. First, it attempts to find a union effect at a district level as opposed to a state level. Second, it tries to find a unionization effect over time, using data from the 1960s to the 1990s. Third, “educational production” is measured, not by student achievement, but by a measurement of dropouts that relies on U.S. Census data counts of the numbers of 16-19 year olds in a geographic area who are not enrolled in school and who do not have a high school degree.

Methodologically, Hoxby’s research is the most sophisticated of the econometric attempts to isolate a union impact on the student results and school operations. She uses the technique of looking at differences and rates of change in the sociodemographic variables and in school district characteristics to estimate union effects on dropouts. It is important to note that Hoxby uses her data to calculate the union effect on school

expenditures and how funds are spent as well as on dropouts, and her work is widely seen as an efficiency argument about unions: they cost a lot, but don't yield much.

Because no existing nationwide school-district database is available over the 40-year period, Hoxby sought to construct data from several sources. From the 1972, 1982, and 1992 Census of Governments she drew comparative information on teacher employment, teacher pay, and student enrollment. The same source contained information used to define unionization. She defined unionization at those districts that collectively bargain, where there was a contract, and in which more than 50 percent of teachers were members. In order to get data from the 1960s, she drew 1966 data on negotiated agreements from Negotiated Agreement Provisions (NEA, 1967), and from Perry and Wildman (1966). Data on teacher bargaining laws came from the National Bureau of Economic Research Public Sector Collective Bargaining Law Data Set, which she updated.

Demographic data and her measure of student dropouts came from the 1970, 1980 and 1990 U.S. Censuses of Population and Housing. School district estimations were made by linking each census block group and enumeration district to school district boundaries. Using this technique, she identifies 10,509 school districts, about 95 percent of the districts in the United States, according to Hoxby's estimate. However, there were actually 15,552 school districts in 1990, and it is not clear how the study missed nearly a third of the districts in the country or what difference that identification of those districts would have made to the results (see exchange of letters on methodological issues between Hoxby, 1996, and Albert Shanker, 1996).

Using dropouts as the measure of student achievement is also a definitional stretch. However, the data may be the best available. Hoxby makes the point that, "It would be good to have additional measures such as test scores, but consistent test scores that span the 1970-1990 period do not exist at the school district level for a universal (or even large) sample of individual school districts" (p. 686).

She estimates that unionized school districts have a dropout rate of 2.3 percentage points higher than other districts, all other factors being equal. She also asserts that non-union districts are more efficient than unionized districts, a conclusion reached by observing that a one-student decrease in the student-teacher ratio in a non-union school

will decrease the dropout rate by .4 percentage points and that a 10 percent increase in salary is associated with decreasing the dropout rate by .7 percentage points.

### ***The Lineage of Achievement Studies***

When one looks beyond these two studies, one finds 14 others that attempt to link student achievement and unionization. Overall, the weight of evidence—both the numbers of studies and the relative quality of the studies—suggests a small but positive contribution of unionization on student achievement. Some use data on individual student achievement; others use state level data.

In a study that set the pattern for many that followed, Eberts & Stone (1987) used student, teacher, and school data from the Sustaining Effects Study of elementary schools to examine fourth grade mathematics achievement. Their study is unusual in that it contained a pretest of student's performance earlier in the year. They found that in school districts with collective bargaining, students overall scored 1 percent higher than in non-union districts, and they found that the gain scores of students in unionized districts were 3.3 percent higher.

From the data in this study and others, Stone (2000) explains the apparent discrepancy between those studies that find a positive association between unionization and student achievement and those which do not. He argues that the unionization effect differs depending on the type of student. Unions help average students, he argues, but not those at the top or bottom of the achievement ladders. His own study (Eberts & Stone, 1987) of fourth grade mathematics results produced such an inverted-U-shaped pattern. Generally speaking, studies that worked with average or higher achieving students are more likely to find a positive association between teachers unionization and student achievement, and studies which rely on data from lower achieving students, which would certainly be the case with Hoxby's dropouts, tend to find a negative effect of unionization.

Milkman's (1989) study is somewhat similar to Eberts & Stone, using performance of 12<sup>th</sup> graders on a standardized math test. (The data are drawn from the High School and Beyond database.) Milkman reports that over a two-year period, students in unionized districts perform more than 2 percent higher than students in non-

union districts. In a later study, Milkman (1997) examines the effects on minority students and finds that students in unionized districts score about 1.4 percent higher than those in districts without contracts. Argys & Rees (1995) use the National Educational Longitudinal Study of 1998 (NELS:88) to assess union effects on mathematics achievement, finding an overall 1.3 percent positive contribution of unionization to achievement.

Grimes & Register (1990) use data from the Test of Economic Literacy (TEL) taken by high school students. Of the studies of this type, theirs uses the most extensive statistical controls, including school variables and the student's SAT score. The authors find that the schools covered by a collective bargaining contract score on average 1.9 percent higher on the TEL. In another study, Grimes & Register (1991) find that African American seniors in unionized schools score higher on the SAT than comparable students in non-unionized schools.

Zigarelli (1994) takes the unusual step of explicitly connecting organizational theory and collective bargaining in an effort to explain the effects of unionization. Although union lore often asserts that "we are just forcing managers to do their jobs," Zigarelli seeks to test this notion empirically. Organizational theory, particularly that associated with Meyer & Rowan (1978) view schools as a series of linkages or couplings. In what were called loosely coupled organizations, like schools, hierarchical superiors, such as principals, held technical authority over subordinates, such as teachers, but they did not exercise this authority very often or very extensively. Thus, there was much truth to the teacher lore that "I'm in charge here after the classroom door is closed."

However, Zigarelli, argues that collective bargaining forces managers to act more like managers. "More specifically, management fear of forfeiting its control over the education process to teachers and their union may prompt greater administrative intervention into the classroom. Often this occurs through the enforcement of dormant educational policies on classroom practices" (p. 303). Then Zigarelli notes, "bureaucracy theory would predict that this is a more productive form of organization than the conventional nonunion school." His multiple regression model tests for this positive bureaucracy effect and finds a small but statistically significant union effect. However,

the more management's response to unionization is entered into the equation, the more significant the results become.

A number of studies use state level data, creating the tradition in which the Steelman, Powell, & Carini (2001) study follows. Peltzman (1993) conducted a study on SAT and ACT scores from 1972 to 1989. Unlike other studies, Peltzman looked at the effects of the NEA and AFT separately. For the period 1972-1981, Peltzman concludes that NEA-affiliated unions appear to boost achievement while AFT-affiliated locals have the opposite effect. For the period 1981-1989, both unions are associated with lower scores. Kurth (1987) comes to a similar conclusion, also using SAT data. Peltzman (1996) conducted a second study that examined the statewide results on the Armed Forces Qualifying Test. He concludes that there were lower pass rates on the test in states that were more highly unionized.

Both of these studies have been questioned on methodological grounds. In a critique article in the same journal where Peltzman's was published, Friedman (1993) notes that Peltzman failed to include many of the controls used in other studies, especially measures of family background that are often statistically associated with student achievement. Nelson & Gould (1988) of the AFT criticize Kurth's methodology, and they replicate his study with the finding that collective bargaining is positively associated with higher SAT scores when the 14 southern states are omitted from the consideration. (Also see Kurth's 1988 reply.)

Kleiner & Petree (1988) also study state effects on SAT scores and conclude that the results are strongly positive, about 4.4 percent, in states where teachers are covered by contract. However, the methodology of their study, like the two that found negative effects, has been questioned. One of the problems in using raw SAT data is that the level of participation in SAT testing varies widely by state. In some states, largely where local universities do not require the SAT, participation rates are low because only those students headed for out-of-state colleges take the test, and these students tend to be the strongest academically. In other states, a much larger proportion of students take the SAT.

Fuller, Mitchell & Hartmann (2000) examined collective bargaining effects in Milwaukee, Wisconsin, where Fuller served as superintendent. They note a student test

score decline following 1964, the year the district entered into collective bargaining, but the study does not consider confounding factors, including a massive shift in demographics in the district.

Two recent dissertations have looked at the effects of teacher empowerment on student achievement, each finding that there was little apparent connection between the two. Both studies used data from the National Educational Longitudinal Study of 1988 (NELS:88) and used hierarchical linear modeling as the analytical technique. Insim Park (2003) found that instructional materials, professional development opportunities, and principal leadership significantly affected the four dimensions of empowerment: formal authority, autonomy, collaboration, and trust. Byoung-Jin Park (1998) found that schools with higher organizational capacity in staff development, time for collaboration, innovative climate, and support from the union and administration adopted participative forms of decision making. He also found that all the domains of empowerment were positively related to job satisfaction. Neither author found a direct positive relationship between empowerment measures and student achievement. In a somewhat related dissertation, Dunn (1991) found union membership somewhat related to teacher empowerment.

### ***Reviewing the Evidence***

These studies are important as much for the reactions to them, and what people say that the studies said, as they are for what the studies themselves say. AFT President Sandra Feldman (2001) wrote that the publication of Steelman, Powell, & Carini (2000) confirms the common sense understanding of shared interests between teachers and students. “One of the many fallacies spouted by opponents of teachers’ unions is that unions are obstacles to improving education. This suggests that when teachers win, students lose. But to say that the interests of students and teachers are in conflict defies simple logic.” Tom Hobart, president of New York State United Teachers, said that the study “confirms what all of us who believe so strongly in the teacher union movement inherently know: the presence of teachers’ unions in schools plays a positive role in improving student achievement” (Nelis, 2001).



Not unsurprisingly, conservative commentators are not convinced. A Heartland Institute publication (Clowes, 2001) quotes Myron Lieberman saying that Steelman, Powell, & Carini has “major deficiencies,” and that a union effect can only be shown in a longitudinal study, such as Peltzman’s or that of Hoxby. Terry Moe of the Hoover Institution writes that the study results should be “taken with care” because SAT and ACT results don’t measure actual school performance, and because data aggregated at the state level are causally suspect when the driving force is school-level unionization. He advocates the Hoxby study as one that “is the most sophisticated of the tests of union impacts” that avoids the methodological problems in Steelman, Powell, & Carini and: “Hoxby found that unions have negative effects on school performance (Moe, 2001, p. 43). He does not mention that Hoxby used dropout rates as the sole measure of student achievement and school productivity.

After looking at the existing evidence on teacher unionization and student achievement, what can one conclude? It’s easy to note, as was done in the opening paragraph of this report, that researchers tend to find evidence that coincides with their predispositions about teacher unions. One can also say that the effect size of teacher unions on student achievement is generally not huge. Steelman, Powell, & Carini’s (2000) finding of a 50-point difference in SAT scores ranks as one of the largest, that would amount to an 8 percent jump in the 600 point range of the SAT. Hoxby found a 2.3 percent increase in dropouts in unionized districts. Most others found effects below 2 percent (see Stone, 2000 for a review). Most of all, I would conclude that the quality of the data does not warrant the strength of the assertions that are attached to them.

To define educational production as presence or absence of dropouts as Hoxby does is to grab for a straw in a haystack. It is hard to accept that dropout rates are a very satisfactory indicator of the totality of what schools produce. One should note that Hoxby did not pick dropout rates and measure them using U.S. Census data with malice, but because they were virtually the only data source available that could be applied to the whole country’s schools over a 40-year period. Arguably, she uses the best data available to construct the econometric model she was working on. However, the sophistication of the model or the elegance of the statistics, do not carry a great deal of weight, if the dependent variable—student achievement—is incompletely defined or poorly measured.

In a similar fashion, to define a union effect by looking cross-sectionally at SAT scores or other student tests does not create a very strong causal model of union effects. There is no before or after unionization in these studies and no indication of the union's effect over time.

## **Union Contributions to the Antecedents of Achievement**

Most scholars who study union operations and effects directly have not tried to judge their effect on student achievement. Instead, they have sought to document the union's transformation from negotiating wages and working conditions to an interest in school operations and educational quality. The tacit assumption has been that by working on the elements of schooling—such as professional development or teacher evaluation—student achievement would increase, too.

Beginning in the mid-1980s, a small number of districts and unions began to experiment with what has variously been called *reform bargaining* (Johnson, 2000), *professional unionism* (Kerchner & Koppich, 1993), or *new unionism* (Chase, 1999). Studies of these districts illustrate both the process and the outcomes of moving from narrow-scope industrial bargaining to broader-scope union engagement with educational quality.

Most of the practitioners involved—and most of the researchers, too—approach their work having concluded that the factory model of schooling does not work (Kerchner & Mitchell, 1988; Darling-Hammond, 1997; Johnson, 1990). As Johnson notes, “This line of research demonstrates that important decisions about how best to organize teaching and learning must be made at the school site rather than at the district office” (2000, p. 9).

Kerchner & Mitchell (1988) examined the political dynamics of growth and change in unions, concluding that union locals organize around different fundamental ideas or purposes over time, and that the movement from one idea to another is marked by conflict—a little revolution—both within the union and with school managers. The development and change of teacher unions themselves is dramatically told by Murphy (1990); Urban (1982) documents teachers struggle to organize; and Karpinski (2003) chronicles the NEA's struggle to be a more racially inclusive organization.

In their analysis, Kerchner & Mitchell (1988) observed three developmental stages, which they called “generations” of unionism. The first labeled as the *meet-and-confer* generation, in which teacher voice was more important than a written agreement. In some locals, unions languished in a meet-and-confer stage because state statutes did not allow unions to collectively bargain binding contracts. But in other settings, unions developed quasi bargaining relationships even though they were not permitted by law. Meet-and-confer unionism continues in many places, particularly in small towns, even though the teachers and union have a written contract.

Kerchner & Mitchell called the second generation the *era of good faith bargaining*. The contract was the central focus of a union’s life and of its belief system. Not only did the relationship with management become formalized, written, and enforceable, the contract itself became an object of union veneration, in some cases one approaching religious significance. Norms of behavior for unionists and managers were created for the (relatively) efficient and (usually) smooth negotiation and administration of contracts. Within this era, relations with management tended to move from contentious to cooperative over time.

Kerchner & Mitchell called the third generation of unionism the *era of negotiated policy*, a time in which both labor and management come to realize that labor relations have more than wages, salaries, and working conditions at stake, and that bargaining needs to attend to educational issues. Policy bargaining becomes explicit. (This argument is further developed in United Mind Workers, Kerchner, Koppich & Weeres, 1997, 1998.)

As unions began to move from initial organization and contract making into organizing around educational issues, research began to examine these efforts. The result has been a substantial number of case studies and some survey work that illustrate union efforts to link collective bargaining to educational change and student achievement. A shortcoming of these studies is that few have focused on student achievement as an outcome, and few of the documented labor relations changes were undertaken in such a way that it would have been easy to infer that student achievement changes were the result of labor relations changes, as opposed to other changes in school operations, such as curricular or pedagogical changes.

## ***Studies of Union Reforms***

Several case studies document efforts at union reform efforts. Kerchner & Koppich (1993) contains studies of 10 school districts based on 1989-1990 field work. Each of these published is based on a longer study undertaken at Claremont Graduate University. As summarized in their book *A Union of Professionals: Labor Relations and Educational Reform*, the studies are:

- Jefferson County (Louisville), Kentucky, shows the use of intensive training and staff development as a precursor to organizational decentralization and the contractual agreements supporting it. It also illustrates the creation of a civic elite and the use of its support to undergird reform.
- Pittsburgh, Pennsylvania, illustrates a somewhat different approach to training and development and a much more centralized and highly structured set of interactions between labor and management. However, we again see the conscious development and protection of the civic coalition by both labor and management. We also see the union's explicit attempt to define professionalism and link it to teacher responsibility for quality assurance.
- Cincinnati, Ohio, shows a situation in which the union rather than the administration first raised the issues of school inadequacy, particularly inner-city failings, and activated corporate and civic participation. It shows the teachers' union in a much more volatile and at times adversarial relationship with the administration, but one aimed at reform. The Cincinnati case also illustrates the use of agreements outside the contract and the creative use of joint committees, particularly one that allocates teacher positions and other resources to schools whose enrollments change during the school year. (For another study of Cincinnati, see Johnson, 1989.)
- Greece, New York, illustrates a continuity of change even though the union officers who created the initial breakthroughs were retired from office by the members. Surprisingly, their successors have continued and strengthened the reforms.

- Glenview, Illinois, exchanged its labor contract for a joint labor-management constitution. Still a legally binding agreement that includes wages and benefits, the new constitution restructures operations of the school district into a series of committees and incorporates the teacher union as a full operating partner.
- Dade County (Miami), Florida, started a whirlwind of reform in the midst of economic and social turbulence. Its site decision-making plan allocates substantive authority to the schools, and the Saturn Schools program encourages radical breaks with the conventional wisdom. The program in Miami has persisted despite substantial administrative turnover and deep fiscal crisis.
- Rochester, New York, has likewise entered the hard implementation phase of reform in which soaring initial expectations meet the realities of organizational change. Our view of Rochester concentrates on the political dynamics surrounding change and the difficulty of resolving issues of teacher incentives, accountability, and quality assurance.
- Toledo, Ohio, and Poway, California, illustrate the use of peer review and assessment for teachers. Forming workable ways for unions to represent the rights and interests of their members and still advance the quality of teaching is a keystone of professional unionism.
- Chicago, Illinois, represents a situation in which the school administration and the teacher union were the objects of reform rather than its agents. The Chicago reforms of 1987 represent a radical departure from the traditional organization of public bureaucracies, and they cut across the grain of both administrative authority and union power.

Additional studies in this series were undertaken in Hammond, Indiana (Smylie & Tuermer, 1991), Glenview, Illinois (Smylie, 1991), Washington (Malen, 1992), Denver, Colorado (Murphy, 1992), and Albuquerque, New Mexico (Holderness, 1991).

Some of the reforms initiated in the 1980s and 1990s have continued, but many have not. The authors of the cases have not undertaken a systematic restudy of labor

relations in these districts, but informal communication provides at least informed impressions of what has happened. Sometimes, reforms withered when the school superintendent or the union leadership that initiated them left office. This appeared to be the case in Glenview, Louisville, and Greece. When times got tough, educational reforms, particularly those involving professional development, suffered. Some of the Miami-Dade reforms continue, this despite several severe system shocks, including the embezzlement conviction of the union executive. Chicago provides an interesting example of legislative intervention to reduce the scope of bargaining and a virtual mayoral takeover of school governance along with a long-running internal struggle for union leadership. Rochester, Hammond, Toledo, and Poway provide good examples of continuing reform and the struggle to keep going. Where reforms were anchored in contract or in other written agreements, they tended to last longer. The Rochester, New York, Career-in-Teaching Program is a good example. After the era of good feeling that spawned reforms in the 1987 contract had passed, the Career in Teaching program continued largely because it was in the contract, the union could defend it, and there were teacher leaders who believed in the program and continued to see that it operated (Koppich, Asher, & Kerchner, 2002).

Still, a substantial number of reforms continue. William Harju, the retired executive director of the San Diego Teachers Association, surveyed districts that belonged to the Teacher Union Reform Network (TURN) and reported a lively array of activity ranging from professional development to efforts at changing rewards and incentives for teachers (see Kerchner, 2001). Among the 21 NEA and AFT locals associated with TURN, all were involved in some form of shared decision making and provisions on the use of teacher time. Most had union-initiated or involved professional development programs and peer assistance or review programs, and school-based staffing or budgeting. Some districts had contractual provisions regarding parental engagement, alternative compensation, charter and pilot schools, and provisions for low performing schools. Two districts had contractual provisions for learning standards. Johnson and Taylor (2001) describe the strategies that link collective bargaining and student growth in Minneapolis, one of the TURN districts. The contract links professional growth, accountability, and student achievement. In a recent dissertation, Castillo (2003) studied

three of the locals participating in TURN: Los Angeles, Minneapolis, and Rochester. She illustrates each union's evolution and concluded that the locals are "evolving into unions that focus on improved student learning by increasing the quality of teaching" (p. 428).

In one of the most revealing and systematic pieces of research done on a teacher union local, Ellen Bernstein, president of the AFT union in Albuquerque, New Mexico, captures the efforts to transform the local toward professional unionism.

For 20 years the Albuquerque Teachers Federation [ATF] had attempted to further a reform agenda by engaging the district through the collective bargaining process. We were frustrated in our attempts and concluded that it was impossible to practice 'new unionism' in the context of 'old managementism.' It wasn't until we systematically explored our own organizational structure that it was evident to us that our internal structures were focused on a traditional union role; we were wholly ignoring any efforts to engage our own membership in our reform agenda. The self-study painted a picture of our organization as a prisoner of the industrial era just as the school system we had been attempting to change. Our organizational structures and activities were completely focused on maintaining efficacy as a union able to bargain for salary increases and provide service to its constituency. As a union whose existence is still based on voluntary membership of less than half of the work force, this was not surprising. (Bernstein, 2003, p. 243).

For example, a union self study, which was part of Bernstein's dissertation research, found that its staff and officer time was devoted almost entirely to traditional functions. "Although the self-study did not reveal anything that prevented leadership from addressing educational issues, there were also no structures that promoted this... Until the self-study was concluded and analyzed, we were unaware that our union's reform agenda was superficial and that there were no deep structures in place to support it" (pp. 241, 244).

The union responded with structural change. "Working from the philosophy that we had more control over our internal union structures than we had over our negotiations with the district, we worked on changes that we thought would help affect the capacity of our members to engage as designers and leaders of education reform" (p. 245). The local created opportunities for members to support teachers in implementing changes in their classrooms and to collaborate with peers. It organized study groups and created support groups for teachers compiling portfolios for the National Board for Professional Teaching Standards. It introduced teachers to educational policy issues by sponsoring three

symposia on state and national policy. The union also started a “school” for its own representatives. In Albuquerque, a teacher union representative sits on each school’s instructional cabinet, and the object of the union’s school was to allow teachers to better function as teacher leaders. The union newspaper, *Teachers’ Voice*, also changed to focus on educational issues.

Perhaps most importantly, Bernstein found that working on a professional union agenda did not mean abandoning traditional union representational and protective issues—but that the two forms of unionism were compatible. However, she also found that change was incremental, not revolutionary. Efforts to change the union structures to create an elected officer and staff devoted to educational issues were not successful.

Bernstein believes that one of the keys to the union’s future is in organizing the union to help new members. “While teachers new to the profession may not have a concept of unionism, they, like their veteran colleagues, have a concept of what they want in terms of professional support. ATF has the opportunity to become a more effective organization if we focus on helping teachers be more effective in the work they do, as well as focus on making sure they are in a situation where they can do that work well” (p. 283).

As described by Kerchner & Koppich (1993), an emerging union of professionals differs from industrial-style unionism in three ways: First, industrial unionization was built around a stark divide between managers and workers, differences that encompassed legitimate authority, social position, assumed knowledge, and expertise. Unions of professionals assume, or at least actively work toward, a much more collectively owned nature of teaching work, one that blurs the lines between positions and one that encourages teamwork.

Second, industrial labor relations is inherently adversarial; whereas, a union of professionals emphasizes the inherent interdependence of workers and managers. This is not to signal some meek and mild form of professional association, that which Lawn (1990) called “polite unionism”; rather a purposeful and strategic realization that the whole institution of public education won’t prosper in an atmosphere of continuing labor-management tension or in a situation in which labor-management peace is procured by mutual avoidance of difficult student achievement and system performance issues.



Third, industrial labor relations emphasizes the protection of teachers while professional labor relations emphasizes the protection of the occupation itself. It is impossible for individual teachers to prosper if the occupation does not. While it is true—in the words of the labor saying—you can't eat status, it is also true that without teaching being held in high regard, individual teachers will be unlikely to command professional-level pay.

The idea of representing teaching as well as teachers challenges the conventional wisdom. Conservative critics find the idea preposterous and see the hidden hand of self-interest within any union proposal. Thus, teacher pursuit of professional self-regulation is seen as an effort to restrict the supply of teachers that creates upward pressure on wages (Ballou & Podgursky, 2000), and advocacy for early childhood education becomes an effort to get more members (Lieberman, 1997). Poole (2000) investigated the breadth of union leader interest and how they attempt to solve the paradox of representing both their members and a broader educational interest. She interviewed leaders in an eastern Canadian province.

Virtually all the union leaders saw their roles as representing both teachers' economic welfare and professional interests. Sixty-five percent, mentioned the union's role in promoting quality education, but most put it in a secondary role. The problem of dual objectives was resolved by finding interdependence between economic welfare and professional development, by creating a cognitive link between either professional development or economic welfare and the interviewee's idea of quality education. However, the leaders in Poole's study tended to revert to economic issues during times of stress or retrenchment.

Not all academic observers find the movement toward professionalism particularly robust. Bascia (2004, p. 331) calls the depiction "a bit overconfident." Even as she chronicles efforts to scale up union reforms, she notes union backlash against reform efforts, particularly in times of adverse financial and public policy pressures.

Not all observers are pleased with the advocacy for professional unionism. A 30-year veteran teacher wrote Kerchner, "I do not want to pay union dues to an organization that does anything but help me in defense, income, benefits. Do you understand?" (Personal Communication, April 2002). These beliefs percolate upwards in the unions.

Other unionists see such reform as close to treasonable. They argue that, at the root, market-based reforms are aimed at eliminating public education, not strengthening it, and that systemic reformers generally mean to hurt the system. In response to NEA's President Bob Chase's advocacy of a "New Unionism," the leaders of Wisconsin's largest affiliates wrote: "Your remarks are not only appalling, they ignore the fundamental strength of a union. ...We are union and we are proud; we stand in solidarity to defend against those who are attempting to destroy us" (quoted in Fuller, Mitchell & Hartman, 2000, pp. 114-115).

Ideology aside, research attention has been paid to aspects of both reform and traditional unionism. These are clustered under three headings: Professional Development, Rewards and Incentives, and Teacher Assessment/Peer Review.

**Table 1: Industrial and Professional Unionism**

Old Industrial Style Teacher Unionism	The Emerging Union of Professionals
<p>Emphasizes the separateness of labor and management:</p> <ul style="list-style-type: none"> <li>• Separation of managerial and teaching work</li> <li>• Separation between job design and its execution</li> <li>• Strong hierarchical divisions</li> </ul> <p>Motto: “Boards make policy, managers manage, teachers teach.”</p>	<p>Emphasizes the collective aspect of work in schools:</p> <ul style="list-style-type: none"> <li>• Blurring the line between teaching and managerial work through joint committees and lead teacher positions</li> <li>• Designing and carrying out school programs in teams</li> <li>• Flattened hierarchies, decentralization</li> </ul> <p>Motto: “All of us are smarter than any of us.”</p>
<p>Emphasizes adversarial relationships:</p> <ul style="list-style-type: none"> <li>• Organized around teacher discontent</li> <li>• Mutual deprecation—lazy teachers, incompetent managers</li> <li>• Win/Lose distributive bargaining</li> <li>• Limited scope contract</li> </ul> <p>Motto: “It’s us versus them.”</p>	<p>Emphasizes the interdependency of workers and managers:</p> <ul style="list-style-type: none"> <li>• Organized around the need for educational improvement</li> <li>• Mutual legitimization of the skill and capacity of management and union</li> <li>• Interest-based bargaining</li> <li>• Broad scope contracts and other agreements</li> </ul> <p>Motto: “If you don’t look good, we don’t look good.”</p>
<p>Emphasizes protection of teachers:</p> <ul style="list-style-type: none"> <li>• Self-interest</li> <li>• External quality control</li> </ul> <p>Motto: “Any grievant is right.”</p>	<p>Emphasizes protection of teaching:</p> <ul style="list-style-type: none"> <li>• Combination of self-interest and public interest</li> <li>• Internal quality control</li> </ul> <p>Motto: “The purpose of the union is not to defend its least competent members.”</p>

Source: Kerchner & Koppich, 1993.

## ***Professional Development***

Bascia (2000) reviews union engagement in professional development and classifies professional development into three different types: traditional, new unionism, and organizational involvement. Traditional professional development, frequently negotiated into a contract, most often involves workshops or short conferences. They convey what Bascia calls a “technical conception of teaching” and generally emphasize the transmission and easy adoption of generic skills. “Teachers spend most of these days being talked at rather than working together, and the post-workshop follow-through or connections to actual teaching practice are rare” (Bascia, 2000, p. 389) and have little impact on teaching (Cochran-Smith & Lytle, 1992).

Professional development linked to new unionism ideas are generally more ambitious, “driven by teacher’s needs to solve the real and specific problems with which they are confronted in their own classrooms and schools” (Bascia, 2000, p. 390; see also Bascia, 1994, 1998). These may involve initial teacher training and induction, coaching and mentoring, and the involvement of teachers in decision-making practices. Some involved pre-packaged programs such as Total Quality Management and some are homegrown. (See Bascia, et al., 1997, for a review of the NEA’s Learning Laboratories Network.) She notes the increasing practice of using school level committees as a way to determine how the time and funds allocated to professional development are to be used.

Bascia’s third type of professional development are those individual opportunities teachers create to expand their professional, intellectual, and social horizons through their unions. These kinds of learning take teachers outside the confines of their work and blurs the distinction between classroom teaching and a commitment to students and curriculum, and “the kinds of organizational and political work typically perceived as administration or leadership” (Bascia, 2000, p. 394).

We found few studies about the efficacy of professional development. One study conducted in Israel, found that in-service education, a frequent topic of labor negotiations, led to an improvement in achievement test scores and proved cost-effective (Angrist & Lavy, 2001).

## **Rewards and Incentives**

Research into the effects of unionism on teacher rewards and incentives are considered in four categories: the research on salaries and benefits, for the most part carried out in the 1970s and 1980s; research on changes in the teacher compensation systems, most of it quite recent; research on job satisfaction and unionism; and research on the unionism and the attraction and retention of teachers.

### ***Effects on Salaries and Benefits***

While there is some disagreement about the size of the union effect on teacher salaries, it is generally agreed that the effects are positive. But it is also clear that collective bargaining has not brought about a massive shift in the economic fortunes of teachers. As has been the case for the last three-quarters of a century, teachers find themselves marching in the middle ranks of the nation's wage earners, lagging much of the professional, technical and managerial work force. In the late 1980s, I compared teacher salaries over time finding that they remained in a relatively narrow band around income of all salaried workers nationwide. Teachers fared best, about 1.2 times the average wage nationally, in the early 1970s when enrollments were increasing and when teaching was feeling the effects of its first collective bargaining contracts (Kerchner, 1986). Teachers fared worst during World War II when factory wages were high, male teachers were scarce, and female teachers frequently were paid less than men.

In 1982, Lipsky reviewed the 40 or so studies of union wage impact and suggested that the weight of opinion was that the impact was in the range of 5 to 10 percent. For the period, these effects were among the lower end of wage effects found in the private sector, where union effects of 10 to 25 percent were commonly found (Ashenfelter, 1972; Lewis, 1963; Ryscavage, 1974). Most studies shared a regression technique in which a number of predictor variables are associated with a wage or salary. However, there were substantial differences in which variables were included as predictors, what is counted as salary, and what data are used to indicate unionization.

The studies that found the smallest union effect tended to be those that took state averages of salaries and regressed a number of other variables on them. Wage effects

approximating zero were found by Mitchell (1979), Balfour (1974), Kasper (1970), and Smith (1972).

Baugh & Stone (1982) conducted the first study I found in which *individual* teachers were followed. They used data from the Current Population Survey and looked at changes in teacher pay when a teacher moved from a non-union status to a union status over the course of a year. They estimated the union pay premium at 12 percent. Kleiner & Petree (1998) examined state-level salary data against the percentage of teachers covered by collective bargaining and found that the union pay differential was only about 1 percent and not statistically significant. Hoxby (1996) looked at the passage of legislation favorable to collective bargaining and district effects. In both cases, the effects of bargaining on wages were estimated at about 5 percent.

Chambers (1985, see also 1977, 1980) compared public and private school teacher wages. Although, as expected, the wages of the heavily unionized public school sector in the San Francisco area were higher than those of private school counterparts, a substantial part of the wage difference could be attributed to the *characteristics* that teachers brought to the job rather than where they worked. When teacher attributes such as the number of years taught and the possession of a teaching credential were added to the regression equations, Chambers found that the sample of private school teachers studied would make substantially less than the average public school teacher if they were to take a job in a public school. Conversely, public school teachers would make more than the average private school teacher if they were placed in the private school pay system. “On average, within our sample, public school teachers possess greater levels of those characteristics which are compensated on the market for school teachers than do teachers in other sectors” (p. 38).

Some researchers have estimated that omission of school districts, including the fiscal capacity of the districts, may lead to an over estimation of the union-wage effect (Finch & Nagel, 1984, p. 1597; Lipsky, 1982, p. 35). Particularly in affluent school districts with local taxing authority, teacher salary may be as influenced by the district’s ability to pay more than it is by the union’s ability to influence wages. Adding credence to this idea, Greenbaum (2002) found geographic correlations in the residuals from regression studies using teacher salary data from Pennsylvania public school districts.

This finding is consistent with the general economic belief that comparable school districts share a common labor market and thus draw from the same potential pool of teachers. This same geographic tendency was found in a study of Ohio districts by Ready & Sandver (1993). Using data from 1987 to 1990, they found evidence of pattern bargaining in school districts and that the patterns had significant effects on teacher salary.

Easton (1988) examined the impact of a district's ability to pay in setting salaries in Oregon school districts before and after they entered into collective bargaining. Comparing a 1969-1982 sample of districts, he found no evidence that either the ability or the willingness to pay had any effect on salary levels. However, inter-district salary comparisons significantly influenced salaries. Duplanits, Chandler & Geske (1995) studied school districts in 11 large states without collective bargaining legislation to determine the impacts of having an agreement. They found that the presence of an agreement was associated with salaries that were 9.5 percent higher and expenditures that were 15.6 percent higher.

Babcock & Engberg (1999) found that the composition of teachers within a bargaining unit strongly influenced the distribution of wages. In a study of Pennsylvania districts using 1983-1989 data, they found that in districts with high teacher tenure and where teachers were highly educated and credentialed there was a larger pay gap between the lowest and highest paid teachers. This relationship was strongest in school districts where there was vigorous community support for union activities. Their finding was consistent with that of Zwerling & Thomason (1995), who also found that the *density* or concentration of teacher unions in a state was more highly associated with higher teacher salaries than was the presence or absence of a union.

We found only one study that attempted to look at the influence of private schools on public school teacher salaries. Vedder & Hall (2000) examined data for over 600 Ohio public school districts and found that, contrary to expectations, increased private school competition is associated with higher salaries for teachers.

As I remarked in an earlier review, the union wage effect is “not the stuff out of which Porsches are purchased,” but they do reflect a handsome return on amounts teachers spend on union dues (Kerchner, 1986, p. 330). If one were to take the average

teacher salary in the United States, an 8 percent union wage premium would equate to several thousand dollars a year.

### ***Teacher Compensation Systems***

The rows and columns of what is called the “standard single salary” schedule are among the most ubiquitous characteristics of public schools, both in states that allow collective bargaining and those that do not. Although unions are frequently credited or blamed for the lack of linkage between pay and performance, the salary schedule traces its origins to pre-collective bargaining civil-service pay grades. In public education, the single salary schedule spread rapidly during and after World War II, when teachers were scarce and it became necessary for school districts to attract women by paying them as much as male teachers, who had previously been paid more. While education and years of service may, in some rough way, equate to expertise, the pay system largely ignores a direct relationship between salary and teaching effectiveness.

Despite public policy pressure to link pay and performance more directly, departures from the standard salary schedule remain controversial. Pay-for-performance plans are, however, more common in private schools than in public (Ballou, 2001). Historically, merit pay plans have been short lived, largely because of the difficulty in measuring outcomes and the perception that they are not particularly good motivators. (See Murnane & Cohen, 1986, on merit pay plans; and Chamberlin, et al., 2002, for a review of the literature on pay plans in England and Wales.)

The most comprehensive efforts to develop alternatives to the standard salary schedule have been made by Allan Odden and his associates whose systems are based on pay for added knowledge and skills (Odden & Kelley, 1996). Their efforts are extensively documented and can be accessed through the Consortium for Policy Research in Education ([www.wcer.wisc.edu/cpre](http://www.wcer.wisc.edu/cpre)). Among the documented efforts is a case study of the Cincinnati system, which was subsequently voted down by the teachers (Odden & Kelley, 2000).

In 1998 the Florida legislature mandated that part of teacher compensation be related to performance. Conley, et al. (2001), describe how the Brevard County teachers responded and the plan they negotiated to link part of pay to professional development



and part to student results. About one-third of the district's teachers participated in the voluntary program. Most chose to seek additional compensation based on student test scores.

The largest current experiment in alternative pay ideas is taking place in Denver, and is still a work in progress. In March 2004, members of the Denver Classroom Teachers Association voted to support the experiment by a margin of 59 to 41 percent. The plan now goes to the voters, who would have to agree to a tax hike to pay for the salary increases within the proposal (Kelley, 2004a, 2004b). The union and the district started a pilot program four years ago (Janofsky, 1999) that linked a very small percentage of teacher pay to student performance, but aspects of that plan proved hard to administer and were unpopular. The program design was altered incorporating goal-setting while giving teachers more options for earning merit raises. An evaluation of the pilot program showed that setting substantial and specific goals was associated with student achievement even if the goals were not met (Community Assistance and Training Center, 2001).

### ***Job Satisfaction***

The general rule about unionized employees is that they complain more but quit their jobs less than is the case with other workers. A bargained contract, better wages and benefits, a grievance system, and an organizational voice in their future *does not* appear to be strongly associated with employee satisfaction, either in the private sector or in public school teaching (Freeman & Medhoff, 1984, pp. 137-140). Cooke (1982) studied Michigan teachers in 1979 and found them less satisfied with their jobs and more likely to experience problems than the average American worker. Eberts & Stone (1984, pp. 82-83) found teachers in unionized schools less satisfied with their schools than those in non-union settings. However, Kowalczyk (1982) found that teachers in Michigan who perceived that their union was effective were more satisfied with their jobs than those who did not.

## ***The Attraction to Teaching***

Figlio's 2002 econometric study asks: Can public schools buy better qualified teachers? Using data from the 1987 Census of Governments and the 1993 School and Staffing Survey, Figlio assessed 188 public school districts looking for teachers who attended selective colleges. He found that non-union school districts (presumably mostly in right-to-work states) had a significant positive relationship between the district's salaries and the probability of hiring well-qualified teachers. This relationship was not found in unionized school districts.

In a New York state study, Eberts (1982) found that the presence of collective bargaining has little effect on teacher turnover and staffing. Class size provisions, however, do affect mobility. In a later study of 12,000 teachers in New York, Eberts (1987) found that many bargained provisions were not associated with teachers leaving their jobs. However, reductions-in-force provisions and class-size limitations reduce probability of teacher resignation or dismissals. Using New York state data from the mid-1970s, Rees (1991) found that teachers with the strongest types of grievance procedures in their contracts had a lower probability of quitting than those working under weaker grievance procedures.

## ***Teacher Assessment***

Peer review started in 1981 when the Toledo, Ohio, schools and the Toledo Federation of Teachers added a one-sentence clause to the contract by which teachers agreed to police the ranks of their veterans in return for the right to review new teachers. Since then, peer review has spread among progressive districts and both the AFT and NEA now support peer review, the latter having changed its position in an historic policy shift in 1997. Interest in peer review has increased in the wake of the NEA's policy change. In May 1998, a peer review conference sponsored by the Columbus, Ohio, local drew more than 500 participants from 30 states (Bradley, 1998). Among the districts with active peer review programs are: Poway, California; Hammond, Indiana; Minneapolis, Minnesota; Rochester, New York; Columbus, Ohio; Pittsburgh, Pennsylvania; and Seattle, Washington. In 1999, the California legislature followed Gov.

Gray Davis' proposal and provided strong incentives for school districts to adopt peer review.

In a detailed case study, Goldstein (2003) describes one California school district and union effort at implementing that state's peer assistance and review statute. Goldstein followed the effort for two and a half years, spending more than 500 hours observing the process, interviewing participants and surveying them. She found that despite the ambiguity inherent in the peer review authority structure, teachers exercised responsibility for decisions. Both the peer review panel and the principals granted increased decisional authority to the consulting teachers. They were perceived as experts in providing high-quality support and evaluations, in large part because they had spent time working with teachers and because their evaluations were based on explicit standards.

However, Goldstein also found that the idea of distributive leadership was less than fully accepted. School administrators were never completely comfortable with the new evaluative roles for teachers, and they steadily moved toward a more specified or codified role for themselves.

Goldstein found that the Peer Assistance and Review Panel—on which the union serves—was key in shaping the new roles for teachers. Rather than peer review being simply a shift from administrative judgment and responsibility to teacher judgment and responsibility, the PAR panel required that judgments be anchored in data that could be defended before the panel. This made the evaluation process open for examination (Goldstein, 2003, p. 170).

Goldstein did not start out to study teacher unions; she was more interested in peer review as a case of teachers taking on new roles. But she found that the union and its leadership were instrumental in making PAR work. "It was the union president who pushed for PAR prior to passage of [the state peer review statute] AB1X. His willingness to forge a positive relationship with school district officials, and then his willingness to vote to non-renew teachers through PAR, was contrary to many people's perception of teachers' unions. Yet it was his support that made the program, and the task-division possible" (p. 177). The union was also important because it defended PAR against the instincts of a new superintendent after peer review had been in existence for only a year.

The new superintendent held a “firm conviction that principals needed to be instructional leaders” and went along with peer review only “*because it had been signed into the contract*” [emphasis added] (p. 177).

Kelly (1998) describes four districts—two AFT and two NEA—and their peer review programs. He describes the structure of the peer review programs and their operation and many of the internal tensions that unions face when starting such efforts, for example, the issues surrounding the union’s duty of fair representation. He also discusses the cross-pressures on union leaders to “stop doing management work” on the one hand and to answer members who say “We’re tired of our union protecting people that are struggling or are incompetent” on the other (p. 21).

Like other reports, Kelly notes that generally peer review programs were tougher than the typical administratively driven review program. About 7 percent of novices were not retained and, in the majority of cases, interventions with senior teachers were not considered successful.

We found three studies and commentaries written by participants in peer review. Waters & Wyatt (1985) describe the origins and operation of the Toledo, Ohio; program. Rogers & Threatt (2000) describe Mt. Diablo, California, and attribute their adoption of peer review to a relationship of trust and mutual respect between the school district and the union. VanZant, Razska, & Kutzner (2001) describe the Poway, California, peer review program that is part of a comprehensive teacher support system linked to student learning.

Perhaps the most detailed single-district case study describes the Rochester, New York, Career in Teaching program, which has been in place since 1987 (Koppich, Asher & Kerchner, 2002; see also Kerchner & Koppich, 1993). The program includes mentoring new teachers, an intervention and professional support program for tenured teachers whose professional practice is in serious jeopardy, and an alternative evaluation program to the traditional administrative-driven assessment. The case provides a detailed description of the program and its history, and short descriptions of the participants at work. For example, the reader can follow veteran teacher Susan Salzman as she observes a novice trying to use the Socratic method with unresponsive students whose reluctance traps the teacher into doing most of the talking. Or listen to Edie Silver describe trying to

develop trust with a teacher who had been placed on intervention and was so terrified of the process that she would only meet her mentor in a local pool hall. The due process procedures, and even some of the forms used, are illustrated.

Rochester's peer review programs, and its other reforms, have been among the most publicized in the country, and among the most criticized. The reforms were declared a shambles by an investigative journalist (Boo, 1992) and several years after the reforms were put into place the reforms were declared a failure by local observers. A task force of prominent citizens, commissioned by the mayor, declared that the situation was worsening (see Murray, 1997, footnotes 4 and 5). However, a review of the reforms 10 years after their onset by Murray, Grant & Swaminathan (1997) concluded that Rochester was on the right track "particularly in the efforts district teachers have made to take charge of their practice" (p. 148). The authors lauded the Career in Teaching program while noting that change has been slow and painful.

Our analysis suggests a number of factors that have contributed to the difficulty of making the vision of Rochester's reforms a reality. These include an increasingly needy student population, the inability of the community to become unified in support of restructuring efforts, lack of organizational change to support reforms, and the need for more teachers to become engaged in changing their practice and their schools. (Murray, Grant & Swaminathan, 1997, p. 151)

The most critical response to teacher peer review comes from Lieberman (1998), who has also been critical of union reforms, collective bargaining and teacher unions (1997) and public education in general (1993). Lieberman questions the cost of peer review programs relative to their benefit, and suggests that they have been adopted more as a union power play than as an exemplary program. He sees these and other unionism ideas on reform as unwarranted expansions of union authority into managerial prerogatives.

## **Studies of the Bargaining Process and Impact**

Studies of the bargaining process—and texts on how to be successful—extend virtually to the beginnings of widespread teacher negotiations (Wollett & Chanin, 1974; Cresswell & Murphy, 1980.) Susan Moore Johnson's *Teacher Unions in the Schools* (1984) is the first scholarly investigation of the interaction between bargaining, teaching,

and school operations, distilling hundreds of interviews and 2,500 pages of field notes into a slim volume of insights into what collective bargaining produces. Unlike the alarmists of the time, or of this time, Johnson found that the onset of bargaining had not produced armed camps, and that the parties were trying to make collaboration work. She found that contract negotiations were always linked to a school district's economic and social context. And she was among the first to point out that what was negotiated was not always implemented, a theme that would return in studies of using collective bargaining to spur education reform.

Based on 11 interviews with principals in New York City, Ballou (1999) concludes that the teachers' contract complicates transfer decisions and makes employee discipline less likely. Principals also complained about rigid work rules, class size limitations, and the need to specify preparation periods.

All occupations are shaped by a web of rules, the labor contract being among the most visible (Dunlop, 1958). Thus, one can look for effects of unionization in new rules that change working conditions and activities. A new schedule, team teaching, subject matter specialization, a homework policy, or working with a paraprofessional changes the core of teaching, not just the conditions under which it takes place. Scholars who have engaged the exacting, tedious work of examining and classifying thousands of pages of union contracts have produced a nearly universal conclusion: Contracts have extended well beyond traditional bread-and-butter issues into areas of organizational policy. Over time the scope of the contract expands in most jurisdictions.

Schwartzrock (2003) studied the effects of restrictive state legislation on the scope of bargaining in Oregon. In 1995, the Oregon Public Sector Collective Bargaining Act was amended to narrow the scope of bargaining. The study compared contracts from just before the legislation took place with those in 2000. It found that the legislation had little effect on what was actually negotiated. Prior to the legislation, districts were agreeing to language on subjects over which they had no statutory duty to bargain, and this pattern continued. Indeed, the effective scope of the agreements expanded.

Schwartzrock's research is consistent with earlier work showing that the effective scope of bargaining expands over time. McDonnell & Pascal (1979a) found extensive bargaining over non-compensation issues. Goldschmidt et al. (1984) found curriculum,

class size, teacher selection and assignment, and special education in many contracts. In a comparative study of the same contracts 10 years later-Hull (1994) found that the number of educational policy provisions had increased.

Most of the large-scale contract analysis studies date from the 1980s. An examination of five large contract studies shows that the hours-conditions and duties of work are increasingly a matter of contractual agreement (Eberts & Stone, 1984); Goldschmidt et al, 1984; Johnson, Nelson & Potter, 1985; McDonnell & Pascal, 1979; Simpkins, McCutchen & Alec, 1979. Provisions for adjudicating grievances, often referred to as the heart of the contract because they make the other parts more easily enforceable, have become nearly universal. Provisions for school hours have increased in frequency and have become nearly universal in larger school districts. Class-size requirements are present in almost half of the districts, although there is some evidence that the prevalence of these provisions is declining. (It should be noted that none of the studies uses exactly the same classification scheme, and none reports a classification of all contractual items. Also, the Simpkins et al. report relies on questionnaires from school districts rather than on contracts themselves.)

McDonnell & Pascal's (1979b) comparison of 150 school district contracts demonstrates the extent to which labor contracts have become the vehicle for dealing with a school district's current problems. For example, it noted the rapid increase in reduction-in-force procedures from 11 percent in 1970 to 37 percent in 1975, which occurred during a time of real and projected enrollment declines that presented schools (and unions as teachers' representatives) with the need for an orderly way to dismiss teachers. Transfer criteria also became more common. By the time of Johnson's 1984 study, voluntary transfer criteria were present in 57 percent of agreements and involuntary transfer criteria were present in 60 percent. Increasing attention was also given to dismissals and teacher evaluation.

Clearly, the scope of teacher labor contracts has expanded over the years, and in this way teacher labor relations mirror those of other workers (Weitzman, 1974). However, the expansion of bargaining has been interpreted quite differently. Most frequently, expansion of the scope of bargaining is seen in terms of intrusion into managerial prerogatives or policy areas reserved for public determination. Much of the

critique of bargaining from the citizen's action perspective takes this tack (Cheng, 1976; Englert, 1979; Institute for Responsive Education, 1975; Pierce, 1975). The vision is of labor pushing to expand and management resisting. There are suggestions, however, that this is not always the case. The scope of labor contracts also expands through the common desires of the parties to solve problems and through pressure from management to formalize or specify its rights (Kerchner, 1978; Mitchell, Kerchner, Erck, & Pryor, 1981). Sometimes these management-inspired changes take the form of rollbacks or takebacks of past concessions (Eberts & Stone, 1984, pp. 25, 28; Perry, 1979, p. 16), but they can also serve as evidence that management has become the aggressive party in labor relations seeking to "manage through the contract rather than around it" (Mitchell et al., 1981, p. 183). Eberts & Stone (1984, p. 25), for instance, show that the number of districts in which class size appears in contracts and where class size is a grievable item declined markedly in Michigan school districts between 1972 and 1976. These changes appeared unrelated to the financial condition of the district or changes in enrollment (Eberts & Stone, 1984, p. 35). Johnson, Nelson, & Potter (1985, pp. 117-124) show the managerial influence quite clearly. A management rights clause was found in 66 percent of the contracts, and while teacher assignment was considered in 92 percent of the contracts, 27 percent of those contracts had clauses saying that assignment was the province of administrative discretion, and an additional 19 percent had teacher preference clauses, such as: "To the extent that [teachers'] wishes do not conflict with the instructional requirements and best interests of the school system and the pupils, [they will be granted]" (Johnson, Nelson, & Potter, 1985, p. 118). There were also strong managerial influences apparent in transfer clauses. Hoynes (1999) compared contract language in 83 matched pairs of Ohio districts with in which one district used traditional bargaining strategies and the other used interest-based bargaining. Interest-based bargaining resulted in more gains in contract language, but the difference was not statistically significant.

Some researchers trace a greater union effect on teacher work activities and conditions to sources outside the contract than to the contract itself (Jessup, 1985; Mitchell et al., 1981; Perry, 1979). Perry and Wildman (1970) pointed to the significant potential for union influence through consultation at central and school levels. In a



restudy of some of the same districts, Perry (1979) found increases in the number of joint committees, particularly in large cities, “assigned tasks ranging from reviewing the schedule of increments for extracurricular activities to evaluating a teacher-aide program and developing a teacher evaluation program” (p. 16). Perry’s finding about increased regular contact between union and management is also evident in studies of New York City (Klaus, 1969), Chicago (Grimshaw, 1979), and, to a limited extent, Los Angeles (Thomas, 1982). However, it is not universal. Eberts & Stone’s (1984, p. 28) analysis of New York and Michigan contracts and Kerchner & Mitchell’s (1981, pp. A22-A40) ethnographic studies suggest that in some cases unions abandon interactionist roles and confine themselves to teacher protection issues. This is particularly the case during periods of prolonged high conflict.

Several recent studies examined bargaining behaviors and trust. Baker (2001) studied the formation of trust in eight Arizona districts. She found that districts with strong unions produced behaviors that were associated with high trust more than did districts with weak teacher organizations. “Participants in high union strength districts tended to view information flow as a tool for problem solving. Participants in low union strength districts tended to view information flow as a mechanism of hierarchical control” (p. 115). Further, participants in high union strength districts valued the *relationship* with the other party as much as they valued any particular outcome.

Boehlert (2001) surveyed 880 New York state superintendents and union presidents to identify variables associated with a positive relationship between labor and management. Three items, of the 44 inquired about, were associated with good relationships: high levels of trust, shared decision making, and staff development. Lambert (1988) compared two junior high schools in Utah to look at the process of fractional or informal bargaining for subgroups of employees. It was found that the behaviors involved in fractional bargaining resembled those in integrative bargaining (Walton & McKersie, 1962) and produced high trust. Sears (2000) examined the impact of formula-based compensation systems in California according to the perceptions of administrators and labor attorneys. The panel concluded that a formula-driven compensation system dampened antagonism and increased feelings of fairness among teachers. Falvey (2003) studied perceptions of bargaining participants in four Florida

districts and found that they felt their relationship was more collaborative than adversarial.

## **Conclusion: A “Bargaining Book” for Student Achievement**

The research literature from the last three decades clearly shows teacher unions at work on issues of student achievement and educational quality. Some observers will find clear and convincing evidence in the relationships between unionization and student achievement; others will not. But the results of most social science research are ultimately not very helpful to unionists or to public policy makers who have to deal in practical ways with the impacts of unions and their rights to represent public school employees. Other than enter the arena of politics with judgments that unions are good or bad, these studies don't help policy makers with the key question of: How would public policy or union operations make unions better producers of student achievement? Or in the common teacher refrain, “It doesn't tell us what to do on Monday.”

Large-scale studies, such as most of those reviewed in the section on student achievement, necessarily rely on highly standardized data. When comparing school districts, for example, there must be a single definition of dropping out of school or a single measure of student achievement, such as a score on a widely administered examination, such as the SAT. These studies, however, provide very little guidance to teachers, unionists, school administrators, or active citizens about how to conduct labor relations: what to bargain for, what to fight for, what to forge coalitions about. For answers to these research questions, other forms of research are needed. Much richer classroom, school, and community-based research may not have the characteristics necessary for statistical reliability across sites, but it may be much more robust in asking the question: What effect is the union having? (See Bryk & Hermanson, 1993, on constructing multiple levels of educational indicators.)

Gross measures of achievement are not very helpful when assessing local union activities. Suppose, for example, it was observed that the pass rates on the state high school examination went up during a period of labor-management cooperation. Suppose

it went down. We could not reasonably infer from either change that labor-management relations of a particular type *caused* a change in an academic measure. There are simply too many other variables involved.

However, there are several types of evidence that unions might gather that would be believable by their membership and by the critical public. For example, one might start with what can be called the arguable antecedents of achievement. What are aspects of schooling that are most frequently associated with student achievement? Even here, there is no universal agreement among researchers, but a quarter-century of research on achievement suggests that school factors count heavily. There is enormous variation in success rates among schools in similar circumstances, even in high poverty schools.

As one looks at the literature, including the studies reviewed here, one can see a number of key factors that teacher unions heavily influence, or arguably could. In most collective bargaining situations, negotiators for both labor and management are advised to keep what is called a “bargaining book.” Every issue that arises during the course of a contract period is noted in the book, and the totality of the notes becomes the beginning point for the next round of bargaining. If a particular leave or transfer clause, for example, has become the object of contention or disagreement, then logically fixing the ambiguity in the clause or the apparent lack of understanding about its administration becomes a very likely topic in negotiations.

School districts and unions might well extend the bargaining book idea to educational topics. With relatively little self-discipline, local leaders and building representatives might record those aspects of daily union work that are related to student achievement and the extent to which these presented issues for collective bargaining or other interactions with school managers. The result would be both a reflective work diary and an agenda for action.

At the most basic level, look to see if the school’s *outcomes* are good ones. The current test-score mania is providing schools a great deal of outcome data, along with enormous intrusion into the daily work of teachers. Unfortunately, most of these data are collected for compliance purposes rather than for the purposes of reflection and action by school staff. Simple and straightforward protocols are available for use by schools and by teacher leaders who are unafraid to look student achievement in the face (for example,

see Reeves' guides to standards-based education [2000, 2002]). One of my favorite examples of a single outcome question is to ask, as Murnane & Levy (1996) suggest, "How are students doing who left this school five years ago?" In many ways, collecting data on former students provides a school with a better look at its educational effects than a single test score. High school and middle school students would have graduated, or not. Elementary school students would have shown clear indications about whether they were going to thrive in school. Methodologically, it is not too hard for schools or union leaders to look at graduates and ask themselves whether they are happy with what they see.

Then look for *activity* that links the union with student achievement. When union and management representatives meet, do they discuss student achievement and ways to make it better? Is student achievement discussed when contracts are negotiated? Are agreements reached or do these issues "fall off the table"? Does attention to student achievement become part of training for building representatives or for principals and assistants?

At the level of *policies and procedures*, look at those areas commonly thought to influence student achievement.

1. Recruitment and induction.
  - a. Are there aspects about the contract or the working relationship that makes it easier or harder for the district to hire high quality teachers?
  - b. Does the district often lose teachers to other schools?
  - c. Does it have a difficult time hiring teachers in certain subject areas, such as math and science or special education?
  - d. How does the union socialize new teachers to their work?
  - e. How does it help them in their early years?
2. Professional development. How do labor relations affect: continuing training for teachers, advanced skills, the ability and capacity of experienced teachers to help novices?

3. Evaluation. How do labor relations affect: the intensity with which teachers are evaluated, teachers engagement with each other in evaluation, the extent to which quality teaching standards are well understood in schools and are part of the evaluation process, and the ability to assist or remove teachers who are clearly not performing?
4. Rewards and incentives. How do labor relations affect: the ability of schools to attract and retain good teachers, to motivate staff and students toward achievement?
5. The extent to which schools are organized around learning (what the research literature calls academic press): Are the agendas of school meetings devoted to achievement issues, or perfunctory announcements? Is the talk in the teachers' lounge about student achievement? Do students have a clear idea of what is expected of them and about the consequences of their choices?
6. The extent to which students are deeply engaged in learning. How is class time spent? Are interruptions tolerated? Do students learn skills of self-control and guidance?
7. A safe and orderly environment for learning: How does the school deal with disturbance? Where is the dividing line between legitimate student voice and disruptive behavior? What role does the union play in enunciating and enforcing a safe environment?
8. The use of time.
  - a. How much time is taken up by testing other than that connected to instruction?
  - b. How much of the school day and of classroom periods is taken up with non-instructional activity?
9. Class size. Do teachers in smaller classes actually teach differently than those in larger classes? When class size reductions are negotiated, is there a parallel effort to change teaching practice to take advantage of the smaller classes?
10. Meetings. How much of the time is taken up with routine announcements and admonishments? What percentage of the teachers ever raised a substantive

educational issue? What percentage of the issues raised by teachers could fairly be called gripes rather than either professional or academic issues?

Armed with data like these, it would not take long for union-building representatives and local leaders to come up with an agenda that explicitly links union activity to student achievement in specific schools and districts. By taking specific local actions, unions would have the capacity to regain some of the momentum toward school achievement that has been lost to curriculum centralization, managerialism, and test-driven operations.

## References

- Angrist, J., & Lavy, V. (2001). Does Teacher Training Affect Pupil Learning? *Journal of Labor Economics*, 19(2), 343-369.
- Argys, L., & Rees, D. (1995). Unionization and School Productivity: A Reexamination. *Research In Labor Economics*, 14, 49-68.
- Ashenfelter, O. (1972). Racial Discrimination and Trade Unionism. *Journal of Political Economy*, 80, 435-464.
- Babcock, L., & Engberg, J. (1999). Bargaining Unit Composition and the Returns to Education and Tenure. *Industrial and Labor Relations Review*, 52(2), 163-178.
- Bacharach, S., Bamberger, P., & Conley, S. (1990). Professionals and Workplace Control: Organizational and Demographic Models of Teacher Militancy. *Industrial and Labor Relations Review*, 43(5), 570-585.
- Baker, D. (2001). *Behaviors Influencing Trust Between Superintendent and Teacher Employee Group*. Unpublished doctoral dissertation, Arizona State University, Tempe.
- Balfour, G. A. (1974). More Evidence that Unions Do Not Achieve Higher Salaries for Teachers. *Journal of Collective Negotiations*, 3, 289-303.
- Ballou, D. (2001). Pay for Performance in Public and Private Schools. *Economics of Education Review*, 20(1), 51-61.
- Ballou, D., & Podgursky, M. (2000). Gaining Control of Professional Licensing and Advancement. In T. Loveless (Ed.), *Conflicting Missions? Teacher Unions and Education Reform* (pp. 69-109). Washington, D.C: Brookings Institution Press.
- Bascia, N. (1994). *Unions in Teachers' Lives: Social, Intellectual, and Practical Concerns*. New York: Teachers College Press.
- Bascia, N. (1997). Invisible Leadership: The Roles of Union-Active Teachers in School. *Journal of Educational Research*, 43(3), 69-85.
- Bascia, N. (1998). The Next Steps in Teacher Union Research and Reform. *Contemporary Education*, 49(4), 210-213.
- Bascia, N. (1998). Women Teachers, Union Affiliation, and the Future of North American Teacher Unionism. *Teaching and Teacher Education*, 14(5), 551-563.
- Bascia, N. (2000). The Other Side of the Equation: Professional Development and Organizational Capacity in Teachers' Organizations. *Education Policy*, 14(3), 385-404.

- Bascia, N. (2004). Teacher Unions and The Teaching Workforce: Mismatch or Vital Contribution? In M. Smylie & D. Miertzky (Eds.), *Developing the Teacher Work Force*, 103, 326-347. Chicago: National Society for the Study of Education.
- Baugh, W., & Stone, J. A. (1982). Teachers, Unions, and Wages in the 1970s: Unionism Now Pays. *Industrial and Labor Relations Review*, 35, 368-376.
- Bernstein, E. (2003). *A Journey Toward Professional Unionism: The Struggle For Transformation of a Local Teachers' Union*. Unpublished PhD dissertation, University of New Mexico, Albuquerque.
- Boehlert, L. (2001). *Variables that Contribute to Positive Superintendent-Union President Relationships*. Unpublished dissertation, Vanderbilt University, Nashville.
- Boo, K. (1992, October). Reform School Confidential. *The Washington Monthly*, 17-24.
- Boyd, W. L., Plank, D. N., & Sykes, G. (2000). Teachers Unions in Hard Times. In T. Lovelace (Ed.), *Conflicting Missions: Teachers Unions and Educational Reform* 174-210. Washington, D.C.: Brookings Institution Press.
- Bradley, A. (1998, June 3). Peer-Review Programs Catch Hold as Unions, Districts Work Together. *Education Week*, pp. 1.
- Bryk, A. S., & Hermanson, K. L. (1993). Educational Indicator Systems: Observations on Their Structure, Interpretation and Use. In L. Darling-Hammond (Ed.), *Review of Research in Education*, 19, 405-450. Washington, D.C.: American Educational Research Association.
- Burton, J., & Krider, C. (1970). The Role and Consequences of Strikes by Public Employees. *The Yale Law Review*, 79, 418-433.
- Castillo, X. (2000). *A TURN-ing Point for Teacher Union Locals: A Case Study of Los Angeles, Minneapolis, and Rochester*. Unpublished doctoral dissertation, University of California, Los Angeles.
- Chamberlin, R., Wragg, T., Haynes, G., & Wragg, C. (2002). Performance-Related Pay and the Teaching Profession: A Review of the Literature. *Research Papers in Education: Policy and Practice*, 17(1), 31-49.
- Chambers, J. (1977). The Impact of Collective Bargaining for Teachers on Resource Allocation in Public School Districts. *Journal of Urban Economics*, 4, 324-339.
- Chambers, J. (1980). *The Impact of Bargaining and Bargaining Statutes on the Earnings of Public School Teachers: A Comparison in California and Missouri*. Stanford: Institute for Educational Finance and Governance.



- Chambers, J. (1985). *Patterns of Compensation of Public and Private School Teachers*. Stanford: Institute for Educational Finance and Governance.
- Chase, B. (1999a, Feb. 18). Education's Brave New World: Keeping our Schools Public by Holding Them Accountable to Higher Standards, Remarks at Town Hall Meeting in Los Angeles, National Education Association.
- Chase, B. (1999b, March 4). Lead, Follow, and Get Out of the Way, Remarks presented at the National Press Club, Washington, DC, National Education Association.
- Cheng, C. (1976). Community Representation in Teacher Collective Bargaining. *Harvard Educational Review*, 46, 153-174.
- Clowes, G. A. (2001). *Is Unionization of Teachers Good for Students?* The Heartland Institute. Available: [www.heartland.org/ID=9912](http://www.heartland.org/ID=9912) (2004, May 17).
- Cole, S. (1969). *The Unionization of Teachers: A Case Study of the UFT*. New York: Praeger.
- Community Assistance and Training Center. (2001). *Pathway to Results: Pay for Performance in Denver*. Boston: Author.
- Conley, S., Gould, J., & Muncey, D. (2001). Negotiating a Local Pay for Performance Program Encouraged by State Mandate. *Journal of Personnel Evaluation in Education*, 15(2), 137-148.
- Cooke, R. (1982). Michigan Teachers versus a National Sample of Workers on Quality of Work Life. *Phi Delta Kappan*, 63(9), 636-37.
- Cooper, B. S. (2000). An International Perspective on Teachers Unions. In T. Loveless (Ed.), *Conflicting Missions? Teacher Unions and Education Reform*, 240-280. Washington, D.C. Brookings Institution Press.
- Cooper, B. S. (Ed.). (1992). *Labor Relations in Education--International Perspectives*. Westport, Connecticut: Greenwood Press.
- Cresswell, A. M., & Murphy, M. J. (1980). *Teachers, Unions, and Collective Bargaining in Public Education*. Berkeley, California: McCutchan.
- Darling-Hammond, L. (1997). *The Right To Learn: A Blueprint for Creating Schools that Work*. San Francisco: Jossey-Bass.
- Delaney, J. (1983). Strikes, Arbitration, and Teacher Salaries: A Behavioral Analysis. *Industrial and Labor Relations Review*, 36(3), 431-446.

- Dunlop, J. T. (1958). *Industrial Relations Systems*. New York: Holt.
- Dunn, R. (1991). *Teacher Unionism and Empowerment in Rural Illinois School Districts*. Unpublished dissertation, University of Illinois, Urbana-Champaign.
- Duplantis, M., Chandler, T., & Geske, T. (1995). The Growth and Impact of Teachers' Unions in States without Collective Bargaining Legislation. *Economics of Education Review*, 14(2), 167-178.
- Easton, T. (1988). Bargaining and the Determinants of Teacher Salaries. *Industrial and Labor Relations Review*, 41(2), 263-278.
- Eberts, R. (1982). *Unionism and Non-Wage Effects: A Simultaneous Equations Model*. University of Oregon, Eugene.
- Eberts, R. (1987). Union-Negotiated Employment Rules and Teacher Quits. *Economics of Education Review*, 6(1), 15-25.
- Eberts, R., & Stone, J. (1987). Teacher Unions and the Productivity of Public Schools. *Industrial and Labor Relations*, 40, 354-363.
- Eberts, R., & Stone, J. (1984). *Effect of Collective Bargaining on American Education*. Lexington, Heath.
- Englert, R. (1979). *Third-Party Participation in the 1978 Teacher Negotiations in Philadelphia: The Politics of Bargaining*. Paper presented at the American Educational Research Association, San Francisco.
- Falvey, A. (2002). *Adversaries and Collaborators in Collective Bargaining Negotiations between Teacher Unions and School Districts: Perceptions of Key Stakeholders in Florida Public Schools*. Unpublished doctoral dissertation, University of Central Florida, Orlando.
- Feldman, S. (2001). *Everyone Wins*. United Teacher. Available: [www.aft.org/stand/previous/2001/0401.html](http://www.aft.org/stand/previous/2001/0401.html) (2004, May 17).
- Figlio, D. (2002). Can Public Schools Buy Better-Qualified Teachers? *Industrial and Labor Relations Review*, 55(4), 686-99.
- Finch, M., & Nagel, T. (1984). Collective Bargaining in the Public Schools: Reassessing Labor Policy in an Era of Reform. *Wisconsin Law Review*, 1573-1670.
- Freeman, R., & Medoff, J. (1979). The Two Faces of Unionism. *The Public Interest*, 57, 69-93.
- Freeman, R., & Medoff, J. (1984). *What Do Unions Do?* New York: Basic Books.

- Friedman, D. D. (1993). Comments on Peltzman--the Political Economy of the Decline of American Public Education. *Journal of Law & Economics*, 36(4), 371-378.
- Fuller, H. L., Mitchell, G. A., & Hartmann, M. E. (2000). Collective Bargaining in Milwaukee Public Schools. In T. Loveless (Ed.), *Conflicting Missions: Teachers Unions and Educational Reform*, 110-149. Washington, D.C.: Brookings Institution Press.
- Goldschmidt, S., Bowers, B., Riley, M., & Stuart, L. (1984). *The Extent and Nature of Educational Policy Bargaining*. University of Oregon, Eugene.
- Goldstein, J. (2003). *Teachers at the Professional Threshold: Distributing Leadership Responsibility for Teacher Evaluation*. Unpublished dissertation, Stanford University.
- Greenbaum, R. (2002). A Spatial Study of Teachers' Salaries in Pennsylvania School Districts. *Journal of Labor Research*, 23(1).
- Grimes, P., & Register, C. (1990). Teachers' Unions and Student Achievement in High School Economics. *Journal of Economic Education*, 21(4), 297-306.
- Grimes, P., & Register, C. (1991). Teacher Unions and Black Students' Scores on College Entrance Exams. *Industrial Relations*, 30, 492-500.
- Grimshaw, W. (1979). *Union Rule in the Schools*. Lexington, Massachusetts: Lexington Books, D.C. Heath.
- Hoxby, C. (1996). How Teacher Unions Affect Education Production. *Quarterly Journal of Economics*, 111, 670-718.
- Hoxby, C. (1996, October 31). Unions' Effect on Schools: Letters to the Editor. *Wall Street Journal*, pp. A22.
- Hoynes, J. (1999). *A Comparison of Contract Language in Ohio School Districts: Interest-Based Bargaining vs. Traditional Bargaining*. Unpublished doctoral dissertation, Kent State University, Cleveland.
- Hull, S. L. (1994). *Educational Policy Bargaining in an Era of School Reform*. Unpublished doctoral dissertation, University of Oregon, Eugene.
- Institute for Responsive Education. (1975). *The Community at the Bargaining Table*. Boston: Author.
- Janofsky, M. (1999, Sept. 10). For Denver Teachers, a Pay-for-Performance Plan. *New York Times*, pp. A19.
- Jessup, D. (1985). *Teachers, Unions, and Change: A Comparative Study*. New York: Praeger Publishers.

- Johnson, C., & Taylor, R. (2001). Excellence for All in Minneapolis. *Educational Leadership*, 58(6), 55-59.
- Johnson, S. M. (1984). *Teacher Unions in Schools*. Philadelphia: Temple University Press.
- Johnson, S. M. (1989). Bargaining for Better Schools: Reshaping Education in the Cincinnati Public Schools. In J. M. Rosow & R. Zager (Eds.), *Allies in Education Reform: How Teachers, Unions, and Administrators Can Join Forces to Better Schools*, 124-145. San Francisco: Jossey-Bass.
- Johnson, S. M. (1990). *Teachers at Work: Achieving Success in Our Schools*. New York: Basic Books.
- Johnson, S. M., & Kardos, S. M. (2000). Reform Bargaining and Its Promises for School Improvement. In T. Loveless (Ed.), *Conflicting Missions: Teachers Unions and Educational Reform*. Washington, D.C.: Brookings Institution Press.
- Johnson, S. M., N. Nelson, & Potter, J. (1985). *Teacher Unions, School Staffing, and Reform*. Cambridge, MA. Harvard Graduate School of Education.
- Karpinski, C. (2003). 'A Visible Company of Professionals': *The National Educational Association, Activists, and the Civil Rights Movement*. Unpublished dissertation, Rutgers University, New Brunswick, New Jersey.
- Kasper, H. (1970). The Effects of Collective Bargaining on Public School Teachers' Salaries. *Industrial and Labor Relations Review*, 24, 57-72.
- Keller, B. (2004a, March 23). Denver Teachers Approve Pay-for-Performance Plan. *Education Week*, 1-4.
- Keller, B. (2004b, March 31). New Pay-Plan Decision Up to Denver Voters. *Education Week*, 1-3.
- Kelly, P. (1998). *A Comparative Analysis of Teacher Peer Review Programs in Four Urban Districts: Professional Unionism in Action*. Presented at American Education Research Association Annual Meeting, San Diego.
- Kerchner, C. (1978). From Scope to Scope: The Genetic Mutation of the School Control Issue. *Educational Administration Quarterly*, 14, 64-79.
- Kerchner, C.T. (1986). Union Made Teaching: The Effects of Labor Relations on Teaching Work. In E. Rothkopf (Ed.), *Review of Research in Education*, 13, 317-352. Washington, D.C.: American Educational Research Association.

- Kerchner, C. (2001). The Struggle for the Knowledge-Based Workplace. *International Journal of Educational Management*, 15(5), 220-238.
- Kerchner, C., & Mitchell, D. E. (1988). *The Changing Idea of a Teachers' Union*. New York and London: Falmer Press.
- Kerchner, C.T., Koppich, J. E., & Weeres, J. G. (1998). *Taking Charge of Quality: How Teachers and Unions Can Revitalize Schools*. San Francisco: Jossey-Bass.
- Kerchner, C., & Koppich, J. (1993). *A Union of Professionals: Labor Relations and Educational Reform*. New York City: Teachers College Press.
- Kerchner, C., Koppich, J., & Weeres, J. (1997). *United Mind Workers*. San Francisco: Jossey-Bass.
- Klaus, I. (1969). The Evolution of a Collective Bargaining Relationship in Public Education. *Michigan Law Review*, 67, 1033-1066.
- Kleiner, M., & Petree, D. (1988). *Unionism and Licensing of Public School Teachers: Impact on Wages and Educational Output*. Chicago: University of Chicago Press.
- Koppich, J., Asher, C., & Kerchner, C. (2002). *Developing Careers, Building a Profession: The Rochester Career in Teaching Plan*. New York: National Commission on Teaching and America's Future.
- Kowalczyk, R. (1982). *Local Teacher Organizations: The Relationship Between Teacher' Perceptions of their Union and Job Satisfaction*. Unpublished doctoral dissertation, University of Michigan.
- Kurth, M. (1987). Teacher Unions and Excellence in Education: An Analysis of the Decline in SAT Scores. *Journal of Labor Research*, 8, 351-387.
- Kurth, M. (1988). Teachers' Unions and Excellence in Education: Reply. *Journal of Labor Research*, 9, 389-393.
- Lambert, V. (1988). *Examples of Fractional Bargaining in Public Schools*. Unpublished doctoral dissertation, University of Utah, Salt Lake City.
- Lawn, M. (1990). Re-inventing the Polite Trade Union? A New Teacher Unionism for the 90s. Unpublished paper.
- Lewis, G. (1963). *Unionism and Relative Wages in the United States*. Chicago: University of Chicago Press.
- Lichtenstein, N. (2002). *State of the Union: A Century of American Labor*. Princeton, New Jersey: Princeton University Press.

- Lieberman, M. (1993). *Public Education: An Autopsy*. Cambridge, Massachusetts: Harvard University Press.
- Lieberman, M. (1997). *The Teacher Unions: How the NEA and AFT Sabotage Reform and Hold Students, Parents, Teachers, and Taxpayers Hostage to Reform*. New York: Free Press.
- Lieberman, M. (1998). *Teachers Evaluating Teachers: Peer Review and the New Unionism*. New Brunswick, New Jersey: Transaction Publishers.
- Lipsky, D. (1982). The Effect of Collective Bargaining on Teacher Pay: A Review of the Evidence. *Education Administration Quarterly*, 18(1), 14-42.
- Malen, B. (1992). *Bellevue: Renewal and School Decision Making*. Claremont, California: The Claremont Graduate School, Claremont Project VISION.
- McDonnell, L., & Pascal, A. (1979a). National Trends in Collective Bargaining. *Education and Urban Society*, 11(2), 129-151.
- McDonnell, L., & Pascal, A. (1979b). *Organized Teachers in American School*. Santa Monica, California: Rand.
- Meyer, J. W., & Rowan, B. (1978). The Structure of Educational Organizations. In M. W. Meyer (Ed.), *Environments and Organizations*. San Francisco: Jossey-Bass.
- Milkman, M. (1989). *Teacher Unions and High School Productivity*. Unpublished doctoral dissertation, University of Oregon, Eugene.
- Milkman, M. (1997). Teachers' Unions, Productivity, and Minority Student Achievement. *Journal of Labor Research*, 18, 137-150.
- Mitchell, D. (1979). The Impact of Collective Bargaining on Compensation in the Public Sector. In J. Grodin & J. Stern (Eds.), *Public Sector Bargaining*. Washington, D.C.: Bureau of National Affairs.
- Mitchell, D.J.B., Kerchner, C., Erck, W., & Pryor, G. (1981). The Impact of Collective Bargaining on School Management and Policy. *American Journal of Education*, 89, 147-188.
- Moe, T. (2001). A Union by Any Other Name. *Education Next*, 1(3), 42-45.
- Murnane, R., & Levy, F. (1996). *Teaching the New Basic Skills: Principles for Educating Children to Thrive in a Changing Economy*. New York: The Free Press.
- Murnane, R., & Cohen, D. (1986). Merit Pay and the Evaluation Problem: Why Most Merit Pay Plans Fail and a Few Survive. *Harvard Educational Review*, 56(1), 1-17.

Murphy, M. (1990). *Blackboard Unions: The AFT and the NEA, 1900-1980*. Ithaca, New York: Cornell University Press.

Murphy, M. J. (1992). *School Reform and Labor Relations—Denver Style* (Project Report): Claremont Graduate School, California, Claremont Project VISION.

Murray, C., Grant, G., & Swaminathan, R. (1997). Rochester's Reforms: The Right Prescription? *Phi Delta Kappan*, 79, 148-155.

Nelis, K. (2002). How Unions Benefit Kids: New Research Dispels Myths about Unions. *New York Teacher*. Available: [www.nysut.org/newyorkteacher/2000-2001/010328unions.html](http://www.nysut.org/newyorkteacher/2000-2001/010328unions.html) [2004, May 17].

Nelson, F., & Gould, J. (1988). Teachers' Unions and Excellence in Education: Comment. *Journal of Labor Research*, 9, 379-387.

Odden, A., & Kelley, C. (1997). *Paying Teachers for What They Know and Do: New and Smarter Compensation Strategies to Improve Schools*. Thousand Oaks, California, Corwin Press, Inc.

Odden, A., & Kellor, E. (2000). *How Cincinnati Developed a Knowledge and Skills Based Salary Schedule*. Madison: Consortium for Policy Research in Education, University of Wisconsin, Madison.

Park, B. (1998). *Teacher Empowerment and its Effects on Teacher' Lives and Student Achievement*. Unpublished survey, regression analysis, University of Wisconsin, Madison.

Park, I. (2003). *A Study of the Teacher Empowerment Effects on Teacher Commitment and Student Achievement*. Unpublished doctoral dissertation, University of Iowa, Iowa City.

Peltzman, S. (1993). Political Factors in Public School Decline. *The Journal of Law and Economics*, (April), 36(3), 371-378.

Peltzman, S. (1996). Political Economy of Public Education: Non-College-Bound Student. *The Journal of Law and Economics*, (April), 39-73.

Perry, C. (1979). Teacher Bargaining: The Experience in Nine Systems. *Industrial and Labor Relations Review*, 33(1), 3-17.

Perry, C., & Wildman, W. (1966). A Survey of Collective Activity among Public School Teachers. *Educational Administration Quarterly*, 1(2), 133-151.

Perry, C., & Wildman, W. (1970). *The Impact of Negotiations in Public Education: The Evidence from the Schools*. Worthington: Jones Publishing.

- Peterson, B. (1999). Survival and Justice: Rethinking Teacher Union Strategy. In B. Peterson & M. Charney (Eds.), *Transforming Teacher Unions: Fighting for Better Schools and Social Justice*, 11-19. Milwaukee, Wisconsin: Rethinking Schools.
- Pierce, L. (1975). Teachers' Organizations and Bargaining: Power Imbalance in the Public Sphere. In S. Weinstein & D. Mitchell (Eds.), *Public Testimony on Public Schools*. Berkeley: McCutchan.
- Poole, W. (2000). The Construction of Teachers' Paradoxical Interests by Teacher Union Leaders. *American Educational Research Journal*, 37(1), 93-119.
- Ready, K., & Sandver, M. (1993). Pattern Bargaining in Education. *Education Economics*, 1(3), 259-266.
- Reeves, D. (1991). Grievance Procedure Strength and Teacher Quits. *Industrial and Labor Relations Review*, 45(1), 31-43.
- Reeves, D. (2000). *Accountability in Action*. Denver: Advanced Learning Systems.
- Reeves, D.B. (2002). *The Daily Disciplines of Leadership*. San Francisco: Jossey-Bass.
- Richardson, R. (1977). *Collective Bargaining by Objectives: A Positive Approach*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Rogers, R., & Threatt, D. (2000). Peer Assistance Review: Lessons from Mt. Diablo. *Thrust for Educational Leadership*, 29(3), 14-16.
- Ryscavage, P. (1974). Measuring Union-Nonunion Earnings Differences. *Monthly Labor Review*, 97(12), 3-9.
- Schwartzrock, K. (2003). *The Impact of State Labor Relations Policy on Teacher Collective Bargaining*. Unpublished doctoral dissertation, University of Oregon, Eugene.
- Sears, D. (2000). *The Impact of Formula Based Compensation Systems as an Influence in the Collective Bargaining Process of Public Schools in California*. Unpublished doctoral dissertation, University of Southern California, Los Angeles.
- Shanker, A. (1996, October 23). Strong Teacher Unions, Better Teachers: Letters to the Editor. *Wall Street Journal*, pp. A23.
- Simpkins, E., McCutcheon, A., & Alec, R. (1979). Arbitration and Policy Issues in School Contracts. *Education and Urban Society*, 11, 241-254.
- Smith, A. (1972). Have Collective Negotiations Increased Teachers' Salaries? *Phi Delta Kappan*, 52, 268.



Smylie, M.A. (1991). *Glenview, Illinois: From Contract to Constitution* (Project Report): The Claremont Graduate School, Claremont Project VISION.

Smylie, M., & Tuermer, U. (1991). *Hammond, Indiana: The Politics of Involvement v. The Politics of Confrontation* (Project Report): The Claremont Graduate School, California, Claremont Project VISION.

Steelman, L., Powell, B., & Carini, R. (2000). Do Teacher Unions Hinder Educational Performance? Lessons Learned from State SAT and ACT Scores. *Harvard Educational Review*, 70(4), 437-466.

Stone, J. A. (2000). Collective Bargaining and Public Schools. In T. Loveless (Ed.), *Conflicting Missions? Teacher Unions and Education Reform*, 47-68. Washington, D.C.: Brookings Institution Press.

Strom, D. J., & Baxter, S. S. (2001). From the Statehouse to the Schoolhouse: How Legislatures and Courts Shaped Labor Relations for Public Education Employees During the Last Decade. *Journal of Law and Education*, 30(2), 275-303.

Thomas, S. (1982). *The Organizational Behavior of a Teacher' Union Attempting to Influence School District Policy: The Response of the United Teachers of Los Angeles to School Desegregation*. Unpublished dissertation, University of California, Los Angeles.

Urban, W. (1982). *Why Teachers Organize*. Detroit: Wayne State University Press.

Urbanski, A. (2001). Reform or Be Reformed. *Education Next*, 1(3), 51-54.

Van Zant, S., Razska, D., & Kutzner, C. (2001). Teachers Training Teachers. *Leadership*, 30(3), 22-24.

Vedder, R. (2000). Private School Competition and Public School Teacher Salaries. *Journal of Labor Research*, 21(1), 161-168.

Walton, R. E., & McKersie, R. B. (1965). *A Behavioral Theory of Labor Negotiations*. New York: McGraw-Hill Book Company.

Waters, C. M., & Wyatt, T. L. (1985). Toledo's Internship: The Teachers' Role in Excellence. *Phi Delta Kappan*, 66(5), 365-368.

Weitzman, J. (1974). *The Scope of Bargaining in Public Employment*. New York: Praeger.

Wellington, H., & Winter, R. (1969). The Limits of Collective Bargaining in Public Employment. *Yale Law Review*, 78, 1107-1127.

Wellington, H., & Winter, R. (1971). *The Unions and the Cities*. Washington, D.C.: Brookings Institution Press.

Wollett, D. H., & Chanin, R. H. (1974). *The Law and Practice of Teacher Negotiations*. Washington, D.C.: Bureau of National Affairs.

Zigarelli, M. (1994). *The Linkages Between Teacher Unions and Student Achievement*. Unpublished doctoral dissertation, Rutgers University, New Brunswick, New Jersey.

Zwerling, H., & Thomason, T. (1995). Collective Bargaining and the Determinants of Teachers' Salaries. *Journal of Labor Research*, 16(4), 467-484.