Motivational factors of pay-for-performance plans in educational institutions:

A study of select private, faith-based schools

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ABSTRACT

In the United States there is considerable focus on the need for continuous improvement in the quality of schools, including student achievement and teacher performance. Performance-based pay has been repeatedly suggested as a way to improve teaching in school systems. Therefore, a more thorough understanding of the differences in the perceptions of teachers, administrators, and board members about motivators that could be used in performance-based reward plans can contribute to better designed plans. To this end, this study examined the extent to which educators, administrators and board members, as groups, differed in how they perceived factors that could be used to motivate teacher participation in performance-based-pay (or other reward) programs.

This study involved a survey of teachers, administrators, and board members from faith-based schools in the mid-America region of the Association of Christian Schools International. Results indicated that there are differences in the motivational value these groups assigned to potential motivators that might be used in performance-based reward programs. Groups differed in the importance they assigned to school-wide (as opposed to individual) rewards, availability of leadership opportunities, public recognition, and job security. The three groups differed in the minimum amount of money each group thought would be necessary to motivate teachers to participate in a school-based reform initiative. Teachers thought they would be motivated by significantly less money than board members thought would be required.

Given the differences in what factors each group thought would be most motivating to teachers, the author argues that collaboration among these groups will be

essential to the design of effective incentive systems in these schools. Findings suggest that board members and administrators have different perceptions of specific motivators (than teachers) and may be inclined to use such incentives as public recognition or leadership opportunities as part of a performance-based reward program while teachers would be more likely to prefer such things as group-based incentives or additional planning time. When using financial motivators, it appears that teachers benefit by letting board members and administrators set the amount, given that they overestimate what is necessary to motivate teachers.

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CHAPTER ONE: THE RESEARCH PROBLEM

Introduction

Much attention has been given to reforming education and improving student achievement. Those responsible for schools are interested in seeing continuous improvement in the quality of the schools they govern and in the performance of individual teachers within these schools. Research has consistently confirmed that teachers play a critical role in schools and are able to significantly impact student learning and achievement (Marzano, 2003). Some researchers suggest that the most influential factor in effective schools is the teaching staff (Marzano, 1998; 2003; Nye, Knostantopoulos, & Hedges, 2004; Teddlie & Reynolds, 2000). Therefore, if policymakers and other stakeholders seek to improve educational institutions, it is logical to focus on improving education by improving educators and the instruction they provide. However, how can schools create systems that motivate teachers to seek high levels of student achievement and to engage in reflection to improve their practice?

In the private school sector, which is the focus of this research, elected or appointed school board members are the governing authority. Many of them work in the business world where pay-for-performance plans have been in place for many years. In educational settings, teachers frequently earn pay increases based on time served or degrees earned. To many board members, this traditional method of teacher compensation has several limitations. The exceptional teacher whose quality teaching, outstanding contributions to the school community, and care and concern for students is

obvious to all is paid at the same rate as the teacher who demonstrates little teaching

ability, commitment, or passion for teaching or students. Both receive the same salary

because of an equal number of years of teaching and degrees earned. This traditional

system of teacher compensation does not differentiate for teacher quality or differences in

student learning. Boards desire more accountability and standards. This focus on

accountability and standards continues to put pressure on school administrators to find

more appropriate ways to compensate teachers. This study examines the perceptions of a

select group of private school teachers and their administrators and school board

members regarding the perceived value of various motivational factors, such as financial

remuneration or public recognition that could be used in designing performance-based

reward plans.

Performance-based pay has been repeatedly suggested as a way to improve

teaching in school systems. Over the past hundred years, performance-based pay systems

have been implemented, abandoned and re-implemented (Chamberlain, Wragg, Haynes,

& Wragg, 2002). This study includes an analysis of performance-based pay including

advantages and disadvantages. Then, this study examines different pay systems used in

educational settings. This study builds on research from multiple fields.

In addition to the research on performance-based pay, research on motivational

theory and incentives is part of the conceptual framework. By coupling the research on

performance-based pay with the research on motivational theory, this research attempts to

develop a thorough understanding of how various incentives that could be used in

performance-based pay plans may or may not motivate teachers to improve their practice and reach new levels of student achievement.

During the last half of the twentieth century, many events and cultural trends influenced education and brought to light substantial criticism of the public school system. Without going into a detailed analysis of each, it is helpful to survey some of the major events, reports, and criticisms as well as suggested reforms of the last 50 years to gain some background on the situation. Furthermore, this study will examine research on the different pay systems used in schools in an attempt to motivate teachers to improve the quality of education.

Research Question and Significance

This purpose of this study was to examine the perceptions of teachers, administrators, and policymakers about potential motivators (such as financial bonuses) in performance-based reward plans. This study examined to what extent educators, administrators and board members, as groups, differ in how they perceive motivational factors in performance-based-pay programs by investigating the following three questions.

1. Do educators, administrators and board members, as groups, differ in their perceptions of the achievability and availability of selected motivational factors?

2. Do educators, administrators and board members, as groups, differ in the value and worth they assign to these motivational factors?

3. Do educators, administrators, and board members, as groups, differ in the concerns they have with performance-based-pay programs? Specifically do the groups differ in their perceptions of the fairness of performance-based reward programs?

This study will help inform policymakers of teacher perceptions of motivational factors in performance-based-pay plans and elucidate differences that may exist among board members, administrators, and teachers regarding the perceived value of various motivational factors. It is plausible that there is a discrepancy between what policymakers believe will motivate teachers and what teachers actually find motivating. Therefore, policymakers may be implementing programs they believe will be highly motivating for teachers when, in reality, there may be a more effective way of motivating the faculty. This study utilized motivational theory and research on performance-based pay as the basis for investigating different groups' perceptions about motivational factors.

The findings from this research may be helpful for policymakers considering implementing a performance-based reward plan. Specifically, if the findings indicate a discrepancy between policymakers' and teachers' perceptions of motivational factors, that might suggest that policymakers struggle to create highly motivating programs because they do not accurately understand what motivates teachers. In this case, for a program to be successful it may be important for all stakeholders to work together to outline the plan. This is particularly relevant in the private-school setting where administrators are more able to determine teacher pay without working with teachers since there are rarely collective bargaining agreements with a teachers' union.

Furthermore, if there is a discrepancy between policymakers' and teachers' perceptions of motivational factors, more research might be necessary to understand how to educate policymakers on effective motivators and how they can be used in performance-based reward plans. The findings could have a significant impact on the way performance-based reward plans are devised and implemented.

Limitations

In order to study motivational factors, the researcher surveyed and interviewed teachers, board members, and administrators at private, Midwestern, Christian schools. This data source creates some limitations. First, because the schools are religious, there may be motivational factors that are not generalizable to other schools, especially those in the public sector. Private, religious schools generally pay their teachers lower salaries than their public school counterparts. These teachers may be motivated to serve their church and therefore place a different emphasis on financial remuneration or public recognition. Also, the sample of teachers asked to participate in this study is restricted to the geographical Midwest.

Similarly, administrators and board members in these schools may have different views from administrators and board members in public schools. Because of the religious nature of the school, policymakers and teachers may feel that teachers have a moral or religious obligation to engage in professional activities without substantial compensation. Without a collective bargaining agreement, teachers and policymakers may not have opportunities to come together and discuss their compensation or benefits.

Therefore, policymakers may be less in touch with what motivates teachers in their school system.

When schools implement performance-based plans, the way these plans are articulated and implemented may have a substantial impact on the way teachers and policymakers view them. The schools in this study may or may not have performance-based plans at their schools, and the way the plans were created and implemented could vary dramatically. However, this study does not investigate how those plans were implemented, which is another limitation.

The school climate could have a substantial impact on how teachers view performance-based reward plans. It is plausible that if teachers do not trust their administrators, they might not have the confidence that administrators would fairly and equitably distribute rewards. Conversely, teachers might feel that some administrators would reward all teachers and the performance-based reward plan would exist in name only. Although there may be important factors related to school climate, they are outside of the scope of this research. Finally, the self-reporting nature of the responses to this study is also a limitation.

Definitions of Terms

A variety of terms are currently used for **performance-based pay plans** including merit pay, school-based performance awards; and knowledge and/or skill based awards. *Merit pay* is generally associated with first-generation attempts to move beyond the traditional salary schedule and is based on individual teacher performance as rated by administrators. The term "merit pay" carries with it negative connotations since it was

often based on the subjective judgment of the evaluator and not on objective, predefined goals and objectives (Milanowski, 2002). These early merit pay plans also had very finite funding schemes which often resulted in ranking teachers or the use of some type of quota system which did not allow all qualifying teachers to receive the bonus or incentive. *School-based performance award programs* (SBPA) "provide teachers and often other school staff with pay bonuses when their school as a whole achieves specific educational objectives" (Kelley, Heneman, & Milanowski, 2000, p.1). SBPA programs were intended to provide incentives for people to make school-wide improvements; generally these improvements focused on student gains as measured by some form of test (Kelley, Heneman et al., 2000). *Knowledge-and-skills-based pay programs* "reward teachers with base pay increases and/or bonuses for acquiring and demonstrating specific knowledge and skills needed to meet educational goals" (Milanowski, 2002, p. 1).

For the purpose of this research, the term *performance-based reward plan* will be used exclusively to encompass all these terms. A *performance-based reward plan* is defined as a system where teachers are compensated (financially or through other rewards) for achieving measurable results or completing specific tasks. Also, the terms *reward* and *incentive* are used interchangeably for the benefits teachers can earn through these performance-based reward plans.

Currently, many schools compensate teachers using a **single salary schedule** which functions as a large table**.** In this system, teachers are paid based on their years of experience and their educational coursework. Teachers increase their pay by moving down the pay scale as they accumulate years of experience. Teachers also increase their

pay by moving columns (representing movement from left to right) as they attain graduate degrees or complete appropriate courses.

For the purpose of this study the term **achievability** is defined as a teacher's perception that they are able to earn the rewards used in the performance-based rewards plan. This term is grounded in previous research.

Organization of the Study

This study is organized in five chapters. Chapter One contains a brief introductory overview of the study including the purpose of the research. Chapter Two presents a review of the literature related to motivational theory and the history of pay-for-performance in education. Chapter Three outlines the research design and discusses procedures for selecting the schools, specific methodology, and data analysis used to complete the study. Chapter Four presents findings from the quantitative and qualitative instruments and their analysis. Finally, Chapter Five addresses limitations of the study, offers conclusions and policy recommendations, and discusses implications for further research.

CHAPTER TWO: REVIEW OF THE LITERATURE

Concerns about Public Education

The American public education system has been the target of much criticism. However, it is important to note that public education is a product of the values and beliefs of a country. In the 1800s most American children only attended primary schools, and secondary education was reserved for elite children who would continue on through university. Many children spent their days working and did not have a need for formal education. In the 1820s, Horace Mann pushed for the establishment of public schools that would be free of charge for all children. Since this early establishment of public schools in Massachusetts, schools have attempted to serve a large range of functions including Americanizing and assimilating immigrants, keeping children out of the workforce and providing them with a safe environment, democratizing society by creating an educated class of voters, providing social services to children and families, and affording children equal opportunities for future success. As the role of public education has evolved, so have the demands on and expectations of teachers.

During the Cold War Era, the launch of Sputnik in 1957 caused the U.S. public to question the academic rigor and competitiveness of the public school system. At that time, one of the main roles of the public school system was to raise students who could compete internationally, especially in the fields of math and science. Teachers and schools sought to raise test scores and demonstrate their students' achievement and ability to compete.

During the 1960s, The Coleman Report (Coleman et al., 1966), which studied over 640,000 students in grades 1,3,6,9, and 12, came to the conclusion that "schools bring little to bear on a child's achievement that is independent of his background and general social context" (p. 235). Although one of the goals of public schooling was to provide all students with a chance to succeed, this report suggested that a child's background and social context determined success. This report had a large impact on the way people thought about public schooling and the influence education could have on students.

During the 1970s, Christopher Jencks and colleagues reanalyzed the data from the Coleman Report. In their book *Inequality: A Reassessment of the Effects of Family and Schooling in America* (1972), they concluded that even with reforms, schools can do little to influence the achievement of students. The National Commission on Excellence in Education continued the criticisms of public education when it released its report, *A Nation at Risk: The Imperative for Educational Reform,* in 1983. In general, the report said that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people" (National Commission on Excellence in Education, 1983, p. 5).

The influence of *A Nation at Risk* continued into the 1990s when yet another study was released that gave evidence that American students were falling behind their international cohort in specific areas. The Third International Mathematics and Science Study (TIMSS) was a large-scale international comparison of the educational systems of 41 countries that looked at mathematics and science curricula, instructional practices, and

school and social factors (Marzano, 2003). Some researchers (Schmidt, McKnight, & Raizen, 1996; Stevenson & Stigler, 1992; Stigler & Stevenson, 1999) believe the TIMSS data indicate there is an immediate need to reform public education and, by extension, the quality of the teachers in the public school system in the United States. Specifically, the TIMSS data highlighted that between 1995 and 2003 there was no improvement in fourth-grade students' math and science scores, and the scores were actually lower than 14 other countries (Gonzales et al., 2004). Therefore, compared with other nations, students were not able to compete at the same level, continuing to raise concerns about American public schools.

The Influence of Teachers on Student Achievement.

Although some research suggests that students' background, social context and the schools they attend are the greatest determinants of their success (Coleman et al., 1966; Jencks et al., 1972), other researchers arrive at very different conclusions (Marzano, 1998; 2003; Nye et al., 2004; Teddlie & Reynolds, 2000). This new research suggests that effective schools *can* make a difference in the achievement of students. Further, "the one factor that surfaced as the single most influential component of an effective school is the individual teachers within that school" (Marzano, 2007, p.1). This new research may suggest different findings partly because it focuses attention on the effect that individual teachers can have on student achievement, not on the effect of the schools in general.

One of the studies that has sought to identify and measure the influence of an effective teacher on student achievement while accounting for other effects is that of Nye,

Konstantopoulos, and Hedges (2004). This study analyzed data from The Tennessee

Class Size Experiment or Project STAR (Student-Teacher Achievement Ratio). The

study involved students in 79 elementary schools in 42 school districts in Tennessee. The

study is of interest and significance because it involved random assignments of students

to classes that controlled a number of factors including class size, whether or not an aide

was present, socioeconomic status, previous achievement of students, gender, and

ethnicity. There were a number of findings in the STAR experiment, but what is of

interest here in the Nye et al study (2004) are the findings about the influence the

individual classroom teacher has on student achievement. In comparing teacher and

school effects, they found that "which teacher a student happens to get within a school

matters more than which school the students happens to attend" (p. 247). In discussing

their finding, Nye et al (2004) state:

> These findings would suggest that the difference in achievement gains
>
> between a 25th percentile teacher (a not so effective teacher) and a 75th
>
> percentile teacher (an effective teacher) is over one third of a standard
>
> deviation (0.35) in reading and almost half a standard deviation (0.48) in
>
> mathematics. Similarly, the difference in achievement gains between
>
> having a 50th percentile teacher (an average teacher) and a 90th percentile
>
> teacher (a very effective teacher) is about one third of a standard deviation
>
> (0.33) in reading and somewhat smaller than half a standard deviation
>
> (0.46) in mathematics. . . .   These effects are certainly large enough
>
> effects to have policy significance (p. 253).

Further research supports the finding that teachers make a significant difference on student achievement. Hanushek (2007) concluded that an effective teacher will help students achieve a gain of 1.5 grade level equivalents while students studying under an ineffective teacher will only gain 0.5 year for a single academic year. Hanushek's research suggests that the differences in teacher quality, and consequently student achievement, are significant and impressive.

In an analysis of achievement tests scores of over 60,000 third, fourth, and fifth grade students in 54 Tennessee school districts, Wright, Horn, and Sanders (1997) also conclude that teachers make a difference in student achievement. They state that "the results of this study well document that the most important factor affecting student learning is the teacher. In addition, the results show wide variation in effectiveness among teachers. The immediate and clear implication of this finding is that seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor" (p. 63).

Current research consistently suggests that teachers exert significant influence over student achievement, greater influence than any other factor in the school system (Darling-Hammond & Youngs, 2002; Goldhaber, 2002; Sanders, 2000; Wright et al., 1997). Specifically, based on a summary of research, Sanders (2000) said that "differences in teacher effectiveness is the single largest factor affecting academic growth of populations of students" (p. 8). Similarly, in a study of the Denver Public Schools, Meyer (2001) found that teachers accounted for more than twice the total variation in student test score changes. Linda Darling-Hammond (2002) states "Studies using value-

added student achievement data have found that student achievement gains are much more influenced by a student's assigned teacher than other factors like class size and class composition" (p. 13).

Legislation enacted by the Bush administration demonstrates that the government believes teacher quality is critically important for student achievement. The No Child Left Behind Act seeks to ensure that every child is taught by a "highly qualified" teacher. This emphasis can also be seen in The Teaching Commission (2004) report, *Teaching at Risk*, which states that teaching quality is a critical factor in attempts to improve our nation's global competitiveness, security, and future. In a recent speech to the National Education Association, Secretary of Education Dr. Arne Duncan reiterated this belief in the importance of quality teachers when he stated, "We believe teaching is a profession and good teachers and principals are essential to success" (Duncan, 2009a).

In summarizing their review of teacher effectiveness research, Odden et al (2004) concluded "quite a bit of recent research has shown that teachers have substantial impacts on student learning and that there is a large variation in the impact of individual teachers both across grade levels and within grade levels teaching the same subjects. The bottom line is that teacher and classroom effects are strong and large" (p. 7). In sharp contrast with the research from the 1960s and 1970s, current research consistently suggests that teachers significantly impact student achievement, possibly more than any other single factor (Gitomer, 2007).

Student Achievement Measured by Test Scores.

In many of the previously mentioned studies, teacher effectiveness was directly linked to student achievement as measured through test scores (Rivkin, Hanushek, & Kain, 2001; Wright et al., 1997). According to Kupermintz (2002), a strong belief exists among policymakers, and public as well as private funding agencies, that test scores are directly related to the quality of teaching effectiveness. Similarly, Yates (2005) states that "teacher effectiveness studies specifically target student achievement gains [on standardized tests]" (p. 687). These studies and legislation under the No Child Left Behind Act demonstrate the reliance on standardized testing in order to evaluate teacher effectiveness. In a speech in 2009 to the Fourth Annual Institute of Education Sciences Research Conference, Secretary of Education Dr. Arne Duncan stated that "we need robust systems to track student achievement and teacher effectiveness" (Duncan, 2009b). Duncan went on to say that "we can one day do a better job of understanding what makes a great teacher tick, why they succeed, why they stay in the classroom and how others can be like them" (Duncan, 2009b). Finally, in a speech at the 2009 Governors Education Symposium, Dr. Duncan summarized the current administration's belief in the link between teacher effectiveness and student achievement by asking, "How can you possibly talk about teacher quality without factoring in student achievement?" (Duncan, 2009c)

According to Yates (2005), "Teacher effectiveness research itself implies that the primary indicator of effective teaching is located at the level of the student, rather than the teacher" (p. 687). Teacher effectiveness literature is predicated on the assumption,

often unstated, that students could be learning more. This can be seen in the use of terms like improve(ing) student learning and student achievement gains. Since it is broadly recognized that quality teachers are the key ingredient to a successful school and to improved student achievement (Hanushek, 2007), more attention must be directed at what can be done to motivate teachers to become highly-effective educators. Podgursky and Springer (2007) note in their review of teacher effectiveness literature that "any type of policy that can retain and sustain highly effective teachers and enhance or discard non-effective teachers has the potential for substantial effects on student achievement" (p. 559).

In his summary of teacher effectiveness research, Yates (2005) concludes that "it provides some insight into how certain teachers have been successful in the past in achieving a narrow range of achievement goals, given the constraints placed upon them by the nature of the employment context" (p. 688). But what would happen if one could change the constraints of the employment context by examining the motivational factors of teachers or by changing how teachers were rewarded? Specifically, can pay-for-performance plans motivate teachers to become more effective?

Performance-Based Pay Plans

Performance-based pay systems of some form have been in use by the majority of both private business and the public sector for some time (Milkovich & Newman, 1993). In this section, a performance-based pay system is defined as any system that seeks to increase employee motivation through financial incentives that are directly related to the work performance of the employee. In private business and the public sector, these

systems include merit pay, incentive pay and bonus pay. One of the greatest concerns with these systems has been that they discourage team-based collegiality that helps make many organizations function well (Lawler, 1990). The following section will review the advantages and disadvantages of performance-based plans in general, followed by an examination of performance-based pay plans in the business world and the educational setting.

Advantages of Performance-Based Pay Plans.

The primary advantages cited for the use of a performance-based pay plan for any organization is that it will help recruit, retain, and motivate high-quality employees. It is understood that organizations that value and reward quality are able to attract and retain high-quality employees (Chamberlain et al., 2002). For those already in the organization, the message is that good performers are valued and rewarded and poor performers are not. One of the major underlying assumptions is that earning more money will motivate workers to work harder and more efficiently. Also, as employees learn that certain knowledge, skills, or specific behaviors are rewarded, they come to understand what their employers value. As employees understand what their employers value, they may also become committed to these organizational values and goals (Chamberlain et al., 2002).

Lane (1988) provides a succinct summary of nine advantages that characterize most performance-based pay plans:

1. Promotes excellence

2. Attracts quality personnel

3. Provides equity in compensation and recognition

4. Can provide rewards in depressed times

5. Can be used to identify people for other preferential treatment

6. Can influence people to leave

7. Builds respect for the profession

8. Is successful in business and industry

9. Is politically popular (p. 16-17).

These advantages explain why performance-based pay plans have been implemented so many times in the past.

Disadvantages of Performance-Based Pay Plans.

While there is a growing body of research evidence indicating performance-based pay motivates employees to higher levels of productivity, there is also evidence of disadvantages. Chamberlain et al. (2002) describe six undesirable side effects to performance-based pay plans, especially within the educational context.

1. Neglect of unrewarded tasks: By rewarding certain aspects of a job, performance-based pay plans make it clear what types of behaviors and actions are valued and rewarded. What can happen in this type of environment is that employees become so focused on meeting the desired targets that other important parts of their job are ignored. This can also lead to a lack of innovation since employees are simply focusing on desired targets and not developing creative solutions.

2. Disagreement about goals and/or multiple goals: Not all organizations develop a clear consensus on their goals. If the goals are not specific, clear, well-defined and clearly communicated to all, outcomes are difficult, if not impossible to measure and reward.

3. Lack of openness: Employees in performance-based pay plans will expect to have well-documented and convincing evidence as to why some employees get more than others. They will also expect clear explanations as to how they too can earn more money. However, often, this information is not available to employees because of their colleague's confidentiality rights.

4. Cost: Performance-based pay plans may require additional administrative time (and expense) in monitoring, evaluation, and performance management.

5. De-motivation for the unrewarded: One of the premises behind performance-based pay plans is the motivational concept that the unrewarded will get the message that their performance is unsatisfactory and will either improve or leave the organization. What may happen, especially if any type of quota system for rewards is used, is that employees working at a satisfactory level may be de-motivated by plans that do not benefit them.

6. Competition instead of cooperation: There is the potential for performance-based pay plans to create a sense of competition among individuals to earn individual rewards that could hurt the collective effort of a team or unit.

Over time, leadership in the private business and the public sectors has continued to experiment with different compensation models and strategies to enhance these advantages and mitigate the disadvantages. More recent models include knowledge and skill-based pay, team-based performance awards and other forms of rewards (Heneman, Ledford, & Gresham, 1999). These newer models have given organizations the ability to give group bonuses to work teams that enhance organizational performance or reward individual employees based on acquiring new knowledge or skills and gaining experience (Odden, 2000).

The experience with and success of these models in the private business and public sectors has provided schools with models they can adopt or modify to fit within the educational setting (Kelley, 1997). Also, current reforms have moved education to a more standards-based model which may naturally fit with these compensation structures (Mohrman, Mohrman, & Odden, 1996). As the standards for high-quality teaching have been defined in research, for example Charlotte Danielson's *Framework for Teaching* (2007), pay systems can be aligned with those standards in a more objective manner. Previously, without standards, administrators' evaluations were subjectively based on their own opinions and biases about high-quality teaching.

Teacher Pay Systems

Since the early 1800s, there have been three primary forms of teacher compensation used in U. S. education: the boarding round system, position-based salary, and the single-salary schedule (Protsik, 1996). In the 1800s, the boarding round system compensated teachers for their services with free room and board. This was usually

provided in the homes of the pupils' parents as the teacher would move weekly from house to house. Teachers were not provided much of a salary and their lives were strictly regulated (often given curfews and women were not allowed to teach once married). This is when the public school system was in its infancy and many children completed only primary school. At this time, teaching was more than a job or career; being a teacher was a specific lifestyle as a public employee.

In the late 1800s and early 1900s changes in society and the ways in which schools were organized as well as teacher education requirements resulted in the replacement of the boarding round compensation system with a position-based salary system. In this system, teacher pay was based on a number of factors including years of experience, grade level taught, race, and gender. While this system was an improvement on the boarding round system, there were several problems with this system, including that elementary teachers were paid less than secondary teachers, and men were typically paid more than women (Odden & Kelley, 2002).

In the first half of the twentieth century, the compensation model of the single-salary schedule for teachers was adopted to overcome some of the shortcomings of the position-based system. When first adopted, the single-salary schedule was seen as an improvement to the position-based system that routinely discriminated based on race, gender, or age of students taught (Dee & Keys, 2004; Odden & Kelley, 2002). The single-salary schedule model has remained virtually unchanged since it was first introduced (Dee & Keys, 2004) and is almost a universal feature of public school districts

(Podgursky & Springer, 2007). This system pays teachers for their years of experience and advanced degrees or educational credits earned (Odden & Kelley, 1997).

The single-salary schedule has been criticized by those who argue that it should be replaced by other models of compensation (Hoerr, 1998). Concern has been expressed over the inability of schools to find and retain teachers with specific content expertise like math, science and technology, or to staff schools in certain locations. In order to mediate these effects, some government agencies have provided grants or loan forgiveness programs for teachers in hard to staff areas.

Another criticism is that the single-salary schedule has not been able to attract, motivate, and retain high-quality teachers (Dee & Keys, 2004). Dee and Keys (2004) go on to say that the single-salary schedule is also criticized "for failing to reward teachers' performance and productivity, and ultimately, for discouraging high-ability individuals from entering and remaining in a teaching career" (pgs. 472-3). According to Hanushek (2007), the traditional salary scheme only rewards experience and the attainment of advanced degrees, neither of which has been shown to consistently relate to student performance. With this system, innovation or highly effective teaching are not recognized monetarily. Young teachers may be discouraged that they can not advance based on their skills but only by their experience and degrees. Therefore, inexperienced teachers may be attracted by other jobs where advancement opportunities are immediately available based on the quality of their work (Dee & Keys, 2004; The Teaching Commission, 2004).

According to Odden and Kelley (2002), one of the most common criticisms of the single-salary schedule is that "it treats as equals teachers with the same education level and experience, despite potentially unequal performance and skills" (p. 39). These critics argue for compensation models that take into account other factors. Newer models of compensation, which can be broadly defined as any system of teacher compensation that explicitly rewards better performance, have been proposed as a possible remedy to shortcomings of the single-salary system (Dee & Keys, 2004). These models would evaluate teacher performance as measured by student achievement and teacher evaluations, for example. Hanushek (2007) states, "The key to an effective teacher salary program must be funding that follows those who improve student performance. If the objective is improving student academic achievement, there is no substitute for policies that directly relate to student outcomes" (p. 581).

Performance-Based Pay Plans in Business

Performance-based pay plans in the business world are based on the assumption that the potential of a reward for outstanding performance will motivate the employee to achieve at a higher level. As employees improve their individual performance, the aggregate effect will be that the organization will also improve its overall performance. "The benefits of pay-for-performance are well known in the private sector, where compensation is frequently used as a management tool to achieve organizational goals. As part of a total compensation strategy, pay-for-performance is used in the private sector to reward individuals, groups and/or organizational performance in the form of bonuses and increased compensation for results" (Business Roundtable) . It has been estimated

that up to 90 percent of large public- and private-sector organizations base a portion of employee compensation on performance (Milkovich & Newman, 1993). Based on many years of application in the business sector, proponents of teacher pay-for-performance assume that teachers will work to higher levels of achievement or performance when there is the potential of obtaining a reward, usually monetary, for the increased effort.

The underlying premise in most pay-for-performance plans is that money is an effective motivator. A motivator is an impulse or influence that causes a person to do something or act in a certain way. There are a wide variety of definitions of motivation, but the general consensus is that "motivation is an internal state or condition that serves to activate or energize behavior and give it direction" (Kleinginna & Kleinginna, 1981). According to Steers and Porter (1983), there are three parts to motivation: First, there is a concern for what energizes human behavior; then one needs to know what directs or channels that behavior; and finally one must understand how this behavior is maintained or sustained.

The belief, then, that underlies performance-based pay plans is that the promise of more money can be motivational, and that these plans will motivate teachers to higher levels of performance as they seek equilibrium among their needs or expectations, current behavior, goals, and feedback (Steers & Porter, 1983). *Needs* or *expectations* cause an inner state of disequilibrium within the individual. This can be resolved by acting or *behaving* in a certain way, with the result that the individual will attain the desired *goal*. *Feedback* informs the person as to goal attainment and the process continues until equilibrium is reached. An application of this model to pay-for-performance in education suggests the teacher's need or desire for more money would cause an inner state of

disequilibrium. The teacher, wanting to satisfy this need, would modify, change or adopt new behaviors until the goal of more money is attained, thus reaching a new state of equilibrium. Since people have a natural desire to eliminate disequilibrium, they will seek behaviors or actions that will help them attain their goals and arrive at a new state of equilibrium.

Performance-Based Pay Plans in Education

A number of different terms are used in the literature to refer to teacher performance pay plans, merit pay, and performance-based awards. For the purposes of this paper, the author will use the definition as proposed by Heneman et al. (2007): "Teacher performance pay is defined as any systematic process for measuring teacher behavior or results, and linking these measurements to changes in teacher pay. The key indicators of teacher performance include improving professional knowledge and skills, changing classroom behavior, and producing desired results" (p. 1).

History of Performance-Based Pay in Education in the United States.

While the single-salary schedule is the predominant means to compensate teachers, there has been on-going interest in other models of compensation. The earliest form of these alternate models of compensation was merit pay, which was often based on the subjective judgment of the evaluator and not on objective, predefined goals and objectives. These early merit pay plans also had very limited funding and often involved some form of a quota or ranking system (Chamberlain et al., 2002).

Where these alternate forms of compensation were used, they were a supplement to the single-salary schedule or a base salary. Early in the twentieth century there was a lot of interest in linking teacher pay and performance through some form of merit pay. These early attempts to link teacher pay and performance developed during the Progressive Era (Johnson, 1984). This emphasis on efficiency was consistent with the thinking of the day in both the public and private sectors.

The thinking was that merit pay plans would increase system efficiency and help attract and retain the best teachers (Johnson, 1984). In general, these merit pay plans tied teacher pay to student performance generally measured by test scores. By 1918, it is estimated that almost half of U.S. school districts surveyed had in place some type of merit pay plan for teachers. These programs were, however, typically short-lived and by the late 1920s, less that 20 percent of school districts continued with merit pay plans (Murnane & Cohen, 1986). This loss of interest in merit-pay plans in the early part of the 20th century can be attributed to many of the issues that persist to this day: teacher disapproval, destruction of a cooperative spirit among teachers, inability to define effective teaching, and the difficulty of developing and implementing a valid and reliable measurement system of teacher performance (Harris, 2007).

The launch of Sputnik and the resulting fear of America's declining educational quality and international standing revived interest in merit pay plans as a means to improve educational quality. During this time, about ten percent of U.S. school districts began using merit pay supplements. But once again these plans were short-lived with few

surviving more that four or five years due to a lack of sustained interest and funding (Murnane & Cohen, 1986).

From the 1950s to the 1970s, another event took place that would have a significant and long-lasting effect on attempts to implement performance-based pay plans. For the first time, legislation giving public employees a voice in determining the conditions of their employment was passed into law. It began with the organization of New York City teachers in 1961 and was followed closely thereafter by legislation allowing collective bargaining with public employees in Wisconsin. This marked the beginning of the right of public employees to bargain collectively. By 1974, over 35 states had enacted some form of legislation regulating the bargaining power of public employees (Eberts & Stone, 1984). Collective bargaining became a force to be reckoned with in teacher contract negotiations and the single-salary schedule became deeply rooted. Any deviation from this schedule was seen as potentially treating teachers unjustly and ruining the morale of the teaching faculty (Maloy, 2002). Local and national union leadership has, until recently, been opposed to any type of compensation that has not treated all teachers with equal training and experience as equals (Belfield & Heywood, 2008). There was a fear that these compensation practices could be discriminatory instead of being based on objective, defensible criteria.

Early in the 1980s, America's educational standards were again on the agenda due to concerns about the decline of productivity in the U.S. relative to other industrialized nations (Johnson, 1984). Also, the release of *A Nation at Risk* in 1983, which recommended that education salaries be "professionally competitive, market-sensitive,

and performance-based" (National Commission on Excellence in Education, 1983, p. 30), encouraged a variety of schools and school districts to experiment with teacher compensation models like merit pay, pay-for-performance, and career ladders (Podgursky & Springer, 2007). "Through the 1980s and 1990s the topic of financial rewards for employees has become a very important, at times controversial topic on the agenda of most human resource management professionals" (Hume, 1995, p. 2). By 1985, over 20 states had mandated merit pay programs for teachers (Johnson, 1984). But by the early 1990s, many of these programs had disappeared.

In the schools where merit plans continued, they often became merit pay in name only. The extra pay was often tied to tasks outside classroom instruction or was awarded to almost everyone. Sometimes, participation became voluntary, with very few teachers participating. Other times, the plan was changed by greater teacher involvement in designing the reward structure which sometimes undermined the goals of the program by focusing on factors that did not directly relate to student achievement (Murnane & Cohen, 1986).

These plans generally failed to address the problems or provide the benefits that merit pay plans were intended to address: to motivate teachers to higher levels of performance, recruit and retain quality teachers, and improve student achievement. But they did have other benefits: they supported good teachers and gave them the option to choose between an increased workload (for additional pay) or more free time, and they encouraged teachers to be involved in evaluation. These plans also helped build community support for teachers and the local schools (Chamberlain et al., 2002).

Criticisms of Past Efforts.

Merit pay programs have historically been short-lived. An Education Research Service survey in 1978 reported that over 180 school districts had experimented with merit pay plans for an average of six years before abandoning the plan and that, on average, one-third of the plans survived two years or less (Guernsey, 1986). The most common reasons for dropping these plans were administrative difficulties, problems in conducting teacher evaluations, teacher resistance, inadequate funds, and poor measurement instruments. Surveys of a similar nature, conducted in 1983 and 1993, found comparable results for discontinuation and the reasons given (Harris, 2007).

There have been several studies that have looked into these early versions of merit pay plans and their short-lived nature arriving at similar conclusions (Guernsey, 1986; Hatry, Greiner, & Ashford, 1994; Johnson, 1986; Murnane & Cohen, 1986). First, most of these merit pay plans created competition among teachers by trying to identify the top or best teachers in a school or school district. This heightened sense of competition often led to teacher morale problems. This part of the merit pay plan was considered to work against the cooperative and collegial culture that is part of effective schools and undermined rather than reinforced good school performance.

Second, good performance or excellence as a teacher has been difficult to define. Without a clear definition of what good teaching looks like, the incentive goal of merit pay is undermined and becomes a useless organization element. Third, the process for defining (related to number two above) and selecting teachers who fit the definition and best meet the standards was usually flawed at best. Teacher performance was hard to

monitor. Unfair and often subjective evaluation practices resulted in lower teacher morale. Murnane and Cohen (1986) suggest that for any merit system to work, it must be able to specifically answer the teacher who asks, "Why wasn't I selected, and what do I need to do to be selected?" The inability to honestly answer these questions led to skepticism about the program and those overseeing it.

Fourth, the plans were ineffective at motivating higher teacher performance because of a flawed understanding of psychological theories of worker and teacher motivation. There was not a clear understanding of how work conditions, salary structures, and performance incentives related to teacher motivation. Finally, there must be sufficient funds to underwrite the plan. When there were not, it undermined the incentive effect of the program, with the result being that teachers came to understand that merit, however defined, was not going to be rewarded. The use of quotas to determine the number of teachers to receive awards and difficulty in administering the plan resulted in most programs being dropped after a few years (Odden & Kelley, 2002).

One of the most influential critiques of performance pay plans was Murnane and Cohen's (1986). They posited that teaching is simply not a discipline that lends itself to performance-based compensation models. Unlike other professionals such as doctors or lawyers who charge for their services by the hour and whose value is readily measurable, teacher output and the value of the services they provide is difficult to monitor and quantify. The impact that teachers have on students cannot always be measured through standardized tests. They also believed that the use of individual performance pay incentives would reduce the desire of teachers to cooperate and would result in a drop in

the overall morale and performance of individual teachers and in the schools in which

they work (Podgursky & Springer, 2007).

Accurately evaluating teacher quality has been a persistent problem in

performance-based plans, often leading to their failure. However, the evaluation of the

data from the Tennessee Career Ladder Evaluation System and the Project STAR class-

size experiment by Dee and Keys (2004) suggests there are ways to effectively evaluate

teachers. Specifically, the results from their analysis of the performance pay plan

"clearly suggests that teacher quality can be reliably rewarded when there is a well-

designed evaluation system" (p. 486).

Hanushek (2007), in commenting on this past research, suggests that

performance-based polices may suffer from the same flaws as merit pay plans of the past.

Specifically, he questions Murnane and Cohen's work in two areas. First, the merit pay

plans analyzed involved quite small amounts of money which may not have provided

sufficient incentives for teachers to modify their behavior. Second, most evaluations

judged the effectiveness of the plan by its ability to get more effort out of current

teachers, rather than its ability to enhance the selection of good teachers. Hanushek

concludes, "By only rewarding those who do well in the classroom, the hope is that most

of those who do poorly will choose to exit, i.e., that the selection effect will be strong" (p.

582). For Hanushek, the effectiveness of any performance-based compensation program

depends on the answers to two questions: Are the rewards large enough to lead to a

strong response on the part of teachers, and does this bonus lead to the right retentions

and exits?

Even with the problems of merit pay plans described earlier and continued questions about their effectiveness, some were willing to admit that the problem was not necessarily with the idea of performance pay per se but with the way the plans were designed, implemented, and administered (Hatry et al., 1994). Also, in spite of the poor record of these early plans, teacher attitudes towards some form of performance pay was generally supportive, according to national survey data (Ballou, 2001; Ballou & Podgrusky, 1997).

Teachers did, however, experience some negative outcomes when working under some performance pay plans. Kelley et al. (2000), in analyzing data from three school-based performance award programs, found that teachers experienced increased pressure and stress along with an increase in hours worked. They also noted that programs with externally-imposed standards and continuous improvement components produced higher levels of pressure and stress. In designing performance-based pay plans, care should be taken to provide positive outcomes that outweigh the negative outcomes. This will help support one of the basic assumptions of performance-based pay plans, that attainment of the goal and reward will act as an incentive and is worth the effort.

Although there have been difficulties in the past with pay-for-performance plans, some of the concerns have been addressed through new design elements. Over the past several decades, significant advances in the measurement of teacher and school performance have also been made with the development of more comprehensive state standards, more reliable student assessments, and the development of better teacher evaluation tools and techniques. States are also making use of longitudinal student

databases that permit more precise estimation of value-added at the building, grade, and, in some cases, individual teacher level (Odden & Kelley, 2002; Podgursky & Springer, 2007).

In learning, then, from these past attempts at performance pay, Odden and Kelly (2002) conclude that any pay strategy that attempts to vary from the single-salary schedule must overcome these flaws of the past. But even if a new plan is well-conceived, a new compensation approach will not provide the incentives necessary for skeptical teachers to adopt new behaviors if it is not well funded over the long term.

Private Schools and Performance-Based Pay.

Although some of the concerns with performance-based pay exist in the context of private schools, there are other ways in which performance-based pay plans are more effective in these contexts. In an analysis of the federal Department of Education, the Bureau of Census 1984-85 Public School Survey, and the Schools and Staffing Surveys (SASS) of 1987-88, 1990-91, and 1993-94 which involved more 5,000 public school districts and 2,500 private schools, Ballou (2001) found a greater use of merit pay in private schools than in public schools. There was a significantly higher use of merit pay in nonsectarian private schools. More recent studies by Podgursky (2006) that examined data from the 1999-2000 SASS also found a significantly higher use of performance pay by private and charter schools.

Figlio and Kenny (2007) analyzed data from the 1992 National Education Longitudinal Survey (NELS), 1993 SASS, and their own Survey of School Teacher

Personnel Practices given in 2000. They also found that private schools are more likely to use teacher performance incentives than public schools.

Private schools generally operate in a less-regulated and non-union environment. Furthermore, private schools often must attract and retain families by establishing that they provide some value-added as compared with the public school system (Podgursky & Springer, 2007). Hoxby (2002) proposes that this increased competition for student enrollment leads to greater use of merit and performance-based pay.

Ballou (2001) discusses four specific factors that may contribute to the wider use of merit pay in private schools. The first is the competitive nature of the private school market and the need for private schools to attract and retain the kinds of teachers that build and maintain the school's reputation. Second, according to the 1987-88 SASS data, teachers in private schools are supportive of merit pay. Third, teachers at private schools are not part of a collective bargaining unit and therefore may not be able to openly express their concerns with merit pay. If an individual complains excessively, he or she may be seen as individualistic and not a team player. This teacher may not be rehired since the expectation is that teachers will uphold the mission or values of the institution. Finally, decisions about merit pay can be made in a quieter, less obtrusive manner in private schools. In public schools, salaries are a matter of public record meaning that it is readily apparent which teachers earned rewards. In private schools, these matters can be handled confidentially.

There are, however, several reasons that may keep some private schools from moving to a merit pay plan. Private schools are influenced by and often adopt salary

schedules patterned after larger, local public schools. This may help account for less widespread use of alternative or innovative models of teacher compensation in private schools (Ballou, 2001). Another reason private schools may not move to a merit pay plan is the availability of alternatives to merit pay. Tenure is usually not an option for private school teachers; those who do not meet expectations are generally not renewed for the next school year. Also, private school administrators can often find alternative ways to reward strong performers. This usually involves assignment of extra duties for extra pay which has the effect of increasing the total compensation package. Finally, religious schools may also avoid alternate compensation approaches according to Ballou and Podgursky (1997) because they view them as at odds with their more egalitarian ethos and values.

Newer Approaches to Performance-Based Pay.

More recent efforts at compensation reform have avoided many of the criticisms of the past. These newer compensation models are often goal-based. Individuals or groups set goals, and performance pay is awarded based on achievement of those goals (Protsik, 1996). These awards are given for individual or group performance and are often referred to as school-based performance awards. These awards help maintain the collegiality and teamwork in the system and prevent a school from becoming overly competitive. Other models suggest compensating teachers for acquiring and using new knowledge or skills (Heneman et al., 2007). Odden and Kelly (1997) argue that for any of these pay plans to work they need the involvement of all parties, adequate funding, training, no quotas as to how many can receive the award, and persistence.

In response to past attempts and their criticisms, various alternatives in more recent years have been proposed in school districts like Cincinnati and Denver; some state legislatures (Colorado, California, Minnesota, and Florida) have also approved legislation encouraging or requiring schools to modify teacher salary structures (Odden, 2000). Also, the recent emphasis on accountability and academic standards brought about by the No Child Left Behind Act has been one of the key factors causing various school districts and states to experiment again with compensation models for K-12 educators. Many of these teacher-level incentive plans have been stimulated by the Department of Education's Teacher Incentive Fund (TIF), which provides money annually on a competitive basis to school districts, charter schools, and states to fund experiments and pilot performance-based pay projects (Podgursky & Springer, 2007).

Another model that has been influential recently on performance-based pay projects is the Teacher Advancement Program (TAP) developed by the Milken Family Foundation. This plan includes elements of both performance- and outcome-based compensation and typically involves a teacher advancing up a promotion ladder based on a number of performance evaluations that usually involve classroom observations as well as student achievement gains. Most schools using this program continue to use the traditional salary schedule along with the TAP career ladder (Azordegan, Byrnett, Campbell, Greenman, & Coulter, 2005).

To date, there has been little research on the potential effectiveness of teacher performance plans on individual teachers and student performance. One study by Figlio and Kenny (2007) used data from the National Education Longitudinal Survey on

schools, students and their families and their own survey which was administered in 2000. They attempted to document the relationship between teacher performance incentives and student achievement. Their survey looked at data related to the frequency and magnitude of merit raises and bonuses, teacher evaluation and teacher termination. Their finding is that students learn more in schools in which individual teachers are given financial incentives for high-quality instruction. They also found that the relationship between the availability of performance-based pay and student test scores was highest in schools that had the least parental oversight. The authors of this study caution that these results may be the result of "students learning more in schools in which the use of merit pay is correlated with more innovation in teaching" (p. 913) or more teaching effort.

In looking at the particulars of a teacher compensation plan, Hanushek (2007) has identified seven relevant issues that need to be addressed. First, there should be strong rewards for individual classroom performance while also giving consideration to some type of group rewards. Second, the teacher evaluation component should include both student test scores and supervisory or peer evaluations. Third, some type of evaluation system will be needed in subjects that are not routinely tested. Fourth, principals and administrators should be rewarded based on student performance as well as teachers. Fifth, there should be extra financial support for teachers in schools with concentrations of disadvantaged students. Sixth, simply rewarding top performers does not insure that all subjects are covered with high-quality teachers. Other incentives may be needed for hard-to-fill subjects like math, science and languages. Seventh, there is need for more of an integrated approach to the allocation of pre-service and in-service training. With a

program that takes into account these seven issues and focuses on outcomes, it is possible to move toward a system that emphasizes student achievement by rewarding teachers based on student achievement.

In synthesizing the research on performance-based pay plans, Heneman et al. (2007) recommend the following four guidelines for policy and practice in implementing a performance-based pay plan:

1. Guarantee stable and adequate funding

Teachers are suspicious of performance-based pay because of funding questions and will not be willing to buy into the program or respond positively if the program does not have adequate financial support.

2. Provide competitive total compensation

The salary and benefits package must be competitive before launching a performance-based pay program.

3. Build strong measurement systems

A reliable, valid performance measurement system is what guides the performance-based pay program.

4. Gauge likely teacher reactions to the performance-based pay plan along the following four measures:

a. Differentiation

The addition of performance as another criterion for determining pay may be threatening to teachers who are not well prepared.

b. Teacher motivation

Performance-based pay plans try to motivate teachers towards desired outcomes and behaviors.

c. Fairness

Teachers must view the pay plan as fair in how it is implemented, administered, and in the amount and formula for the performance-based payout.

d. Acceptance

Teachers must be willing to work within the plan.

Teacher acceptance is essential to the effectiveness and survival of any performance-based pay plan. Teacher acceptance is important both initially and on an ongoing basis. This has proved to be a problem both in the past (Hatry et al., 1994; Murnane & Cohen, 1986) and with more recent performance-based pay plans in Cincinnati, Denver, and the Vaughan Charter School in Los Angeles (Heneman et al., 2007).

One of the key factors in making any performance-based pay plan work is an understanding of what motivates teachers and whether or not it is feasible to reinforce the elements that motivate teachers enough for them to pursue the goals outlined in the performance plan. Odden and Kelley (2002) believe that many of the previous attempts to change teacher compensation were ineffective at motivating increased teacher

performance because most of those programs were implemented with a flawed understanding of the psychological theories of human motivation. The underlying theories of motivation and their connection to work conditions, compensation, and performance incentives relate to motivation and are the focus of the next section.

Incentives

Incentives (direct and indirect monetary and non-monetary rewards) are seen as a way of improving performances and as a means of enhancing teacher's motivation or achievement (Mhozya, 2007). According to Kemmerer (1993) incentives facilitate, reinforce and reward specific actions. Incentive systems are grounded in behavioral theory. Kemmerer states that "the purpose of teacher incentive systems is to modify the behavior of individuals or groups of individuals in the interest of goal attainment" (1990, p. 135). Teacher incentive systems have as a short-term goal improving teacher performance (i.e. classroom instruction, classroom management, etc.) in pursuit of the long-term goal of improving student learning or performance as measured by test scores, grades or other indicators (Kemmerer, 1990). This discussion of the use of incentives in education is predicated on the belief that teacher performance has a direct relationship to student learning (Chapman, Snyder, & Burchfield, 1993; Marzano, 2003; Nye, Knostantopoulos, & Hedges, 2004).

Three criteria are necessary according to Kemmerer (1990) to developing an effective incentive system. First the system must have internal consistency which refers to the relationship between the goal and the means. There must be both a clear statement and compatibility between the goals and the means. Kemmerer states that "an incentive

system simply will not work if the means are not compatible with each other and the goals" (Kemmerer, 1990, p. 142). The second criteria for an effective incentive system is adequacy. Adequacy carries with it two connotations according to Kemmerer, the first is the idea that the reward must be sufficient for the given purpose. Kemmerer posits that "there is a threshold value for each type of incentive. When the value falls below that threshold, competent teacher performance . . . is improbable at best" (1990, p. 144). The second connotation is relativism. This is the idea that "what is perceived as adequate by one individual or group of individuals may not be sufficient for another" (Kemmerer, 1990 , p. 144). Finally, for an incentive system to be effective it must have equity. The incentives must be perceived as fair. For Kemmerer this equity is viewed in two directions; vertical equity, unequals are treated differently, and; horizontal equity, equals are treated equally.

Motivational Theory

Motivational theories provide the framework for this research. These theories help explain how employees are motivated, and, in this context, the role that incentive programs can play in motivating them. The various theories presented should be seen as viewing motivation from various angles. When combined, they offer a more complete understanding of the ways in which employees are motivated to higher levels of performance.

Expectancy Theory.

Expectancy theory (Vroom, 1964) is the most prominent theory used to explain employee motivation and the design of effective compensation programs (Odden & Kelley, 2002). Much has been written about expectancy theory, a well-accepted motivation theory that was developed in the 1960s by Victor Vroom (Consortium for Policy Research in Education, 2007). This theory is a cognitive theory about what it takes to motivate employees to perform at certain levels or achieve a desired outcome.

The basic idea behind expectancy theory is that people are most motivated when they have a strong belief that they can achieve specific, worthwhile goals. This theory is based on three conditions, each of which influences motivation but when combined to work together can have a much more profound or multiplicative effect. When these three conditions are met, this theory proposes that individuals will respond favorably to an incentive program (Lawler, 1990). The three conditions are:

1) Expectancy: This is the perceived probability of success or the belief that if one puts forth a strong effort s/he will be successful and achieve the goal, and that doing so is within their control, skills and abilities.

2) Instrumentality: This can be explained as line of sight or the connection between success and reward. This is a sense that success in achieving the goal will result in receiving the promised reward.

3) Valance (value): This is the value or desirability of obtaining the goal. The award is of sufficient value to the person for the effort needed to achieve it (Steers & Porter, 1983).

Expectancy theory has been used by researchers to study compensation programs' motivational effects, and there is "considerable empirical research supporting compensation programs based on expectancy theory" (Odden & Kelley, 2002, p. 72).

Goal-Setting Theory.

Goal-setting theory was first proposed as a theory of employee motivation by Locke (1968). According to this theory, employees are motivated by goals that are specific, challenging, and accepted as worthwhile and achievable. Research has shown that the simple act of setting clear and measurable goals motivates employees to higher levels of performance (Odden & Kelley, 2002). This can be important for both individual and group performance.

A number of research studies on school-based performance award (SBPA) programs have found that the combination of these two well-known theories, expectancy and goal-setting, provides a useful framework for examining and explaining teacher motivation (Heneman, 1998; Kelley, 1997; Kelley, Odden et al., 2000; Kelley & Protisk, 1997). The addition of goal-setting theory to expectancy theory was deemed important by the above-mentioned researchers when studying performance-based pay plans. Goal-setting allowed important stake-holders to identify and clearly understand what they needed to accomplish. This revised theoretical framework provided a better understanding of the link between teacher effort and student achievement. It also showed more directly the link between student achievement and teacher consequences, both positive (bonus) and negative (no bonus, sanctions), which are so important in performance-based pay plans (Heneman, 1998).

Duality Theory of Satisfaction and Dissatisfaction.

Herzberg developed a two-factor model of motivation known as the Duality Theory of Satisfaction and Dissatisfaction. Herzberg et al. (1959) argued that certain factors motivate ("motivators"), but others lead to dissatisfaction ("hygiene factors"). Herzberg found that people work to achieve hygiene needs because they are dissatisfied or unhappy without them. The hygiene factors are extrinsic needs and include work conditions, salary, relationship with the boss and peers, and company policies. Once these needs are satisfied, the effect soon wears off and dissatisfaction returns. Hygiene factors are not truly motivating factors. According to Herzberg, "motivators" (the factors that truly motivate people) are achievement, recognition, the work itself, responsibility, advancement, and personal growth. For people to truly experience satisfaction (motivation) in their work, motivators need to be present (Hume, 1995).

The application of Herzberg's theory to performance-based pay plans suggests that in order for money to be an effective motivator, it must be used in such a way as to connect it with other more powerful motivators. If money is to move from being a hygiene factor to a motivator, it must be associated with achievement, personal growth, recognition, or responsibility. Conversely, if the money is given only as a hygiene factor, it will only provide temporary satisfaction and not the long-term growth that performance-based pay plans were designed to achieve (Maloy, 2002).

Past Research on Motivation in Performance-Based Pay Plans in Education

In the conclusion to their chapter on the relationship between pay and motivation, Odden and Kelley (2002) say that "the primary teacher motivator is improved student

achievement" (p. 93). They go on to say that one of the ways to enhance teacher

motivation is to have an educational system that is focused on increasing student

achievement. There are several intrinsic factors which are positively connected to teacher

motivation. These include clear educational goals focused on student achievement,

teacher involvement in school-wide activities which includes both the instructional

program and school management, and opportunities for professional development.

Kelley (2000) lists six conditions that need to be present to increase the potential

that pay-for-performance plans will motivate teachers. First, teachers must believe that if

they try, they can achieve the goals. Second, the positive outcomes associated with the

program must outweigh the negative ones. Third, the bonus offered must be associated

with other motivating outcomes. Fourth, the pay-for-performance plan goals must align

with other school improvement goals. Fifth, the plan must be perceived as fair. Finally,

the plan must be properly implemented.

These conditions align well with the four conditions that Lawler (2000) believes

must be present to make pay a positive motivator. According to Lawler (2000), the

performance plan must "create a belief among employees that good performance will

lead to high pay, contribute to the importance of pay, minimize the perceived negative

consequences of performing well, and create conditions such that positive outcomes other

than pay will be seen to relate to good performance" (p. 67-69).

Salaries are important to teachers, but they also value these other intrinsic rewards

as much and, in some cases, more. Kelley et al. (2000) found that while receiving a bonus

was desirable or very desirable for teachers, the teachers valued most the intrinsic

rewards of seeing student performance improve, of meeting school goals, and having opportunities to collaborate with other teachers on curriculum and instruction. It seems that there is sometimes a disparity between what teachers receive as an award and what they value most.

Performance-Based Pay, Incentives and Motivational Theory

In synthesizing the three research areas of performance-based pay, incentives and motivational theory, it is clear that there is an overlap on what is necessary to motivate educators in the context of compensation programs. First, it is imperative the teachers perceive goals as achievable and available (Heneman, 1998; Kelley, Odden et al., 2000; Kemmerer, 1990; Locke, 1968; Vroom, 1964). If funding is not available, it fatally undermines the system because teachers recognize that rewards are not always going to be achievable. Second, the reward must be deemed valuable and worthwhile by the employees. Heneman terms this "competitive compensation", Kemmerer talks about adequacy, while Vroom and Locke use more general definitions that look at value and worth. Third, the system must be fair and clear. Both Kelley and Heneman emphasize that teachers must have confidence in the measurement tools utilized. Furthermore, Locke finds that the goals must be specific so they are understood by all stakeholders.

In performance-based plans of the past, money was the primary motivator used. However, money might not actually be the most effective motivator for teachers since teachers enter the profession of teaching for a variety of more altruistic reasons. There are many factors that might serve as powerful motivators for teachers such as working conditions, professional development opportunities, seeing students learn more, and

opportunities to influence instructional leadership (Odden & Kelley, 2002). After studying school-based performance award programs in the Charlotte-Mecklenburg schools, Heneman (1998) also arrives at the conclusion that money might not be the only or even most important motivator for teachers. He asks two questions that merit further investigation: "Are teachers just as motivated to reach student achievement goals or targets without the possibility of receiving a bonus? Are there rewards other than a bonus (such as public recognition) that would be just as effective?" (p. 56).

Research is necessary to understand what factors would serve as effective motivators for teachers. Furthermore, it is important to understand how teachers view performance-based pay plans and whether they feel these plans are motivating to them. In designing a compensation plan, it must be understood that money is not the only, nor perhaps the primary, motivator for teachers. Research may suggest that money must be seen as part of an overall system to enhance and advance teacher expertise that helps advance student learning to higher levels.

This research aimed to begin to develop an in-depth understanding of how teachers in private schools perceive potential motivators that could be used in a performance-based pay program and their motivating effects. Furthermore, this research investigated how policymakers perceived the same motivators and their motivational impact on teachers. Since research has found that for rewards to be effective they must be considered valuable by the employee (Heneman, 1998; Locke, 1968; Vroom, 1964), it is imperative to understand if policymakers and teachers have similar perspectives as to what is perceived as valuable in a performance-based pay plan. Specifically,

policymakers may believe that a certain monetary award is sufficient to motivate teachers to complete a task, while the faculty may feel the award is insufficient and would respond to a different type of award instead.

This research included surveys of faculty, board members and administrators in Midwestern, American private schools, to understand their perceptions of the motivational effect of different awards. Furthermore, interviews were conducted to provide greater depth to the understanding of these perceptions. This research aimed to find similarities and differences of perceptions among teachers, administrators and board members (those who design compensation plans) regarding motivational factors that could be used in performance-based reward plans. Findings from this research could be helpful in guiding policy makers to establish performance-based reward utilizing factors that are truly motivating to educators.

CHAPTER THREE: METHODOLOGY

Overview

This study investigated the perceptions of teachers, administrators and board members about motivators (such as financial bonuses) that could be used in performance-based reward plans. In order to provide beneficial information to policymakers, the study tested the extent of congruence among teachers, administrators, and board members' perceptions about what each group found motivating. A more thorough understanding of what motivates teachers might assist administrators and board members in creating more effective performance-based reward plans.

This research combined quantitative and qualitative methods. This mixed-method format included both a survey instrument as well as follow-up interviews to help clarify and triangulate the data (Janesick, 1994). According to Morse (1994), different methods often provide additional perspectives or lenses to help one gain a more holistic view of the problem being studied.

The research questions are founded on the synthesis of the three research areas – performance-based pay plans, incentives and motivational theory – as discussed in the previous chapter. Specifically, it is from the conditions that Kelly (2000) and Lawler (2000) believe need to be present to increase the potential that performance-based reward plans will motivate teachers that three research questions were derived. The survey utilized questions adapted from surveys developed by Kelly and Protsik (1997). The

congruence of views among the three groups surveyed (teachers, administrators, and board members) served as the basis for analysis.

This study examined to what extent educators, administrators and board members, as groups, differ in how they perceive motivational factors in performance-based-pay programs by investigating the following three questions.

1. Do educators, administrators and board members, as groups, differ in their perceptions of the achievability and availability of selected motivational factors?

2. Do educators, administrators and board members, as groups, differ in the value and worth they assign to these motivational factors?

3. Do educators, administrators, and board members, as groups, differ in the concerns they have with performance-based-pay programs? Specifically do the groups differ in their perceptions of the fairness of performance-based reward programs?

The remainder of this chapter is divided into three sections. The first section describes the sample and includes the procedures and rationale used in the selection process. The second section describes the instruments used and the alignment with the research questions. The final section reviews the methods used for data analysis.

Sample

The research subjects for this study were teachers, administrators and board members in private, Christian schools from the Mid-America region and Ohio that are members of the Association of Christian Schools, International (ACSI). The Mid-

America region is one of 18 regions that makes up the Association, with organizational international headquarters located in Colorado Springs, Colorado. ACSI is the largest organization of private, Protestant schools in the world. ACSI is a non-denominational Protestant association offering a full range of educational services to its member schools. ACSI has approximately 5,500 member schools across North America.

The Mid-America region includes Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, North Dakota, South Dakota, and Wisconsin. To increase the sample size, the next closest state geographically, Ohio, was added to this region. The Mid-America region was chosen for two reasons. The first is due to its geographic proximity to the researcher who resides in the Chicago suburbs. The convenience of accessing teachers, administrators, and board members for potential in-person interviews was a consideration. Second, the researcher is an administrator in an ACSI school in the Mid-America region and it was hoped that his membership in the association encouraged educators in these schools to participate in the research.

According to the 2008 ACSI directory, there were 501 schools in the Mid-America region and Ohio. These schools were sorted by state and grouped based on three additional criteria. The first criterion was that the school contains a complete educational unit. For the purposes of this study, a complete educational unit was defined as some type of elementary school (including at least first through fifth grades), a secondary school (seventh-twelfth, ninth-twelfth, etc.), or a complete school K-12. The criteria for inclusion in this study had to do with the fact that it takes a certain economy of scale and institutional history to develop more sophisticated types of pay packages.

Table 1. ACSI Mid-America Schools /Enrollment for 2008

State	Total # schools	Unit school	Enrollment greater than 150	In existence more than five years	Total # of schools selected
IL	96	79	30	74	26
IN	69	58	30	62	26
IA	19	19	7	19	6
OH	168	140	72	142	57
MI	49	47	21	47	20
MN	40	38	17	39	17
NE	14	14	5	13	5
ND	3	3	2	3	2
SD	12	12	2	11	2
WI	31	30	11	30	11
TOTALS:					
9	333				172

The second criterion was that the school must have a minimum enrollment of 150

students. The third criterion was that the school must have been in existence for at least

five years (see Table 1). Schools in the early phases of existence or with limited

enrollments often do not have the resources to develop the types of compensation

structures that are being investigated by this research. Furthermore, schools in their first

years of existence may be modifying their pay structures substantially from year to year

and this could be a considerable confounding factor for this study. Therefore, schools

that specialize in one or two grades were excluded (pre-kindergarten and kindergarten

programs, for example). All schools that met the inclusion criteria were invited to

participate in the study. Since each school might have had only one administrator, it was

beneficial to include all of the schools in the study in hopes of obtaining enough

participants so that the sample size provided sufficient data. Since experts recommend a

minimum of 30 subjects for correlational research (McMillan, 2004) all schools in the

Midwest region and Ohio were included in an attempt to include 30 teachers, administrators and board members. The final number of schools that met all of the inclusion criteria and that were invited to participate in the survey was 172 schools.

Although every school that met the inclusion criteria was invited to participate, not all teachers and board members in the schools were invited to participate. Every administrator in the 172 schools received a study invitation package including a description of the research and directions for accessing the website where the survey was hosted. The administrator was then asked to respond to the researcher and provide e-mail contact information for five board members and five teachers. The administrator was asked to randomly select the board members and teachers (by alphabetizing the directory and then selecting the first, third, fifth, seventh and ninth entries). Once the researcher received this information, he contacted one randomly-selected participant from each group. The research used the randomization calculator available at http://graphpad.com/quickcals/RandMenu.cfm. Using this calculator, the researcher selected the third teacher and the fifth board member for participation in the survey. If the selected participants did not respond to the survey after three weeks or responded that they would not be participating, the researcher invited another teacher or board member from the school to participate in the survey. The secondary contact was also randomly selected using the randomization calculator. For the teachers, the fourth contact was used, and for the board members, the fifth contact was used. The goal was to have one teacher, board member and administrator from each school participate.

For some schools, the teacher and/or board member contact information was included on the school's website or the directory information through ACSI. In these cases, the researcher directly contacted teachers and/or board members without having to wait for the administrator to complete the survey. However, this information was only available for a small number of schools.

The decision to limit the responses to one board member, teacher and administrator from each school was made to create an accurate, representative data sample. Each school comprised a statistical cluster. These clusters could vary substantially in size and could be a confounding factor for the data. If one school had a large number of teachers participating (perhaps in part because the school was larger than others), this could compromise the overall data and the generalizability of the findings. For example, one school might have had a very negative school culture and that could impact how teachers view performance-based reward plans. If many teachers from that one school provided similar responses, that might have lead to an unbalanced representation of these views. Therefore, with this design, each school was represented by only one teacher, administrator and board member.

Each school's chief administrator received a mailing with a letter (See Appendix A for a copy of the mailing) explaining the purpose of the study and a formal request to participate. This mailing included a letter of introduction and recommendation from the ACSI vice-president for academic affairs. Also included was a request to randomly select five teachers and board members and provide the researcher with their contact information. The researcher sent the selected participants a letter with the address of the

website where they could access the on-line survey (see Appendixes B-G for the surveys). All participants were offered the option of receiving an electronic summary of the research findings. After completing the survey, the participants were able to check a box that states "I would be willing to be called for an interview for further information." If the participants agreed, they were asked to provide their first names and a phone number. All participants were guaranteed confidentiality but with the need to perform follow-up interviews, anonymity was not viable. Furthermore, participants needed to indicate what school they were from so that the researcher could request further participants if necessary.

After the initial survey invitation was mailed, the researcher sent out reminder notifications. The notifications were sent via e-mail when e-mail contact information was available through the ACSI directory or the school's website. For schools that did not list e-mail contact information, the researcher mailed a copy of the survey with a stamped return envelope so that participants could complete the survey on paper instead of accessing the website. Each participant received a total of three survey notifications (the original invitation and two reminders). After the first contact, a few participants indicated that they had difficulty accessing the survey website since the address was long and included special characters (it was hosted on SurveyMonkey). Therefore, the researcher established a ning.com site with a simple address (http://wrobbel.ning.com) and also emailed the link to participants so they could click directly on the link instead of having to type it in themselves. See Table 2 for information on the number of teachers, administrators and board members contacted and the responses.

Instruments

     Survey.

     Both the survey and the interviews were written to specifically address the three research questions. The survey and interview questions collected data on respondents' perceptions of motivational factors that could be used in performance-based reward programs (see Appendixes B-H). Common questions were used across the instruments that surveyed each of the three groups, although the questions were tailored to be descriptive of each specific group.

Table 2. Response to Survey by State

States	Schools	Administrators	Teachers	Board members
Iowa	6	Contacted: 6 Responses: 1	Contacted: 4 Responses: 3	Contacted: 0 Responses: 0
Illinois	26	Contacted: 26 Responses: 9	Contacted: 12 Responses: 5	Contacted: 3 Responses: 2
Indiana	26	Contacted: 26 Responses: 10	Contacted: 14 Responses: 8	Contacted: 5 Responses: 4
Michigan	20	Contacted: 20 Responses: 13	Contacted: 10 Responses: 4	Contacted: 3 Responses: 0
Minnesota	17	Contacted: 17 Responses: 6	Contacted: 11 Responses: 5	Contacted: 2 Responses: 1
North Dakota	2	Contacted: 2 Responses: 0	Contacted: 1 Responses: 0	Contacted: 0 Responses: 0
Nebraska	5	Contacted: 5 Responses: 3	Contacted: 3 Responses: 1	Contacted: 2 Responses: 0
Ohio	57	Contacted: 57 Responses: 13	Contacted: 33 Responses: 18	Contacted: 5 Responses: 2
South Dakota	2	Contacted: 2 Responses: 1	Contacted: 1 Responses: 0	Contacted: 0 Responses: 0
Wisconsin	11	Contacted: 11 Responses: 6	Contacted: 5 Responses: 4	Contacted: 0 Responses: 0
Totals	172	Contacted: 172 Responses: 62 Rate: 36.05%	Contacted: 93 Responses: 48 Rate: 51.61%	Contacted: 17 Responses: 9 Rate: 52.94%

Specifically, the first section of the survey asked respondents to mark if they agreed or disagreed (using a Likert-type scale) to a set of statements regarding the value of incentive programs in schools. The second section collected data on respondents' ratings of specific motivators that could be used in schools. This section also included open-ended questions about motivational factors. The third section of the survey asked respondents for their demographical information. The fourth section of the survey asked respondents about pay-for-performance programs in their schools or about the possibility of initiating such a program in their schools. The survey concluded with an opportunity for respondents to provide additional comments.

Interviews.

After completion of the quantitative phase, follow-up interviews were scheduled with selected participants. Ten teachers and ten administrators (there were only 5 board members that provided contact information) were selected for interviews after they had expressed a willingness to participate in a follow-up interview. Participants were selected based on providing survey responses the researcher believed could be further elaborated through an interview. Selection emphasized a variety of divergent views on performance-based reward plans to further elucidating the issue. Interviews took place over the telephone. All interviews were recorded so they could be transcribed.

The interview protocol is included as Appendix H. Participants were asked a prepared list of questions. However, the interviewer also invited subjects to share their thoughts and feelings about performance-based reward plans as the final question.

Follow-up questions probed subjects for clarity and depth as needed. Interviews lasted

between five and fifteen minutes with a majority of the interviews lasting ten minutes.

The researcher collected information from the survey regarding participants who

would be willing to be contacted for follow-up interviews. The researcher attempted to

reach each participant at least three times, but some did not return phone calls and the

researcher could not reach them. Of the 48 teachers who completed surveys, 14 indicated

they would be willing to participate in a follow-up interview. However, four of those

gave incomplete contact information (such as omitting their names or area codes).

Therefore, the researcher contacted the ten remaining but only six were willing to

complete the interview. Of the 62 administrators who completed surveys, 28 indicated

they would be willing to participate in follow-up interviews and ten completed

interviews. Of the nine board members who completed surveys, only five indicated they

would be willing to participate in follow-up interviews. The researcher was able to

contact and interview four board members.

Field-Testing.

The survey instrument was field-tested with 14 current and former teachers,

administrators, and board members at one selected ACSI school for clarity and to provide

feedback and make suggestions for changes. The field-tested survey data was also used to

calculate correlations for internal consistency. For the first section of the survey using a

Likert-type response scale, the internal consistency reliability was measured using the

Coefficient Alpha method. The Cronbach's Alpha coefficient of reliabilty was measured

at 0.794. The alpha of a scale needs to be above .70 for items to be effectively used

together (Nunnelly, 1978). Minor adjustments in wording were made to the survey after the field-testing based on feedback from the participants.

For the open-ended survey items, two readers used the 14 surveys to practice coding the open-ended survey questions. One reader was the researcher and the second reader was an educator with a master's degree in educational leadership. The second reader was chosen based on interest in and willingness to participate with this research. The readers coded the sample surveys in terms of coding categories, tone and locus of control. Any disagreements between the readers were discussed until consensus was reached. Interrater reliability on the open-ended survey questions was assessed using bivariate correlation in SPSS until at least a .80 agreement across codes for three consecutive surveys was obtained. Then, the readers coded the actual survey responses.

Data Analysis

Survey.

Data from the surveys were used to assess the extent that the three groups (teachers, administrators, and board members) shared common perceptions about motivational factors. Data were entered into the Statistical Package for the Social Sciences (SPSS) version 17.0. Different methods of analysis were used for different parts of the survey.

The first section of the survey asked respondents to rate five statements regarding their Attitudes Towards Incentives (ATI). These statements assessed participants' overall views on the issue of incentives in educational settings. Participants responded to the

statements using a five-point Likert-type scale. Differences among groups on ATI statements were tested using analysis of variance (ANOVA). Differences in respondents' attitudes towards incentives due to differences in years of educational experience, level of education, age and salary were also tested using ANOVA. Further ANOVAs were computed to test differences in ATI scores with participants grouped by area of teaching, gender, number of dependent children, and satisfaction with current compensation. Differences among the three groups of respondents (teachers, administrators and board members) on their attitudes towards the significance of incentives were tested using t tests and ANOVAs. The original aim was to also complete a 2 by 3 factorial design to look for interactions among these six groups. However, because of limited responses for certain groups, the 2 by 3 factorial analysis was not possible.

The second section of the survey focused on specific potential motivators. Based on the respondents' responses, the motivational factors were ranked in order of importance for each of the three groups (teachers, administrators and board members). Each statement was phrased positively toward the motivational factor, for example, "I will participate if I believe it will have a positive impact on student performance." In each group, the respondents' responses from 1 (strongly disagree) to 5 (strongly agree) were added together for each of the 13 statements. The total scores for each statement were then divided by the number of respondents in that group, yielding an average score for each statement. The researcher then compared average scores across groups in order to rank the statements showing which motivators each group valued most highly. In addition to comparing the rankings, the researcher looked at each statement and used ANOVA to compare the three groups.

Respondents were offered the opportunity to suggest additional motivators but none were given. Since no new motivators were given, further analysis on this question was not needed.

The following section of the survey asked teachers how much money they would need to earn in order to participate in an initiative and how much time they would dedicate if compensated $2000 towards meeting an initiative. These two questions examined the relationship between financial compensation and time teachers are willing to dedicate to a new school initiative. The responses for how much money teachers would need to earn were sorted into the three groups and compared using frequency counts, means and standard deviation. Participants selected from five options as to how much time teachers would be willing to dedicate if given a $2000 bonus. The responses for this question were analyzed using ANOVA.

The five open-ended items related to teacher support for performance-based reward plans were summarized using content analysis. Developing the coding categories was an iterative process. Initial categories were established by the researcher based on previous research. The two readers then refined and added coding categories based on an initial reading of the field-tested data set. The two readers then coded responses into the categories. Discrepancies were reviewed and resolved by the researchers. It is important to note that some responses were coded into multiple categories. Some of the initial coding categories that had been established from prior research were eliminated since they did not emerge in this research. Other categories were combined. The final coding scheme is presented in Table 3.

Table 3. Coding Categories

Category	Description	Sample statement(s)
Instructional Strategies	Comments relating to specific methods used for instruction such as differentiation or class activities	"I am trying to learn new methods and strategies to improve my classroom and my teaching."
Self-Worth	Comments relating to how participants feel about themselves as educators or how incentives can impact how they feel about themselves	"[Performance-based reward] would make me feel better about my work."
System Design	Comments relating to the specifics of how a performance-based reward plan is designed and implemented	"[Performance-based reward] sounds like a difficult program to design and measure." "The framework for identifying successful attainment needs to be reasonable and clearly articulated."
Fairness	Comments relating to the fairness or justice of a performance-based reward plan	"I think that it would be difficult for rewards to be given out fairly."
Manipulation of the System	Comments relating to people manipulating the data that would be used in a performance-based reward plan or taking advantage of the program without necessarily meeting the goals	"It is easy for people to inflate grades to suggest a performance improvement [in their classes]." "[Teachers] might cut corners in the classroom to make results look better than they actually are."
Benefits Package	Comments relating to the non-financial compensation educators earn for their work (including retirement options, medical benefits, tuition benefit for dependent children, release time, or personal leave time)	"My children are able to attend the school tuition free and we wouldn't be able to send them if I were not working here."
Public Recognition	Comments relating to educators being publicly acknowledged for their classroom success	"[Teachers are motivated by] affirmation and expressions of appreciation from administrators and board members."

Category	Description	Sample statement(s)
Biblical Responsibility	Comments relating to educators' perceptions of their religious responsibilities	"I believe that teachers who are teaching our young people in Christian education are to do so because they have been called of God. They are not in it for the money anyway. If they are, the Scripture says that, 'They have their reward.'"
Teacher Effort	Comments relating to the amount of effort teachers expend on their duties	"I don't think [performance-based reward would lead to a change.] I put forth my best effort every day." "I don't think a teacher should be punished as long as they are trying their best." "I already give 110% in my lesson planning."
School Climate	Comments relating to how professionals work together and the professional environment at their school	"There would be a temptation to lessen camaraderie and heighten competition between staff" "I think [a performance-based reward plan] would create a less congenial, loving attitude between teachers and between teachers and administrators."
Student Variables	Comments relating to specific variables that students bring to the classroom such as their previous experience, home environment or special needs	"Some students are really low-level achievers no matter how hard you try with them."
Teacher Skill	Comments relating to teacher's abilities or skills as educators	"I want to reward teachers who are doing a great job with their students."
Teaching to the Test	Comments relating to coaching students for high-stakes testing or preparing specifically for certain tests	"Performance-based systems result in instruction being directed only toward tests."

Category	Description	Sample statement(s)
Love of Learning/Best Practice	Comments relating to teachers love of learning or teaching and their desire to see their students thrive. This category also includes comments teachers made about trying to make the best choices based on their students' educational needs.	"I feel that my motivation is to do my best to help my students succeed…I want my students to improve." "I did not go into teaching for the money…I work for my students' benefit."
"Calling" of Teaching	Comments relating to teaching as a "calling" and working as educators for altruistic reasons	"I think we should work for the honor of doing our job well and not for money."
School Financial Constraints	Comments relating to the financial limits of a school or district	"I know that in our smaller Christian school, we struggle just to meet the budget every year and that's even with 'pinching pennies.'" "Funding a [performance-based reward program] would be an issue."

Participants' responses were also coded on two other dimensions: (a) tone and (b) locus of control. The tone of a comment could be positive (for example, "I really like the public recognition I received for this task"), negative (for example, "The task was so hard that it wasn't even worth the money we earned.") or neutral (for example, "I might consider providing teachers with more planning time as part of the initiative."). Locus of control referred to who had the power to influence whatever factor was being discussed in the statement. The possible loci included teachers, administrators, system, unclear, and mixed.

Differences among groups' patterns of responses were analyzed using chi square. The qualitative data was used to provide texture and support to the overall findings of the study.

Coding the Interviews.

The interviews were coded in the same way as the open-ended questions on the survey. They were coded along three dimensions (category, tone, and locus of control). The interviews were also coded by two readers and interrater reliability was assessed using bivariate correlation.

Summary

This research used a mixed-method design in order to investigate how teachers, board members and administrators perceive motivational factors that could be used in performance-based reward plans. The survey included quantitative sections asking for participants' attitudes about performance-based reward plans and specific motivational factors. The open-ended survey questions and interview items provide qualitative data that gave context and illustrated the quantitative data.

CHAPTER FOUR: RESULTS

Overview

This chapter presents the findings from an analysis of the survey and follow-up interviews. The first section focuses on the issue of achievability and availability of motivators. The second section examines the value and worth that the participants assign to motivators. The third section deals with concerns participants expressed over motivators and performance-based rewards. The fourth section provides other findings from the research.

Achievability and Availability

Do educators, administrators and board members, as groups, differ in their perceptions of the achievability and availability of selected motivational factors?

The findings indicate that there was no significant difference regarding to what extent each group believed that teachers would be able to compete effectively to earn the rewards in a performance-based reward system (see Table 4). Over three-quarters of the respondents from all three groups indicated that the rewards would be attainable.

Table 4. Frequency counts for participants' response to the attainability of performance-based reward rewards.

		Position			Total
		Teacher	Administrator	Board Member	
Would teachers find rewards attainable?	yes	36	35	8	79
	no	1	4	0	5
	uncertain	7	10	1	18
Total		44	49	9	102

The survey included the opportunity for participants to then explain why they thought the rewards would or would not be attainable. The rationales were coded using the coding categories described in chapter three. The response rate was too small to run further statistical analysis. However, it is interesting to note that of the 20 administrators, 80% discussed specific elements regarding system design (see Table 5). Typical administrator comments included, "It seems to me if the system was set up properly [rewards would be attainable]," "[The system] should be designed to be attainable" and "I wouldn't implement this system if it wasn't perceived as attainable." Similarly, the board members focused on system design 86% of the time. Administrators and board members believed that they would create a system that was achievable or they would not implement it. The teachers focused on the effort that would be required and their own sense of their own performance. Teachers also mentioned the impact students' own backgrounds would have on student performance and the teachers' sense of teaching being a life calling. The general feeling of teachers were illustrated by the comments, "Yes, [I could earn the rewards] because I am a motivated professional," and "I do believe I would [earn the rewards]. I believe myself to be an innovative teacher."

Overall, it appears that there were no significant differences in how teachers, administrators and board members perceived the issues of availability and achievability of incentives in performance-based reward programs. However, there were differences in the reasons why teachers and administrators believe the incentives would be achievable. Specifically, administrators focused on how they would design an achievable system while teachers mentioned a variety of factors including their own effort and performance.

Table 5. Frequency counts of the coded rationales participants gave for why they believe that incentives would or would not be achievable.

Coding categories for rationales	Number of **teacher** responses	Number of **administrator** responses	Number of **board member** responses	Total of all responses
System Design	2	16	6	24
Planning Time	0	1	0	1
Biblical Responsibility	0	0	1	1
Teacher Effort	2	0	0	2
Student Variables	1	0	0	1
Ministry of Teaching	1	0	0	1
Teacher performance	2	1	0	3
Financial constraints / funding	0	1	0	1
Manipulating the System	0	1	0	1
Total	8	20	7	35

Value and Worth

Do educators, administrators and board members, as groups, differ in the value and worth they assign to these motivational factors?

To analyze the 13 specific motivator statements, the ANOVA procedure was used to test differences among the groups on the extent to which each of the 13 actions would motivate teacher performance. Teachers, board members and administrators differed significantly on the motivational power they assign to five specific actions (see Table 6). Groups differed significantly ($p < .05$) in the value they assign to school-wide financial rewards, public recognition, leadership opportunities, individual job security, and individual teacher's comfort with current level of teaching and sense that they do not need to make changes to their teaching.

Table 6. ANOVA to test differences among groups on specific motivators.

Motivator Statement		Df	F	Sig.
1. Teachers will participate in this initiative regardless of incentives if they believe it is best for students.	Between Groups	2	1.848	.162
	Within Groups	116		
	Total	118		
2. Teachers would be more motivated to participate if offered a financial bonus.	Between Groups	2	1.126	.328
	Within Groups	116		
	Total	118		
3. Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	Between Groups	2	5.367	.006
	Within Groups	116		
	Total	118		
4. Teachers would be more motivated to participate if they believe it will have a positive impact on student performance.	Between Groups	2	2.189	.117
	Within Groups	116		
	Total	118		
5. Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	Between Groups	2	14.059	.000
	Within Groups	115		
	Total	117		
6. Teachers would be motivated to participate because they know they would feel a sense of satisfaction from the school as a whole meeting the goal.	Between Groups	2	.399	.672
	Within Groups	116		
	Total	118		
7. Teachers would be more motivated to participate if given additional planning time so that they can effectively work to meet this goal.	Between Groups	2	.282	.755
	Within Groups	116		
	Total	118		
8. Teachers would be more motivated to participate if provided with professional development to help them meet the goal.	Between Groups	2	.589	.557
	Within Groups	116		
	Total	118		
9. Teachers would be more motivated to participate if they believe there will be opportunities for them to take on a leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).	Between Groups	2	3.751	.026
	Within Groups	116		
	Total	118		
10. Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to learn new skills or hone their abilities.	Between Groups	2	2.476	.088
	Within Groups	116		
	Total	118		

Motivator Statement		Df	F	Sig.
11. Teachers would be more motivated to participate if they believe there will be greater opportunities for them to work collaboratively with colleagues.	Between Groups	2	.402	.670
	Within Groups	116		
	Total	118		
12. Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	Between Groups	2	4.252	.017
	Within Groups	116		
	Total	118		
13. Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	Between Groups	2	8.564	.000
	Within Groups	116		
	Total	118		

p < .05

Administrators underestimated the value teachers assign to a school-wide financial bonus (see Table 7). The Tukey post hoc test reveals that the statistically significant relationship is between teachers and administrators.

Table 7. Tukey post hoc test of differences in agreement with group incentives statement with participants grouped by position (teacher, administrator, or board member).

Dependent Variable	(I) Position	(J) Position	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	Teacher	Administrator	.54435[*]	.16752	.004	.1466	.9421
		Board Member	.18056	.31650	.836	-.5709	.9320
	Administrator	Teacher	-.54435[*]	.16752	.004	-.9421	-.1466
		Board Member	-.36380	.31081	.473	-1.1017	.3741
	Board Member	Teacher	-.18056	.31650	.836	-.9320	.5709
		Administrator	.36380	.31081	.473	-.3741	1.1017

p < .05

Administrators thought that public recognition was a more powerful motivator

than teachers did (see Table 8).

Table 8. Tukey post hoc test of differences in agreement with public recognition

statement with participants grouped by position (teacher, administrator, or board

member).

Dependent Variable	(I) Position	(J) Position	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	Teacher	Administrator	-.80669*	.15290	.000	-1.1697	-.4437
		Board Member	-.59722	.28785	.100	-1.2807	.0863
	Administrator	Teacher	.80669*	.15290	.000	.4437	1.1697
		Board Member	.20947	.28296	.740	-.4624	.8813
	Board Member	Teacher	.59722	.28785	.100	-.0863	1.2807
		Administrator	-.20947	.28296	.740	-.8813	.4624

p < .05

Administrators value the motivational power of leadership opportunities more

highly than teachers (see Table 9). Overall, the teacher mean demonstrates ambivalence

towards leadership opportunities as a motivator (a rank of "3" means "neither agree or

disagree"). The difference between teachers and administrators was statistically

significant and teachers had a lower mean.

Table 9. Tukey post hoc test of differences in agreement with leadership opportunities statement with participants grouped by position (teacher, administrator, or board member).

Dependent Variable	(I) Position	(J) Position	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Teachers would be more motivated to participate if they believe there will be opportunities for them to take on a leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).	Teacher	Administrator	-.37097*	.14357	.029	-.7118	-.0301
		Board Member	-.44444	.27126	.234	-1.0885	.1996
	Administrator	Teacher	.37097*	.14357	.029	.0301	.7118
		Board Member	-.07348	.26638	.959	-.7059	.5590
	Board Member	Teacher	.44444	.27126	.234	-.1996	1.0885
		Administrator	.07348	.26638	.959	-.5590	.7059

$p < .05$

Administrators placed significantly more value on job security as a motivator than teachers did. The statistically significant relationship is between teachers and administrators (see Table 10).

Statement 13 regards whether or not teachers would be likely to make changes or if they are comfortable with their current teaching. Teachers disagree most strongly with this statement, implying that they believe teachers are likely to make changes. Administrators and board members disagree with the statement, but less strongly than teachers. A statistically significant relationship exists between teachers and administrators and between teachers and board members (see Table 11).

Table 10. Tukey post hoc test of differences in agreement with job security statement with participants grouped by position (teacher, administrator, or board member).

Dependent Variable	(I) Position	(J) Position	Mean Differen ce (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	Teacher	Adminis trator	-.42876*	.16651	.030	-.8241	-.0334
		Board Member	-.65278	.31460	.100	-1.3997	.0941
	Adminis trator	Teacher	.42876*	.16651	.030	.0334	.8241
		Board Member	-.22401	.30894	.749	-.9575	.5095
	Board Member	Teacher	.65278	.31460	.100	-.0941	1.3997
		Adminis trator	.22401	.30894	.749	-.5095	.9575

p < .05

Table 11. Tukey post hoc test of differences in agreement with teacher willingness statement with participants grouped by position (teacher, administrator, or board member).

Dependent Variable	(I) Position	(J) Position	Mean Differen ce (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	Teacher	Admin-istrator	-.56586*	.14772	.001	-.9166	-.2152
		Board Member	-.73611*	.27909	.026	-1.3987	-.0735
	Adminis trator	Teacher	.56586*	.14772	.001	.2152	.9166
		Board Member	-.17025	.27407	.809	-.8209	.4804
	Board Member	Teacher	.73611*	.27909	.026	.0735	1.3987
		Admin-istrator	.17025	.27407	.809	-.4804	.8209

p < .05

The groups' (teachers, administrators and board members) responses to the specific motivators statements were averaged allowing the researcher to rank each of the motivators. Table 12 lists the rank for each motivator with 1 being the item each group listed as the most powerful motivator. All three groups indicated that giving teachers more planning time would be a powerful motivator to encourage teacher participation in an incentive. All three groups essentially dismissed the idea that teachers were comfortable in their teaching and would not participate since they do not see a need to change their teaching. Similarly, all three groups thought that teachers would participate in an initiative that they thought would improve student performance. An interesting difference is that teachers ranked job security much lower than administrators or board members.

Table 12. *Specific Motivators ranked according to how much each group (teachers, administrators or board members) values the motivator.*

Statement	Average rank for teachers	Average rank for administrators	Average rank for board members
1. Teachers will participate in this initiative regardless of incentives if they believe it is **best for students.**	3	4	6
2. Teachers would be more motivated to participate if offered a **financial bonus.**	7	8	11
3. Teachers would be more motivated to participate if there is a **financial incentive for the school** but not necessarily given to individuals.	7	12	9
4. Teachers would be more motivated to participate if they believe it will have a positive **impact on student performance.**	1	3	1
5. Teachers would be more motivated to participate if they might receive **public recognition** for meeting the goal.	12	11	12

Statement	Average rank for teachers	Average rank for administrators	Average rank for board members
6. Teachers would be motivated to participate because they know they would feel a **sense of satisfaction** from the school as a whole meeting the goal.	6	7	5
7. Teachers would be more motivated to participate if given **additional planning time** so that they can effectively work to meet this goal.	2	1	1
8. Teachers would be more motivated to participate if provided **with professional development** to help them meet the goal.	4	2	3
9. Teachers would be more motivated to participate if they believe there will be opportunities for them to take on a **leadership roles** (perhaps as a mentor to other teachers or by providing training to others working towards this goal).	11	10	9
10. Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to **learn new skills or hone their abilities.**	5	6	6
11. Teachers would be more motivated to participate if they believe there will be greater opportunities for them to **work collaboratively with colleagues.**	9	9	8
12. Teachers would be more motivated to participate if they feel that their participation is important for **job security** or position within the school.	10	5	3
13. Teachers are **unlikely to** participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	13	13	13

* The motivators are ranked with #1 being the most motivating. Duplicate ranks indicate a tie.

Participants were asked, "Imagine that your school is going to provide bonuses

for teachers who can prove they meet the goals of a new school initiative. What is the

minimum amount of money necessary for teachers to consider participating?" (see Table 13). The teacher mean was significantly lower than what administrators or board members thought it would cost for teachers to be involved in an initiative. Five teachers provided comments instead of a monetary value. Teacher comments expressed the sentiment that, "Money is just the wrong motivator for me" and "I would never ask for money to improve my teaching or to help my school reach a goal. I became a teacher because I love teaching. I did not go into teaching for the money. Knowing my students mastered goals set before them is pay enough."   Five administrators also provided comments. However, the nature of their comments was very different from the teachers' comments. Several administrators wrote, "Have absolutely no idea!" while another commented "Totally based on time and energy."

Table 13. *Frequency count of the minimum amount of money necessary for teachers to participate in a new school initiative with participants grouped by position (teacher, administrator, or board member).*

Response	Number of **Teacher** Responses for Each Value	Number of **Administrator** Responses for Each Value	Number of **Board Member** Responses for Each Value
Any amount would be motivating	3	0	0
$50	1	0	0
$100	6	3	1
$200	0	1	0
$250	1	2	0
$300	1	1	0
$500	6	24	3
$1000	2	15	4
$1500	1	1	0
$2000	2	1	2
$2500	0	1	0

$3000	0	1	0
5-10% raise	1	0	0
Other comments	5	5	0
Mean	$560	$760	$956
Standard Deviation	625	560	665

Chi square analysis indicated there is a statistically significant difference between teachers and administrators (see Tables 14 and 15) on the issue of whether or not rewards would encourage teachers to stay at their schools. Teachers felt that incentives would not encourage them to stay but administrators and board members had mixed views. There were not enough board member responses to include in the Pearson chi square analysis; however, they were included in the frequency counts. For teachers, the most frequent rationale given (9 out of the 23 responses) for why they would stay or leave a school related to a sense of biblical responsibility. Capturing the feeling of these teachers is this teachers' comment, "[Performance-based rewards would] possibly [encourage me to stay] although my primary decision making tool is what I feel God wants me to do."

Table 14. Frequency counts of participants' response to if rewards would encourage teachers to stay at their school.

		Position			
		Teacher	Administrator	Board Member	Total
Would rewards encourage people to stay at your school?	Yes	11	19	3	33
	No	32	18	3	53
	uncertain	3	17	2	22
Total		46	54	8	108

Table 15. Chi Square Test of whether or not participants believe rewards would encourage teachers to stay at their school. Participants are grouped by position (teacher, administrator or board member).

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.311	2	.000
Likelihood Ratio	16.309	2	.000
Linear-by-Linear Association	.940	1	.332
N of Valid Cases	100		

p < .05

This research found significant differences in how teachers, administrators and board members perceived the value and worth of specific motivators widely utilized in performance-based reward plans. Specifically, board members and administrators rank job security, leadership opportunities and public recognition as more motivating than did teachers. Furthermore, groups differed in the amount of money they believed would be necessary for a financial reward to be motivating for teachers. Board members and administrators thought it would take more money to motivate teachers than did the teachers themselves.

Concerns and Fairness

Do educators, administrators, and board members, as groups, differ in the concerns they have with performance-based-pay programs? Specifically do the groups differ in their perceptions of the fairness of performance-based reward programs?

Table 16 provides a summary of the participants' responses to the attitudes towards incentives statements.

Table 16. Means and standard deviations of teacher, administrator and board member

assessments of incentives.

Statement	Group	N	Mean	Std. Deviation	Minimum	Maximum
1. It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	Teacher	48	3.1875	1.04487	1.00	5.00
	Administrator	62	3.5645	1.03419	1.00	5.00
	Board Member	9	4.0000	.70711	3.00	5.00
	Total	119	3.4454	1.03905	1.00	5.00
2. Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	Teacher	48	3.2500	.97849	2.00	5.00
	Administrator	62	3.0968	.90009	2.00	5.00
	Board Member	9	2.7778	.66667	2.00	4.00
	Total	119	3.1345	.91988	2.00	5.00
3. If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal	Teacher	48	3.6458	.66811	2.00	5.00
	Administrator	62	3.6935	.82161	2.00	5.00
	Board Member	9	3.7778	.44096	3.00	4.00
	Total	119	3.6807	.73569	2.00	5.00
4. Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	Teacher	48	3.7917	.82406	2.00	5.00
	Administrator	61	3.1803	1.05685	1.00	5.00
	Board Member	9	2.7778	.83333	2.00	4.00
	Total	118	3.3983	1.00545	1.00	5.00
5. School incentives can help motivate teachers to learn and/or practice new skills.	Teacher	48	3.9792	.63546	2.00	5.00
	Administrator	62	3.8710	.73516	2.00	5.00
	Board Member	9	3.8889	.33333	3.00	4.00
	Total	119	3.9160	.67120	2.00	5.00

ANOVA procedures were used to determine whether differences existed among the three groups (teachers, administrators, and board members) regarding their responses to the Attitude Towards Incentives statements. There was a statistically significant

difference among the three groups on the two statements relating to fairness (see Table

17). Board members believe it is fair for teachers who increase student achievement to

earn an incentive. Teachers do not agree as strongly as board members. Furthermore,

teachers agree more strongly that it is difficult to assess teaching and learning. The board

members tended to disagree with this statement regarding the difficult of assessing

teaching and learning, the administrators were between teachers and board members.

The responses to this question suggest that teachers are most concerned that pay-for-

performance plans may not distribute rewards fairly.

Table 17. ANOVA to test differences in attitudes towards incentives with participants

grouped by position (teachers, administrators and board members).

Statement		Df	F	Sig.
1. It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	Between Groups	2	3.291	.041
	Within Groups	116		
	Total	118		
2. Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	Between Groups	2	1.109	.333
	Within Groups	116		
	Total	118		
3. If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	Between Groups	2	.140	.870
	Within Groups	116		
	Total	118		
4. Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	Between Groups	2	7.589	.001
	Within Groups	115		
	Total	117		
5. School incentives can help motivate teachers to learn and/or practice new skills.	Between Groups	2	.356	.702
	Within Groups	116		
	Total	118		

$p < .05$

There was a statistically significant difference among groups in the extent that they wanted their schools to implement a performance-based reward plan (see Tables 18 and 19). Teachers are more uncertain than administrators and the administrators gave more positive responses than teachers about implementing a performance-based reward system.

Table 18. Frequency counts of participants' interest in implementing performance-based reward plans by position (teacher, administrator or board member).

		Would you like PFP?			
		Yes	No	Uncertain	Total
Position	Teacher	7	25	15	47
	Administrator	16	25	7	48
	Board Member	4	3	0	7
Total		27	53	22	102

Table 19. Chi square test of participants' interest in implementing a performance-based reward program with participants grouped by position (teacher and administrator).

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.421	2	.040
Likelihood Ratio	6.584	2	.037
Linear-by-Linear Association	6.349	1	.012
N of Valid Cases	95		

$p < .05$

Asked why they would or would not want performance-based reward programs (see Table 20), respondents indicated that the manner in which the incentive system was designed mattered most.

Table 20. Frequency counts of the coded rationales participants gave for why they want or do not want performance-based reward programs.

Coding of rationales for why people want or do not want performance-based reward	Participants who **want** performance-based reward			Participants who do **not want** performance-based reward			Participants who are **uncertain** about performance-based reward			Total
	Teachers	Admin	Board	Teachers	Admin	Board	Teachers	Admin	Board	
System Design	3	3	1	6	4	0	5	2	0	24
Planning Time	0	0	0	0	0	0	1	0	0	1
Biblical Responsibility	0	0	0	4	1	0	1	0	0	6
Teacher Effort	0	1	0	1	0	0	0	0	0	2
Collegiality	0	0	0	3	0	0	1	0	0	4
Student Variables	0	0	0	3	1	0	2	0	0	6
Fairness	2	0	0	4	5	0	3	1	0	15
Teacher Performance	0	5	2	1	0	0	0	0	0	8
Financial Constraints / Funding	0	0	0	1	6	2	1	0	0	10
Manipulating the System	0	0	0	2	1	0	0	1	0	4
Totals	5	9	3	25	18	2	14	4	0	80

For the category of system design, 10 participants referenced problems with system design that would lead them to not want a performance-based reward program. For example, an administrator summarized many participants' views stating, "No [I would not like performance-based reward]. I have considered this and approve in theory but the concrete components are frightening. It is too difficult to quantify the unquantifiable." Conversely, seven participants cited system design issues in a positive way. For example, one teacher articulated positive elements of performance-based reward programs that other teachers also focused on saying, "I do feel that there needs to be some aspect of pay contingent upon performance as there is in the business sector, but

I know that it would take a lot to set up in a way that is fair and practical. But, shouldn't our [pay] increases at least be tied to the observations that our administrator does every year?"

A majority of respondents did not think that performance-based reward plans were a fair system. For example, typical responses were "I haven't seen a system that is administered in a fair way" and, "[Performance-based reward programs] are not effective or fair. Too subjective."

Similarly, when asked about what concerns they have with implementing a performance-based reward system, the main response participants provided was system design. Some participants provided more than one response for this question. Therefore, the count for this question is not the same as the count for the number of participants (see Table 21). For example teachers question, "How will performance be measured? Who decides on the different levels of pay?" and "Who would be doing the evaluation? How would success be determined?"

The second most common concern was about "fairness." A board member observed that, "A fair program would require the adoption and implementation of an achievable, equitable, measurable system that is unambiguous." Similarly, an administrator expressed concern about "the difficulty that would result in establishing quantifiable criteria." A teacher observed that, "for every teacher who is encouraged to improve, there will be a discouraged teacher who feels slighted because they believe they were unfairly judged."

Table 21. Frequency counts of the coded concerns with performance-based reward that participants gave. Participants are grouped by position (teacher, administrator, or board member).

Free Response Question 5	Coding Categories for responses	Position			Total
		Teacher	Administrator	Board	
What concerns do you have with implementing a performance-based reward program?	System Design	20	19	3	42
	Administration	0	1	0	1
	Biblical Responsibility	5	2	1	8
	Teacher Effort	0	2	0	2
	Collegiality	6	14	0	20
	Student Variables	8	3	0	11
	Teaching to the Test	1	1	0	2
	Ministry of Teaching	5	3	1	9
	Fairness	10	14	1	25
	Teacher performance	2	0	0	2
	Financial constraints / funding	1	11	2	14
	Manipulating the System	4	3	3	10
	Self-Worth	1	0	0	1
Total		63	73	11	147

There were also fears that performance-based reward plans would undercut collegiality. A teacher wrote, "I think [performance-based rewards] would create a less congenial, loving attitude between teachers, and between teachers and administrators. I think some competition is healthy but when money is involved, things can get ugly fast." Another teacher said, "I think that in some cases there would be competition between teachers. Teachers might not be as willing to share ideas – who would get the credit?" Similarly, a board member was concerned with the relationship between staff members commenting, "Keeping the peace between the teachers who earn the bonus with those

who do not might be a problem." An administrator also expressed concerns with performance-based reward programs' impact on morale saying, "It is a divisive tool that can lower morale."

Teachers, administrators and board members differed with regards to the locus of control for the concerns they expressed (see Table 22). Teachers, administrators and board members refer to aspects that teachers control with the greatest frequency. However, teachers and administrators then referred to issues that are within the administrator's control while board members discussed issues that are under the control of the overall system. Teachers listed seven concerns within students' control while board members and administrators rarely mentioned factors that students control. For example, a typical teacher comment was "There are always students and classes who learn at a slower pace and have a harder time with their work. There is a potential for teachers to be 'penalized' for these students." In this case, the teacher was concerned with being "penalized" for factors that are outside of his/her control.

Table 22. Frequency counts for the locus of control for each of the concerns participants expressed with performance-based reward. Participants are grouped by position (teacher, administrator, or board member).

		Teacher responses	Administrator responses	Board Member responses	Total
Locus of control for concerns	Teachers	24	21	5	50
	Administrators	14	15	1	30
	Students	7	1	0	8
	System	13	21	4	38
	Unclear	0	0	1	1
Total		58	58	11	127

This research suggests that all three groups have concerns with the fairness of performance-based reward programs, though, there still are statistically significant differences among the groups. Administrators and board members believe more strongly that it is fair for teachers to receive bonuses or incentives for their work than do teachers. Teachers believe more strongly that assessing teaching and learning is difficult. On the open-ended questions participants from all three groups expressed concerns about the schools' abilities to design fair measures of performances.

Other Findings

Attitudes toward changes in classroom instruction.

The fourth free-response question asked participants if a performance-based reward program would lead to changes in classroom instruction. Pearson chi square analysis shows there is a statistically significant difference between the teachers and administrators (see Tables 23 and 24). There were not enough board member responses to include in the Pearson chi square analysis; however, they were included in the frequency counts. Most administrators (54%) believed that performance-based reward rewards would lead to changes in instruction. Most teachers (63%), disagreed believing rewards would not lead to a change in instruction. Multiple administrators' responses expanded on or focused on the idea that performance-based reward programs *should* lead to changes in instruction; a typical administrator response was "I believe [Performance-based rewards] would [lead to changes in instruction]. It should since what we do is all about becoming more proficient at teaching our students."

Table 23. Frequency counts on incentives leading to changes in classroom instruction with participants grouped by position (teacher, administrator or board member).

		Position			Total
		Teacher	Administrator	Board Member	
Would rewards lead to a change in instruction?	Yes	7	30	4	41
	no	29	6	1	36
	uncertain	10	18	3	31
Total		46	54	8	108

Table 24. Chi square test on participants' views of incentives leading to changes in classroom instruction. Participants are grouped by position (teacher or administrator).

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.257	2	.000
Likelihood Ratio	33.527	2	.000
Linear-by-Linear Association	3.165	1	.075
N of Valid Cases	100		

$p < .05$

Asked why they believed performance-based rewards would or would not lead to changes in classroom instruction (see Table 25), most teachers said they were already working as hard as they could. Typical teacher responses included, "I already strive to teach in the way that is best for my students," "I really put forth my best effort every day," and "I try to do my best on a daily basis, so I don't think [performance-based reward would lead me to] change a whole lot." Administrators and board members did not give much attention to this topic.

Table 25. Frequency counts of participants' rationales for why incentives would lead to a change in classroom instruction. Participants are grouped by position (teacher, administrator or board member).

Question	Coding Categories for Rationales	Position			Total
		Teacher Responses	Administrator Responses	Board Member Responses	
Why would rewards change instruction	Instructional Strategies	5	7	3	15
	System Design	3	7	0	10
	Planning Time	0	1	0	1
	Biblical Responsibility	0	1	0	1
	Teacher Effort	19	1	1	21
	Collegiality	1	1	0	2
	Teaching to the Test	1	0	0	1
	Ministry of Teaching	2	1	0	3
	Teacher performance	1	2	1	4
	Financial constraints / funding	0	1	0	1
	Manipulating the System	0	3	0	3
Total		32	25	5	62

*Table 26. Frequency counts of participants' rationales for why incentives would **not** lead to a change in classroom instruction. Participants are grouped by position (teacher, administrator or board member).*

Question	Coding Categories for Rationales	Position		Total
		Teacher Responses	Administrator Responses	
Why would rewards not lead to a change in classroom instruction?	System Design	0	1	1
	Teacher Effort	15	0	15
	Collegiality	1	1	2
	Teaching to the Test	1	0	1
	Ministry of Teaching	1	0	1
	Teacher performance	1	0	1
Total		19	2	21

Participants with and without performance-based reward.

A *t* test of all respondents (analyzed together) shows a statistically significant difference between participants at schools with and without pay-for-performance plans regarding the issue of fairness as measured on the Attitudes Towards Incentives component of the survey. Table 27 lists the results from the *t* test. There were ten participants at schools with performance-based reward programs and 109 at schools without such programs. Participants at schools with pay-for-performance plans are more likely to believe that it is fair for teachers to receive incentives based on increasing student achievement. Participants without pay-for-performance programs are less likely to agree that incentives are fair for teachers who increase student achievement. Participants at schools with performance-based reward plans disagreed more strongly with statement four, meaning that they believe there are ways to assess teaching and student achievement in fair ways. Participants without performance-based reward plans were more likely to agree with the statement, suggesting they believe the incentives would not be distributed fairly.

Table 27. t test on ATI statements with participants grouped by if they have or do not

have performance-based reward plans at their schools.

		t-test for Equality of Means					
						95% Confidence Interval of the Difference	
		T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
1. It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	Equal variances assumed	2.795	117	.006	.93303	.27192	1.59413
2. Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	Equal variances assumed	-1.570	117	.119	-.47431	-1.07255	.12393
3. If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	Equal variances assumed	1.904	117	.059	.45780	-.01834	.93394
4. Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	Equal variances assumed	-3.430	116	.001	-1.09074	-1.72066	-.46082
5. School incentives can help motivate teachers to learn and/or practice new skills.	Equal variances assumed	1.912	117	.058	.41927	-.01509	.85362

$p < .01$ adjusted for collective error rate

Participants who want or do not want performance-based reward.

A *t* test was used to determine whether differences exist between participants who would like and would not like performance-based reward plans and their attitudes toward incentives (see Table 28). There is a statistically significant difference between participants who would like performance-based reward plans and those who would not like performance-based reward plans on three of the five statements. It is logical that people who want performance-based reward plans would be more likely to have positive views of incentives and their ability to motivate educators. People who do not want performance-based reward plans are more likely to feel that incentives are an unfair or ineffective way to motivate teachers.

Table 28. t test on ATI Statements with participants grouped by if they want or do not want performance-based reward.

						95% Confidence Interval of the Difference	
				Sig. (2-tailed)	Mean Difference		
		T	Df			Lower	Upper
1. It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	Equal variances not assumed	4.124	66.155	.000	.88959	.45888	1.32029
2. Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	Equal variances assumed	-1.812	78	.074	-.39623	-.83145	.03900

		t-test for Equality of Means					
		T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
3. If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal	Equal variances not assumed	2.830	70.781	.006	.41789	.12343	.71235
4. Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	Equal variances assumed	-2.285	77	.025	-.52467	-.98183	-.06752
5. School incentives can help motivate teachers to learn and/or practice new skills.	Equal variances assumed	2.962	78	.004	.46890	.15379	.78402

P < .01 adjusted for collective error rate

A *t* test was also used to analyze possible differences in the views of participants who wanted and did not want performance-based reward plans with respect to the specific motivators. There was a statistically significant difference only for the statement that related to job security (t = 2.701, df = 78, p<.01). People who differed on wanting performance-based reward plans differed significantly on their view of job security; those who wanted performance-based reward plans believed that job security was a more effective motivator than those that did not want performance-based reward plans.

Age.

No statistically significant differences were found across age groups.

Table 29. ANOVA to test differences on ATI statements with participants grouped by age.

		Df	F	Sig.
1. It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	Between Groups	4	1.477	.214
	Within Groups	114		
	Total	118		
2. Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	Between Groups	4	.562	.690
	Within Groups	114		
	Total	118		
3. If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	Between Groups	4	.165	.956
	Within Groups	114		
	Total	118		
4. Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	Between Groups	4	.763	.552
	Within Groups	113		
	Total	117		
5. School incentives can help motivate teachers to learn and/or practice new skills.	Between Groups	4	1.091	.364
	Within Groups	114		
	Total	118		
	Total	118		

$p < .05$

Gender.

Male and female teachers differed significantly in the extent they thought performance-based reward plans were fair with male teachers expressing more support for performance-based reward plans (see table 30).

Table 30. t test of ATI Scores with participants grouped by gender.

		t-test for Equality of Means					
				Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
		T	Df			Lower	Upper
1. It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	Equal variances assumed	-2.668	116	.009	-.51229	-.89265	-.13192
2. Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	Equal variances assumed	.372	116	.711	.06450	-.27891	.40791
3. If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	Equal variances assumed	-.988	116	.325	-.13882	-.41720	.13956
4. Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	Equal variances assumed	2.377	115	.019	.44894	.07488	.82300
5. School incentives can help motivate teachers to learn and/or practice new skills.	Equal variances assumed	-.358	116	.721	-.04607	-.30116	.20902

p < .01 adjusted for collective error rate

There were also statistically significant differences in the way males and females view the specific motivators. Table 31 lists the findings from a *t* test which demonstrated that there are significant differences between males and females with regards to the

statements relating to public recognition, planning time, professional development and

teachers' willingness to make changes. Females agreed more strongly that they would be

motivated by positive changes in student performance. Males ranked public recognition

as more motivating than females did. Females ranked additional planning time as more

motivating than males did. Males ranked professional development opportunities as

more motivating than females did. Finally, males expressed more resistance to

participating in changing their classroom instruction as part of a performance-based

reward plan.

Table 31. t test of specific motivators with participants grouped by gender

		t-test for Equality of Means					
						95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Differ-ence	Lower	Upper
1. Teachers will participate in this initiative regardless of incentives if they believe it is best for students.	Equal variances assumed	1.227	116	.222	.19963	-.12268	.52195
2. Teachers would be more motivated to participate if offered a financial bonus.	Equal variances assumed	-.724	116	.470	-.12961	-.48413	.22492
3. Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	Equal variances assumed	1.509	116	.134	.25676	-.08016	.59368
4. Teachers would be more motivated to participate if they believe it will have a positive impact on student performance.	Equal variances not assumed	2.533	80.617	.023	.25246	.05416	.45075

		t-test for Equality of Means					
					Mean Differ-ence	95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)		Lower	Upper
5. Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	Equal variances assumed	-3.783	115	.000	-.59994	-.91410	-.28577
6. Teachers would be motivated to participate because they know they would feel a sense of satisfaction from the school as a whole meeting the goal.	Equal variances assumed	.469	116	.640	.05283	-.17006	.27571
7. Teachers would be more motivated to participate if given additional planning time so that they can effectively work to meet this goal.	Equal variances assumed	2.969	116	.004	.37899	.12619	.63180
8. Teachers would be more motivated to participate if provided with professional development to help them meet the goal.	Equal variances not assumed	2.938	76.363	.004	.34644	.11158	.58129
9. Teachers would be more motivated to participate if they believe there will be opportunities for them to take on a leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).	Equal variances assumed	.390	116	.697	.05651	-.23062	.34364
10. Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to learn new skills or hone their abilities.	Equal variances not assumed	.529	61.578	.599	.05835	-.16212	.27883

		t-test for Equality of Means					
					Mean Differ-ence	95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)		Lower	Upper
11. Teachers would be more motivated to participate if they believe there will be greater opportunities for them to work collaboratively with colleagues.	Equal variances assumed	1.230	116	.221	.16462	-.10053	.42977
12. Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	Equal variances assumed	.256	116	.798	.04300	-.28971	.37571
13. Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	Equal variances assumed	-3.030	116	.003	-.45700	-.75575	-.15826

p < .004 Adjusted for collective error rate

Educational Attainment and Pay ranges.

ANOVA was used to test the significant differences between participants'
responses on the attitudes towards incentives and their educational attainment. There was
no statistically significant difference among the three different groups. Also using
ANOVA, no significant differences were found when pay ranges were tested.

CHAPTER FIVE: DISCUSSION

Introduction and Purpose

This research investigated the perceptions of teachers, administrators and board members about the extent that performance-based reward plans would motivate teachers to participate in school initiatives that may improve the quality of instruction. A more thorough understanding of teachers' support for performance-based reward plans can contribute to more meaningful discussions of these plans and lead to better design of these plans when they are adopted. This section summarizes the findings, offers conclusions and suggests implications. Limitations and recommendations for future research conclude the chapter.

There is considerable focus in the United States on the need for continuous improvement in the quality of schools, including student achievement and teacher performance. Administrators and board members, those running and governing schools, seek specific methods they can implement to improve the quality of their schools. Research has repeatedly recognized the critical role that teachers play in schools and the significant influence they have on student achievement (Marzano, 2003). Therefore, improving teachers and their pedagogy is an important way to influence the quality of the educational system (Marzano, 1998; 2003; Nye, Knostantopoulos, & Hedges, 2004; Teddlie & Reynolds, 2000).

As administrators and board members seek to improve teaching, one technique that is often considered is performance-based reward plans (Chamberlain, Wragg, Haynes, & Wragg, 2002). Performance-based reward systems attempt to motivate

teachers to improve in specific domains in order to earn bonuses or other incentives. However, as administrators and board members develop these systems, do they understand the extent to which teachers believe these systems are appropriate or motivating? Do these three groups (teachers, administrators, and board members) have the same perceptions of different potential motivators that could be used in performance-based reward plans? Furthermore, are there other significant differences in how these three groups perceive performance-based reward programs, their implementation and effects?

Previous research suggests that for a program to be motivating, it must meet three criteria: goals need to be achievable and available, rewards must be deemed valuable and worthwhile, and the system must be fair and clear (Heneman, 1998; Kelley, Odden et al., 2000; Kemmerer, 1990; Locke, 1968; Vroom, 1964). This research examined how perceptions of teachers, administrators, and board members differed in relation to each of the three criteria.

Discussion

   1. Goals Need to be Achievable and Rewards Available.

The first criterion established by previous research (Heneman, 1998; Kelley, Odden et al., 2000; Kemmerer, 1990; Locke, 1968; Vroom, 1964) is that rewards must be achievable and available. In this study all three groups (teachers, administrators, and board members) believed that if these schools implemented performance-based reward programs, the teachers would find the rewards attainable. However, the groups offered different reasons for why they felt the rewards would be achievable. The administrators

and board members cited the category of "System Design" most frequently in their reasons. Administrators and board members specifically though performance-based reward plans would be achievable because they would develop and implement plans only if they were attainable. Teachers, however, did not focus predominantly on system design but instead also discussed their own effort and performance.

In addition to rewards being achievable, they also need to be available. A recurring concern for all groups was the funding for such a program. Teachers expressed concern that rewards would cause an increase in the cost of tuition or would take away from other budget areas (such as classroom supplies or technology). Administrators and board members articulated that they struggled to balance the budget and might not be able to consistently fund a performance-based reward program. These concerns with funding would undermine the ability of such a program to motivate teachers.

2. Rewards must be deemed valuable and worthwhile.

In this study differences emerged in how teachers, administrators and board members perceived the value and worth of potential motivators in performance-based reward programs. Board members and administrators ranked job security as more highly motivating than did teachers. The majority of teachers believed that the implementation of performance-based reward programs would not be the primary reason to continue to work at their schools. However, administrators and board members were far more likely to report that performance-based reward plans would encourage teachers to stay at a school. Many teachers cited "Biblical Responsibility" as a rationale for why performance-based reward plans would not encourage them to stay. Teachers

commented that they work at a school "because this is where I know that God wants me" and "I plan to stay [at this school] until the Lord directs me otherwise." In discussing their compensation, teachers also commented that they felt their teaching was a Christian service and therefore they weren't merely concerned with the financial benefits. Furthermore, many said their spouses earned enough for the family's financial needs. For example, a typical teacher response was "I am ok with [my compensation] only because my husband has such a good job. I, also, feel it is my ministry."

For these Christian educators, financial compensation was an area of considerable conflict. These educators recognized a tension between working and serving Jesus for heavenly rewards (which they specifically say they consider worthwhile) and the need to meet their physical needs and the needs of their families. One teacher summarized this conflict saying, "I am here to serve although I feel that Christian educators are grossly underpaid." Some of these teachers appear to be concerned that in seeking financial rewards they lose sight of their biblical responsibility. Interestingly, none of the teachers cited verses or biblical passages that supported the concept of a worker being worthy of his/her compensation. Instead, the teachers focused on biblical passages that emphasized hard work and serving the Lord.

In evaluating the potential motivators in performance-based reward plans, administrators ranked public recognition and leadership opportunities as more highly motivating than teachers did. Overall, teachers neither agreed nor disagreed that leadership opportunities would encourage teachers to participate in a school incentive. Administrators were the only group who, overall, thought public recognition would motivate teachers to participate in a school initiative. Teachers felt strongly that public

recognition was an ineffective motivator. Teachers, however, valued school-wide

rewards more highly than did board members or administrators.

There seemed to be some discrepancy between teachers' responses to two

questions regarding whether or not performance-based reward plans would lead to

changes in classroom instruction. Teachers disagreed strongly with the statement,

"Teachers are unlikely to participate in such an initiative. They are comfortable with

their teaching and don't see a need to make any changes" indicating they would be likely

to participate in an initiative and possibly change their classroom instruction.

Paradoxically, the majority of teachers later indicated that performance-based pay

rewards would not actually lead to any changes in their classrooms. Many teachers also

commented that they would evaluate the worth of an initiative prior to participating. A

typical teacher response was "I would need to agree that the change [recommended in the

performance-based reward plan] was preferable to my current methods."

The teachers' responses to these two questions seem to be contradictory. It may

be that teachers feel they would participate in a school initiative but ultimately felt these

initiatives would not actually lead to any changes in their classrooms. Furthermore,

teachers may have disagreed with the word "comfortable" to describe how they feel

about their classrooms as they instead used terms like "doing my best" or "I give 110%."

Members of the three groups disagreed on the value of money as an incentive.

This research suggests that teachers, board members and administrators disagree upon the

minimum amount of money they believed teachers would require in order to consider

participating in a school initiative. Board members gave the highest estimates, followed

by administrators and then teachers.

3. System must be fair and clear.

The third and final criterion from previous research is that for a system to be motivating, it must be fair and clear (Heneman, 1998; Kelley, Odden et al., 2000; Kemmerer, 1990; Locke, 1968; Vroom, 1964). The theme of fairness permeates repeated responses from all three groups. Teachers and administrators differed around this idea of fairness. Administrators and board members agree more strongly than teachers did about the fairness of tying rewards to student achievement. Furthermore, teachers agreed more strongly than administrators or board members that "Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly." These statements suggest that teachers, more than administrators or board members, may doubt that a performance-based reward program would be fair. The majority of participants in all groups expressed concern with designing and implementing a fair system for performance-based rewards. Typical concerns about system design and fairness included, "I do not think performance-based pay is a good thing. It cannot be measured in a fair and accurate way," and "My concern would be the assessment and measurement of the goal or initiative. Can it be fairly assessed?"

Other findings.

First, there is a consistent theme of teacher effort in the teachers' responses; however this theme does not emerge in the administrator or board member responses. Second, there are statistically significant differences between males and females on numerous topics. Third, administrators seem to be frequently in the middle of board

members and teachers in terms of their attitudes and perceptions. Each of these findings is discussed further in this section.

Teachers gave great weight to the value of their effort; administrators were more concerned with results. For example, typical teacher responses were "I don't feel that a teacher should be punished as long as they are doing their best" and "I hope that I am doing my best at this point so [rewards would not necessarily lead to a change in instruction]." Administrators and board members do not comment on the amount of effort teachers are expending but instead seem to focus on teachers' success in the classroom and the impact they have on student achievement. For example, an administrator commented, "Teachers and administrators should not simply receive raises from one year to the next by simply 'surviving' another year. We must all set goals and be accountable for reaching those goals…we are working on layering on other financial rewards to those administrators and teachers who go above and beyond the call of duty AND who have proven results in the classroom." Unlike the teachers' preoccupation with effort, the administrators focused on goals and measurable results. In terms of implementing performance-based reward programs, this focus on effort may be an impediment for teachers' acceptance.

The findings from this research suggest that there are significant differences between males and females regarding the value of planning time, public recognition and professional development. Specifically, females value student performance and planning time more highly than males do. However, males value public recognition and professional development more highly than do females. Therefore, specific elements

used in performance-based reward programs may be more motivating to males or females.

Finally, administrators seem to generally hold beliefs that are between teachers and board members. On the Attitudes Towards Incentives statements, administrators were always in the middle of board members and teachers. Therefore, it is possible that they might be ideally suited to develop and negotiate performance-based reward plans since they are in between board members and teachers.

Conclusions

This study strongly suggests that there are differences in how teachers, administrators, and board members perceive motivators that could be used in performance-based reward programs. The groups vary in the importance they assign to the potential motivators of school-wide rewards, leadership opportunities, public recognition, and job security. Furthermore, the three groups differ in the minimum amount of money necessary for teachers to participate in a reward program, with teachers giving the lowest average and board members the highest.

The findings from this research coupled with prior research suggest that there may be some issues to resolve in order to develop and implement highly motivating performance-based reward programs. Previous research established three criteria for programs to be motivating. The first criterion is that goals be achievable and rewards be attainable. Although the majority of participants believed that goals would be achievable, participants in all three groups doubted that the rewards would be attainable due to financial constraints. The second criteria is that rewards must be deemed valuable and

worthwhile. Given the different value placed on specific motivators, it is possible that

administrators and board members would develop plans that teachers did not find truly

valuable or worthwhile. Articulation among all three groups would be necessary to

ensure that the program was created in a way that was motivating to the staff. The third

criterion is that the system must be fair and clear. All three groups expressed concerns

with fairness and clear objectives. Therefore, this area would also need to be addressed

by schools seeking to implement performance-based reward programs.

Significance

The implementation of performance-based reward plans is an important issue in

current discussions of educational systems. In a recent speech to the members of U.S.

Hispanic Chamber of Commerce President Obama said, "Too many supporters of my

party have resisted the idea of rewarding excellence in teaching with extra pay, even

though we know it can make a difference in the classroom" (Obama, 2009). Secretary of

Education Dr. Arne Duncan, in a recent speech to the National Education Association,

said, "Many schools, give nothing at all to teachers who go the extra mile and make all

the difference in students' lives. Excellence matters and we should honor it – fairly,

transparently, and on terms teachers can embrace. [The president and I] are asking

Congress for more money to develop compensation programs 'with' and 'for' you – not

'to' you – programs that will put money in the pockets of your teachers and support

personnel by recognizing and rewarding excellence" (Duncan, 2009a). In a speech to the

2009 Governors Education Symposium, Dr. Duncan stated, "I understand that teachers

are concerned about the fairness of performance pay. I share those concerns, but I am

confident that if we sit down with the unions – instead of forcing it on them – we can find

ways to reward excellence in the classroom" (Duncan, 2009c).

This research has the potential to significantly add to the literature on teacher

motivation and performance-based reward plans. Although previous studies have

examined many aspects of performance-based reward plans, they have not examined the

differences in perceptions among teachers, administrators and board members.

Administrators and board members typically are the ones who would establish

performance-based reward programs. However, in order to develop appropriate

programs, they need to understand how teachers view potential motivators. Furthermore,

administrators and board members need to understand how teachers' perceptions may

differ on issues of implementation and development. This research provides new

information on teachers', administrators', and board members' perceptions of

motivational factors that could be used in performance-based reward plans.

Furthermore, the schools included in this research were private schools.

Educators who choose to work in private schools (especially Christian schools) may have

different views of specific motivators and performance-based rewards. Extensive

previous research on motivators has not been completed in the context of private schools.

This research adds to the literature on teachers' perceptions of motivators in Christian

schools.

Implications for Practice

There are multiple implications of this research. Because teachers, administrators

and board members perceive motivational factors differently, in order to develop

effective, motivating programs, it appears that collaboration among all three groups would be essential. This research suggests that board members and administrators may have different perceptions of specific motivators and therefore might be inclined to use certain motivators such as public recognition or leadership opportunities as part of a performance-based reward program when teachers might prefer other motivators such as school-wide incentives or additional planning time. Furthermore, when financial motivators are included, board members and administrators overestimate what is necessary to motivate teachers.

In working collaboratively to develop plans, administrators may be uniquely positioned to negotiate programs. This research suggests that in many ways, administrators' perceptions are in between teachers and board members; the perceptions of teachers and board members were on either extreme with administrators in the middle. Therefore, administrators, knowing that teachers and board members sometimes hold divergent views, may be able to work proactively to help guide conversations between these groups in an attempt to create performance-based reward programs that are satisfying and motivating for all stakeholders.

The issue of fairness is a serious concern for all three groups. In order for a plan to be truly motivating, it must be perceived as fair. In designing systems, all groups must be actively involved in carefully crafting a plan that will be perceived as fair. Throughout the implementation, there also must be safeguards in place to continue to ensure that the plan is fair.

The findings from this research suggest that there may be significant differences in how males and females perceive the value of specific motivators. Therefore, people

may want to consider including multiple motivators in a plan and allowing participants to select the incentives they would like to earn. Differentiation may be a technique that can be used in developing performance-based reward programs to more effectively motivate all teachers.

The findings from this research suggest that teachers focus heavily on teacher effort. However, most performance-based reward programs do not measure nor specifically reward effort. They reward student achievement outcomes. Therefore, administrators or other school personnel may need to work with teachers to help the teachers understand what the goals and desired outcomes are as part of the performance-based reward plan. It may be necessary to help teachers understand that as part of a specific performance-based reward plan the focus is on measurable outcomes (such as meeting specific standards) and not teacher effort.

Private, Christian schools may face unique challenges in trying to implement performance-based reward programs. Numerous teachers expressed concerns that working for financial compensation instead of focusing on serving the Lord contradicted their religious beliefs. Therefore, Christian school administrators and board members may need to work carefully with teachers before implementing this program in order to establish the Biblical validity of such a program. It may be necessary to include religious leaders in these discussions so that teachers feel the programs do not violate their religious values.

Limitations

There were limitations in the design of this research and also in the data sample used. First, because of design limitations, the researcher was not able to access equal numbers of teachers, administrators and board members. Through the ACSI directory, the researcher was able to contact an administrator for all 172 schools. Using the directory and school websites, the researcher was able to contact the teachers from 93 of the 172 schools and board members from 17 of the 172 schools. For the other teachers and board members, the researcher asked the administrators to provide contact information for the teachers and board members.

Unfortunately, not all of the administrators responded to the initial survey request. Therefore, teachers and board members from that school were often also eliminated from the survey. Furthermore, some administrators acted as "gatekeepers" electing not to allow the researcher to contact the teachers or board members. Some administrators specifically commented that they did not want their teachers or board members considering performance-based reward plans, such as the administrator who wrote, "I do not want to engage my teachers or board members in a discussion of this topic."

Another limitation of this study relates to the schools selected. All of the schools are Christian schools that are members of ACSI. As a result, the data may not be generalizeable to public schools or even other private schools. The participants discussed "Biblical responsibility" repeatedly and also discussed a sense of being "called" to work at a Christian school. Therefore, all or some of the findings of this research may be applicable only to private, Christian schools. However, the findings still contribute to the

understanding of how perceptions differ among teachers, board members and administrators.

Future Research

While this research provides important information, more research is clearly necessary. Specifically, there are four main areas of additional research recommended. First, due to the design limitations of this study, very few board members participated. Future research is necessary to study how board members perceive motivators and performance-based reward programs. Research is also needed to compare these perceptions with those of teachers and administrators.

This study analyzed the perceptions of teachers, administrators, and board members at private, Christian schools. More research is necessary to evaluate if teachers, administrators, and board members at other private schools have similar perceptions. Furthermore, teachers, administrators, and board members at public schools may have different perceptions. Further research is needed to examine the differences among motivators in different types of educational settings (such as private, religious, or public institutions).

Throughout this study, participants commented on what they believed would be motivating for teachers. Further research would be necessary to confirm these findings. It is possible that teachers would be motivated by factors, even though they didn't initially believe those factors would be highly motivating. Further research could utilize a different design that would assess how teachers respond to initiatives instead of merely asking teachers how they would respond to initiatives.

Finally, this research suggests that administrators are generally in between teachers and administrators in terms of their attitudes towards incentives. Most administrators began as teachers. More research is necessary to understand how administrators perceptions and attitudes developed and might have changed through experience in administration.

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APPENDIX A: LETTER TO ADMINISTRATORS

Greetings,

My name is Paul Wrobbel and I am currently a doctoral student at the University of Minnesota. I am also the Head of School of Trinity Oaks Christian Academy in Cary, Illinois (a member of ACSI). I have worked with ACSI schools for my entire professional career including working at two schools for missionary children in Spain and Venezuela.

I am writing today requesting your assistance with my doctoral research. I am studying perceptions of performance-based pay plans and different motivational factors. I am doing my research in schools with and without performance-based pay plans. I hope that my research will help further the intellectual conversation about how to help motivate teachers to provide high-quality learning environments for all students.

Specifically, I am hoping that you will participate in my study. If you are willing to participate, I have created an online survey for you to complete. (It is located at http://wrobbel.ning.com) The survey should take you no more than 20 minutes (although it might take you substantially less time depending on some of your answers).   I would really appreciate your time and the valuable insight you could share.

Furthermore, I am looking for teachers and board members to also complete the survey. Could you please randomly select five teachers and five board members and send me their email contact information? I will then send them a letter inviting them to participate in the survey (not all of them will be invited, I will randomly select the appropriate number of participants). Please rest assured that all responses will be kept confidential.

As a current school administrator, I know how valuable your time is and truly appreciate your help with this research. If you have any questions please do not hesitate to contact me at the numbers listed below.

Sincerely,

Paul Wrobbel
Phone: 847-462-5971
Email: pwrobbel@trinity-oaks.org
Address:
Trinity Oaks Christian Academy
409 North 1st Street
Cary, IL 60013

Enabling Christian
Educators and Schools
Worldwide

March, 2009

Dear School Administrator,

I am pleased to introduce to you a Christian school colleague, Paul Wrobbel, from Trinity Oaks Christian Academy and a doctoral candidate who is engaging an important research project in education.

This letter is to urge your positive response to the request for participation in a research study on what factors serve as motivators for teachers. As part of his research Paul is looking at how teachers perceive performance-based pay and how that type of incentive fits with improved teacher preparation and performance. In addition the research project will assess the perspective of board members and administrators on this topic. Teacher quality, motivation, salary and benefits issues are a significant concern to the Association and to many of our member schools. This research will contribute to identifying effective practices of teacher compensation.

I am well assured of the professional standards and confidential manner in which this research will be conducted. The collection of data and the reporting of such data will meet the standards for academic research.

I would encourage you to participate in this study as a great value to your school and your own professional development, as well as making a significant contribution to the research base for the Christian school movement. ACSI heartily endorses this research project and we appreciate you giving it serious consideration.

Sincerely,

Derek J. Keenan Ed.D.
Vice President, Academic Affairs

APPENDIX B: SURVEY FOR TEACHERS IN SCHOOLS WITH PERFORMANCE-

BASED PAY

What school do you work at? (This is only so that we can ensure that there are participants from each school. Your identity and your school's identity will be kept confidential.)

Attitudes Towards Incentives:
Please circle the number that indicates how much you agree or disagree with each of the statements about teacher incentives. Possible incentives could include financial bonuses, professional development, increased collaboration time, or public recognition.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	SD	D	N	A	SA
Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	SD	D	N	A	SA
If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	SD	D	N	A	SA
Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	SD	D	N	A	SA
School incentives can help motivate teachers to learn and/or practice new skills.	SD	D	N	A	SA

Specific Motivators:

The following questions relate to your willingness to participate in a school initiative. Imagine that your school is focusing on specific pedagogy or instructional outcomes. For example, the school is focusing on differentiated instruction, integrating technology, or teaching reading strategies. How likely are you to participate in this initiative? Please circle the number that indicates how much you agree or disagree with each of the statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
I will participate in this initiative regardless of incentives if I believe it is best for students.	SD	D	N	A	SA
I would be more motivated to participate if offered a financial bonus.	SD	D	N	A	SA
I would be more motivated to participate if there is a financial incentive for my school as a whole even if it is not necessarily given to individual teachers.	SD	D	N	A	SA
I would be more motivated to participate if I believe it will have a positive impact on student performance.	SD	D	N	A	SA
I would be more motivated to participate if I might receive public recognition for meeting the goal.	SD	D	N	A	SA
I would be motivated to participate because I know I would feel a sense of satisfaction from the school as a whole meeting this goal.	SD	D	N	A	SA
I would be more motivated to participate if I am given additional planning time so that I can effectively work to meet this goal.	SD	D	N	A	SA
I would be more motivated to participate if I am provided with professional development to help me meet the goal.	SD	D	N	A	SA
I would be more motivated to participate if I believe there will be opportunities for me to take on a leadership role (perhaps as a mentor to other teachers or by providing training to others working towards this goal).	SD	D	N	A	SA

I would be more motivated to participate if I believe that this will be an opportunity for me to learn new skills or hone my abilities.	SD	D	N	A	SA
I would be more motivated to participate if I believe there will be greater opportunities for me to work collaboratively with colleagues.	SD	D	N	A	SA
I would be more motivated to participate if I feel that my participation is important for job security or position within the school.	SD	D	N	A	SA
I am unlikely to participate in such an initiative. I am comfortable with my teaching and don't see a need to make any changes.	SD	D	N	A	SA

Are there other incentives/factors that would motivate you to participate in this type of initiative? If so, please describe in as much detail as possible.

Imagine that your school is going to provide bonuses for teachers who can prove they meet the goals of this new initiative. What is the **minimum** amount of money necessary for you to consider participating?

If your school were willing to provide a $2,000 bonus for teachers who could prove they met the goals of this new initiative, how much time would you be willing to dedicate?
  a. Less than 20 hours
  b. 20 and 50 hours
  c. 50 to 100 hours
  d. More than 100 hours
  e. Time every day

Demographic Information:
  1. What is your primary area of teaching?
      a. Elementary classroom
      b. English / Language Arts
      c. History / Social Studies
      d. Mathematics
      e. Science
      f. Foreign Language
      g. Music /Art
      h. Other
  2. What is your total number of years of teaching experience?
  3. How many years have you taught at your current school?
  4. What is your age?

5. What is your gender?
6. How many dependent children do you have?
7. What is your highest level of education?
   a. Bachelor's degree
   b. Master's degree
   c. Doctorate
8. What is your approximate annual pay for teaching in this school, including any extra pay for extra-curricular assignments such as coaching?
   a. Less than $20,000
   b. $20 – 29,999
   c. $30 – 39,999
   d. $40 – 49,999
   e. $50 – 59,999
   f. $60 – 69,999
   g. above $70,000
9. Do you feel satisfied with the way you are compensated? Please explain.
10. Do you plan to return to this school?

Performance-based pay in your school
1. Did your school's rewards attract you to the school or encourage you to stay?
2. Have you earned rewards at your school? Please describe the task and reward. Did you feel the reward was worth the effort?
3. Do you believe you can earn the rewards available at your school? Please explain if you think they are attainable to all.
4. Do the rewards impact your classroom instruction? Please explain?
5. How would you rate the performance-based pay program in your school (please give a letter grade from A to F)? Please explain why it deserves that grade.
6. Do you feel that performance-based pay rewards accurately assess your performance?

Please provide us with an overall summary of your views about pay-for-performance plans. Also, if you have any other thoughts that you feel were not included in this survey, please share them here.

Would you be willing to be contacted for a follow-up interview? If so, please provide your name and a phone number where you can be reached.

APPENDIX C: SURVEY FOR TEACHERS IN SCHOOLS WITHOUT

PERFORMANCE-BASED PAY

What school do you work at? (This is only so that we can ensure that there are participants from each school. Your identity and your school's identity will be kept confidential.)

Attitudes Towards Incentives:
Please circle the number that indicates how much you agree or disagree with each of the statements about teacher incentives. Possible incentives could include financial bonuses, professional development, increased collaboration time, or public recognition.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	SD	D	N	A	SA
Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	SD	D	N	A	SA
If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	SD	D	N	A	SA
Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	SD	D	N	A	SA
School incentives can help motivate teachers to learn and/or practice new skills.	SD	D	N	A	SA

Specific Motivators:
The following questions relate to your willingness to participate in a school initiative. Imagine that your school is focusing on specific pedagogy or instructional outcomes. For example, the school is focusing on differentiated instruction, integrating technology, or teaching reading strategies. How likely are you to participate in this initiative? Please circle the number that indicates how much you agree or disagree with each of the statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
I will participate in this initiative regardless of incentives if I believe it is best for students.	SD	D	N	A	SA
I would be more motivated to participate if offered a financial bonus.	SD	D	N	A	SA
I would be more motivated to participate if there is a financial incentive for my school as a whole even if it is not necessarily given to individual teachers.	SD	D	N	A	SA
I would be more motivated to participate if I believe it will have a positive impact on student performance.	SD	D	N	A	SA
I would be more motivated to participate if I might receive public recognition for meeting the goal.	SD	D	N	A	SA
I would be motivated to participate because I know I would feel a sense of satisfaction from the school as a whole meeting this goal.	SD	D	N	A	SA
I would be more motivated to participate if I am given additional planning time so that I can effectively work to meet this goal.	SD	D	N	A	SA
I would be more motivated to participate if I am provided with professional development to help me meet the goal.	SD	D	N	A	SA
I would be more motivated to participate if I believe there will be opportunities for me to take on a leadership role (perhaps as a mentor to other teachers or by providing training to others working towards this goal).	SD	D	N	A	SA

I would be more motivated to participate if I believe that this will be an opportunity for me to learn new skills or hone my abilities.	SD	D	N	A	SA
I would be more motivated to participate if I believe there will be greater opportunities for me to work collaboratively with colleagues.	SD	D	N	A	SA
I would be more motivated to participate if I feel that my participation is important for job security or position within the school.	SD	D	N	A	SA
I am unlikely to participate in such an initiative. I am comfortable with my teaching and don't see a need to make any changes.	SD	D	N	A	SA

Are there other incentives/factors that would motivate you to participate in this type of initiative? If so, please describe in as much detail as possible.

Imagine that your school is going to provide bonuses for teachers who can prove they meet the goals of this new initiative. What is the **minimum** amount of money necessary for you to consider participating?

If your school were willing to provide a $2,000 bonus for teachers who could prove they met the goals of this new initiative, how much time would you be willing to dedicate?
  a. Less than 20 hours
  b. 20 and 50 hours
  c. 50 to 100 hours
  d. More than 100 hours
  e. Time every day

Demographic Information:
  1. What is your primary area of teaching?
      a. Elementary classroom
      b. English / Language Arts
      c. History / Social Studies
      d. Mathematics
      e. Science
      f. Foreign Language
      g. Music /Art
      h. Other
  2. What is your total number of years of teaching experience?
  3. How many years have you taught at your current school?

4. What is your age?
5. What is your gender?
6. How many dependent children do you have?
7. What is your highest level of education?
    a. Bachelor's degree
    b. Master's degree
    c. Doctorate
8. What is your approximate annual pay for teaching in this school, including any extra pay for extra-curricular assignments such as coaching?
    a. Less than $20,000
    b. $20 – 29,999
    c. $30 – 39,999
    d. $40 – 49,999
    e. $50 – 59,999
    f. $60 – 69,999
    g. above $70,000
9. Do you feel satisfied with the way you are compensated? Please explain.
10. Do you plan to return to this school?

Implementing a performance-based pay system in your school
1. Would you like your school to implement a performance-based pay system? Why or why not?
2. Do you believe that if you school implemented such a system you would be able to earn the rewards?
3. Would rewards encourage you to stay at your school?
4. Would performance-based pay lead to a change in your classroom instruction? Please explain?
5. What concerns do you have with implementing a performance-based pay system?

Please provide us with an overall summary of your views about pay-for-performance plans. Also, if you have any other thoughts that you feel were not included in this survey, please share them here.

Would you be willing to be contacted for a follow-up interview? If so, please provide your name and a phone number where you can be reached.

APPENDIX D: SURVEY FOR ADMINISTRATORS IN SCHOOLS WITH

PERFORMANCE-BASED PAY

What school do you work at? (This is only so that we can ensure that there are participants from each school. Your identity and your school's identity will be kept confidential.)

Attitudes Towards Incentives:
Please circle the number that indicates how much you agree or disagree with each of the statements about teacher incentives. Possible incentives could include financial bonuses, professional development, increased collaboration time, or public recognition.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	SD	D	N	A	SA
Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	SD	D	N	A	SA
If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	SD	D	N	A	SA
Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	SD	D	N	A	SA
School incentives can help motivate teachers to learn and/or practice new skills.	SD	D	N	A	SA

Specific Motivators:
The following questions relate to teachers' willingness to participate in a school initiative. Imagine that your school is focusing on specific pedagogy or instructional outcomes. For example, the school is focusing on differentiated instruction, integrating technology, or teaching reading strategies. How likely are teachers to participate in this initiative? Please circle the number that indicates how much you agree or disagree with each of the statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Teachers will participate in this initiative regardless of incentives if they believe it is best for students.	SD	D	N	A	SA
Teachers would be more motivated to participate if offered a financial bonus.	SD	D	N	A	SA
Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe it will have a positive impact on student performance.	SD	D	N	A	SA
Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	SD	D	N	A	SA
Teachers would be motivated to participate because they know they would feel a sense of satisfaction from the school as a whole meeting the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given additional planning time so they can effectively work to meet this goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given professional development to help them meet the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be opportunities for them to take on a	SD	D	N	A	SA

leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).					
Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to learn new skills or hone their abilities.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be greater opportunities for them to work collaboratively with colleagues.	SD	D	N	A	SA
Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	SD	D	N	A	SA
Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	SD	D	N	A	SA

Are there other incentives/factors that you believe would motivate teachers to participate in this type of initiative? If so, please describe in as much detail as possible.

Imagine that your school is going to provide bonuses for teachers who can prove they meet the goals of this new initiative. What is the **minimum** amount of money you believe would be necessary for teachers to consider participating?

If your school were willing to provide a $2,000 bonus for teachers who could prove they met the goals of this new initiative how much time would they be willing to dedicate?
   a. Less than 20 hours
   b. 20 and 50 hours
   c. 50 to 100 hours
   d. More than 100 hours
   e. Time every day

Demographic Information:
   1. How many years have you been an administrator?
   2. How many years did you teach prior to becoming an administrator?
   3. How many years have you been an administrator at your current school?
   4. What is your age?
   5. What is your gender?

6. How many dependent children do you have?
7. What is your highest level of education?
   a. Bachelor's degree
   b. Master's degree
   c. Doctorate
8. What is your approximate annual pay for working in this school, including any extra pay for extra-curricular assignments such as coaching?
   a. Less than $30,000
   b. $30 – 39,999
   c. $40 – 49,999
   d. $50 – 59,999
   e. $60 – 69,999
   f. $70 – 79,999
   g. $80 – 89,999
   h. $90 – 99,999
   i. above $100,000

Performance-based pay in your school
   1. Do you think your performance-based pay system helps attract and retain teachers?
   2. Do you believe your teachers feel that the rewards are attainable? Please explain.
   3. Do you believe the rewards impact classroom instruction? Please explain.
   4. How would you rate the performance-based pay program in your school (please give a letter grade from A to F)? Why?
   5. Do you feel that performance-based pay rewards accurately assess teachers' performance?

Please provide us with an overall summary of your views about pay-for-performance plans. Also, if you have any other thoughts that you feel were not included in this survey, please share them here.

Would you be willing to be contacted for a follow-up interview? If so, please provide your first name and a phone number where you can be reached.

APPENDIX E: SURVEY FOR ADMINISTRATORS IN SCHOOLS WITHOUT

PERFORMANCE-BASED PAY

What school do you work at? (This is only so that we can ensure that there are participants from each school. Your identity and your school's identity will be kept confidential.)

Attitudes Towards Incentives:
Please circle the number that indicates how much you agree or disagree with each of the statements about teacher incentives. Possible incentives could include financial bonuses, professional development, increased collaboration time, or public recognition.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	SD	D	N	A	SA
Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	SD	D	N	A	SA
If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	SD	D	N	A	SA
Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	SD	D	N	A	SA
School incentives can help motivate teachers to learn and/or practice new skills.	SD	D	N	A	SA

Specific Motivators:

The following questions relate to teachers' willingness to participate in a school initiative. Imagine that your school is focusing on specific pedagogy or instructional outcomes. For example, the school is focusing on differentiated instruction, integrating technology, or teaching reading strategies. How likely teachers are to participate in this initiative? Please circle the number that indicates how much you agree or disagree with each of the statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Teachers will participate in this initiative regardless of incentives if they believe it is best for students.	SD	D	N	A	SA
Teachers would be more motivated to participate if offered a financial bonus.	SD	D	N	A	SA
Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe it will have a positive impact on student performance.	SD	D	N	A	SA
Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	SD	D	N	A	SA
Teachers would be motivated to participate because they know they would feel a sense of satisfaction from the school as a whole meeting the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given additional planning time so they can effectively work to meet this goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given professional development to help them meet the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be	SD	D	N	A	SA

opportunities for them to take on a leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).					
Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to learn new skills or hone their abilities.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be greater opportunities for them to work collaboratively with colleagues.	SD	D	N	A	SA
Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	SD	D	N	A	SA
Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	SD	D	N	A	SA

Are there other incentives/factors that you believe would motivate teachers to participate in this type of initiative? If so, please describe in as much detail as possible.

Imagine that your school is going to provide bonuses for teachers who can prove they meet the goals of this new initiative. What is the **minimum** amount of money you believe would be necessary for teachers to consider participating?

If your school were willing to provide a $2,000 bonus for teachers who could prove they met the goals of this new initiative how much time would they be willing to dedicate?
- f.   Less than 20 hours
- g.   20 and 50 hours
- h.   50 to 100 hours
- i.   More than 100 hours
- j.   Time every day

Demographic Information:
1. How many years have you been an administrator?
2. How many years did you teach prior to becoming an administrator?
3. How many years have you been an administrator at your current school?
4. What is your age?

5. What is your gender?
6. How many dependent children do you have?
7. What is your highest level of education?
   d. Bachelor's degree
   e. Master's degree
   f. Doctorate
8. What is your approximate annual pay for working in this school, including any extra pay for extra-curricular assignments such as coaching?
   j. Less than $30,000
   k. $30 – 39,999
   l. $40 – 49,999
   m. $50 – 59,999
   n. $60 – 69,999
   o. $70 – 79,999
   p. $80 – 89,999
   q. $90 – 99,999
   r. above $100,000

Implementing a performance-based pay system in your school
1. Would you like your school to implement a performance-based pay system? Why or why not?
2. Do you believe that if you school implemented such a system teachers would find the rewards attainable? Please explain.
3. Would rewards encourage teachers to stay at your school?
4. Would performance-based pay lead to changes in classroom instruction? Please explain.
5. What concerns do you have with implementing a performance-based pay system?

Please provide us with an overall summary of your views about pay-for-performance plans. Also, if you have any other thoughts that you feel were not included in this survey, please share them here.

Would you be willing to be contacted for a follow-up interview? If so, please provide your first name and a phone number where you can be reached.

APPENDIX F: SURVEY FOR BOARD MEMBERS IN SCHOOLS WITH

PERFORMANCE-BASED PAY

What school do you work at? (This is only so that we can ensure that there are participants from each school. Your identity and your school's identity will be kept confidential.)

Attitudes Towards Incentives:
Please circle the number that indicates how much you agree or disagree with each of the statements about teacher incentives. Possible incentives could include financial bonuses, professional development, increased collaboration time, or public recognition.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	SD	D	N	A	SA
Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	SD	D	N	A	SA
If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	SD	D	N	A	SA
Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	SD	D	N	A	SA
School incentives can help motivate teachers to learn and/or practice new skills.	SD	D	N	A	SA

Specific Motivators:

The following questions relate to teachers' willingness to participate in a school initiative. Imagine that your school is focusing on specific pedagogy or instructional outcomes. For example, the school is focusing on differentiated instruction, integrating technology, or teaching reading strategies. How likely are teachers to participate in this initiative? Please circle the number that indicates how much you agree or disagree with each of the statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Teachers will participate in this initiative regardless of incentives if they believe it is best for students.	SD	D	N	A	SA
Teachers would be more motivated to participate if offered a financial bonus.	SD	D	N	A	SA
Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe it will have a positive impact on student performance.	SD	D	N	A	SA
Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	SD	D	N	A	SA
Teachers would be motivated to participate because they know they would feel a sense of satisfaction from the school as a whole meeting the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given additional planning time so they can effectively work to meet this goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given professional development to help them meet the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be	SD	D	N	A	SA

opportunities for them to take on a leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).					
Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to learn new skills or hone their abilities.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be greater opportunities for them to work collaboratively with colleagues.	SD	D	N	A	SA
Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	SD	D	N	A	SA
Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	SD	D	N	A	SA

Are there other incentives/factors that you believe would motivate teachers to participate in this type of initiative? If so, please describe in as much detail as possible.

Imagine that your school is going to provide bonuses for teachers who can prove they meet the goals of this new initiative. What is the **minimum** amount of money you believe would be necessary for teachers to consider participating?

If your school were willing to provide a $2,000 bonus for teachers who could prove they met the goals of this new initiative how much time would they be willing to dedicate?
      a. Less than 20 hours
      b. 20 and 50 hours
      c. 50 to 100 hours
      d. More than 100 hours
      e. Time every day

Demographic Information:
1. How many years have you been a member of a school board?
2. Do you have any experience working in a school? If so, how many years and in what capacity (teacher, administrator, other)?
3. What is your age?

4. What is your gender?
5. What is your highest level of education?
   a. Bachelor's degree
   b. Master's degree
   c. Doctorate
6. What is your approximate annual pay?
   1. Less than $30,000
   2. $30 – 49,999
   3. $50 – 69,999
   4. $70 – 89,999
   5. above $90,000
7. What is your current occupation?

Performance-based pay in your school
1. Do you think your performance-based pay system helps attract and retain teachers?
2. Do you believe your teachers feel that the rewards are attainable? Please explain.
3. Do you believe the rewards impact classroom instruction? Please explain.
4. How would you rate the performance-based pay program in your school (please give a letter grade from A to F)? Why?
5. Do you feel that performance-based pay rewards accurately assess teachers' performance?

Please provide us with an overall summary of your views about pay-for-performance plans. Also, if you have any other thoughts that you feel were not included in this survey, please share them here.

Would you be willing to be contacted for a follow-up interview? If so, please provide your first name and a phone number where you can be reached.

APPENDIX G: SURVEY FOR BOARD MEMBERS IN SCHOOLS WITHOUT

PERFORMANCE-BASED PAY

What school do you work at? (This is only so that we can ensure that there are participants from each school. Your identity and your school's identity will be kept confidential.)

Attitudes Towards Incentives:
Please circle the number that indicates how much you agree or disagree with each of the statements about teacher incentives. Possible incentives could include financial bonuses, professional development, increased collaboration time, or public recognition.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
It is fair for teachers who increase student achievement to receive a bonus or other incentive for their work.	SD	D	N	A	SA
Teachers generally do their best work and therefore an incentive program is not likely to change their effort.	SD	D	N	A	SA
If teachers already believe in a goal (such as differentiating instruction), an incentive could provide additional motivation to work towards that goal.	SD	D	N	A	SA
Assessing teaching and student achievement can be difficult. Therefore, I doubt that incentives would be distributed fairly.	SD	D	N	A	SA
School incentives can help motivate teachers to learn and/or practice new skills.	SD	D	N	A	SA

Specific Motivators:
The following questions relate to teachers' willingness to participate in a school initiative. Imagine that your school is focusing on specific pedagogy or instructional outcomes. For example, the school is focusing on differentiated instruction, integrating technology, or teaching reading strategies. How likely are teachers to participate in this initiative? Please circle the number that indicates how much you agree or disagree with each of the statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Teachers will participate in this initiative regardless of incentives if they believe it is best for students.	SD	D	N	A	SA
Teachers would be more motivated to participate if offered a financial bonus.	SD	D	N	A	SA
Teachers would be more motivated to participate if there is a financial incentive for the school but not necessarily given to individuals.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe it will have a positive impact on student performance.	SD	D	N	A	SA
Teachers would be more motivated to participate if they might receive public recognition for meeting the goal.	SD	D	N	A	SA
Teachers would be motivated to participate because they know they would feel a sense of satisfaction from the school as a whole meeting the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given additional planning time so they can effectively work to meet this goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if given professional development to help them meet the goal.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be	SD	D	N	A	SA

opportunities for them to take on a leadership roles (perhaps as a mentor to other teachers or by providing training to others working towards this goal).					
Teachers would be more motivated to participate if they believe that this initiative will be an opportunity for them to learn new skills or hone their abilities.	SD	D	N	A	SA
Teachers would be more motivated to participate if they believe there will be greater opportunities for them to work collaboratively with colleagues.	SD	D	N	A	SA
Teachers would be more motivated to participate if they feel that their participation is important for job security or position within the school.	SD	D	N	A	SA
Teachers are unlikely to participate in such an initiative. They are comfortable with their teaching and don't see a need to make any changes.	SD	D	N	A	SA

Are there other incentives/factors that you believe would motivate teachers to participate in this type of initiative? If so, please describe in as much detail as possible.

Imagine that your school is going to provide bonuses for teachers who can prove they meet the goals of this new initiative. What is the **minimum** amount of money you believe would be necessary for teachers to consider participating?

If your school were willing to provide a $2,000 bonus for teachers who could prove they met the goals of this new initiative how much time would they be willing to dedicate?
- f. Less than 20 hours
- g. 20 and 50 hours
- h. 50 to 100 hours
- i. More than 100 hours
- j. Time every day

Demographic Information:
8. How many years have you been a member of a school board?
9. Do you have any experience working in a school? If so, how many years and in what capacity (teacher, administrator, other)?
10. What is your age?

11. What is your gender?
12. What is your highest level of education?
    d. Bachelor's degree
    e. Master's degree
    f. Doctorate
13. What is your approximate annual pay?
    6. Less than $30,000
    7. $30 – 49,999
    8. $50 – 69,999
    9. $70 – 89,999
    10. above $90,000
14. What is your current occupation?

Implementing a performance-based pay system in your school
1.   Would you like your school to implement a performance-based pay system? Why or why not?
2.   Do you believe that if you school implemented such a system teachers would find the rewards attainable? Please explain.
3.   Would rewards encourage teachers to stay at your school?
4.   Would performance-based pay lead to changes in classroom instruction? Please explain.
5.   What concerns do you have with implementing a performance-based pay system?

Please provide us with an overall summary of your views about pay-for-performance plans. Also, if you have any other thoughts that you feel were not included in this survey, please share them here.

Would you be willing to be contacted for a follow-up interview? If so, please provide your first name and a phone number where you can be reached.

APPENDIX H: INTERVIEW QUESTIONS

Thank you for agreeing to do a follow-up interview with me. As I mentioned in the survey information, I am interested in learning more about how different people perceive motivational factors in schools. Your answers will help me understand this topic and so I really appreciate your time.

Do you think incentives are effective? If administrators want to bring about change in schools, are there incentives they can use to motivate teachers?

If yes, what three incentives do you believe would be the most motivating for teachers? Why do you feel that way?

Do you feel that there are any drawbacks to using incentives in schools? Are there any specific incentives that you feel are not effective?

Do you have any experience with performance-based pay programs? Tell me about the experience? How would you evaluate it?