

# PAY FOR PERFORMANCE IN SELECT GEORGIA MIDDLE SCHOOLS

by

NANCY JOLENE MORRIS

(Under the direction of Dr. L. David Weller)

## ABSTRACT

The State of Georgia developed and implemented an educational reform initiative called Pay for Performance in 1994. This group incentive program provides structure for school-wide improvement while allowing teachers to set and achieve goals where successful implementation results in a performance pay grant. The program was intended to increase the overall educational performance of the school in areas related to student achievement. The Georgia State Department of Education reports that student achievement is significantly higher at Pay for Performance schools. The Department of Education also reports school climate indicators are stronger at Pay for Performance schools.

The purpose of this study was to examine the effectiveness of the Georgia Pay for Performance Program. This was accomplished by comparing a successful Douglas County Pay for Performance middle school with four Douglas County non-Pay for Performance middle schools. Standardized norm referenced test scores were reviewed for the sample schools in order to examine differences in academic achievement. There was also a comparison of school climate, which was measured by the National Study of School Evaluation's (NSSE) Teacher Survey of Instructional and Organizational

Effectiveness. This instrument was developed to measure the overall effectiveness of an educational organization.

Norm referenced test scores were analyzed using descriptive and trend analysis. The descriptive statistics were used to establish whether a difference existed between observed means of the investigated schools as categorized by successful participation in the Georgia Pay for Performance Program. Responses to all items on the NSSE survey were compared and contrasted using descriptive statistics.

Results of this study indicated a difference between the Pay for Performance and non-Pay for Performance schools in the area of academic achievement. Data also revealed a difference in school climate indicators measured by the NSSE teacher survey. The strongest differences were in areas dealing with goal setting and school improvement.

INDEX WORDS: Pay for Performance, Merit pay, Academic achievement, School climate, School improvement, School reform

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## DEDICATION

This study is dedicated to my family who has provided me with encouragement, support and unconditional love. My mother, Nancy Morris, my father, J.B. Morris, my grandmother, Wynelle Cochran, and my aunt, Hazel Price, have been my strength and inspiration throughout this project and have always shown their pride in my accomplishments. Throughout my life my mother has instilled in me a confidence that I could be or do anything I desired. I am thankful her desire was to be the best mother a daughter could possibly have. My father taught me the value of hard work and persistence through his daily example. He is the strongest gentle, man I have ever met. My grandmother has always been my cheerleader, my biggest fan. She sees me bigger and better than I am, which constantly challenges me to be the person she sees through her eyes. My aunt, Hazel has a servant's heart. She has provided me with an example of how to serve and empower others through my profession.

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## CHAPTER 1

### THE STUDY

American schools have been compared and contrasted to schools in competitive countries for the past thirty years. Reports have been written declaring a crisis in education. In 1972, the Ford Foundation published the study, *Growing Up Forgotten*, which stimulated a high level of concern. In 1983 the National Commission on Excellence in Education also published the document, *A Nation at Risk*, criticizing education in the United States. In response to these reports, the educational community began to focus on professionalizing teaching and restructuring schools to promote systematic change (Hatch, 1998). As a result of these efforts to improve, restructuring and reform have become critical issues in schools across the country.

In the early 1980s governors and legislators in the United States passed laws setting standards for teacher preparation and licensing to raise the quality of teacher programs, tighten standards, and increase financial rewards (Cornett, 1995). Subsequently the state of Georgia developed and implemented an educational reform initiative called Pay for Performance in 1994. This program provides structure for school wide systematic change and improvement while allowing teachers to set and achieve goals where successful implementation will result in a performance pay incentive. The Georgia Pay for Performance Program is a group incentive plan. Individual teachers are not considered for merit pay in Georgia. In the study the researcher used the past research on school reform and teacher compensation to evaluate the Georgia Pay for

Performance Program. Seven middle schools have successfully implemented Pay for Performance in consecutive school years. For background purposes, the demographic and test score information of these schools will be reviewed for patterns and trends.

The purpose of this study was to examine the effectiveness of the Georgia Pay for Performance Program. This was accomplished by comparing a successful Douglas County Pay for Performance middle school with four Douglas County non-Pay for Performance middle schools. Scores on the state mandated norm referenced test were reviewed for the schools in order to examine differences in academic achievement. There was a comparison of school climate in the areas of instructional and organizational effectiveness. School climate was measured by the National Study of School Evaluation's Survey of Instructional and Organizational Effectiveness. The instrument was developed to assess the overall effectiveness of a school. Teacher responses from four of the schools were reviewed. Recommendations will be made for future participants involved in group incentive programs based on the successes and failures of the Pay for Performance School.

#### Statement of the Problem

Educational reform and school improvement are more critical than ever in the public schools. The Georgia Pay for Performance Program is both time consuming and expensive to fund. Therefore, it is important to determine the effectiveness of the Pay for Performance program. Investigating the effects of group incentive pay on student achievement and school climate should confirm that comprehensive school improvement tied to a financial reward leads to higher levels of achievement.

## Definition of Terms

This section includes definitions of the terms important to the study. These definitions are based on the use of these terms in this particular study and are presented to provide a common language.

<u>Client Involvement-</u>	Effort on the part of the school to meet the needs of the clients it serves, including students, parents, and the community.
<u>Educational Programming-</u>	Major elements of deliberate strategy to improve schooling for the student body.
<u>Group Incentive Pay-</u>	Additional money awarded to groups for higher Performance measured through the achievement of established objectives.
<u>Middle School Teacher-</u>	Any certified 6-8 teacher.
<u>Merit Pay -</u>	Additional money awarded to individuals in addition to base salary for higher job related performance.
<u>Non-PFP School-</u>	A school which does not apply for or does not meet the requirement to receive the Pay for Performance award .
<u>Pay for Performance-</u>	The current Georgia state-wide group incentive grant program.
<u>Pay for Performance Award-</u>	Funds awarded to a local board of education as a result of an applicant school's being judged exemplary.
<u>Resource Development-</u>	Human and material resource development in relation to student outcomes.
<u>Rural-</u>	All territory, population, and housing units not classified as urban.
<u>Student Achievement-</u>	National Percentile Rank on the state mandated Norm Referenced Test.

<u>Suburban-</u>	Place within a metropolitan area of a large central city and defined as urban by the Census Bureau.
<u>PFP School-</u>	An applicant school which meets the requirement to receive the Pay for Performance award.
<u>Urban-</u>	Comprises all territory, and housing units in urban areas and places of 2500 or more people.

### Research Questions

There are two research questions that provided the direction for this study:

1. Is there a difference in academic achievement in Pay for Performance Schools and Non-Pay for Performance Schools?
2. Is there a difference in school climate (instructional and organizational effectiveness) in Pay for Performance Schools and Non-Pay for Performance Schools?

### Significance of the Study

Pay for Performance is a voluntary state-wide program. A close examination of the process and results of this program may influence administrators in making a decision to participate in similar programs. A discussion of the positive effects of Pay for Performance will also assist schools in the planning stage of reform. Due to the shift in the power of the Georgia state government incentive grant programs may once again be at the forefront of political discussion. Therefore, data supporting the effectiveness of this type of program will be valuable to educators who are attempting to influence policy makers in the area of reform.

### Limitations

This study is limited to five Douglas County, Georgia middle schools. Therefore, caution should be used in generalizing the conclusions of this study to other populations.

The schools have differences in the areas of ethnicity and free and reduced lunch percentage. However, the sample schools are located in the same school system and have been experiencing similar changes in population, curriculum and resources.

### Background Information

The Pay for Performance (PFP) Program is a voluntary school improvement program designed to promote exemplary school achievement as well as faculty collaboration. Successful schools receive awards calculated on the basis of 2,000.00 dollars per certified staff member, pending appropriation by the Georgia General Assembly. The State Board of Education was authorized and directed to devise and implement the Pay for Performance Program in 1992. The first year of implementation was the 1993-1994 school year. Ten schools received the group activity incentive in 1994. This figure grew to 110 in 2000. The amount of funding has increased from one million dollars in rewards to twelve million dollars in just seven years. The program was intended to increase the overall educational performance of the school in areas related to student outcomes and achievement.

Schools volunteering to participate in the program are required to send a letter of intent by January 1st and submit an application to the state department by March of each year. Local schools are given an opportunity to modify their initial application based on the recommendations of the review committee. Schools are notified by May 1st if the application is approved or denied. Schools with approved applications have one full school year to implement the school improvement plan and meet the goals specified in the application. At the end of the school year a final report must be submitted to the Georgia State Department of Education demonstrating completion of the tasks. To

receive the reward a school must meet 80% of the objectives submitted in the initial application. This report is due to the Department of Education by June 15th. Schools are notified by September 1st if they successfully met the criteria for Pay for Performance. The actual financial reward is distributed in December.

The entire process from the time the letter of intent is sent to the time the money is received is two years. A school who participates in Pay for Performance for three consecutive years could be waiting on the reward from the first year, implementing the plan for the second year, and writing the initial application for the third year, all at the same time. Therefore, consecutive participation requires a great deal of organization and time management. According to the 1991 law, applications must address four areas: academic achievement, client involvement, educational programming, and resource development. Academic achievement objectives emphasize growth or exemplary performance. Three or more objectives must be in this area, and the weight of this category should be 40% to 60%. The client involvement, educational programming, and resource development areas must have two or more objectives and are be weighted between 10 and 30%. In 2001, the guidelines were changed to increase the academic rigor of the Pay for Performance Program. The new guidelines require a minimum of 50% of the achieved objectives be evaluated by data from state mandated standardized tests.

The culminating event of the Pay for Performance Program, the final report, focuses educators on reflection and evaluation, requisite skills for school improvement. The Georgia Pay for Performance program creates a blue print for the school improvement process and rewards groups of educators for high performance.

The Pay for Performance program allows individual schools to tailor a school improvement plan that addresses the needs of that individual school. The uniqueness of each application makes it almost impossible to evaluate the program statistically. The State Department of Education (2000) published a report on the impact of Pay for Performance. The report indicated that Pay for Performance schools were found to be demographically comparable to non-Pay for Performance schools. Reading total scores and math total scores in the Pay for Performance groups were significantly higher than scores in the non-Pay for Performance groups at grades three, five, and eight. The Pay for Performance middle schools outscored the non-Pay for Performance middle schools by a 54 to 46 National Percentile Rank (NPR) in reading totals and 61 to 53 NPR in math totals. Survey data indicated long-term improvements resulting from participation in the Pay for Performance Program. Pay for Performance schools documented growth in the areas of student achievement, faculty collaboration, faculty morale, professionalism, student morale, school climate, parent involvement, community involvement, use of technology, and program evaluation.

The seven most successful Georgia Pay for Performance middle schools have demonstrated similar school improvement. These seven schools, Arnold, Chapel Hill, Inman, Pickneyville, Rome, Sutton, and West Fulton have been awarded the Pay for Performance grant at least two consecutive years. This is an accomplishment that only 15% of Pay for Performance schools achieve. In combination these seven schools have earned over three million dollars for staff incentives. Four of the schools were accepted for the 2002 cycle. Two schools have discontinued the program.

These seven schools have a varied range of demographic backgrounds. Chapel Hill has the lowest free and reduced lunch percentage (10.9) while West Fulton has the highest (80.7). The schools are similar in special education populations, housing approximately nine percent. The gifted population ranges from zero at West Fulton to almost 35% at Inman. The schools also have a wide range of racial diversity. Chapel Hill is 80% Caucasian, and West Fulton has a Caucasian population of less than 1%.

The Council for School Performance placed schools in clusters in 1999. Schools were grouped according to enrollment, free and reduced lunch, socio-economic status (SES), and percentage of Caucasian students. The council established eight middle schools clusters. Cluster one and two were considered high to middle SES, cluster three, four, five, and six were middle SES, and seven and eight were low SES. Chapel Hill and Pickneyville were placed in cluster one, Arnold was in cluster three, Sutton and Rome were assigned to cluster five, Inman was in cluster six, and West Fulton was placed in cluster seven.

The cluster information was used to determine how schools are performing as compared to similar schools in the state. The Council for School Performance (1999) reported that all seven schools were out-performing similar schools with the exception of West Fulton. Sutton was found to be in the top 20%, and Rome was found to be in the top 40% of cluster five.

The teacher experience and education statistics are also noteworthy. The average years of experience are higher than the state average, which is 49.78, at every school except Chapel Hill. Chapel Hill is also the only school of the seven below the state average in teachers holding advanced educational degrees.

Student academic achievement data from the 1999-2000 school year indicates high levels of achievement in most of the Pay for Performance middle schools. All of the schools except for Sutton and West Fulton were above the state average in average scale scores on the Georgia Middle Grades Writing Assessment (MGWA). Sutton and West Fulton were also below the state average on the percent of 8<sup>th</sup> grade students passing the Georgia Middle Grades Writing Assessment, and the reading, language arts, and math components of the Georgia Criterion Referenced Competency Test (CRCT). The five schools that currently participate in the Pay for Performance program are at or above the state average in all areas. Although Inman is in cluster 6, the school outscored all of the other schools in two areas of the CRCT and the MGWA.

When reviewing the norm referenced test results it is evident the seven middle schools have experienced academic achievement over the past four years. The state of Georgia did not report ITBS composite scores prior to 1997. Eighth grade students in Georgia took the Iowa Test of Basic Skills (ITBS) each spring until 2001. Using the national percentile rank (NPR) the state increased three points on the composite score (total battery) of the ITBS over four years. Although all of the seven schools demonstrated an increase, Sutton and West Fulton did not increase three points. The schools who have discontinued the PFP Program increased during their PFP participation years and then experienced a decrease in test scores. The other five schools experienced steady growth over the four year period. Inman grew 13 points during the four years, over four times that of the state growth. Arnold grew three times over the rate of the state. The average four-year growth for the five schools still participating in Pay for Performance is eight NPR points.

Another way to evaluate composite ITBS scores is based on state rank. Each year, for the past four years, the Georgia State Department of Education has ranked middle schools based on specific criteria. There are currently 427 middle schools in the state of Georgia. Inman and Pickneyville are currently ranked in the top 10%, Chapel Hill is ranked in the top 15%; Arnold, Rome, and Sutton are ranked in the top 30%. The five schools that currently participate in Pay for Performance have improved their ranks an average of 34 positions over the past four years. However, Sutton and West Fulton have declined in rank since discontinuing the Pay for Performance Program.

The state of Georgia has reported eighth grade ITBS reading total and math total scores since 1995. The state has declined in Reading total four NPR points since 1995. Four of the successful Pay for Performance middle schools have been able to battle this pattern in reading, but Rome, Sutton, and West Fulton were not able to make gains in this area. Chapel Hill experienced a five point growth while the growth in the remaining three schools was minimal.

Eighth grade ITBS math total scores have increased dramatically in four of the seven schools. The state NPR grew five points over the six year period from 1995 to 2000. Sutton was the only school of the seven that decreased in math scores. All of the middle schools still participating in Pay for Performance experienced an increase, and four of the five exceeded the state average. Arnold, Inman, Pickneyville, and West Fulton grew over ten points, each in the area of math (see Appendix A for detailed documentation).

Academic achievement is not the only school improvement target area for the Pay for Performance Program. These schools also report improvements in the areas of client

involvement, educational programming, and resource development. Pay for Performance middle schools have reported growth in faculty collaboration, morale, and professionalism. Positive changes in student morale, parent involvement, community involvement, and the use of technology have been documented. In combination, all of these factors lead to a stronger school climate (Georgia Department of Education, 2000).

### Organization of the Study

This was a study to investigate the school improvement efforts of successful Georgia Pay for Performance Middle Schools. The school improvement results of a successful Pay for Performance school and non-Pay for Performance middle schools were compared. Chapter I introduced the topic, stated the problem, defined terms, presented the research questions, explained the significance of the study, and listed limitations of the study. A comprehensive discussion of the seven successful Pay for Performance middle schools was included in this section. Chapter II presents an in-depth review of the related literature on the topic. A brief history of school reform, teacher compensation and pay for performance has been presented along with the rationale for widespread uses of group incentive plans for school improvement. The chapter also examined the effects, advantages, and disadvantages of Pay for Performance. The chapter contains details of the current research in the area of Pay for Performance.

The methods used to collect, interpret, and analyze the data are presented in chapter III. Specifically, it presents the research questions, explains the research design, describes the sample of the study, explains the data collection process, describes the instrument used, explains the variables, and explains the statistical analyses used.

Chapter IV reports the findings of the study based on the testing of each research question. The chapter provides a descriptive analysis of the data collected from the Pay for Performance school and the non-Pay for Performance schools. Chapter V contains a summary of the results and a statement of the conclusions reached as a result of the research. The final chapter also presents recommendations and considerations for future studies.

## CHAPTER 2

### REVIEW OF RELATED LITERATURE

#### Introduction

This chapter presents a review of literature and research relevant to the Georgia Pay for Performance Program. Other related areas reviewed include school improvement through reform and the role of financial motivation in public education. In order to evaluate the success of the Georgia Pay for Performance Program, it is important to understand the historical perspective and goals of Pay for Performance. American schools have been compared and contrasted to schools in competitive countries for the past 30 years. Reports have been written declaring a crisis in education. In 1972, the Ford Foundation published a study, *Growing Up Forgotten*, which stimulated a high level of concern. In 1983, the National Commission on Excellence in Education also publicized the document *A Nation at Risk*, criticizing education in the United States. Simultaneously, newspaper articles attacking the teaching profession began to surface (Cornett, 1985). In response, the educational community began to focus on professionalizing teaching and restructuring schools to promote systematic change (Hatch, 1998). As a result of these efforts, restructuring and reform are critical issues in schools across the country.

Restructuring and reform require systematic school-wide change. Therefore, prior to reform, personnel need to examine educational barriers to change. It would be beneficial for leaders to be aware of the research on effective schools in order to set goals

which will result in reform. As a means of motivating teachers to change, state departments of education initiated various merit pay programs (Gleason, 2000). Merit pay programs have created tremendous controversy in the United States due to the logistical difficulty in implementing these programs.

Educational leaders should understand the issues surrounding merit pay programs in order to successfully implement these programs. Among the skills educational leaders must possess to implement such programs is an understanding of school improvement and the barriers to change in education. Administrators also need an understanding of the role of teacher motivation as related to school improvement, as merit pay is explored as a possible motivating factor for change. To create lasting change in a school setting, an examination of the philosophy regarding school change and teacher motivation is critical.

The state of Georgia developed an educational reform initiative called Pay for Performance which provides structure for school-wide systematic change and improvement. The incentive allows teachers to set and achieve goals, with successful implementation resulting in a performance pay incentive. The Georgia Pay for Performance Program is a group incentive grant plan. Group incentive grant programs award schools for improvement through team work. Individual teachers are not considered for merit pay in Georgia (Georgia Department of Education, 1998).

The focus of this review of literature centers on current theories in the areas of school reform and teacher motivation with respect to change. Current literature on the topic of financial motivation and the Pay for Performance Program will also be examined. According to Wagner (1998), efforts in educational reform should lead to

higher standards, which in turn should lead to higher student achievement. In order to reform or restructure schools, educators must first be willing to change. The purpose of Pay for Performance is to create sustained change and result in increased student achievement.

### Change in Education

According to Wagner (1998), change is a four step process. First, the problem must be defined. Second, goals must be developed related to the problem. The third step is the implementation of strategies. The final step is to assess the results. These steps lead to systematic educational reform. Wagner noted that a leadership style which leans toward collaboration is implicit in the implementation of the change process. Hipp (1997) also stressed the role of the principal in sustaining change and that teachers who believe they have personal control over student outcomes are more successful. The research suggest the principal's actions can shape the feelings of teacher efficacy within the school. According to Hipp, a teacher's sense of influence is based on efficacy in two areas: (a) what the teacher believes the group can do, and (b) what the teacher believes she can do as an individual (p. 42). Odden (2000) supports this notion by stating that teachers often doubt their ability to create significant change in their students' academic achievement.

The leadership provided by the administration during the change process is vital to that school's ability to reform. However, competent, willing leaders will be faced with barriers to change. Schwahn and Spady (1998) suggested there are five reasons change does not occur in education. When initiating school reform, administrators should be aware of the barriers to change: (a) the purpose is not compelling enough; (b) the purpose

is not developed correctly; (c) the strategy is not implemented immediately; (d) the leader does not develop a clear picture of what the change involves and subsequently produces; (e) a system of organizational support is not developed (p. 45).

Schwahn and Spady (1998) call these considerations strategic alignment: aligning the organizational structure and the people working within the structure. This should be done to facilitate enduring change within a school setting. In a previous study, Mohrman (1994) reported that the individual teacher goals must be in line with the organizational goals, giving the teachers a stake in the success of the organization. When individual teachers are prepared to change, the organization should select an improvement planning model that will facilitate change. Weller and Weller (2000) suggest the Delimiting Factors Model due to the model's simple but comprehensive nature. The following questions are presented in the change model:

- (1) "Where are we?" This question allows for needs assessment and analysis of the data.
- (2) "Where do we want to be?" This question calls for goal setting based on benchmarking.
- (3) "What is keeping us from getting there?" This question identifies the barriers to improvement and strategies to overcome those barriers.
- (4) "How can we get better?" This question calls for an examination of potential implementation avenues.
- (5) "How will we know when we get there?" This question addresses the issue of evaluation to check progress on goals and objectives (p. 123).

For change to occur, the individuals and the organization have to be ready to accept change, and a plan or model should be in place to create an environment for change.

The ability to change is the foundation for lasting school improvement. Developing strategic alignment and a comprehensive change model prepares a school to begin the journey toward improvement.

### School Improvement

Considering the changing nature of education, school improvement cannot be a one time reform. It is necessary to seek continuous improvement to maintain the status as a model school. For example, Deming (1993) defined continuous improvement as a never-ending journey towards quality. He promoted continuous improvement through his Plan, Do, Check, Act (PDCA) Cycle. This model can be adapted to education at any level, and it allows for planning, implementation, evaluation and fine-tuning in creating continuous improvement.

Wagner (1997) presented an example of a comprehensive school improvement plan and its implementation. He served as a moderator for the White Mountain Regional School District. Community members were concerned over the location of a new elementary school, budget issues, and teacher salaries. In 1995, a small group of concerned school employees and community members participated in a retreat to discuss the development of an educational improvement plan. Wagner started working with the system following that meeting. He gathered a group of eight seniors to identify problems within the school system. The students identified three problems, a lack of academically challenging courses, inadequate college advising, and a poor school climate. The next step was to meet with the teachers. Union leaders expressed that school improvement was, once again, being done to them, not with them. The decision was made to conduct a town meeting. Three questions emerged from the group: (a) what important things

should all graduates know and be able to do, (b) what values should the school reinforce, and (c) what should the immediate priorities for school improvement be? (p. 25). The meeting was well planned and highly publicized. More than 175 people attended the town meeting. Those in attendance were divided into small groups, and each group was to brainstorm answers to the three questions. Small group discussions were civil and productive. Group members decided to have a follow up meeting on each issue. Teachers were also trained in “win-win” techniques.

The teachers and school board members agreed on a new contract with the teachers receiving the first raise in five years. Volunteer committees decided to work on creating a mission statement, benchmarks, and school improvement priorities. Wagner (1997) lists seven lessons learned from the experience: (a) courageous leadership is critical, (b) public engagement begins with listening, (c) dialogues must be structured in ways that create a safe, respectful environment, (d) work with teachers and unions first, (e) address underlying issues of trust and respect, (f) allocate adequate resources to ensure success, and (g) make student learning the focus (p. 28).

Schmoker (1996) concurred with Wagner (1997), stating educators should not only be concerned with process, but they should also focus on results and outcomes. It is critical educators understand that progress can be monitored most effectively when specific goals are set. While it is imperative to have long-range goals, it is even more crucial to have smaller, short-term objectives so that progress can be measured more accurately. Subsequently, teacher motivation is sustained by the awareness of this incremental growth. Short-term objectives and continuous evaluation are basic principles of the Georgia Pay for Performance Program. The program requires schools to set yearly

school improvement goals that are both exemplary and measurable. At the end of the year the school must prepare a final evaluation. This document must demonstrate that the school has met the objectives set in the original application to be considered for monetary incentives.

The concepts of “celebrate, recognize, reinforce, reward” are important in helping to motivate and strengthen the focus on results (Schmoker, 1996). When a school succeeds in creating and maintaining a climate that supports teamwork, a foundation for growth is created. Odden (1994) found that group Pay for Performance awards increase teacher collaboration. Supervisors who understand that they must help teachers see the merits of the end product will foster schools where student success is fundamental.

#### Communication

Educational improvement cannot be achieved without well planned communication and dialogue. This communication should be direct, honest, and face to face. Time and planning are necessary to reach the point where educators and community members can think win-win. Often leaders use the divide and conquer method, believing if they keep people separate they can make all of the decisions. This method may work for a short period, but in the long run it is devastating to an educational community (Morris, 1998). Collaborative approaches are more difficult in the beginning, but the long term benefits are well worth the effort.

If school improvement is the objective, then a systematic attempt to obtain the goal must be cultivated. Wohlsetter & Smyer (1995) identified that clear, measurable goals are the center of a school’s success. Schmoker (1996) pointed out that the role of the leader in the collaborative and school improvement process is integral and that

schools succeed when purpose and effort unite. Research shows that exemplary schools possess four components: planning, people development, program development, and assessment (Strong, Silver, & Perini, 1999). For schools to experience continuous improvement there must be vision, goals, and effort.

An effective school improvement process begins with a vision of the future (Weller & Weller, 2000). With a clear vision, individuals can begin to work together and begin to experience the benefits of collegiality (Harper & Harper, 1994). Research indicates that the most effective way to alter an organization is through goal setting and time line management. Schools should be aware of long-term and global trends (Davies & Ellison, 1998).

Effective strategic planning considers all of the stakeholders interests and creates a cohesive team approach. Fullan (1998) asserts that it is not merely restructuring that is needed. He states that educators must thoroughly change the norms and relationships in schools to promote a new approach to working collaboratively. In restructured schools, teacher-leaders often emerge which creates continuous and sustained growth long after the leader is gone. The leader can initiate this change by sharing power, information, and creating a climate of trust and teacher empowerment. The leadership style of the principal and teacher empowerment are closely linked (Strong, 1999). Collaborative principals empower teachers, therefore strengthening the restructuring process.

Many past efforts concerning school reform have traditionally been top-down reform (Morris, 1996). This method of reform involves the state school board passing rules and regulations for local school boards to follow. This type of reform movement is

the least effective due to lack of ownership by those who are most impacted by the reform. To create long lasting reform, the reform effort must be bottom up (Morris, 1996). The change needs to be initiated at the lowest level. Tyack and Cuban (1995) advise that inside-out reform may be the best way to have enduring changes in schools. They present the idea of “trusteeship,” allowing teachers to have input, which will help retain positive change from the past, make informed, judicious choices in the present, and establish worthy goals for the future. Wohlstetter (1997) concurred, stating that in a decentralized school, with open communication, people were more willing to commit time and energy to the school improvement process.

#### Restructuring for Effectiveness

The goal of school improvement is to create an effective school through restructuring. In order to attain this goal, the organization needs to be aware of the research-based characteristics of an effective school. According to Lunenburg and Ornstein (1996), the body of research on effective schools can be summed up in seven characteristics. They are as follows: (a) a safe and orderly environment, (b) a clear school mission, (c) a strong instructional leader, (d) high expectations, (e) high time on task, (f) frequent monitoring of student progress, and (g) positive home/school communication (p. 348). As school leaders work toward improvement, these significant areas should remain at the forefront of a discussion on goal setting.

One of the most effective ways to restructure an organization is by using the Total Quality Management (TQM) method. This method provides a framework for organizational change which includes methods for continuous improvement. This system is based on Deming’s 14 principles and 7 deadly sins (Weller & Weller, 2000).

Deming's comprehensive model allows for change and growth at all levels of the organization. The TQM method has been effective in the business world, as well as, the field of education.

### Middle School Reform

Due to the nature of the adolescent learner, middle school reform is even more specialized. As a result of the Ford Foundation study, *Growing Up Forgotten*, the Carnegie Corporation's Council on Adolescent development published *Turning Points*. *Turning Points* summarized the research on adolescent development and applied the research in the area of adolescent behavior. The result was a listing of eight core principles in changing middle school structure and practice:

1. Create small, personalized communities for learning.
2. Teach a core academic program.
3. Ensure success for all students.
4. Empower teachers and administrators to make key pedagogical, management, and budgetary decisions.
5. Staff middle grades schools with teachers who are specially trained to teach young adolescents.
6. Improve academic performance through fostering the health and fitness of young adolescents.
7. Re-engage families in the educational process.
8. Connect schools with communities.

These eight principles should be at the core of middle school restructuring efforts (Lipsitz, 1997, p. 519).

## Financial Motivation to Achieve

Since the beginning of professional employment, employers have struggled with the issue of how to motivate their employees to perform at top levels. Traditionally, work related performance has been enhanced through intrinsic and extrinsic motivation. Intrinsic motivation involves the internal drive to perform and succeed based on working in a profession that is significant and meaningful. However, the focus of this discussion is extrinsic motivation. According to Maslow's theory of motivation (1954) human needs can be grouped into five categories. The most basic level is physical needs followed by security, social, esteem, and self-actualization. Maslow (1958), relates that security needs include money, benefits, and tenure.

## Financial Incentive Methods

Historically, workers have been compensated by salary and unit production or a combination of both systems (Odden, 1994). For example, some employees, such as fast food workers are paid by the hour. Some, such as painters, are paid by the job. Some, such as waiters, are paid by the hour with a commission. Different professions call for varying compensation systems. Odden (1994) suggests that rewards for performance give individuals a personal stake in the goals of the organization and lead to greater performance. Workers need to be given a clear definition of their objective and how the rewards will be obtained. Kelley and Protsik (1997) define rewards as items of value and awards granted for merit. An incentive is using a reward to encourage behavior. Merit pay, in the broadest sense, is a system that adjusts salaries or provides bonuses to reward high performance.

There are three versions of merit pay: individual or organizational performance, job task, and skill and knowledge (Conley, 1995). Lawler (1990) found that incentive pay creates low norms, divides workers into producers and non-producers, is difficult to use with a highly educated work force, and causes an increase in grievances of employees' rights. However, incentive pay can be successful in increasing performance when the work is simple, competitive, measurable, and self-paced. Odden (1994) found merit pay causes employees to focus on narrow results causing tunnel vision. Individual merit pay is often linked to annual evaluations where the highest performer gets paid the most money. Such a link creates possible pitfalls. According to Murnane and Cohen (1986), traditional evaluations are difficult to perform objectively. New style evaluations consist of a pay for performance compensation system which is used because it is more objective. Odden (1994) discovered that group incentive programs create a sense of belonging, which is a basic need as delineated by Maslow. Team incentives also reinforce collaborative efforts, which are necessary in most modern professions. Conversely, Kelly and Protsik (1997) found that individual merit pay tends to undermine collaboration. When individual merit plans are in place, collegial sharing is also compromised.

Another method of differential compensation, gainsharing, combines site based participative management with a bonus plan. In this method the group is rewarded for cutting costs in the organization (Lawler, 1990). Gainsharing enhances teamwork, focuses workers on organizational goals, and creates change. Contingency plans are also available to employers searching for alternatives. Contingency pay plans increase performance by holding back a portion of an employee's base pay. The employee then

has to fulfill an obligation to earn the remainder of the salary. The contingency could be held for staff or professional development or as an incentive to obtain a goal (Odden, 1997).

### History of Financial Incentives in Education

Efforts to introduce differential compensation in education began in 1861 in England. The Newcastle Commission suggested that a performance related pay scheme be applied in all elementary schools. The plan was linked to student attendance and performance on exams in reading, writing, and arithmetic (Cutler, 1999). In the United States, teacher compensation in the early stages of public education consisted of a tradition called Boarding Round. Teachers were paid room and board, often moving from one student's home to another. Since teaching was an important but highly transitional job, Boarding Round was also a means of teacher supervision (Odden, 1995). The one room school house was most common in the 1800s because the majority of public schools served rural farming communities. The education of the student was often interrupted for seasonal planting and harvesting. Seventy-five percent of the students lived on farms, and few of them attended school all day. Teaching was not a high paying profession. Therefore, teaching attracted mostly young women under the age of 25 or men who wanted to supplement their income. During this time period, teaching was not seen as a career. Women often worked as educators until they were married, and then they would quit teaching. The three minimal qualifications to teach in the early 1800s were mastery of reading, writing, and arithmetic, a good moral character, and a good middle class appearance. Protsik (1995) reported that in the 1890s, schools began to consolidate into larger districts. This consolidation created the need for superintendents

and administrators. Administrative positions were quickly filled by men, leaving the teaching profession to women.

This transitional era was also the beginning of the graded school system. Men generally taught at the high school level, and women at the lower paid elementary school level. The system was considered a grade based compensation plan. African American teachers were also paid less under this system. This compensation plan created a sense of inequality in the profession. Margaret Haley of Chicago led the fight for women in gaining more equitable salaries (Protsik, 1995). Denver and Des Moines were the first cities in the nation to develop and implement the single salary schedule which was based on years of experience and academic preparation, making compensation equitable.

During this time period student attendance in public schools also increased.

Accountability was emphasized as the role of education become more defined and as the equity of the single salary schedule evolved. In the 1800s, teacher certification laws were passed for the first time in history (Odden, 1995).

Quality teachers have been recognized as early as 1900. According to Clees (1992), school systems began to experiment with alternative compensation plans in the early 1900s. In 1904, Kansas City, Missouri developed a merit plan for elementary and secondary teachers. This voluntary plan was based on yearly exams and knowledge in the area of history, philosophy, theory, and practice. In 1909 most plans were based strongly on length of service. Murnane and Cohen (1986) found that in 1918, 48% of the school districts sampled had a merit pay component in their compensation plan. In five short years the percentage dropped to 33%, and by 1928 the figure was at 18%. The figure fell to its all time low in 1953 with only 4% of the school districts participating in

merit pay plans. Sputnik rekindled interest in merit pay during the 1960s. However, most plans were short lived, lasting less than five years. Differential staffing was also prevalent in the 1960s. Master teachers were being paid for their roles and responsibilities (Clees, 1992). During the 1970s, failure in merit pay plans was attributed to poor administration, personnel issues, collective bargaining, and financial problems.

Cornett (1995) observed that during the 1970s and 1980s governors and legislators passed laws setting standards for teacher preparation and licensing to raise the quality of teacher programs, tighten standards, and increase financial rewards. In the 1980s merit pay plans began to resurface and career ladder programs were introduced. Career ladder plans allowed master teachers to advance, but it took the best teachers out of the classroom. During this time period teacher salaries almost doubled in the fifteen states covered by the Southern Regional Education Board (Cornett, 1995). Salaries were increased in an effort to regain veteran teachers and attract the best and brightest into the field of education. However, increased salary would also mean increased accountability. Clees (1992) noted that during the 1980s incentive pay began to be offered in areas where teaching conditions were unfavorable and in critical areas that were difficult to fill.

#### Traditional Teacher Compensation

In order to create change in educational productivity, it became necessary to examine what motivates teachers. Rumberger (1987) concluded salary policies have an effect on teacher shortages. Goodlad (1983) found that the second highest reason teachers gave for leaving the profession was inadequate salary. Although Herzberg (1973) found there was no relationship between employee motivation to perform and desire for financial rewards, he also found that teachers often mentioned salary as a point

of dissatisfaction. The desire for a consistent and dependable salary has led to the long life span of the single salary scale based on educational credentials and years of experience. This two-dimensional system is based on longevity, giving teachers a “step” for experience, and a “lane change” for educational level (Hoerr, 1998, & Shaw, 1985). Murnane and Cohen (1986) maintained the major limitation of uniform pay is that there is no reward for superior performance and no penalty for inferior performance. The next pay plan that school systems began to experiment with was the career ladder. This alternative strategy rewards master teachers and offers advancement in the field. Although career ladders have been found to increase teacher commitment, a negative aspect of this system is that it often draws superior teachers out of the classroom and into administrative duties. Firestone (1993) observed that in 1991 sixteen states had career ladder programs in place, and teachers preferred this system to merit pay.

#### Alternative Teacher Compensation Systems

Alternative teacher compensation programs have been explored by local and state school systems in an effort to increase productivity in the educational field. The most controversial alternative system of teacher compensation is merit pay due to the potential break down in team work. Educational merit pay comes in two forms: individual and group performance incentive. Individual merit pay systems are difficult to develop and implement in educational settings. Past systems of individual merit pay have relied largely on the use of yearly evaluations which were introduced in the 1980s. Firestone (1993) relates that teachers fear evaluation due to the lack of objectivity and knowledge of the evaluator. He suggests teachers believe administrators may misuse this authority. Teachers’ unions have been the strongest opponents of merit pay systems. Ballou and

Podgursky (1993) contend teacher opposition is the fundamental reason for failure in implementing merit pay programs. They further state that teachers must be involved in all stages of planning, implementation, and evaluation. The Florida National Education Association went as far as to file a law suit to stop individual merit pay in their state. Ballou and Podgursky (1993) listed six reasons teachers oppose merit pay: (a) unfairness of performance assessment, (b) negative effect on teacher relationships, (c) lowered base pay, (d) level of experience (new teachers support merit pay, experienced teachers do not), (e) community characteristics (more success has been noted in small, homogeneous districts), and (f) negative experiences with short lived merit pay in the past (p. 51). They report that teachers surveyed were most in favor of higher pay for extra duties, career ladders, and school wide bonuses and least in favor of individual bonuses. Farnsworth (1991) concurred, pointing out that merit pay can increase student achievement when properly implemented. However, Farnsworth also found that merit pay involves competition that leads to negative teacher attitude. He also cited problems in developing fair, consistent, and reliable indicators of effective teaching.

#### Individual Merit Pay

Individual merit pay awards teachers for personal accomplishments. Due to teacher dissension, record keeping problems, and financial difficulties, most individual merit plans were short lived and abandoned (Conley, 1995). Although individual merit pay for performance has been unsuccessful in education, merit pay in other fields has provided incentive to workers to pursue organizational goals (Murnane & Cohen, 1986). By 1985, five states were implementing merit pay and eleven mandated the development of such programs (Farnsworth, 1991). A changing and more competitive world in 1990

called for decentralization in organizations which increased the need to reward performance rather than just seniority or level of education. Hoerr (1998) observed that private schools experience more success with merit pay due to increased trust between teachers and administrators, clear goal setting, and better methods of evaluation. He contends increased accountability should equal increased rewards.

### Group Merit Pay

Differential compensation of teachers based on group performance has proven to be more successful in educational settings. The collegial nature of education makes individual merit plans difficult to implement. Cohen (1983) maintained effective schools possessed the characteristics of collegial sharing, powerful leadership, a strong culture and climate, local control, a focus on student learning, monitoring of progress, and creativity with responsibility. If the goal of education is to create an effective school then individual merit pay would be at odds with that goal. Therefore, group incentives would be more acceptable in the field of education. These incentives would increase collaboration, collegial sharing, and team work. Group incentive pay matches practices to the needs of the organization (Kelley, 1996). This system of group performance based compensation would reward educators for changes made by the school or by teams of teachers. Firestone (1993) supported the notion of collaboration in schools. He found that teachers had a higher level of commitment in schools where collaboration was valued. Competitive programs undermine collaboration and reduce the intrinsic rewards of teaching, while collective incentives can enhance collaboration.

## Compensation Plan Development

School systems are faced with the challenge of developing compensation plans that will balance meeting the security needs of teachers and rewarding high performance. Researchers suggest that the single salary schedule should be the foundation for teacher compensation (Odden, 1995). The Shaw Model (1985) adds a third dimension to this pay scale by adding merit pay based on evaluation. He believes increased rewards will make the teaching profession more attractive. Under his plan, merit rewards could be presented in the form of increased money for increased responsibility and bonuses for performance. Conley (1995) supports using the career ladder for job based pay. His plan would pay teachers for skill and knowledge based on professional development. This would increase teachers' technical skills, management skills, and knowledge in lateral areas. Lawler (1990) supports stable knowledge and skill based pay but emphasized the use of school based bonuses and gainsharing. Firestone (1993) concurs adding the component of rewarding mentor teachers for collegial sharing.

Regardless of the combinations of pay systems a district might choose, there are several factors that should be considered in the planning stage. Shaw (1985) stresses the importance of involving all stakeholders throughout the entire process. He further suggests that clear standards and procedures should be developed, and that the program should be available to all teachers. The system should be based on measurable educational goals that are clear to all stakeholders. Murnane and Cohen (1986) found that the most successful merit pay districts had a strong salary schedule. Therefore, high salary and good working conditions could be a prerequisite for long lasting merit pay programs. They discovered voluntary programs were the most successful. Hanushek

(1997) warns districts to introduce incentives thoughtfully and cautiously. He discovered the cost of teachers is increasing due to an aging workforce and an increase to nearly 50% of teachers with Master's degrees. His research suggested higher education does not lead to higher student gains, and teacher experience makes a small difference in student achievement. Therefore, he is in support of compensation based on student gains but cautions school districts to recognize and allow for factors that are out of the teacher's control such as poverty, transiency, and language barriers.

### Educational Accountability

Educational accountability remains on the forefront of political debate at the state and national level. Although publicized high-stakes testing has occurred in the last thirty years, it appears to be a predominant fixture in the future of public schooling in the United States. Politicians and educators continue to debate over the appropriate accountability measures and where the accountability controls belong. Dorn (1998) cautions educators that the practice of measuring success based on standardized test scores has many inherent dangers.

His first concern is that high-stakes testing distorts the teaching and curriculum in schools. Testing causes teachers to limit the scope of the curriculum, and it hinders creativity. He suggests that schools are unfairly judged by test results. He also points out that decisions made based on test scores alone are unfair to students. This practice-blind type of evaluation takes the attention off what is actually occurring in the classroom. However, Dorn (1998) predicts continued growth in the area of high-stakes standardized testing. He sees the current accountability system as a system of distrust, stressing that everyone cannot be above average. Although the literature points to numerous problems

with standardized testing, politicians continue to call for higher standards and increased accountability. According to Spring (1998), this is a popular battle cry that is both cost effective and uncontroversial with the general public.

On the other hand, Dorn (1998) prefers a system of external parent/community reviews and lists three major goals for accountability measures. He supports a system of accountability that encourages a deeper discussion of educational problems, connects student performance with classroom practice, and makes the interest of all children common. Strong (2000) emphasized student learning was only one component in education improvement. Student and teacher attendance, school climate, educational programming and resource development should also be considered in merit pay program development. Lawler (1990) suggested planners consider Board Certification, portfolios, and school wide leadership skills in developing merit pay plans. According to Odden (1995), systematic reform requires new knowledge and skills, changes in organization and management, and a focus on student achievement. Single salary schedules do not reinforce any of these behaviors. Due to the complicated nature of differential compensation, school districts should move slowly and involve teachers in financial decisions. Following these key principles, the Georgia Pay for Performance Program emphasizes academic achievement and also focuses on client involvement, educational programming and resource development.

### School Climate

The future of education in the twenty-first century is dependent on change. In order to improve schools, educators must be willing to make both structural and normative changes. Structural changes are those that deal with arrangements and policy.

Normative changes are those that deal with beliefs and values. Normative changes are the ones that most likely affect outcomes in an educational setting (Sergiovanni & Starratt, 1998). School improvement through normative changes will be substantially effected by school climate.

School climate is defined as “the perception someone has about the psychological and institutional attributes of an organization” (Benton & Bulach, 1995). Weller and Weller (2000) describe school climate as the shared perception of the staff or staff morale. The attributes are as follows: openness, trust, collaboration, environment, order, leadership, involvement, expectations and instruction. The first four attributes are psychological and the last five are institutional (Benton, 1995). The first step in implementing change should be a thorough look at school climate or the total environmental quality within the school. The most efficient way to begin is to administer a school climate questionnaire. This will allow the principal to identify problem areas and strive to improve them.

The administration is responsible for the facilitation of a positive school climate. A caring administrator is effective in enforcing and administering policies with a supportive and positive attitude toward a school under his or her supervision. To ensure an administrator’s success, he must be a professional trained to treat people as individuals, listen to concerns, and solve unusual problems (Leonhard, 1994). The psychological attributes of school climate are how people feel due to the way they are treated. If the faculty and staff believe they can be open and honest with each other they will have a sense of trust that will make them feel part of a group. Most teachers are professionals with areas of expertise and that is the way they want to be treated.

Collaboration is critical in school climate. Many schools are turning to the practice of school-based management, bringing more power to the individual school and its members. By doing this the principal not only manages the school, but is more involved with the leadership of the students and teachers (Levine & Ornstein, 1993). Through collaboration, teachers are given more responsibility and feel a sense of importance. This enhances a positive attitude toward the work being done and the school in general. Environment is also important in change and climate. The physical setting needs to be clean and comfortable and the psychological setting needs to be non-threatening and conducive to learning.

The administration is also responsible for the institutional attributes of school climate. The order of a school includes policy, procedure, and discipline. All of the components must be in place for an organization to run smoothly. Since discipline is a large concern in schools today, staff members need to learn to work together to set ground rules and develop behavioral changes to better the student environment (Bottom & Zimmerman, 1993). Changes in today's world do indeed make an administrator's job increasingly more responsible. The administrator must learn to have compassion as well as leadership skills. Administrators need to show respect to the parents, teachers, and students in order to gain respect from the community. Therefore, the leadership style of the administration is crucial. There is a need for dynamic leadership skills in the future. Administrators and central office staff members need to be less concerned with bureaucracy and more concerned with doing what is best for students (Leonhard, 1994).

Community involvement is also extremely important in education today. The climate of a school is a reflection of the relationships between administrators, faculty,

staff, students, parents, and community members. Shocking results show the majority of parents have never been to their child's classroom and do not have the time nor desire to participate in their child's school activities (Cooper & Ryan, 1992). Since this is a proven fact, teachers and administrators must make a conscious effort to involve parents in their child's education.

Schools and classrooms should have high expectations in order to have a positive school climate. Students and teachers will strive to meet attainable goals. If everyone in the building is working toward the same end there will be a sense of purpose, accomplishment and pride in the school. The ultimate goal of a school should be learning. The final attribute to school climate is instruction. In order for instruction to be effective, the other psychological and institutional attributes must be in place. Instruction includes the development and implementation of the curriculum. In a positive climate teachers will use a variety of teaching strategies and be willing to try new approaches. Instruction will be enhanced by a good school climate. The literature supports the fact that school climate is an important variable in student achievement which is the goal of education (Bulach & Malone, 1994).

A positive school climate is one in which teachers enjoy teaching and students enjoy learning. Professionals feel responsible for the outcomes in the school and are willing to take risks when the climate is positive. Therefore, a positive school climate is the primary foundation for an environment of long lasting change. Administrators who concern themselves with climate will foster an environment where change is viewed as crucial to the educational process.

## National Differential Compensation Plans

According to Lafee (2000) half of the states in the United States have passed or are considering legislation involving merit pay. Odden (2000) reported seventeen states reimbursed all or part of the fee required to become board certified and/or provided a salary supplement for this accomplishment. He discovered more than twelve states have school based incentives. Florida, Utah, and Tennessee were in the first group of states to explore financial rewards for accountability and increased performance (Cornett, 1995). The approach in these states was to link teachers accountability and student performance, shifting incentive rewards to schools where student achievement goals were being met. Cornett (1995) reported merit pay programs typically rewarded 20 to 30 percent of the teachers. The Tennessee and Utah plans were pay for performance plans linked to student academic performance. These plans are still in place, but student achievement is emphasized less under the current plan. The Florida Meritorious Instructional Personnel Program was extremely unpopular with teachers. The program was poorly implemented, and teacher input was not sought throughout the process (Ballou & Podgursky, 1993).

Arizona, Iowa, Texas, Minnesota, California, North Carolina, Arkansas, Louisiana, Idaho, Mississippi, New York, Ohio, Pennsylvania, and Georgia are other states participating in financial reform (Gleason, 2000, & Clees, 1992). These states have experimented with different combinations of compensation plans for the past twenty-five years. The most researched and discussed programs in the literature are the Colorado, Kentucky, and South Carolina teacher compensation plans.

An example of a successful merit pay system was found in Douglas County, Colorado. The Douglas County School District and the Douglas County Federation of Teachers worked together in cooperation to develop an innovative teacher compensation plan linked to teacher performance. At the time of initiation, the school district was in the midst of declining funds and strained negotiations between teachers and the school district. Both parties committed to work together to design the teacher compensation plan. The plan consisted of three components: (a) teacher salary schedule, (b) bonus incentives, and (c) group incentives. The group incentive plan was an elective plan through which the faculty worked together to meet predetermined goals for a financial reward. Teachers in the system described the program as flexible yet consistent (Hartman & Weil, 1997). The Douglas County system, which originated in 1994, is still in place. The program is evaluated and improved each year.

The Kentucky program is the largest state wide effort to tie bonuses to improvement in student performance on authentic assessments. This plan was developed with the input of educators, policy makers, community members, and parents. The Kentucky Education Reform Act (KERA) went into effect in July of 1990. The state developed a performance based assessment known as the Kentucky Instructional Results Information System (KIRIS). The authentic assessment was aligned with the state curriculum. Kentucky's program was based on awards and sanctions. Students are tested in grades 4, 8, and 12 in the areas of reading, math, social studies, science, and writing. The students are given a rating of novice, apprentice, proficient, or distinguished. This rating creates a baseline score for each school during the first year. The second year of this two year program the school is to improve the five academic areas plus school

climate. This is a data driven system in which schools are given a score from 0-140 on the six factors. Schools can earn from 1300-2600 dollars for each teacher. Teachers decide by majority vote how to distribute the money. Ninety-eight percent of the schools used all or part of the award for salary bonuses (Kelly & Protsik, 1997).

South Carolina's three pronged approach to incentives was established by the 1984 Educational Improvement Act. This innovative plan called for school incentives, teacher incentives, and administrator incentives, and was linked to student achievement (Cornett, 1995). The South Carolina program is one of the oldest performance-based plans. Clees (1992) found that the Teacher Incentive Plan (TIP) has received mixed reviews from policy makers as well as educators. He cited problems in teacher morale due to added pressure and stress, unhealthy competition and time consumption. The pay for performance award in South Carolina earns a bonus for the school, not the individual teacher. The money is used to supplement resources at the local school which limits the program's motivational power.

#### Georgia Pay for Performance Program

In order to support school change and provide motivation to teachers, Georgia has initiated a Pay for Performance (PFP) incentive grant program (Georgia Department of Education, 1998). This voluntary program has a clearly defined process and is reform at the lowest level. The local school has total control over the reform efforts. Schools choosing to participate must complete an initial application. This document contains performance objectives in four critical areas: (a) academic achievement, (b) client involvement, (c) educational programming, and (d) resource development. Schools that are accepted have one year to meet at least 80% of the objectives. If the institution meets

the criteria, each certified employee will currently receive \$2000.00 to spend at the discretion of the administration and faculty. Schools may choose to apply for this grant yearly. The Pay for Performance program has grown considerably since its implementation in 1993 (see Table 1).

Table 1

Pay for Performance Years of Participation

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Number submitted	67	100	100	228	202	266	236	278
Number approved	18	45	35	91	99	155	165	145
Number earned	10	19	29	59	72	100	110	94

Some administrators throughout the state have experienced difficulty in carrying out this process. Marcussen (1996) found participation in the program caused division among the staff in the school she studied. The teachers she interviewed stated they were motivated by the money initially, but the time commitment was too great and not worth the merit pay. The following year the teachers voted overwhelmingly not to participate in Pay for Performance. However, Marcussen found objectives were met, the curriculum was enhanced, and student achievement was positively affected. There are 278 PFP schools in the state of Georgia, and only 30% of those schools have repeated the process for a second year. Out of the 278 PFP schools, only 15% have successfully completed PFP in consecutive school years. Seven middle schools have been awarded consecutive Pay for Performance group incentive awards. Out of these seven middle schools, four are currently participating in the PFP program. Chapel Hill, the focus of this study, is one of the four schools continuing consecutive PFP implementation.

## Critical Issues Associated with Pay for Performance

These concerns point out the need to examine the ethical issues associated with merit pay. When merit pay has been introduced into a school system several ethical dilemmas associated with the program arise. Often there is a resentment from the taxpayers in providing bonuses for educators to work toward school improvement. Wagner (1997) found there are people who would argue that schools should strive to improve because it is the right thing to do and not for a financial reward. These opponents of merit pay stand on the foundation that if schools can improve, teachers should be self-motivated enough to reform. The Georgia educational code of ethics requires educators to strive toward professional growth and improvement.

A second dilemma exists; the issue of how the money should be allocated. Depending on the merit pay program, the money can be allotted to the school, or to individual teachers, or some combination of the two options. Marcussen (1996) pointed out that the division of the money was a major point of contention among her faculty. She also discussed the problems that may arise when the faculty does not involve the support staff in the financial reward. These are examples of problems that can arise at the local school level when dividing money. There are also concerns at the state level. For instance, who should make the determination of which educators are deserving of merit pay, and what the criteria will be? These are difficult questions that must be addressed when dealing with merit pay.

The third major issue is the lasting effect of merit pay. Lipsitz (1997) suggests structural changes are long-lasting, regardless of motivation. However, opponents of merit pay assert that when the financial reward is removed, school improvement will end.

Merit pay has proven to be a controversial topic in education. Merit pay or monetary bonuses have long been used and found effective in the corporate world. Financial incentive programs can be effective in education. However, merit pay programs must be carefully planned and implemented (Wagner, 1997). Although educators are reluctant to change, Herzberg (1973) demonstrated the ability of money to motivate educators toward change. In combination, the financial motivation and a positive teacher attitude toward change can create an atmosphere for meaningful school reform.

School systems should exercise caution in determining who receives merit pay. The merit pay system must be as objective as possible to provide structure and prevent favoritism. Hartman & Weil (1997) provided a multi-pronged pay for performance program which allowed for success at various levels. Multi-level approaches can offer a more balanced program. In a time of low student achievement and high public expectation, there is a call for educational leaders to take drastic steps to ensure school improvement. Merit pay programs are a viable option of combating minimal teacher motivation toward school improvement.

#### Teacher Attitude Toward Pay for Performance

Morris (1998) researched a Georgia Pay for Performance Middle School. The purpose of the study was to review teacher attitudes toward pay for performance. She stated in order for a school to be successful and have a sense of shared accomplishment, all staff members must be involved in the process. Morris found the teachers had a positive attitude toward Pay for Performance. She discovered the positive attitude to be a result of communication during the process and involvement of the stakeholders.

## Pay for Performance Research

Educational reform and school improvement are more critical than ever in the public schools. Action research is needed in this area to prevent the "band wagon effect." Educators are well known for implementing the popular programs of the day, without researching the results of those programs. Therefore, determining the usefulness of the Pay for Performance program becomes critical. Investigating the effects of merit pay on staff morale and student achievement should confirm that planning and communication are the most important components of successful program implementation. Current research in the area has established that effective school improvement requires a considerable amount of collaboration.

The educational system in the state of Georgia is in need of more research on the Pay for Performance Program. Researchers should study the long-term effects of Pay for Performance on schools that have participated in the program multiple times. Researchers should also compare the schools that have successfully completed the program with schools that did not meet the requirements for Pay for Performance. It would be beneficial to know if the differences in the level of success were due to climate, leadership style, or some other confounding factors. Merit pay is an area in need of specific program research at the state level. For years researchers have described the characteristics of an effective school. With the increase in educational accountability, administrative leaders need blueprints of successful strategies for achieving effective school status.

## Summary

This chapter is a review of the related literature in the area of Pay for Performance. Additional areas researched and discussed are school reform and teacher compensation. A historical perspective is presented in order to establish the importance of Pay for Performance incentives in education. The goal of Pay for Performance is to increase teacher productivity through incentives. An increase in teacher productivity leads to an increase in student academic achievement, the primary goal of education.

In the 1980s the educational community began to focus on professionalizing teaching and restructuring schools, due to the increase in media criticism of public education. Restructuring and reform requires systematic school-wide change. In order to restructure schools, administrators have to create a school culture and climate that fosters change through continuous improvement. Long lasting school improvement can only occur when all stakeholders are involved throughout the entire school improvement process. This collaborative team approach will give all members a stake in the success of the organization. Collaboration and collegial sharing are highlighted as key components to creating an effective school. Current literature suggest that the optimal conditions for change occur in schools where communication is effective and well planned. Effective school improvement is carried out with the participation and input of all stakeholders using strategic planning which includes fact finding, goal setting, implementation, measurement and evaluation.

The goal of restructuring should be to create an effective school. In order to attain this goal, the organization needs to be aware of the research-based characteristics of an

effective school. According to Lunenburg and Ornstein (1996), the body of research on effective schools can be summed up in seven characteristics: (a) a safe and orderly environment, (b) a clear school mission, (c) a strong instructional leader, (d) high expectations, (e) high time on task, (f) frequent monitoring of student progress, and (g) positive home/school communication (p. 348). As school leaders work toward improvement, these significant areas should remain at the forefront of a discussion on goal setting. Middle school reform is even more specialized. Research on adolescent development emphasizes the need for teaming, teacher empowerment, teacher academic specialization in addition to the above mentioned characteristics.

One of the most effective ways to restructure an organization is by using the Total Quality Management (TQM) method. This method provides a framework for organizational change which includes methods for continuous improvement. This system is based on Deming's 14 principles and seven deadly sins (Weller & Weller, 2000). Deming's comprehensive model allows for change and growth at all levels of the organization. The TQM method has been effective in the business world, as well as, the field of education.

This review focuses on financial rewards as a motivational factor in enhancing employee achievement through school reform. Although educators have experimented with variations of several compensation plans, the most stable, long lasting plan is the single salary schedule. This plan should be the foundation of any additional teacher compensation plan, which reward teachers for above average performance and provide extrinsic motivation for school improvements. School-wide incentive plans have proven to be more successful in educational settings than individual incentive plans, as school-

wide plans encourage collaboration between all stakeholders. The pros and cons of the three most prevalent state teacher compensation plans, Colorado, Kentucky, and South Carolina, were reviewed. Finally, an examination of the Georgia Pay for Performance plan demonstrates increasing participation in the state-wide group incentive program from 76 applications in 1994 to 208 applications in 2001. Seven middle schools are noted as successfully participating in the Georgia Pay for Performance program for two or more consecutive years. These seven middle schools are the focus of the discussion on the success of the Georgia Pay for Performance Group Incentive Program.

## CHAPTER 3

### RESEARCH DESIGN AND PROCEDURES

This study was undertaken to determine if there were differences among academic achievement, and school climate in a Pay for Performance (PFP) middle school and four non-Pay for Performance middle schools. National percentile ranks (NPR) on the state mandated norm referenced test were used to assess students' academic achievement and the Survey of Instructional and Organizational Effectiveness Inventory produced by National Study of School Evaluation (NSSE) was used assess school climate.

This chapter presents the specific steps that were taken to collect and analyze the data. These include the following: a restatement of the problem, the research hypothesis, a description of the sample of the study, a discussion of the independent and dependent variables, an explanation of the instrumentation, an explanation of the data collection procedures, and an explanation of the descriptive analyses.

#### Restatement of the Study

The current study was undertaken to determine if there was a difference in academic achievement based on participation in the Georgia Pay for Performance Program. Academic achievement of eighth grade students was measured using the state mandated norm referenced test. This study was also undertaken to determine if there is a difference in school climate in a Pay for Performance and non-Pay for Performance schools as measured by the NSSE inventory. Responses to the instrument were examined

and compared for the Pay for Performance school and the non-Pay for Performance schools.

### Research Hypotheses

The following research hypotheses were developed to address the questions raised in the statement of the problem concerning the differences in academic achievement and school climate in a Pay for Performance school and a non-Pay for Performance school.

#### Ho: 1

There is a difference in the norm referenced test scores of a Pay for Performance middle school and non-Pay for Performance middle schools.

#### Ho: 2

There is a difference in the school climate in a Pay for Performance middle school when compared to non-Pay for Performance middle schools.

### Setting of the Study

The sample of the study consisted of five Douglas County middle schools, a Pay for Performance school and four non-Pay for Performance schools. The study focused on all of the middle schools in the district. Demographic and test score information on all five Douglas County middle schools will be presented.

### Sample of the Study

The Georgia State Department of Education released a report on the effectiveness of the Pay for Performance Program in October of 2000. The report compared academic achievement of Pay for Performance and non-Pay for Performance schools. The report did not take into consideration the three remaining factors: client involvement, educational programming, and resource development. In this study these three factors

will be combined into the broad category of school climate. For this study, five Douglas County schools will be closely evaluated in the areas academic achievement and school climate.

Douglas County is part of the metropolitan Atlanta area. Just 19 miles west of downtown Atlanta, Douglas County is experiencing rapid growth while affording a small town atmosphere. Demographically, the county is predominately middle class. Over the last five school years, the Douglas County School System has grown by more than 2,400, a 16 percent increase. The Douglas County School System now serves over 17,000 students in 25 schools. The mission of the Douglas County School System is to provide a quality education for all students in a safe, secure environment. The system strives to offer opportunities and experiences for students to become responsible individuals, independent thinkers, and productive citizens, who are able to meet the challenges of the future.

The Douglas County School System currently has five middle schools and one is under construction. The primary purpose for the existence of the Douglas County Middle Schools is to provide a positive and challenging educational experience for students. The schools serve as a transition to help the student move smoothly from elementary to high school. The concept of the whole child is addressed in this process. Included in this process are many areas of concern: the teaching of communication through reading, writing, speaking, and listening, using numbers and symbols, the creative arts, the scientific process, cultural appreciation, global awareness, physical development, career exploration, personal growth, human dignity, and harmonious living in a democratic

society. Student support services are available to meet individual needs, including students at risk.

The Douglas county middle school program provides, through instructional teaming and an interdisciplinary approach, adequate opportunities for success in the general curriculum, exploratory courses, and extra curricular activities. During a student's three years in middle school, they will have the opportunity to participate in exploratory classes which are updated yearly due to changes in technology and trends in the business community. The physical education program emphasizes personal fitness and basic motor skills in a program that exposes students to a wide variety of enjoyable activities and sports. The purpose of education includes developing successful career potential, positive self-esteem and life skills, and individuals with the ability to cope in today's complex world regardless of their differing abilities.

Chapel Hill Middle School has successfully participated in the Pay for Performance Program for three consecutive years. The area surrounding Chapel Hill is undergoing rapid growth in the building of upscale neighborhoods and retail development. The community served by Chapel Hill has evolved from predominantly rural to suburban. Subdivisions have replaced almost all of the once prevalent farms, as Douglas County becomes more diverse. When the school was opened for the 1972-1973 school year, it was the third middle school in Douglas County. The school was designed for the "open classroom" concept, which was popular at the time. This resulted in a unique interior design commonly called "pods".

In the summer of 1997, extensive renovation added to the traditional classroom space and improvements were made to the pod areas. Chapel Hill serves approximately

950 students in grades six through eight with a professional staff of 63 and an auxiliary staff of 11. Collectively the teachers have dedicated over 800 years of experience to the teaching profession. Thirty-five percent of the teachers have degrees at the Masters level or higher. Each teacher contributes personal time to the students. All basketball and football games are staffed with faculty volunteers, and the teachers lead extra curricular activities.

The curriculum is addressed through a team approach which allows for careful monitoring of the academic, emotional, physical, and social needs of each student. The school is organized into six interdisciplinary teams. Each five person team who educates the students in the areas of Language Arts, Mathematics, Social Studies, Reading, and Science. Foreign Language classes are also offered in the areas of Spanish and French. A strong special education department also serves students with exceptionalities. Students with learning disabilities, emotional/behavioral disorders, mild learning handicaps, and speech/language needs make up 9% of the population. Gifted students are served in "Program Challenge" to meet their individual needs. Program Challenge students make up 22% of the student population. In the past 29 years, students have been the recipients of many awards and honors. Accomplishments in district and state Science and Social Studies fairs, Art and Music awards, and academic excellence have long been the tradition at Chapel Hill.

Chapel Hill effectively meets the needs of a diverse population. Ten percent of the students receive free or reduced lunch. Eighty-one percent of the population is Caucasian. Sixteen percent is African-American. Four percent are from Hispanic, Asian

and several other ethnic groups. The staff embraces students from a wide array of backgrounds and maintains high expectations for all children.

Fairplay Middle School was the fourth middle school opened in Douglas County and is the most demographically similar school to the Pay for Performance school. The school is located in southwest Douglas County on Highway 166. This school is the most rural Douglas County middle school. In the mid-1900s, the community consisted of a few family homes, two stores and beautiful fields used for farming. The land was traditionally handed down from one generation to another. Recent years have brought subdivisions and a population boom to the area. People are drawn to the community because of the family atmosphere and slower pace of life.

Fairplay serves 780 students in grades six through eight with a professional staff of 53 and an auxiliary staff of 11. Thirty-five percent of the teachers have degrees at the Masters level or higher. Students with learning disabilities, emotional/behavioral disorders, mild learning handicaps, and speech/language needs make up 15% of the population. Program Challenge students make up 21% of the student population.

The school effectively meets the needs of a changing population. Twenty-one percent of the students receive free and reduced lunch. Eighty-nine percent of the population is Caucasian. Ten percent is African-American and less than two percent are from Hispanic, Asian, and other ethnic groups. It is the mission of Fairplay to maintain high expectations while working cooperatively with students, parents, and the community to provide a quality education to all students.

The five Douglas County middle schools have a range of demographic backgrounds. Chapel Hill has the lowest free and reduced lunch percentage (10.9), while

Stewart has the highest (54.8). The special education population range from 9% to 20% and the gifted population has a range of 8% to 23%. The schools have a wide range of racial diversity. Fairplay is the most homogeneous with 89% Caucasian, and Stewart is the most diverse with a Caucasian population of 53% (see Table 2).

Table 2

1999-2000 Demographic Data – Douglas County Middle Schools

	<u>Ethnicity</u>						<u>Programming</u>		
	African Amer.	Caucas.	Hisp.	Asian	Amer. Indian	Multi Racial	Gifted	Spec Ed	Free/ Reduced
CHMS	15.5	80.7	0.6	2.2	0.1	0.9	22.6	8.9	10.9
CLMS	25.7	69.2	3.6	1.0	0.0	0.5	14.9	14.9	26.3
FMS	9.7	88.5	1.0	0.3	0.3	0.1	21.1	15.0	21.3
SMS	41.3	53.1	1.9	0.9	0.7	2.2	8.4	20.8	54.8
TMS	20.5	74.4	2.4	1.1	0.6	1.0	13.7	15.6	33.7
State Ave	37.9	54.7	4.0	2.1	0.2	1.2	6.9	11.1	42.9

Note. Data are reported in percentages.

The Council for School Performance placed schools in clusters in 1999. Schools were grouped according to enrollment, free and reduced lunch, socio-economic status (SES), and percentage of white students. The Council established eight middle school clusters. Clusters one and two were considered high to middle SES, clusters three, four, five and six were middle SES, and seven and eight were low SES. Chapel Hill, Fairplay, and Chestnut Log were in cluster one, Turner was in cluster three, and Stewart was in cluster six.

The cluster information was used to determine how schools were performing as compared to similar schools in the state. The Council for School Performance (1999) reported that Chapel Hill was outperforming similar schools. Stewart and Turner were in

the average range for their cluster and Chestnut Log and Fairplay were in the bottom 40% of cluster one.

The teacher experience and educational statistics are also noteworthy. The average years of experience are lower than the state average at all five of the Douglas County schools. Turner is the only Douglas County middle school above the state average in teachers holding advanced educational degrees (see Table 3).

Table 3

Data Related to Teacher Experience and Degree Level – Douglas County Middle Schools

School	Years of Experience	Advanced Degree
CHMS	12.44	35.18 %
CLMS	11.44	46.10 %
FMS	10.07	35.55 %
SMS	9.52	36.95 %
TMS	11.82	50.00 %
State Average	12.75	49.78 %

Student academic achievement data from the 1999-2000 school year indicate varied levels of achievement in Douglas County middle schools. Chapel Hill and Turner were the only schools above the state average in average scale scores on the Georgia Middle Grades Writing Assessment (MGWA). Chestnut Log and Stewart were below the state average in percentage of eighth grade students passing the Georgia Middle Grades Writing Assessment and the reading, language arts, and math components of the Georgia Criterion Referenced Competency Test (CRCT). Although Chestnut Log is in cluster one, the school scored below the state average in all areas (see Table 4).

Table 4

2000 MGWA and CRCT Scores – Douglas County Middle Schools

	Grade 8 MGWA		Grade 8 CRCT		
	Scale Score	Percent Passing	Passing Reading	Passing Lang. Arts	Passing Math
CHMS	360	91	86	78	70
CLMS	354	73	73	60	52
FMS	355	85	82	68	60
SMS	352	66	67	55	31
TMS	357	84	77	68	57
State Av.	356	76	75	65	54

### Variables

The following variables were selected for this study. There is one dependent variable (successful participation in the Georgia Pay for Performance Program) and two independent variables (academic achievement and school climate). Successful participation in the Pay for Performance program is defined as schools that have been awarded the incentive grant at least two consecutive years.

#### Dependent Variable

The dependent variable in this study was successful participation in the Georgia Pay for Performance Program. Successful participation indicates the school applied, was accepted, implemented the plan, and actually received the group incentive award.

#### Independent Variables

The first independent variable in this study was academic achievement. Academic achievement was measured by scores on the state mandated norm referenced test administered in the spring of each year. The second independent variable was school climate. This variable was measured and compared using the teacher Survey Instrument

of Instructional and Organizational Effectiveness produced by the National Study of School Evaluation.

#### Instrumentation

Three instruments were chosen for this study: the Stanford Achievement Test Series, Ninth Edition (Stanford 9) that was administered during the 2000-2001 school year, the Iowa Test of Basic Skills that was administered prior to 2001 and the teacher Survey of Instructional and Organizational Effectiveness (see Appendix C).

#### Norm Referenced Test

Georgia law mandates that a national norm-referenced test (NRT) be administered to students in grades three, five, and eight in reading, mathematics, science, and social studies with results reported in percentile scores and grade equivalents. In addition, the State Board of Education requires that students be tested with the complete battery of the assessment. Prior to 2001 the Iowa Test of Basic Skills (ITBS) was administered each spring. As of spring 2001, the State Board required the Stanford Achievement Test Series, Ninth Edition (Stanford 9) to be administered to grades three, five, and eight. The complete battery at these grade levels includes Vocabulary, Reading Comprehension, Mathematics: Problem Solving, Mathematics: Procedures, Spelling, Language, Study Skills, Science, Social Science, and Listening.

As a norm-referenced test, student performance on ITBS and Stanford 9 is compared to a group of students nationally who took the test under similar standard administration procedures. The national norm group is representative of public and private school students. The norm group for the 2000 Georgia report was comprised of

over 10 million current users of the Stanford 9. Reports are generated for both individual student scores and group scores.

#### Reliability of the Norm Referenced Test

The literature defines reliability as the level of internal consistency of a measurement made on a given variable over time (Gall, Borg, & Gall, 1996). The most commonly used method of establishing reliability is the test-retest method. The Kuder-Richardson procedures provide an estimate of reliability based upon the test's consistency. According to Gall, Borg, and Gall (1996), correlations in the range of 1.00 to .90 related a very high relationship between two successive measures. Correlations ranging between .90 and .70 indicate a high relationship and .70 to .50 indicated a moderate relationship.

It is important to note that all of the coefficient scores are in the high to very high range for the Stanford 9. These scores indicate a high level of consistency on the Stanford 9 test (Harcourt-Brace, 1997). Similar findings are reported on the ITBS coefficient scores, which are also in the high to very high range (Hoover, Hieronymus, Frisbie, & Dunbar, 1996). The results of these tests can be used confidently when comparing two schools that were tested under the same test administration procedures.

#### Validity of the Norm Referenced Test

The validity of a test measures the extent to which the instrument actually measures what it was intended to measure (Gall, Borg, & Gall, 1996). There are three types of validity: content validity, criterion-related validity, and construct validity. Content validity determines whether the test measures the objectives of the instrument. Criterion-related validity measures the extent to which the scores are related to

independent criterion or variables. Construct validity determines if the information that the test is measuring is consistent with the body of knowledge on the construct being studied. In combination, these three forms of validity produce the overall validity of an instrument.

The most critical aspect of validity for an achievement test is content validity. Stanford 9 and the ITBS produce evidence of content validity by comparing the content of the Stanford 9 series and the ITBS with the instructional objectives of the Georgia Quality Core Curriculum. Harcourt determined the completion rate for eighth grade students on the Stanford 9 to be 98.1 and Riverside determined the completion rate on the ITBS to be 89.1. These high scores are an indicator of content validity. Criterion-related validity for the Stanford 9 is established by identifying multiple choice item difficulty values for each grade level. These scores demonstrate a progression in difficulty and provide a measure of criterion-related validity. Construct validity is provided by inter-correlations among the Stanford 9 multiple-choice subtests and correlations between these subtests and the Otis-Lennon School Ability test, Seventh Edition. The data demonstrates the relationship among school subjects as measured by the Stanford 9 subtests, and the relationship among tests measuring school ability and school achievement.

### School Climate

The school climate of the two schools was measured using the Survey of Instructional and Organizational Effectiveness produced by the National Study of School Evaluation (NSSE).

## Validity of Survey of Instructional and Organizational Effectiveness

Validity is defined as determining whether an instrument measures what it intends to measure. Two of the three types of validity assessment are used in this study: content and construct. Content validity determines whether the interview measures whether the objectives of the instrument. Construct validity determines that the information an instrument is measuring is consistent with the current body of knowledge in the field of study.

Content validity was established by a review of the literature on effective school research and the indicators of a successful school climate. The survey of instructional and organizational effectiveness was designed to evaluate overall school effectiveness. The National Study of School Evaluation (Fitzpatrick, 1998) developed the survey of instructional and organizational effectiveness based on their indicators of schools of quality which established construct validity.

## Data Collection Procedures

The principals of the five Douglas County middle schools were contacted personally and asked to participate in the study. The principals were asked to submit to the researcher test scores from the norm referenced test starting in 1992, and the building level profile. They were also asked to submit the results of the NSSE survey of instructional and organizational effectiveness that was administered in 2001. Four schools provided the survey results however the results were unavailable at Chestnut Log Middle School.

## Data Analysis

Test scores on the norm referenced test were analyzed by descriptive analysis for hypothesis one. The descriptive statistics were used to establish whether a difference existed between observed means of the investigated schools as categorized by successful participation in the Georgia Pay for Performance Program. Responses to all items on the survey of instructional and organizational effectiveness were be compared and contrasted for trends and patterns for the Pay for Performance and non-Pay for Performance middle schools.

## Summary

Chapter III has included a description of the research design and procedures to be followed in this study. Included in this chapter were a restatement of the problem, research hypothesis, population and sample of the study, dependent and independent variables, instrumentation, data collection procedures, and data analysis. Results obtained from review of the norm referenced test scores and the NSSE survey of instructional and organizational effectiveness will be presented and analyzed in chapter IV with summary, conclusions, applications of the findings, and recommendations for further study given in chapter V.

## CHAPTER 4

### FINDINGS

The purpose of this study was to examine the effectiveness of the Georgia Pay for Performance Group Incentive Grant Program. This was accomplished by comparing a successful Douglas County Pay for Performance middle school with four Douglas County non-Pay for Performance middle schools. Two research questions and hypotheses were developed and tested. Scores on the complete battery of the norm referenced test were reviewed for all five schools in order to examine differences in academic achievement. There was also a comparison of school climate in the areas of client involvement, educational programming, and resource development. School climate was measured by the National Study of School Evaluations' (NSSE) Survey of Instructional and Organizational Effectiveness. This chapter presents the results and the analysis of the data collected from these two instruments. The descriptive statistics are discussed and the results of the findings related to the research questions and hypotheses.

#### Procedures

The sample of the study consisted of five Douglas County middle schools: a Pay for Performance school and four non-Pay for Performance middle schools. The study focused on all of the schools in the system. The principals of the five Douglas County schools were contacted personally and asked to participate in the study. Permission to conduct the study was also granted by the Assistant Superintendent of Curriculum and Instruction for the Douglas County School System (see Appendix B). The principals

were asked to submit to the researcher scores from the norm referenced test and the building level profile beginning in 1992. They were also asked to submit the results of the NSSE Survey of Instructional and Organizational Effectiveness that was administered during the 2000-2001 school year. All of the information was submitted as requested with the exception of the teacher survey results at Chestnut Log Middle School.

### Research Hypothesis

Two research hypotheses were selected for the study. The first research hypothesis was tested using descriptive analysis. Descriptive statistics were used to establish whether a difference existed between the observed means on the norm referenced test scores of the schools being investigated. The second research hypothesis was also analyzed based on comparison of descriptive statistics.

#### Ho: 1

The first research hypothesis was tested using descriptive analysis. The objective of the test was to determine if a difference existed in the norm referenced test scores of a Pay for Performance middle school and non-Pay for Performance middle schools.

When reviewing the norm-referenced test results it is evident the Douglas County middle schools have struggled academically over the past four years. Eighth grade students took the Iowa Test of Basic Skills (ITBS) each spring prior to 2001 when the state-mandated norm referenced test changed to the Stanford 9. Using the national percentile rank (NPR), the state increased three points on the composite score of the ITBS over four years from 1997 to 2000. The Pay for Performance School, Chapel Hill, grew at a rate two times that of the state growth. All other Douglas County middle

schools experienced a change of one point or less, which was below the state average (see Table 5).

Table 5

Grade 8 ITBS Composite Scores (in NPR) – Douglas County Middle Schools

	4 Year Growth	2000	1999	1998	1997
CHMS	+6	69	73	68	63
CLMS	+1	62	69	66	61
FMS	0	66	68	72	66
SMS	-9	43	52	49	52
TMS	-2	62	58	62	64
State Ave.	+3	57	56	54	54

Another way to evaluate norm referenced test scores is based on State rank. Each year for the past five years, the Georgia State Department of Education has ranked middle schools based on specific criteria. There are currently 427 middle schools in the state of Georgia. Chapel Hill is currently ranked in the top ten percent in the state and has improved in rank 38 positions in five years. The other four Douglas County schools have lost ground over the five-year period, ranging from 36 positions at Fairplay to 142 positions at Stewart (see Table 6).

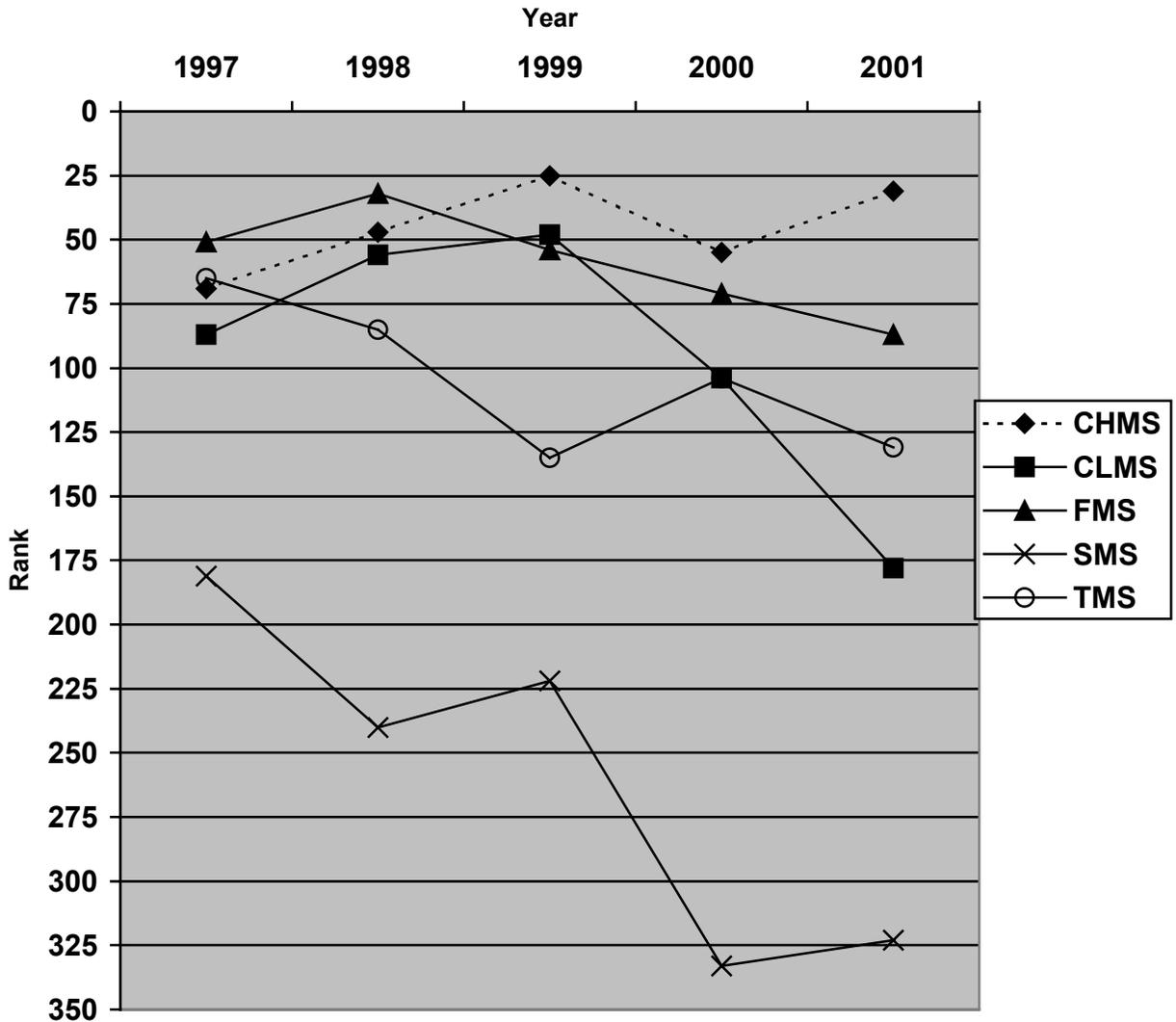
Table 6

School Ranks based on ITBS Composite Score (in NPR) – Douglas Middle Schools

	5 Year Change	2001	2000	1999	1998	1997
CHMS	-38	31	55	25	47	69
CLMS	+91	178	104	48	56	87
FMS	+36	87	71	54	32	51
SMS	+142	323	333	222	240	181
TMS	+66	131	104	135	85	65

Although Chapel Hill experienced a small drop in rank in 2000 the general five-year trend is positive. The trend for the five Douglas County non-Pay for Performance schools is generally negative over the five-year period (see figure 1).

**Figure 1:  
School Ranks - ITBS Composite**



The Douglas County School System has reported eighth grade ITBS reading total and math total scores since 1992. Douglas County has followed the state trend by having decreasing eighth grade reading total scores. All five middle schools have declined in the area of reading. Chapel Hill has seen the smallest decrease, two points, while Fairplay has seen the largest decrease, 11 points (see Table 7).

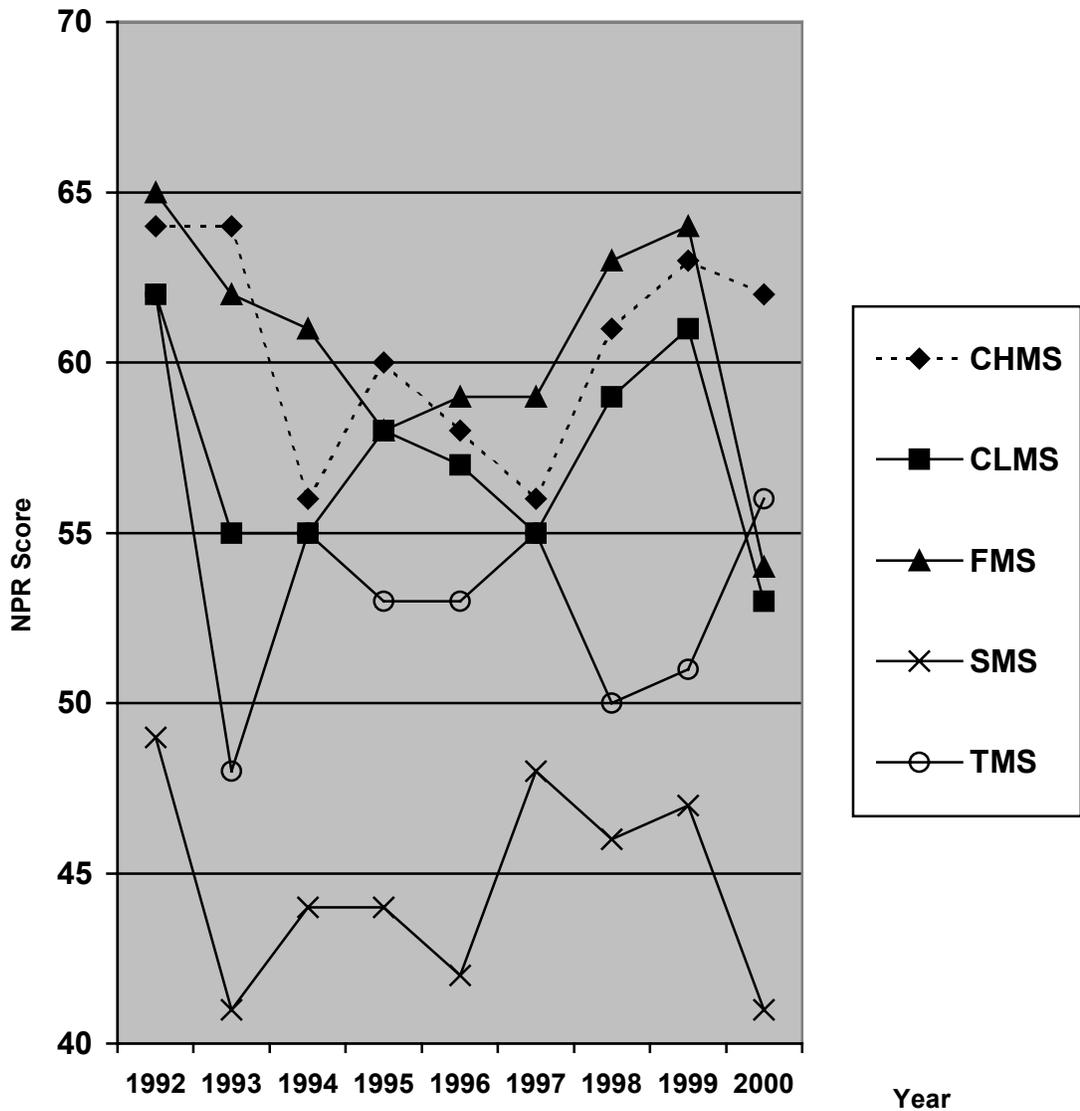
Table 7

Grade 8 ITBS Reading Total Scores (in NPR) – Douglas County Middle Schools

	9 Yr Change	2000	1999	1998	1997	1996	1995	1994	1993	1992
CHMS	-2	62	63	61	56	58	60	56	64	64
CLMS	-9	53	61	59	55	57	58	55	55	62
FMS	-11	54	64	63	59	59	58	61	62	65
SMS	-8	41	47	46	48	42	44	44	41	49
TMS	-6	56	51	50	55	53	53	55	48	62
State Ave.	N/A	49	49	48	48	48	53	N/A	N/A	N/A

Although reading total scores have been highly variable for all five Douglas County Middle Schools, Chapel Hill has remained the most consistent. Since beginning participation in the Pay for Performance Program in 1998, Chapel Hill has been able to combat the downward spiral in reading total test scores. In contrast the other three out of four non-Pay for Performance schools continue to decline rapidly (see figure 2).

Figure 2 ITBS Reading Total Scores



Eighth grade ITBS math scores have increased at Chapel Hill and Fairplay by four and three points respectively. The other three Douglas County middle schools have experienced a significant decrease in ITBS math scores. The greatest drop in scores occurred at Stewart where scores slipped 14 points in nine years (see Table 8).

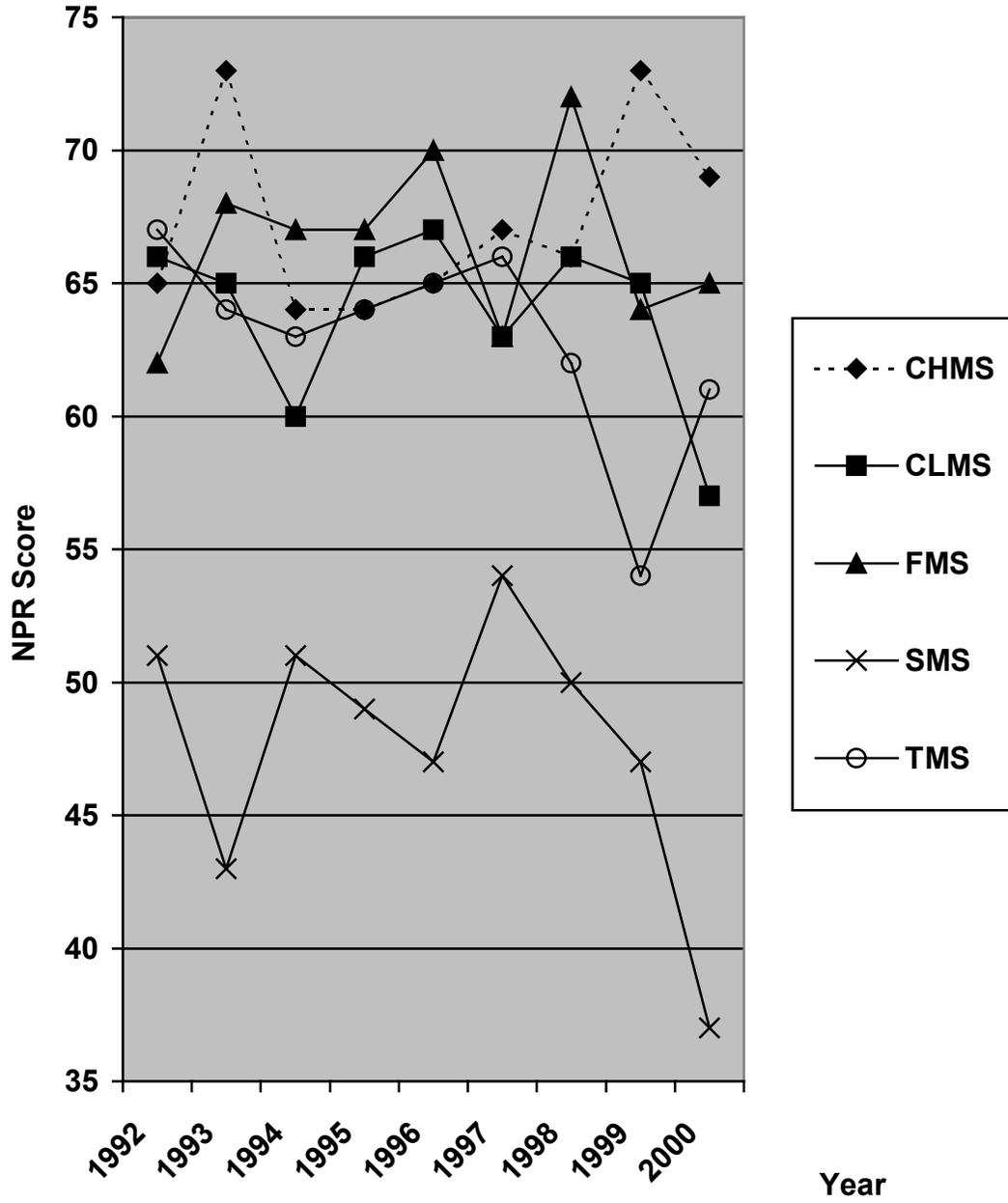
Table 8

Grade 8 ITBS Math Total Scores (in NPR) – Douglas County Middle Schools

	9Year Change	2000	1999	1998	1997	1996	1995	1994	1993	1992
CHMS	+4	69	73	66	67	65	64	64	73	65
CLMS	-9	57	65	66	63	67	66	60	65	66
FMS	+3	65	64	72	63	70	67	67	68	62
SMS	-14	37	47	50	54	47	49	51	43	51
TMS	-6	61	54	62	66	65	64	63	64	67
State Ave.	N/A	57	56	55	54	53	52	N/A	N/A	N/A

Chapel Hill Middle School was ranked third in math total scores in 1992 behind Turner and Chestnut Log. Chapel Hill recovered slightly experiencing a strong year in 1993 and then followed a pattern of third place until strongly taking the lead in 1999 and staying ahead of the non-Pay for Performance schools for the remaining years (see figure 3).

Figure 3 ITBS Math Total Scores



The same patterns were evident after changing to the Stanford 9 norm referenced test in 2001. Chapel Hill continued to lead the school district in reading total scores and math total scores. Additionally the gap between the Pay for Performance school and the four non- Pay for Performance schools continued to increase (see table 9).

Table 9

Grade 8 2001 Stanford 9 Scores (in NPR) – Douglas County Middle School

	CHMS	CLMS	FMS	SMS	TMS
Reading Total	66	48	56	36	51
Math Total	61	42	54	44	28

Ho: 2

The second research hypothesis was evaluated using a comparison and contrast of descriptive statistics. The objective of this examination was to determine if a difference existed in the National Study of School Evaluation’s (NSSE) Survey of Instructional and Organizational Effectiveness scores at a Pay for Performance school and four non-Pay for Performance schools. The NSSE survey has two parts: indicators of quality instruction programs, and indicators of quality organizational systems. Part A is divided into three major components and part B into four major components. Each part consists of 12 indicators. The inventory was administered to all teachers in all four schools. They ranked their school in these areas using a Likert type scale (0-4). In table 10 descriptive statistics indicated the Pay for Performance school had a higher mean on all 12 of the survey indicators of quality instructional programs component of the survey (part A). The inventory has three major areas: curriculum, instructional design, and assessment. The Pay for Performance school had a lower standard deviation on all questions dealing with curriculum and instructional design and a higher standard deviation in the area of assessment.

Table 10

Survey of Instructional and Organizational Effectiveness

Part A: Indicators of Quality Instructional Programs

Survey Items	PFP		Non-PFP	
	CHM	FMS	SMS	TMS
<b>Curriculum</b>				
Develops a Quality Curriculum	3.37	2.59	2.50	2.79
Ensures Effective Implementation /Articulation of Curriculum	3.26	2.66	2.50	2.68
Evaluates and Reviews the Curriculum	3.22	2.55	2.60	2.58
<b>Instructional Design</b>				
Aligns Instruction with the Goals / Expectations for Learning	3.28	2.91	2.60	3.00
Employs Data Driven Instructional Decision Making	3.26	2.73	2.40	2.73
Actively Engages Students in their Learning	3.43	2.86	2.30	2.74
Expands Instructional Support for Student Learning	3.26	2.93	2.90	3.03
<b>Assessment</b>				
Clearly Defines the Expectation for Learning to be Assessed	3.28	2.84	2.50	2.79
Establishes the Purpose of the Assessment	3.18	2.84	2.60	2.74
Selects the Appropriate Method of Assessment	3.20	3.07	2.50	2.70
Collects a Comprehensive Sample of Student Achievement	3.15	3.02	2.40	2.74
Develops Fair Assessments and Avoids Bias and Distortion	3.33	3.11	2.80	2.82

Note. Scores range from 0 to 4. *Scores from Chestnut Log Middle were not available.*

In Table 11 descriptive statistics indicated the Pay for Performance school had a higher mean on all 12 of the indicators of quality organizational systems (part B). The inventory had four major areas: educational agenda, leadership for school improvement, community building, and culture of continuous improvement and learning. The standard deviation on the majority of indicators was smaller at the Pay for Performance school. This descriptive data supports the research hypothesis that there is a difference in school climate at a Pay for Performance and non-Pay for Performance schools.

Table 11

Survey of Instructional and Organizational Effectiveness

Part B: Indicators of Quality Organizational Systems

Survey Items	PFP		Non- PFP	
	CHM	FMS	SMS	TMS
<b>Educational Agenda: Vision, Mission, Beliefs and Goals</b>				
Facilitates a Collaborative Process	3.35	2.52	2.80	2.78
Shared Vision, Mission and Beliefs	3.57	2.86	3.10	3.03
Measurable Goals	3.73	2.66	2.80	2.97
<b>Leadership for School Improvement</b>				
Promotes Quality Instruction	3.57	2.64	2.30	3.03
Develops Schoolwide Plans for Improvement	3.72	2.79	2.80	2.88
Employs Effective Decision Making	3.50	2.48	2.50	2.59
Monitors Progress	3.61	2.68	2.60	2.64
Provides Skillful Stewardship	3.57	2.43	2.50	2.84
<b>Community Building</b>				
Fosters Community Building	3.54	2.48	2.60	2.58
Extends the Community	3.33	2.43	2.50	2.65
<b>Culture of Continuous Improvement and Learning</b>				
Commitment to Professional Development	3.50	2.64	2.80	2.76
Supports Productive Change and Improvement	3.57	2.70	2.60	2.79

Note. Scores range from 0 to 4.

Summary data on total composite scores presented in Table 12 indicates that there is a difference in the responses of teachers regarding instructional and organizational effectiveness at a Pay for Performance school (M=3.41 ) and non-Pay for Performance school (M=2.73, M=2.60 & M=2.79)

Table 12

Survey of Instructional and Organizational Effectiveness

Composite Score Statistics

Survey Items	PFP		Non-PFP	
	CHM	FMS	SMS	TMS
<b>Part A: Indicators of Quality Instructional Systems</b>				
Curriculum	3.28	2.60	2.53	2.68
Instructional Design	3.31	2.86	2.55	2.87
Assessment	3.23	2.98	2.56	2.76
<b>Quality of Instructional Systems Composite</b>	3.27	2.84	2.55	2.78
<b>Part B: Indicators of Quality Organizational Systems</b>				
Educational Agenda: Vision, Mission, Beliefs, and Goals	3.55	2.68	2.90	2.93
Leadership for School Improvement	3.59	2.60	2.54	2.80
Community-Building	3.44	2.45	2.55	2.61
Culture of Continuous Improvement and Learning	3.53	2.67	2.72	2.77
<b>Quality of Organizational Systems Composite</b>	3.54	2.61	2.65	2.79
<b>Total Composite</b>	<b>3.41</b>	<b>2.73</b>	<b>2.60</b>	<b>2.79</b>

Note. Scores range from 0 to 4.

In summary, the results regarding the hypothesized differences showed that academic achievement was different for the Pay for Performance and non-Pay for Performance schools when using the norm referenced scores. The results also demonstrated a difference in school climate at the Pay for Performance school when using the NSSE Survey of Instructional and Organizational Effectiveness.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the research on the use of Pay for Performance in the field of education. In this chapter, the following information is presented: Restatement of the Problem, Research Hypothesis, Summary of Procedures, Summary of Related Literature, Summary of Findings, Conclusions, Application of the Findings, and Recommendations for Further Study. The study was conducted during the spring and summer of 2002 at which time educational accountability was at the forefront of state and national political debate. The future of the Georgia Pay for Performance Program is uncertain at this time due to the new accountability measures being drafted at both levels.

#### Restatement of the Problem

The study was undertaken to determine if there was a difference in academic achievement and school climate in Pay for Performance and non-Pay for Performance schools. Academic achievement of eighth grade students was measured using the composite scores on the state mandated norm referenced test. Data were collected from principals on 1992-2001 scores on the Iowa Test of Basic Skills, and the Stanford Achievement Test Series, Ninth Edition (Stanford 9). The principals also submitted summary data on the teacher Survey of Instructional and Organizational Effectiveness Inventory produced by the National Study of School Evaluation

(NSSE). Two research questions and hypothesis were developed for this study, one dealing with academic achievement and the other with school climate.

### Research Hypothesis

The following research hypotheses were developed to address the questions raised in the statement of the problem concerning the differences in academic achievement and school climate in Pay for Performance schools compared to non-Pay for Performance schools. Two research hypotheses were formulated to investigate the topic.

#### Ho: 1

There is a difference in the norm referenced test scores of a Pay for Performance middle school and non-Pay for Performance middle schools.

#### Ho: 2

There is a difference in the school climate in a Pay for Performance middle school when compared to non-Pay for Performance middle schools.

### Summary of Procedures

The sample of the study consisted of five Douglas County middle schools, a Pay for Performance middle school and four non-Pay for Performance middle schools. The study consisted of all of the middle schools in the district.

### Instrumentation

Three instruments were chosen for this study: the Iowa Test of Basic Skills that was administered to all eight graders in the state of Georgia from 1992-2000, the Stanford Achievement Test Series, Ninth Edition (Stanford 9) that was administered to all eighth graders in the State of Georgia during the 2000-2001 school year, and the NSSE teacher Survey of Instructional and Organizational Effectiveness administered to

all Douglas County middle school teachers in 2001. The research indicates academic achievement and school climate are two major areas of accountability targeted by Pay for Performance programs (Dorn, 1998).

### Data Collection

The principals of the five Douglas County middle schools were contacted personally and asked to participate in the study. The principals were asked to submit to the researcher the building profile of 2000-2001 student scores from the 2001 Stanford 9 norm referenced test, and the scores for the 1992-2000 Iowa Test of Basic Skills. They were also asked to submit the results of the NSSE survey of Instructional and Organizational Effectiveness administered in 2001. The Assistant Superintendent of Curriculum and Instruction for the Douglas County School System granted permission for the study to occur.

### Data Analysis

Scores on the norm referenced test were analyzed by descriptive analysis for hypothesis one. Descriptive statistics were used to determine if a difference existed between observed means of the investigated schools as categorized by successful participation in the Georgia Pay for Performance Group Incentive Program. Responses to all items on the NSSE survey of Instructional and Organizational Effectiveness were compared and contrasted for trends and patterns for the Pay for Performance and non-Pay for Performance middle schools.

### Summary of Related Literature

The literature was reviewed to gain information on Pay for Performance in the field of education. Additional areas researched and discussed were school reform and

teacher compensation. A historical perspective is presented in order to establish the importance of Pay for Performance incentives in education. The goal of Pay for Performance is to increase teacher productivity through incentives. An increase in teacher productivity leads to an increase in student academic achievement, which is the primary goal of education (Odden, 1994).

Due to the increase in criticism of public education in the 1980's, the educational community began to focus on professionalizing teaching and restructuring schools. Restructuring and reform requires systematic school-wide change. In order to restructure schools, administrators have to create a school culture and climate that fosters change through continuous improvement. Long lasting school improvement can only occur when all stakeholders are involved throughout the entire school improvement process. This collaborative team approach gives all members a stake in the success of the organization. Collaboration and collegial sharing are highlighted as key components to creating an effective school (Wagner, 1998). Current literature suggests that the optimal conditions for change occur in schools where communication is effective and well planned. Effective school improvement is conducted with the participation and input of all stakeholders using strategic planning which includes fact finding, goal setting, implementation, measurement, and evaluation.

The major goal of restructuring is to create an effective school. In order to attain this goal, the organization needs to be aware of the research-based characteristics of an effective school. According to Lunenburg and Ornstein (1996), the body of research on effective schools can be summed up in seven characteristics: (a) a safe and orderly environment, (b) a clear school mission, (c) a strong instructional leader, (d) high

expectations, (e) high time on task, (f) frequent monitoring of student progress, and (g) positive home/school communication (p. 348). As school leaders work toward improvement, these significant areas should remain at the forefront of a discussion on goal setting. Middle school reform is even more specialized. Research on adolescent development emphasizes the need for teaming, teacher empowerment, teacher academic specialization in addition to the above mentioned characteristics (Liplitz, 1997).

One of the most effective ways to restructure an organization is by using the Total Quality Management (TQM) method. This method provides a framework for organizational change, which includes methods for continuous improvement. This system is based on Deming's 14 principles and seven deadly sins (Weller & Weller, 2000). Deming's comprehensive model allows for change and growth at all levels of the organization. The TQM method has been effective in the business world, as well as the field of education (Deming, 1993).

This review focused on financial rewards as a motivational factor in enhancing employee achievement through school reform. Although educators have experimented with variations of compensation plans, the most stable, long lasting plan is the single salary schedule. This plan should be the foundation of any additional teacher compensation plan, which reward teachers for above average performance and provide extrinsic motivation for school improvements. School-wide incentive plans have proven to be more successful in educational settings than individual incentive plans, as school-wide plans encourage collaboration between all stakeholders (Kelly, 1996). The pros and cons of the three most prevalent state teacher compensation plans, Colorado, Kentucky, and South Carolina, are reviewed. Finally, an examination of the Georgia Pay for

Performance plan demonstrates increasing participation in the statewide group incentive program from 76 applications in 1994 to 208 applications in 2001.

The Georgia Pay for Performance program allows individual schools to tailor a school improvement plan that addresses the needs of the individual school. The uniqueness of each application makes it almost impossible to evaluate the program statistically (Georgia Department of Education, 1998). The State Department of Education (2000) published a report on the impact of Pay for Performance. Pay for Performance schools were found to be demographically comparable to non-Pay for Performance schools. Total reading scores and math scores in the Pay for Performance group were significantly higher than scores in the non-Pay for Performance groups at grades three, five, and eight. The Pay for Performance middle schools outscored the non-Pay for Performance middle schools by eight points (54-46) National Percentile Rank (NPR) in reading total scores and eight points (61-53) NPR in math total scores. Survey data indicated Principals observed long-term improvements resulting from participation in the Pay for Performance Program. Pay for Performance schools documented growth in the areas of student achievement, faculty collaboration, faculty morale, professionalism, student morale, school climate, parent involvement, community involvement, use of technology, and program evaluation. Seven middle schools are noted as successfully participating in the Georgia Pay for Performance program for two or more consecutive years. These seven middle schools are the focus of the discussion on the success of the Georgia Pay for Performance Group Incentive Program.

The seven most successful Georgia Pay for Performance middle schools have demonstrated similar school improvement. These seven schools have been awarded the

Pay for Performance grant at least two consecutive years. This is an accomplishment that only 15% of Pay for Performance schools achieve. In combination these seven schools have earned over three million dollars for staff incentives. Four of the schools were accepted for the 2002 cycle. Two schools have discontinued the program.

Student academic achievement data from the 1999-2000 school year indicates high levels of achievement in most of the Pay for Performance Middle Schools. Data indicates all but two of the schools were above the state average in average scale scores on the Georgia Middle Grades Writing Assessment (MGWA), and scored above the state average for the percentage of eighth grade students passing the Middle Grades Writing Assessment, and the reading, language arts, and math components of the Georgia Criterion Referenced Competency Test (CRCT).

When reviewing norm referenced test results it is evident the seven middle schools have experienced higher student achievement over the past four years. Eighth grade students took the Iowa Test of Basic Skills (ITBS) each spring through 2000. Using national percentile ranks (NPR), the state increased three percentile points on the composite score (total battery) of the ITBS over four years. Five of the seven schools demonstrated an increase in ITBS (NPR) scores over the four-year period. The two schools that have discontinued participation in the program experienced an increase in academic achievement during PFP participation years and then experienced a decrease in academic achievement after discontinuing the program. The other five schools experienced steady growth over the time period. The average four-year growth for the five schools still participating in Pay for Performance is eight points (NPR).

The Georgia Department of Education (2000) has reported eighth grade ITBS reading total scores and eighth grade ITBS math total scores since 1995. The state has declined in Reading NPR four points since 1995. Four of the successful Pay for Performance middle schools have been able to battle this pattern in reading. Eighth grade ITBS math scores have increased dramatically in four of the seven schools. The average state NPR growth was five points over the six-year period from 1995 to 2000. All of the middle schools still participating in Pay for Performance experienced an increase, and four of the five had a larger growth than the state average.

Another way to evaluate at composite ITBS scores is based on state rank. Each year for the past four years the Georgia State Department of Education has ranked middle schools based on specific criteria. There are currently 427 middle schools in the state of Georgia. Two of the seven most successful Pay for Performance middle schools are currently ranked in the top 10%, one is ranked in the top 15%, and three are ranked in the top 30%. The five schools successful Pay for Performance middle schools studied that currently participate in Pay for Performance have improved their state ranks on norm referenced test scores an average of 34 positions over the past four years. However, two schools have declined in state rank on norm referenced test scores since discontinuing the Pay for Performance Program.

Student academic achievement data from the 1999-2000 school year indicates varied levels of achievement in Douglas County middle schools. Only two schools were above the state average in average scale scores on the Georgia Middle Grades Writing Assessment (MGWA). Two schools were below the state average in percentage of eighth

grade students passing the Middle Grades Writing Assessment and the reading, language arts, and math components of the Criterion Referenced Competency Test (CRCT).

When reviewing the norm-referenced test results it is evident the Douglas County middle schools have struggled academically over the past four years. Eighth grade students took the Iowa Test of Basic Skills (ITBS) each spring prior to 2001 when the state-mandated norm referenced test changed to the Stanford 9. Using the national percentile rank (NPR), the state increased three percentile points on the composite score of the ITBS over four years. The Pay for Performance School increased a rate two times that of the state growth. All other Douglas County middle schools changed one point or less, which was below the state average.

The Douglas County Pay for Performance Middle School is currently ranked in the top ten percent in the state and has improved in rank 38 positions in five years. The other four Douglas County schools have decreased over the five-year period, ranging from 36 positions at one school to 142 positions at another. These rankings are based on standardized norm referenced test scores.

The Douglas County School System has reported eighth grade ITBS reading and eighth grade ITBS math scores since 1992. Douglas County has followed the state trend in having decreasing eighth grade reading scores (NPR). All five middle schools have declined in the area of reading. The Pay for Performance school has experienced the smallest decrease, two points, while the largest decrease is 11 points. Eighth grade ITBS math scores have increased at the Pay for Performance school by four percentile points. All but one of the other Douglas County middle schools have experienced a decrease in ITBS math scores. The greatest decline in scores was 14 points over nine years.

## Summary

The literature indicates the need for a more complete teacher compensation plan to motivate educators toward school improvement. Most researchers took a positive stand on pay for performance in the form of group incentives (Cohen, 1983). Group incentive plans were found to increase teamwork and collaboration while decreasing isolation.

A sound group incentive program should provide motivation for school improvement, focus on student achievement, and have clear measurable goals, local flexibility, and an evaluation phase (Wagner 1998). The most effective awards are those that can be used for teacher salary enhancement.

The Georgia Pay for Performance Program was found to have all of these necessary components. Georgia middle schools that have successfully completed Pay for Performance in consecutive years and are still participating in the program have increased student achievement during the participation period. The Douglas County School System has one school in the successful Pay for Performance category. This Pay for Performance school has experienced an increase in standardized test scores while the other Douglas County Middle Schools have experienced a decrease in test scores.

## Summary of Findings

The following findings represent the results of the testing of the research hypothesis presented in the study. A summary of the results of the study are presented in figure 4 and table 13. A complete description of the findings are presented in Chapter IV.

**Figure 4:  
School Ranks - ITBS Composite**

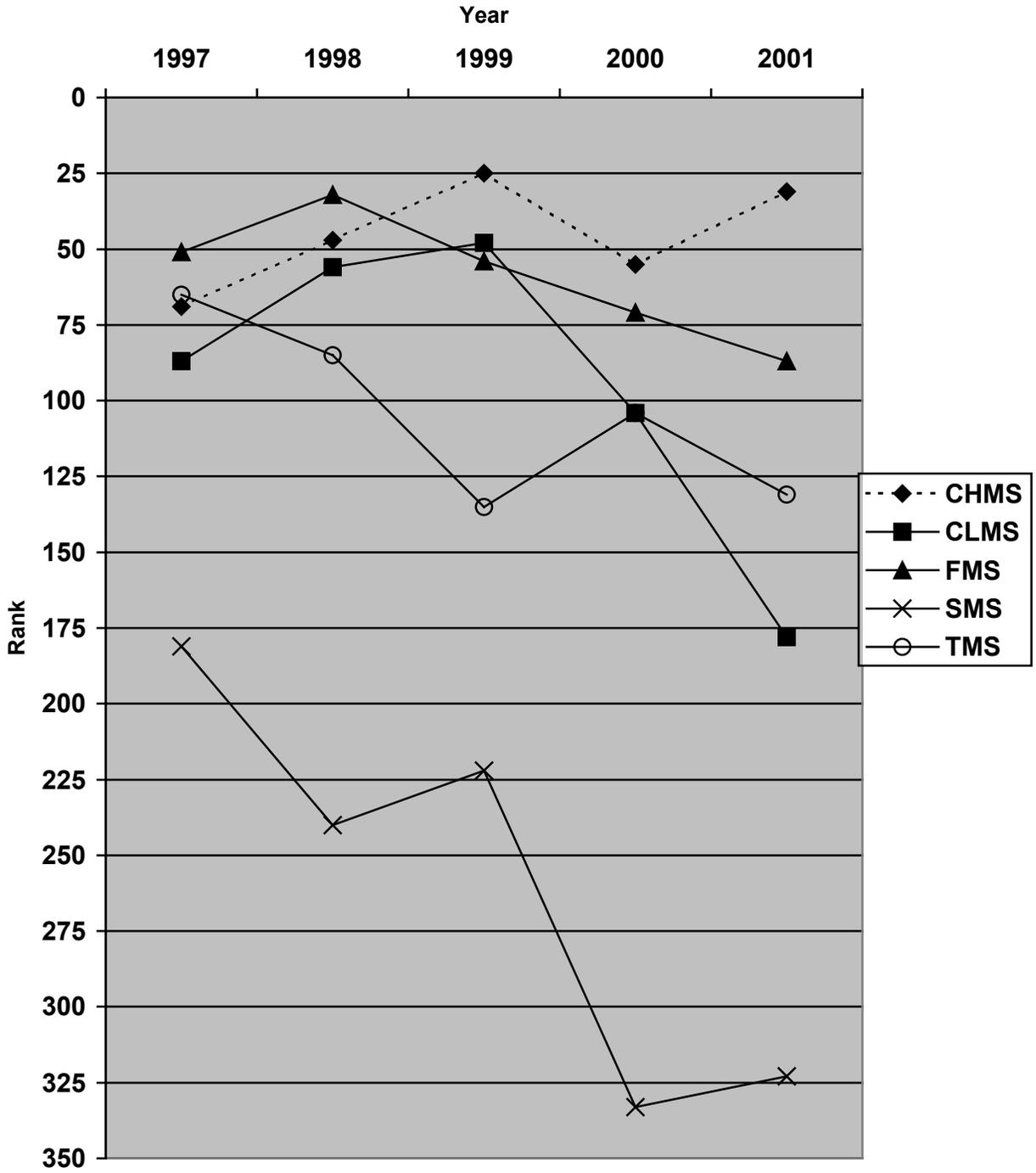


Table 13

Survey of Instructional and Organizational Effectiveness

Composite Score Statistics

Survey Items	PFP		Non-PFP	
	CHM	FMS	SMS	TMS
<b>Part A: Indicators of Quality Instructional Systems</b>				
Curriculum	3.28	2.60	2.53	2.68
Instructional Design	3.31	2.86	2.55	2.87
Assessment	3.23	2.98	2.56	2.76
<b>Quality of Instructional Systems Composite</b>	<b>3.27</b>	<b>2.84</b>	<b>2.55</b>	<b>2.78</b>
<b>Part B: Indicators of Quality Organizational Systems</b>				
Educational Agenda: Vision, Mission, Beliefs, and Goals	3.55	2.68	2.90	2.93
Leadership for School Improvement	3.59	2.60	2.54	2.80
Community-Building	3.44	2.45	2.55	2.61
Culture of Continuous Improvement and Learning	3.53	2.67	2.72	2.77
<i>Quality of Organizational Systems Composite</i>	<i>3.54</i>	<i>2.61</i>	<i>2.65</i>	<i>2.79</i>
<b>Total Composite</b>	<b>3.41</b>	<b>2.73</b>	<b>2.60</b>	<b>2.79</b>

Note. Scores range from 0 to 4.

There is a difference in the norm referenced test scores of a Pay for Performance middle school and a non-Pay for Performance middle schools (H<sub>0</sub>: 1)

Using the descriptive analysis, there was a difference in composite scores on the Iowa Test of Basic Skills and the Stanford Achievement Test Series, Ninth Edition (Stanford 9) in a Pay for Performance school and non-Pay for Performance schools. The Pay for Performance school has experienced the most positive trend in state ranking on norm referenced test scores that is based on a comparison of all middle schools in the state of Georgia. The non-Pay for Performance schools have all experienced a negative trend in state rank. The Pay for Performance school was also found to have a higher level of achievement in reading and math since becoming involved in the Pay for Performance Program as compared to the non-Pay for Performance schools who were found to be

struggling in these areas during the same time period. In 2001 the Stanford 9 scores on reading and math were very different for the Pay for Performance school and the non-Pay for Performance schools. The Pay for Performance School outscored all four of the other Douglas County schools at a greater rate than the previous years indicating continuous involvement in the Pay for Performance Program increases academic achievement.

There is a difference in the school climate in a Pay for Performance middle school when compared to a non-Pay for Performance middle schools (Ho: 2)

Descriptive statistics indicated the mean response of teachers on the survey of Instructional and Organizational Effectiveness was much higher at the Pay for Performance school. The Pay for Performance teachers ranked their school in the Fully Functioning and Operational category (number three) while the non-Pay for Performance teachers at the other three schools ranked their schools in the Evidence of Progress, but not Fully Functional category (number two). The lower standard of deviation at the Pay for Performance School indicates a higher level of agreement on items.

#### Findings Regarding Pay for Performance

Standardized test data compiled on the five Douglas County schools revealed the academic achievement in the Pay for Performance school was higher than in the non-Pay for Performance schools. In addition, the test score trends have been more positive at the Pay for Performance school since becoming involved in the Pay for Performance Program in 1998.

Data compiled on all 24 indicators of Instructional and Organizational Effectiveness revealed the means of the responses of Pay for Performances teachers were higher on all indicators than non-Pay for Performance teachers. The largest differences

were found in the areas of goal setting, effective decision making, and providing stewardship. The teachers at the Pay for Performance school were found to have a higher level of agreement on the majority of the indicators. The strongest areas of teacher agreement were indicators that stated the school had measurable goals and that it developed school-wide plans for improvement.

### Conclusions

The findings of this study demonstrated differences in academic achievement and school climate in a Pay for Performance school. The following conclusions are drawn from the data.

First, in the area of academic achievement, the Pay for Performance school out-performed the non-Pay for Performance schools on the composite scores of the norm referenced test. This finding is consistent with the research on pay for performance and the goal of the Georgia Pay for Performance Program. The results are also in line with the finding of a similar study conducted by the Georgia Department of Education in 2000.

Second, it can be concluded that teachers at a Pay for Performance school view their instructional and organizational structures as effective. The Pay for Performance teachers ranked their school as Fully Functioning and Operational compared to the three non-Pay for Performance schools ranking as Evidence of Progress but Not Fully Functional. Review of the descriptive statistics for all five schools indicates that teachers at a successful Pay for Performance school view the organization as vision oriented and goal centered.

Assuming the sample used in this study is representative of the total population of Georgia middle schools, significant differences have been found in academic achievement and school climate in Pay for Performance schools and non-Pay for Performance schools. Previous surveys and studies, (King & Mathers, 1997; Kelly, 1996), indicated group incentive pay programs meet the needs of the organization while motivating employees to higher levels of performance. Group incentive programs in education have been found to increase student achievement without damaging teamwork and collaboration. This study supports previous findings on group incentive pay for performance programs in the field of education.

#### Applications

The findings of this study suggest basic foundational components should exist in order to successfully implement pay for performance programs. Research suggests group incentive programs where money can be used as teacher salary enhancement are the most effective programs (King & Mathers, 1999). These programs give the teachers a real incentive to improve and facilitate teamwork and collaboration. Group incentive plans should have student academic achievement as the central improvement focus. The plan should require clear measurable objectives and goals for improvement with a final evaluation of the objectives as the culmination event. Two final components of a strong state-wide group incentive program are built in local flexibility and teacher input on the development of the program and the implementation phase at the local level (Shaw, 1985). All schools are different and should not be treated the same in the area of school improvement. Plans should be developed based on the strengths and weaknesses of each

individual school. This type of improvement plan allows for maximum program potential.

Consequently, the findings of this study reinforced the existence of differences in student achievement and school climate in Pay for Performance schools. These results indicate the positive effects of Pay for Performance Programs are noteworthy. However, Spring (1998) states educational financing is dependent on political environments and swings in political power. Therefore, group incentive programs are viewed as optional and often fall victim to cuts in funding and reallocation of funds. The finding of this study confirms the findings of the study undertaken by the Georgia Department of Education and adds to the body of research concluding pay for performance programs are valuable tools for school improvement and are worthy of state and local funding. Research suggests that policy makers developing pay for performance plans include key elements such as school-based rewards, continuous improvement, and standards based rewards.

#### Recommendations for Further Study

The first recommendation is that additional research be undertaken to determine if a relationship exists between teacher retention and the ability for a school to successfully participate in Pay for Performance. These variables would demonstrate whether significant differences exist in the ability to improve based on the stability of the faculty.

The second recommendation is that additional research be undertaken to determine if a relationship exists between successful participation in Pay for Performance

and the leadership style of the administrator at the local school. Such information would be valuable to administrators involved in incentive program implementation.

The third recommendation is that a similar study be undertaken to determine if there are differences in academic achievement and school climate in schools where Pay for Performance is mandated compared to schools where participation is voluntary. These comparisons might demonstrate whether significant differences exist in schools where forced participation occurs based on legislation.

Finally, it is recommended that a study be developed to compare the ability to succeed in Pay for Performance based on the current achievement level of the school (high, medium or low). Statistically it appears that it would be more difficult for high achieving schools to continue to improve in the area of academic achievement. These variables would demonstrate whether a need exists for achievement measures as well as improvement measures to be included in future state-wide group incentive programs.

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## APPENDICES

APPENDIX A

Demographic and Test Score Information on the Seven Most Successful  
Georgia Pay for Performance Middle Schools

Table 14

Successful Pay for Performance Participation

	2001	2000	1999	1998	1997	1996	1995	1994
AMS	X	X		X	X			
CHMS	X	X	X					
IMS	X	X	X	X				
PMS	X	X	X			X		
RMS	X	X	X	X	X	X	X	X
SMS				X	X		X	
WFMS					X	X	X	

Table 15

1999-2000 Demographic Data

School	Ethnicity						Programming		
	African Amer	Cauc	Hisp	Asian	Amer. Indian	Multi-Racial	Gifted	Spec. Educ	Free/Reduced
AMS	44.2	50.6	2.9	1.1	0.3	0.8	5.6	8.8	25.4
CHMS	15.5	80.7	0.6	2.2	0.1	0.9	22.6	8.9	10.9
IMS	57.0	39.2	1.0	0.8	0.3	1.7	34.8	9.3	69.7
PMS	27.5	55.4	7.5	8.5	0.1	1.0	23.8	9.3	17.7
RMS	46.7	41.4	8.5	2.8	0.0	0.6	12.2	11.2	56.3
SMS	54.1	31.1	12.1	2.2	0.0	0.5	20.9	9.4	48.3
WFMS	99.3	.05	0.1	0.0	0.1	0.0	0.0	10.0	80.7
State Ave.	37.9	54.7	4.0	2.1	0.2	1.2	6.9	11.1	42.9

Note. Data above are reported in percentages.

Table 16

Data Related to Teacher Experience and Degree Level

	Years of Experience	Advanced Degree
AMS	16.75	66.66 %
CHMS	12.44	35.18 %
IMS	14.64	59.09 %
PMS	12.83	58.75 %
RMS	14.41	52.94 %
SMS	17.44	50.90 %
WFMS	14.40	56.14 %
State Average	12.75	49.78 %

Table 17

2000 Georgia Middle Grades Writing Assessment and Criterion Reference Competency

Test Scores

	Grade 8 MGWA		Grade 8 CRCT		
	Scale Score	Percent Passing	% Passing Reading	%Passing L. Arts	%Passing Math
AMS	357	88	81	72	64
CHMS	360	91	86	78	70
IMS	363	91	90	85	76
PMS	362	85	89	84	78
RMS	359	82	75	65	54
SMS	354	68	70	64	47
WFMS	348	50	47	41	27
State Mean	356	76	75	65	54

Table 18

Grade 8 ITBS Composite Scores (in NPR)

	4 Yr. Growth	2000	1999	1998	1997	1996	1995	1994
AMS	+9	60	57	58	51	Data not available. No composite scores were reported.		
CHMS	+6	69	73	68	63			
IMS	+13	75	73	67	62			
PMS	+8	76	77	75	68			
RMS	+3	61	58	62	58			
SMS	+1	62	61	64	61			
WFMS	+2	30	35	37	28			
State Ave.	+3	57	56	54	54			

Note. Shaded scores indicate PFP participation years.

Table 19

School Ranks based on ITBS Composite Score (in NPR)

	4 Yr. Rank Change	2000	1999	1998	1997	1996	1995	1994
AMS	-74	122	151	119	196	Data not available		
CHMS	-14	55	25	47	69			
IMS	-59	20	25	50	79			
PMS	-26	18	18	19	44			
RMS	-1	111	135	85	110			
SMS	+17	104	106	71	87			
WFMS	+11	400	374	348	389			

Note. Shaded scores indicate PFP participation years.

Table 20

Grade 8 ITBS Reading Total Scores (in NPR)

School	6 Yr. NPR Change	2000	1999	1998	1997	1996	1995
AMS	+1	54	49	52	48	52	53
CHMS	+2	62	63	61	56	58	60
IMS	+5	65	66	63	56	55	60
PMS	+1	70	71	69	62	65	69
RMS	-9	48	53	58	53	54	57
SMS	-6	57	58	57	55	50	63
WFMS	-4	28	31	31	25	24	32
State Ave.	-4	49	49	48	48	48	53

Table 21

Grade 8 ITBS Math Total Scores (in NPR)

School	6 Yr. Change	2000	1999	1998	1997	1996	1995
AMS	+13	67	61	64	56	59	54
CHMS	+5	69	73	66	67	65	64
IMS	+10	74	70	64	61	60	64
PMS	+11	73	74	72	64	64	62
RMS	+3	61	60	64	57	64	59
SMS	-5	59	60	68	58	56	64
WFMS	+12	42	40	36	26	26	30
State	+5	57	56	55	54	53	52

Note. Shaded scores indicate PFP participation years.

APPENDIX B

Approval Letter from Assistant Superintendent



# DOUGLAS COUNTY SCHOOL SYSTEM

P.O.Box 1077 ~Douglasville, GA~30133~(770)920-4000~FAX (770)920-4027

Randy M. Brittain, Superintendent

October 22, 2001

Ms. Jolene Morris  
Teacher  
Chapel Hill Middle School

Dear Jolene,

You are hereby granted permission to carry out the research project described in your prospectus.

Please remember that in accordance with Douglas County School Policy ICC (copy attached), you must comply with the following.

1. Secure permission before beginning research
2. Forward a copy of the results to my office at the completion of the project
3. Secure permission from the principal(s) of any school where you will be conducting research

Please remember that no student names may be used in your research project, the research project must not interfere in any way with the performance of your regular duties, and the research must not significantly interrupt the instructional program of any school.

I wish you every success with your research and look forward to viewing your results.

Sincerely,

A handwritten signature in cursive script, reading "Linda A. Lumpkin".

Linda A. Lumpkin, Assistant Superintendent for Instruction

CC: Bill Foster, Principal, Chapel Hill Middle School  
Michelle, Ruble, Principal, Fairplay Middle School  
Suveess Ricks, Middle School Director

Attachment(s)

jkl

"Commitment to Excellence"

## APPENDIX C

### NSSE Survey of Instructional and Organizational Effectiveness



# Survey of Instructional and Organizational Effectiveness

This survey provides a tool to help schools identify the strengths and limitations of the effectiveness of the instructional practices and organizational conditions of their school. The survey is not designed for staff evaluation. Instead, the focus is placed on assessing the overall effectiveness of the school. Included with the survey are a comprehensive set of rubrics for each of the seven categories of indicators of high performing schools, based on the NSSE's Indicators of Schools of Quality. Please refer to the rubrics as you complete the survey.

In the spaces provided below, please fill in the appropriate response.

**A ROLE**

1 Administrator      3 Instructional Support Staff

2 Teacher

**B EXPERIENCE**

1 Less than 1 year      4 11 - 20 years

2 1 - 3 years      5 More than 20 years

3 4 - 10 years

4 11 - 20 years

5 More than 20 years

## PART A: Indicators of Quality Instructional Systems

Please use a No. 1 or No. 2 lead pencil to mark your responses.

		0 = No Evidence of the Indicators of Quality				
		1 = Low Level of Development and/or Implementation	2 = Evidence of Progress	3 = Fully Functioning and Operational	4 = Exemplary Level	
<b>Curriculum:</b>	1. Develops a Quality Curriculum: The curriculum is based on clearly defined standards for student learning and is focused on supporting and challenging all students to excel in their learning.	0	1	2	3	4
	2. Ensures Effective Implementation and Articulation of the Curriculum: The curriculum implementation plan ensures the alignment of teaching strategies and learning activities, instructional support and resources, and assessments of student learning with the curriculum. The coordination and articulation of the curriculum leads to a shared vision for student learning held by teachers at each grade level, and parents and community members.	0	1	2	3	4
<b>Instructional Design:</b>	Evaluates and Renews Curriculum: There is a systematic process in place for monitoring, evaluating and renewing the curriculum that reflects a commitment to continuous improvement.	0	1	2	3	4
	Aligns Instruction with the Goals and Expectations for Student Learning: Instructional strategies and learning activities are aligned with the goals and expectations for student learning.	0	1	2	3	4
<b>Assessment:</b>	Employs Data-Driven Instructional Decision Making: The instructional and assessment functions of the teaching process are integrated to support data-driven instructional decision making.	0	1	2	3	4
	Actively Engages Students in their Learning: Students' engagement in their learning is maximized by employing effective classroom management and organizational strategies, by establishing a positive academic learning climate, and by emphasizing essential knowledge and skills for student learning as well as higher order thinking skills.	0	1	2	3	4

		0 = No Evidence of the Indicators of Quality				
		1 = Low Level of Development and/or Implementation	2 = Evidence of Progress, but not Fully Operational	3 = Fully Functioning and Operational	4 = Exemplary Level	
<b>Instructional Design (continued):</b>	Expands Instructional Support for Student Learning: Students are provided with a variety of opportunities to receive additional assistance to improve their learning, beyond initial classroom instruction.	0	1	2	3	4
	Clearly Defines the Expectations for Student Learning to be Assessed: Assessments of student learning are aligned with clearly specified and appropriate achievement expectations.	0	1	2	3	4
<b>Assessment:</b>	Establishes the Purpose of the Assessment: Assessments are specifically designed to serve instructional purposes specified by the users of the results of the assessments.	0	1	2	3	4
	Selects the Appropriate Method of Assessment: Assessments are developed using a method which accurately measures the intended goals for student achievement and serves the intended purpose.	0	1	2	3	4
<b>Assessment:</b>	Collects a Comprehensive and Representative Sample of Student Achievement: The student learning assessment system provides for the collection of a comprehensive and representative sample of student performance that is sufficient in scope to permit confident conclusions about student achievement and yield generalizable results.	0	1	2	3	4
	Develops Fair Assessments and Avoids Bias and Distortion: Assessments are designed, developed, and used in a fair and equitable manner that eliminates any source of bias or distortion which might interfere with the accuracy of results.	0	1	2	3	4

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OVER

**Organizational Effectiveness**  
(continued from page 1)

**PART B: Indicators of Quality Organizational Systems**

	1 = Low Level of Development and/or Implementation	2 = Moderate Level of Development and/or Implementation	3 = Fully Functioning and Operational	4 = Exemplary Level
<b>Educational Agenda: vision, mission, beliefs and goals</b>				
1. Facilitates a Collaborative Process: The school facilitates a collaborative process in developing the school's vision, beliefs, mission and goals that engages the school community in an in-depth study and assessment of important information sources (e.g., student assessment data, demographic data, environmental scanning, future trend information, workplace expectations).	1	2	3	4
Shared Vision, Beliefs and Mission: The school develops a shared vision, beliefs and mission that define a compelling purpose and direction for the school.	1	2	3	4
Measurable Goals: The school defines measurable goals focused on improving student learning.	1	2	3	4
<b>Leadership for School Improvement:</b>				
Promotes Quality Instruction: The school promotes quality instruction by fostering an academic learning climate and actively supporting teaching and learning.	1	2	3	4
Develops Schoolwide Plans for Improvement: The school develops schoolwide plans for improvement focused on student performance.	1	2	3	4
Employs Effective Decision Making: The school employs effective decision making that is data-driven, research-based, and collaborative.	1	2	3	4
Monitors Progress: The school monitors progress in improving student achievement and instructional effectiveness through a comprehensive assessment system and continuous reflection.	1	2	3	4

lead pencil to mark your responses. Please see page 1 for the directions pertaining to the survey

The response categories for each statement are listed below. Each response category corresponds with the rubrics that accompany the survey. Please refer to the rubrics as you complete the survey.

	1 = No Evidence of the Indicators at Quality	2 = Low Level of Development and/or Implementation	3 = Fully Functioning and Operational	4 = Exemplary Level
<b>Leadership for School Improvement (CONT.):</b>				
Provides Skillful Stewardship: The school provides skillful stewardship by ensuring management of the organization, operations and resources of the school for a safe, efficient and effective learning environment.	1	2	3	4
<b>Community - Building:</b>				
Fosters Community-building: The school fosters community-building conditions and working relationships within the school.	1	2	3	4
Extends the School Community: The school extends the school community through collaborative networks of support for student learning.	1	2	3	4
<b>Future of Continuous Improvement and Learning:</b>				
Commitment to Professional Development: The school builds the skills and capacity required to improve through comprehensive and ongoing professional development programs focused on the school's goals for improvement.	1	2	3	4
Supports Productive Change and Improvement: The school creates the conditions that support productive change and continuous improvement.	1	2	3	4