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## TEACHER PAY AND 21ST-CENTURY SCHOOL REFORM

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Teacher pay is a flashpoint in contemporary debates on education reform. Broadly speaking, the discussion focuses on two central questions: How much should teachers be paid? and What factors should determine teachers' compensation? The debate regarding teacher pay is striking for the variety of recommendations that are made and the strong claims about the consequences of action or inaction. Various commentators argue that changing teacher compensation has the potential to increase or decrease student achievement, boost or depress the morale and performance of teachers, and improve or worsen teacher recruitment and retention. This split reflects a stark divide in the teacher compensation debate, which we will discuss shortly.

These debates play out against a backdrop of widespread discontent with the status quo approach to teacher compensation among education reformers. Most school districts in the United States base teacher compensation on a "uniform salary schedule," according to which teachers are paid primarily on the basis of two factors: experience and education. "Experience" refers to teaching experience, although some districts allow credit for military or other experience. In some districts, teaching experience must have been completed in that district or in the same state in order for a teacher to receive credit. Education mostly refers to college and graduate school work: a bachelor's degree is the minimum, and teachers can receive additional pay for attaining master's degrees or doctorates (and some-

times for completing credit hours without obtaining an additional degree). Teachers receive salary increases by proceeding along overlapping "steps and lanes"—consecutive steps correspond to years of experience, and lanes correspond to education.

A legacy of a time when college-educated women lacked other viable professional opportunities and it was unexceptional for teachers to work in a given district or school for decades, this arrangement is assailed by critics as anachronistic and inefficient. In the run-up to the 2008 U.S. presidential election, for instance, teacher pay attracted the attention of leading contenders, including Republican Mitt Romney and Democrat Hillary Clinton. Candidate and U.S. Senator Barack Obama created a stir with his July 2007 speech to the National Education Association, in which he defended the idea of linking teachers' pay to specialty and performance—in addition to providing them with across-the-board raises.

Reformers on the Left and the Right agree that addressing the teacher quality challenge is a key to school improvement. There is broad agreement that teacher compensation is a crucial element in hiring the teachers we need and steering them into the schools where they are needed most.

It is in deciding how to tackle this challenge that divisions become evident. Educators, their unions, and their professional associations argue that the urgent first step is the need to pay teachers more. In other words, they

believe that the solution to the puzzle of teacher compensation will come primarily from correctly answering the first question described at the beginning of this chapter: How *much* should teachers be paid? Skeptics concede that there may be cause to boost overall teacher pay, but argue that the most important task is to restructure the basis of teacher compensation. In fact, the claim that teachers are underpaid is less incontrovertible than readers may imagine.

### A Brief History of Teacher Compensation

In the early and mid-19th century, when schooling was largely rural (and administered almost entirely on a local level), room and board was often a significant part of teachers' compensation. The custom of "boarding around," in which teachers would stay with students' parents on a rotating basis, contributed to high teacher turnover rates. However, it served important social functions, particularly communities' desire to ensure the moral character of their teachers. During the late 1800s and early 1900s, increasing use was made of salary schedules (including pay differentials made on the basis of race and gender), but many administrators made use of their freedom to provide additional pay based on their own perceptions of teachers' merit. Additionally, differential pay was often awarded based on the grade level being taught. The increasing urbanization of American education encouraged this development, as did the growing demands for the "professionalization" of the teaching corps, which resulted in teachers paying for coursework in order to attain certification. Demands for equitable pay by women and African Americans helped spur the movement toward the single salary schedule, a development that swept the nation in the mid-20th century. In 1921, Denver and Des Moines adopted the country's first single salary schedules; and by 1950, 97% of school districts had adopted its use (Protsik, 1994).

A major push to revisit the structure of teacher compensation took place in the early 1980s, in the aftermath of the release of *A Nation at Risk*. The landmark report stated flatly that "Salaries for the teaching profession should be increased and should be professionally competitive, market-sensitive, and performance-based" (p. 3). Many states and school districts adopted merit pay plans as a result; others established "career ladder" programs, in which teachers are granted different roles, responsibilities, and compensation. Not long after, however, there was a consensus that these programs had largely failed, and many were abandoned; overall, the impact of *A Nation at Risk* was intense but brief, however, inducing a flurry of compensation reforms rather than a set of programs that were introduced and remained in place. However, Florida, Minnesota, and Texas have adopted state-level merit pay initiatives, as have several large school districts, including Denver, Houston, and Charlotte-Mecklenburg Schools in

North Carolina. We will discuss some of those programs at greater length below.

### Research on Teacher Pay and Related Questions: What Do We Know?

The extant empirical investigation regarding teacher pay is relatively limited and has not yielded anything resembling a research consensus. Researchers have, nonetheless, provided some valuable insights regarding the design and use of teacher compensation, including the impact of performance-based pay on teacher performance. In 2006, Figlio and Kenny (2006) studied test results from 1,052 schools and found greater, and statistically significant, student achievement gains among those schools using performance-based incentive pay. However, the authors were careful to warn readers not to generalize too broadly from their findings, cautioning, "Ultimately an experiment will be needed to reach a definitive conclusion about whether teacher incentive programs *cause* teachers, and thus schools, to be more effective." In an evaluation of a school-based incentive pay program in Dallas, Texas, Ladd (1999) found that the program led to relatively large student achievement gains for White and Hispanic students, but not African Americans. Ladd's study also noted the promise of incentive pay for reducing student dropouts and principal turnover rates. Figlio (1997) and other researchers have also suggested that higher overall salaries may lead to improved student achievement. Loeb and Page (2000), for example, have suggested that "Raising the wages of teachers by 50% will reduce high-school dropout rates by more than 15% and increase college enrollment rates by approximately 8%" (p. 394). Unsurprisingly, some authors have called for across-the-board pay increases as a reform strategy. However, other researchers have argued that higher salaries are likely to have little impact on student achievement.

Another wide body of research literature concerns the attributes most likely to be found in effective teachers. Many studies have demonstrated the significant, but limited, importance of experience to effective teaching. Teachers generally become more effective with each year of teaching up through their first half-decade in the classroom, but teacher performance appears to plateau by their fourth or fifth year of teaching. Similarly, many researchers, including Hanushek (1986), Goldhaber and Brewer (1996), and Ferguson (1991) have found that master's degrees are largely unrelated to teacher effectiveness. Some researchers have actually suggested that teachers' pursuit of advanced degrees may lead to *less* effectiveness in the classroom. In an analysis of data drawn from North Carolina public schools, Clotfelter, Ladd, and Vigdor (2006) found a "consistently negative effect of a master's degree on student achievement" (p. 799). Additionally, questions have been raised regarding the value of conventional teacher credentialing as a means for ensuring teacher

effectiveness. Such findings raise the possibility that the familiar “step-and-lane” pay scale, in which teachers are paid primarily on the basis of experience and accrued university coursework, is ill-suited to reward or retain quality educators. The implication is that a more strategic use of compensation might help to target effective teachers and avoid paying for unnecessary or irrelevant attributes.

### Are Teachers Underpaid?

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Many observers suggest that teachers are dramatically underpaid. Allegretto, Corcoran, and Mishel (2004) have argued that “teachers earn significantly less than comparable workers,” and that teachers’ wages have grown less quickly than those of most other workers in recent years. Their argument reflects the conventional wisdom apparent in newspaper editorials and in political platforms. The claim that teachers are underpaid remains controversial, however—and not least because there are significant disputes over the accuracy and meaningfulness of the very data used in discussing the question.

The average teacher salary in 2005 was reportedly \$47,602—6% higher than the average worker’s salary. The average salary for first-year teachers in 2005 was \$31,753 (Gould, Muir, Drown, & Cochran, 2007); although that number may seem shockingly low to some, it’s higher than what many Ivy League graduates earn when starting in the policy world, advertising, or similar nontechnical jobs. According to the National Association of Colleges and Employers (2005), for example, 2005 graduates of liberal arts programs were reportedly offered average starting salaries of \$32,725. However, the annual teacher salary data collected by teacher unions is viewed skeptically by critics on both sides of the teacher pay debate, suggesting that better data are needed.

Teachers’ hourly earnings are perhaps more important than their annual earnings when considering the overall “fairness” of teacher pay, but this too is an arena fraught with disagreements. Vedder (2003) has claimed that the Bureau of Labor Statistics (BLS) shows that teachers earn “more per hour than architects, civil engineers, mechanical engineers, statisticians, biological and life scientists, atmospheric and space scientists, registered nurses, physical therapists, university-level foreign-language teachers, [and] librarians” (p. 16). Greene and Winters (2007) used updated BLS statistics to estimate that teachers made \$34.06 per hour in 2005—fully 36% more than other non-sales white-collar workers. However, the hourly wage data used by Vedder and Greene and Winters have also been challenged, perhaps most prominently by Allegretto et al. (2004), who have pointed out, for example, that the BLS data consider only the hours that teachers are *scheduled* to work (“on-site” hours). While they are surely right to point out that scheduled work hours are an inadequate measure of the time that teachers spend working, it bears mention that many or most professionals work off-site as

well. The upshot is that it is unclear precisely what to make of the Vedder or Greene and Winters calculations, or how to state with any finality whether teachers are underpaid or overpaid.

One other consideration is that teachers have a markedly shorter work *year* than do most other workers. Most Americans work about 47 weeks a year (with about 3 weeks of vacation and 2 weeks of assorted holidays). Teachers, on the other hand, work about 38 weeks a year (teaching for 180 days and working additional professional days). In other words, in terms of number of weeks worked, most Americans work about 25% more than the typical teacher. Additionally, according to the U.S. Department of Education, during 1999–00 (the most recent year for which data are available) about 5.2% of teachers were absent on a given day—a rate much higher than the 1.7% absentee rate reported by the BLS for all forms of managerial and professional employment, as Podgursky (2003) has observed. The availability of substitute teachers makes teaching very different from professions like medicine, sales, law, or journalism where there is often no one to stand in for a worker in the event of an unscheduled absence. That translates into the average teacher missing an additional 9 days during each 180-day school year.

Public educators also receive generous benefits, including “defined-benefit” pensions that do not require any contribution from the teacher (discussed in greater length below). In addition to the ample benefits offered by teacher pensions, they often allow teachers to retire at an earlier age than most private sector workers. Public school teachers receive benefit packages worth about 26% of their salaries, whereas the typical private sector workers’ package is worth 17% of theirs (Vedder, 2003).

Let us now turn to a second question central to teacher pay and school reform: On what should teacher pay be based?

### On What Should Teacher Pay Be Based?

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The question of how much teachers should be paid is more often a central concern of groups and individuals who could reasonably be termed *teacher advocates*: teachers’ unions, professors of education, superintendents, and professional associations. Groups and individuals who focus on rethinking the *factors* upon which teacher pay should be based—including think tanks, advocacy groups, political commentators, and academics in fields such as public policy, economics, and political science—can loosely be labeled as the “reform” camp. In addition to recommending the use of alternative compensation approaches as leverage for solving problems, “reformers” also assert that the uniform salary schedule is fundamentally unfair in that teachers are compensated based on experience and credentials rather than performance.

Proponents of merit pay argue that few things are more frustrating for high performers than to be treated exactly

like their less committed peers. Paying for performance and for critical skills does more than deliver rewards to the most deserving, proponents assert: when done sensibly, it sends a vital message about the organization's priorities and values. Russell Miller, a principal with Mercer Human Resource Consulting, has bluntly opined that for organizations that fail to reward excellence, "The biggest risk is mediocrity. Your stars are going to look elsewhere, and your average and below-average employees will say 'I'm going to stick around'". Managers require the leeway to pay employees in accord with the difficulty of their jobs, the scarcity of their skills, and their performance (Bates, 2003).

Just as traditional companies structure compensation to keep the pay of those doing similar work within a general range, a more sensible system might utilize broad "pay bands" of the kind long utilized in the private sector and favored in civil service reform. These proposals are hardly radical. The Department of Homeland Security and the 750,000 civilians working for the Defense Department have been shifted to a pay system that uses five career groups and four pay levels—rather than the bureaucratic 15-grade general schedule long used by most of the federal government. Dozens of studies of test projects involving more than 30,000 Defense Department employees have found that the system improved performance and morale while retaining essential safeguards.

In the case of the Defense Department, the safeguards have included the creation of an independent Merit Systems Protection Board through which employees can seek a review of decisions (National Commission on the Public Service, 2003). Systematic performance data and sophisticated information technology can prove invaluable in equipping managers to make good decisions and in flagging problematic management decisions.

Arguments in favor of performance-based compensation center on the importance of rewarding *individual* teachers; equal pay and equal treatment are fair only if individuals are equal in their effort and their contribution. If teachers are not working equally hard or confronting similar challenges, proponents of merit pay argue that treating them equally can seem manifestly *unfair*. Defenders of the uniform pay scale reject that argument, contending that the introduction of performance-based pay differentials—which are inherently competitive, to one degree or another—runs the risk of reducing teachers' morale and camaraderie. For example, although private school teachers on average earn less than their public school counterparts, it is generally acknowledged that they are happier because staff morale is high at private school, they feel valued, and they enjoy parental support.

Union officials claim that it is nearly impossible to gauge teacher quality and that, even if the occasional principal can do so, principals in general cannot be trusted to treat teachers fairly. As an editorial in the NEA's *NEA Today* proclaimed, "Basing teacher pay on student performance is no answer—it's a thinly disguised assault on us.

Every day, we educators do the best we can, often under horrific conditions, with the best of intentions. No single determining factor—least of all student achievement—should dictate who among us will be paid more than others" (Tanaka, 1996).

A very different line was adopted by renowned former American Federation of Teachers (AFT) president Al Shanker. "I'm worried about how to prevent the pay-for-performance issue from becoming dysfunctional, dog-eat-dog," Shanker once said. "But I'm sure that we can develop such a system and that it would be pretty good. Its flaws would be very small compared to what we have now or compared to what you would have without such a system" (Haycock, 2003).

Perhaps surprisingly, a majority of teachers appears to support the idea of differential pay. A 2003 Public Agenda survey found that 78% of teachers agreed that "in [my] building, it is easy to spot who the truly great teachers are," and 72% agreed that "most teachers in [my] building could pretty much agree on who the truly great teachers are" (Farkas, Johnson, & Duffett, 2003). Seventy percent of teachers supported giving extra pay to teachers in "tough neighborhoods with low-performing schools," 67% supported it for "teachers who consistently work harder . . . than other teachers," and 62% supported it for teachers "who consistently receive outstanding evaluations from their principals" (Johnson & Duffett, 2003).

Sensible reform would require that district and school leaders be held accountable for performance, so that they will have self-interested reasons to identify and protect good teachers. Some research suggests that principals of private and charter schools—who do not have to abide by state certification requirements, and can mostly avoid having to comply with collective bargaining agreements—are especially likely to hire and reward teachers who attended high-quality colleges, who possess strong math or science training, or who put in more instructional hours. For example, a 2001 survey of charter school by Ballou and Podgursky (2001) found that 31% used incentive pay for teachers in harder-to-staff areas like math and science. Even more striking was their finding that 46% of charter schools used some kind of performance pay.

Even for those who believe that pay should be linked to measurable student achievement, however, it would be a mistake to rely simply on assessments of student performance to gauge teacher quality. There's more to schooling than standardized test results. Tests are imperfect and incomplete measures of learning, and it's crucial to remember that a teacher can contribute to student learning in a slew of ways that may not show up on a given assessment. A teacher may mentor other teachers or help to improve the effectiveness of colleagues in other ways. She may counsel troubled students, help maintain school discipline, remediate students on material that will not be tested, and so on. We should not reduce the definition of teaching excellence in this way, yet that's a mistake that some reformers risk in their eager rush to embrace

performance-based compensation. The imperfections of test-based accountability have historically been seized upon by those utterly opposed to educational accountability to excuse ineffectiveness and deny that teachers ought to be held accountable. However, there's nothing to be gained—and much to be lost—by going overboard in response.

One potentially promising avenue may be the continued development and study of “value-added” methods of measuring teacher effectiveness. Value-added assessment attempts to measure teacher effectiveness by tracking the learning gains of students from year to year, rather than simply looking at students' performance in a given year. In doing so, proponents of value-added technology hope to measure the true “teacher effect,” rather than make judgments of teachers' effectiveness that include other factors, such as home environment and cultural background, that are out of teachers' control. The statistical methods used in value-added modeling are extremely complex, and not surprisingly, there are numerous concerns about their reliability, validity, fairness, and precision. Problems yet to be adequately addressed include “vertical scaling” (the problem of how to accurately measure one student's progress on *different* tests from year to year), the challenges posed by student mobility, and how to control for the effectiveness of a student's previous teachers (McCaffrey, Lockwood, Koretz, & Hamilton, 2003). Proponents of value-added assessment, on the other hand, argue that it offers an unprecedented opportunity to truly measure the effectiveness of the individual teacher, and that the importance of the “teacher effect” makes value-added assessment an essential tool.

Researchers have estimated that Texas school districts could retain teachers with 3–5 years' teaching experience in low-achieving, high-minority schools at the same rate as in suburban schools if pay were boosted by about 26% (Hanushek, Kain, & Rivkin, 2004). Differential pay need not rely on guesswork, but can be based on this kind of deliberate analysis. Similarly, school districts facing persistent teacher shortages in certain teaching fields might benefit from reconsidering the status quo, in which English, social studies, and physical education teachers are paid the same amount as science or math teachers. After all, there are many more competent candidates for English and social studies jobs than for math or science positions. School administrators reported that it was “very difficult” to fill elementary teaching positions less than 6% of the time but “very difficult” to fill secondary math or physical science positions more than 30% of the time (Podgursky, 2002).

Rather than trying to judge teachers with mechanical precision, the aim for policy makers and educational leaders should be to develop sensible instruments for evaluation *and* permitting managers to make reasoned decisions. This is an area where public sector and private sector firms have made enormous progress in the past 15 years and where a wealth of experience is readily available from fields like journalism, consulting, and civil service reform. After all,

in addition to teacher effectiveness, however it is measured, there are a number of other considerations that proponents of differentiated pay would like to see districts take into account: the relative challenges an educator faces, the desirability of the work environment, and the relative scarcity of the teacher's skills.

## Teacher Pensions

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Teachers receive a significant portion of their compensation in generous pensions. Public school teachers generally receive “defined benefit” retirement plans that were designed for industrial-era jobs in which employees did not move or change careers, and reflect a mind-set that assumes personnel will work in one district or state for 20 or more years. Most states mandate that educators stay in the retirement plan for 6–10 years before they become “vested” and can collect even a portion of their benefits. In the 2000–01 school year, 15 of the 16 states in the Southern Regional Education Board required newly hired teachers to work for 5 years before they could be vested in the retirement system, and 5 of the 16 states required 10 or more years (Gaines, 2001). Matthew Lathrop of the American Legislative Exchange Council has noted, “The guaranteed benefit is only good for those who spend a substantial part of their career with one employer. That's an enormous drawback in today's economy, when even public employees are less likely to stick with a single employer” (Blair, 2002).

This pension system thus constitutes a significant structural barrier to teacher mobility, and in that sense may pose an obstacle to the implementation of some incentive pay reforms. One option endorsed by some reformers, would entail moving teachers from traditional pensions to “defined-contribution” arrangements, such as 401(k) or 403(b) plans (Hess & West, 2006). Such a step would reduce the number of veteran teachers who feel compelled to remain in place in order to collect a full pension; ease exit from and reentry into the profession; enable teachers to be more geographically mobile; and potentially make teaching more attractive for job changers. Proponents suggest that such a shift in retirement benefits would also reflect broader changes in an increasingly mobile U.S. workforce.

Restructuring teacher pensions may not even be a matter of choice. Much of the research on teacher pensions has been critical of particular states' pension systems—in particular, their status as large and increasing unfunded liabilities. The Education Partnership, a Rhode Island coalition, has documented the high cost associated with teacher benefits in that state and has made clear the degree to which they exceed the benefits made available by private employers. In one report, the authors discuss the tension between collective bargaining agreements in which districts agree to cover most or all of teachers' health care costs in retirement, and the increasing cost of health care

in the United States, claiming that many districts have incurred unsustainable financial liabilities (*Teacher Contracts*, 2006).

## Developments in States and Districts

In 2005, just 8% of traditional public school districts reported using pay incentives such as cash bonuses, salary increases, or additional salary steps to reward excellent teaching. Only 5% of districts offered money to draw teachers into teaching in less desirable locations, though on a more positive note, 12% of districts reported using incentives to recruit teachers into hard-to-staff subject areas like math and science. On the other hand, 18% of districts offered incentives for teachers to attain National Board certification—a credential whose relationship to effective teaching has not been established—and 24% offered incentives for teachers to complete professional development, another activity the worth of which has not been proven (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2007). In sum, the money that school districts have spent on pay incentives often serves as an extension of the salary schedule approach, rewarding the accumulation of credentials rather than performance in the classroom.

Some highly publicized performance pay programs have been introduced in recent times: Florida's E-Comp initiative, Denver's ProComp program, and Minnesota's Q-Comp scheme. Many other programs have been discussed and piloted as well, in a variety of locales including Arizona, Iowa, Houston, and Arkansas. Widespread political opposition, most visibly from teacher unions, has resulted in delays and reversals for several programs, making it difficult to determine what effect (if any) these programs have had. There is a political cycle at work here, in which performance pay remains "unproven" because it has not been adopted and sustained anywhere long enough for a consensus to emerge on its effectiveness. Pay reform schemes need (and deserve) to have a greater degree of political continuity behind them if they are to make any headway. Below we briefly review a few of the major efforts in more detail.

Florida was home to a series of highly publicized pay-for-performance initiatives. In 2003, Florida law was made to require all of the state's school districts to adopt performance pay plans that would award the top 25% of teachers. However, the requirement met with opposition from the start, and the state only attempted to kick off the E-Comp program in 2006, which required districts to design their own plans within the parameters of state guidelines. Before being implemented, though, E-Comp was the subject of constitutional challenges and union protests, and was replaced later in 2006 by the STAR (Special Teachers Are Rewarded) program. STAR was very similar to E-Comp, requiring that school districts reward the top 25% of teachers with bonuses on an annual basis, and that 50% or more

of the calculation of merit be based on student achievement gains. Widespread union-led opposition to the STAR plan ultimately sent state officials and legislators back to the drawing board *again*; in 2007, the state's new governor Charlie Crist unveiled the Merit Award Program (MAP). Unions have been friendlier toward the MAP plan than toward the earlier proposals. This is somewhat surprisingly, given that the plan actually requires that 60% of teachers' bonuses be based on student achievement; but MAP was also designed with more union input than previous plans had been (Exstrom, 2006).

Denver's ProComp program is the largest school district-based merit pay program in the country, and has attracted a great deal of attention. The idea for remaking teacher compensation in Denver had been in play since 1982, but disagreements postponed even a pilot program until 1999. The plan became official in late 2005 when Denver voters approved the measure. Under ProComp, teachers start out with a base salary of roughly \$34,000 that can be increased through a variety of means. Some of these are fairly conventional: an additional \$3,078 for attaining a graduate degree or National Board certification; \$684 for completing professional development; and \$342 or \$1,026 (depending on tenure status) for receiving a satisfactory evaluation. However, teachers can also receive \$1,026 for teaching in a hard-to-serve school; the same amount for teaching in a hard-to-staff subject area; and up to roughly \$2,000 for meeting a variety of student learning goals. These bonuses build cumulatively over time as well, adding a seniority-like element to the overall package. ProComp's broad menu of options for receiving pay increases is a result of long negotiations with the city's teacher union, and the long-anticipated program is being watched closely by proponents and critics of merit pay alike (Buck, 2007).

A bolder district-based effort has been made in North Carolina's Guilford County, where an Algebra II teacher who produces significant student learning gains can receive a total bonus of \$14,000 (Silberman, 2006). Also noteworthy is the increasing tendency for districts and states to base their performance pay initiatives on the Milken Family Foundation's Teacher Advancement Program (TAP). All of TAP's teacher bonuses are based in significant part on student achievement gains, but the program also offers participating teachers multiple career paths, as well as requiring job-embedded professional development. Recognizing and supporting the different roles that teachers play within schools is sensible.

Perhaps the most visible program to take its bearings from the TAP model is Minnesota's Q-Comp program, which was proposed and signed by Governor Tim Pawlenty in 2005. In Q-Comp, as in most other state-led initiatives, districts design their own plans, but the state supplies minimal criteria that they must meet. Unlike in Florida's program, however, districts' participation is wholly voluntary. The TAP-inspired guidelines for Q-Comp require participating districts to include the following elements in their plans: performance-based pay; accountability based

on student learning; career ladders or other career advancement opportunities; professional development; and teacher evaluation and observation. However, districts have taken very different approaches to this broad model, including the articulation of different student learning goals. For example, a study of some of the first districts to sign up found one district that decided to focus only on student achievement in mathematics, while more of them focused on reading. Similarly, the percentage of these districts' bonuses to be calculated based on student learning gains varied from 10–50% (*Implementation of the Quality Compensation Program*, 2006). While many proponents of compensation reform would likely object that using 10% of student learning gains as the basis for a pay increase constitutes a minimal improvement, it also seems that Q-Comp's voluntary nature increases its chances for long-term viability. At the time of this writing in July 2007, 34 school districts and 12 charter schools had Q-Comp plans approved by the state.

Other districts, including Cincinnati and Dallas, have experimented with “school-based performance awards” and more flexible pay systems that reward individual teachers for excellence on a number of measures. These efforts to modify teacher compensation have typically been less ambitious, tacking small bonuses onto the existing salary system. For instance, states and districts devise plans to provide a bonus of \$1,000 or \$2,000 to teachers who are already making \$35,000 or \$50,000 a year. Some experts contend that one-time bonuses of a few percent of annual salary are unlikely to have much impact (Hanushek et al., 1994). The president of the Wilson Group consultants, a firm specializing in performance-based reward systems, has derided merit increases of 4% as “a joke . . . The after-tax difference [in pay] is a Starbucks coffee” (Bates, 2003). Robert Heneman, a professor of business management and human resources at Ohio State University, has observed that the “research shows that you need [a] 7% or 8% [compensation increase] just to catch anybody's attention” (Bates, 2003).

## The International Context

Finally, it is worth putting the debate over teacher pay in the United States into a broader perspective, and considering whether the United States might be able to take any lessons about teacher pay from other countries. Examining the relationship between teacher pay and educational attainment in other countries yields some surprising results, however—and no easy answers. A broad review of relevant research suggests no obvious pattern regarding the relationship between student achievement and the amount that teachers are paid, or between the use of performance-based pay and student achievement.

Teacher compensation in Finland, for example, is neither particularly generous nor focused on performance; however, teaching is an extremely selective occupation in

Finland, and the country's students are some of the very highest-performing in the world. The disparity between this situation and ours is striking, to say the least, and it is clear that cultural, economic, and other factors are extremely important when considering these issues. In Switzerland, another high-achieving nation, performance-based pay has been approached with great caution: two cantons (out of 23) are experimenting with modest performance bonuses of 1–3% (Johnson, 2006). High-achieving Singapore, however, has implemented both incentive and performance-related pay. Teachers can receive bonus pay for teaching deaf students, for example—and even larger bonuses for teaching cognitively challenged students or for outstanding performance (Sclafani & Tucker, 2006). Other countries have also pursued reform approaches with implications for teacher pay. In Sweden, teachers are guaranteed a minimum base salary, and directly negotiate for any additional pay with principals on an individual basis. This approach—quite radical compared to U.S. policies—could hold significant promise if combined with rigorous accountability for school principals.

Study of the relationship between class size and student achievement on an international level has led some scholars to be skeptical about the United States' use of class size reduction as a tool for improving schools. In a study of the effect of class size on educational attainment in 18 different countries, West and Woessmann (2003) found that only two countries experienced significant benefits from smaller class sizes. However popular class size reduction strategies might be—and however genuinely helpful they may be in some circumstances—they may constitute a tremendous waste of America's resources. We should rethink our seemingly inexorable desire to reduce class sizes in the United States. Evidence suggests that little harm would result—and if we maintained similar levels of expenditure, we might be able to implement performance-related reforms *and* provide larger salaries to all teachers.

## Conclusion

In an era marked by widespread belief that teacher quality may be the key to school improvement, determining how—and how much—to pay teachers is a vital concern. “Reformers” posit that moving to a more flexible system of rewarding and managing teachers is part and parcel of the larger national effort to move toward schools guided by accountability and competition. Skeptics fear that such reforms will fracture school faculties, lead to unfair management practices, and fail to deliver appropriate compensation to teachers.

Although compensation reform can and should be used to meet specific and urgent policy objectives, it should be understood and debated not as a stimulus to prompt short-term increases in test scores but as part of a long-term strategy to attract, cultivate, and retain high-quality educators. Whatever their particular take on the issues in

play, addressing teacher pay policies is a crucial policy challenge for 21st century school reformers of all stripes.

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