A COMPARISON OF CLASSROOM TEACHERS’ AND SUPERINTENDENTS’
VIEWS OF TEACHER SALARY SCHEDULE COMPONENTS

DISSERTATION SUBMITTED TO
THE DWIGHT SCHAR COLLEGE OF EDUCATION
ASHLAND UNIVERSITY

In Partial Fulfillment of the Requirements for
The Degree
Doctor of Education in Educational Leadership
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ASHLAND UNIVERSITY
ASHLAND, OH
2010
A Dissertation

Entitled

A COMPARISON OF CLASSROOM TEACHERS’ AND SUPERINTENDENTS’ VIEWS OF TEACHER SALARY SCHEDULE COMPONENTS

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This study investigated similarities and differences between teacher and superintendent views toward factors to be included as a component of a teacher compensation system. A survey instrument designed to gather quantitative and qualitative data was used. The study sought to answer the following research questions: First, between superintendents and teachers, *Is there a difference in perceptions about teacher compensation between superintendents and teachers?* Second, *Compared to teachers, do superintendents report differences in what should be included as a component of a teacher compensation system?* Third, *Compared to teachers, do superintendents differ in their level of comfort with reference to the components of a teacher compensation system?* The study revealed statistically significant differences between views of teachers from a previous study and superintendents in this study.
DEDICATION

This dissertation is dedicated to my wife and children. My wife Tina was very patient with me as I gave up countless evenings and weekends in pursuit of this degree. Without her support I would not be where I am professionally, would not be able to commit to my job at the level at which I do, and definitely would not have finished this dissertation. I thank her for her love, support and understanding with my doctoral studies and all of my professional endeavors. My children, Sydney, Lucia and Jazmine have also been very supportive and understanding as I sacrificed family time with them, time that we will never get back. Throughout the dissertation research and writing process many weekends were lost, many games weren’t played, many trips that weren’t taken, much attention wasn’t given, and little time was spent with each other. I promise that I will make it up to you. I love all of you and thank you for being patient with me as I pursued this degree. Thanks also to my mother, Carolyn Myers, and my father William Floyd Stepp Jr. I love you both and I hope that your are smiling up there Dad!
ACKNOWLEDGEMENTS

I would like to thank my committee chair, Dr. Harold E. Wilson. Without his constant pushing and encouragement I don’t know that I would have finished the dissertation. Dr. Wilson is a true professional, wise man, and incredibly wonderful person. Few times in life do you meet a genuine person who truly has a heart for the betterment of people, Dr. Wilson is one of those people.

I would also like to thank Dr. Glen Fincher for his work as committee co-chair. He made the statistical analysis seem like it was much simpler than I know it really was. I would like to additionally thank committee member Dr. Jim Van Keuren for his time and commitment to excellence in the dissertation process.

I would like to thank Dr. R. Todd Clifford for the excellent work he did on his dissertation and for his assistance with my analysis of his data and his ongoing assistance throughout the process. I also want to additionally thank Dr. Harold E. Wilson, Dr. Howard Walters, and Dr. Jim Van Keuren for their previous work which served as the basis for the work Dr. R. Todd Clifford conducted and subsequently I conducted in this dissertation.

I also want to thank my colleagues and the Medina City Schools Board of Education for their support and faith in me. A leader is only as good as those who surround him. If I am truly a good leader it is because I have great people supporting me and helping me to make good decisions.

Finally, I would like to thank Dr. W. Greggory Gerrick for his leadership and guidance throughout the years.
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CHAPTER I

Introduction

How is it determined how much a teacher should be paid? Do teachers and those who determine a teacher’s compensation package value the same things? Are there factors that go into determining teacher pay that have no correlation to actual classroom performance? Is it possible that the current system for compensating teachers actually works against the notion of pay as an incentive for performance? Is it possible to design a teacher compensation system that not only rewards top performance, but also meets the mutual expectations of teachers, administrators, and boards of education? For this study, I asked superintendents for their thoughts on teacher compensation. This dissertation is a report of the study of the views and concerns of superintendents, as they relate to teacher compensation factors and their relationship to student performance. This study also compares these findings to findings from a previous study of the views and concerns of teachers, as it relates to teacher compensation factors, and their relationship to student performance.

Background of the Study

Traditionally, teacher salary schedules have been designed by those outside the actual practice of education such as boards of education, political sub groups and leaders, and policy groups. Although their intentions have been
good, the current salary structure in most districts is based upon a unionized model that fails to reward those who are less experienced or perform above and beyond. It also fails to provide consequences for those who under perform. Years ago teachers were grossly under paid for the amount of education they obtained, the amount of work expected of them, and the incredible influence they have on the intellectual, social, emotional and physical development of our nation’s children. As a society teaching has been undervalued in America and the salary schedule, that has historically been negotiated by boards of education and regulated by policy makers, has subsequently reflected that thinking.

A very large majority of salary schedules nationally are primarily based upon two factors: the amount of training a teacher has acquired, and the number of years of teaching experience a teacher has obtained. Because most teachers in school districts belong to a bargaining unit, the salary schedule in most districts reflects the values of an industrial or unionized mentality. In unionized environments, seniority is usually most important and additional education acquired is typically monetarily recognized through incremental increases in salary based on units obtained. Historically, unions have been formed when employees felt as if their employer was taking advantage of the employees or the employees felt as if they were grossly under paid. Because of the historically low pay teachers have received, it makes sense that teachers unionized and, therefore, sought a salary schedule that was consistent, fair and equitable.
Only very recently has there been any thoughtful discussion or study of the mechanics and rationale behind teacher salary schedules. Sawchuck (2009e) provides an explanation of the growing desire to change the current system of pay for teachers. He identifies school districts in New York City, Washington D.C. and Denver as examples of districts that are trying something different with teacher pay in order to attract and retain young teachers. In those districts, they are testing the notion of front-loading the salary schedule, exactly opposite of today’s seniority driven approach, so that the best and the brightest might be encouraged to become educational professionals. This approach toward pay tilts the scale away from financial rewards for longevity and seat time toward increased pay up front and greater increases early and often, based on performance. Sawchuck states that “The driving idea behind front-loaded pay systems is to bring the teacher-development and compensation trajectories together, thus giving beginning teachers the opportunity to win high salaries sooner, and by extension, improving districts’ ability to recruit and retain teachers”.

We have also recently begun to see the economic impact of the current salary schedule on school district budgets. This has been especially true over the last few years as the U. S. economy has struggled, causing the amount of discretionary funds available to individual tax payers to decrease. Ultimately, this economic change has made it harder for the public to give money to schools without first asking why the need is there. This has resulted in a closer look nationally at the system which most districts use to pay teachers. Most pay
systems automatically reward teachers for longevity through what is known as step increases, which are an annual pay increase for length of service. Those teachers who get step increases also qualify for annual base pay increases that are negotiated periodically with their local boards of education or state legislators. These annual salary increases could amount to an increase in expenditures beyond typical cost of living increases experienced by local tax payers. For a school district, this could mean that increases in expenditures quickly outpace increases in revenue, forcing a school district to make repeated requests to their constituents for revenue increases. As a result, voters have become more aware of the current salary structure and more demanding of a change that is more in line with today’s market.

More and more we see a case being made for the need to get the results that the public wants. These results are not only academic, but financial. Slotnik (2009) points out that there is a need publicly to link what educators earn to school finance. He goes on to mention that more than 80 percent of a district’s operating budget goes toward personnel compensation and, as a result, there is a strong push from the public to see a greater tie between these expenditures and the results obtained by the school districts in which these teachers are employed. Pay for seniority is no longer the accepted practice. It appears as if pay for performance is what the public wants for their investment.

There has been little research on teacher or administrator attitudes relative to what should be included in teacher salary schedules. If boards of education or policy makers seek to reform the current practice, understanding
the attitudes of those who work within the system will be integral to the success of such an initiative. Van Keuren, Walters and Wilson (2006) acknowledge that on the surface teacher pay reform seems like a simple concept, but on the inside it is a very complex undertaking. Complex, because the key stakeholders, teachers, want to be a part of creating a new system of pay that will serve as a motivator for all teachers, not just a privileged class. Van Keuren, Wilson and Walters also found that teachers are not necessarily opposed to the idea of performance-based measures, including student achievement, as long as these measures remain in a context where teachers have some direct local control.

To the degree that the factors considered in designing effective teacher salary schedules may serve as motivating factors as well as influencing the attraction and retention of quality teachers, it is important to understand what each group, superintendents and teachers, view as important components of a salary schedule. An understanding of teacher’s attitudes and superintendent’s attitudes toward pay could be instrumental in explaining much about why teacher pay does or does not correlate with student achievement. It could also help us understand the impact of those attitudes on key district decisions such as negotiations. Understanding the superintendent’s attitude toward pay as compared to teachers’ is critical for determining if there may be a gap between each group’s views that could hinder further progress. This study examines superintendent views of teacher compensation and compares those views with previous findings on teacher views of the same.
Identification of the Problem

The primary purpose of this study was to compare a previous study of teachers and their views of salary schedule factors to active superintendent’s views of the same. A survey tool was used to ask active superintendents about their opinions with regard to teacher compensation factors that best represent what teachers actually do to impact academic results. There are three components to the research question. First, *Is there a difference in perceptions about teacher compensation between superintendents and teachers?* Second, *Compared to teachers, do superintendents report differences in what should be included as a component of a teacher compensation system?* Third, *Compared to teachers, do superintendents differ in their level of comfort with reference to the components of a teacher compensation system?*

Significance of the Study

Nationally, salaries and benefits make up approximately 80 percent of a school district’s operating budget (Slotnik, 2009). In many states school districts are financially strapped and unable to generate the necessary revenue to support the programs and services that are needed to provide a quality education for their students. This is partially due to the funding systems that have been put in place by state legislators and the existing salary schedules for teachers. It is seemingly ironic that the place where the greatest academic gain for students can be made is also the place where the greatest investment of resources is made. In both cases that place is in the classroom and is with the teacher. As debate at the local, state and national level heats up over academic
performance and school finance, an understanding of teachers’ perceptions about compensation factors as compared to superintendents’ perceptions may be helpful in developing a system that best meets the academic and financial goals of not only teachers and superintendents, but boards of education, community members, state legislators, and the federal government as well.

**Professional Significance of the Study**

Teacher compensation has been a topic of discussion for many years. Historically teacher pay has lagged behind the pay for professionals with similar training in other areas. For years teachers were provided other benefits, such as excellent healthcare, to make up for the difference in pay as compared to professionals with similar academic training. Now, with the overall academic performance of our nation’s students in question, the increasing costs associated with healthcare, and the assumption that teacher pay has seemingly caught up to other professions, there seems to be a renewed interest in evaluating the system used in the United States to compensate teachers. The movement appears to be away from salary schedules designed to increase pay based on longevity and automatic raises. It appears as if the public is asking for teacher pay to somehow be tied to academic performance in the future. If this is the case, it would appear to be beneficial for those responsible for creating such a structure to understand the similarities and differences in opinion between teachers and superintendents with regard to teacher compensation factors. Better understanding of those similarities and differences will hopefully guide
teachers, superintendents, boards of education and state and federal legislators to make informed decisions about the best use of our limited financial resources.

**An Overview of Methodology**

It was determined that a mixed methods approach was the most appropriate research method to use for this study. The study was primarily quantitative and secondarily qualitative. The quantitative data gathered in the first part of the survey would be enhanced by the qualitative data that is provided in the second part of the survey. When combined, they would provide a good perspective on the views and concerns that the respondent superintendents shared about teacher compensation factors as compared to a previous study with teachers.

It was determined that the most appropriate type of research method to use in this dissertation was descriptive. The study will report on the respondent superintendents’ views and concerns about teacher compensation factors as compared to a previous study involving teachers.

The research method used was a survey modified from a previous study designed to assess teachers’ views and concerns on teacher compensation factors. The first part of the survey was a redesign of a preexisting Likert-scale in a format to capture equal-appearing interval responses on a seven-anchor scale. As was the case with the previous study done with teachers, superintendent respondents were asked to rank order the top five traditional compensation factors from the first part of the survey. Like the original survey of teachers, the second part of the survey then asked for some specific
demographic data of the superintendent respondents and their views on the use of student achievement test scores and progress as measured by these scores as a component of teacher compensation. The research methodology is discussed more in future chapters.

The Limitations of the Study

The study was limited by the fact that the study was attempting to compare data gathered from a previous study on teachers’ views and concerns about teacher compensation factors. The previous study focused on 42 school districts across the state of Ohio who participated in a pilot project for value added training. As a result of the time between studies, many of the superintendents who had been employed in the districts of the teachers who responded to the original study were no longer in the same position. In order to increase the number of surveys returned, superintendents from the original 42 districts chosen in the original study were surveyed, along with similar district superintendents as identified by the Ohio Department of Education.
CHAPTER II

Review of Literature

Can the value of a teacher be measured? Should teachers be paid at the same level as other professionals with the same level of education? Is a teacher worth as much as an accountant, architect, underwriter, editor, registered nurse, or computer programmer? If so, how do we determine their exact worth? If not, to what professions do we align teacher pay? The issue of teacher pay and how much a teacher is worth is an historical one. It is an issue that appears to date back to the earliest days of education within the United States.

From the inception of public education, there seems to have been ongoing difficulty in agreeing on how to measure the value of a teacher. Should teacher pay be based on student achievement? If so, what about the other aspects of a teacher’s job? How will those aspects be evaluated and reimbursed financially? Is a teacher individually responsible for the academic achievement of a child or is it the result of a team of professionals? What do teachers think about their pay? Are they happy with the current system? Is there the need to move from the current system to a different model of compensation?

This chapter will review the current literature on teacher compensation, provide a brief overview of its history, and highlight perspectives from multiple points of view. It will also delve into the role of leadership and how a resonant approach might be the key to success in the area of sustainable compensation reform.
A Brief History of Teacher Compensation

The profession of teaching was probably more profoundly impacted by improvements in work opportunities for women during the 20th century than almost any other profession. Schools had historically enjoyed having a captive audience when it came to the labor pool necessary to fill their needs. Outside of teaching, nursing and social work, women had relatively few options (Allegretto, Corcoran, & Mishell, 2008). Prior to the middle of the 20th century the profession of teaching relied on a variety of systems to lure women into the practice. In the early 19th century, America saw a change in human mobility. Movement over canals, rivers and rail enabled settlements in rural areas to prosper. From this movement emerged the one-room schoolhouse and the room and board compensation model, whose design was influenced by the agrarian culture of rural America (Podgursky & Springer, 2007). In this model the teacher would receive a small stipend as well as room and board by moving periodically from student home to student home. The theory behind the room and board compensation model was to attract and retain high quality teachers, while monitoring their ability to instill a sense of community, moral character and book learning (Tyack, 1975).

As the economy in the United States shifted from an agricultural foundation toward industrialization so did the role of elementary and secondary public education. The public education system was retooled with a focus on producing effective citizens, uniting society and working to prevent crime and poverty (Springer, 2009). This new economy brought greater demand for skilled
workers and a better educated labor force. Because of the higher expectations placed on the work force, teacher compensation was redesigned to attract candidates who could meet the needs of industrialization. The new teacher compensation model was designed to be very similar to the production model used in factories in the late 1800s. The new system for compensating teachers became known as the grade-based compensation model. The grade-based compensation model paid teachers for the level of skill needed to educate children at a specific point in their schooling. As a result, elementary teachers were paid less than secondary teachers because of the belief that elementary-age children were easier to educate and therefore less formal training was required to teach at that level (Podgursky & Springer, 2007). As noted by Springer (2003), the grade-based model of compensation sometimes included an additional monetary award in the form of merit-based pay which was typically triggered by annual performance reviews. Springer adds that these early models of merit-based pay many times carried with them gender and racial inequities.

As the industrial revolution progressed at the turn of the century, so did teacher compensation models. Labor leaders began to push management and owners for better working conditions and higher pay. Negotiations on behalf of workers began to play out all over the world as workers unionized at an increasing rate. Egalitarian policies in conditions and salary not only influenced factory worker pay, but also spilled over into teacher compensation (Kerchner, Koppich, & Weeres, 1997). Like in factories, scientific management began to be reflected in the operation of schools. Scientific management described a
formalized hierarchical structure. This structure in schools saw the superintendent making decisions and then delegating responsibility for them to district level administrators and principals. Teachers under this model of management were expected to follow the rules and implement a curriculum that was virtually teacher proof (Kelly, 1997). Around this same time the women's rights movement pushed for equal pay for equal work. As a result of this movement, school systems followed suit and began to adopt systems of compensation that were more egalitarian in nature.

In the early 1920s school systems in Denver, Colorado, and Des Moines, Iowa, adopted the single salary schedule, which has since become the primary model for teacher compensation (Springer, 2009). The single salary schedule, originally called the position automatic schedule is a system designed to ensure that teachers with same level of experience and education receive the same level of pay, regardless of the grade level taught. This system of uniform pay typically bases salaries on a fixed schedule that only takes into account years of experience and the level of education gained (Dee & Keys, 2004). The purpose of the single salary compensation schedule was to promote longevity within a school district and provide a strong incentive to teachers to seek additional education (Johnson & Papay, 2009). This type of pay structure fit into the then current scientific management model of leadership that valued authority and scientific expertise (Kelly, 1997). Because of its egalitarian design, by 1950 nearly 97 percent of all schools had adopted the single salary schedule (Sharpes, 1987). By the mid 1980s nearly 99 percent of teachers in the United
States worked within a school district that employed the use of a uniform salary schedule as the primary model for teacher compensation (Cohen & Murnane, 1986). While the single salary schedule ushered in an era of equality with reference to approaches to teacher pay, it has not brought teacher compensation to a point of pay equality with similar professions (Allegretto, Corcoran, & Mishell, 2008).

Recently, teacher pay has received much criticism for its lack of market sensitivity and apparent lack of correlation with student achievement. The most prominent critique of the single salary schedule is that it standardizes pay which then deprives managers of a management tool, adjusting compensation based on performance (Podgursky & Springer, 2007). The single salary schedule was constructed to provide financial awards to teachers for their longevity and their skills and expertise. At the time of its inception these goals were aligned to the scientific management model of leadership. As a result of this leadership model teacher salaries remained relatively low since teaching was not considered a highly skilled position (Kelly, 1997).

Today, the overwhelming majority of public school districts in the United States grant increases in pay to teachers using a uniform salary schedule. This schedule essentially grants the same pay to teachers who have the same level of education and years of experience, regardless of specialized training, field of expertise, work environment or actual job performance (Goldhaber, 2006). In all, states spend nearly $8 billion annually compensating teachers who hold an advanced degree in any subject. Districts in every state grant teachers who hold
a master’s degree additional compensation in the form of stipends on top of their base salary or pay in the form of “lane” increases (Sawchuk, 2009d). Recently, the single salary schedule has been widely criticized for failing to acknowledge prevailing market demands for teachers who are experts in their content areas and not rewarding teachers for their performance and productivity. It is believed that the single salary schedule discourages high quality individuals from entering and remaining in a teaching career (Dee & Keys, 2004). In a recent Education Week article (Sawchuk, 2009e), New York City Schools Chancellor Joel I. Klein says that “You want to allocate your money in a way that attracts new talent and rewards excellence.” Chancellor Klein went on to further say that “The two things most school systems pay for are longevity and seat time, neither of which has had any proven value.” Chancellor Klein’s comments seem to be supported by research. Hanushek (2003) found that the currently employed input policies in countries like the United States are turning out to be failures. Current input policies include monetary awards for inputs such as experience and advance degrees, both components of the single salary schedule.

Teacher Compensation and Public Policy

Over the last few decades there seems to have been a sharp increase in the amount of interest in education reform, especially with regard to teacher pay (Dee & Keys, 2004). Teacher compensation, teacher quality, and student achievement have been in the public policy spotlight ever since Sputnik rekindled public interest. The release of the “Equality of Educational Opportunity Study” (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966) in
1966 deepened public interest even more. Coleman et al. found that student achievement had less to do with the classroom and the school and more to do with the home environment. A few years after the “Equality of Educational Opportunity Study,” the National Commission on Excellence in Education (1983) released “A Nation at Risk: The Imperative for Educational Reform.” “A Nation at Risk” proceeded to shine a negative light on public schools and raised concerns about student academic achievement and America’s educational progress. This report brought greater public awareness to the nation’s academic standing globally and shined light on issues of academic mediocrity and the likelihood that for the first time in generations other countries were poised to match and even surpass the educational attainment of students in the United States. “A Nation at Risk” also emphasized the need for high quality teachers. As a result, the commission recommended that standards be raised for teacher education and licensing, a practice that has been found to have little impact on attracting and retaining high quality teachers (Ballou, 1997). Some authorities contend the best way to increase the quality of instruction would be to do the opposite of the commission’s recommendations and lower the barriers to becoming a teacher and link compensation and career advancement more tightly with student performance (Hanushek, 2007).

Because of studies like the “Equality of Educational Opportunity Study” and “A Nation at Risk” greater attention was given to educational outcomes at the federal level. Because of the growing concern for student achievement nationally, Congress passed the No Child Left Behind Act of 2001 (U.S.
Department of Education, 2002). The No Child Left Behind Act expanded the reach of the federal government by mandating accountability measures that have impacted virtually every school district across the country. Because Congressional Members were frustrated with what they saw as minimal efforts to reduce the achievement gap, they designed the No Child Left Behind Act with the goal of forcing schools to focus on the academic achievement of groups of students: mainly those who were economically disadvantaged, minority and learning disabled (Ganson & Shaul, 2005). As a result, states were mandated to develop data systems to track progress of all students and meet standards as outlined by the No Child Left Behind Act.

The last 40 years of education reform efforts have primarily focused on the development of curriculum standards, assessments and school level reporting mechanisms. Unfortunately, most of the previous efforts to develop policy to reform education overlooked the most fundamental unit of change, the classroom and the teacher (Hindman, Stronge, Tucker, & Ward, 2007). Today, there is a renewed interest in continuing the push toward higher levels of academic achievement. The American Reinvestment and Recovery Act of 2009 (U.S. Government, 2009) brought with it the “Race to the Top” initiative. “Race to the Top” is a federally funded competitive grant program designed to encourage and reward states that are creating educational innovation and reform (Ohio Department of Education, 2009a). “Race to the Top” primarily focuses on standards and assessment, data systems, great teachers and great leaders and
low achieving schools. The goal is to entice states to move more rapidly to change by offering large sums of money for these efforts.

Unlike previous federally funded initiatives, “Race to the Top” only rewards those states that commit themselves to the program expectations. As a part of the program, commitment must be documented all the way down to the local education agency in every state seeking funds. Based on documents provided by the Ohio Department of Education (2009a), “Race to the Top” not only encourages innovative thinking in the traditional areas such as improved curriculum standards and student assessment, student growth and achievement, student data analysis, educator professional growth and development, student support and educational resources, but it also encourages experimentation with alternative compensation methods that are designed to reward performance based on evaluations. As a result of this most recent initiative it appears as if public policy is moving to align teacher pay with student achievement, a charge that the single salary schedule, which rewards characteristics that are not closely related to learning, does not effectively address (Hanushek, 2007).

While the federal government is concerned with performance results, the public at large is also concerned with teacher salaries from a cost control point of view. In many states, teacher salaries have a major impact on the local tax burden. When teacher salaries change as a result of newly negotiated labor contracts or as a result of a tax levy to support the schools, so does the tax burden placed on residents of the school district change (Buster, Delli, Miller-Smith, & Young, 2004). School board members are also concerned from at least
two perspectives: they want to be fiscally responsible, while at the same time they want to increase the quality of teachers so that student performance results continue to increase. Teacher concerns about salaries center on the exchange relationship with the district. In exchange for their services, they hope to receive a fair salary that enables them to enjoy a quality of life similar to those who live within the marketplace (Buster et al., 2004).

Understanding the need to achieve greater and greater performance results, teachers unions are facing extreme pressure not only locally, but also at the federal level. Recently, Secretary of Education, Arne Duncan, spoke at the annual meeting of the National Education Association and asked them to reconsider seniority provisions, rework tenure provisions, and work with districts to find fair ways to incorporate student achievement growth into the teacher compensation and valuation systems in all schools across the country (Sawchuk, 2009b). Education Secretary Duncan went on to criticize the current system of pay, the single salary schedule, because it rewards teachers for earning credentials that do little to improve the quality of teaching in America’s classrooms. At the same time, he expressed concern for teachers who get little if any financial recognition for going the extra mile to do what they can to improve student achievement.

**Single Salary Schedule**

Many of the school districts in the United States presently utilize a two dimensional salary schedule in which salary increments are based on experience, also known as step increases, and educational level or training, also
known as lane changes or seat time (Shaw, 1985). The single salary schedule contrasts with the model for pay in most other professions (Springer, 2009). As a result, parents and community members are beginning to wonder why such a system continues to exist, especially if there is little or no correlation between the current system of compensation and student achievement (Hanushek, 2003).

With the recent downturn in the economy greater attention is being drawn to the single salary schedule and the automatic increases in pay awarded to teachers regardless of performance (Candinsky & Siegel, 2009). These concerns are supported by Kane, Rockoff and Staiger (2006) as they found little growth in student achievement with those students who had teachers who had more than a few years of experience. They also found little or no difference in average teacher effectiveness of certified or uncertified teachers. The importance of their findings highlights the concerns expressed by other researchers with regard to inputs such as certification, grade point average and years of experience being used to determine teacher effectiveness. If the objective is to improve student performance, then the focal point of policy should be on those factors that impact student performance, such as the teacher. After all, those teachers near the top of the quality distribution have been found to get an entire year’s worth of additional learning out of their students as compared to teachers who are near the bottom (Hanusheck, 2002).

The practice of compensating teachers equally based on input requirements such as years of experience, certification, and the attainment of college credit has not only been found to have little correlation to student
achievement, but there is plenty of evidence that the currently employed input policies are failures (Hanushek, 2003). Hanushek (2002) goes on to say that there is evidence to suggest that current compensation practices may act more like a ceiling on teacher quality than a floor. He adds that current input requirements almost certainly act to reduce the supply of teachers by cutting down those who may desire to enter the field. This notion is supported by Ballou (1997) in his study of policy initiatives of the eighties. Ballou found that higher salaries actually reduced the quit rate of teachers, diminishing the number of job openings available and therefore reducing demand for new teachers. He also found that declining demand has discouraged prospective teachers from entering the field. In theory, one would think that by raising salaries one could attract a new group of teachers into the profession, thereby raising quality. Reality has shown that raising salaries only increases teacher quality if those that are attracted and retained are of a high quality. Therefore, a better policy approach would be to focus on administrator accountability when it comes to teacher hiring and evaluation and student performance (Hanushek & Rivken, 2007).

Hanushek (2002) found that a good teacher will get a gain of one and one half grade-level equivalents in student achievement, while poor teachers will achieve as little as one half a year’s equivalent for one academic year. Ballou (1997) examined data gathered from the National Center for Educational Statistics on the make-up of the teaching work force to try to ascertain whether or not an increase in teacher salaries resulted in higher quality teachers between
the early 1980s and the early 1990s. As a result of his study, Ballou was unable to find a relationship between an increase in salaries and an improvement in the quality of teachers as measured by an increase in those who attended selective schools, graduated with degrees in math or science, or majored in a specific subject area. In a different study of pay and teacher quality, Figlio (1997) found that school districts in metropolitan areas that paid higher teacher salaries tended to attract higher quality teachers. He also discovered that metropolitan areas where teachers are paid more tend to have higher levels of teacher qualifications. Figlio’s determination of teacher quality was based on a district’s ability to attract undergraduates from selective colleges with significant subject matter expertise.

**Rethinking Teacher Compensation**

The single salary schedule was designed in an era when teachers were believed to have had a fixed set of skills much like the general laborers who were employed to work in a scientific management driven industrial environment (Kelly, 1997). The current most popular policy proposals in the US are likely to lower teacher quality than improve it (Hanushek, 2003). Hanushek argues that raising the certification requirements to become a teacher, requiring master’s degrees, testing teachers on specific knowledge, and requiring specific kinds of undergraduate degrees will do little to improve teacher quality and student achievement. However, a new conceptual model of schooling has emerged with a view of teaching as a complex task with high demands for individuals who are content specialists, skilled in pedagogy, leaders in their classroom and schools,
and understanding of the complex issues surrounding student achievement (Kelly, 1997). This kind of model requires a change in current policy and a movement toward an outcomes based approach toward identifying high quality teachers (Ballou, 1997).

**Teachers and Working Conditions as a Motivator**

Although much focus has been placed on teacher pay and teacher effectiveness, some researchers are also finding evidence that working conditions may have as much to do with morale as pay. Podgursky (2002) found that there was considerable variation between schools and their working conditions. Podgursky (2003) went on to conclude in a later study that if pay is equalized while conditions are not, then teacher quality will also not be equalized. Podgursky discovered that teachers will move between schools and districts in an effort to improve working conditions, especially if pay is the same. In his estimate, the single salary schedule will work to lure high quality teachers away from working conditions that are less attractive than others, leaving the least experienced and possibly lower performing teachers in the buildings with the poorest conditions. Attrition rates are a concern for districts with hard to serve students. High teacher attrition rates have been found to lead to lower student test scores (Imazeki, 2004). Imazeki found that attrition rates out of districts that lose teachers to other districts can be offset by increasing salaries of beginning teachers. This may be especially true for teachers in rural areas. Unlike other professions, teachers are in a profession that requires them to be dispersed over a wide geographic area. Although professionals in other career
areas can locate themselves near metropolitan areas where pay may be higher, teachers must many times locate themselves where the children are located. Taylor (2006) discovered that while teachers are evenly spread throughout the country, professionals in other occupations are not. As a result, teachers in rural areas made significantly less money than other college graduates. Taylor found this to have a negative impact on teacher attrition rates.

Teachers and Pay as a Motivator

Recently, policy makers have been revisiting the idea of using pay as a motivator for teachers to reach specified academic achievement goals (Ohio Department of Education, 2009b). Lavy (2007) found that merit-based pay initiatives were intended to solve the twofold problem of motivating teachers to perform at a higher level while at the same time attracting and retaining high quality teachers. He believes that the implementation of a performance based incentive should have a positive effect on the organization. Lavy also believes that well designed individual-based incentives can significantly improve student outcomes. Kingdon and Teal (2007) found support for Lavy’s belief in their study of the effects of merit-based pay with private schools. They found that private schools that relate pay to student achievement have seen an improvement in student achievement as a result of that relationship. Though the gains in student outcomes may be significantly improved through a merit-based compensation system, Lavy warns that these incentives can lead to unintended consequences such as measurement issues or teachers directing their efforts exclusively to the focus of the rewards. Goldhaber (2006) found support for these findings in his
research for the Center for American Progress. He expresses a concern that performance incentives have been shown to result in teaching to the test and individualized behaviors, which can create a narrow curricular focus and a lack of collaboration.

Cohen and Murnane (1986) equate the new style merit-based pay system to what economist and business managers refer to as the piece-rate compensation system. They believe that teaching does not necessarily satisfy the conditions under which this type of compensations system is most effective. They express concern that a system that places greater compensation value on a few specific areas over others risk jeopardizing the overall results of the organization. Cohen and Murnane also believe that under this type of compensation system teachers will focus on the goal and push aside other important aspects of education such as team work, collaboration, supporting students in the middle academically, and eliminating drug use in schools. They believe that merit-based pay will lead to teachers closing their doors and focusing on individual results as opposed to the greater good of the organization.

In their study of two districts that have used merit-based pay for an extended period of time, Cohen and Murnane (1986) found that the merit-based compensation system has a tendency to strain relationships between teachers and administrators. They believe that this apparently happens as a result of the change in evaluation behavior due to a more aggressive level of reporting that is necessary with performance related pay. In their study, Cohen and Murnane found that administrators had previously utilized the evaluation system as a way
to motivate good teachers to move to the next level by inflating their evaluations and using it as a form of encouragement. Because of the financial ties to the evaluations, they report that the merit-based compensation system essentially lowered the overall performance evaluation of teachers from previous years. Administrators reported that they could no longer use evaluations as a tool to motivate teachers and therefore found it difficult not only to move good teachers to the next level, but even more difficult to explain the change in evaluations. Cohen and Murnane also found that administrators struggled to explain to good teachers how they were so different from those who were perceived to be great teachers. These changes in evaluation behavior can lead to serious issues with regard to teacher support for the system. In a study of teacher perceptions of merit-based pay, Clifford (2009) identified trust and the quality of the evaluation as serious concerns. Lavy (2007) also found evidence to suggest that a lack of transparency in the merit-based pay distribution process could also create unfair competition among teachers.

Cohen and Murnane (1986) express concern that a merit based pay system that brings about modest increases in teachers’ effort may not be worth the cost of the measures that must be taken to evaluate performance. They worry that as a result of the narrow and intense focus of the merit-based pay system, there may be incentive for teachers to minimize the time spent with children whose scores will not react to modest increases in attention. They also fear that of the narrow focus of merit-based pay it will create a culture of individualism as opposed to a culture of teamwork. When the focus is on what
individuals need to do to increase pay, the desire to work as a team may be reduced. In a study of the merit-based pay systems in the Charlotte-Mecklenburg District and in Kentucky, Heneman and Milanowski (1999) revealed that teachers did not feel that their motivation to work harder would be much different if the current merit-based pay award were eliminated or tripled. They also found that teachers were most motivated when the merit-based pay award was coupled with recognition for meeting goals and their ability to realize the fruits of their labor in the development of their students or colleagues.

While there is much debate about the merits of a performance-based compensation system, the single salary system of compensation for teachers is acceptable to teachers, preferring it to any kind of change (Clifford, 2009). Clifford found that teachers perceive the system as being fair and impartial. In a study of teachers in the UK and Wales, Farrell and Morris (2009) found that teachers were strongly in support of the notion that they should continue to be paid according to a nationally determined scale and that teacher pay should take into account their extra duties. They also found that nearly two-thirds of teachers surveyed disagreed with the sentiment of relating pay to performance was a good one (Farrell & Morris, 2009). However, they did find that teachers were receptive to different pay based on experience and duties. With reference to retention, recruitment and motivation, Farrell and Morris found that the great majority of teachers disagreed that merit-based pay would have an impact on any of them in those areas.
Perceptions of Merit-Based Pay

In order for any attempt at restructuring teacher pay to be successful, teacher buy-in will need to be a key part of the reform. Although there is evidence that the single salary schedule does little to impact student achievement (Hanushek, 2003), teachers do appear to favor the current single salary compensation system. Van Keuren and Wilson (2003) found teachers to favor the single salary schedule because they believed that it pushed teachers to stay current and upgrade their skills. They also found teachers to be supportive of merit-based pay as long as it is fair and equitable. The teachers in their study also agreed that no one individual was responsible for the academic success or failure of a student. Van Keuren, Walters and Wilson (2006) found additional support for these findings in a follow up study with a different group of teachers. Clifford (2009) also found it to be clear that teachers do not want their pay to be subject to the uncertainties or perceived uncertainty of a compensations system that relied on student performance on state mandated achievement tests. He discovered that teachers were more comfortable with a teacher compensation system that was locally controlled and measured factors they felt they had some direct influence on.

Policy makers have argued that performance-based pay could be used as a tool not only to lure prospective teachers into the profession, but also retain those currently employed. In a study of Texas public school teachers, Hanushek, Kain and Rivken (2004) found that teacher transitions are much more strongly related to student characteristics than to teacher compensation
differentials. They found this to be especially true for female teachers. In their study, they found transition rates in schools that achieved in the bottom quartile to be much higher than those in the upper quartile. This would imply that students in lower achieving schools are much more likely to experience a higher rate of teacher turnover than their peers in higher achieving schools. Hanushek et al. also found that the probability of teachers switching schools as a result of pay to be a more likely factor than a teacher leaving the profession altogether. Through their research they discovered that strictly raising teacher salaries as a way to address teacher transitions was not as effective as improving working conditions. Hanushek et al. discovered that raising salaries across the board was as effective at keeping low performing teachers on longer as it was high performing teachers. When high performing individuals receive the same merit-based pay awards as their coworkers who tend to perform at a lower level, they are most likely to quit their jobs and begin seeking employment elsewhere, as opposed to seeking resolution in other ways (Honoree & Terpstra, 2005).

Honoree and Terpstra also found that in response to merit-base pay inequity, men were more likely to increase quantity at the expense of quality, supporting Cohen and Murnane’s (1986) piece-rate compensation system theory.

**Teachers and Merit-Based Pay**

A negative shift in teacher morale as a result of a change from the single salary schedule to a merit-based pay system has to be a concern of any policy maker or administrator who is considering such a move. Mathis (1959) found no difference between teacher morale in schools where merit-based pay was or was
not employed as a form of compensation. He also found morale to be impacted by a multitude of other factors in the school environment acting together with or aside from a merit-based compensation system. In a study of hospital employees and their attitudes toward a merit-based raises Bowler, Duffy, Lockhart, Mitra and Shaw (2003) found no correlation between merit pay raises and the intention to work harder with staff that possessed high positive affectivity. Staff that had a low positive affectivity was found to have a positive correlation between the desire to work harder and the size of their merit pay raise. This finding may imply that employee happiness could have an impact on the success of a merit-based compensation system. Heneman and Milanowski (1999) found teachers in the Charlotte-Mecklenburg School District and teachers in Kentucky who participate a merit-based pay program to rank merit pay as one of their top three and top five most desirable outcomes respectively. They concluded that merit-based pay raises were ranked highest when they were coupled with gaining personal satisfaction from improved student performance and satisfaction from having students learn new skills.

In order to understand the impact of a compensation system on employee morale an understanding of reflective theory is helpful. Reflective theory is the study of an individual’s perception of about where he/she stands in relation to internal and external comparisons. Theirry (2001) theorizes that people within an organization look at their pay in much the same way they look into a mirror. Just as a mirror reflects an image of the physical self, allowing a comparison with the physical human world, pay can be reflective of a person’s worth to an
organization or society by the comparison made to others internally and externally. They found that employees regularly scan their work environment for information and changes, with the purpose of restoring, maintaining or enhancing their own self identity. The process of scanning generates a sense of where a person stands internally and externally when it comes to pay. Trevor and Wazeter (2006) found a positive association between external pay standing and pay equity perceptions when internal pay standing was low. They also found that pay equity may be in the eye of the beholder as much as anything. If employees believe that a fair pay comparison is being made they are much more likely to have a positive perception. Duffy, Scott and Shaw (2008) found that employees receive meaningful information about their value to the organization when they perceive merit-based pay increases to be closely related to performance. Duffy et al. find this to be especially true with older employees. Through their research they discovered that older individuals may be especially injured if they fail to see how behavior relates to outcomes. Under certain conditions large merit raises may not only fail to meet their intended goal, but in terms of organizational self-evaluations they found merit raises to be destructive.

In a study of the restricted-access Schools and Staffing Survey, Belfield and Heywood (2008) analyzed data to determine if performance pay served as a long term motivator for teachers. They also wanted to determine its impact on total pay and job satisfaction. Belfield and Heywood found that those who worked cooperatively increased the likelihood of receiving performance related pay, but failed to find that overall job satisfaction increased as a result of
receiving merit-based pay. Their study proved that teachers who receive merit-based pay received larger earnings, not necessarily greater satisfaction from receiving additional money. Belfield and Heywood also found that women receive lower earnings and report greater job satisfaction, while union members receive higher earnings but report lower satisfaction when earnings are controlled.

**Unions and Merit-Based Pay**

In the 1890’s the National Education Association Committee of Twelve on Rural Schools worked to facilitate the process of consolidating rural districts into larger school districts for efficient operation and standardization of services and programs (Protsick, 1995). Today, the National Education Association (NEA) is the largest teacher union in the US and has consequently expanded its influence, serving as an advocate for uniting education professionals for the purpose of fulfilling the promise of public education (National Education Association, 2009a). As reported in *Education Week* (Sawchuck, 2009b) the issue of merit-based pay and evaluation continues to grow for the NEA. Delegates at the NEA’s annual Representative Assembly expressed concern that merit-based pay was perceived by them to be union busting. Officially, the National Education Association (2009b) supports pay bonuses for teachers who hold advanced certification from the National Board for Professional Teaching Standards, for members who take on additional responsibilities and for teachers in hard to serve schools. NEA is opposed to the use of merit-based pay for performance pay compensation systems. NEA also believes that the design of
any compensation system must be accomplished through the use of the collective bargaining process, that compensation beyond the single salary schedule should not be based on employee evaluation or student performance, and the opportunity to acquire additional pay should include limits on the number of employees who are eligible.

The American Federation of Teachers (AFT) has a similar purpose to NEA, but has a slightly different perspective when it comes to performance pay. In 2001, based on the work of its Task Force on Professional Compensation for Teachers, the AFT executive council approved a landmark resolution that called for enhancing the existing compensation schedule (American Federation of Teachers, 2009). The resolution was aimed at exploring “viable, fair and educationally sound teacher compensation options that will raise salaries while contributing to efforts already under way to assure high-quality, well prepared teachers for all students.” The motivation behind the new direction of the 2001 resolution was most certainly fueled by former AFT president Albert Shanker. Shanker believed that the single salary schedule served as a barrier for teachers being compensated like other professionals. Even though AFT appears to be open to considering alternatives to the single salary schedule, AFT “wholeheartedly rejects” any merit-based pay plans that resemble those that have previously been offered.

Historically, industrial unionism was characterized by three hallmarks: separateness of labor and management, adversarial labor-management relations, and self interest and the protection of teachers (Koppich, 2005).
Koppich believes that focusing on matters of teaching beyond salaries and benefits, such as improving the quality of teaching and learning, is good for the union and good for the district. Although the two major unions say they officially endorse merit-based pay, the evidence suggests that in practice they remain opposed and that their opposition has obstructed the progress of merit-based pay in the public school sector (Ballou, 2001). Ballou found a strong, inverse relationship between the use of merit-based pay and the role of union influence; Districts with collective bargaining agreements are less likely to embrace merit-based pay. He also found that there was a marked union effect on the survival rate of merit-based pay plans, with plans less likely to survive in districts with collective bargaining. Despite union opposition to merit-based pay, it is not clear that teachers themselves object to such systems (Lavy, 2007). Van Keuren, Walters and Wilson (2006) found that teachers were actually receptive to performance-based teacher evaluations that included classroom level student achievement factors as long as they were included in the development process and the compensation factors were kept at a level that they felt they could influence and control.

**Legal Consideration of Merit-Based Pay**

It has been reasoned that if those teachers who are more competent and capable are paid significantly more than their less able colleagues, the less competent educators will improve their performance or leave the profession. As a result, more competitive salaries can be offered to attract and retain high quality teachers. To accomplish this task, merit-based pay has been suggested
as an alternative to the single salary schedule. To provide the intended incentives to teachers, merit-based pay programs must be designed to provide pay increases to all teachers who meet the evaluative criteria. Like any good reward system, there should not be arbitrary limits to the number of teachers who are eligible for the monetary award. Although the courts have not weighed in heavily on the application of merit-based pay programs, merit-based pay can present some potential legal challenges if not implemented properly (Shaw, 1985).

Even though courts in some states have determined that merit-based pay is not a wage because it does not necessarily require extra work (Springer, 2009), there is still reason to believe that there is an expectation of fairness when it comes to the distribution of merit-based awards. The Fourteenth Amendment, when applied to the education setting, suggests that at the outset, salary increases to teachers must be administered in a manner that provides for due process (Shaw, 1985). The Fourteenth Amendment goes on to imply that evaluative criteria must also be designed in such a way as to guarantee that the classification of teachers will rest on a rational basis so that all teachers are accorded equal protection. This is especially true for teachers with tenure, as they have a property interest inherent in their expectancy of reemployment. Tenure teachers have been granted protection from arbitrary termination, demotion, transfer and reductions by a number of courts. Tenure law essentially prohibits the removal of a teacher without just cause. Shaw finds that it has also been determined that the arbitrary transfer of a tenured teacher to a position that
is less prestigious or of less dignity can be a violation of a tenured teacher’s rights.

Desander (2000) found that one of the primary complaints by teachers of the evaluation process was fairness, especially when the evaluation was being used for promotion, termination or the determination of merit-based awards. Because of the property interests of tenured teachers, it is imperative to develop evaluation criteria that is concise, succinct and well communicated so that teachers have a clear understanding of what is expected of them. He believes that clearly defined evaluation systems can reduce the chance of challenges to personnel decisions that are based in whole or in part on performance evaluations. When making a decision on merit-based pay, the evaluator must provide the teacher with a notice of any decision regarding merit based pay, an explanation for the basis of the decision, and an opportunity to contest the decision.

Another potential legal threat to a merit-based pay evaluation program is the reliability of the evaluator. If teacher attitudes and perceptions reflect a lack of confidence in the system and the administrator’s ability to perform fair evaluations, the potential for legal challenges based upon evaluator incompetence becomes more likely (Desander, 2000). Evaluator incompetence has been known to lead to false statements, over generalizations, exaggerations, and malicious misrepresentations in the evaluation. To the extent that such statements tend to be defamatory, the issue of tort liability for libel or slander is raised (Shaw, 1985). Desander has found the possibility of such issues
becoming a reality increase when due process is not followed and when proper notice of standards, expectations, process, and deficiencies are not properly provided. The fairer and clearer the standards used to award merit-based pay, the less likely it will be that the program will be subject to litigation and the more likely the program will be supported by teachers (Springer, 2009).

**Merit-Based Teacher Compensation Models**

The current system of teacher pay has been criticized because of its one size fits all approach toward compensating teachers and its apparent inability to serve as a motivational tool (Hanushek, 2003). Finding a system of pay that is not only fair and equitable to teachers, but also acceptable to policy makers and school districts and the public has been a challenge. While the two dimensional single-salary-schedule has withstood the test of time, research is showing it to be somewhat ineffective as a tool to be used by administrators to motivate teachers (Cohen & Murnane, 1986). Research has also found the current uniform system of teacher compensation that many districts in the United States employ has little if any impact on student achievement (Hanushek, 2003). Because teachers on the higher rung of the salary schedule have not been found to be uniformly better, it underscores the considerable challenge in designing a system of pay that rewards quality in a fair and equitable fashion (Dee & Keys, 2004). Due to studies like “A Nation at Risk” and many of the drawbacks of the single salary schedule, policy makers have begun to search for alternatives to the uniform salary schedule (Ohio Department of Education, 2009).
Merit-Based Pay: Lessons Learned, Future Directions

Many of the current programs designed to differentiate teacher pay based on performance generally contemplate either increasing the salaries of the qualified teachers without altering their teaching duties or basing the specified increases on the teacher’s acceptance of additional curricular responsibilities or supervisory duties (Shaw, 1985). Most of the current merit-based pay systems have a salary schedule to which pay is added and such a system appears to be of little interest to a large percentage of teachers (Cohen & Murnane, 1986). Systems of differentiated pay that add to the existing uniform salary schedule have been endorsed by unions because of their objectivity in distribution and equal opportunity approach toward pay (Koppich, 2005). While this loose form of merit-based compensation is not exactly what may be in use in the private sector, it does show that boards of education, administrators and teachers are aware of the public desire to link performance with pay (Sawchuck, 2009c).

Much of the push to create a compensation system that impacts teacher performance and ultimately student achievement has been based on research that has shown that a variation in teacher quality is great from teacher to teacher and year to year, and that such a variation can result in a difference in student growth of up to 4 percentile points in one year (Hanushek, 2003). The design of performance based pay incentives is complicated because many incentive structures result in the realization of unintended and undesirable consequences (Hanushek, 2002). Because of the complexity of measuring teacher performance and the opposition of unions to merit-based pay programs, most
pay reform efforts have failed to take hold in most school districts (Goldhaber, 2006). Kelly (1997) found that many merit-based pay plans failed because they were built on the false assumption that individual teachers controlled the processes necessary to improve student outcomes, when in reality, effective learning environments are highly collaborative enterprises.

**Merit-Based Compensation Examples**

Understanding the motivation behind finding an alternative to the single salary schedule and the complications of pay reform using a merit-based pay system many school districts have sought compensation models that would meet their performance expectations, while at the same time satisfy the differing needs of the public, policy makers and their teachers. In many cases, the design of a merit-based pay system is such that incentives are of little interest to a large percentage of teachers (Cohen & Murnane, 1986). Cohen and Murnane have found that the public seems to like merit-based pay systems because the system contributes to the perception that teachers are being held accountable. Public policy has also been impacted by recent research showing that the learning curve for new teachers is steep but compressed, resulting in rapid improvements early with much slower improvements noticed after the first five years (Sawchuck, 2009e). Understanding these issues school districts have worked to design different models of teacher compensation that better address the needs of all stakeholders.
Denver Public Schools.

The Denver Public Schools and the Denver Classroom teachers Association reached agreement in 1999 on an alternative to the uniform system of pay for teachers. The new alternative plan, known as the Professional Compensation System (ProComp), was designed to link pay to student achievement and the professional evaluation of teachers. In the spring of 2004, following the pilot of the program, the school system formally adopted the program. ProComp was designed to be weighted toward a knowledge and skill based approach toward pay with supplements for student growth and market incentives for hard to teach students and hard to staff schools (Podgursky & Springer, 2007). Under the plan teachers could earn the largest bonus for obtaining National Board for Professional Teaching Standard certification. The second largest award comes from excellence in professional evaluation.

Manitowoc Public School District.

In 1999 the Manitowoc Public School District in Manitowoc, Wisconsin, and the Manitowoc Education Association collaborated on a new approach to teacher compensation from the traditional single salary schedule. The new system was similar to Denver’s widely publicized ProComp initiative that combined a complex compensation system with a set of base pay bonuses for teaching in high needs schools, raising student achievement and taking part in professional development (Sawchuck, 2009e). Manitowoc’s plan was similar to Denver’s, but different in that it was designed to encourage and reward the acquisition of specific new teacher skills and knowledge that both parties agreed
would result in enhanced student achievement (Carlson, 2006). The district has seen what appears to be a correlation between the number of teachers acquiring new skills and knowledge and the performance on certain standardized test scores, although no empirical evidence has been linked to this assumption. Carlson reports that under the newly designed system teachers would move between lanes toward higher compensation, but unlike the traditional uniform salary schedule teachers would have to meet certain criteria based on the development of new skills and the acquisition of knowledge. Movement between lanes was now controlled by meeting expectations for growth based on more specified criteria as opposed to the simple system of longevity and seat time. As a result, within six years the district realized a 21% increase in teachers with master’s degrees, 20% of its teachers enrolled in district driven professional development, a 100% increase in teachers with National Board Certification (0-12), and a decrease in teacher turnover by almost 10%. The district has also noticed a significant increase in overall 3rd grade student achievement, although more research is needed to validate the relationship between the changes in the compensation system and the corresponding impact on student achievement.

**Tennessee's career ladder compensation system.**

As a part of the Comprehensive Education Reform Act of 1984, the state of Tennessee implemented a merit-based compensation system known as the Career Ladder Evaluation System. The system blended salary rewards with non-monetary benefits such as increased professional responsibilities. Unlike merit-based pay systems that award teachers more money for doing the same
work, which has been found to lead to resentment, low morale and uncooperative behavior, the Career Ladder Evaluation System emphasized professionalism (Dee & Keys, 2004). Tennessee’s career ladder did not limit the number of teachers eligible and worked to address teacher concerns of equity and fairness about the assessments by relying on several data points. Tennessee’s Career Ladder Evaluation System consisted of five stages and possessed a fast track option for those who had been teaching prior to its implementation. The career ladder model moved teachers through stages based not only on experience and recommendations from mentor teachers and favorable reviews by the district based on state criteria, but also on reviews of performance, criteria met, state level evaluations by a state commission, and team reviews by peers in other school districts. Based on their evaluation of the career ladder system and its impact on student achievement, Dees and Keys found that the career ladder system was partially successful at rewarding teachers who were relatively effective at promoting student achievement. Specifically, teachers who were assigned to a teacher who had been certified by the career-ladder evaluations led to statistically significant increases in student achievement. However, Dees and Keys also found that gains in math were isolated to teachers on the lower rung of the career-ladder, while statistically significant gains in reading achievement were reserved to those students who were assigned to teachers at the top of the ladder. These results lead to a mixed desirability for such a system, especially when you consider the financial
investment over the previous system as compared to the result obtained and the
evidence that the teachers on the higher rungs were not uniformly better.

Idea from Massachusetts and New York.

Podgursky (2002) reports that many states and school districts across the
country are looking for innovative ways to recruit and retain high quality teachers. He reports that in Massachusetts many districts are faced with teacher shortages in special education and other teaching fields. As a result, school districts and the state began offering incentives to teachers in shortage fields with high quality academic credentials. In New York, the New York City school district started a program of offering a 15 percent pay bonus for teachers who taught in schools on probation. However, Podgursky reports that the additional 15 percent pay was also tied to 15 percent more hours worked, resulting in longer days and more days worked.

United Kingdom’s performance related pay system.

Farrell and Morris (2009) report that in 2000 the UK’s labor administration instituted a performance related pay program for teachers in England and Wales. The threshold element of the pay system was to be introduced based on improved teacher performance, target setting for improved student performance, and teacher professional development. Not all teachers qualified for the system. There were criteria set in place for qualification based on years of experience and meeting a threshold based on a portfolio of evidence compiled by the teachers, including student results, classroom observations, data, commitment to
professional standards and its impact on classroom performance. Teachers who successfully crossed the threshold would receive a monetary award and become eligible to participate in the second part of the process which was a performance management element. The performance related pay system was intended to address three specific issues; the strengthening of school leadership; teacher recruitment, retention, and motivation; and to more flexibly deploy school resources. Although the program’s intentions were positive, Ferrell and Morris found the overall feeling of the teachers toward the program were oppositional because they believed the methods of assessment, potential for subjectivity, negative impact on teacher morale and the bureaucratic burden outweighed the benefits.

Merit-Based Compensation Model Design Considerations

As research has shown, the success of a merit-based compensation system is tied to its design and its purpose. A system must measure true performance in a way that minimizes random variation as well as controlling for the undesired and unintended consequences that have been present with so many programs (Lavy, 2007). Every employer needs a rationale for adjusting base pay levels for market alignment. There are only two real alternatives: providing for differentiated increases or agreeing to treat everyone the same (Risher, 2008). The latter has already been tried and proven to fail as a motivator for increasing student achievement. The challenge is in developing a system of pay that is designed to motivate performance, while at the same time providing for measures that are observable and proven to impact student
achievement results. Risher believes that if the merit-based system is intended to encourage growth and development then there is a need for feedback specific to the assigned duties. The nature of teachers’ work is such that basing an individual teacher's pay on standardized assessments of their performance is unlikely to serve as a motivator (Cohen & Murnane, 1986). Shaw (1985) found that a merit-based pay system that was cooperatively developed was considered to be more useful and legitimate by teachers. He also found that a joint effort in developing evaluative criteria that are amenable to an individualized evaluative process showed an interest in the participation of the effected group and the mutual understanding of the evaluation system. Desander (2000) supports the idea of collaborative design, as he has found that the successful implementation of a merit-based pay evaluation plan depends on the level of support it receives from teachers.

Slotnik (2009) believes that “linking what students learn to what educators earn” is more and more a pivotal decision, especially when you consider the current school finance situation across the United States. He goes on to indicate that he has found there to be six cornerstones of successful compensation reform. Those six cornerstones are: (a) performance based compensation is a systemic reform and therefore it must be tied directly to the educational mission of the district; (b) compensation reform must be done with teachers and not to them; (c) compensation reform must be organizationally sustainable, supported by the entire district; (d) compensation reform must be financially sustainable, not a short term initiative; (e) performance-based pay must have a broad base of
support within the community; and (f) performance-based pay must go beyond politics and truly support students. Slotnik believes that by designing a merit-based compensation system with these cornerstones in mind school districts can increase the likelihood of getting the model right and increase the probability that the model will meet its intended purpose, which should be squarely focused on student outcomes.

In their survey of teachers who participated in the school-based performance award program in North Carolina and Kentucky, Heneman and Milanowski (1999) found that teachers were more supportive of a merit-based pay program that they contributed to designing and that they felt was perceived as fair and equitable. When given the option of selecting a number of other, non-related test factors, Van Keuren, Walters and Wilson (2006) found that teachers valued classroom student achievement data more significantly. It seems as if teachers are more comfortable with compensation factors that are under their control, as opposed to those that appear to be more distant (Clifford, 2009). While teachers would prefer a compensation system that included factors more under their control, Hanushek (2007) believes that the most effective merit-based compensation system should not only provide strong rewards for individual classroom performance, but it should also consider focusing on the following outcomes: (a) group rewards; (b) value-added assessments; (c) evaluation in non-tested subject areas; (d) awards for administrators; (e) consideration for teachers and schools with hard to teach and disadvantaged students; (f) incentives for hard to staff areas such as math,
science and special education; and (h) investment in professional development.

Simply paying all teachers the same pay for different levels of performance, commitment, dedication, expertise and leadership does not appear to be logical nor is it proven to increase student achievement results.

Schacter and Thum (2004) found similar results to that of Hanushek (2007) when they compared the student achievement results of 52 teachers in Arizona. They conducted teacher observations over a four month period and determined that teachers who performed the best as compared to their twelve teaching performance standards and rubric achieved the highest student achievement results as measured by value-added scores. The twelve standards are: (a) Teacher Content Knowledge, (b) Lesson Objectives, (c) Presentation, (d) Lesson Structure and Pacing, (e) Activities, (f) Feedback, (g) Questioning, (h) Thinking, (i) Grouping Students, (j) Motivating Students, (k) Classroom Environment, and (l) Teacher Knowledge of Students. Schacter and Thum derived their teaching standards from the teaching behaviors, teaching models, teaching strategies, and teacher qualification research.

Hindman, Stonge, Tucker and Ward (2007) also found that there are differences in instructional and behavioral characteristics of teachers who produce high gains in student learning. They found that these distinct differences are observable and result in a strong correlation to student achievement. The differences in instructional and behavioral characteristics were in the form of (a) differentiation and complexity of instruction, (b) questioning practices, and (c) level of disruptive student behavior. They also
found that effective teachers provided more complex instruction with a greater emphasis on meaning versus memorization and they demonstrated a broader range of instructional strategies, using a variety of materials and media to support the curriculum. Jacob and Lefgren (2008) found support for this notion in their study of principals and the accuracy of their performance evaluations in predicting teacher performance based on value-added results. Based on observations, they found that principals were very good at identifying those teachers who produce the largest and smallest achievement gains in their schools. They go on to suggest that when compared to traditional determinants of pay, education and experience, the subjective principal assessment is a better predictor of future student achievement than other measures. Hanushek and Rivkin (2007) support Jacob and Lefgren’s findings and strongly suggest that education administrators can do more to improve student achievement through the development of an outcomes-based evaluation and hiring process than any system that compensates teachers based on poorly designed merit-based performance systems or a uniform salary schedule that is based on years of experience and education.

**Leadership and Model Development**

Given what we know about pay impacting student achievement, teacher perceptions about merit-based evaluation systems, the impact of pay on teacher morale, and how pay impacts perceptions with regard to social standing within an organization, it is important for school administrators to develop a system of pay that is fair, equitable and focused on outcomes (Duffy, Scott & Shaw, 2008;
Theirry, 2001). Research has shown that teachers are more supportive of a merit-based compensation system when they have been involved in the process of creating such a system (Desander, 2000; Heneman & Milanowski, 1999; Shaw, 1985; Van Keuren, Walters & Wilson, 2006). Research has also shown that teachers are more receptive to the evaluation criteria used in a merit-based pay system when it is focused on factors that are more under their control as opposed to factors perceived to be less under their control, such as standardized tests (Clifford, 2009; Van Keuren, Walters & Wilson, 2006). While there is evidence that there may be some correlation between pay serving as a motivator to improve student achievement (Kingdon & Teal, 2007; Lavy, 2007), there is also evidence to suggest that pay does little to motivate teachers to work harder (Heneman & Milanowski, 1999). Knowing teacher perceptions about merit-based pay and the fact that research has been mixed with regard to whether or not pay actually serves as a motivator, administrators should take care in creating a compensation system that is well designed and focused on measuring outcomes geared toward getting the results that are most critical to the school.

Designing an effective compensation system requires facilitating its development with all key stakeholders. To do this, administrators need to lead the process in such a way that it maintains focus on the outcome and results in a plan that has the support of all who have a stake in the results (Kelly, 1997). Because research has shown that there is not a single set of skills that perfectly define effective teaching, measures that take into account many aspects of teaching and learning by multiple judges are most likely to yield the fairest and
most comprehensive evaluation of teachers (Epstein, 1985). In order to accomplish this goal, leaders must understand that a system of pay cannot be designed around bureaucratic rules to manage the small percentage of people who negatively impact results. Collins (2001) found that creating a system in such a way drives away those who are responsible for the majority of the organization’s performance results. He also found that great leaders are able to strip away much of the noise and clutter surrounding an organization and focus their people on what matters most, the few things that would have the greatest impact. His study determined that great organizations focused their people on a core purpose, which is the reason for being beyond making money. Collins believes that pay systems can serve as strong communicators of an organization’s values just by focusing the measures on what matters most.

When trying to get people to consider and support something new and different, leaders need to consider how to facilitate the process of influence. Gladwell (2000) believes that getting an idea to the point of tipping can be increased if one follows a process of including individuals who possess certain social characteristics. To better understand the idea of tipping, Gladwell describes another idea that he calls the Law of the Few. The Law of the Few is a concept Gladwell uses to explain that certain people have certain skills of influence that not all of us possess. By including these people; whom he identifies as salesman, mavens and connectors; in the process and garnering their support, one is more likely to get the idea to a “tipping point” within the organization. He goes on to explain the tipping point as the point at which the
idea takes off and spreads like wildfire. He believes that anyone who uses this concept as they plan can increase the likelihood of success when it comes to having their idea take off.

**Resonance as a Leadership Approach**

Knowing teacher perceptions of a merit-based compensation system, teacher feelings toward the single salary schedule, and the position the unions have historically taken when it comes to teacher compensation, it would be wise for leaders to adopt a strategic approach toward facilitating a conversation about change in this area. Leadership is influence and leadership influence is what is needed in order to reform teacher compensation, especially when it is as widely accepted among teachers as the uniform salary schedule. In any human group a leader has incredible power to sway everyone’s emotions. If the leader moves people’s emotions toward the range of excitement and enthusiasm, performance has been found to soar; if people are pushed toward stress and anxiety, they can get tripped up and thrown off stride (Boyatzis, Goleman & McKee, 2002b).

Boyatzis et al. found that when leaders drive emotions in a positive way they can bring out the best in everyone. This effect is known as resonance. To be resonant, a leader must manage relationships among employees skillfully, always maintaining awareness of where they are emotionally and how the leader’s behaviors and action influence those emotions. Boyatzis et al. believe such leaders know and understand that what people value the most will also be the same thing that motivates them in their work. If a leader understands resonance as they design an employee compensation system they can increase
the level of support the system receives and ultimately increase the likelihood of its success. Resonant leaders can inspire their organizations to reach for dreams that were at one time believed to be impossible. Intelligence matters up to a point, past that point things that have nothing to do with intelligence start to matter more (Gladwell, 2008). When applied to the idea of creating a compensation system that has a positive impact on student achievement, resonant leadership may be the leadership approach that can bridge the gap between teachers, unions, public policy and boards of education.

When designing a complex system, such as a merit-based compensation system, leaders must remember that truly successful decision making relies on a balance between deliberate and instinctive thinking (Gladwell, 2005). Taking this concept that good decision making is a process a step further, Gladwell found that in good decision making, frugality matters. Frugality in this case is the idea that success in decision making may very well depend on a leader’s ability to take a complex problem and reduce it to its simplest form. One such simplistic approach toward compensation at the post secondary level might be allowing instructors to align merit-based compensation to their strengths and the various goals of the organization. Canavos, Fuhs, Spinelli and Weistroffer (2001) found that when a university focuses on its goals and allows faculty to align their merit-based awards to their strengths as it relates to those goals, both the institution and the instructor obtain improved results. Girard and Wenger (2000) found that of the two steps in the merit-based pay process, merit pay calculation and performance evaluation, professors found the performance evaluation step to be
the most important step to faculty. By improving perceptions of fairness and equity the institution may find the performance evaluation system to be more successful, especially if the process builds on the strengths of the individual and the performance evaluation system bases the evaluation on the utilization of those strengths for both the good of the organization and the professor.

Leaders who involve the organization’s stakeholders in the process of developing the performance-based compensation system increase transparency about the system and lower the level of anxiety that may be present with the development of such a system. Boyatzis and Goleman (2008) believe that certain things a leader does, like exhibit empathy, can affect their own brain chemistry as well as that of their followers, creating an interconnectedness of brains. They also believe that when leaders leverage the system of brain interconnectedness they increase the likelihood that the people they lead will be more cooperative and supportive. This type of leadership requires the leader to be socially intelligent, a type of leadership that utilizes interpersonal competencies to influence followers (Boyatzis, McKee & Goleman, 2002a). It should be understood that in order for leaders to connect with those they are trying to influence, so that the organization can achieve new goals, leaders must first understand the aspirations and dreams of those they are trying to lead (Boyatzis & Goleman, 2008). Boyatzis and Goleman believe that in order for anyone to achieve day-to-day business goals they must first believe that work is truly satisfying and of a greater good. Heneman and Milanowski (1999) found support for this notion when they discovered that teachers in their study were
most motivated when the merit-based pay was coupled with recognition for meeting goals and when they were able to realize the fruits of their labor in the development of their students or colleagues.

Whether or not the merit-based pay system should be based on individual or group efforts should certainly be a key consideration as leaders move through the development process. Research on existing merit-based compensation systems has shown that there are positives and negatives connected to either approach. Concerns for the individual merit-based pay approach have centered on such issues as creating an environment that is individually focused, less collaborative, and difficulty in monitoring performance and the possibility of perceptions of favoritism (Cohen & Murnane, 1986). Concerns with the team approach toward merit based pay have primarily centered on the issue of encouraging the free loader effect and simply increasing the salary of staff without the benefit of gaining additional results (Podgursky & Springer, 2007). In order to maximize results from a team, the team needs a leader who can serve as a coach and help the team focus on its shared purpose and the development of a team identity (Boyatzis, 2009). Based on research of Heneman and Milanowski (1999) pay does little to serve as a motivator for teachers. By creating a system solely based on using pay as a motivator, organizations run the risk of creating a system that is not sustainable over time. Desired change represents an alteration in actions, habits, or competencies associated with leadership effectiveness and connotes that sustainable leadership change at any one level requires developmental work at every level (Boyatzis, 2008).
Therefore, an effective system of compensation cannot rely on pay as the sole motivator.

**Summary**

The single salary schedule has been a model of uniform pay in the United States since the early part of the 20th century. This system of uniform pay was developed during a time when scientific management was the primary leadership model and under this model of management, teachers were expected to follow the rules and implement a curriculum that was virtually teacher proof (Kelly, 1997). Around this same time the women’s rights movement pushed for equal pay for equal work. As a result of this movement, school systems followed suit and began to adopt systems of compensation that were more egalitarian in nature.

Over the years the uniform system for teacher pay used in most school districts across the country has received much criticism for its lack of market sensitivity and apparent lack of correlation with student achievement (Podgursky & Springer, 2007). Recently, policy makers and the public have begun to push harder for a system of compensation that better aligns pay with student achievement results and focuses more on outputs as opposed to inputs, such as experience and education, which are the primary drivers of pay in a single salary schedule. Even though policy makers criticize the single salary schedule for its one size fits all approach toward compensation and its inability to serve as a motivator, it appears as if those who are paid under that system find it acceptable (Clifford, 2009).
As a result of the drive to find a better system for pay, much attention has been placed on the market driven approach of a merit-based system. The goal behind a merit-based system would be not only to reward those who are doing a good job, but also to lure high quality candidates into teaching. After all, research has shown that a good teacher can achieve a gain of one and one half grade-level equivalents in student achievement, while poor teachers will walk away with one half a year’s equivalent for one academic year (Hanushek, 2002). Concerns about such a compensation system center on the idea that a system that places greater compensation value on a few specific areas over others risks jeopardizing the overall results of the organization (Cohen & Murnane, 1986). The theory being that merit-based pay will lead to teachers closing their doors and focusing on individual results as opposed to the greater good of the organization.

Regardless of the compensation system used, the key to success seems to be in the design. If a system is designed in collaboration with those who will be evaluated by the system, the odds of success are increased (Clifford, 2009). The same seems to be true with reference to the focus of the instrument. If the instrument is designed to focus on key outputs that are locally influenced, teacher support for such a system is increased (Van Keuren & Wislon, 2003). One of the primary complaints by teachers of the evaluation process is fairness, especially when the evaluation was being used for promotion, termination or the determination of merit-based awards (Desander, 2000). An evaluation system that includes teachers in the development process, is transparent and fair, and
measures outputs that are perceived to be under the control of the teacher stand the best chance of success. Finding the right leadership model to facilitate the development process is essential, especially when consideration is given to the historical position that the National Education Association and the American Federation of Teachers has taken toward merit-based pay.
CHAPTER III

Research Methodology

The purpose of this study was twofold. The secondary purpose of the study was to report the views and concerns of superintendents with respect to teacher compensation factors and their relationship to student performance. The primary purpose of the study was to compare the views of the respondent superintendents to those of teachers who were previously surveyed about teacher compensation factors and their impact on student learning using a similar survey instrument. Based on the survey sample from the previous study of teachers, superintendents from 174 school districts were asked to complete a survey about their views with respect to teacher compensation factors and their impact on student learning. Those results were then tabulated and compared to the results from a previous similar study of teacher views about teacher compensation factors and their impact on student learning.

Through a discussion of the research questions, a description of how the sample population was developed, and an explanation of the development of the survey instrument, this chapter will present the design of the research study. This chapter also includes a description of how the survey instrument was distributed, how the data were collected from the survey instrument, and the techniques used to analyze the data from the survey. Due to the fact that the study was a comparison of a previous study done with teachers, it was determined that the best survey instrument to use with superintendents was a
slightly modified version of the instrument used in the previous study done with teachers. The instrument used a mixed methods approach, which includes a combination of quantitative and qualitative feedback data. In the development of the survey used with teachers it was determined that the most appropriate type of research method to use was descriptive. This study reported on the respondent superintendents’ views and concerns about teacher compensation factors as compared with the previous study involving teachers. It was determined that a mixed method approach mirroring the comparison study would provide the most pragmatic use of quantitative data that could be more easily generalized to a larger population and qualitative data that would allow for a description of individual concerns.

**Research Questions**

This study was designed to answer three questions about teacher and superintendent perceptions, beliefs, and concerns about what factors should be included as a component of a teacher compensation system. First, *Is there a difference in perceptions about teacher compensation between superintendents and teachers?* Second, *Compared to teachers, do superintendents report differences in what should be included as a component of a teacher compensation system?* Third, *Compared to teachers, do superintendents differ in their level of comfort with reference to the components of a teacher compensation system?*
The original line of research for the design of the survey instrument was done by Van Keuren, Walters, and Wilson (2004). After conducting a review of literature of performance based compensation systems, Van Keuren et al. determined that in most situations teachers were not consulted in the design of such systems. As a result of their findings about the apparent disconnect between what advocates believed and what teachers perceived, they brought together a focus group of classroom teachers from urban, suburban and rural Ohio to react to some of the proposals to change from the current teacher compensation system to one that was believed to be more reflective of teacher impact on student achievement. Based on the data collected from the focus groups, Van Keuren, Walters, and Wilson developed a survey instrument to be used with a larger group of teachers for greater generalization. The instrument was initially designed to test the qualitative findings of the focus group against a larger group of teachers that were presented with a more quantitative study instrument.

The survey instrument was originally designed to test the literature and the knowledge they had gained from the focus groups. Based on their literature reviews and focus groups, they developed an instrument that sought feedback on twelve different factors that had been found to be affecting teacher compensation (Van Keuren, Walters, & Wilson, 2004). Van Keuren, Walters, and Wilson piloted the instrument in a class at a small university in north central Ohio that was primarily made up of school administrators who were seeking their
superintendent’s certification. The purpose of the pilot was to identify flaws in the instrument with regard to clarity or possible issues related to larger administration and analysis. As a result of the pilot, multiple revisions were made to the instrument.

As a result of their prior work on the subject, Van Keuren, Walters, and Wilson were fairly clear that teachers preferred school measures of student achievement as compared to district measures. Knowing this, they modified the instrument in 2006, adding a section that sought information on the use of student achievement data. The researchers sought to measure the strength of this preference in relation to years of teaching experience, or level of training, or location or environment in which the respondents taught. The additional section entitled Use of Student Achievement Data was designed to assist with the collection of data that allowed for a scaling for strength of relationship, making possible a more rigorous consideration of locus of control with respect to student achievement data and teacher compensation systems (Van Keuren, Walters, & Wilson, 2006).

Since that time, the instrument has been used by Clifford (2009) in a follow up study to the study done by Van Keuren, Walters and Wilson. Clifford sought to better understand the opinions and concerns of teachers as they relate to compensation factors that best reflect what they do as teachers. Clifford modified the survey instrument in order to gather more qualitative data on the opinions and concerns that teachers had with respect to the use of value-added student achievement data. His intent was to provide more significant meaning to
the quantitative section of the survey. In order to gather teacher comment and concern for those items outside of the researcher selected factors, Clifford added an open ended question to the end of the quantitative section of the survey. He also added a question that was designed to separate teachers into two groups, those who had value added training and those who had not had value added training.

Because the primary purpose of this study was to gather feedback from superintendents about their opinions about factors that should be included as a component of a teacher compensation system, I modified the survey to more appropriately address superintendents as opposed to teachers (see Appendix C). The introduction to the survey instrument and all references to teachers were changed to more appropriately address the need for information from a superintendent’s perspective. The question added by Clifford (2009) with regard to the concerns teachers were hearing with respect to value-added assessment data was deleted, as was the question in the demographic section asking teachers if they have had value-added training. An open ended question was added to the end of the survey asking for comments related to the high or low marks on the Likert-scale. The purpose of this question was to allow for some level of elaboration and for the identification of any concerns that the respondents may have had with the questions associated with the Likert-scale section of the survey instrument. In order to ensure that consistency in content validity among the three surveys was attained, a statistician evaluated the survey instruments. It was determined that there was consistency among the surveys.
The survey instrument was divided into three different sections. The first section of the survey was primarily quantitative and was designed in the format of a Likert-scale. The Likert-scale was used to capture equal appearing interval responses on a seven-anchor scale. The original design of the survey called for the use of the Likert-scale to capture a rank value for the twelve different factors that were observed in the focus groups and in the research of literature by Van Keuren, Walters, and Wilson (2004). The twelve teacher compensation factors in the Likert-scale were considered in relationship to their impact on student achievement. Respondent superintendents ranked each of the twelve teacher compensation factors based on the level at which they believed the factor to have a high to very high relationship, some relationship, or low to no relationship to what teachers do to impact academic student achievement results. Once the respondents completed the Likert-scale they were asked to consider traditional compensation factors and those that were presented in the Likert-scale and then asked to rank in order the top five compensation factors which they believed should be included in a teacher’s salary schedule. This open ended question was designed to protect the study from the restrictions placed upon it by the researcher-selected list of twelve factors in the Likert-scale section of the survey.

The second section of the survey focused on the collection of demographic data. Again, this section was modified from the original survey conducted by Van Keuren, Walters and Wilson to better address an audience of superintendent respondents. The instrument asked respondents to indicate whether or not they were a superintendent in a public or private school; what
type of district they were associated with, i.e. large city, city, suburban, or rural; at what level their teaching certification was when they taught; how many years they taught; highest degree earned; and number of years they have been a superintendent.

The third section of the survey focused on the use of achievement test data. In the first part of this section respondents were informed that in a prior survey teachers reported various levels of acceptability with regard to using student achievement test scores and progress as measured by these scores as a component of the pay scale. They were presented with five different levels of student achievement scores that ranged from classroom student data all the way to state mandated testing. They were also given the option of indicating that they were not comfortable using student achievement data. Respondents were asked to place an X next to the level which indicates the level of student scores with which they were most comfortable including as a component to the teacher pay scale. In the second part of this section superintendent respondents who had indicated that they were not comfortable using student achievement data as a component to the teacher pay scale were asked to explain the primary reason they responded in this way.

Sample

After receiving approval from the Ashland University Human Subjects Review Board (Appendix D), I sought superintendent respondents that were closely related to the participants of the study of teachers conducted by Clifford (2009). Clifford focused on two groups of teacher subjects for his study, those
who had not had value-added training and those who had had value-added training. The group Clifford chose to focus on, who, he thought, would have a low probability of not having had value-added training, was selected from a pool of graduate students at Ashland University. The teacher respondents chosen by Clifford to represent the group who, he thought, would have a high probability of having had value-added training, were chosen from a pilot program called Project SOAR sponsored by Battelle for Kids. Participants in the Project SOAR pilot were provided background information and professional development on value-added analysis and assessment.

Because this study was designed to be a comparison of superintendent survey data to the teacher survey data collected by Clifford (2009), I decided to demographically align the respondents to my study with the group Clifford chose as having value-added training through the Project SOAR pilot. This was not only done for comparison group alignment, but also because the Project SOAR pilot districts were a very diverse group of districts. In total there were 42 Project SOAR pilot districts and 131 random sample similar districts.

**Battelle for Kids Project SOAR Pilot Districts**

In 2002, Battelle for Kids launched Project Soar as a state wide pilot designed to provide value-added professional development and analysis to a group of diverse school districts across the state of Ohio. The purpose of the pilot was to introduce the concept of value-added analysis to school districts in order to demonstrate how the use of progress monitoring information could serve as a diagnostic tool for educational improvement. In all, 42 pilot school districts
from all over Ohio were chosen to participate in the pilot project. The centerpiece of the project was a secure website that educators could use to view various levels of student data. Since the pilot, Project SOAR has expanded to include nearly 100 school districts across Ohio (Battelle for Kids, 2009).

**Similar Districts**

The districts that were selected to be included in the study as an addition to the 42 Project SOAR pilot districts were chosen through a random selection process using similar district data provided by the Ohio Department of Education. The similar districts were identified, as designated by the Ohio Department of Education (2009), as every fifth district on the alphabetized list of 42 Project Soar pilot districts. The Ohio Department of Education creates a list of similar districts for all public school districts in Ohio for the purpose of providing a pool of districts for each district to compare. The method used for identifying similar district by the Ohio Department of Education starts with the identification of up to 20 districts that are most similar according to certain criteria. Similar district characteristics include district size; student demographic data; district property valuation data; district socioeconomic status; and district type, i.e. rural, local, city, suburban, urban.

**Procedures**

**Instrument Distribution**

Each of the current superintendents of the 42 Project SOAR pilot districts and the superintendents of the similar districts of the randomly selected Project
SOAR pilot districts was mailed the survey instrument (Appendix C), along with a cover letter explaining the study (Appendix A), and a self-addressed stamped envelope for the return of the survey instrument. In all, 174 superintendents were asked to complete the survey. The initial request was followed up with an electronic mail communication to each of the 174 superintendents (Appendix B) 10 days after the initial mailing asking them to consider responding to the survey that was previously mailed to them. The survey was to be self administered by the respondent superintendents and mailed back by them. There was no gratuity included for participation in the survey and no personally identifiable information was required of the respondents. The data base of superintendent names, physical address, and electronic mail address was provided by the Ohio Department of Education.

**Survey Instrument Collection**

The return of the survey instruments by the responding superintendents, as identified by the 42 Project SOAR pilot districts and the randomly selected similar districts from the Project SOAR pilot district alphabetized list, was through the United States Postal system. Surveys that were returned through the mail were collected and date stamped. Date stamping provided documentation as to when the survey was returned. The date stamp was also used to provide some indication as to the potential effectiveness of the follow up electronic mail sent to all respondent superintendents as a reminder to complete the survey.
Analysis of Data

The primary purpose of this study was to compare a previous study of teacher views of salary schedule factors to the views of active superintendents about the same. Returned surveys were sorted by the type of district in which the superintendent was employed. Segregating data in this way not only provides for an analysis of the type of districts from which the surveys came, but also furnishes information for a possible follow up study to be conducted at a later time. With the exception of identifying respondents and responses by district type for the previously stated purpose, all responses were compiled together as a group.

The quantitative response data received from the respondent superintendents were entered into MINITAB® (release 14) and a mean score was calculated for each of the twelve researcher developed teacher compensation factors provided in the Likert-scale matrix. A two sample t-test was used to compare the data collected by Clifford (2009) in his study of teachers. Like Clifford, the list of rank ordered compensation factors which respondents indicated that they believed should be included in a teacher’s salary were analyzed and compared with response to the twelve researcher developed compensation factors. This data were entered into MINITAB® (release 14) to compute a mean score using a two sample t-test for comparison with the data collected by Clifford (2009) in his study of teachers.

Similar to Clifford (2009), the qualitative questions were sorted using a coding process designed to identify common or distinct themes in the
respondent superintendents’ answers. The responses were sorted by shared patterns in the responses through a process of identifying key terms and ideas. The consistent and different terms and ideas that were identified were compared with the teacher responses from Clifford’s 2009 study. The results of the study are discussed in Chapter IV.

Summary

This chapter presented the research methodology used to compare superintendent views of compensation factors with those of teachers from a previous study. This chapter also discussed the design, development, and evolution of the survey instrument. The unit of study was school district superintendents who were currently employed in one of the 42 Project SOAR pilot districts, a random sample of Project Soar pilot district similar district superintendents, and teachers from a previous study conducted by Clifford in 2009. A description of the procedures used for the distribution of survey instruments and the collection of data from the completed surveys was also included. The methodologies for the analysis of data in both the quantitative and qualitative format were discussed, along with the rationale for choosing a descriptive research method.
CHAPTER IV

Results of Data Analysis

The primary purpose of this study was to compare the responses of superintendents about their views and concerns with regard to teacher compensation factors and their relationship to student performance with teacher responses gathered in a previous study using a similar survey instrument. The secondary purpose of this study was to gather superintendent responses about their views and concerns with regard to teacher compensation factors and their relationship to student performance. A survey tool that was primarily quantitative and secondarily qualitative was used to gather the data. This chapter provides an analysis and a discussion of the findings of this research study.

This chapter is organized into four parts. First, there is a demographic analysis of the survey respondents along with a comparison of the demographic make up of the superintendent respondents to this study with the teacher respondents from a previous study. The next three sections are grouped in such a way to answer the three research questions. A statistical analysis of data in response to the first research question, *Is there a difference in perceptions of superintendents toward teacher compensation factors as compared to teachers?* is presented. The second research question, *Do superintendents and teachers report differences in what should be included in a teacher's salary schedule?* required a combined analysis of both quantitative and qualitative data. The third research question, *Compared to teachers, do superintendents differ in their level*
was addressed through a qualitative analysis of the open ended question that asked the respondent to share the reason(s) they indicated that they did not feel comfortable at any level using student achievement scores as a component of the teacher pay scale.

**Demographic Data**

There were a total of 174 surveys sent to superintendents of various school districts from all over the state of Ohio. Of the 174 superintendents who were asked to participate in the study, 78 superintendents completed and returned the survey as compared to 198 teachers who participated in the previous study conducted by Clifford (2009). This made the rate of return for surveys in this study of superintendents 45%. Of the 78 superintendent respondents, 69 (88.4%) reported that they were currently employed as a superintendent in a public school, while 183 (92%) of teachers indicated that they were employed in a public school in the previous study. There was one (1.3%) of the respondents who reported that they were an assistant superintendent in a public school. There was one (1.3%) of the respondents who reported that they were not a superintendent in a public school, while there were 13 (6%) of the respondents who reported that they were not a teacher in a public school in the previous study. There were seven (9%) of the superintendent respondents who did not complete this question, as compared to two (1%) of the respondents who did not complete this question in Clifford's study conducted with teachers.
With respect to the kind of school district that the superintendent respondents worked in, two (2.6%) reported that they worked in a large city school district, while seven (3.5%) of teachers in Clifford’s (2009) study reported the same. Twenty (25.6%) of superintendents indicated that they were employed in a city school district, while 21 (10%) of teachers indicated that they were employed in a city school district. With reference to those who were employed in a suburban school district, 23 (29.5%) of superintendents indicated such, as compared to 121 (61%) of teachers in the previous study. The final employment category, rural school district, included 26 (33.3%) of superintendents, while 37 (18%) of teachers in Clifford’s study indicated the same. There were seven (9%) of the superintendent respondents who did not complete this question.

With respect to the grade level at which the superintendent respondents taught, one (1.3%) reported having taught only at the primary K-3 level. Zero (0%) reported teaching at only the intermediate level. Six (7.7%) reported teaching at the elementary K-5-8 level. Eleven (14.1%) reported having taught at only the middle school level. Twenty (25.6%) reported teaching only at the high school level. Twenty-five (32%) indicated that they had taught at both the middle school and high school level. One (1.3%) reported teaching at both the elementary K-5-8 and high school level. One (1.3%) reported teaching at the elementary K-5-8, middle school and high school level. One (1.3%) reported teaching at the primary K-3 level, intermediate level, and middle school level. One (1.3%) reported teaching at the primary K-3 level, intermediate level, middle
school level, and high school level. One (1.3%) reported having taught special
education. One (1.3%) reported being a school psychologist. Nine (11.5%) did
not answer this question. Of those superintendents who responded 60 (76.9%)
indicated having some level of secondary (middle school and/or high school)
level experience, while 12 (15.4%) reported having some level of elementary
(primary, intermediate and/or elementary K-5-8) level experience.

Teacher respondents to Clifford’s (2009) study reported that 30 (15%) of
them taught primary K-3. Twelve (6%) taught intermediate. Fifteen (7%) taught
elementary K-5-8. Ninety-eight (49.5%) taught at the middle school level. Thirty
(15%) taught at the high school level.

With respect to the highest degree attained, superintendents who
responded to this study reported that 40 (51.3%) had a Master’s degree. Five
(6.4%) had an Education Specialist’s degree. Twenty-six (33.3%) had a doctoral
degree. Seven (9%) did not respond to this question. Teacher respondents to
Clifford’s (2009) study indicated that 94 (47.5%) of them held at least a
Bachelor’s degree and 100 (50.5%) had attained a Master’s degree. Two (1%)
of teacher respondents in Clifford’s study indicated that they had attained a
doctoral degree.

As Clifford (2009) did in his survey of teachers, respondent
superintendents were asked to share the total number of years they spent in the
classroom as teachers. This question was answered by 62 of the 78
superintendents, resulting in a mean number of years served in the classroom of
8.5. Respondent superintendents were also asked to report the number of years
they have served as a superintendent. There were 69 of the 78 who answered this question, resulting in a mean number of years served of 8.75. There were 16 respondents who did not answer this question. On average, the respondents have spent slightly more time serving as superintendent than they did in the classroom as a teacher. As Clifford did in his study of teacher views based on the demographic data presented, I concluded that the data from the study of superintendent views represented the general population of superintendents across the state of Ohio.

Research Question 1

Research Question 1: Is there a difference in perceptions about teacher compensation between superintendents and teachers?

Superintendent respondents were asked to share their opinions as to compensation factors that they believe best reflect what teachers do to impact academic results. The respondent superintendents were asked to consider twelve researcher created teacher compensation factors that were presented in a Likert-scale in order to capture equal appearing interval responses on a seven-anchor scale. They were directed to consider their ranking based on the following rubric; a rating of greater than four equates to a high to very high relationship to what teachers do to impact academic results, a four rating equals some relationship to what teachers do to impact academic results, and a rating of less than four equates to a low to no relationship to what teachers do to impact academic results. For any factor that the respondents marked higher than five, indicating a high
relationship with what teachers do to impact academic results and, therefore, they believed it should be included in a compensation system, they were asked to use the back of the survey page to provide explanatory comments. Similarly, if the respondents marked specific items less than three, indicating a low relationship with what teachers do to impact academic results and, therefore, they believed it should not be included in a compensation system, they were asked to use the back of the survey page to provide explanatory comments as well.

The list of twelve compensation factors presented in the Likert-scale were:

- a performance based teacher evaluation,
- building level performance on state report card,
- number of years teaching experience,
- hard-to-serve school building (low performing),
- student achievement at the classroom level,
- national board certification,
- level of formal training (degree held),
- student achievement – school district level,
- school district performance on state report card,
- classroom performance on state report card,
- scarce licensure bonus (math, science, etc.),
- and student achievement at the building level. This list of teacher compensation factors represents the same list that was presented by Clifford (2009) and Van Keuren, Walters and Wilson (2006) in their studies of teachers.

The rank order of the results of this study were based on the mean score of the responses to the twelve teacher compensation factors (Appendix C) using an equal appearing interval scale with seven anchors. Because incomplete responses to individual factors were excluded from the analysis, only the cases with complete data were analyzed. A presentation of the results of this study is
presented along with a comparison between the respondent superintendents of this study and the respondents to Clifford’s (2009) study of teachers.

A two sample t-test of the responses to the list of twelve compensation factors presented in the Likert-scale revealed statistically significant differences between the superintendent respondents to this study and teacher respondents to Clifford’s (2009) study. A statistical analysis of each factor is presented along with a descriptive analysis explaining how the superintendents and teachers compared with each other.

Table 1

CF-1  A Performance Based Teacher Evaluation Two-Sample T-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF1</td>
<td>78</td>
<td>5.46</td>
<td>1.18</td>
<td>167</td>
<td>7.91</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.CF1</td>
<td>235</td>
<td>4.14</td>
<td>1.52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for teacher compensation factor number one (CF-1), *a performance based teacher evaluation*. The superintendents in this study more strongly believed that a performance based teacher evaluation should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford’s study than there was with the superintendents in this study. This may
indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 2

**CF-2  Building Level Performance on State Report Card  Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
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<tbody>
<tr>
<td>Supt.CF2</td>
<td>78</td>
<td>4.26</td>
<td>1.34</td>
<td>146</td>
<td>4.10</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.CF2</td>
<td>241</td>
<td>3.51</td>
<td>1.53</td>
<td>146</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for teacher compensation factor number two (CF-2), *building level performance on state report card*. The superintendents in this study more strongly believed that building level performance on a state report card should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford's (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford's study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.
There was a statistically significant difference in mean scores for teacher compensation factor number three (CF-3), *number of years teaching experience*. The teachers in Clifford’s study more strongly believed that the number of years of teaching experience that a teacher has should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the superintendents in this study. There was a greater level of deviation from the mean with teachers from Clifford’s study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 4

*CF-4  Hard-to-Serve School Building (Low Performing)  Two-Sample T-Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF4</td>
<td>77</td>
<td>4.792</td>
<td>0.908</td>
<td>242</td>
<td>6.95</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.CF4</td>
<td>238</td>
<td>3.75</td>
<td>1.68</td>
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<td></td>
<td></td>
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</tbody>
</table>
There was a statistically significant difference in mean scores for teacher compensation factor number four (CF-4), *hard to serve school building*. The superintendents in this study more strongly believed that teachers who were teaching in a hard to serve school should be given special consideration when it comes to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford's (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford's study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 5

*CF-5  Student Achievement at Classroom Level  Two-Sample T-Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF5</td>
<td>77</td>
<td>5.65</td>
<td>1.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tchr.CF5</td>
<td>243</td>
<td>4.40</td>
<td>1.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

189 7.92 0.000

There was a statistically significant difference in mean scores for teacher compensation factor number five (CF-5), *student achievement at classroom level*. The superintendents in this study more strongly believed that student achievement at the classroom level should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was also a greater level of deviation from the mean with teachers from
Clifford’s study than there was with the superintendents of this study. This may indicate a greater range of dispersion between teacher responses than superintendent responses.

Table 6

**CF-6 National Board Teacher Certification Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF6</td>
<td>73</td>
<td>3.19</td>
<td>1.41</td>
<td></td>
<td>146</td>
<td>-2.04</td>
</tr>
<tr>
<td>Tchr.CF6</td>
<td>253</td>
<td>3.60</td>
<td>1.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for teacher compensation factor number six (CF-6), *national board teacher certification*. The teachers in Clifford’s study more strongly believed that national board teacher certification should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the superintendents in this study. There was a greater level of deviation from the mean with teachers from Clifford’s study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.
Table 7

**CF-7 Level of Formal Training (Degree Held) Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF7</td>
<td>77</td>
<td>3.82</td>
<td>1.13</td>
<td>140</td>
<td>-9.55</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.CF7</td>
<td>243</td>
<td>5.27</td>
<td>1.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for teacher compensation factor number seven (CF-7), *level of formal training*. The teachers in Clifford’s study more strongly believed that the level of formal training that a teacher has should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the superintendents in this study. There was a greater level of deviation from the mean with teachers from Clifford’s study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 8

**CF-8 Student Achievement – School District Level Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF8</td>
<td>77</td>
<td>4.30</td>
<td>1.34</td>
<td>144</td>
<td>2.14</td>
<td>0.034</td>
</tr>
<tr>
<td>Tchr.CF8</td>
<td>231</td>
<td>3.91</td>
<td>1.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There was a statistically significant difference in mean scores for teacher compensation factor number eight (CF-8), student achievement – school district level. The superintendents in this study more strongly believed that student achievement at the classroom level should be considered as a factor when it comes to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford's (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford's study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 9

| CF-9  School District Performance on State Report Card Two-Sample T-Test |
|-----------------|-----|------|------|-----|-----|
| Group           | N   | Mean | Std. Dev. | df  | T   | P    |
| Supt.CF9        | 77  | 4.17 | 1.43       |     | 133 | 3.33 | 0.001 |
| Tchr.CF9        | 243 | 3.54 | 1.51       |     |     |      |

There was a statistically significant difference in mean scores for teacher compensation factor number nine (CF-9), school district performance on state report card. The superintendents in this study more strongly believed that school district performance on the state report card should be considered as a factor when it comes to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford's (2009) study. There was also a slightly greater level of deviation from the mean
with teachers from Clifford’s study than there was with the superintendents of this study. This may indicate a slightly greater range of dispersion between teacher responses and superintendent responses.

Table 10

CF-10 Classroom Performance on State Report Card Two-Sample T-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF10</td>
<td>77</td>
<td>5.10</td>
<td>1.20</td>
<td>166</td>
<td>7.94</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.CF10</td>
<td>241</td>
<td>3.76</td>
<td>1.57</td>
<td>166</td>
<td>7.94</td>
<td>0.000</td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for teacher compensation factor number ten (CF-10), classroom performance on state report card. The superintendents in this study more strongly believed that classroom performance on the state report card should be considered as a factor when it comes to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford’s study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.
Table 11

*CF-11  Scarce Licensure Bonus (Math, Science, Etc.)  Two-Sample T-Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF11</td>
<td>73</td>
<td>4.22</td>
<td>1.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tchr.CF11</td>
<td>231</td>
<td>3.21</td>
<td>1.69</td>
<td></td>
<td>160</td>
<td>5.45</td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for teacher compensation factor number eleven (CF-11), *scarce licensure bonus*. The superintendents in this study more strongly believed that teachers who possessed a license that was in an area of scarcity should be given special bonus consideration when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford's (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford's study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 12

*CF-12  Student Achievement at the Building Level  Two-Sample T-Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.CF12</td>
<td>78</td>
<td>4.77</td>
<td>1.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tchr.CF12</td>
<td>243</td>
<td>3.93</td>
<td>1.53</td>
<td></td>
<td>169</td>
<td>5.12</td>
</tr>
</tbody>
</table>
There was a statistically significant difference in mean scores for teacher compensation factor number twelve (CF-12), student achievement at the building level. The superintendents in this study more strongly believed that student achievement at the building level should be considered as a factor when it comes to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was also a greater level of deviation from the mean with teachers from Clifford’s study than there was with the superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Unlike teacher respondents to Clifford’s (2009) study, superintendent respondents were asked to comment on the high or low marks they gave to the twelve teacher compensation factors on the Likert-scale. The purpose behind this question was to gain a deeper understanding of the reason for the extreme marks. Through an analysis of the superintendent respondent’s explanations of their primary reason for the high or low marks, three themes emerged. The responses of the superintendents are presented directly as they appeared on the surveys with no change other than to edit for mechanics and readability. The written responses are being presented this way so that the words of the superintendents can be presented in their original form, capturing their full intent and meaning. I also believed the responses from the superintendents to be important data to answer the research question.
The respondent superintendents centered on three theme areas when it came to their reasons for indicating the high or low marks to the twelve teacher compensation factors on the Likert-scale. The three themes that emerged from the responses are illustrated in Figure 1.

Figure 1. Emergent Themes to Responses to the Reasons for Indicating the High or Low Marks to the Twelve Teacher Compensation Factors

- Value-added
- Performance based evaluation
- Level of experience and degree held

An analysis of the themes that emerged from the superintendent’s responses to the high or low marks to the twelve teacher compensation factors on the Likert-scale reveal that accountability for performance is important to them. The majority of respondents to the question believe that student achievement should be used as a measure of teacher performance as long as it is in the form of value-added. There is also an indication that they do not necessarily believe that teacher experience and level of education correlate with student achievement.

**Value-Added**

The majority of superintendents who responded to the question about why they rated one or more of the twelve teacher compensation factors on the Likert-scale with a high or low mark indicated that accountability in the form of student achievement results was important. Student achievement data in the form of a
single standardized assessment is not supported as an indicator of high or low quality instruction. The use of student achievement data in the form of value-added was the most common accountability measure mentioned and was clearly supported by the majority of respondents to this question.

**Superintendent Comments Related to Value-Added**

- **Respondent:** Using common assessments – student achievement should be measured and teachers held accountable for results – annual improvement as well. State report card items are the ultimate standard – teachers should be accountable for the achievement of their students.
- **Respondent:** Teachers can take responsibility for students worked with directly. They also affect a larger group with the work they do as a staff member (grade, school, team, district, etc…).
- **Respondent:** A measure that shows student growth over the year is the only “fair” use of student achievement data to determine teacher salary. Using group or building averages or percent passing stats don’t get to the individual teacher’s contribution to student achievement.
- **Respondent:** Effective student outcomes as measured by value-added and educational attainment with minor increases for experience makes most sense.
- **Respondent:** Would not use achievement, but rather value-added (growth) as factor in salary.
- **Respondent:** Student achievement (individual) should be considered using a “value-added” format. Where did the student begin-where did the
student end the year. This adds fairness to the system for teachers who
work with lower level students.

- Respondent: You need to consider value-added data.
- Respondent: Documented achievement measured as student growth over
time matters.
- Respondent: Although it was not given as a choice, we believe the value-
added improvement score is one of the most effective methods to
determine staff improvement. The value-added score takes into account
the classes that are lower than usual.
- Respondent: The teacher makes the most impact on student
achievement. We must have a means to judge or evaluate student
achievement. This is currently accomplished through a value-added
metric and this is how we should compensate teachers.
- Respondent: Teachers should take ownership of their students’
performance. I’m more in favor of value-added measures.
- Respondent: Although flawed, value-added lays the foundation for
performance pay measures.
- Respondent: Using the Likert to discern areas is a starting point. The
issue always is tied to the affective impact on students and its relevance.
- Respondent: We should be all about student achievement as a priority – if
this is true, it should be reflected in compensation, but with a value-added
approach (ie, individual student improvement). The same is true for
performance-based system.
• Respondent: I believe folks should be accountable as a team. Our population varies far too much to go to the classroom level to measure success, but collectively it should be measured.

• Respondent: Our experience with state report card data has been extremely challenging. The data reported by the state for our report card has been inaccurate in at least one category each year. Low performing schools sometimes have additional challenges in educating their students due to basic needs and support for students.

• Respondent: As the state and feds continue to push accountability and publish district and school results, we need to hold principals and teachers more accountable for their results.

Respondent superintendents indicate that they are supportive of student achievement data in the form of value-added being used as a teacher compensation factor. They indicate that teachers need to be held accountable for the performance of their students on state assessments and that value-added may be the best measure of student growth available to do that at this time. They acknowledge that the value-added system may in fact be flawed. They also advocate for fairness when it comes to student achievement accountability and encourage consideration for other forms of measurement.

**Performance Based Evaluation**

Superintendents who responded to the question about why they rated one or more of the twelve teacher compensation factors on the Likert-scale with a high or low mark indicated support for performance based evaluations. This
support was not limited to teachers, but also spread to building principals. Superintendents who responded to the question also supported a varied approach toward determining the factors that would be included in the performance based evaluation. As was the case with value-added, superintendents expressed concern for fairness when developing such an evaluation tool.

**Superintendent Comments Related to Performance Based Evaluation**

- Respondent: Generally, I think we need to link pay to performance.
- Respondent: All evaluations should be performance based. Clear criteria need to be established.
- Respondent: We will see so much emphasis on this with RTTT (Race to the Top). It will be a new mindset for teachers for merit pay and accountability. A performance based evaluation will include student scores. We will be paying our teachers a $500 increase for making “Effective” status during this contract period. We made this part of our last package so we may be one step on the way for this.
- Respondent: Performance based evaluations for all positions are essential.
- Respondent: What does performance mean? How is student achievement measured?
- Respondent: Achievement data as it stands is only a snapshot of the learning going on in the classroom. I would support merit based pay with
portfolio assessment of student work and learning, as it relates to individual student growth.

- Respondent: I don’t think it is fair to compensate based on district performance. Merit based compensation could bring more accountability and commitment towards continually improving.

- Respondent: I don’t think those factors (twelve compensation factors) can be used alone for determining compensation. Again, in high poverty schools, high minority districts, there are a number of other factors.

Respondent superintendents see value in developing a performance based assessment that holds everyone accountable for student achievement results. There is an indication that there is an understanding of the need to evaluate performance at the level at which it is within the control or influence of the individual being evaluated. They also indicate the need to bring the data down to the individual student level, implying that value-added may be a component of the performance evaluation tool.

**Level of Experience and Degree Held**

Level of experience and degree held are traditional factors of the single salary compensation system that is currently in place in most school districts in the United States. Superintendents who responded to the question about why they rated one or more of the twelve teacher compensation factors on the Likert-scale with a high or low mark acknowledge that experience and degree held are not strong determinants of higher student achievement. They also indicate that they know the current system is inadequate and needs to be redesigned. Tying
pay to performance based evaluations, as opposed to the current system of pay, appears to garner support from some of those who responded to the question about the reason for the high or low mark on the Likert-scale.

**Superintendent Comments Related to Level of Experience and Degree Held**

- Respondent: Years of experience can relate both positively and negatively to student achievement. This factor should not be considered as a compensation factor.
- Respondent: Number of years teaching is irrelevant. It should be all about performance.
- Respondent: National board certification does not necessarily equate to excellence.
- Respondent: The current pay system based on years of experience and level of education is mostly inappropriate and this “system” is designed to reward teachers for the wrong measures.
- Respondent: Degree levels and time spent teaching have proven to be an effective means of compensation toward teacher improvement.
- Respondent: Great teachers are sometimes those with the least experience but with great enthusiasm for the subject and the ability to build positive relationships with students.
- Respondent: National board certification is good but that does not guarantee the person is a great teacher in the classroom.
- Respondent: Salary increases based solely on experience and degrees is not an appropriate indicator of teacher value.
• Respondent: A teacher with five or more years of classroom experience is usually more knowledgeable and capable of teaching compared to the beginning teacher. We should be rewarding good teachers and administrators that choose to teach in schools with high poverty students. Higher degrees with quality teaching experiences produces highly competent teachers.

Compensating teachers for the degrees they earn or the amount of time they are employed in the profession appears to be a system that has fallen out of favor with superintendents who responded to the question asking why they rated one or more of the twelve teacher compensation factors on the Likert-scale with a high or low mark. There seems to be consensus with those who responded to the question that the current system is inadequate and needs to be replaced with a system that focuses on performance based measures, with value-added being a potential component of a performance based system.

**Research Question 2**

Research Question 2: *Compared to teachers, do superintendents report differences in what should be included as a component of a teacher compensation system?*

As Clifford (2009) did in his study of teachers, in order to answer the second research question the researcher focused on two areas of the study. Those areas were the rank order of traditional and enhanced teacher compensation factors and the use of achievement test data as a component of a teacher’s pay scale.
**Teacher Compensation Factor**

Respondent superintendents were asked to respond to twelve compensation factors, of which two were considered to be traditional and ten were considered to be compensation enhancements (Appendix C). The two traditional compensation factors were; number of years teaching experience and level of formal training (degree held). The ten compensation enhancement factors were: a performance based teacher evaluation, building level performance on state report card, hard-to-serve school building (low performing), student achievement at the classroom level, national board certification, student achievement – school district level, school district performance on state report card, classroom performance on state report card, scarce licensure bonus (math, science, etc.), and student achievement at the building level. The superintendent respondents were asked to rank order the top five factors which they believed should be included as factors in a teacher’s salary schedule.

Of the twelve traditional and enhanced teacher compensation factors presented in the Likert-scale by the researchers, all but two generated double digit tallies from the respondents. This differs from Clifford’s (2009) study where only half of the twelve traditional and enhanced teacher compensation factors received double-digit responses. The two factors that did not receive double digit responses were national board certification and student achievement at the school district level. Of the ten traditional and enhanced teacher compensation factors receiving double digit responses, five received responses over twenty times. They were: a performance based teacher evaluation, student
A two sample t-test of the rank order responses to the list of twelve compensation factors presented in the Likert-scale revealed statistically significant differences between the superintendent respondents in this study and those in Clifford’s (2009) study. The write-in compensation factor was value-added data. When the responses of the superintendents are compared to the responses of the teachers in Clifford’s (2009) study, the top six responses are the same, but they were not ranked in the same order (See Table 14). In their 2006 study, Van Keuren, Walters, and Wilson found teachers to rank the top five teacher compensation factors in the exact same order as the teachers did in Clifford’s study.

<table>
<thead>
<tr>
<th>Superintendent’s Ranking</th>
<th>Teacher’s Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>A performance based teacher evaluation</td>
<td>1</td>
</tr>
<tr>
<td>Student achievement at the classroom level</td>
<td>2</td>
</tr>
<tr>
<td>Classroom performance on the state report card</td>
<td>3</td>
</tr>
<tr>
<td>Hard to serve school</td>
<td>4</td>
</tr>
<tr>
<td>Level of formal training (degree held)</td>
<td>5</td>
</tr>
<tr>
<td>Number of years teaching experience</td>
<td>6</td>
</tr>
</tbody>
</table>
teacher respondents to Clifford’s (2009) study. A statistical analysis of each factor is presented along with a descriptive analysis explaining how the superintendents and teachers compared with each other.

Table 14

ROCF-1 A Performance Based Evaluation Two-Sample T-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF1</td>
<td>40</td>
<td>2.23</td>
<td>1.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65</td>
<td>-2.07</td>
<td>0.042</td>
</tr>
<tr>
<td>Tchr.ROCF1</td>
<td>119</td>
<td>2.77</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for rank order teacher compensation factor number one (ROCF-1), a performance based teacher evaluation. On average, the superintendents in this study ranked a performance based teacher evaluation higher on their list of items to be considered as a factor when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was a slightly greater level of deviation from the mean with superintendents in this study than there was with teachers from Clifford’s study. This may indicate a slightly greater range of dispersion between teacher responses and superintendent responses.
Table 15

**ROCF-2 Building Level Performance on State Report Card Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF2</td>
<td>14</td>
<td>3.36</td>
<td>1.39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tchr.ROCF2</td>
<td>21</td>
<td>3.76</td>
<td>1.22</td>
<td></td>
<td>-0.88</td>
<td>0.385</td>
</tr>
</tbody>
</table>

There was not a statistically significant difference in mean scores for rank order teacher compensation factor number two (ROCF-2), *building level performance on state report card*. On average, the superintendents in this study did not have a statistically significant difference in their ranking of building level performance on the state report card when it came to rank ordering the items to be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford's (2009) study. There was a slightly greater level of deviation from the mean with superintendents in this study than there was with teachers from Clifford's study. This may indicate a slightly greater range of dispersion between teacher responses and superintendent responses.
Table 16

ROCF-3  *Number of Years Teaching Experience*  Two-Sample *T*-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF3</td>
<td>19</td>
<td>3.63</td>
<td>1.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td>5.41</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.ROCF3</td>
<td>193</td>
<td>1.95</td>
<td>1.23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for rank order teacher compensation factor number three (ROCF-3), *number of years teaching experience*. On average, the superintendents in this study ranked number of years teaching experience lower on their list of items to be considered as a factor when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was a slightly greater level of deviation from the mean with superintendents in this study than there was with teachers from Clifford’s study. This may indicate a slightly greater range of dispersion between teacher responses and superintendent responses.

Table 17

ROCF-4  *Hard to Serve School Building (Low Performing)*  Two-Sample *T*-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF4</td>
<td>23</td>
<td>3.39</td>
<td>1.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>42</td>
<td>0.64</td>
<td>0.524</td>
</tr>
<tr>
<td>Tchr.ROCF4</td>
<td>55</td>
<td>3.18</td>
<td>1.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There was not a statistically significant difference in mean scores for rank order teacher compensation factor number four (ROCF-4), *hard to serve school building*. On average, the superintendents in this study did not have a statistically significant difference in their ranking of hard to serve school building when it came to rank ordering the items to be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was also only a very slight difference in the level of deviation from the mean with superintendents of this study and the mean of teachers from Clifford’s study. This may indicate only a slight variation in dispersion of scores with both the teacher responses and superintendent responses.

Table 18

**ROCF-5  Student Achievement at the Classroom Level  Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF5</td>
<td>35</td>
<td>2.06</td>
<td>1.21</td>
<td></td>
<td>-4.23</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.ROCF5</td>
<td>76</td>
<td>3.12</td>
<td>1.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for rank order teacher compensation factor number five (ROCF-5), *student achievement at the classroom level*. On average, the superintendents in this study ranked student achievement at the classroom level higher on their list of items to be considered as a factor when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did
the teachers in Clifford’s (2009) study. There was only a slightly greater level of deviation from the mean with teachers from Clifford’s study than there was with superintendents in this study. This may indicate a slightly greater range of dispersion between teacher responses and superintendent responses.

Table 19

**ROCF-6 National Board Teacher Certification Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF6</td>
<td>7</td>
<td>4.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tchr.ROCF6</td>
<td>61</td>
<td>3.20</td>
<td>1.21</td>
<td></td>
<td>1.44</td>
<td>0.192</td>
</tr>
</tbody>
</table>

There was not a statistically significant difference in mean scores for rank order teacher compensation factor number six (ROCF-6), *national board teacher certification*. On average, the superintendents in this study did not have a statistically significant difference in their ranking of national board teacher certification when it came to rank ordering the items to be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was a greater level of deviation from the mean with superintendents in this study than there was with teachers from Clifford’s study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.
Table 20

ROCF-7  Level of Formal Training (Degree Held)  Two-Sample T-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF7</td>
<td>21</td>
<td>3.24</td>
<td>1.45</td>
<td>22</td>
<td>3.56</td>
<td>0.002</td>
</tr>
<tr>
<td>Tchr.ROCF7</td>
<td>194</td>
<td>2.088</td>
<td>0.966</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for rank order teacher compensation factor number seven (ROCF-7), level of formal training. On average, the superintendents in this study ranked level of formal training lower on their list of items to be considered as a factor when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was a greater level of deviation from the mean with superintendents in this study than there was with teachers from Clifford’s study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 21

ROCF-8  Student Achievement - School District Level  Two-Sample T-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF8</td>
<td>8</td>
<td>2.88</td>
<td>1.13</td>
<td>11</td>
<td>-2.32</td>
<td>0.040</td>
</tr>
<tr>
<td>Tchr.ROCF8</td>
<td>28</td>
<td>3.93</td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There was a statistically significant difference in mean scores for rank order teacher compensation factor number eight (ROCF-8), \textit{student achievement}—\textit{school district level}. On average, the superintendents in this study ranked student achievement at the school district level higher on their list of items to be considered as a factor when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was only a slightly greater level of deviation from the mean with teachers from Clifford’s study than there was with superintendents of this study.

Table 22

\begin{tabular}{|l|c|c|c|c|c|}
\hline
\textbf{Group} & \textbf{N} & \textbf{Mean} & \textbf{Std. Dev.} & \textbf{df} & \textbf{T} \\
\hline
Supt.ROCF9 & 12 & 3.75 & 1.14 & 27 & 0.22 & 0.827 \\
\hline
Tchr.ROCF9 & 23 & 3.65 & 1.43 & & & \\
\hline
\end{tabular}

There was not a statistically significant difference in mean scores for rank order teacher compensation factor number nine (ROCF-9), \textit{school district performance on state report card}. On average, the superintendents in this study did not have a statistically significant difference in their ranking of school district performance on the state report card when it came to rank ordering the items to be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was also a greater level of deviation from the
mean with teachers from Clifford’s study than there was with superintendents in this study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 23

ROCF-10  Classroom Performance on State Report Card  Two-Sample  T-Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF10</td>
<td>29</td>
<td>2.62</td>
<td>1.05</td>
<td>60</td>
<td>-4.76</td>
<td>0.000</td>
</tr>
<tr>
<td>Tchr.ROCF10</td>
<td>34</td>
<td>3.94</td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a statistically significant difference in mean scores for rank order teacher compensation factor number ten (ROCF-10), classroom performance on state report card. On average, the superintendents in this study ranked classroom performance on state report card higher on their list of items to be considered as a factor when it came to developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was only a slightly greater level of deviation from the mean with teachers from Clifford’s study than there was with superintendents in this study.
Table 24

**ROCF-11 Scarce Licensure Bonus (Math, Science, Etc.) Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF11</td>
<td>12</td>
<td>3.33</td>
<td>1.44</td>
<td></td>
<td>-0.47</td>
<td>0.646</td>
</tr>
<tr>
<td>Tchr.ROCF11</td>
<td>44</td>
<td>3.55</td>
<td>1.21</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was not a statistically significant difference in mean scores for rank order teacher compensation factor number eleven (ROCF-11), *scarce licensure bonus*. On average, the superintendents in this study did not have a statistically significant difference in their ranking of scarce licensure bonus when it came to rank ordering the items to be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. There was a greater level of deviation from the mean with superintendents of this study than there was with teachers from Clifford’s study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

Table 25

**ROCF-12 Student Achievement at the Building level Two-Sample T-Test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supt.ROCF12</td>
<td>17</td>
<td>3.00</td>
<td>1.37</td>
<td></td>
<td>-1.08</td>
<td>0.291</td>
</tr>
<tr>
<td>Tchr.ROCF12</td>
<td>41</td>
<td>3.41</td>
<td>1.24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There was not a statistically significant difference in mean scores for rank order teacher compensation factor number twelve (ROCF-12), *student achievement at the building level*. On average, the superintendents in this study did not have a statistically significant difference in their ranking of student achievement at the building level when it came to rank ordering the items to be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study. Although, there was a greater level of deviation from the mean with superintendents of this study than there was with teachers from Clifford’s study. This may indicate a greater range of dispersion between teacher responses and superintendent responses.

**Research Question 3**

Research Question 3: *Compared to teachers, do superintendents differ in their level of comfort with reference to the components of a teacher compensation system?*

As Clifford (2009) did in his study of teachers, superintendent respondents were asked to respond to the acceptability of using student achievement test scores and progress as measured by those scores as a component of the teacher pay scale. The list of items that the superintendent respondents were asked to consider were the same as the list that Clifford asked his respondent teachers to consider. The list of items were: a teacher’s current students’ end of year scores, grade level student average scores, building level total student average scores, district level total student average scores, state
level student average scores, and that they were not comfortable at any level using student achievement as a component of the teacher pay scale. Table 26 illustrates a comparison between superintendent respondent responses and the responses of teachers from Clifford’s study to the consideration of using student achievement test scores and progress as measured by those scores as a component of the teacher pay scale.

Table 26

Responses to the Level of Comfort in the Use of Student Achievement Test Scores and Progress as Measured by Those Scores as a Component of Teacher Pay

<table>
<thead>
<tr>
<th></th>
<th>Superintendents</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A teacher’s current students’ end of year scores</td>
<td>39</td>
<td>56</td>
</tr>
<tr>
<td>Grade level student average scores</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Building level total student average scores</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>District level total student average scores</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>State level student average scores</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>I am NOT COMFORTABLE at ANY level using student achievement</td>
<td>14</td>
<td>146</td>
</tr>
</tbody>
</table>

Both superintendents and teachers appear to indicate some level of acceptance for the use of student scores as a factor of a teacher compensation system. It also appears as if there is more acceptance to the use of student achievement data as a teacher compensation factor the closer the student achievement data is to the teacher’s classroom. It is also more accepted by both
groups if it is data that is obtained within the year in which the teacher has the student. Unlike teachers, superintendents were much less opposed or less uncomfortable using student achievement as a compensation factor of the teacher pay scale.

Similar to teacher respondents to Clifford’s (2009) study, superintendent respondents were asked to explain the primary reason for indicating that they were not comfortable at any level using student achievement data as a component of the teacher pay scale. In Clifford’s study of teachers, five themes emerged in this area. Those themes were: what the student brings to the classroom; trust in the system, other teachers, administrators, and parents; not an accurate or fair assessment of a student’s achievement for a year; factors that the teacher can’t control that affect student scores; and there should be a level of accountability for the parents and students: education is not solely the responsibility of the teacher.

Through an analysis of the superintendent respondents’ explanation of their primary reason for indicating that they were not comfortable at any level using student achievement data as a component of the teacher pay scale, two themes emerged. The responses of the superintendents are presented directly as they appeared on the surveys with no change other than to edit for mechanics and readability. The written responses are being presented this way so that the words of the superintendents can be presented in their original form, capturing their full intent and meaning. The researcher also believed the responses from
the superintendents to be important data to answer the research question. The
two themes that emerged from the responses are illustrated in Figure 2.

Figure 2. Emergent Themes to Responses to the Level of Comfort in the Use of
Student Achievement Test Scores and Progress as Measured by Those Scores
as a Component of Teacher Pay

- Value-added
- Fair and trusted system: too many variables outside of the control of
teachers.

An analysis of the themes that emerged between the teachers who
responded to Clifford’s (2009) study and those of the superintendent
respondents to this study reveal that both groups have similar concerns in one
area. Although the teachers in Clifford’s study tended to focus more on factors
outside their control and the idea that student test scores did not serve as a fair
evaluation tool of teacher performance, superintendents differed in this opinion,
clearly indicating that there was a place for student test scores through the use
of value-added data. For more information on teacher responses refer to
Clifford’s study.

**Value-Added**

Superintendent respondents identified value-added training as a possible
tool to be used to fairly determine the performance of teachers with regard to
their impact on student achievement. The respondents thought it important to
collect data over more than one year and take into consideration factors such as
transient students and hard to serve schools. They also warn of giving too much weight to assessments, causing teachers to focus on the test at the expense of other critical results. It is also recommended that trend data gathered over multiple years be used when making such value-added comparisons.

**Superintendent Responses to Value-Added**

- Respondent: I do not oppose it. I believe you need to look at performance over more than one year and you should look at growth. In high poverty and high transit districts, using test scores can be tricky and is not simple – but it can be done.
- Respondent: We need to move beyond just how a kid thinks on a certain day – value added scores.
- Respondent: Under the current system I’m not sure how student achievement would be measured. There are discrepancies, for example, on how our students perform on IOWA Tests and achievement tests. Which results are accurate? If all students had the same starting point and same skills and abilities it may be fair. Otherwise, it is not.
- Respondent: If it is solely on passage rate I feel that good teachers could suffer. Often times your best teachers are put with at-risk and the most challenging students.
- Respondent: If growth (achievement) in a year was added as a criterion, it could be viable. Determining what to do with special education in the process is a serious dilemma, as well. Then, what about homeless children, those whose parents are deployed, just divorced, etc...?
• Respondent: It would need to be a value-added concept for me to buy-in.

• Respondent: This (a teacher’s current students’ end of year scores) is very difficult to measure fairly and should not be near the top of pay factors. What about teachers in non-core courses? However, persistent low value-added scores (where measured) could be a secondary or tertiary issue for salaries.

• Respondent: It would need to be based on a reliable growth measure.

• Respondent: Every student should show a year’s worth of growth for a year’s worth of schooling.

• Respondent: Value-added scores.

• Respondent: Not comfortable with any you have listed here. Value-added info should allow individual student scores to be compared beginning of year to end of year. Thus, see if there is growth for that group of students with that teacher.

• Respondent: I think you need to include value-added component. That is the only way to measure student performance/achievement with instruction of a teacher.

• Respondent: Using value-added - research indicates that bonuses or salaries for broad student achievement does not motivate teachers to improve. However, achievement test scores utilizing value-added growth would be effective and appropriate – if these measures were in place.

• Respondent: Should use a value-added component for school and teachers performance.
Respondent: I would be very comfortable using students’ end of the year scores compared to their scores at the beginning of the year. A teacher can only be held responsible for their performance during that year she/he is instructing them. It is unfair to expect a teacher to help students raise their scores to “on grade level” if they enter the year several years behind, for example.

Respondent: Public schools accept all students that enter the school doors. I could support a value-added component of student achievement that has proven to work.

Value-added was the theme that resulted in the largest number of written response from the respondent superintendents. The superintendents expressed comfort with the use of value-added as a tool to determine teacher effectiveness as long as it did not serve as the sole measure of that effectiveness. The majority of respondents appear to agree that some form of measure of teacher effectiveness with regard to student achievement is needed. Concern would center on how the data is used, the type of data used, and whether consideration for other factors is given.

**Fair and Trusted System**

Operating within a system that was fair and trusted was not only a theme for respondent superintendents, but was also a shared theme with teachers in Clifford’s (2009) study. Like teachers, superintendent respondents expressed concern for variables that are outside of the control of the teacher. They also expressed concern for other factors that contribute to the overall success of a
Superintendent Responses to a Fair and Trusted System

- Respondent: Unless collective bargaining agreements are changed it will be nearly impossible to impact change with this new concept.
- Respondent: Too many variables to determine if scores accurately depict if the teacher instruction caused test scores results (poverty, family background, Title services, additional interventions, resources, etc…).
- Respondent: I really do not believe that we should be using student achievement scores for basic compensation. Too many variables to provide a consistent measure across all content areas and grade levels.
- Respondent: Because there are several variables which impact upon student performance (reason not comfortable).
- Respondent: 25 students or less isn’t a large enough number to rate performance. Teachers would lobby for good students and no one would want the challenging students.

Operating within a fair and trusted system is not only important to the superintendent respondents to this study, but was also important to the teachers who responded to Clifford’s (2009) study. Because there are so many variables outside the teachers’ control, superintendent respondents acknowledge that consideration for such factors needs to be made in order to create a fair and trusted evaluation system. They also acknowledge that failure to design a
system with these considerations in mind may result in unintended consequences.

**Summary**

Superintendents of this study differed significantly from teachers of Clifford’s (2009) study when it came to their opinions about compensation factors that they believed best reflected what teachers do to impact academic results. Both groups were asked to consider twelve researcher created teacher compensation factors that were presented in an equal appearing interval response seven-anchor Likert-scale. The list of twelve compensation factors presented in the Likert-scale were: a performance based teacher evaluation, building level performance on state report card, number of years teaching experience, hard-to-serve school building (low performing), student achievement at the classroom level, national board certification, level of formal training (degree held), student achievement – school district level, school district performance on state report card, classroom performance on state report card, scarce licensure bonus (math, science, technology), and student achievement at the building level. This list represents the same list that was presented by Clifford (2009) and Van Keuren, Walters and Wilson (2006) in their studies of teachers.

Of the factors upon which the two groups differed significantly, teachers more greatly favored number of years teaching experience, national board teacher certification, and level of formal training than did the superintendents. The superintendent respondents differed significantly with the teachers from
Clifford’s (2009) study, as they favored a performance based teacher evaluation, building level performance on state report card, hard-to-serve school building (low performing), student achievement at the classroom level, student achievement – school district level, school district performance on state report card, classroom performance on state report card, scarce licensure bonus (math, science, technology), and student achievement at the building level.

As was the case in Clifford’s (2009) study, the respondents to this study were asked to rank order what they believed were their top five compensation factors that were presented in the list of twelve teacher compensation factors in the Likert-scale. There was no statistically significant difference when it came to how the two groups rank ordered: building level performance on state report card, hard-to-serve school building (low performing), national board certification, school district performance on state report card, scarce licensure bonus (math, science, technology), and student achievement at the building level.

The teachers from Clifford’s study rank ordered number of years teaching experience and level of formal training significantly higher statistically than superintendents in this study.

Superintendents in this study rank ordered a performance based teacher evaluation, student achievement at the classroom level, student achievement – school district level, and classroom performance on state report card higher than teachers in Clifford’s study.

The respondent superintendents centered on three theme areas when it came to their reasons for indicating their high or low marks to the twelve teacher
compensation factors on the Likert-scale. The three themes that emerged from the responses were: value-added, a performance based evaluation, and level of experience and degree held. An analysis of the themes that emerged from the superintendents’ responses revealed that accountability for performance is important to them. The majority of respondents to the question believe that student achievement should be used as a measure of teacher performance as long as it is in the form of value-added. There is also an indication that they do not necessarily believe that teacher experience and level of education correlate with student achievement.

Superintendents in this study and teachers of Clifford’s (2009) study appear to indicate some level of acceptance for the use of student scores as a factor in a teacher compensation system. It also appears as if there is more acceptance of the use of student achievement data as a factor in a teacher compensation system the closer the student achievement data is to the teacher’s classroom. It appears to be more accepted by both groups if the student achievement data is obtained within the year in which the teacher has the student. Unlike teachers, superintendents were much less opposed or less uncomfortable using student achievement as a compensation factor of the teacher pay scale.

Similar to teacher respondents to Clifford’s (2009) study, superintendent respondents indicated that they were not comfortable at any level using student achievement data as a component of the teacher pay scale when they were asked to explain the primary reason for their discomfort. Through an analysis of
the superintendent respondents’ explanation of their primary reason for indicating that they were not comfortable at any level using student achievement data as a component of the teacher pay scale, two themes emerged. Those themes were value-added and a fair and trusted system: too many variables outside of the control of teachers.

An analysis of the themes that emerged between the teachers who responded to Clifford’s (2009) study and those of the superintendent respondents to this study reveal that both groups have similar concerns in one area, creating a fair and trusted system. While the teachers in Clifford’s study tended to focus more on factors outside their control and the idea that student test scores did not serve as a fair evaluation tool of teacher performance, superintendents differed from this opinion, clearly indicating that there was a place for student test scores through the use of value-added assessments.
CHAPTER V

Introduction

This study investigated the similarities and differences between superintendent and teacher responses to a survey about teacher compensation factors. The study focused on superintendent and teacher views and concerns as they relate to teacher compensation factors and their relationship to student performance. The primary purpose of the study was to compare the findings from a survey of superintendents to the findings from a previous study of teachers conducted by Clifford (2009). A statement of the problem, a review of methodology, a review of the results of the study, an interpretation of the findings, a discussion of the relationship of the study’s findings to previous findings, researcher insights, methodology considerations, implications and suggestions for additional research, and conclusions and recommendations for educators are presented.

Statement of the Problem

Typically, teacher salary schedules are designed by those outside the actual practice of education such as boards of education, political subgroups and leaders, and policy groups. While their intentions may be good, the current salary structure in many school districts is based upon a unionized model that fails to reward those who are less experienced or perform above and beyond. It also fails to provide consequences for those who under perform. The majority of salary schedules nationally are primarily based upon two factors: the amount of
training a teacher has acquired, and the number of years of teaching experience a teacher has obtained.

Recently, we have begun to see the economic impact of the current salary schedule on school district budgets. As the U.S. economy has struggled, causing the amount of discretionary funds available to individual tax payers to decrease, it has become more difficult for communities to support schools financially without first questioning the need. Annual base salary increases, coupled with increases for longevity and education that go beyond typical cost of living increases experienced by local tax payers are no longer affordable or tolerable. Getting the academic and financial results that the public wants has become a conversation focal point in many communities. As a result, voters have become more aware of the current salary structure and more demanding of a change that is more in line with today’s market.

Little research has been conducted on teacher and administrator attitudes relative to what should be included in a teacher salary schedule. If policy makers and boards of education truly intend to reform current practice, understanding the attitudes of those who work within the system would be important to the success of such an initiative. Many believe that an effective teacher salary schedule can not only serve as a motivator, but also as an influential tool to be used to attract and retain quality teachers. In order for the development of an effective salary schedule to be accomplished, it is important to understand what each group, superintendents and teachers, view as important components of a salary schedule. By understanding teacher attitudes toward teacher pay, all
parties charged with reforming the current system may come to a better understanding as to whether or not pay serves as a motivator for teachers and why teacher pay does or does not correlate with student achievement. It could also help in the understanding of the impact of those attitudes on key district decisions such as negotiations. By understanding superintendent attitudes toward pay as compared to teacher attitudes toward the same, we may be able to determine if there is a gap between each group’s views that may hinder future reform progress.

**Review of Methodology**

The primary purpose of the study was to compare the views of superintendents to those of teachers about teacher compensation factors and their impact on student learning. The comparison group of teachers was taken from a group that was previously studied by Clifford (2009) using a similar survey instrument. The survey instrument used was designed to gather feedback about opinions with regard to teacher compensation factors that best represent what teachers actually do to impact academic results. The research question had three components. First, between superintendents and teachers, what are the possible differences in the perceptions about teacher compensation? Second, do superintendents and teachers report differences in what should be included as a component of a teacher compensation system? Third, compared to teachers, do superintendents differ in their level of comfort with reference to the components of a teacher compensation system?
Based on previous work conducted by Van Keuren, Walters and Wilson (2006) and Clifford (2009), it was determined that a mixed methods approach was the most appropriate research method to use for this study. The study was quantitative first and secondarily qualitative. When combined, the quantitative and qualitative data would provide a good perspective on the views and concerns that the respondent superintendents shared about teacher compensation factors as compared to the previous study done by Clifford with teachers.

**Review of the Results of the Study**

Of the 174 superintendents who were asked to participate in the study, 78 superintendents completed and returned the survey as compared to 198 teachers who participated in the previous study conducted by Clifford (2009). This made the rate of return for surveys in this study of superintendents 45%. More than 25% of respondent superintendents indicated that they were employed in a city school district, as compared to 10% of respondent teachers. Almost 30% of the superintendents who responded to the study indicated that they were employed in a suburban school district, while nearly 60% of teachers from the previous study indicated the same. The largest group of respondent superintendents, over 30%, indicated that they worked in a rural school district as compared to less than 20% of teachers. Of the superintendents who responded to the survey, nearly 75% indicated having secondary level experience, as compared to nearly 65% of teachers from the previous study. With respect to the highest degree attained, the majority of superintendents who
responded to this study, nearly 80%, reported having an advanced degree.
Teacher respondents to Clifford's (2009) study indicated that nearly 51% of them had attained an advanced degree.

**Research Question 1**

The first research question asked *Is there a difference in perceptions about teacher compensation between superintendents and teachers?* The respondent superintendents to this study and the respondent teachers to Clifford's (2009) study were asked to rate twelve researcher created teacher compensation factors that were presented in an equal appearing seven anchor Likert-scale. The list of twelve compensation factors presented in the Likert-scale were: a performance based teacher evaluation, building level performance on state report card, number of years teaching experience, hard to serve school building (low performing), student achievement at the classroom level, national board certification, level of formal training (degree held), student achievement – school district level, school district performance on state report card, classroom performance on state report card, scarce licensure bonus (math, science, etc.), and student achievement at the building level. This list not only represents the same list that was presented by Clifford (2009), but also represents the list used by Van Keuren, Walters and Wilson (2004, 2006) in their studies of teachers.

A two sample t-test of the responses to the list of twelve compensation factors presented in the Likert-scale revealed statistically significant differences between the superintendent respondents in this study and teacher respondents to Clifford's (2009) study. The superintendents in this study more strongly
believed that the following teacher compensation factors should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the teachers in Clifford’s (2009) study:

- a performance based teacher evaluation,
- building level performance on state report card,
- hard to serve school building,
- student achievement at classroom level,
- student achievement — school district level,
- school district performance on state report card,
- classroom performance on state report card,
- scarce licensure bonus, and
- student achievement at the building level.

Teacher respondents to Clifford’s (2009) study more strongly believed that the following teacher compensation factors should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results than did the superintendents in this study:

- number of years teaching experience,
- national board teacher certification, and
- level of formal training.

Superintendent respondents to this study were asked to comment on the high or low marks they gave to the twelve teacher compensation factors on the
The respondent superintendents centered on three theme areas when it came to their reasons for indicating the high or low marks to the twelve teacher compensation factors on the Likert-scale. The three themes that emerged from the responses were: value-added, performance based evaluation, level of experience and degree held. An analysis of the themes that emerged revealed that accountability for performance was important to them. The majority of superintendent respondents believed that student achievement should be used as a measure of teacher performance as long as it is in the form of value-added. There was also some indication that the respondent superintendents do not believe that teacher experience and level of education correlate with higher student achievement.

Research Question 2

The second research question which asked Compared to teachers, do superintendents report differences in what should be included as a component of a teacher compensation system? was designed to focus on two areas of the study. The areas of focus were the rank order of traditional and enhanced teacher compensation factors and the use of achievement test data as a component of the teacher pay scale.

Respondent superintendents to this study and respondent teachers to Clifford’s (2009) study were asked to respond to twelve compensation factors, of which two were considered to be traditional and ten were considered to be compensation enhancements. The two traditional compensation factors were years of experience and level of formal training (degree held). The ten
compensation enhancement factors presented on the survey (Appendix C) along with the two traditional compensation factors were: a performance based teacher evaluation, building level performance on state report card, hard-to-serve school building (low performing), student achievement at the classroom level, national board certification, student achievement – school district level, school district performance on state report card, classroom performance on state report card, scarce licensure bonus (math, science, etc.), and student achievement at the building level. Both groups of respondents were asked to rank order the top five factors which they believed should be included as a factor in a teacher’s salary schedule.

Different than the results of Clifford’s (2009) study of teachers, where only half of the twelve traditional and enhanced teacher compensation factors presented in the Likert-scale by the researchers received double digit responses, all but two generated double digit tallies from the respondent superintendents. The two teacher compensation factors that did not receive double digit responses were national board certification and student achievement at the school district level. One write-in teacher compensation factor received a double digit response, totaling at least 20, from the respondent superintendents and that was value-added data. When compared to the responses of the teachers in Clifford’s (2009) study, the top six responses from the superintendent respondents were the same. Those responses were: a performance based teacher evaluation, student achievement at the classroom level, classroom performance on the state report card, hard to serve school, level of formal
training, and number of years of teaching experience. When Clifford compared the top responses by teachers in his study to teachers in a study conducted by Van Keuren, Walters and Wilson (2006), the top six factors were not only the same, but they were also ranked in the same order. Although the top six teacher compensation factor responses were the same between the superintendents in this study and the teachers in Clifford’s study, they were not ranked in the same order.

A two sample t-test of the rank order responses to the list of twelve compensation factors presented in the Likert-scale revealed statistically significant differences between the superintendent respondents in this study and teacher respondents to Clifford’s (2009) study. There was a statistically significant higher rank order of the following teacher compensation factors by the superintendents in this study than the teachers in Clifford’s (2009) study:

- a performance based teacher evaluation,
- student achievement at classroom level,
- student achievement – school district level, and
- classroom performance on state report card.

There was a statistically significant higher rank order of the following teacher compensation factors by the teachers in Clifford’s (2009) study than the superintendents in this study:

- number of years teaching experience, and
- level of formal training.
Of the rank order responses to the list of twelve compensation factors that were presented in the Likert-scale, there was not found to be a statistically significant difference in the rank order of the following teacher compensation factors between the superintendent respondents to this study and teacher respondents to Clifford’s (2009) study:

- building level performance on state report card,
- hard to serve school building,
- national board teacher certification;
- school district performance on state report card,
- scarce licensure bonus, and
- student achievement at the building level.

Research Question 3

The third research question asked *Compared to teachers, do superintendents differ in their level of comfort with reference to the components of a teacher compensation system?* As was asked of teachers in the previous study by Clifford (2009), superintendent respondents were asked to respond to the acceptability of using student achievement test scores and progress as measured by those scores as a component of the teacher pay scale. The same list that Clifford used with the teachers in his study was used with the superintendents in this study. The list of items both groups were asked to consider were: a teacher’s current students’ end of year scores, grade level student average scores, building level total student average scores, district level total student average scores, state level student average scores, and that they
were not comfortable at any level using student achievement as a component of the teacher pay scale.

Both superintendents and teachers appeared to indicate some level of acceptance for the use of student scores as a factor of a teacher compensation system. The item that received the most responses in Clifford’s (2009) study of teachers, making up nearly 55% of the teacher responses to this section of the survey was the statement *I am not comfortable at any level using student achievement as a component of the teacher pay scale*. Superintendent responses to the same accounted for approximately 15% of the total. A *teacher’s current students’ end of year scores* was the item that was selected second most often by teachers in Clifford’s study and most frequently by Superintendents of this study. Nearly 41% of the superintendents’ responses indicated *a teacher’s current students’ end of year scores* as their primary choice, as compared to 21% of teacher responses. This item received the second most responses from teacher respondents in Clifford’s study, while the second highest responded to item for superintendents of this study was *building level total student average scores*. For more detailed information see Table 26 in Chapter IV.

Similar to teacher respondents to Clifford’s (2009) study, superintendent respondents were asked to explain the primary reason for indicating that they were not comfortable at any level using student achievement data as a component of the teacher pay scale if they indicated such. In Clifford’s study of teachers, five themes emerged in this area. Those themes were: what the
student brings to the classroom; trust in the system, other teachers, administrators, and parents; not an accurate or fair assessment of a student’s achievement for a year; factors that the teacher can’t control that affect student scores; and there should be a level of accountability for the parents and students: education is not solely the responsibility of the teacher.

The themes that emerged from the superintendent respondents’ explanations for why they were not comfortable at any level using student achievement data as a component of the teacher pay scale were: value-added data, and fair and trusted system: too many variables outside of the control of teachers. It appears as if both groups have similar concerns in one area, fair and trusted system.

**Discussion of Results**

There is a statistically significant difference in mean scores between superintendents in this study and teachers in Clifford’s (2009) study when it comes to their perceptions about teacher compensation factors that should be considered when developing a teacher compensation system that is reflective of what teachers do to impact academic results. Respondent superintendents to this study more strongly believe that factors related to student performance should be included in a compensation system that is designed to reflect what teachers actually do to impact academic results than do teachers from Clifford’s study. Teacher respondents to Clifford’s study are more traditional in their beliefs, indicating that they are more supportive of a system that compensates teachers for longevity and education than do superintendents in this study.
Even though the top six teacher compensation factors were the same between teachers who participated in Clifford’s (2009) study and the superintendents who responded to this study, the superintendents did not rank them in the same order as the teachers in Clifford’s study. This differs from the results Clifford found when he conducted his study and compared the results to a previous study of teachers conducted by Van Keuren, Walters and Wilson (2006). Clifford found exact alignment in not only the top five factors, but also the rank order of those factors by the teachers of his study when compared to the teachers who responded to the study conducted by Van Keuren, Walters and Wilson. It is worth noting that the study conducted by Van Keuren, Walters and Wilson was based on data supplied only by teachers. While the top six items were actually the same between teachers of Clifford’s study and the superintendents in this study, there is a statistically significant difference in the rank order. There was a statistically significant higher ranking by superintendent respondents to this study for the teacher compensation factors: a performance based teacher evaluation, student achievement at classroom level, student achievement – school district level, and classroom performance on state report card than by teachers in Clifford’s study. Subsequently, there was a statistically significant higher ranking by teachers in Clifford’s study for teacher compensation factors: number of years teaching experience and level of formal training than by superintendents of this study.

When it came to indicating level of comfort with reference to the use of student achievement as a component of a teacher compensation system,
teachers in Clifford’s (2009) study indicated that they were more uncomfortable using student achievement as a component of a teacher compensation system than were superintendents in this study. This fact was supported by the much larger percentage of teachers in Clifford’s study who indicated that they were not comfortable at any level using student achievement data as a component of the teacher pay scale than superintendents who indicated the same in this study (See Table 26). An analysis of the responses to the open-ended research question revealed that although superintendents of this study supported the use of value-added data as a component of the teacher compensation system, teachers from Clifford’s study clearly indicated that they were not in favor of using student achievement test data as a component of a teacher compensation system. The development of a fair and trusted teacher compensation system was determined to be an area of common ground between the teachers from Clifford’s study and the superintendents in this study.

**Interpretation of the Findings**

Based on the results of this study, the superintendents in this study appear not to agree with the teachers in Clifford’s (2009) study on the factors that should be included in a teacher compensation system. The superintendents in this study more strongly believe that the factors presented in the Likert-scale that are more results oriented are of preference to those that were more traditional in nature. Teachers, on the other hand, prefer more traditional teacher compensation factors, such as longevity and education, over the output oriented factors. These findings support the notion that teachers are more
receptive to the evaluation criteria used in a merit-based pay system when it is focused on factors that are more under their control as opposed to factors perceived to be less under their control, such as standardized tests (Clifford, 2009; Van Keuren, Walters & Wilson, 2006).

While the top six rank order teacher compensation factors were the same between superintendents who responded to this study and teachers who responded to Clifford’s (2009) study, the fact that the superintendents did not rank them in the same order as the teachers in Clifford’s study is quite telling. As they did with the twelve teacher compensation factors presented in the Likert-scale, superintendent respondents to this study focused on results oriented factors that were less traditional and more closely related to a student’s academic performance. Teachers continued to favor more traditional factors, such as number of years teaching experience and level of formal training, ranking them statistically significantly higher than superintendents. This clearly indicates that there is a difference between what superintendents and teachers value in a teacher compensation system.

The gap between what teachers from Clifford’s (2009) study believed to be important and what superintendents from this study believed to be important in a teacher compensation system only seemed to widen when it came to indicating their level of comfort with reference to the use of student achievement as a component of a teacher compensation system. Superintendents of this study appeared to be less uncomfortable using student achievement as a component of a teacher compensation system than were teachers in Clifford’s
study. The gap between what teachers from Clifford’s study and what superintendents from this study valued in a teacher compensation system was underscored by the percentage difference in those who indicated that they were not comfortable at any level using student achievement data as a component of the teacher pay scale (See Table 26). Superintendents of this study were much more in favor of using value-added data as a component of the teacher compensation system than were teachers from Clifford’s study.

Relationship of Current Study to Research

This study extended the research on teacher perceptions about pay into the school superintendency. This study found contrasting views between what teachers believe and what superintendents believe about factors that should be considered as a component of a teacher compensation system. While most school districts in the United States utilize a single salary schedule in which salary increments are based on experience and educational level or training (Shaw, 1985), there is little data to support the notion that the current system of compensating teachers for longevity and education actually has much impact on growth in student achievement (Kane, Rockoff & Staiger, 2006). The practice of compensating teachers equally based on input requirements such as years of experience, certification, and the attainment of college credit have been found to have little correlation to student achievement (Hanushek, 2003). The superintendents in this study indicate that their beliefs align with research that suggests that the current policies that support the traditional teacher compensation system are outdated.
While there has been much debate about the merits of a performance based compensation system, the single salary system of compensation for teachers is acceptable to teachers (Clifford, 2009). Clifford found that teachers perceived the current compensation system to be fair and impartial. Even though there is evidence to suggest that the single salary schedule does little to impact student achievement (Hanushek, 2003), teachers do appear to favor the current uniform compensation system. Clifford’s (2009) study underscored this point, finding that teachers do not want their pay to be subject to the uncertainty or perceived uncertainty of a compensations system that relied on student performance on state mandated achievement tests. This study found superintendent views to differ greatly from Clifford’s findings on teacher views. While teacher respondents to Clifford’s study have been found not to be in favor of a compensations system that relies on student performance on state mandated achievement tests, superintendents in this study have been found to differ from that view.

As research has shown, the success of a merit based compensation system is tied to its design and its purpose. A system must measure true performance in a way that minimizes random variation as well as controlling for undesired and unintended consequences (Lavy, 2007). Shaw (1985) found that by engaging in a joint effort at developing evaluative criteria that are amenable to an individualized evaluative process, teachers perceived this as showing an interest in the participation of the affected group and the mutual understanding of the evaluation system. This behavior increases support from teachers for the
system, increasing the odds of successful implementation. Based on this study, superintendents would appear to support the notion of a system that was collaboratively developed by the indication that they support a system that was fair and trusted.

**Researcher Insights**

As a result of this study it is clear that teachers and superintendents differ in their views of what should be included as a factor in a teacher compensation system. While teachers who responded to previous studies (Clifford, 2009; Van Keuren, Walters & Wilson, 2006) indicate that they prefer traditional compensation factors such as level of experience and longevity, superintendents in this study are very much in favor of the use of student achievement data.

Of the twelve teacher compensation factors provided to the respondent superintendents by the researchers, only three had a mean score on the two sample t-test over five. A performance based teacher evaluation, student achievement at the classroom level, and classroom performance on state report card were the three receiving mean scores over five from the superintendent respondents on the Likert-scale. A performance based teacher evaluation had the second highest mean score on the Likert-scale of twelve teacher compensation factors, was rank ordered the highest, and received the most open-ended comments from superintendents. The teacher compensation factor receiving the highest mean score on the Likert-scale from superintendents was student achievement at the classroom level. In contrast, the only two compensation factors that had a mean score of at least five on the Likert-scale of
twelve teacher compensation factors from the teacher respondents to Clifford’s (2009) study were level of formal training and number of years of experience. It is important to note that level of formal training and number of years of experience received mean scores near the bottom of all twelve teacher compensation factors from superintendent respondents to this study, with only national board certification receiving a lower mean score. Again, this is a clear indication that the two groups differ in their views of what should be included as a factor in a teacher compensation system.

When superintendent respondents to this study and teacher respondents to Clifford’s (2009) study were asked to rank order the twelve teacher compensation factors, both superintendents and teachers maintained consistency with data from the Likert-scale mean scoring previously mentioned. Superintendent respondents to this study rank ordered student achievement at the classroom level highest, a performance based teacher evaluation second highest, and classroom performance on state report card third highest. Teacher respondents to Clifford’s study rank ordered number of years teaching experience highest and level of formal training second highest. This data highlights the difference in views about what teachers from Clifford’s study and superintendents from this study believe should be included as a factor in a teacher compensation system.

To further underscore the gap between what teachers from Clifford’s (2009) study indicated was important to them as a factor of a teacher compensation system and what the superintendents in this study indicated was
important to them, all one has to do is look at the data gathered from the question asking about the level of comfort in the use of student achievement test scores and progress as measured by those scores as a component of pay. The top vote getter for the teachers from Clifford’s study which accounted for 55% of the vote was, I am not comfortable at any level using student achievement. The top vote getter for superintendents from this study, which accounted for 41% of the vote was, a teacher’s current students’ end of year scores. This underlines the fact that there is a clear gap between what teachers and superintendents from the two studies are comfortable with when it comes to factors that should be included in a teacher compensation system. An important fact to note is that although teachers are clearly uncomfortable with the use of student achievement data as a factor of a teacher compensation system, there was some level of support for its use if it was data that was closer to the classroom and more under a teacher’s control. This notion is supported in Clifford’s study and in previous studies conducted by Van Keuren, Walters & Wilson (2004, 2006).

Discomfort with the use of student achievement test scores by teachers as a factor of a teacher compensation system may be driven by an apparent distrust in the system and those responsible for managing the system. In Clifford’s (2009) study he found trust in the system and factors that teachers cannot control to be of significant concern for the respondent teachers. There also appears to be some level of agreement between the superintendents in this study when it comes to a fair and trusted system, as they indicated a concern in that area as well. As was indicated in the review of literature, the most
successful teacher compensation systems are those that are trusted by all parties and developed in collaboration and with common goals (Shaw, 1985). As was indicated in Clifford’s study and in the work of Van Keuren, Walters and Wilson (2006), teachers are less trusting of a system that includes factors outside of their control and more trusting of factors that are more closely connected to the classroom. Therefore, it would appear that the best chance for success lies within the development of a system of compensation that has factors that teachers believe are more closely connected to their direct influence. Classroom level data and principal evaluation have been identified as two areas that may be as much an indicator of teacher effectiveness in the classroom and on student performance as are state level tests (Clifford, 2009; Van Keuren, Walters & Wilson, 2006; Jacob & Lefgren, 2008).

**Methodology Considerations**

The survey instrument used in this study had previously been used in multiple studies with teachers conducted by Clifford (2009) and Van Keuren, Walters and Wilson (2004, 2006). Tests for reliability and validity were verified through research conducted by Van Keuren, Walters and Wilson. Even though the survey instrument was used multiple times by other researchers, a few problems arose with the instrument in this study with superintendents. On a few occasions, respondent superintendents asked for clarification of meaning of a couple of the twelve researcher selected teacher compensation factors included in the Likert-scale. Specifically, a few of the respondent superintendents asked what was meant by hard to serve school and scarce licensure bonus. There also
seemed to be some confusion with reference to whether or not the superintendent respondents were to be evaluating factors that should be a part of a performance based teacher evaluation system, and if so, why would a performance based teacher evaluation system be one of the choices? Another consideration related to the Likert-scale section of the survey was with the question that asks the respondent to rank order the top five traditional and enhanced teacher compensation factors. The directions related to this part of the survey appeared to confuse the respondents. It may have been clearer to the respondents of the survey if the question specifically asked the respondents to rank order their top five compensation factors based on the list of twelve provided by the researcher in the Likert-scale. If additional factors are desired for consideration by the researcher, another question could be developed and included as a part of the survey. It may also be helpful to the researcher to have the respondent rank order the top five factors by the number to the left of the factor in the Likert-scale. This would make for much quicker data disaggregation for the researcher.

Another survey instrument consideration would be to limit the choices related to grade level taught in the demographic section of the survey. It may be sufficient to know level taught by elementary, middle, and high school, as opposed to the five choices given in the current survey that includes three choices at the elementary level. It may also be helpful to redesign that entire section by asking the respondent to place the number of years taught next to the level at which they taught and then ask for a total number of years teaching, in a
manner similar to how an addition problem is set up. This might help the respondent to better understand that they are to give the years taught at each level, while at the same time help the researcher to increase the response rate to the total number of years taught.

**Implications and Suggestions for Further Research**

Due to the apparent difference between teacher views and superintendent views as they relate to factors that should be included in a teacher compensation system and because a large percentage of teachers from Clifford’s (2009) study, as compared to superintendents from this study, reported working in a suburban school district, this study as well as Clifford’s study should be conducted on a larger scale. By gaining feedback from a larger population of teachers and superintendents we would be better able to determine if there is a statistically significant difference in views that can be generalized with a high confidence level to a much larger population. If that could occur and if it is determined that those findings align to the findings of this study, researchers could then begin to dig deeper, hopefully finding a way to bridge the gap and begin the process of developing a compensation system that will be supported by both groups and facilitate getting the academic results the public desires. After all, if the objective is to improve student performance, then the focal point of policy should be on those factors that impact student performance, such as working collaboratively with teachers in order to find a system that everyone can support. As Hanusheck (2002) found, teachers who are near the top of the quality distribution have been found to get an entire year’s worth of additional learning
out of their students as compared to teachers who are near the bottom. The development of a system that will push all teachers toward the top seems to be a worthwhile investment of both time and energy.

**Conclusions and Recommendations for Educators**

This study found statistically significant differences in the views between teachers from a previous study and superintendents in this study with respect to factors that should be included as a part of a teacher compensation system. There was also a statistically significant difference in what each group considered their rank order top five teacher compensation factors. Teachers tended to lean toward traditional factors, while superintendents tended to lean toward factors related to student achievement. Teachers also expressed discomfort with the idea of using student achievement at any level when it came to teacher compensation. Superintendents, on the other hand, were very receptive to the idea.

Teachers, superintendents, and boards of education share the same common goal: to provide the best possible education to every child. In order to achieve this goal, teachers, superintendents, and boards of education must work in harmony with each other. They must also trust each other and believe that each group is working in the best interest of the children. In order to build and maintain trust, all parties must work collaboratively and develop a transparent relationship founded on a common set of values and beliefs. Teachers need to be fairly evaluated and compensated for their time and effort. At the same time, fairly compensated and evaluated teachers need to do whatever they can to get
the academic results that are expected of them. Fairly compensated and evaluated teachers also need to work collaboratively to develop a system that holds everyone accountable for results. Because a teacher may fear feedback, this fear is not a good reason for not supporting an evaluation system that is based on performance.

If teachers and superintendents work to better understand where each stands in reference to teacher compensation factors, student achievement measures, and performance based evaluations, the odds of developing a system that will work to achieve common goals are sure to increase. It is obvious from this study that there are gaps between teacher views and superintendent views of teacher compensation factors that should be included as a part of a teacher compensation system. It appears as if there is an expectation from the public that both parties will do what they can to bridge these gaps for the betterment of the children they serve. After all, failure to develop a system that facilitates getting the highest level of performance out of each and every educator only hurts the children and the community that supports the school. If educators want the highest levels of respect from their communities, they need to perform at the highest level possible. That performance expectation begins with the development of a high performing evaluation and compensation system. Overcoming the fear of an accountability system that connects an educator’s ultimate responsibilities to their compensation and evaluation could be the first step toward bridging the gap between desired respect and respect given.
References


Boyatzis, R. E. (2009). *Coaching teams and the role of emotional and social intelligence for sustainable, desired change*. Paper presented at the Leadership Deep Dive Program at Case Western Reserve University, Cleveland, OH.


Clifford, R. T. (2008). *Differing teacher views on compensation between teachers who have had value added training and those who have not* (Unpublished doctoral dissertation). Ashland University, Ashland, OH.


doi:10.1016/j.econedurev.2006.06.002


doi:10.1037/0021-9010.91.6.1260


APPENDIX A

LETTER OF INTRODUCTION
“A comparison of Classroom Teachers and Superintendents Views of Teacher Salary Schedule Components”

Dear __________________________:

I am a doctoral student at Ashland University in the College of Education. I am conducting research for my dissertation to help understand the differences and similarities in views between teachers and superintendents when it comes to components of the teacher salary schedule.

Participation in this study is voluntary. You are free to decline to be in this study, or to withdraw from it at any point. No personally identifiable information is being collected. Your decision as to whether or not to participate in this study will have no influence on your present or future employment status.

The return of a completed survey instrument constitutes your agreement to be a part of this study.

If you have questions or concerns, please contact me at (419) or my doctoral advisor, Dr. Harold Wilson, at (419) 289-5339

I would like to express my gratitude in your decision to take the time out of your busy schedule to participate in this study

Sincerely,

Randy Stepp
Doctoral Candidate
APPENDIX B

ELECTRONIC MAIL LETTER
Subject: “A comparison of Classroom Teachers and Superintendents Views of Teacher Salary Schedule Components”

Good Afternoon,

My name is Randy Stepp and I am a doctoral student at Ashland University in the College of Education. I am conducting research for my dissertation to help understand the differences and similarities in views between teachers and superintendents when it comes to components of the teacher salary schedule.

I am emailing you to let you know that you will be receiving a survey in the mail from me in the very near future. Please consider responding to the survey when you receive it, as your input is vitally important to the validity of my study.

Participation in this study is voluntary. You are free to decline to be in this study, or to withdraw from it at any point. No personally identifiable information is being collected. Your decision as to whether or not to participate in this study will have no influence on your present or future employment status.

The study will consist of a survey designed to gather your views on the components of the teacher salary schedule. By returning a completed survey instrument you are agreeing to be a part of this study.

Should you have questions or concerns about this request or the study in general, please contact my doctoral advisor, Dr. Harold Wilson, at (419) 289-5339

I appreciate your consideration and would like to express my gratitude in your decision to take the time out of your busy schedule to participate in this study

Thank You for your time and consideration of the survey.

Sincerely,

Randy Stepp
APPENDIX C

SURVEY INSTRUMENT
As you know, teacher compensation is being studied across the nation. National and state leaders are making a number of proposals to modify teacher's salary schedules with little or no information as to the relationships between what teachers do and their impact on academic results. We invite you as a superintendent to share your opinions about what should be considered as a component of a compensation system for teachers. Your rating should best reflect what you believe should be included as a component in a teacher compensation system as it relates to what teachers do to impact academic results.

Please rate the following by marking the box on the adjacent scale that most accurately depicts what you believe should be considered as a factor when developing a teacher compensation system that is reflective of what teachers do to impact academic results. If you mark specific items higher than 5 - indicating a high relationship to what teachers do to impact academic results, and therefore you believe it should be included in a compensation system, use the back of this page to provide explanatory comments. Similarly, if you mark specific items less than 3- indicating a low relationship with what teachers do to impact academic results, and therefore you believe it should NOT be included in a compensation system, your written constructive criticism comments would be appreciated and useful as well.

Greater than 4 = high to very high relationship to what teachers do to impact academic results.
4 = some relationship to what teachers do to impact academic results. Less than 4 = low to no relationship to what teachers do to impact academic results.

<table>
<thead>
<tr>
<th>Teacher Compensation Factor</th>
<th>Relationship to Impact on Academic Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  A performance based teacher evaluation</td>
<td>5 5 5 4 3 2 1</td>
</tr>
<tr>
<td>2  Building level performance on State Report Card</td>
<td>6 7 6 5 4 3 2</td>
</tr>
<tr>
<td>3  Number of years teaching experience</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>4  Hard-to-serve school building (low performing)</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>5  Student achievement at the classroom level</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>6  National board teacher certification</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>7  Level of formal training (degree held)</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>8  Student achievement - school district level</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>9  School district performance on State Report Card</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>10 Classroom performance on State Report Card</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>11 Scarce licensure bonus (Math, Science. etc.)</td>
<td>7 7 6 5 4 3 2</td>
</tr>
<tr>
<td>12 Student achievement at the building level</td>
<td>7 7 6 5 4 3 2</td>
</tr>
</tbody>
</table>

Considering both the traditional compensation factors and the compensation enhancement factors listed above, please rank order what you believe are the top five factors which should be included in a Teacher's Salary Schedule:

1.
2.
3.
4.
5.
**Demographic Data:**

Are you currently a superintendent in a public school?

_____ Yes  _____ No

How would you describe the school district in which you are employed?

_____ Large City  _____ City  _____ Suburban  _____ Rural

When you taught, at what level and how many years did you teach?

_____ Primary (k-3)  _____ Intermediate  _____ Elementary (k-5-8)

_____ Middle School

_____ High School

_____ Number of years of classroom teaching

Highest degree earned __________________________________________________

Number of years as a superintendent ____________________________

**Use of Achievement Test Data:**

In a prior survey, teachers reported various levels of acceptability of using student achievement test scores and progress as measured by these scores as a component of the pay scale. Please respond to the following items relating to this concept.

1. Place an "X" next to the level which indicates the level of student scores with which you are most comfortable as a component to the teacher pay scale:

   _____ A teachers’ current students' end of year scores.
   _____ Grade level student average scores.
   _____ Building level total student average scores.
   _____ District level total student average scores.
   _____ State level student average scores.
   _____ I am NOT COMFORTABLE at ANY level using student achievement.

2. If you indicated that you were not comfortable at any level using student achievement scores as a component of the teacher pay scale, please use the space below to explain the primary reason(s) why you feel this way:

3. Comments related to high or low marks on the Likert scale from the previous page:
APPENDIX D

HUMAN SUBJECTS REVIEW BOARD APPROVAL
TO: Dr. Harold Wilson

FROM: David Vanata, Chair

DATE: August 7, 2009

RE: Human Subjects Review Board Approval

The Human Subjects Review Board has approved the research proposal submitted by Randolph S. Stepp. The investigator may proceed with the project.

The primary function of the HSRB is to ensure protection of human research subjects. As a result of this mandate, we ask that you pay close attention to the fundamental ethical principles of autonomy, justice, and beneficence when establishing your research proposal. These ethical principles pertain specifically to the issues of informed consent, fair selection of subjects, and risk/benefit considerations.

If you have any questions, please contact me.

Sincerely,

David Vanata
Phone: 419-289-5292
Fax: 419-289-5333
E-mail: dvanata@ashland.edu