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# **Teacher Performance-Based Pay: A Review of Compensation Reform Initiatives in Education**

## **WHITE PAPER**

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## Introduction

There is a wealth of descriptive information on the topic of diversified teacher compensation. An Internet-based search on the term “performance-based pay for teachers” yields 483,000 hits. Researchers from the areas of public policy, economics, education, and major charitable foundations provide studies for districts to consider in investigating new compensation strategies. Further, interest in incentivized compensation programs for teachers is international. Much of the work funded to date has been conducted in other industrialized nations such as India, Israel, Singapore, and the United Kingdom. A number of extensive review papers (e.g., Harris, 2007; Odden and Wallace, 2006; Podgursky & Springer, 2006; Reichardt & Van Buhler, 2003) are available to support decision-makers and several organizations (e.g., Consortium for Policy Research in Education; National Center on Performance Incentives; Education Commission of the States; and The Center for Educator Compensation Reform) have applied extensive resources towards conducting and reporting research on teacher pay structures. Due to the breadth and depth of the resources available on the topic, the aim of this paper is to provide a balanced review of the literature on alternative approaches to teacher compensation primarily relying on the sources cited above. This paper contains an overview of compensation terms and selected compensation programs, a summary of recent research findings, case studies of performance-based salary programs, and lessons learned from previous research to guide future efforts. Appendix A contains a listing of websites relevant to teacher compensation reform.

## The Concept of Total Compensation

Odden and Wallace (2006) developed a compensation model which depicts the major elements of what they term “Total Compensation”. A total compensation strategy combines and uses the elements of total compensation shown in Figure 1 to structure teacher pay and to send district messages. It provides direction and focus. It supports the district’s strategy for improving student performance. Vanderbilt’s National Center on Performance Incentives has issued a seminal review paper by Podgursky and Springer (2006) in which they define some key terms related to this paper and the concept of total compensation.

***Single Salary Schedule*** – A pay structure which ensures that all teachers receive the same compensation based on the number of years of teaching experience and education level. This schedule stems from the promotion of equalitarian policies by organized labor groups which began at the turn of the century.

**Merit-Based Pay** – A pay structure which replaces or supplements a single salary schedule by rewarding teachers, groups of teachers, or schools on a wide array of factors which could include student performance, classroom observations, and/or portfolios. A distinguishing factor for merit-based pay is that it relies on outcomes; usually student-related.

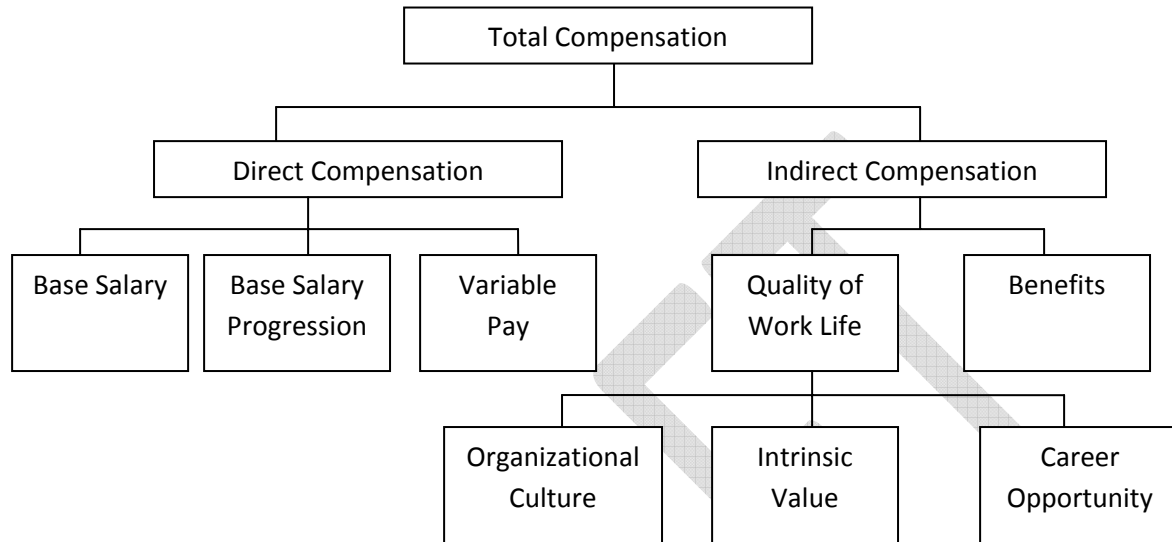


Figure 1. Odden and Wallace’s Total Compensation Model.

**Knowledge and Skill-Based Pay** – A pay structure which compensates teachers for acquiring new skills and knowledge (e.g. National Board Certification). Based on the premise that new teacher skills and knowledge will lead to improvements in student achievement. This salary structure is referred to as an “input-based” pay system. Odden and Wallace (2006) identify five ways that districts and states are currently identifying and rewarding knowledge and skills: (a) earning a professional teaching license, (b) National Board Certification, (c) score of a performance-based evaluation, (d) engagement in district or individual specified professional development activities, and (e) more focused education degrees and credits. They also advise reformers that long-term salary increases are more effective than bonus structures.

**Base Pay** – A pay structure which consists of a guaranteed amount and is usually paid in the form of a salary hourly wage, or piece rate wage. An example of base pay reform involves tying pay to an “input-based” variable such as National Board certification with possible contingencies on an output-based variable such as mentoring responsibilities as a minor component of the salary structure.

**Variable Pay** – Pay which is not guaranteed and is related to some external factor such as student results. It can be paid individually, to a group, or to a combination of the two. Reforms here involve tying compensation to a predetermined performance target which leads to

increased earnings for teachers or schools (i.e., this is an “output-based” pay system). If the performance targets are not met, base pay remains the same.

**Career Ladder** – Reichardt and Van Buhler (2003) define career ladders as an approach to teacher compensation introduced in the 1980’s that uses the following to determine career progression: (a) job performance, (b) job enlargement, and professional development. Performance-based ladders promote teachers as competencies grow. Job-enlargement ladders give teachers additional responsibilities outside of the classroom such as supervising or mentoring. Professional development ladders provide rewards to teachers for developing advanced knowledge or skills.

**Base Salary Progression** - The change of base salary from year to year.

**Indirect Compensation** - *Indirect* cash that has monetary value is referred to as *Benefits*. Indirect compensation that is non-monetary but leads to improvements in organizational culture, has an intrinsic value, and/or provides career opportunities is referred to as Quality of Work Life (QWL).

Compensation reform is garnering attention from policy makers and academics. Harris (2007) reviews the status of recent initiatives. Minnesota and Florida have state-wide policies in place. Minnesota’s Q-Comp policy which includes 35 school districts and 14 charter schools includes both teacher performance and student test-score components. The federal government’s Teacher Incentive Fund set aside \$99 million to fund performance and outcome based compensation systems in high-need schools. The Teacher Advancement Program (TAP) is funded by the Milken Family Foundation and includes elements of performance and outcome based compensation as well. While not identical, Minnesota’s Q-Comp program is based on the TAP. Currently there are over 30 states or school districts receiving Teacher Incentive Funds (TIF) from the U.S. Department of Education. The TIF program supports efforts to develop and implement performance-based teacher and principal compensation systems in high-need schools.

TIF goals include:

- Improving student achievement by increasing teacher and principal effectiveness;
- Reforming teacher and principal compensation systems so that teachers and principals are rewarded for increases in student achievement;
- Increasing the number of effective teachers teaching poor, minority, and disadvantaged students in hard-to-staff subjects; and
- Creating sustainable performance-based compensation systems.

Eligibility for funding requires projects to develop and implement performance-based teacher and principal compensation systems in high-need schools. Performance-based compensation systems are required to include gains in student academic achievement as well as classroom evaluations conducted multiple times during each school year and provide educators with incentives to take on additional responsibilities and leadership roles. Most recipients are in the last of a three-year funding cycle. For instance, the Chicago Public Schools received one of the largest awards, over \$15,000,000, to implement a Teacher Advancement Program (TAP) in 40 high need schools. The TIF program is an initiative funded under the Bush Administration and it appears that new proposals for TIF funding are not being accepted at this time—but it seems likely that similar funding opportunities will arise. Table 1 provides an overview of a number of long running compensation reform programs being implemented within the United States. These programs serve as models that should be further examined by anyone engaged in planning a compensation reform initiative.

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Table 1

Selected Established Teacher Compensation Programs

Location	Funding Source & Scope	Type & Status	Basis of Salary	Measures of Performance
<b>Douglass County, Colorado</b>	District-wide Locally-funded	Individual performance pay, school-wide performance pay, skills- and knowledge-based pay, additional responsibilities pay.  Began 1994.	(1) \$31,000 base salary for new teachers. (2) Annual evaluation. \$0-\$1,800 salary increase. Eligibility for further incentives (all as bonuses) requires satisfactory annual evaluation; (3) Outstanding teacher performance as documented through a portfolio:\$1,250; (4) Advanced coursework and degrees. \$1,000; (5) Development and application of skills identified by the district as priorities. \$250-\$500 per skill; (6) Master Teacher and National Board certified Teachers. \$2,500 annually for five years; (7) Extra responsibilities, up to \$750; (8) Group incentive plans wherein school or group of teachers develops goals to impact student performance; Additional \$500.	(1) Evaluation of performance (2) Fulfillment of job description (3) New knowledge (4) Added responsibilities (5) Student growth.
<b>Denver ProComp Colorado</b>	District-Wide program locally-funded following a tax levy approved by taxpayers; TIF Grant	Individual performance pay, school-wide performance pay, skills- and knowledge-based pay, market incentives  Began 2004	(1) \$33,301 base salary for new teachers; (2) Performance bonuses are given as a percent of the index, a fixed amount negotiated by Denver Public Schools and Denver Classroom Teachers Association. Current proposed index is \$33,301. Bonuses range from 1-9% of index as follows:(a) Professional Development: \$666, (b) Graduate Degree/National Certificate: \$2,297;(c) Satisfactory evaluation if non-probationary: \$999;(d) Hard-to-staff school or position:\$999; (e) Meeting annual student growth objectives: \$333; (f) Meeting or exceeding Colorado Student Assessment Program: \$999; (g) Serving in a distinguished school: \$666.	(1) Evaluation of performance (2) Student performance (3) Advanced degree or certification
<b>Vaughn Next Century Learning Center, Los Angeles</b>	School-Wide; Privately funded	Individual performance pay, school-wide performance pay, skills- and knowledge-based pay, additional responsibilities pay Began 1998.	(1) \$40,667 base salary for new teachers; (2) Additional education and National Board certification. Up to \$6,000; (3) Teacher performance as documented through evaluation. Bonus varies by level for up to \$14,700; (4) Achieving goals in student attendance, discipline, parental involvement and working in teams. Up to \$2,000 total; (5) School-wide student achievement. \$2,000; (6) Engaging in leadership roles such as grade-level chairs, peer reviewers, mentors, sponsorship of after school clubs. Up to \$4,000.	(1) Evaluation of performance (2) Student achievement (3) Added responsibilities

Table 1 (Continued)

<b>Location</b>	<b>Funding Source &amp; Scope</b>	<b>Type &amp; Status</b>	<b>Basis of Salary</b>	<b>Measures of Performance</b>
<b>Milken Family Foundation's Teacher Advancement Program (TAP)</b>	Private Family Philanthropic Foundation  Varies with individual programs	Individual performance pay, school-wide performance pay, skills- and knowledge-based pay, additional responsibilities pay. As of Fall 2005, in more than 100 schools in 10 states and the District of Columbia	(1) Base salary established by school district (current salary schedule); (2) Salary augmentation for additional roles and responsibilities (mentor and master teachers); (3) Performance bonus based on a combination of teacher skills, knowledge and responsibilities as measured by multiple classroom evaluations, individual, and school-wide student achievement as measured by value-added growth; (4) Districts can incorporate market incentives for teaching in hard-to-staff schools, or hard-to-staff subjects.	(1) Evaluation of performance (2) Student achievement
<b>Florida's Merit Award Program (MAP)</b>	State funded by the Florida Education Finance Program At least 60% of award must be based on student performance  Up to 40% of funds may be used to award professional practices	Teacher and Administrator Award Program  Replaced Florida's Special Teachers Are Rewarded (STAR) program in March 2007	At least 5%, no more than 10%, of the average teacher salary for the district.  \$147.5 million	(1) Evaluation of performance (2) Student achievement
<b>Minnesota's Q-Comp</b>	State funded 86 million	Districts receive \$260 per student to implement program Currently in 22 districts with 134 additional districts expect by 2008 school year	Schools receive funds to award teachers for excellence in student achievement.	District standards, classroom-level achievement, career ladders, job-embedded professional development; alternative salary schedule.

## Important Research Findings

“Value-added” studies of teacher effectiveness using longitudinal student achievement data began with Sanders’ work in developing the Tennessee Value Added and Assessment System (Wright, Horn, & Sanders, 1997). According to Podgursky and Springer (2006), other studies have been conducted in Texas, New York City, Chicago, and San Diego and all of the studies consistently found a large variation in achievement gain scores between classrooms and teachers which they offer as evidence that teachers can have a large effect on student achievement growth.

### Sorting It Out

Complicating matters is the lack of research which meaningfully ties teaching effects to teacher credentials; ranging from type of teaching certificate, level of education, licensing scores, and experience beyond the first two years of teaching. Aarons, Barrow, and Sanders (2003) found in a longitudinal study of Chicago Public School teachers that 90 percent of teacher effects are not explained by teacher characteristics. Further, teacher graduate degrees have been found to account for only a marginal effect on student achievement (Hanushek, 2003). Podgursky and Springer (2006) point to this work to argue that research findings do not support credential-based teacher compensation systems. They suggest that performance-based systems may provide a sorting advantage that enables student achievement gains when low performing teachers are reduced in numbers. Podgursky and Springer (2006) believe that a policy that ties pay to performance over time will result in better recruitment and retention of teachers in the upper distribution of teaching ability while low-productivity teachers will either improve or leave.

While past studies of teacher turnover found that high ability teachers were more likely to leave teaching than low ability teachers as measured by the National Teacher Exam (Murnane & Olsen, 1990). This may have been due to lower teacher salaries that led higher skilled teachers to work in the private sector. Some researchers contend that performance-based compensation systems may lead to turnover of low ability teachers. Lazear (2000) maintains that performance-related pay programs tend to attract and retain individuals who are skilled at the requirements needed to receive the incentives and believes that this can be important in explaining productivity gains. In a case study outside of teaching, he found that sorting effects were roughly equal in magnitude to motivation effects. So, performance-based pay systems for teachers may improve teaching outcomes in part because teachers who can meet the performance requirements are attracted to the system and improve the quality of the teaching faculty – similar to the concept referred to earlier by Podgursky and Springer (2006) as sorting.

### ***Pitfalls of Compensation Reform***

Azordegan et al. (2005) describe many of the criticisms levied by opponents of performance-based compensation systems. Performance awards that are contingent upon academic performance are opposed when the current testing system does not serve as a valid proxy of the teacher's performance (Milanowski, 1999). Conversely, while performance-based compensation systems may lead to higher test scores, high test scores do not necessarily equate to making meaningful gains in actual learning (Cohen, 1996). Concerns about the effectiveness of the evaluation system, continually rising standards for student performance, and the potential for the system to become unmanageably expensive are examples of criticisms given by opponents to compensation reform that uses "out-puts" as a primary criterion in determining teacher salaries.

Rewarding individual performance can be detrimental to teacher collaboration; thereby, reducing overall school performance. Conversely, reward systems based entirely on whole school performance can result in "free riders" who reduce the overall reward of high performers by not contributing at the same level. Of course, a reward system does not have to be entirely limited to individual teacher or group performance. One experiment conducted by the NCPI with the Metropolitan Nashville schools created a system where all teacher performance was judge against past performance of teachers in the district. Thus, all teachers in the treatment group had the opportunity to exceed the standard and receive a reward (Podgursky and Springer, 2006). These researchers discuss the complexities of measuring the value of a teacher or group of teachers when achievement is also influenced by many factors outside the control of the educators. Fortunately, the availability of more sophisticated data management systems is improving the reliability of measurements that are captured longitudinally.

Multi-tasking is a phenomenon where performance-based pay programs rely on quantitative measures of teacher performance which are not aligned with the district's overall mission. This runs the risk of teachers focusing more on activities related to maximizing the chances of receiving the incentive at the cost of neglecting broader or non-incentivized district goals such as increased student attendance or parental involvement. "Teaching to the test" is a common concern which can be ameliorated by diversifying the measures used to measure teacher performance (Podgursky and Springer, 2006).

Multi-dimensional compensation plans for teacher pay can offset some of the pitfalls to compensation reform. For instance, another dimension of teacher compensation oftentimes is principal evaluation. Research shows that principal ratings tend to be strongly correlated with student test score gains. Jacob and Lefgren (2005) studied the relationship between teacher

performance ratings as assigned by principals and student achievement gains. They reported a statistically significant and positive relationship between value-added measures of student growth and principals' evaluations. In a study of career ladder bonuses and student achievement gains in Tennessee's Project STAR, researchers found that teachers with career ladder status (which required passing one or more principal evaluations) were more likely to be effective than teachers who had not passed the required evaluations (Dee and Keyes, 2004). This study is especially compelling since students were randomly assigned to classrooms.

## Case Studies

The programs described below illustrate a wide spectrum of approaches to designing and implementing teacher compensation systems.

### ***Arizona Career Ladder Program***

The Arizona Career Ladder Program is a performance-based compensation plan that provides incentives to teachers in districts throughout the state who choose to make career advancements in teaching without leaving the classroom. Approximately 40% of the state's 43,000 teachers are employed in Career Ladder districts; approximately 70% of eligible teachers participate in the Program and nearly 1/3 of the state's students attend schools in Career Ladder districts (Dowling, Murphy, & Wang, 2007). The first fourteen districts were phase in over three years beginning in FY 1992-1993. There are now 28 districts participating and no new funding for additional district participation has been available since 1994.

Career Ladder programs promote and support the professional development of teachers. The Career Ladder design requires a completely different way of evaluating and compensating teachers. Rather than advancing on a salary schedule as a result of seniority and educational credits, teachers are paid according to their level of skill attainment and demonstrated student academic progress. Plans must include 5 components: (1) increasingly higher levels of pupil academic progress as measured by objective criteria; (2) increasingly higher levels of teaching skills; (3) increasingly higher levels of teacher responsibility; (4) professional growth; and (5) equal teacher pay for equal teacher performance (National Center on Performance Incentives, 2008).

Legislation requires that all new teachers in Career Ladder districts be evaluated for placement on the Career Ladder. Once evaluated, new teachers may choose not to participate for the following year. Teachers not choosing to participate in the Career Ladder Program remain on the district's traditional salary schedule. The program supports and encourages collaboration and teamwork, and provides opportunities for leadership and professional growth, with Career Ladder teachers participating in higher-level instructional responsibilities within their districts. The program also allows districts to apply to implement an additional incentive program for

other personnel at the school district level and provides awards based upon group, team, school or district (Dowling, et al., 2007).

In a comprehensive review of the Career Ladder Program, Dowling, et al. (2007) that student in the Career Ladder schools significantly outperformed control schools on student achievement measures, especially in math and reading. Though the methods and student methods are different, this research replicates positive findings for Arizona's Career Ladder Program reported for six previous evaluations spanning 1989 to 2002. (For a summary of these findings see Dowling, et al., 2007).

### ***Cincinnati Public Schools Teacher Evaluation System (TES)***

Cincinnati was the first school district in the country to propose complete reform to their salary schedule with the score on a performance-based evaluation system serving as the major factor in determining teacher pay (Odden and Wallace, 2006). The salary schedule proposed in 2000 contained five teacher categories, ranging from Apprentice to Accomplished. The original plan was to terminate teachers failing to advance (within two years each) through the first two categories.

The TES is used yearly to determine teacher progression on a traditional salary schedule. Three planning committees were comprised of 24 union representatives and 12 administrative representatives that included seven teachers with National Certification, a National Board Member and several teachers who had completed training to be observers for the Praxis III assessment program (Baber, 2007). After in-depth review of several teaching standards models, the committee chose to use the Danielson Framework for Teaching (1996) to define quality teaching (for a more detailed description and review of some materials, see Cincinnati Public Schools, 2009).

Teachers rejected the portion of the plan that transitioned teachers to the new system based solely on their evaluation outcomes (i.e., without regard to actual salaries) and tied compensation to TES ranking. The transition policy would have resulted in a \$10,000 salary reduction for some teachers and is largely blamed for 96.3% of teacher union members voting against this phase of the reform in 2002 (Baber, 2007). Despite the stalled effort, subsequent research showed that the evaluation system pay increases were based on was reliable and that teachers with higher evaluation scores as a group produced more student learning gains in their classrooms (Milanowski, 2004)

### ***Denver Public Schools***

The Denver Public Schools ProComp Plan was approved by teachers in 2004, for volunteer teachers and new teachers in January 2006 with Denver voters approving a funding referendum. The Denver proposal is fairly complex, using a base salary index and multiple factors to determine pay: (a) knowledge and skills gained through professional development, (b) a graduate degree, (c) a satisfactory evaluation, (d) creating and implementing a project to improve an individual teacher's students' test scores, (e) individual teacher and school-wide test score improvements from state tests, and (f) and market incentives that reflect subject area shortages and difficult to staff schools. The base salary can be renegotiated periodically and teachers can choose how to earn the salary increase each year (Odden and Wallace, 2006).

According to Podgursky and Springer (2006), the ProComp Plan was approved by voters in 2005 to provide an additional 25 million in taxes for funding for nine years. Denver Public Schools also received 22.67 million from the Teacher Incentive Fund (TIF) from the United States Department of Education (USDoE). ProComp is one of the nation's most widely known performance-related pay programs.

A four-year pilot (predecessor to ProComp) at schools was conducted during the 1999-2003 school years. Salary incentives were based on attainment of two teacher-developed and principal-approved annual objectives concerning student achievement. Results showed: (a) higher mean student achievement at all academic levels for pilot schools when teacher objectives were judged as "excellent" as based on a four-level rubric and (b) Student achievement rose significantly as length of teacher participation in the pilot increased. Findings relating the pilot study, without regard to quality of teaching objectives, were mixed.

### ***Minneapolis Public Schools***

Odden and Wallace (2006) describe the Minneapolis Q-COMP Professional Pay system as a structure that replaces traditional years of experience and education credits with increments more focused on professional development courses or relevant college credit or degrees. Teachers can earn up to \$33,000 in additional pay for attendance at district provided professional development classes and completion of 60 university credits. There are additional payments for advanced degrees, National Board Certification, and a district performance award called "responsibility pay". The structure eliminates all step increases and increases rewards for earning training credits. This system is unique in that it does not use a performance evaluation system or provide pay increases for improvements in student test scores. Funding is dependent on a state grant. Research findings linking QCOMP to student achievement are limited but it

appears there is a significant correlation between length of participation in the program and student achievement (Minnesota Department of Education, 2007).

### ***Vaughn Charter School***

Vaughn Charter School is considered by some to be the most successful, long running compensation reform program in the country (Odden and Wallace, 2006). Their structure uses six factors to trigger pay increases: (a) teacher credentials, (b) years of experience, (c) Masters degree, (d) National Board Certification, (e) score on the school's performance-based evaluation system that was based on the Danielson Framework, (f) leadership roles, and (g) cost-sharing actions. Teachers also received an annual bonus if the school as a whole improved student performance as measured by the state's testing and accountability system. A teacher who satisfied the highest reward levels for each factor would earn an additional \$23,300 per year. A five-year study conducted by CPRE found that the new salary structure was strongly supported by teachers and showed that teachers with higher evaluation scores produced more learning gains in their classrooms as compared to teachers with lower evaluation scores (Gallagher, 2004).

## **LESSONS LEARNED**

Azordegan et al. (2005) claim that the more successful systems tend to use multiple evaluation methods; including student-performance gains, demonstration of teachers' skill and knowledge, and peer and principal reviews. Specifically, they make the following recommendations regarding evaluation of teacher performance for compensation purposes:

- State assessments must be aligned to state and district standards.
- Expectations for competencies must be made clear.
- Teachers must receive adequate and ongoing professional development.
- States must invest in sophisticated data systems to house, analyze, and disseminate information.
- Evaluation systems must be fair and validly measure what teacher behaviors for which teacher legitimately can be held accountable.
- Monitor teacher and school manipulation of student classification and discipline procedures to prevent opportunistic "gaming" that ensures greater financial rewards (Podgursky and Springer, 2006).

- Use multiple measures of success.

Further, compensation systems should be designed to maximize stakeholder involvement, using a collaborative process that features frequent communication and engages teachers, administrators, parents, policymakers, and the public from cradle to grave. Professional development is an integral component of reform efforts and must be aligned with the all aspects of the new compensation program. Stakeholders need to understand that redesigned of compensation systems take time to perfect and realize improvements. Unexpected challenges will be encountered and the system will require adjustments. Therefore, adequate funding to ensure sufficient sustainment of the initiative is required. Reform efforts without adequate sustainment resources are at substantial jeopardy for failure from the onset.

An overarching lesson cited by Podgursky and Springer (2006) is that reformers must be willing to conduct experiments and pilot programs in a way that supports effective evaluation and trial and error adjustments. Current research findings on alternative pay structures for teachers is sufficiently positive to warrant forward movement but not sufficient to yield specific guidelines for optimal design of a total compensation package that will lead to improved student achievement.

### **Alternative Approaches to Teacher Compensation: The Bottom Line**

How to pay teachers in a way that best ensures quality teaching and high levels of student learning is a question still unanswered. Researchers have found mixed results in nearly all predictors of teaching success. For example, numerous reports have shown that the correlation between teacher quality and years of teaching experience is weak (or nonexistent) after five years of experience and may be negatively correlated after 20 years of teaching (Darling-Hammond, 2000). Findings from redesigned compensation systems in the 1980's and 1990's examined pay plans based primarily on subjective evaluations of teachers and compensation systems designed around advancement opportunities for high quality teachers. No conclusive data emerges from these efforts; many of the merit pay plan systems were not well-designed and career ladder systems often lost funding too early in implementation to demonstrate achievement gains (Azordegan, Byrnett, Campbell, Greenman, & Coulter, 2005).

Single-salary schedules for teachers are increasingly being replaced by or supplemented with alternative approaches to compensation, both in the United States and Internationally. While many initiatives began in the early 2000's, conclusive research on the effectiveness of the various approaches utilized to improve teacher quality—and student achievement—is scant and mixed. A review of nine experimental studies by Podgursky and Springer (2006) found that seven of the studies showed a positive impact on the outcome variables and two of the studies

had “mixed” results. Five of the studies were conducted outside of the United States. Only one study, conducted in the United Kingdom, spanned as much as five years and the outcomes were positive (Atkinson, et al., 2004). The bottom line is that no definitive, empirically-based “rules” for reforming teacher compensation structures currently exist. There is a modest amount of quantitative research, which shows positive trends. Studies showing negative results tend to be based on non-experimental designs. Qualitative research, largely in the form of case studies, does provide guidance for future reformers to help avoid recognized pitfalls.

Jefferson County Public Schools (JCPS) employs a single salary schedule that has vertical and horizontal dimensions for years experience and education. Teachers gaining National Certification receive an annual \$2,000 incentive and are paid at the Rank 1 level (equivalent of Masters degree). Teachers receive compensation for assuming extra responsibilities such as department chair or resource teacher; however, there is no formal career ladder program in place that explicitly structures professional growth and teacher incentives. A comparison of JCPS salary and wages to 18 other cohort districts found that JCPS ranked 17<sup>th</sup> for minimum scheduled salary for classroom teachers. There was a wide variability for JCPS teacher salaries. For instance, JCPS ranked 18<sup>th</sup> in lowest teacher salary paid and 7<sup>th</sup> in highest teacher salary paid (Education Research Service, 2007).

Odden and Wallace (2006) maintain that the value of paying teachers on a single salary schedule to achieve pay equity can't be held when teacher shortages threaten the quality of instruction available to students. They attribute many of the student struggles in high poverty/low performance schools to a shortage of teachers willing to teach in these settings, resulting in an overrepresentation of inexperienced teachers responsible for teaching some of the neediest students. These researchers support creating wage premiums for teachers in high poverty schools, teachers in subject areas experiencing teacher shortages, and teachers in large urban and remote rural areas.

“The goal is not just to have anyone teach in a high poverty classroom or in a mathematics or science class; the goal is to have someone who knows math or science and is an effective teacher covering those classes. Thus, schools, districts and states should provide wage premiums only to effective or trained teachers in high poverty schools or subjects where there are shortages” (p. 9).

All indicators are that work in reformed compensation for teachers will accelerate under the current Presidential Administration. President Obama has expressed support of pay-based performance salaries for teachers on numerous occasions and has appointed Arnie Duncan as the Secretary of Education. Secretary Duncan is a known proponent of teacher compensation reform and recently told attendees at the annual National Science Teacher's Association meeting (reported in Education Week, 2009): “I'm a big believe in differential pay. I want to

reward excellence by paying teachers and principals who do a great job in the classroom.” Given the priorities of the current Administration, high quality teacher shortages in high demand areas, and positive findings associated with a number of reform efforts, the question that most state and district leaders will be asking in the near future regarding reforming teacher pay is not “Should?” but “How?”

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## Appendix A - Suggested Websites for Further Review

Center for Educator Reform: <http://www.cecr.ed.gov>

Center for Policy Research in Education: <http://cpre.wceruw.org>

Education Commission of the States: <http://www.ecs.org/ecsmain.asp?page=/html/issues.asp>

Joyce Foundation: <http://www.joycefdn.org/Programs/Education/Default.aspx>

Milken Foundation TAP Program: <http://www.talentedteachers.org>

National Center on Performance Incentives: <http://www.performanceincentives.org>

Strategic Management of Human Resources: <http://www.smhc-cpre.org/resources>

U.S. Department of Education: <http://www.ed.gov/programs/teacherincentive/awards.html>

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