

## ISSUE PAPER

THE USE OF DIVERSIFIED COMPENSATION SYSTEMS TO ADDRESS EQUITABLE TEACHER DISTRIBUTION

Education Commission

**The Joyce Foundation** 

by Anne Martin

The last paper in a series of four

Introduction to the Project

Changing the way teachers are paid to include outcomes, such as student performance, or incentives for teaching in at-risk schools is gaining support in districts and states across the country. The policy process for moving away from the traditional compensation structure is a complex one, however. As is true in all sound policymaking, those designing and seeking to implement diversified teacher pay systems would benefit from reviewing what has been learned by both the research and policymaking communities in order to design programs with a better chance at succeeding. With the generous support of the Joyce Foundation, the Education Commission of the States has created a series of resources to provide policymakers and leaders with

+ An issue site on the ECS Web site with current resources

information on redesigned compensation systems. The resources include:

- ★ A redesigned teacher compensation database with information on state-, district- and local-level redesigned compensation programs
- ★ A series of four issue papers:
  - Funding Issues in Diversified Teacher Compensation Systems
  - Teacher Evaluation in Diversified Teacher Compensation Systems
  - Student Performance Assessment in Diversified Teacher Compensation Systems
  - The Use of Diversified Compensation Systems to Address Equitable Teacher Distribution.

We hope these resources are of value and relevance to policymakers and practitioners who are considering redesigning teacher compensation systems in their states, districts and schools.

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## INTRODUCTION TO DIVERSIFIED TEACHER COMPENSATION

Teacher quality is one of the greatest determinants of student achievement. It follows, therefore, that ensuring all students are taught by quality teachers is a priority, one that has been the subject of increasing focus with the passage of the No Child Left Behind Act in 2001 and its emphasis on establishing a minimum standard for highly qualified teachers and accountability for student performance. One of the ways in which policymakers are attempting to improve teacher quality and ensure all students are taught by a high-quality teacher is through changes in the system by which teachers are compensated.

Attempts to move teacher compensation systems away from the single salary schedule in which teachers are compensated based on years of service and educational attainment to one more reflective of teacher performance are not new. Earlier attempts at diversification fell into two basic categories: experimental merit pay and career-ladder systems; neither enjoyed uniform success.<sup>1</sup>

Experimental merit pay systems were limited in several ways. First, they tended to rely solely on subjective evaluation of the teacher by a school administrator as the means of determining bonus distribution. Additionally, these were zero-sum systems, meaning the number and amount of

bonuses were limited by the lump sum given to a school for this purpose. These limitations contributed to the claim these systems created competition among teachers. Moreover, these programs showed no evidence they improved overall teacher quality or student success.<sup>2</sup>

Career-ladder systems were also tried as an attempt to eliminate the flat career structure of the teaching profession. These systems provided additional salary and advancement opportunities for teachers who assumed additional roles such as mentoring and administrative responsibilities. While these programs showed promise through some improvement in student achievement, many programs were not able to obtain sustainable funding. However, certain aspects of career-ladder systems exist today within diversified teacher compensation programs. For a more complete discussion of teacher compensation reform efforts please see the ECS issue paper, *Diversifying Teacher Compensation* available at: http://www.ecs.org/clearinghouse/65/83/6583.pdf.

Modern reform attempts are more sophisticated in their design and tend to include multiple methods of evaluation, rewards for taking on leadership roles and links to outcome-based assessment such as student performance. Many programs also reflect the goals of the schools, districts and states by offering focused incentives to address high-need or challenging areas. Further, it is important to note that these programs are likely to be most effective as part of a larger system of teacher support.

This is the last in a series of four issue papers that highlight and discuss various aspects of diversified teacher compensation systems.

The four papers in the series are:

- Funding Diversified Teacher Compensation Systems (http://www.ecs.org/clearinghouse/74/75/7475.pdf)
- Teacher Evaluation in Diversified Teacher Compensation Systems (http://www.ecs.org/clearinghouse/74/78/7478.pdf)
- Student Performance Assessment in Diversified Teacher Compensation Systems (http://www.ecs.org/clearinghouse/74/76/7476.pdf)
- The Use of Diversified Compensation Systems to Address Equitable Teacher Distribution (http://www.ecs.org/clearinghouse/74/77/7477.pdf)

These issue papers were created with the generous support of the Joyce Foundation as part of a larger project on redesigned teacher compensation systems. Other resources produced through this project include an issue site on teacher compensation (available through the ECS Education Issues site) and a database containing information on state-, district- and local-level diversified compensation systems (available at: http://www.ecs.org/html/t\_comp.htm).

#### **BACKGROUND**

As mentioned above, teachers are the most important determinant in a student's academic growth.3 Another equally cited and accepted reality is that the least experienced and potentially less effective teachers tend to work in the most challenging schools due to hiring practices and seniority preferences.<sup>4</sup> As concerns over the achievement gap increase, states and districts are attempting to address the uneven distribution of quality teachers in academically at-risk schools. As part of diversified compensation plans, the federal government, states and districts are recognizing this need by providing financial incentives for teachers to work in at-risk or high-needs schools. However, few of the current programs acknowledge the first step of ensuring effectiveness before offering incentives to teach in the identified schools. Based on analysis of the current programs, the type and amount of incentives that will recruit teachers to - and retain teachers in - at-risk schools is still unclear.

## Language used to describe "high-need" schools:

- Rural
- Urban
- Geographic necessity
- High-needs
- Shortage
- High-poverty
- Critical need
- High teacher turnover rate
- Demographic necessity
- At-risk populations
- Percentage low SES
- High Priority.

There are many ways to define and measure teacher quality. Currently, the most recognized definition is the one codified by U.S. Department of Education under the No Child Left Behind act (NCLB).<sup>5</sup> The NCLB definition is largely based on content mastery and other teacher "inputs," which include holding a bachelor's degree, obtaining full state certification and demonstrating competency in the core subject academic areas being taught. Another possible method of gauging quality – the

ability of a teacher to increase student achievement – is gaining momentum and attention.

## Measuring highly-qualified teachers:

- Experience teaching
- Content knowledge
- Subject-matter degree
- Advanced degrees
- SAT scores
- Performance on state basic skill teaching test
- Highly qualified according to NCLB
- Effectiveness based on student test scores.

Despite opposition from some unions and traditionalists, this shift in thought is causing district and state policymakers to reexamine the long accepted system for paying teachers based on their experience and educational attainment. As data systems are developed that allow school districts to measure gains in student growth and tie these gains to a specific teacher, districts will be better equipped to identify which teachers are particularly effective. This valuable information can then be utilized to find ways to target these effective teachers for movement into schools serving at-risk populations that have historically been underserved and had trouble making necessary academic gains. For a discussion on the assessment of teacher quality using student performance and non-student-related measures see the second and third issue papers in this series: Teacher Evaluation in Diversified Compensation Systems; and Student Performance Assessment in Diversified Compensation Systems.

In order for these distinguished teachers to make the move to higher-need schools, the market incentives offered must be large enough to influence teachers' individual economic decisions. Policymakers at the federal, state and district levels are developing plans, both as part of diversified compensation programs and as stand-alone incentive policies, to encourage quality teachers to teach in the schools that are most in need. The challenge is to determine what types of incentives or other efforts will encourage a teacher to work in an at-risk or high-need school.

## FINANCIAL INCENTIVES TO TEACH IN AT-RISK SCHOOLS

In the policy and research community there has been and continues to be a great deal of discussion about teacher salaries overall and whether they are high enough to make teaching a competitive profession in the greater professional market.<sup>6</sup> There is less information available, however, relating to the effect of salary variation within a district, which is particularly salient for districts that include both high-performing and at-risk schools. The practice of paying all teachers the same helps to perpetuate the inequitable distribution of high quality teachers, as teachers have no economic reason to seek out positions in more challenging schools. The economic law of supply and demand dictates that salaries need to be higher in less desirable positions in order to keep the market in balance and all jobs filled.<sup>7</sup> There is limited evidence that paying teachers more does keep them in high-need schools. One North Carolina study found that bonuses of \$1,800 to teachers of math, science and special needs in high-poverty schools lowered the turnover rate of those teachers by 12%.8

There are two steps in thinking about how to redistribute effective teachers into at-risk schools. The first is to identify the effective teachers. The second is to entice those teachers to teach in the lowest performing schools. While there are many programs in which teachers are eligible to receive bonuses, loan forgiveness, flat payments and scholarships to teach in highneed schools, very few plans first identify the most successful teachers before offering them these incentives.

#### **FEDERAL EFFORT**

Through their recent intensified efforts, the federal government has acknowledged the necessity of addressing teacher distribution as a means of leveling the playing field for disadvantaged groups of students. If the education system in the United States is to thrive as "the great equalizer," the highest quality teachers must be working the lowest performing schools. Through the passage of NCLB, the federal government has greatly intensified their power in affecting educational policy decisions. Therefore, their increased attention will influence the policy decisions of states and districts nationwide.

#### Teacher Incentive Fund

The Department of Education has intensified the focus on diversified compensation systems with the introduction of the **Teacher Incentive Fund (TIF)**. This program provides grant funding to districts and states to develop or enhance performance-based teacher and principal compensation programs. One of the three stated goals of TIF is to increase the "number of effective teachers teaching poor, minority and disadvantaged students in hard-to-staff subjects." This directly addresses high-need schools, which are most often populated with the targeted student population. Awards are based on need, project design, adequacy of resources, quality of the management plan and key personnel, and evaluation of the program. The program design - accounting for half of the grant decision - must involve an element that "will reward teachers and principals who raise student achievement." Therefore, all programs awarded funds must link teacher pay to student performance.

#### **Overview of Federal Efforts:**

- Teacher Incentive Fund: Funds from the Department of Education are available as
  grants to districts and states to design and implement or expand diversified teacher
  compensation programs. One of the three stated goals targets teachers of poor,
  minority and disadvantaged students.
- State equity plans: States were required to submit plans to equalize teacher distribution. These were part of their plans to meet the highly qualified teacher requirement of NCLB submitted in 2006.
- **Federal loan forgiveness**: These are programs that forgive certain amounts of federal student loans for teachers who teach in high-need schools and subjects.

#### State Equity Plans

In the summer of 2006 all states were required to submit a plan to meet the highly qualified teacher (HQT) requirements in NCLB. The sixth requirement in these plans directly stipulated that states develop strategies "ensuring that poor or minority children are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than are other children." Ohio and South Carolina were two of the states that passed the Department of Education's initial review. Both mention using diversified compensation as a strategy to achieve equitable distribution of teachers.

Ohio conducted a thorough quantitative and qualitative analysis of their current teacher distribution to support the development of key strategies for addressing the unequal distribution of teachers. One of the elements of their plan is to "provide stipends to teachers for teaching mathematics, science or special education in schools that have been identified as hard-to-staff." This demonstrates a sincere effort to address inequities in teaching through statewide diversified compensation.

In their HQT plan, South Carolina discussed the state's participation in the Milken Family Foundation's **Teacher Advancement Program (TAP)**. TAP spans multiple districts in multiple states with the goal of recruiting and retaining highly effective teachers. The TAP program is based on four elements, one of which is designed to increase retention of effective teachers through performance-based compensation. South Carolina stated their intention to implement the TAP standards to evaluate teachers statewide. The components include paying teachers according to their roles and responsibilities, their performance in the classroom and the performance of their students. In their HQT plan, South Carolina recognizes that "teachers are more likely to accept assignments in settings that do not have strong records of success if they are compensated for the academic gains they help achieve." <sup>12</sup>

#### Federal Loan Forgiveness

The federal loan forgiveness programs are available to teachers who teach in high-need subject areas and schools. For highly qualified teachers who teach for five years in a low-income school, the U.S. Department of Education will forgive \$5,000 of federal student loan debt. If those five years are in a low-income school in the hard-to-staff subject areas of math, science or special education, the national government will forgive up to \$17,500 of federal student loans. There is no documented evidence of whether loan forgiveness programs for certain schools and subjects have had an impact on teachers' choices when entering the field.

#### **STATE EFFORTS**

Overall, the push from the federal government has encouraged states to examine their current distribution of teachers and many have enacted or expanded incentive programs. Some states are developing their own state-level programs; while other states that have earmarked funds for this purpose are granting money to districts in order to develop their own individualized programs. In both cases, many states are demonstrating awareness of the need to have uniform teaching quality across all schools.

## States without diversified teacher compensation are addressing teacher distribution through:

- Housing assistance
- Signing bonuses/ hiring incentives; bonuses for staying hard-to-staff schools
- Grants
- Loan forgiveness
- Scholarships to enter teaching in highneed areas (require a commitment to teaching for a designated amount of time in the state)
- Signing bonuses specific for National Board Certified teachers to teach in highneed schools (California)
- Stipends paid by the state teachers union to teachers in high-need subjects (Connecticut)
- Step increases on the salary schedule
- Yearly flat payment (sometimes subsequent to an original signing bonus)
- Coverage of moving expenses (Mississippi)
- State grants for district proposals on how to recruit/retain highly qualified teachers (New York)
- Eliminate the moving around of poor teachers into underperforming schools (California)
- Incentives for teacher preparation programs to increase the number of graduates in high-need subjects (Virginia).

# States with diversified teacher compensation systems in place are addressing teacher distribution through:

- Signing and retention bonuses to work in high-priority districts (Georgia)
- Bonuses for all teachers if performance targets are met in designated high-need schools
- Incentives which are specifically targeted to teachers in high-need subjects and schools
- Grants awarded to schools based on the percentage of disadvantaged students with high levels of achievement (Educator Excellence Awards Texas)
- Setting baseline standards that schools with a low grade cannot have a higher percentage than the overall district percentage of: first-time teachers, temporarily certified teachers, teachers in need of improvement or out-of-field teachers (California).

#### Non-Diversified Compensation-Related State Efforts

Popular state-level incentives intended to encourage teachers to work in at-risk schools include state loan forgiveness programs, the provision of scholarships with requirements for time teaching in at-risk schools and housing incentives. There is no documented evidence as to the effect of these programs on the composition of the teaching profession. They operate under the assumption that qualified individuals will enter the profession, or choose a particular state of residency, in greater numbers based on the incentives offered.

#### **Diversified Compensation-Related State Efforts**

The Educator Excellence Awards Program in Texas provides grants to eligible applicants to create a system of financial incentives for educators who achieve high levels of student academic performance. Eligible applicants are school districts or open enrollment charter schools that have one or more campuses with high percentages of educationally disadvantaged students. While there are other required components for the programs, the overall determinant in how much money each district will receive is based on the performance of the disadvantaged students in the district. These grants are noncompetitive and in 2006, the state allocation for this program was approximately 100 million dollars.<sup>14</sup>

In **Georgia**, the state has allocated funds both to recruit new teachers into high-priority districts and to retain teachers already in these districts. They offer an initial signing bonus of \$4,000 and \$3,000 per year for up to two additional years for teaching in the identified districts. This program is unique in that it diversifies compensation at the district rather than the school level.<sup>15</sup>

It is important to note that none of the state-level programs target teacher quality or effectiveness as a component of eligibility for incentives in at-risk schools or districts. Some plans include a performance-based compensation component for teachers already in place in these schools, but there is no research on whether additional incentives encourage effective teachers to move to at-risk schools.

#### Other State Initiatives

California is addressing the distribution of teachers from another direction, trying to ensure the percentage of less effective teachers is not disproportionately high in the lowest-performing schools. The state recently passed legislation to halt the transferring of less-effective teachers from one underperforming school to another. Principals of the lowest-performing schools can now refuse to accept these teachers as part of their staff. Although this policy does not offer incentives for qualified teachers to teach in underperforming schools, it is limiting the amount of traditionally ineffective teachers in the most-challenged schools by giving school leaders more autonomy and space to hire more qualified teachers.

#### DISTRICT AND LOCAL EFFORTS

At the district level, there is more differentiation in program design. At one end of the spectrum there are districts offering smaller incentives to all teachers in targeted schools or subjects. At the other end are programs that focus on a small number of schools, finding verifiably effective teachers and then offering larger incentives to move those teachers to targeted schools.

### Overview of Incentive Elements used in District and Local Programs:

- Identification of the most challenging schools and targeted recruitment of teachers using signing bonuses, housing incentives and/ or payments for performance
- Yearly bonuses for teaching in hard to staff subjects or schools
- Signing bonuses for the commitment to work at traditionally harder-to-staff schools.

**Denver Public Schools (DPS)** has received national attention as an innovator due to their diversified compensation program, **ProComp**. There are several factors that determine how much a teacher in DPS will receive above their base compensation. These include knowledge and skills, professional evaluation, student growth and market incentives. As part of the market incentives, teachers receive bonuses for teaching in high-need schools or hard-to-staff subjects. Any teacher in the schools or subjects may take advantage of these bonuses, including teachers already in the positions when the program was enacted.<sup>17</sup>

In 2004, the Community Training and Assistance Center released their final version of the Denver ProComp pilot program evaluation. The evaluation found generally positive results, including parental support of the program, an increased focus on student achievement district-wide and increased student achievement in the pilot schools. The report did not address whether effective teachers moved from higher- to lower-performing schools as a result of incentives offered through the program. <sup>18</sup>

Aldine, Texas offers a very similar program in which stipends are given to teachers who are teaching in high-need schools or subject areas. Fully certified teachers who teach in critical need areas – including math, science, reading in grades 7-12, and bilingual and special education at all levels – are eligible for annual supplements. These bonuses are based on a six-period day of teaching in the

critical need area; if a teacher teaches a portion of their day in these subjects, the bonus is pro-rated. In addition to the critical needs supplements, Aldine's performance incentives link bonuses to student attendance, teacher retention, percentage of students passing state assessments, and percentage of students scoring at a specific level of achievement gains on assessments. Teachers and other campus personnel who meet verifiable performance standards are eligible to receive incentives that are distributed within each school at the discretion of a campus steering committee.<sup>19</sup>

In the fall of 2004, Virginia began a two-year pilot program designed to attract and retain licensed, highly qualified and experienced teachers in hard-to-staff middle and high schools. Under the program, piloted in Franklin City and Caroline County, teachers were given a one-time hiring incentive of \$15,000 for moving to a hard-to-staff middle or high school. The teachers had to agree to teach in the school for a minimum of three years and participate in training and a support network. Additionally, the program included \$500 stipends for the teachers during both years of the pilot to cover expenses related to training and professional development. Highly qualified teachers already working in the participating schools were eligible to receive annual \$3,000 bonuses and \$500 stipends for training and professional development as incentives to remain at these schools. The pilot program was expanded to include a third year wherein the general assembly provided partial funds for the program with the stipulation that the local division match the state funds. One of the two original schools opted to participate. It is unknown whether the program will be funded for an additional year and unknown whether it will be implemented across the state.<sup>20</sup>

An example of a successful program that targets specific at-risk schools rather than an entire district is the **Benwood Initiative** in **Hamilton County, Tennessee**. In this targeted-school design, school districts isolate several chronically underperforming schools and actively recruit effective teachers into these schools. The Benwood Initiative, which began in 2000, targeted nine low-performing schools that were urban, poor and largely minority. By recruiting effective teachers, focusing intensely on instruction, improving working conditions and paying teachers for their success, the schools showed large gains on the state achievement test.<sup>21</sup>

Currently, in **Mobile, Alabama**, district officials have chosen five chronically underperforming schools and are planning to inundate them with effective teachers in order to increase student achievement. To teach in one of the identified schools, a teacher must fill out an application with recommendations pertaining to how effective he/she was at increasing student growth in a previous school. In order to recruit these teachers, Mobile is offering \$4,000 signing bonuses and \$4,000 bonus payments at the end of the year for increases in student achievement.<sup>22</sup> This model of differentiated compensation actively recruits teachers with proven success records and then pays them to come to the school, as well as encouraging them to be successful by offering additional incentives for student performance.

#### **CONCLUSION**

The claim that the most highly qualified teachers are disproportionately under-represented in lower-performing schools is based on traditional measures of teacher quality. This most commonly includes years of experience, subject-matter knowledge and degrees earned. Current research shows, however, that student academic growth is at best only slightly related to these standard measures.<sup>23</sup> As more research and attention is focused on discovering what distinguishes a highly effective teacher, there will be a necessary re-examination of the traditional notions of teacher quality.

Several states and districts have plans to implement diversified compensation to address the issue of teacher distribution in schools in the very near future. At the district, state and national levels, there is an increased understanding that if teachers are the largest predictor of student success, the most probable way to narrow the persistent achievement gap is to saturate the lowest performing schools with the best teachers. This presents an arduous task for policymakers at all levels. Many teachers self-select into better schools for the benefits of better student behavior, more responsive administration and increased school safety, to name a few. Rewarding teachers who are already in

hard-to-staff schools and are succeeding in terms of student gains may lead to retention and continued success.

A separate issue, however, is how to motivate teachers in higher-performing schools to relocate to at-risk schools. This requires incentives large enough to overcome the working condition considerations that deter teachers from choosing higher-need schools. In addition, most experts agree increased compensation is no panacea. It must be augmented by efforts to improve working conditions in traditionally hard-to-staff schools.<sup>24</sup>

A final critical issue requiring policy attention is ensuring that incentive payments are linked to success increasing student achievement. Simply making blanket payments to all teachers in certain subject areas or schools provides little incentive to advance student achievement or increase teacher capacity. Before districts and states pay out this money, there needs to be a system in place to ensure – in a measurable way – teachers have a history of success with increasing student learning. In addition, schools must implement a system of support and continued professional development for these teachers. As national, state and district programs continue to expand more data will become available as to which of the current models will prove most cost-effective for stimulating the best teachers to work in the schools and with the populations that need them the most.<sup>25</sup>

District/County	Schools Involved	Amount of Bonus	Attainment of Bonus
Denver, Colorado	All schools that meet specified qualifications <sup>1</sup>	\$1,026 for 2006-07. All bonuses are calculated as a percent of an "index" that is negotiated by Denver Public Schools and the Denver Classroom Teachers Association.	All teachers in high-need schools qualify.
Aldine, Texas	All schools	<ul> <li>Special education (all levels) = \$3,000/ yr</li> <li>Bilingual = \$4,000/ yr</li> <li>Montessori = \$1,500/yr</li> <li>7th-12th math, science and reading = \$3,000/ yr</li> <li>ESL (all levels) = \$2,000/yr</li> <li>Also, bonuses at the school level based on student attendance, teacher retention, percentage of students passing state assessments, and percentage of students scoring at a specific level of achievement gains on assessments.</li> </ul>	End of the year.
Franklin City and Caroline County, Virginia	All high-need schools	\$15,000	Signing bonus; must teach for three years.
Hamilton County, Tennessee	Nine schools	\$5,000	Both recruitment and retention bonuses offered to highly effective teachers.
Mobile, Alabama	Five schools	\$4,000	Signing bonus and end- of-the-year dependant on results.

1 For more information on the specifics, please see: http://denverprocomp.org/stories/storyReader\$126.

### CONCERNS FOR THE FUTURE/ THINGS TO THINK ABOUT

- How much of a bonus is enough to ensure change in the way teachers self-select into schools?
- Do bonuses need to be continued in order to increase retention?
- Given a limited amount of resources in order to provide incentives to teachers, should states and districts offer more money to fewer teachers or less money to more teachers?
- Should incentives be put on a sliding scale related to school performance?





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