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EDUCATION NEXT

Let the Market Decide by DALE BALLOU AND MICHAEL PODGURSKY

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A 1962 RAND Corporation study on teacher pay described teacher salary schedules in the following way:

It is the number of years at college that counts, not whether the college was the best or the worst; it is the number of graduate courses taken, not their excellence or usefulness or (usually) their relevance. Finally, the pertinent factor is how long the teacher has taught, not how well. And the difficulties of recruiting or retaining particular teaching skills are completely irrelevant in such a schedule. For any given set of "professional qualifications" so defined, a teacher's salary is uniquely determined by reference to the schedule.

Nearly four decades later, this remains an accurate description of how the vast majority of public school teachers are compensated. No matter which grades or subjects or students they teach, no matter how well or poorly they perform, teachers are paid according to their school district's "single salary schedule," a system of pay steps and ladders that ensures that teachers with the same years of experience and education level (say, a master's degree) receive the same salary.

By thoroughly standardizing teacher pay, the single salary schedule suffers from a major flaw: It deprives the managers of public schools of the authority to adjust an individual teacher's pay to reflect both his performance and market realities. For instance, many schools have trouble recruiting teachers in fields that command high salaries outside of education, such as mathematics and the sciences. The rigidities of the single salary schedule prevent them from addressing this shortage in the obvious way—by raising pay in these specialties. The result: Public schools are often forced to hire unqualified candidates to teach math and science courses. Likewise, few school systems provide extra compensation to teachers who work with the most severely disadvantaged students. Without pay incentives to keep them in the toughest jobs, veteran teachers often use their seniority to transfer to the most attractive schools in the system, leaving the neediest children to be taught by the youngest and most inexperienced teachers.

Moreover, most public schools either have never tried or have given up on compensation schemes that reward teachers for performance, such as merit pay. The conventional wisdom holds that merit pay is simply not suited to teaching:



Illustration by John Weber.

It is too hard to judge individual contributions to output, too difficult to identify what teachers must do to improve. But these arguments ignore the widespread use of performance incentives in

a variety of other occupations that also involve complex relationships between individual performance and organizational outcomes. More than 90 percent of large public and private sector organizations use such incentives. Even teachers recognize that it is unjust to pay highly effective instructors the same as mediocre ones. In a recent Public Agenda survey, 69 percent of new teachers said it was a good idea to "pay higher salaries to teachers who prove to be highly effective in improving academic performance." The limitations of the single salary schedule have prompted policymakers to search for alternative ways of compensating teachers. The most widely heralded reform, and the one most likely to garner the support of teacher unions, is knowledge- and skills-based pay, a compensation scheme in which teachers qualify for higher salaries by demonstrating their mastery of various competencies.

Knowledge- and skills-based pay, however, is largely untested. Such reforms have not been widely implemented in private industry.Of 19,016 North American companies surveyed in 1996 about their compensation schemes, only 54 reported using competency pay practices. If the only alternative is to continue with the single salary schedule, introducing differentials based on demonstrated competencies will probably accomplish some good. But it falls considerably short of the more fundamental changes that a more open, competitive market for educational services would foster.

External Assessments

Knowledge- and skills-based pay plans rely mainly on external evaluators and assessments to judge whether an individual teacher has reached certain levels of competency. Teachers can earn higher salaries by demonstrating proficiency on various tests and tasks deemed important to good teaching. Such a structure could entirely replace the single salary schedule. But, in practice, it is more likely that knowledge- and skills-based pay would supplement traditional rewards for education and experience.

A complete overhaul of teacher compensation is unlikely to happen unless public education becomes more sensitive to market pressures.

The professional benchmarks for this new approach to teacher compensation include content tests such as the Educational Testing Service's (ETS) PRAXIS II and performance-based assessments such as the PRAXIS III test and the National Board for Professional Teaching Standards' certification process, which purports to identify "master" teachers who have attained high levels of expertise in their fields. The National Board's process has proved especially popular; many states and school districts offer teachers \$5,000 to \$10,000 bonuses for becoming "board certified." These national benchmarks may be augmented with instruments developed at the state and local level to assess teachers' knowledge and ability. These assessments have a common feature: Teachers are evaluated not by their immediate supervisors but by outside parties (employees of the ETS, scorers for the National Board). This raises an obvious question: Can these outside parties learn as much about an individual teacher's competency and work ethic as someone who works with and observes that teacher day after day?

The National Board's certification process is the prototype for many of these external assessments. It relies heavily on teacher portfolios, which contain samples of student work together with the teacher's commentary and lesson plans. The goal of the National Board's process is to ascertain how well teachers diagnose and respond to students' learning problems. But the National Board requires teachers to submit only one assignment by two students of their choosing. The teachers write their commentaries on the purpose and effectiveness of the lesson well after the fact. With all the benefits of hindsight, candidates for board certification can portray themselves as more perceptive and effective than they actually were. Teachers also submit two brief videotapes of their teaching, but the choice of lessons is left to them. Moreover, interpreting the tapes requires background information about the class and the purposes of the lesson—information that is supplied, once again, by the candidates. The fact that many applicants for board certification now receive coaching on how to prepare their portfolios raises additional questions about the authenticity of the material they submit. Yet the National Board's evaluators have no data from independent sources with which to verify the accuracy of the

statements in a teacher's commentary.

Nevertheless, the Board often does manage to learn something about teaching performance from the portfolios. Despite having every opportunity to portray themselves favorably, some teachers still fail the Board's assessment. Other candidates are so outstanding that they are unlikely to have faked their performance or benefited unduly from coaching. The problem is the great middle, where the difference between successful and unsuccessful candidates may have much to do with coaching and with access to successful portfolios that can serve as templates for one's own. It is worth noting that passage rates for board candidates have risen steadily as the number of facilitators and support groups for board candidates has multiplied. More than half of candidates are now rated "accomplished," up from roughly one-third in the first year.

The National Board's certification process is susceptible to cheating and coaching mainly because it relies on only a momentary glimpse into a teacher's skills and habits. It indicates (at best) only what teachers know how to do, not whether they actually put their knowledge into practice. This is of special concern in the evaluation of veteran teachers, who experience varying degrees of disillusionment and burnout. Whether these instructors know how to teach is only part of the story. Of equal importance is whether they summon the energy and will to apply that knowledge day after day.

Managers Who Manage

Compared to outside evaluators such as the National Board, a teacher's supervisor (such as a principal or department head) has a wealth of information about teaching performance. The supervisor can visit the classroom at times of her choosing, rather than the teacher's (unless unscheduled observations are prohibited by the teachers contract). The number and duration of these visits are not limited. Students' standardized test scores and the opinions of parents and other teachers can also be taken into account. Local supervisors know their teachers personally. They see which teachers interact well with colleagues at faculty meetings, who remains in the building late to help students, who devotes time and energy to extracurricular activities, and so on. There is nothing the Board knows from a teacher's portfolio that the building principal, the department head, or other immediate supervisors cannot learn. And there is much that good supervisors will know that the National Board cannot hope to find out.

It should be noted that not all schools rely on external evaluation to administer their knowledgeand skills-based pay plans. But to the extent that schools rely not on supervisor judgment but on "peer review," many of the same concerns arise. Peer-review procedures too often let teachers know in advance when they will be observed. They also too often include a checklist of approved behaviors that the teachers know they are to exhibit, and a "successful" rating usually means they will not be evaluated again for years to come. When present, these procedures render the validity of the peer-review process suspect. In addition, as peer evaluators are not held accountable in any broader sense for school performance, their motivation is unclear: What is at stake for them in passing or failing a fellow teacher?

Why, then, rely on external assessments or internal peer review rather than evaluation by supervisors? The reply most often given is two-fold: 1) Local administrators often cannot or do not use the information available to them to form accurate assessments of performance; and 2) Even when supervisors know who the better teachers are, they lack the authority to adjust pay accordingly.

If nothing can be done to address these legitimate concerns, then the argument in favor of knowledge- and skills-based pay is fairly uncontroversial. Better to pay teachers for their knowledge and skills than to continue the traditional practices represented by the single salary schedule. But this leaves some crucial problems unaddressed. By focusing solely on teacher qualifications, knowledge- and skills-based pay fails to compensate teachers for working with the most disadvantaged students. Teachers accepting the hardest assignments in their systems will continue to be paid on the same basis as others. It also fails to let teacher pay respond to the overall supply and demand for teachers in different subject areas, such as math and science.

While some school districts have defined competencies to include knowledge of subjects in which qualified teachers are in short supply, advocates of pay for knowledge and skills more often stress that all teachers can aspire to the status of "master teacher" regardless of the subject they teach. Given widespread teacher resistance to salary differentiation, this is not likely to change as long as the support of teacher unions is required to implement such policies. The Public Agenda survey of new teachers found more than half opposed to salary reforms that would "pay more money to teachers in subjects like math and science, where there are severe shortages." Similar views have been reported in other teacher surveys.

Knowledge- and skills-based pay represents a step in the right direction. More fundamental changes are necessary, but the fact is that a complete overhaul of teacher compensation is unlikely to happen without broader changes in the market for educational services. A comparison of compensation policies in public and private schools reveals how much more can be accomplished when schools operate in a competitive environment that requires them to respond to market conditions and when impediments to managerial flexibility are removed.

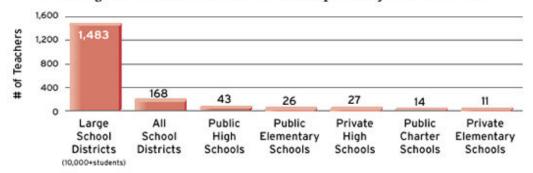
Teacher Compensation in Private Schools

Administrators of private schools function in an economic and political context that characterizes only a small minority of public schools. First, as a rule each private school sets its own wage scale. Second, private schools are subject to powerful competitive incentives, as their students can remove both themselves and their tuition dollars if they are unhappy with the services being provided. And third, most private school teachers are not represented in collective bargaining.

School-based wage setting. A typical public school teacher works in a wage-setting unit (i.e., the school district) that is more than 100 times larger than the wage-setting unit of a typical private school teacher (the school). As shown in Figure 1, school districts that enroll more than 10,000 students employ an average of 1,483 teachers each (and together employ 46 percent of all public school teachers). In other words, a large share of public school teachers are employed in wage-setting units with well over 1,000 teachers. The average private high school, by contrast, employs only 27 teachers. Private elementary schools are smaller still, averaging only 11 teachers. Interestingly, the new charter schools emerging within the public sector, with an average of 14 teachers each, more closely resemble the private sector than they do the traditional public sector.

Collective Power (Figure 1)

A significant share of public school teachers work in large districts, where wages are set at the central level and can't respond easily to market realities.



Average Size of Teaching Force in U.S. School Districts and U.S. Public and Private Schools

SOURCE: U.S. Department of Education Reports. For details see www.edmattersmore.org

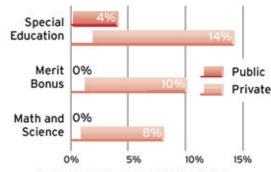
The size of the wage-setting unit has important implications for personnel and compensation policy. First, salaries can adjust more readily to market realities. Consider, for example, the salaries paid to primary- and secondary-school teachers. In today's market, schools need to pay more to secondary-school teachers than to those in the primary grades, where the supply of

comparably qualified instructors is greater. No such difference is seen in public school districts, of course. In the private sector, most elementary and secondary teachers work in different wage-setting units. As a result, private elementary teachers earn 16 percent less on average than secondary-school teachers of comparable education and experience.

A similar phenomenon appears in special education. Private schools that specialize in teaching students with disabilities tend to be free-standing entities with the power to determine their own compensation policies. In the public sector, these schools usually lack such autonomy. The difference shows up in relative pay. The data in Figure 2, controlling for factors such as length of the school year and the location of the school, show that starting salaries in public schools devoted to the provision of special education are only 4 percent higher than elsewhere in public education. Private schools that specialize in special education pay their teachers 14 percent more.

Market Prices (Figure 2)

Private schools, responding to both competitive incentives and the labor market for teachers, pay extra for special or rare skills.



Percentage Increase over Base Pay (Adjusted for other factors)

SOURCE: Michael Podgursky and Dale Ballou. For details see www.edmattersmore.org

Competitive incentives. Because private schools must attract tuition-paying families, they need to recruit and retain good teachers. Operating under these market pressures, private school administrators use performance incentives to a greater degree than do their public school counterparts. Although administrators have various notions of what counts as merit pay, survey data from the National Center for Education Statistics show that private, nonsectarian schools are at least twice as likely as public schools to use something they call "merit pay." Many more teachers qualify for such bonuses than in public schools that use merit pay, and the impact on compensation is significantly greater. Although these surveys do not report the size of merit bonuses, statistical analysis of total compensation detects no discernible impact of merit pay on the salaries of public school teachers who claim they receive it. By contrast, merit-pay recipients in private schools earn, on average, approximately 10 percent more than nonrecipients. This private school differential, as shown in Figure 2, holds true after statistical adjustments have been made for the teachers' education, years of experience, and the overall level of salaries at the school. Furthermore, inasmuch as these differentials are often built into the teacher's base salary, the long-term impact on compensation can be quite substantial.

Private schools are also more likely to use differentiated pay to attract applicants in subject areas where the supply of skilled teachers is limited. Nearly a fifth of all private schools offer special incentives to recruit teachers of subjects like math and science, where qualified instructors are in short supply. This is nearly twice the rate of public schools. Figure 2 shows that the sharpest contrast lies in the size of the incentives. Private school teachers in such fields earn 8 percent more than teachers of comparable education and experience in other fields. In the public school systems that claim to use such incentives, statistical analysis again finds no significant impact on teacher pay.

Pay flexibility within the private sector is greater than these figures suggest. A third of all private schools do not even have a salary schedule. Among those that do, the traditional criteria—academic credentials and teaching experience—explain less of the variation in teacher compensation than in the public sector, suggesting strongly that other factors are influencing pay.

All of these responses to the market are easier in the private sector because administrators are seldom subject to the constraints imposed by a collective-bargaining process. Unions have traditionally been opposed to differentiated pay for teachers of different subjects and to any form of merit pay that relies on a supervisor's subjective assessment of teacher performance or objective measures of student achievement (e.g., standardized tests). In the absence of union pressure, private schools pay more for teachers at the secondary level, for math, science, and special education teachers, and for teachers of superior performance.

The contrast between the public and private sectors should not be overdrawn. Personnel policies in private schools are heavily influenced by professional norms and expectations established in the much larger public sector. Nonetheless, private-school policies indicate the direction we might expect teacher compensation to take if constraints on school administrators were lifted and educational success and failure were met with real rewards and sanctions.

In the end, knowledge- and skills-based pay continues the essential feature of the single salary schedule—paying teachers with equivalent credentials equally.

Not Interested

Advocates of knowledge- and skills-based pay are fond of saying that they are merely adopting policies that have already taken hold in private industry. This is not only a substantial exaggeration of trends in industry; it ignores the fact that the private *schooling* industry has shown little interest in external assessments of teachers' knowledge and skills. For instance, National Board certificates have been awarded to 4,804 teachers, but only 48 of the awardees, less than 1 percent, work in private schools. (By comparison, more than 12 percent of the teaching force works in private schools.) Likewise, the trend in private industry has been not toward external assessments but toward increasingly comprehensive in-house reviews (known as 360-degree reviews) that draw on information from peers, subordinates, and customers as well as immediate supervisors.

Pay for knowledge and skills is promoted as a flexible alternative to the single salary schedule. Yet this kind of flexibility has little to do with enabling administrators to assemble the staffs needed to accomplish their goals. In the end, knowledge- and skills-based pay continues a policy of rewarding teachers for possessing certain credentials. These credentials will be more varied than in the past. But the essential feature of the single salary schedule—paying teachers with equivalent credentials equally—is retained. Unless these compensation policies recognize market realities and offer higher salaries in shortage fields like mathematics, science, and special education—a step that is unpopular among teachers—all instructors within the wage-setting unit will be eligible to earn these credentials. While some teachers will end up earning more than others (as they do now), there will be no teaching *jobs* that pay more than others.

The lack of interest in the new compensation within the private sector should give us pause. Interest in knowledge- and skills-based pay appears strong only when there are impediments to more far-reaching reform of teacher compensation, such as powerful employee unions and weak mechanisms to further consumers' interests. The proponents of knowledge- and skills-based pay would have us believe that meaningful compensation reform can be accomplished without changing educational accountability and exposing schools to competitive forces that could alter the balance of power between students and parents on the one hand and school employees on the other. Perhaps they should be applauded for their pragmatism. Yet their efforts should not distract from fundamental reforms aimed at the underlying causes of salary rigidity.

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written Teacher Pay and Teacher Quality was published in 1996.

Published by the <u>Hoover Institution</u> © 2001 by the Board of Trustees of <u>Leland Stanford Junior University</u>

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