Pay for performance in public and private schools

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Abstract

Previous research on teacher merit pay has concluded that its failure is due to the complexity of teachers’ jobs and the need for teamwork and cooperation in schools. This research re-opens the issue by comparing the use of merit pay in public and private schools. Merit pay is used in a large number of private schools. Awards are not trivial; nor is it the case that merit pay is awarded to nearly everyone. Reasons for the failure of merit pay are not inherent in teaching, but are due to specific circumstances in public education, notably the opposition of teacher unions. [JEL I20]

Keywords: Productivity; Salary wage; Diffentials; Teacher salaries

1. Introduction

Although proposals to tie teacher salaries to measures of performance have been popular with some business and political leaders, efforts to implement merit pay in public education have generally been unsuccessful. In the face of opposition from teachers and teacher unions, districts that have introduced merit pay have generally backed away after a few years. “We’ve tried it and it doesn’t work” summarizes the prevailing view of merit pay among educators.

Teacher opposition centers on the fairness and objectivity of evaluations (Elam, 1989). Teachers are by no means unique in this regard: precisely these worries are shared by employees in most work places where salaries are tied to performance evaluations (Milkovich and Wigdor, 1991). Yet despite employee misgivings, performance-based pay is widely used in both private business and the public sector.¹

In a highly influential paper, Murnane and Cohen (1986) argued that the type of work teachers do and the nature of their workplace are responsible for the failure of performance incentives in K–12 education. There are several strands to the argument. First, teachers’ output is hard to observe. It is a joint product in which the contribution of any one instructor can be difficult to isolate. In addition, some results of the educational process are difficult to measure. Basing compensation on the more easily observed and quantified outputs distorts incentives and can lead to unproductive behavior (e.g., teaching to the test). Moreover, the elusive nature of the relationship between teaching and learning means that administrators are often unable to explain why one teacher is more effective than another. As a result, they cannot articulate the basis for merit awards to those denied them or indicate what steps the latter can take to succeed next time. Teachers lose faith in the process and become demoralized, even embittered. Finally, competition for merit awards can result in opportunistice and non-cooperative behavior among faculty. Teachers work largely without supervision and find it relatively easy to withhold.

The conclusions drawn by Murnane and Cohen (1986) have won widespread acceptance within the education community and, indeed, outside it. In an examination of professional compensation that is generally sympathetic to reform, Derek Bok (1993) endorses the notion that

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¹ According to polling data cited by a leading textbook on employee compensation, approximately 90 percent of large public and private sector organizations base a portion of employee compensation on performance (Milkovich and Newman, 1993).
merit pay simply doesn’t work in the field of teaching, stressing the “inherently subjective and contentious process” by which teachers are evaluated. Even Business Week has entered the debate with an article entitled “Merit Pay for Teachers May Not Have Much Merit,” singling out as the biggest obstacle “the conflict between merit pay and the teaching culture, which often depends on teamwork” (DelValle, 1992).

Not all scholarly investigation of teacher merit pay has reached such negative conclusions. Several case studies sponsored by the Urban Institute found that a majority of administrators believed that merit pay improved performance (an assessment shared by many of the teachers themselves). This was due in part to features of the plans that were designed to prevent demoralization and reduce the degree to which teachers were in direct competition for awards.

Districts drop merit pay for a variety of reasons, not all of them signs of failure. Of the ten plans in the Urban Institute study which were terminated outright (rather than replaced with other incentives such as career ladders), costs were a major if not determining factor in six decisions. Plans were also terminated due to the opposition of teachers or a change of superintendents or school boards. While these circumstances might indicate that merit pay was not working very well, there could be other reasons, including the inability or unwillingness of school administrators to make it succeed. Public school administrators, particularly in unionized systems, lack many of the powers and prerogatives enjoyed by managers in business, a circumstance that can make it difficult to implement personnel policies that create resentments among staff. Given the general absence of strong competitive pressures in public education, school administrators may also lack the incentive to undertake unpopular reforms, even when efficiency-enhancing.

One might test this hypothesis by examining teacher compensation in settings where competitive pressures are greater and administrators have more managerial authority. Just this point was recognized by Murnane and Cohen (1986), who wrote: “[I]f we [are] correct and the problem [is] not simply poor public sector management, we should expect that...merit pay would not be common in for-profit educational institutions.” The authors went on to report on the policies of the Stanley H. Kaplan Educational Center: “[T]eachers who work for Kaplan are paid in much the same manner that public school teachers are paid...There are no bonuses for superior performance.”

The example is not, however, conclusive, since performance-based pay is used by other for-profit providers of educational services (e.g., Sylvan Learning Systems; Education Alternatives, Inc.). However, the for-profit sector is not necessarily the best comparison group. Many of these firms provide a fairly narrow set of services (e.g., after-school tutoring) with carefully prescribed objectives, circumstances that might favor the use of performance-based pay. A more reasonable test would be to compare public elementary and secondary schools to their counterparts in the private sector. Like for-profit vendors of educational services, private schools operate in a competitive business environment. Their administrators enjoy wider managerial prerogatives than public school principals and superintendents. The notion that merit pay has failed because it is inherently ill-suited to teaching, and not because of weak management, can therefore be tested by comparing the use of performance-based pay in public and private schools.

This paper reports the results of such a comparison. The objectives are modest. I present no direct evidence on the educational benefits of merit pay, though the use of merit pay by many private schools raises a presumption that they find its benefits outweigh the costs. Nor will I argue that public schools ought to use performance incentives simply because private schools do. Use of merit pay in the private sector is of interest primarily because widely-held beliefs about teacher merit pay have been so categorical: that it is the nature of teaching per se, and not specific features of our public educational system, that explain its failure. If incentive pay is ill-suited to teacher compensation because of the intrinsic difficulty of evaluating teaching or the need for cohesive teams, it should make no difference whether a school is public or private: in neither case will salaries be tied to assessments of productivity. On the other hand, if private schools make significantly greater use of performance-based pay than public schools, attention should turn to conditions in the two sectors responsible for this difference.

2. Data

Data for this research are taken from four national surveys of teachers and school administrators: the Public School Survey of 1984–85 and the three waves of the Schools and Staffing Survey, conducted in 1987–88, 1990–91, and 1993–94. Among other issues, these surveys investigated compensation and employment policies in elementary and secondary education. Conducted by the federal Department of Education and the Bureau of the Census, the SASS involved more than 5000 public school districts and 2500 private schools. Questionnaires...
were sent to principals and to a random sample of teachers in each surveyed school. In the case of public schools, surveys were also sent to central district offices. Response rates on the various components of the SASS were usually above 90 percent (and seldom less than 80 percent). The Public School Survey of 1984–85 was somewhat smaller (2300 schools); questionnaires were sent only to principals and teachers. The research reported here draws at different points on various components; as a result sample sizes fluctuate somewhat, as response rates change.

Most previous research on merit pay has been based on case studies of particular districts. (The exceptions have used survey data to examine teachers’ attitudes about performance incentives.) While there is obviously an important loss of detail in moving from case studies to survey data, there are advantages as well. Merit pay plans vary greatly. This very diversity raises concerns about the generalizability of case studies. Indeed, there is something in the case studies to support virtually any claim about merit pay. By contrast, the SASS provide a comprehensive (albeit coarse-grained) picture of the use of performance incentives in K–12 education. Most importantly, the SASS are virtually the only source of systematic data on compensation policies in private schools.

Before proceeding, some caveats are in order. Of the four surveys, the 1987–88 and 1990–91 SASS contained the most detailed information about merit pay. Schools were asked whether they used merit pay and in what form the award was made (cash bonus, advance on the salary schedule, other change in base pay or salary classification). Teachers were asked whether they received these incentives (though not the dollar amounts). By contrast, the 1984–85 Public School Survey asked about the use of incentives to reward excellent teaching without using the term “merit pay” per se. The 1993–94 SASS also avoided the term “merit pay,” posing a more general question about the use of incentives for a variety of purposes (of which one was to reward excellent teaching). These variations in wording and survey format raise questions about the comparability of responses over time. However, this becomes an important issue only towards the end of the paper, in the analysis of survival rates.

The Schools and Staffing Surveys also exhibit a fairly high rate of response error (Royce, 1994). Reinterview studies have found that it is not unusual for ten percent of the responses to a survey item (even a simple yes or no question) to change when respondents are reinterviewed several weeks later. In some cases this is due to clerical or coding errors; however, it may also indicate that questions were poorly designed or worded unclearly. In the present instance, survey respondents may not have been certain just what counted as “merit pay,” given that some systems offer merit bonuses in the form of travel to conferences or funds for classroom use. Moreover, merit pay plans are often suspended when funds are not available or terminated outright. As a result, survey respondents therefore may not have known for certain whether the district’s plan was in effect when the question was posed.

Despite these problems, as we will see, the data offer a fairly stable picture of the use of merit pay in American schools. Moreover, unless response error varies systematically between the public and private sectors, inter-sectoral differences in the data almost certainly reflect real differences in school policies.

3. Incidence and type of merit pay plans

In recent years, some ten percent of public school districts have used merit pay at any one time (Table 1). Approximately the same incidence is found in the private sector as a whole, although there is considerable variation by school type. Catholic schools are least likely to use merit pay. The incidence among other religious schools has been roughly the same as among public schools, while the share of private nonsectarian schools using merit pay has exceeded 20 percent.

The second row of Table 1 contains an alternative measure of incidence, the percentage of teachers employed in districts (or private schools) that used merit pay. In most cases, this is slightly higher than the percentage of districts in row one, as merit pay is somewhat more likely to be used in a large district (or private school) than a small one. The third row presents the percentage of full-time teachers working in these systems who actually received merit pay. In public schools and private schools with a religious affiliation, approximately 10% of covered teachers were recipients in 1990–91. The

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3 Since other survey items explicitly referred to career ladders and bonuses awarded on the basis of school-wide improvement, respondents should not have confused “merit pay” with these incentives.

4 In the 1993–94 SASS, items about the use of incentives to recruit teachers to shortage fields and undesirable locations were followed by the question: “Does this school currently use pay incentives for other purposes (e.g., retaining good teachers, rewarding excellence)."

5 The Public School Survey and the SASS have complex designs involving both stratification and clustering. In such designs, weighted sample statistics provide more accurate estimates of population characteristics (Kalton, 1983). All statistics reported in this paper were computed using sampling weights proportional to the inverse probability of selection. Standard errors of regression coefficients were obtained by the method of balanced repeated replications, a resampling technique (Wolter, 1985).
Table 1
Inincidence of merit pay

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>% of districts (private schools) with merit pay plans</td>
<td>10.1c</td>
<td>10.4</td>
<td>11.6</td>
<td>12.3</td>
<td>7.0</td>
<td>6.0</td>
<td>10.2</td>
<td>12.9</td>
<td>9.3</td>
<td>21.1</td>
<td>21.2</td>
<td>24.3</td>
<td>35.4</td>
</tr>
<tr>
<td>Type of award:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cash bonus</td>
<td>66.5</td>
<td>60.5</td>
<td>63.5</td>
<td>n.a.</td>
<td>10.8</td>
<td>1.6</td>
<td>n.a.</td>
<td>25.2</td>
<td>17.7</td>
<td>n.a.</td>
<td>30.2</td>
<td>28.5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Advance on salary schedule</td>
<td>45.8</td>
<td>21.7</td>
<td>18.8</td>
<td>n.a.</td>
<td>58.9</td>
<td>74.3</td>
<td>n.a.</td>
<td>41.5</td>
<td>32.5</td>
<td>n.a.</td>
<td>25.9</td>
<td>27.6</td>
<td>n.a.</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>22.5</td>
<td>21.2</td>
<td>n.a.</td>
<td>44.2</td>
<td>26.5</td>
<td>n.a.</td>
<td>40.9</td>
<td>56.9</td>
<td>n.a.</td>
<td>57.4</td>
<td>57.4</td>
<td>n.a.</td>
</tr>
<tr>
<td>% of teachers covered by plans</td>
<td>12.6</td>
<td>13.6</td>
<td>13.6</td>
<td>14.7</td>
<td>6.9</td>
<td>7.3</td>
<td>11.9</td>
<td>12.9</td>
<td>12.4</td>
<td>26.8</td>
<td>20.9</td>
<td>34.0</td>
<td>38.1</td>
</tr>
<tr>
<td>% of covered teachers who received awards</td>
<td>n.a.</td>
<td>8.2</td>
<td>10.1</td>
<td>n.a.</td>
<td>9.6</td>
<td>10.1</td>
<td>n.a.</td>
<td>7.6</td>
<td>10.3</td>
<td>n.a.</td>
<td>20.4</td>
<td>28.1</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

b Entries may sum to more than 100 as schools use multiple methods.
c Counts only those schools that gave awards as cash bonuses or advances on the salary schedule.

share was 28% in private nonsectarian schools. It is clearly not the case that in the typical merit pay plan, everyone gets an award. On the contrary, in many districts there may be too few recipients for plans to be effective. If the probability of an award is too low, the incentive is blunted.

Finally, there are differences in the way schools link compensation to performance. Public schools most often award merit pay as a one-time cash bonus. By contrast, cash bonuses are the least popular method among private schools, which are more likely to advance teachers on the salary schedule or build the increase into the teacher’s base salary in other ways (rows 4–6). These awards are apt to become a permanent part of the teacher’s compensation, with a total impact that can far exceed the amount awarded in a single year.6

4. Size of merit awards

Since the SASS did not inquire about the size of merit awards, this question must be investigated by estimating teacher earnings equations. For this purpose data were drawn from the 1990–91 SASS, which contains the best set of controls for compensation policies at the school and district level.7 Only full-time teachers were retained in the estimation sample. Because information on salary schedules was required to construct some of the controls in the model, teachers employed by private schools that did not use a salary schedule were dropped from the estimation sample. Private school teachers who belonged to religious orders were also excluded, given that many of these teachers are undercompensated compared to lay instructors.

The resulting estimation samples (public and private) pool teachers from thousands of different schools. The greatest challenge for the investigator is to avoid confounding the effect of a merit bonus with other sources of salary variation that arise when so many schools are represented in the data. Controlling for teacher education and experience alone is not enough, as the return to these attributes varies across school systems. Ideally, one would want to know how the salary schedule at each school determines the salaries of the teachers employed there. Bonuses, including merit pay, would then explain additional earnings above this base. While it is not possible to realize this ideal, one can come reasonably close by using three variables from the salary schedule that are included in the SASS: (1) the salary offered a beginning teacher with a bachelor’s degree; (2) the salary for new teachers who begin service with a master’s degree; (3) the difference between (2) and the salary of an instructor with the same degree and twenty years’ experience. The third variable is pro-rated over 20 years and interacted with a measure of each instructor’s own experience (capped at 20 years), while the second variable is multiplied by an indicator of a teacher’s highest degree (1 if master’s or above, 0 otherwise).8

6 Advancing a teacher on a salary schedule does not necessarily confer a permanent increase in income. Such promotions may represent step increases which recipients would eventually have received anyway.
7 Only the 1990–91 SASS contained all of the following information: (1) whether the district (or private school) used a salary schedule; (2) whether the district had a merit pay plan during the survey year; (3) whether a given teacher was a merit pay recipient.
8 Prior service within the same sector (public or private) in which the teacher currently works is used for this purpose, since
The dependent variable of the model is an individual teacher’s base salary plus bonuses (in natural logarithms). Compensation for taking on extra duties (e.g., coaching, summer school) is excluded. Additional variables in the private sector model control for sector (Catholic, other religious, nonsectarian) and for in-kind compensation.\(^9\)

Merit pay recipients are identified by a dummy variable in the regression equation. It is not entirely straightforward to determine who received merit pay. There are discrepancies in the data, with some teachers claiming to have received merit pay from districts (or private schools) that did not acknowledge using it. Statistical analysis indicated that most of these discrepancies represent response error on the part of the teacher.\(^10\) Thus, the merit pay indicator (MERIT PAY RECIPIENTS) is restricted to self-reported recipients employed by districts (or private schools) that acknowledged using merit pay during the survey year.\(^11\) A second binary indicator (MERIT PAY SCHOOLS) identifies all teachers in districts with merit pay plans. This additional control is introduced so that the coefficient on recipients does not pick up the effect of other policies that schools using merit pay might have in common.

Selected results are presented in Table 2. There is a sharp difference between the public and the private sectors. In the former, merit pay increases earnings by approximately 2 percent, in the latter by almost 10 percent. (Percentage changes are computed as \(e^b - 1\), where \(b\) is the coefficient on recipients.) This comparison actually understates the full difference between sectors, for as we have seen, private school awards are more likely to be built into the recipient’s base. Over time, substantial amounts of money are therefore at stake. Note that the estimated difference would be still greater if the equation did not control for merit pay schools.\(^12\) The estimates in Table 2 are therefore conservative in that they attribute to merit pay only the salary differences that cannot be explained by other policies common to districts or schools that use it.

### 5. Alternative specifications

When first adopted, “uniform” salary schedules based on teachers’ experience and education were greeted as a significant reform, ending decades of discrimination against female instructors. It may be wondered if the public–private differences in Table 2 are not vestiges in private schools of practices that have disappeared from the public sector. If private schools tend to award merit pay more often to male teachers, and if men also earn higher base salaries (given their education and experience), the coefficient on merit pay in the private sector is picking up a gender effect (an omitted variable bias). To investigate this and similar possibilities, the model was re-estimated with several teacher characteristics among the regressors: gender, marital status, race or ethnicity (for blacks and hispanics), age, and an interaction term for married women. An additional variable identifying teachers whose undergraduate training was in mathematics or science was included to capture higher salaries for skills widely believed to be in short supply. Reasonable though such a policy might be, it represents something other than pay for superior performance.

Separate results are not reported, since most of these teacher characteristics have little impact on salary. The principal exceptions are gender and marital status: men, especially married men, are better paid in the private sector. However, the change in specification has only a small effect on the merit pay estimate, which falls to just under 9% of base pay in the private school equation. There is essentially no change in the public sector equation.

Murnane and Cohen (1986) found that merit pay plans survived in public school districts that were small, affluent, and relatively homogeneous with respect to the types of students served — in short, districts resembling many private schools. If these are the critical factors on which successful implementation of merit pay depends, we would expect to find more similarity between the private...
### Table 2
Effect of merit pay on teachers’ earnings

<table>
<thead>
<tr>
<th>Sector</th>
<th>Independent variables: All public</th>
<th>Private with salary schedules</th>
<th>Public: Affluent, racially homogeneous&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Public: Small&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting pay at school</td>
<td>1.062 (0.015)</td>
<td>0.806 (0.031)</td>
<td>1.026 (0.050)</td>
<td>1.081 (0.029)</td>
</tr>
<tr>
<td>Increment for master’s degree (for teachers with MA)</td>
<td>1.085 (0.031)</td>
<td>0.684 (0.105)</td>
<td>1.149 (0.075)</td>
<td>0.929 (0.065)</td>
</tr>
<tr>
<td>Increment for experience times teacher’s own experience</td>
<td>0.915 (0.008)</td>
<td>1.085 (0.016)</td>
<td>0.854 (0.018)</td>
<td>0.889 (0.023)</td>
</tr>
<tr>
<td>Catholic</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Other religious</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Merit pay school</td>
<td>–0.023 (0.003)</td>
<td>0.014 (0.014)</td>
<td>–0.016 (0.017)</td>
<td>0.001 (0.009)</td>
</tr>
<tr>
<td>Merit pay recipient</td>
<td>0.018 (0.008)</td>
<td>0.092 (0.024)</td>
<td>–0.018 (0.051)</td>
<td>0.002 (0.022)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>38069</td>
<td>3576</td>
<td>3619</td>
<td>8304</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.75</td>
<td>0.69</td>
<td>0.71</td>
<td>0.75</td>
</tr>
</tbody>
</table>

<sup>a</sup> Data: 1990–91 Schools and Staffing Survey. Standard errors in parentheses. Other regressors include out-of-sector experience, part-time experience, less than a BA, specialist degree or sixth-year certificate, doctoral degree, binary indicators for schools using other incentives and teachers receiving them (mentoring, teaching in an undesirable location, teaching in a shortage subject area), in-kind compensation (housing, meals, tuition for children), school level (elementary vs. secondary). Additional demographic regressors included black, Hispanic, age.

<sup>b</sup> Sample restricted to districts with median household income above $40,000, child poverty rates below 10%, and the percentage of minority enrollment below 10%. (Data on income and poverty rates obtained from 1990 Census of Population.)

<sup>c</sup> Sample restricted to districts with enrollment of 1277 or less.

sector results in Table 2 and estimates obtained from a subsample of public schools sharing these characteristics. Results from two subsamples of this kind are presented in the third and fourth columns of Table 2. In column three, the estimation sample was restricted to districts that are relatively homogeneous racially (fewer than 10% minority students, including Hispanics) and affluent (median income of households with children above $40,000, with fewer than ten percent of school-aged children living below the poverty line). This is a fairly stringent screen: only 9.4% of public school districts in the SASS met all three tests, and the estimation sample was reduced by nine-tenths, from 38,069 to 3619 teachers. It turns out that the percentage of teachers covered by merit pay plans is smaller in this sample than in the full one: only 5.7% of teachers are employed in districts that use merit pay, and only 4% are recipients. The coefficient on recipients is negative, though statistically insignificant.

The fourth column of Table 2 contains results for a subsample limited to districts in the smallest size quartile, with enrollments below 1277. This sample is more typical with respect to the incidence of merit pay: 9.8% of the teachers are covered, and 2.1% are recipients. However, the coefficient on recipients is a negligible and statistically insignificant 0.002.

These findings illustrate the hazards of generalizing from case studies. Merit pay is not a more significant part of teacher compensation in small districts or in those that are more racially homogeneous and affluent. If anything, it appears to be less important in these systems than elsewhere in the public sector (though the estimates in columns three and four are too imprecise to rule out the possibility that the merit pay effect is as large as in the full sample). Further testing shows that these results are not unduly sensitive to the specification of the subsample. Even a very stringent screen fails to detect an important role for merit pay. For example, when the estimation sample is restricted to districts where only two percent of school age children live below the poverty line, the coefficient on recipients remains negative and insignificant.<sup>13</sup>

<sup>13</sup> The estimates in Table 2, like those elsewhere, are obtained from weighted data. Since there may be some concern about the use of sampling weights when so many observations are omitted from the analysis, the equations in Table 2 were re-estimated using unweighted data. The resulting estimates are...
6. Accounting for sectoral differences

Private schools make significantly greater use of merit pay than do public schools, even when the comparison is restricted to public systems that most resemble private schools with respect to their size and the type of students served. This calls into question the notion that the teaching is inherently unsuited to performance-based pay. On the other hand, like the great majority of public schools, most private schools do not use merit pay, suggesting that the conventional wisdom is right in some respects. There are costs to implementing merit pay plans. In the view of many administrators, private as well as public, these costs exceed the benefits.

Obviously, strong opposition from employees, even a minority, can create difficulties for administrators attempting to implement a pay for performance plan. This is not to say that implementation is easy even when teachers’ attitudes are favorable. Evaluating staff is difficult and often unpleasant work. The difficulties are compounded by the inflated estimate most employees have of their own ability and by teachers’ unfamiliarity with what other instructors are doing in their own classrooms. Under the circumstances, it is understandable that many administrators would rather not undertake serious staff evaluation if it can be avoided. Indeed, precisely this kind of token evaluation, in which virtually all teachers are rated at or near the top of the scale, seems to be endemic within public education (Brandt, 1990).

Given the challenge that merit pay poses for administrators, the more surprising phenomenon is not the low incidence overall but the fact that a substantial number of private schools have adopted it. As we have seen, approximately a quarter of private nonsectarian schools use merit pay. Awards average 10 percent of base pay. A quarter of all employees are recipients. If public schools were to adopt merit pay on the same scale as private nonsectarian schools, it would be viewed as a substantial reform.

As noted above, stronger competitive pressures and wider managerial authority give private school administrators both the incentive and the means to pursue policies that are unpopular with teachers, if they are judged to improve the operation of the school. I briefly discuss some of the specific factors that may contribute to decisions to use merit pay.

6.1. Competitive pressure and the positive-sum character of merit pay

Private schools face market sanctions if they fail to attract and retain the kinds of teachers that sustain the school’s reputation. Schools that fail to elicit a strong performance from their staffs are at a competitive disadvantage.

The effect of competition may go beyond this, if it also alters teachers’ perceptions of personnel policies. In the public sector merit pay is largely a zero-sum game, with bonuses coming out of funds that would otherwise have been available to raise salaries across the board (at least in the view of teachers). By contrast, policies that improve efficiency in the private sector have a positive-sum character, enhancing the school’s reputation and strengthening demand for its services. In a well-designed merit pay plan, one teacher’s bonus has beneficial spillovers for all teachers with an interest in the school’s financial well-being and the quality of the students who apply.

6.2. Attitudes of faculty

Table 3 presents results from the 1987–1988 SASS, which asked teachers whether they favored bonuses to reward teachers for exceptional performance. Not only was there more private school support overall, but a larger proportion of instructors “strongly” favored this compensation. Perhaps more important, private school teachers were much less likely to express strong disapproval of merit pay — a circumstance likely to be important to administrators concerned about the opposition of an adamant minority. Although support for merit pay was slightly greater in schools that used it, attitudes were quite positive throughout the private sector. Faculty in Catholic schools, where merit pay is found less often than in the public sector, were as supportive as teachers in nonsectarian schools.

The stronger support for merit pay among private school teachers may reflect their appreciation of the positive-sum aspect of merit bonuses just described. It is also possible that private schools attract teachers with a more entrepreneurial bent, who are drawn to an environment in which there are fewer bureaucratic constraints and more opportunity to take the initiative in the classroom. Such individuals may be more willing to see compensation based on an assessment of their performance.

6.3. Sanctions

Private school teachers who complain too loudly about merit pay decisions jeopardize their standing on the job. Many private schools have explicit expectations that tea-

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14 Interestingly, when this perception is altered teacher opposition to merit pay is reduced. Murnane and Cohen (1986) report that merit pay is more likely to succeed when teachers recognize that enhanced accountability strengthens community support for schools.
Table 3
Attitudes toward merit pay, staff cooperation*

<table>
<thead>
<tr>
<th>Indicate whether you favor or oppose a merit pay bonus for exceptional performance in a given year.</th>
<th>Strongly favor (%)</th>
<th>Mildly favor (%)</th>
<th>Mildly oppose (%)</th>
<th>Strongly oppose (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools without merit pay</td>
<td>41.5 (C)</td>
<td>31.4</td>
<td>11.7</td>
<td>12.7</td>
</tr>
<tr>
<td></td>
<td>34.3 (O)</td>
<td>32.3</td>
<td>17.7</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td>42.2 (N)</td>
<td>31.4</td>
<td>14.0</td>
<td>12.3</td>
</tr>
<tr>
<td></td>
<td>26.1 (P)</td>
<td>26.2</td>
<td>16.3</td>
<td>31.4</td>
</tr>
<tr>
<td>Schools with merit pay</td>
<td>45.4</td>
<td>31.1</td>
<td>11.7</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td>37.5</td>
<td>34.3</td>
<td>19.5</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>48.1</td>
<td>33.3</td>
<td>19.5</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>33.4</td>
<td>24.9</td>
<td>15.3</td>
<td>26.4</td>
</tr>
</tbody>
</table>

* Data: 1987–88 Schools and Staffing Survey, Full-time Teachers. Entries in each cell are for Catholic, other religious, non-sectarian, and public schools, in that order.

Teachers will become part of a team and commit themselves to serving the mission of the school. A private school teacher who persists in complaining about salary differentials risks being perceived as one who puts personal gain before the good of the school. The possibility of contract non-renewal inhibits the more extreme actions that public school faculty have taken to undermine incentive plans. 15

6.4. Confidentiality

Decisions about merit pay can be made in a quieter, less obtrusive manner in private schools. There may be no formal evaluation but instead a decision based on the head's familiarity with the teacher’s performance (Ballou and Podgursky, 1997). By contrast, the formality and publicity accompanying merit awards in the public schools appear to alienate teachers, many of whom are anxious about the prospect of being judged before their students and peers. This anxiety explains why some public school systems permit teachers to voluntarily opt out of the competition for merit awards, and why many teachers take advantage of this opportunity even at the cost of being ineligible for awards (Hatry et al., 1994).

Lack of confidentiality can also cause problems for administrators. Publishing the names of recognized “master teachers” has sometimes resulted in conflict between principals and parents when the latter insist that their children be taught by these instructors (Hatry and Greiner, 1985).

7. Incentive pay and teacher unions

The foregoing discussion has not taken explicit notice of one of the principal ways private and public schools differ. With the exception of some large diocesan Catholic schools, the work force in the private sector is not unionized. This is apparent in some of the factors just mentioned — administrative flexibility, contract non-renewal, even market competition (insofar as unions have blocked efforts to introduce more competition into public education). It is likely, however, that the influence of unions goes further than this. Although the two major unions, the NEA and the AFT, officially endorse merit pay (when implemented in the right way), the evidence indicates that in practice they remain opposed and that their opposition has obstructed the spread of merit pay in the public sector. On this count, at least, the conventional wisdom appears to be right.

Table 4 presents information on unionization and merit pay. As shown in the first row, in 64% of the districts responding to the 1993–94 SASS, teachers were represented by a union in collective bargaining. In another 7%, teachers belonged to a union but were not represented in negotiations with the district. (Most were in states that do not recognize public sector unions for purposes of collective bargaining; unions are instead permitted to “meet and confer” with districts.) In the remaining 29% of districts, teachers were not represented by a union in either of these capacities.

The 1993–94 SASS was the first to seek information on unionization from the district. To facilitate comparisons with earlier years, this information was merged into the surveys conducted in 1987–88 and 1990–91. Although half the districts could not be matched across survey years, the incidence of unionization among the remaining districts is roughly the same as in the full 1993–94 sample, suggesting that meaningful comparisons can be made across time.

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15 For example, despite a formal confidentiality agreement between the district and the teacher’s association, in Lebanon, Connecticut, a list of merit awardees’ names was circulated (apparently by unhappy teachers), causing problems with parents and teachers and contributing to the eventual termination of the merit pay plan (Hatry et al., 1994).
Table 4
Unionization and merit pay

<table>
<thead>
<tr>
<th></th>
<th>Collective Bargaining</th>
<th>Meet and Confer</th>
<th>No Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of all districts (93–94)</td>
<td>64.0</td>
<td>7.0</td>
<td>29.0</td>
</tr>
<tr>
<td>% of districts in row one with merit pay (93–94)</td>
<td>8.1</td>
<td>17.6</td>
<td>20.1</td>
</tr>
<tr>
<td>% of districts in row one with merit pay (90–91)</td>
<td>5.4</td>
<td>8.9</td>
<td>27.6</td>
</tr>
<tr>
<td>% of districts in row one with merit pay (87–88)</td>
<td>5.3</td>
<td>13.2</td>
<td>21.0</td>
</tr>
<tr>
<td>Survival rate, 87–88 to 90–91 (number of observations)</td>
<td>40.0</td>
<td>72.0</td>
<td>72.3</td>
</tr>
<tr>
<td></td>
<td>(50)</td>
<td>(25)</td>
<td>(83)</td>
</tr>
<tr>
<td>Survival rate, 90–91 to 93–94 (number of observations)</td>
<td>25.9</td>
<td>43.3</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>(108)</td>
<td>(30)</td>
<td>(194)</td>
</tr>
<tr>
<td>Effect of merit pay on salary (% of base pay, 90–91)</td>
<td>0.0 (.01)</td>
<td>3.9 (.03)</td>
<td></td>
</tr>
</tbody>
</table>

* Data: Schools and Staffing Surveys, all years.

There is a strong, inverse relationship between the use of merit pay and the degree of union influence (rows two to four). Districts with collective bargaining have been substantially less likely to use merit pay than districts in which unions are permitted only to “meet and confer” with school officials. These districts, in turn, make less use of merit pay than do those with no unions. In fact, the incidence of merit pay among the latter is comparable to that among nonsectarian private schools.

These data were also examined for the influence of unions on the survival of merit pay plans. Survival rates between the 1987–88 and 1990–91 academic years are displayed in row five, between 1990–91 and 1993–94 in row six. These statistics should be regarded as no more than suggestive. As estimates of true survival rates they are biased downward by survey response errors: false positives in an earlier survey year and false negatives in a later one inflate the number of plans that appear to have been terminated over the intervening years. In addition, these survival rates are computed from a small number of districts, as the sample is restricted to districts that appeared in more than one wave of the SASS and that had a merit pay plan in 1987–88, 1990–91, or both. As a reminder of this limitation of the data, the number of observations in each cell is displayed in parentheses.\(^{16}\)

The results in row five show signs of union influence. Computed survival rates are only 40% in districts with collective bargaining but exceed 70% elsewhere. A quite different picture emerges in row six. Not only is there no marked union influence, but survival rates are substantially lower between the 1990–91 and 1993–94 school years. Since some of these differences may be due to changes in the survey format and the wording of the item on merit pay, it is unwise to assume that the differences between rows five and six accurately measure a fall in survival rates. On the other hand, it is probable that some decline did occur, given the vulnerability of merit pay to budgetary cutbacks. Since the period between the second and third SASS coincided with economic recession and slow recovery, one would expect the use of merit pay to decline independent of union activity.

In summary, the cleanest measure of survival rates (when districts responded to identically-worded survey items in different years) shows a marked union effect, with plans significantly less likely to survive in districts with collective bargaining. However, when economic circumstances lead districts of all types to cut back on non-essentials, the union effect is greatly diminished.

As a final measure of union influence, I re-estimate the public sector earnings equation to allow for union effects. Districts in which teachers are represented in collective bargaining are distinguished from those where they are not. Three union variables are added: a stand-alone collective bargaining effect (an intercept), an interaction between collective bargaining and the fact that a district has merit pay, and an interaction between collective bargaining and merit pay recipients. It is the last of these variables that indicates whether merit pay recipients receive higher salaries than other teachers in the same schools. The results, in the final row of Table 4, are striking. In districts with collective bargaining, being a merit pay awardee has no measurable effect on salary. By contrast, average awards in districts without collective bargaining are approximately 4 percent of base pay. In other words, the merit pay effect reported in the public sector equation in Table 2 was entirely due to policies pursued in districts without collective bargaining.

In summary, by all three measures — incidence and survival of merit pay plans and size of awards — merit plays a larger role in determining teacher compensation the less influence teacher unions have. This pattern is entirely consistent with case studies that have found

\(^{16}\) Since only a small part of the original sample remains for computing survival rates, these statistics are calculated without weighting observations by sampling weights.
merit pay plans negotiated out of contracts or blocked by union opposition, and with the role played by unions in voting out of office school boards that have endorsed merit pay.

8. Factors depressing the use of merit pay in the private sector

The foregoing review has focused on differences between public and private schools that promote the use of merit pay in the latter. Not all differences between the two sectors have this tendency, however. It is likely that more private schools would use incentive pay, were it not for several offsetting factors.

First, the public sector is simply much larger than the private sector. As a result there is a tendency for professional norms established in the former to influence personnel policies in the latter. The way compensation is determined in the public sector influences teacher expectations and perceptions of the treatment to which they are entitled. Performance-based compensation might be more widespread in private schools if the public sector model were absent.

As reported in Ballou and Podgursky (1997), many religious schools avoid merit pay because they regard it as inconsistent with an egalitarian ethos central to their values. Among Christian schools, there has also been a trend in recent years to imitate the salary policies of the public schools in order to avoid legal problems. Schools that once paid heads of households more than second wage earners (a policy explicitly intended to enable one spouse to pursue full-time home-making) were forced to change when courts ruled this practice discriminatory. To deflect further legal challenges, they have adopted salary schedules patterned on those in the public schools. As a result, these schools are decidedly less receptive to innovations in teacher compensation that have not won widespread acceptance in the public sector.

Still another factor is the availability of alternatives to incentive pay. Teacher tenure is virtually unknown in the private sector. Teachers who fail to meet the school’s performance expectations can be let go at the end of the year. While this is not a perfect substitute for incentive pay, schools may reasonably decide that the need for incentives is much weaker when contract non-renewal is an option. In addition, private schools have other ways to elicit superior performance. Administrators can and do assign extra duties for additional pay to good teachers as a way of increasing their total compensation. By contrast, these extra assignments and the terms of employment are likely to be settled contractually in the public sector in ways that limit administrators’ discretion.

In addition, the boundary between teaching and administration is more porous in private than in public education. Teachers are more frequently promoted into positions involving administrative responsibility as deans, department chairs, and assistant headmasters. The smaller size and stand-alone character of many private schools increase the number of such positions relative to faculty. At the same time, there are fewer barriers to promotion (in the form of required coursework and credentials) that face teachers in the public sector. The prospect of promotion creates an implicit tournament serving some of the same functions as incentive pay.

9. Conclusion

A widespread view of teacher merit pay holds that it is simply not practicable to compensate teachers on the basis of performance evaluations. There is too little agreement on the goals of education, the relationship between the actions of teachers and the learning of students is too complex and difficult to trace, and the potential for demoralization and breakdown in cooperation is too great. For these reasons, it is said, efforts to introduce merit pay into public education have made little headway.

Yet merit pay is widely used by nonsectarian private schools, suggesting that the problem is not the special nature of teachers’ work but rather the absence of conditions that make it easier for private school administrators to implement pay for performance. The possibility of making awards in a quiet, non-public manner and the availability of sanctions to deal with recalcitrant employees are among their advantages. Merit pay generates positive spillovers for nonrecipients (by improving the quality of the school and demand for its services) that are weaker or missing altogether in the public sector. Other circumstances, some unique to schools with a religious mission, help to explain why merit pay is not more widely used in all types of private schools.

Teacher unions have played a key role in obstructing the spread of incentive pay plans in the public sector. In those districts where teachers do not have union representation in collective bargaining, the incidence of merit pay is nearly as great as it is among the nonsectarian private schools. The size of merit awards also exhibits an inverse relationship to the degree of union influence: indeed, there is no detectable impact on recipients’ salaries in districts where teacher unions engage in collective bargaining.

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References


