

Teacher Attitudes Towards Performance-Based Compensation Reform

A Case Study of the Aldine School District

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Introduction

In 2008, Michelle Rhee graced the cover of TIME magazine, pictured in front of a blackboard, holding a broom next to the caption, “How to Fix America’s Schools.” Rhee, the former chancellor of D.C. public schools, has become one of the most recognizable and polarizing faces in the contemporary education movement, epitomizing the new wave of relatively young, hard-charging, data-driven, no-excuses reformers. Rhee became controversial for her blunt personality and taking on the formidable teachers union. Her plans were two-fold: First, she wanted to evaluate teachers using their students’ standardized test scores. Second, she wanted to compensate teachers according to their evaluation scores. After three years in office, Rhee resigned.

In 2008, Barak Obama was also elected to office. Soon after, under the leadership of his Education Secretary, Arne Duncan, President Obama launched an extensive grant competition for cash-strapped states, titled Race to the Top (“RTT”). Seen in large part as a response to the much-criticized legacy of the Bush Administration’s No Child Left Behind, the RTT initiative encouraged states to adopt new education laws in order to receive federal funding. To apply, states had to agree to allow teachers to be evaluated based on student achievement. The administration also bolstered funding to the Teacher Incentive Fund, which provides funds for the development and implementation of performance-based compensation.

The policies of both Race to the Top and Michelle Rhee characterize a significant shift in education reform thinking and implementation which has taken hold over the course of the past five years. There has been a heightened emphasis on the importance of high quality teachers, and thus a push in education policies to accurately evaluate them and couple incentives through compensation packages. As a result, more than 30 states and countless districts have changed their policies since 2008 to reflect this new way of thinking (Doherty & Jacobs, 2013). Furthermore, between 2006 and 2010, nationwide spending on performance pay increased from \$99 million to \$439 million (Blazer, 2011).

The Aldine Independent School District, located in Houston, Texas, is one

of the many districts undergoing tremendous change. Having recently implemented a new evaluation system and in the process of designing an aligned compensation system, Aldine finds itself in the position of wondering how best to implement new policies, particularly ones as high-stakes as determining the basis on which its teachers are paid.

This paper closely examines the notion of compensation reform in American public education, first exploring the history and implementation of “pay-for-performance” initiatives around the country and then focusing on teacher perceptions of this increasingly popular reform. By surveying the Aldine ISD teaching force regarding their attitudes towards compensation reform, I am able to make some recommendations to the district, and districts in similar policy situations, regarding how to best make the teacher population more receptive to accept such reform.

Background

In 2007, the single salary schedule was described as a “nearly universal feature of American K-12 public school districts,” (Podgursky & Springer, 2007). Comprised of a pay scale determined by years of experience (called “steps”) and education credentials (called “lanes”), this compensation system has become ubiquitous in public education. Yet the two components of the single salary schedule, years experience and level of degree, have consistently failed to correlate with student outcomes leaving districts basing teacher pay on factors unrelated to their performance in the classroom (Goe & Stickler 2008, Rivkin, Hanushek, & Kain 2005). Furthermore, high quality teaching candidates may feel disinclined to pursue a career in teaching due to the low salary as compared with other private sector positions, as well as the lack of financial reward for doing their job well or better than their peers.

However, the climate is changing. States and districts are now experimenting with the idea of a more market driven approach to teacher salaries, and more importantly, using teacher compensation as a way to communicate their values and priorities. Compensation reform, defined as aligning teacher financial incentives to student outcomes, has two goals. First, it should drive the improvement of student outcomes, or in more general terms, increase teacher productivity. Second, it should facilitate the recruitment of better teaching candidates (Hershberg & Robertson-Kraft, 2009). Ultimately, compensation should reflect a district’s desire to reward skill development, improved student outcomes, and provide a basis for career progression (Odden & Wallace, 2008).

History

Compensation reform as a policy initiative is hardly a new idea. Over the history of American public education, many large-scale changes have been made to its pay structures. In the early 19th century, education primarily existed in the form of small one-room schoolhouses, with teachers compensated in the form of room

and board at homes of their students. As the economy developed as a result of the Industrial Revolution, the demand for differentiated human capital increased. Teachers were needed in higher numbers and increased quality as the nation developed a rapid need for an educated work force.

A new compensation system accompanied this shift in school design. Under the new “grade-based” system, teachers were paid in a way similar to workers in other sectors of the economy, using a production model: teachers were compensated according to the level of skill required to educate them. For example, it was considered easier to teach young children than older children, and therefore the teachers of older children were paid more. An unintended consequence of the grade-based system turned out to be that the distribution of teaching positions, and therefore compensation, was biased based on race and gender. Additionally, nepotism was rampant.

The Single Salary System

The solution to this problem arose with the increasing influence of labor unions in the early 20th century. Teachers joined forces to advocate for the single salary system, which determined compensation based on number of years of experience and level of educational attainment. Pay was uniform for all teachers in a district with the same qualifications, significantly reducing the instances of discrimination in the teaching profession. The single salary system quickly spread through country and has easily remained the most common compensation system in the country. There has been little to no real movement in this compensation structure over the course of the last 50 years, with 97% of districts having a single salary schedule in 1950, decreasing by only one percentage point by 2007 (Podgursky & Springer, 2007).

Yet the single salary system has not always been without controversy. In 1983, *A Nation at Risk*, rocked the education world. Detailing the mediocrity of American schooling for the first time, the seminal report put new pressure on schools to improve performance, particularly in comparison to the rest of the world (The National Commission on Excellence in Education, 1983). It was in this context that the first merit pay programs were initially conceived, offering financial incentives ranging for individuals, groups of teachers, or entire school, and based on anything from classroom observations, teacher portfolios, to student performance. Teacher compensation was considered to be a relatively easy way to drive improvements in student performance, encouraging teachers to work harder or better. Individual districts and states experimented with implementing pay for performance systems, but no individual initiative or compensation model ever grew large enough to rival the single salary system, due in large part because teachers were unsupportive of the measures. Additionally, as teacher compensation became a popular area of research, merit pay consistently yielded mixed and confusing results regarding the program’s success on student performance.

The strongest advocates of the single salary system were and continue to

be the country's teachers unions. Teachers initially rallied against the discriminatory compensation practices in schools, organizing around their perceived injustice. Throughout the mid-twentieth century, teachers advocated that all positions were equally challenging and therefore deserved the same pay. Unions, in particular, had a strong obligation to protect every due paying member, even those who do not perform at high levels, resulting in a general opposition to significant differentiation between the performance of teachers. Even today, in the face of countless studies indicating the ineffectiveness of the single salary system, the American Federation of Teachers argues for "enhancements" to the traditional approach rather than a complete overhaul (American Federation of Teachers, 2014).

Teacher Evaluations

A discussion of compensation can hardly take place without examining performance metrics. Studies have consistently revealed the ineffectiveness of traditional methods of teacher evaluation. It is important to recognize that it is only possible to compensate good teacher performance if performance can be accurately measured. Progress in this regard has been hindered by the state of teacher evaluation systems across the county. This capacity has been limited; both by laws and policies governing teacher contracts as well accepted methodologies for measuring performance.

Evaluation systems, historically, did not incorporate student outcomes and reflected little differentiation between performance levels within the teaching force. In 2009, a study surveying twelve districts across four states revealed that the overwhelming majority of teacher evaluations did little to differentiate between the performance of teachers, with 99% of teachers receiving a "satisfactory" rating. Titled "The Widget Effect," the report indicated that the information produced by the evaluations had virtually no consequences, either through professional development or dismissal (Weisberg, Sexton, Mulhern, & Keeling, 2009).w

The fact that teacher evaluations were not identifying discrepancies between teacher performance does not mean that these discrepancies did not exist. For years, there has been evidence of large variations between classrooms and teachers regarding the growth of their students, suggesting that teaching has a substantial impact on student achievement (Chetty, Friedman, & Rockoff 2011, Hanushek 2010). In fact, some have gone so far as to say designing and implementing a high quality teacher evaluation system could be the most effective way to raise student achievement (Staiger, Gordon, & Kane, 2006). While non-school factors do influence student achievement, leading research suggests that teacher quality, over things like school funding or student-teacher ratio, is the most import in-school factor to affect student outcomes (RAND Education, 2012).

New Climate of Reform

Over the course of the last five years, the country's interest in developing new methods to evaluate teachers has increased. This has resulted in a re-examination of both internal and external factors that affect such evaluations and significantly changed the laws that govern such evaluations.

Research

Researchers have come a long way in being able to isolate the specific effects a teacher has on student learning through the use of standardized test scores. The two primary ways to do this are to use a Value Added Model (VAM) or Student Growth Percentiles (SGPs). VAMs use multiple previous years of testing data to predict scores for individual students in a testing year. The model then averages the difference between student's actual scores and predicted scores to determine the teacher's overall added value (RAND Education, 2012).

Conversely, SGPs work by comparing student growth to their academically similar peers. Students are assigned SGPs based on what their test scores were at the end of a year as compared to all the students who had the same score on a test the previous year. Therefore, an SGP of 50 would imply that the student's growth was exactly the median for the evaluated students (RAND Education, 2012). This method works well because it focuses on student growth rather than achievement, which has been shown to correlate highly with demographic factors such as socioeconomic and minority status.

Without a doubt, the most extensive study ever conducted on the measurements of teaching is the Methods of Effective Teaching study, a meticulous three-year research endeavor sponsored by the Bill and Melinda Gates Foundation. They evaluated the way different measures of teacher performance correlated with student outcomes, examining different classroom observation rubrics, student perception surveys, and of course, student scores and gains on state tests. They determined that effective teaching can successfully be measured, but only through the use of multiple metrics that are carefully balanced. Additionally, through a controlled experiment, the authors were able to conclude that students of teachers who were rated as being highly effective in 2009-2010 performed better at the end of the following year, confirming that high quality teaching actually helps students to learn more. The study also means that there are reliable ways to measure whether teaching is of this high quality caliber or not (Bill and Melinda Gates Foundation, 2013). Research and methodologies dramatically changed the discussion regarding compensation reform, because districts can now be confident that they would be rewarding qualities that are integral to the overriding goal: help students to learn.

Laws

Yet it has not been research alone that has contributed to the dawn of the contemporary generation of education reform. Laws, at the district, state, and federal

level, have changed radically over the course of the past five years. Most notable is the Obama administration's cornerstone education agenda, the \$4 billion dollar grant program titled Race to the Top. Passed as part of the 2009 stimulus package, RTT was designed to incentivize reform of teacher evaluations, data management systems, academic standards, turnaround school models, and school choice through offering competitive grants to cash-strapped states in the wake of the 2008 financial recession. Since then, there have been four years of state competitions, touting an impressive participation record of 46 states and the District of Columbia adopting college- and career-ready standards, as well as national increases in high school graduation and AP participation rates (The Executive Office of the President, 2014).

Furthermore, RTT has created seismic changes in the way teacher evaluations are conducted in most states. As of September 2013, 35 states and DC mandate objective student outcome data (i.e. test scores) to be a significant or the most significant factor in teacher evaluations. These changes in evaluations have also paved the way for moderate changes in compensation reform nationwide, as six states now directly link financial incentives to teacher evaluation outcomes (Doherty & Jacobs, 2013).

Other federal initiatives have also developed to incentivize compensation reform. In 2009, the Teacher Incentive Fund (TIF), which had been founded three years previously, received a \$200 million boost in funding through the American Recovery and Reinvestment Act. TIF supports districts, states, and nonprofits by providing grant money to design and implement performance-based teacher and principle pay systems in high-needs schools. To qualify, applicants must present bold and innovative proposals to establish pay scales that are differentiated by teacher performance, as defined by a combination of teacher observations and student achievement gains (Eckert, 2013). Ultimately, the education space looks very different today than it did five years ago, prompting even more interest in compensation reform and performance-based pay.

Effects of Compensation Reform

Some question whether compensation reform is really the answer to improving student achievement. Unfortunately, the existing literature on the effects of compensation reform on student outcomes is murky at best. Many studies have been done evaluating specific incentive-based compensation reform measures, ranging from both individual- and school-level bonuses, based on anything from "knowledge base" to special certification, to student achievement on standardized test scores. Because every instance of teacher compensation reform has involved a different model of both evaluation and incentive scheme, it is challenging to develop a clear explanation of which models work and which do not. In a meta-analysis conducted by Podgursky and Springer, eight distinct studies on compensation were aggregated. The studies, conducted from 1997 to 2002, yielded conflicting results (Podgursky & Springer,

2007).

These mixed results are exemplified by two subsequent studies, one conducted by Figlio and Kenny in 2007 and the other by Roland Fryer in 2011. Figlio and Kenny were the first to focus systematically examine the relationship between performance incentives for individual teachers and student achievement across the United States as a whole. The authors examined the National Education Longitudinal Survey and determined that students achieved higher test scores in schools where bonuses offered for good teacher performance. Additionally, they concluded that even relatively minor implementations of incentive pay affected student outcomes in a statistically significant way for both public and private schools. Furthermore they suggested that a high quality merit pay program's impact can translate to student attendance, or in other words, is comparable to a one standard deviation decrease in days absent for the average student (Figlio & Kenny, 2006).

Yet this study is seemingly contradicted by Fryer's evaluation of New York City's teacher incentive system in 2011. Conducted by Roland Fryer, a noted economist from Harvard, the study was conceptualized as a school-based randomized trial in over two hundred NYC public schools. NYC implemented a teacher incentive program between 2007 and 2010 where schools that met their performance goals were given an allowance of money to distribute between teachers as they best saw fit. Fryer's analysis was done explicitly to determine how the teacher financial incentives affected student achievement. He found that there was no evidence that teacher incentives increased student performance, graduation, and attendance. Furthermore, he concluded that there were no changes to student or teacher behavior as a result of New York's incentive scheme (Fryer, 2011).

The evaluations of these compensation systems reveal that, unsurprisingly, merely aligning financial incentives to good performance does not consistently yield higher student outcomes.

Compensation Reform in the Modern Era

While this literature is somewhat helpful in determining that compensation reform alone cannot necessarily achieve better student outcomes, it does little to address the current climate of contemporary education reform. The financial incentives previously discussed are almost exclusively bonuses layered on top of the already existing single salary system. Thus, it is different than the type of compensation reform that is currently being discussed (which involves doing away with the single salary schedule in its entirety). It also relies on teacher evaluation systems that are now out of date and were frequently considered subjective by those participating in the experiments.

The challenging nature of objectively measuring teaching has been titled the "evaluation problem" in the classic performance management article written by Murnane and Cohen (1986). They argued that due to the "imprecise" nature of teaching, support for tying financial incentives to evaluation was doomed to be

fleeting. As mentioned previously, over the course of the past five years there has been a tremendous shift in focus regarding the evaluation of teachers, as administrators, researchers and policy makers alike have taken enormous strides to identify what constitutes high quality teaching.

Much of the previous literature on compensation reform makes the assumption that there was a lack of motivation to teach well, which, compensation reformers argue, could be increased by providing monetary incentives. It is far more likely however, that evaluators lacked the adequate tools to recognize and support highly effective teaching. It is thus reasonable to suspect that compensation that aligns to this type of teacher evaluations might be more successful. Unfortunately, because of the relatively recent development of this generation of evaluation systems, there are only a few districts that have implemented new evaluation and compensation systems and have been thoroughly evaluated. An exploration of these cases follows.

Denver

Denver's strategic compensation reform originated in the late 1990s, when Denver Public Schools and the local teacher unions joined forces to launch a comprehensive evaluation and compensation system called ProComp. Under the ProComp system, teachers have the opportunity to be rewarded for achievement in four areas: knowledge and skills, comprehensive professional evaluation, market incentives, and student growth. Authors Goldhaber and Walch sought to determine whether the system succeeded in producing improved student achievement scores, exploring three alternate pathways for how ProComp could actually cause student growth. They explored whether teachers increased focus on their instructional abilities, whether feedback and level of support cause professional improvement over time, or the possibility that the system altered the recruitment and retention patterns of teachers coming into and out of the district. The authors concluded that there was little to no impact associated with individual teachers' performance as a result of the ProComp system (Goldhaber & Walch, 2011).

Chicago

Originally modeled after guidelines proposed by the Milken Family Foundation, in 2007 Chicago began offering bonuses to teachers based on their performance on a specific observation rubric. Bonuses were distributed at the school level, making some schools "Teacher Advancement Program (TAP) schools" and the remaining "non-TAP schools."

The authors of the study, Glazerman and Seifullah, found that while teachers at TAP schools benefit from increased mentoring from veteran teachers, there was ultimately little evidence to suggest that the TAP program was responsible for raising student achievement on the Illinois Standards Achievement Test. Ultimately, their data indicated that there were heterogeneous results for test score impacts across subjects,

years, and schools, yielding no overall relationship between the financial incentive program and impact on math, reading, or science test scores (Glazerman & Seifullah, 2012).

District of Columbia

In 2009-2010, the District of Columbia Public School system (DCPS) launched a new evaluation and compensation system, called IMPACT. Incorporating both observation measures as well as student test scores, IMPACT developed a reputation for having particularly “high-stakes” or in other words, significant consequences, because teachers performing for multiple years at the highest levels of the DCPS’s evaluation system were rewarded through both changes to their base pay, or yearly compensation, as well as bonuses for outstanding behavior. Conversely, teachers who failed to earn proficient ratings for multiple years would be forced to leave.

The authors utilized a regression-discontinuity (RD) design to examine the difference in performance between teachers just above and below the threshold for determining a teacher’s evaluation label (such as “Minimally Effective” or “Effective”). This research design was particularly interesting because it allowed for a controlled look at how the incentive associated with the performance label affected student growth, as there were serious consequences associated with the difference of labels. However, teachers performing just above or below a threshold would be considered to have relatively comparable quality of teaching. Therefore, distinct changes in student growth could be attributed to the effects of the evaluation label, or the incentives designed by the “high-stakes” system.

They determined through this RD analysis that there were substantial effects as a result of IMPACT’s performance management system, resulting in both voluntary attrition of low-performing teachers and improving the performance of high-performing teachers (Dee & Wyckoff, 2013).

Again, however, the results are unclear. It seems that merely implementing a new evaluation and compensation system, even when the evaluations are tied to student performance, is not sufficient to consistently yield student growth. In light of this information, policymakers must ask, “Why do some systems work while others do not?” This question is at the heart of the design process for districts, including Aldine, as they move in the direction of both new evaluation and compensation systems. While it may be possible to make some statements about the design and implementation of the system itself, to do so would disregard a critical component of the initiative’s ultimate success: teachers. There is little, if any information in these studies about teacher motivation and behavior, reflecting an incomplete understanding of the teaching force and a lapse in the data for analysis. The teaching force is far from a monolith, with abundant differentiation between the teachers, schools, and districts where the policies were implemented. In other words, there needs to be sufficient information such that policy makers can stop asking which reforms “will work” and

begin asking which reforms will be implementable under what conditions (Honig, 2006). It is reasonable to consider that maybe the reason that there is differentiation in the results of the pay for performance programs is that there was support for the programs in some places and not others.

Existing Literature on Teacher Attitudes Towards Compensation Reform

While there is some existing research on teacher attitudes towards performance-based compensation, it is far from extensive. The majority of research in this field, as previously noted, has been devoted to compensation reform's effectiveness in achieving its goals of better student performance. Yet as the previous section of this paper has demonstrated, not only is the research split on the issue of effectiveness, but ultimately, the results of any one specific initiative mean little without understanding the attitudes toward the reform. To better understand this component, some researchers have analyzed surveys, with samples ranging from individual schools and school districts to the country as a whole. They have determined that a variety of factors influence teacher perceptions of compensation reform.

Overview

In general, teachers seem to be somewhat inclined to support certain types of alignments between performance in the classroom and compensation. Additionally, once teachers receive some kind of performance pay, they tend to develop stronger support for it (Ballou & Podgursky, 1993).

Teacher Level Factors

Personality

For the most part, there is little evidence to suggest that individual personality traits or work values matter when teachers consider performance pay (CECR Research Synthesis, 2010).

Experience

Some research supports the idea that teachers with more years in the classroom are less supportive of performance pay than their younger counterparts (Ballou & Podgursky 1993, Goldhaber, DeArmond, & DeBurgomaster, 2007). Interestingly, a comparison study between Generation Y teachers and older teachers revealed that while younger teachers tend to favor financial incentives for those who “consistently work harder, putting in more time and effort than other teachers,” it was the older teachers that wanted increased compensation for teachers with lower performing schools, who specialize in harder-to-fill subjects, and whose standardized test scores

were higher (Coggshall, Ott, Behrstock, & Lasagna, 2010). These results suggest that experience does affect attitudes towards financial incentives, but not necessarily in a consistent way.

System Level Factors

Unsurprisingly, results indicate that the design and implementation of both the evaluation system and compensation system matter when considering teacher support for performance-based pay.

Design

Multiple studies have examined varying types of performance incentives, comparing individualized bonuses to school-wide motivations, as well as the basis for the bonuses, such as high student achievement or filling hard-to-staff positions. One study determined that teachers are more likely to favor stipends for additional responsibilities or possibilities for faster career advancement (Kelley, Odden, Milanowski, & Heneman, 2000). Most teachers support incentive pay for extra teacher effort and difficult teaching situations, and 42% supported higher pay for teaching hard-to-fill subjects (Farkas, Johnson, & Duffett, 2003). Additionally, teachers support financial incentives in the form of bonuses more than they support changes to the base pay, or single salary system.

Yet, according to a study conducted by Jacob and Springer in 2008, teachers are almost evenly split on whether pay based on individual performance would be favorable to a school-based alternative (Jacob & Springer, 2008). There is also evidence that specific design features, such as how easily a system can be influenced or manipulated by teachers, affect their perceptions. According to Milanowski (2006), this idea suggests that teacher-input in the design process is important.

Trust in the Evaluation System

Furthermore, teachers' trust in the evaluation and compensation system is essential (Cornett & Gaines 1994, Milanowski 2006, Murnane & Cohen 1986). In 2002, Kelly, Heneman, and Milanowski found that the extent to which teachers trusted the school system as a whole, as well as the perceived fairness and transparency of the pay system, correlated strongly with teachers' support for performance-based pay. It is no surprise, then, that the evaluation system also matters tremendously. On average, teachers do not trust evaluations conducted by their school principles because they feel that they are too subjective (Baratz-Snowden, 2007).

Yet this does not mean that teachers are more accepting of the use of standardized test scores to measure their performance. A national survey reported that while 62% favored financial rewards for teachers who received outstanding

principal evaluations, a mere 38% favored rewards for students scoring higher on performance measures (Farkas, Johnson, & Duffett, 2003). This information suggests that teachers do not, on average, trust any way of measuring their performance and prefer observation data to student test scores.

School Level Factors

Additionally, there is ample information regarding the way school culture affects teacher attitudes towards performance pay.

Administration

Multiple studies report that trust in management, specifically the school principal, is essential, as teachers who had faith in their administration also had more support for merit pay (Milanowski 2006, Goldhaber, DeArmond, & DeBurgonmaster 2007).

Professional Community

There is also extensive research on the effects of a professional community on teachers' acceptance of compensation reform. Teachers with more trust and respect for their peers were less supportive of merit pay (Goldhaber, DeArmond, & DeBurgonmaster, 2007). Furthermore, teachers widely reported that implementing a compensation system that is aligned to performance would have the potential to disrupt school culture. In an evaluation of the Texas DATE program, 70% of districts reported concerns about the program's potential to diminish professional relationships (Springer, et al., 2010), and in national surveys, somewhere between 56% and 63% of teachers noted that they thought pay for performance would engender unhealthy competition and jealousy and threaten the collaborative culture of teaching. (Farkas, Johnson, & Duffett 2003), Jacob & Springer 2008)

School Performance

Research has also found that performance of the school as a whole weakly and inversely correlates with attitudes regarding merit pay, as teachers in low-performing schools were more supportive than high performing schools (Ballou & Podgursky, 1993). Conversely, the same authors also concluded that the level of pay a teacher receives at his or her school seems to have no effect on his or her attitude (Ballou & Podgursky, 1993).

The impact of school level factors is additionally magnified by Milanowski's 2006 study, which presents interesting data on the socialization of teachers, suggesting that teachers are heavily influenced by the opinions of their surrounding peers.

Take-Aways from Existing Literature

There are a few major points that should be taken from this collection of research. First, context matters. There are a wide variety of factors that affect teacher perceptions of performance-based pay, and therefore every teaching force can be expected to react a little differently depending on the design and implementation of the evaluation and compensation system, the make-up of the teaching force as whole and the culture existing within their schools. It is important to recognize, therefore, that teacher attitudes in different districts, under the influence of different policies and systems will have differing feelings on compensation reform.

Second, teacher attitudes vary according to three sets of factors: teacher level, system level, and school level. Mixed results can be found within each of these broad categories, making it challenging for policy makers to predict attitudes ahead of time.

Third, this already complicated picture becomes increasingly complex as the contemporary education climate is factored into the situation. As the education climate changes rapidly, attitudes of teachers adapt along with it. In addition to the changes in evaluation and compensation laws, the “younger” teachers in the majority of the surveyed studies are continuing on in the classroom while the stereotypical veteran opposition may be phasing out. Finally, support for compensation reform nationally (amongst teachers and non-teachers alike) is ascending. A 2010 Gallup poll found that 72% of public school parents and 71% of adults nationwide believe pay should be aligned to teaching quality (Bushaw & Lopez, 2010).

These findings paint a very different picture of compensation reform than existed fifteen years ago, creating a complicated landscape for policy makers who wish to experiment with compensation reform in their district. There is indication that teacher support matters, but given the wide variety of factors that affect teacher attitudes, it is challenging to figure out exactly where compensation reform will succeed in achieving its desired goals. Additionally, even when fully executed, it still remains unclear whether the system will necessarily yield higher student achievement. Regardless, a compensation system can serve as a way to reflect district values regarding rewarding teacher performance and serve as recruitment tactic for highly motivated graduates considering teaching. As district leadership, such as that in the Aldine Independent School District, contemplates the design and implementation of a new compensation system that is aligned to performance, it will be important that they consider existing teacher attitudes.

The Case of Aldine ISD

About Aldine

Operation Public Education, a University of Pennsylvania-affiliated education-consulting group, partnered with the Aldine Independent School District in 2011. Aldine is located just inside the outer edge of Houston more resembles a semi-rural, small town than one of the fastest growing cities in America. The district consists of only Title I schools and serves over 67,000 students. Demographically,

the students are almost exclusively of racial minorities, with 70.8% identifying as Hispanic, 25.1% identifying as African American, and only two percent identifying as white. The district has a teaching force of 4,200 and oversees 78 campuses, rendering it the 10th largest district in the state (Aldine Independent School District, 2014).

Under the leadership of OPE Director, Dr. Theodore Hershberg and Assistant Director, Claire Robertson-Kraft, the team worked with district leadership to design and implement a new performance management system, called INVEST. INVEST consists of two large components, a teacher observation portion and a student growth portion, each contributing 50% of a teacher's overall evaluation score. The observation system uses Charlotte Danielson's Framework for Teaching, which divides the practice of teaching into four distinct and separate domains:

Domain 1: Planning and Preparation

Domain 2: The Classroom Environment

Domain 3: Instruction

Domain 4: Professional Responsibilities

Assessment in each domain yields an overall label of one of the following: ineffective, needs improvement, effective or highly effective. Observations are usually conducted by principals or assistant principals, who are instructed to both schedule times for planned formal observations as well as conduct surprise "walk-throughs" throughout the course of the year.

To measure student growth, the district uses student growth percentiles (SGPs). SGPs measure the progression of a child as compared to his peers with similar test scores from the previous year. This way of measuring growth allows for results to be normed across the district and for students to serve as their own control. To calculate SGPs, AISD uses the results from the Texas state exams. After one year of pilot implementation of INVEST, the team shifted focus to the alignment of compensation to the new evaluation system. A working group, consisting of district teachers, principles, and support staff, was assembled to help design a system that would be amenable to the teaching force as whole. The district hopes to finish designing the system by the end of the 2013-2014 school year and run a shadow pilot the following year, ultimately implementing a new compensation system in fall of 2015.

Research Purpose, Design, and Methodology

As evidenced by the literature review, there is significant evidence to suggest that teacher attitudes towards a performance management system affect their motivation. Additionally, multiple studies indicate that teacher attitudes towards performance-based compensation varies depending on a variety of teacher-, school-, and district-level characteristics. The purpose of this study, therefore, is to determine the current attitudes of Aldine teachers towards implementing a new compensation

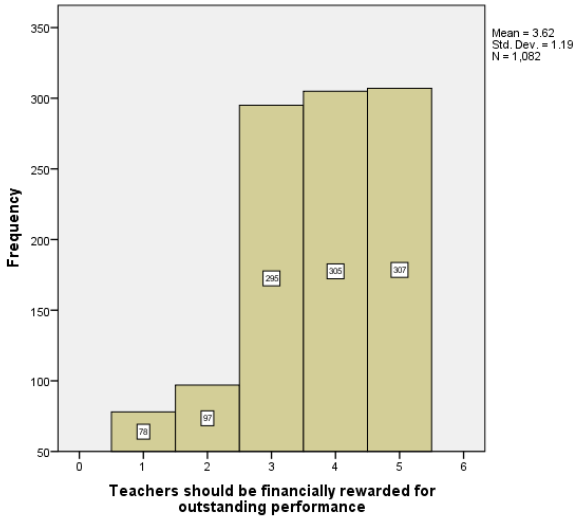
system. These observations can then be used to make policy recommendations to OPE, Aldine ISD, and the many districts in similar situations to Aldine regarding how to best condition the teaching force to be amenable to this type of high-stakes reform. The data used in this study was collected by OPE as part of a larger research project on the implementation of INVEST.

In order to evaluate the attitudes of teachers, I used data collected from two sets of surveys administered to teachers in Fall of 2012 and Spring of 2013. I analyzed results only from those teachers who completed both surveys and taught in a school where INVEST was piloted that year. On the spring survey, teachers were asked to respond the question, **“Teachers should be financially rewarded for outstanding performance”** on a five point scale (ranging from “disagree strongly” to “agree strongly”). Their responses were coded, with “disagree strongly” corresponding to 1 and “agree strongly” to 5, allowing the extent of their support to be analyzed in relation to their strength of agreement towards other statements regarding their personality, environment, and feelings regarding the design and implementation of the evaluation system. Additionally, for the purposes of this paper, I will use performance pay and merit pay synonymously, and defined as a compensation system that aligns financial incentives to teacher performance.

Findings

Overall

When examined overall for my sample, 1038 teachers, it seems the teachers have a slightly favorable impression of performance-based pay. Their total mean of 3.62 with a standard deviation of 1.19 suggests that teachers are, on average, somewhere between neutral and positive regarding aligning financial rewards to performance in the classroom.



This histogram indicates that while the majority of teachers are not opposed to performance-based pay, about a quarter of teachers oppose or strongly oppose this type of compensation system. This type of more general information provides us with a broad picture of teacher perceptions of merit pay, it does not give any insight into which teachers support or oppose, or why a specific group of teachers might believe what they do. In order to develop a more detailed profile of teacher attitudes towards performance-based pay, I looked at three different areas that might affect their beliefs: characteristics of the individual teachers, their perceptions of the evaluation system, and the conditions of their school.

Teacher Level Characteristics

Teacher level characteristics are defined, for my purposes, as those traits or characteristics that affect a teacher in an individualized way. This means that within a given school, the teaching staff would vary for this set of factors, such as years of experience, grade taught, overall performance outcome score, and personality type.

Experience

Table 1: Means by Years Experience: First Years – Results from t-test

Years Teaching	Mean (SD)	N
First years	3.77 (1.240)	82
Teachers not in their first year	3.59 (1.200)	936

Note. * $p < .01$, ** $p, .001$

Table 2: Means by Years Experience: Veterans – Results from t-test

Years Teaching	Mean (SD)	N
Veterans	3.46 (1.267)	501**
Teachers with 9 years or less of experience	3.74 (1.123)	517**

Note. * $p < .01$, ** $p, .001$

I performed a t-test to examine the mean responses of two groups of teachers: first years, and veterans (ten years or more experience). I found that the number of years experience did matter, as determined by comparing means between teachers who met a certain experience level (such as 1 year experience) to the rest of the teaching population in Aldine. The results from this analysis reveal that teachers with 10 years or more of experience, or veterans, have significantly less support for performance pay than teachers who have been teaching for less time. These results are consistent with the body of literature.

Performance

Table 3: Correlations Between Support for Financial Incentives and Performance Measures

Performance Measure	N	Pearson Correlation
SGP 2013	334	0.045
SGP 2012	242	0.041
SGP 2011	188	-0.138
Danielson – Overall Domain 1	1036	0.038
Danielson – Overall Domain 2	1038	0.083**
Danielson – Overall Domain 3	1038	0.041
Danielson – Overall Domain 4	1036	0.059
Danielson 2013	1038	0.060

Note. * $p < .01$, ** $p, .001$

The data indicates that there is essentially no relationship between performance on the evaluation system and desire to be paid in accordance with it. This finding would be rather surprising if we assumed that teachers based their perception of performance pay on their potential payoff. Conceptualizing teachers in this way would lead one to intuitively assume that the teachers who performed well on the system would want to be compensated accordingly. Conversely, one would think that teachers who had more to lose by adopting a system that aligns to their evaluation scores would be stronger opponents. However, this pattern has no support from the

data, implying that teachers’ attitudes are not informed by personal incentives.

Labels Matter

Table 4: Means by Label on Danielson Rubric

2013 Danielson Label	Mean (SD)	N
Ineffective	3.88 (0.781)	17
Needs Improvement	3.28 (1.221)	99
Effective	3.64 (1.187)	805
Highly Effective	3.74 (1.217)	116

Table 4 presents the means for teacher support of performance pay disaggregated by Danielson “label,” or the category assigned to a teacher based on his or her score on the Danielson rubric. Each category has discrete thresholds for scores, meaning that two teachers that do not differ much in numerical score may fall into two different categories. Table 3 demonstrated that there is no statistically significant relationship between how an individual scores on Danielson and their perception of merit pay. However, there is a relationship in accordance with the Danielson label.

The high mean for Ineffective teachers can be disregarded due to the small sample size. However, there is a large and statistically significant ($p = 0.006$) difference between the teachers in the Needs Improvement and Highly Effective categories.

This finding implies that categorization affects teachers’ perception of the evaluation system. Tables 3 and 4 indicate that there is not a relationship between the continuous score on Danielson and their perceptions (Table 3) but only the categorical score on Danielson and their perceptions, which suggests that the rating matters. To clarify, this does not mean that better teachers always have more favorable perceptions, but rather that the teachers that are categorized as better have better attitudes. The conclusion that one can draw from this finding is that the people around the margins of the divisions between Danielson labels will behave very differently based on how they’re assigned.

This finding is very interesting when contextualized in the results from Thomas Dee and James Wyckoff’s 2013 study on Washington DC’s evaluation and compensation system, IMPACT. As previously mentioned, Dee and Wyckoff used a regression-discontinuity design for their analysis, examining teachers who were just above and below the threshold for a performance label in the evaluation system. The authors concluded that the incentives associated with the label had to be the basis for the differences in teacher retention and student performance between the teachers who were just above or below a threshold.

The findings from this analysis, however, might suggest that it is the label itself that causes some of the effects, not necessarily the consequences attached. Aldine teachers, under the INVEST system, have none of the high-stakes consequences attached to evaluation under DC’s IMPACT system. This means that merely being

labeled under the performance management system is capable of affecting attitudes and perceptions of aspects of the system, something not necessarily accounted for in Dee and Wyckoff’s research. Another key difference between this analysis and Dee and Wyckoff’s work is that the DC study examined behaviors associated with the labels, such as teacher retention and changes in student growth scores.

Personality

Table 5: Correlations Between Personality Traits and Support for Performance Pay

Personality Trait	Pearson Correlation
Grit	0.231**

Note. * $p < .01$, ** $p, .001$

Table 6: Questions Comprising Personality Scales

Scale	Survey Questions
Grit	Right now, my interest in teaching is about the same as it was before the school year began I am working as hard as I did at the beginning of the school year Lately, setbacks have not discouraged me Every day, I actively try to improve my teaching Nothing is more important to me than improving my teaching

I found no literature regarding how personality type might influence attitudes towards performance-based pay. My data shows that while most tested personality traits seem to barely correlate, if at all, grit is unique in that it correlates moderately with the belief that teachers should be compensated according to their classroom performance. Grit is a term originally coined by Angela Duckworth and is defined as is “the tendency to sustain interest in and effort toward very long-term goals” (Duckworth, Matthews, Kelly, & Peterson, 2007). Grouped with traits such as self-control and resilience, grit is very much associated with being able to commit to and achieve long-term goals, even when obstacles may get in the way.

The moderate correlation between grit and positive perception of performance incentives makes some intuitive sense. Teachers who are resilient and capable of sticking with a goal even when it becomes challenging might see what occurs in their classroom more within their control, and therefore feel better about being evaluated and, therefore, compensated according to what occurs there. Gritty teachers do not become discouraged by initial set backs, maintaining a belief that their long-term goal is achievable. This attitude can be easily applied to INVEST, where gritty teachers would believe that it was possible to score highly on the evaluation system, and therefore be compensated fairly and well.

Perception Of the Evaluation System

Table 7: Correlations Between Support for Financial Incentives and Perception of the Evaluation System

Perception of the System	Pearson Correlation
Evaluation Accurate and Fair Scale	0.274**
INVEST Fairness Measures Scale	0.344**
Evaluation Feedback and Growth Scale	0.298**
Danielson Framework Overall is Accurate and Fair	0.276**
SGP is an accurate and fair measure for teaching performance	0.298**
INVEST Understanding Scale	0.274**
INVEST has positive impact in Aldine ISD	0.344**
Evaluation Accurate and Fair Scale	0.298**

Note. * $p < .01$, ** $p < .001$

Table 8: Questions Comprising Perception of Evaluation Scales

Scale	Survey Questions
Evaluation Accurate and Fair	My evaluator’s observations of my classroom this year accurately captured by performance as a teacher
	Overall, the teacher evaluation system used this year was fair
	I agree with my evaluator’s assessment of my performance
INVEST Fairness Measures Scale	My evaluator’s observations of my classroom this year accurately captured by performance as a teacher
	Overall, the teacher evaluation system used this year was fair
	Domain 1 (Planning and Preparation) is accurate and fair.
INVEST Understanding Scale	Domain 2 (Classroom Environment) is accurate and fair
	Domain 3 (Classroom Instruction) is accurate and fair
	Domain 4 (Professional Responsibilities) is accurate and fair
	Student Growth Percentiles are an accurate and fair measure of my teaching performance
Evaluation Feedback and Growth	INVEST provides specific feedback on areas to improve my teaching
	INVEST provides the support I need to improve my teaching
	The professional development I received this year was aligned to INVEST

	INVEST will lead to improvements in student achievement
	INVEST will help me improve my teaching
	INVEST will support teacher development

It is obvious that perception of the evaluation system is an important factor in influencing a teacher's attitude towards performance-based pay. All of the tested measures regarding teacher's perceptions of INVEST were correlated with their belief in merit pay. This result is hardly surprising, as teachers undoubtedly want financial incentives that they feel reflect attainable goals. In other words, if people feel their evaluation does not reflect an objective or complete picture of their work in the classroom, it is unlikely that they would want any sort of high stakes decision to be associated with it. Of particular note is the strength of the relationship between the INVEST Fairness Measure scale and the perception of performance pay, with a correlation of 0.344 that is significant at the $p < .01$ level. Yet when one looks at the components of INVEST including the observation evaluation inputs, the student growth inputs, and the feedback outputs, it's clear that no one element correlates as strongly as belief in the fairness of the system as a whole.

Similarly, there is a moderate relationship between a belief that INVEST has a positive impact in Aldine and desire to be compensated according to the performance. Because of the lack of detail regarding the compensation-related question, it is impossible to know the exact motivations behind any given response. However, I would speculate that the type of teacher who would appreciate the rationale behind the design of INVEST, and therefore think it would benefit AISD as a whole, would also appreciate the way performance-based compensation reform would value high quality teaching.

School Level Characteristics

School level characteristics are those factors that deal with the environment of the school as a whole and would not be expected to vary considerably for individual teachers within any one school. For the purposes of this paper, these school level characteristics mostly exist of teachers' perceptions of school leadership and the general environment of the school.

Table 9: Correlations Between Support for Financial Incentives and Perception of School Culture

Perception of the System	Pearson Correlation
Quality of administration scale	0.22**
Level of support scale	0.24**
Level of control scale	0.23**
Professional community scale	0.19**

Leadership scale	0.22**
Quality of administration scale	0.22**
Level of support scale	0.24**

Note. * $p < .01$, ** $p, .001$

Table 10: Questions Comprising School Culture Scales

Scale	Survey Questions
Quality of Administration	The school administration’s behavior toward the staff is supportive and encouraging
	My principal enforces school rules for student conduct and backs me up when I need it
	The principal knows what kind of school he or she wants and has communicated that to the staff
Level of Support	I am given the support I need to teach students with special needs
	Necessary materials such as textbooks, supplies, and copy machines are available as needed by the staff
	I receive a great deal of support from parents for the work that I do
Level of control scale	I have control over selecting content, topics, and skills to be taught in my classroom
	I have control over selecting teaching techniques I use in the classroom
	I have control over disciplining students
Professional community scale	Rules for student behavior are consistently enforced by teachers in this school, even for students who are not in their classes
	Most of my colleagues share my beliefs and values about what the central mission of the school should be
	There is a great deal of cooperative effort among the staff members
Leadership scale	My principal makes clear to his or her staff expectations for meeting instructional goals
	My principal communicates a clear vision for our school
	My principal presses teachers to implement what they have learned in professional development
	My principal knows what’s going on in my classroom

	It's OK to discuss feelings, worries, and frustrations with my principals
	I trust my principal at his or her word
	The principal at this school is an effective manager who makes the school run smoothly
	I really respect my principal as an educator

The data suggests that there is a moderate relationship between most school level factors and perception of performance pay. Both teachers' perceptions of the quality of their administration and leadership have strong correlations of 0.22, significant at the $p < .01$ level. This finding makes a lot of sense in the context of the new evaluation system. If teachers are confident in the capabilities and leadership of their school administration, it is likely they believe INVEST was implemented in a reasonably effective and fair way. In other words, teachers probably trust their administration to make high-stakes decisions, such as determining their compensation.

Closely related to this interpretation of the importance of administration is the relationship between level of support and perception of merit pay. It is reasonable to think that if teachers feel they have an adversarial relationship with their bosses or co-workers, they might not want the administration to have any control over their compensation through the evaluation process. Also, level of support could reflect how confident a teacher is in her administration's ability to provide the type of feedback that will help her to improve and thrive.

Additionally, it is important to note the positive relationship between perception of a strong professional community and attitude toward performance pay. This finding is interesting because it is contrary to considerable literature regarding teacher sentiments on merit pay (Jacob and Springer 2008, Goldhaber 2007). Most researchers have found that teachers who have trusting and collaborative relationships with their co-workers tend to feel less support for compensation systems that align pay with performance. This has traditionally been attributed to a sense of competition that develops between teachers when they are eligible for the same financial incentives. However, this finding demonstrates why it is important to conduct this sort of research on the new generation of teacher evaluations and compensation systems. A compensation system that redesigns the single salary schedule to align to performance metrics, rather than offering zero-sum bonuses on top of it, mitigates this issue entirely. There would be no personal cost to being supportive and collaborative in this new type of compensation and evaluation system. The positive relationship demonstrated by the findings suggests that teachers understand this.

Finally, school characteristics vary across different types of schools, as does teachers' perceptions of performance pay. While some schools have a mean support level of 4.04, others have means that are below 3.0. It is unlikely that these differences are due to chance. It is easy to see they way school culture and working conditions affect teacher attitudes.

Discussion

The findings from my analysis of teacher surveys from the Aldine school district both confirm and weaken existing literature regarding teacher attitudes towards performance-based compensation. Results from the AISD teaching force regarding their general acceptance of performance-based compensation supported existing literature. Additionally, like every major study previously published on teacher attitudes, I also found that teachers more years experience had a stronger opposition to merit pay than their less experienced peers. Furthermore, my findings strengthen existing literature regarding the positive relationship between having trust in both the design of the system itself, as well as the administration, and perception of performance pay. However, Aldine teachers contributed new information to the field regarding the effects of personality on teacher attitudes. While previous literature suggested that personality did not affect attitudes, I found that one personality trait had a strong correlation with perception of performance pay: grit. Probably due to its relatively recent coinage, grit and resilience were two traits not tested in previous studies.

These supports and deviations from the previous literature provide interesting insight into teacher attitudes towards the contemporary age of education reform. No study has yet been conducted on teacher attitudes towards compensation reform in a district that is using this modern of an evaluation system. Additionally, while most literature examined a specific proposed compensation initiative, this survey treats the compensation system as a very abstract concept. The Aldine Independent School District, and its evaluation system, INVEST, provide the perfect opportunity to explore how teachers feel not only about performance-based compensation in a theoretical sense, but how they feel about merit pay at this particular time of intense transition in the district and country.

It is in this context that a few larger themes emerge regarding how teachers perceive performance-based pay.

Teacher Level Factor: Control

A teacher's sense of control refers to her belief that her actions can and will yield a predictable and desired outcome. It is intuitive to think that teachers would want to be evaluated and compensated on elements of their profession that are within their control, where their choices, work ethic, and talent are recognized and rewarded, while they are not punished for things that are outside their sphere of influence. Therefore it is unsurprising that teachers who feel that they have more control both as an individual in their classroom and in the school have higher support for performance-based pay.

This explanation is supported by the finding that grit has a strong positive correlation with acceptance of merit pay. Gritty teachers are those who are capable

of staying committed to long-term goals, such as performance goals, even when encountering resistance. These professionals see challenges as merely temporary obstacles, because they know that they can control, to a reasonable extent, what their future will hold.

System-Level Factor: Fairness

Teacher perceptions of the INVEST system had the strongest relationship with their support of compensation reform. Teachers who thought that INVEST was designed fairly and predicted it would have a positive impact on the district were very supportive of using the evaluation system to determine their pay. Conversely, teachers who were skeptical of the evaluation system, were also skeptical of applying it to compensation decisions. It is intuitive that teachers want to feel that high stakes decisions are being made fairly, and do not want to be held accountable for things that they perceive as being outside their purview.

Additionally, a key finding from this study was that interaction with the evaluation system actually affected teacher attitudes towards compensation, as an assigned label on the Danielson rubric had a much stronger relationship with perception of performance pay than the outcome scores. This means that Aldine will have to be cautious regarding how information about these labels is presented to the teaching force, as teachers are serious about the category ascribed to them.

These findings also demonstrate the importance of teacher voice in the design and implementation process for new policies. Teachers who have had a meaningful role in creating the policy will be more likely to embrace it when it is implemented.

School-Level Factor: Trust

School culture seems to also be playing a large role in determining teachers' attitudes towards performance pay. This is particularly true regarding teacher trust in both their peers and their administration.

The data indicates that there is a weak positive correlation between the strength of a school's professional community and its teachers' perceptions of merit pay. This finding contradicts all of the existing research regarding perceptions of professional communities, which suggest that teachers dislike financial incentives because it weakens a collaborative environment in a school community. Aldine teachers also indicated a strong relationship between trust in their administration and their attitude toward performance pay. Both of these elements can contribute to the feeling of support at a school, including aspects such as the availability of materials and instructional help. When tested for specifically, level of support had the strongest positive correlation of any school-level factor.

This explanation of school culture supports Milanowski's theory of socialization, or that the opinions of the teachers whom work with matter significantly when determining views on things that require employer discretion, such as merit

pay (2006). This argument for socialization provides greater nuance to the data regarding professional community, as the teaching force at a school affects any individual teacher's perception through not only their level of support (in the form of a professional community). By sharing opinions on performance pay, teachers are likely to influence each other.

Limitations and Areas for Further Exploration

It is important to note that there are some significant sources of error in this analysis. First, unlike much of the literature previously discussed in this paper, the survey I used for my analysis was not designed with the intent of determining teacher attitudes towards performance pay. Rather, there was only one question that directly mentioned compensation in the administered surveys, and therefore is incapable of providing as detailed results as would be possible with a survey designed for this express purpose.

Second, the one question was only administered one time. The question that we are interested in was only asked on the second survey, meaning that there is no information about the way attitudes regarding performance pay changed over the course of the year as the evaluation system was being piloted. Third, it is also important to note that the question at hand was administered during the spring survey, after INVEST had been piloted for a full year. As to be expected with the implementation of any new evaluation system, teacher perceptions of their administration and school culture deteriorated somewhat from the beginning to the end of the year. This can be explained by teachers' frustration with the design of the system, the way it was communicated to them, their ultimate performance, or just a general resistance to change. However, it is reasonable to assume that all of these factors could influence a slightly more negative perception of performance-based pay than would have presented at the beginning of the year had teachers been asked to respond at that time.

There are many aspects of teacher attitudes towards performance-based pay that were not adequately explored in a study of this scope. Opportunities for future research include expanding the conception to performance pay to examine different types of performance-based compensation initiatives in greater detail. Unlike previous literature, my study cannot provide any insight into which types of compensation reform (such as stipends for hard to staff positions versus changes to base pay due to INVEST ratings) teachers support or oppose. This information could be incredibly useful to a district as they approach the design of a new compensation system.

Additionally, to delve deeper into my findings, qualitative and quantitative data regarding school culture, control, and perception of teacher evaluation at the schools with the highest and lowest support for performance-based compensation reform would provide deeper insight as to what individual schools are doing to create highly supportive (or deeply resistant) environments for performance pay.

Lastly, this analysis suggests that the labels assigned to teachers in accordance with the teacher evaluation system could affect their attitudes. It would be interesting to

explore how teacher's behaviors were affected by labels, particularly since Aldine, for the time being, has no high-stakes consequences attached to its evaluations.

Conclusion

For the past thirty years, policy makers have experimented with the idea of performance-based pay as way to improve student test scores. Existing literature suggests that the impact of these programs is mixed, and prompts a further look into teacher support of this type of initiative. The Aldine Independent School District presents a unique opportunity to examine teacher attitudes towards performance-based compensation reform because the district has within the last two years implemented a new, modern, teacher evaluation system that uses a highly validated rubric and student growth percentiles to measure performance. No studies regarding teacher attitudes towards merit pay have had this type of evaluation system, designed to be exceptionally objective and provide extensive support and feedback to its teachers.

The results from Aldine teacher survey suggest that three themes drive teacher support or opposition to performance-based compensation: control, fairness, and trust. Control matters as teachers need to feel empowered be gritty and autonomous in their classroom. Fairness of the evaluation system is essential to teachers embracing compensation reform, as they do not want their salary to be influenced by exogenous factors. Culture, defined as the level of support between a teacher and his peers and administrator, manifests as teachers determine whether to trust the design of the evaluation, and incorporates many principal competencies, such as communication, management style, and usefulness of feedback.

This conclusion has policy implications for both Aldine and school districts across the country. As new evaluation systems and compensation reform gain increasing momentum, districts need to consider how to most effectively implement policies. AISD hopes to implement a new compensation system aligned to INVEST for the 2015-2016 school year, which means the district is currently poised to make decisions about how to best execute the implementation process. As research indicates that policies that have teacher support are implemented more smoothly, efficiently, and effectively, districts looking to develop new compensation systems have a vested interest in generating positive attitudes towards performance-based pay.

The results from this study indicate that teacher's sense of control, perception of the evaluation system, and trust in their school culture are incredibly important when determining their support for merit pay. Unlike previous research that has suggested that teacher beliefs are somewhat static (determined by things like years experience or age of students), these three areas that can be somewhat manipulated through effective policies, and allow districts to actually improve teacher attitudes before, during, and after the design and implementation process.

Control, fairness and trust can be bolstered by effective school and district leadership. For teachers to develop a sense of both control and support, a principal must strike a somewhat challenging, but definitely feasible, balance between giving

teachers autonomy and voice, while also providing the necessary supports through effective communication and vision for the school. Fairness can be achieved through an open system design process, where teachers have an opportunity to meaningfully voice their concerns about the components of an evaluation system.

Additionally, Milanowski's theory of socialization creates an enormous implication for school and district leadership. The theory suggests that teachers learn what to believe, or develop their opinions regarding policies like performance-based pay primarily by following the example of their peers. This means that within every school, district, and even state, there is the potential for a "tipping point" of sorts, where the support of a certain number of teachers will exceed the threshold to drive support for the school as a whole. By creating environments where some teachers feel they have control, support, and believe in the value of their evaluation system, there is the chance for the entire community to be positively influenced.

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