A Multiple Regression Analysis of Factors Concerning Superintendent Longevity and Continuity Relative to Student Achievement

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A MULTIPLE REGRESSION ANALYSIS OF FACTORS CONCERNING SUPERINTENDENT LONGEVITY AND CONTINUITY RELATIVE TO STUDENT ACHIEVEMENT

BY

TIMOTHY PLOTTs

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Submitted in Partial Fulfillment of the Requirements for the Degree
Doctor of Education
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2011
APPROVAL FOR SUCCESSFUL DEFENSE

Doctoral Candidate, Tim Plotts, has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ed.D. during this Summer Semester 2011.

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ABSTRACT

The purpose of this quantitative study was to examine the relationship between the length of superintendent tenure, longevity, and continuity relative to student achievement as evidenced by the 2008-2009 3rd Grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts. Achievement in the study was defined as those students who scored “proficient” or better on the 2008-2009 New Jersey Assessment of Skills and Knowledge in grade 3 language arts. This study used existing empirical data from the New Jersey School Report Card and Data Universe. To put this relationship into better context, the researcher used eight predictive variables in this study: Total Student Population, Eligible for Free Lunch, Eligible for Reduced Lunch, Limited English Proficient (LEP), Attendance, Experience as a Superintendent, Educational Experience in New Jersey, and Total Educational Experience. The researcher focused on New Jersey School Districts in the lower socio-economic categories of A-CD. In the District Factor Grouping (DFG) of A-CD the researched examined all 161 A-CD school districts in New Jersey. 19 Districts were removed based on the removal criterion and not having data on the New Jersey School Report Card and Data Universe. The study then examined the remaining 142 A-CD school districts in New Jersey.

As part of the conceptual framework the researched looked to build upon the research of the Mid-Continent Research for Education and Learning’s (McREL) School District Leadership That Works; The Effects of Superintendent Leadership on Student Achievement; A Working Paper (Waters and Marzano, 2006). As the researcher examined and analyzed The School District Leadership That Works, A Working Paper,
Waters and Marzano published District Leadership That Works, Striking The Right Balance (Marzano and Waters, 2009). The researcher examined four main findings:

Finding 1: Does district leadership matter? Finding 2: Effective superintendents focus their efforts on creating goal oriented districts which include the following: collaborative goal setting, non-negotiable goals for achievement and instruction, board alignment and support of district goals, monitoring goals for achievement and instruction, and the use of resources to support achievement and instruction goals. Finding 3: Superintendent tenure is positively correlated with student achievement. Finding 4: Defined autonomy.

The backward method of multiple regression was utilized to analyze these data. Before performing the analysis, the researcher first checked to ensure that the assumption of no multicollinearity (heavily related variables) had been met. From this analysis all eight predictive variables were retained as no relationships between them were found to be too strong. As this check was completed, the backward method of multiple regression analysis was performed. The method of multiple regression sought to create the most closely related model.

Results from this study revealed that 3 of the eight predictive variables were statistically significant at the .05 level. The most statistically significant variable was students in district who qualified for Free and Reduced Lunch (.000). In terms of looking at the superintendent’s tenure, continuity and longevity which was the focus of the study, only experience in New Jersey (.018) was found to be statistically significant. The other factors of longevity in district Experience in Education (.609) as well as Experience as Superintendent in District (.702) did not have a statistically significant impact on the dependent variable student achievement.
Insights gained by this investigation will provide opportunities for those interested in the superintendency to determine if they will have a direct impact on student academic achievement. Looking at the predictive variables that most impact student academic achievement at the superintendent level will greatly guide future and practicing superintendents as they develop strategic plans to improve student academic achievement on the New Jersey Assessment of Skills and Knowledge in grade 3 language arts.
ACKNOWLEDGEMENTS

The path to complete my doctoral program and this current research would not have been possible without the help of the many people who worked diligently in assisting me to achieve my goal. The road to becoming a doctor in education has been filled with bumps and hurdles that had to be overcome. The knowledge, experience, and wisdom of my dissertation committee made writing my dissertation insightful and the overall experience extremely fulfilling as an educator.

First and foremost, I would like to thank Dr. Daniel Gutmore. Dr. Gutmore met with me before I had really delved into the process. He encouraged me and made me believe that this was possible to achieve. Dr. Gutmore has always brought out the best in me as a student in class, and now as a doctoral dissertation candidate. As the dissertation committee mentor, Dr. Gutmore gave me unlimited time to meet and question him regarding my dissertation. He pushed and assisted me to continually improve my work. He was even willing to meet with me when the university was closed for spring break. This is and was greatly appreciated. Dr. Gutmore was always willing to answer my questions, take my calls, and respond to my emails no matter what time of the day or night. Dr. Gutmore’s expertise, direction, and knowledge enabled me to complete this goal. I am forever grateful to Dr. Gutmore for this.

I would also like to extend my sincere gratitude to Dr. Christopher Tienken. Dr. Tienken served as my Dissertation I and II advisor. He was the second reader on my dissertation committee and he offered outstanding advice from the inception of my dissertation to its completion. Dr. Tienken was integral in teaching me about research and how to conduct it correctly. For that I am extremely grateful. Dr. Tienken is the
future of the Seton Hall Staff and I can only hope to continue our relationship in the future. I thank him for all his time spent and look forward to assisting him with future initiatives at Seton Hall.

A special acknowledgement and thank you of my sincerest gratitude goes out to Dr. Michael Valenti, Dr. Kelly Cooke, and Dr. Daniel Johnson. Their friendship, guidance, support, and encouragement enabled me to believe that this was possible no matter how long the road traveled. I am blessed to be able to have worked with these three innovative educators on my dissertation, but feel that I am more blessed to be able to call them my friends. Thank you for your unwavering support and encouragement.

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DEDICATION

This dissertation is dedicated to my family. I am truly the most blessed man in the world to have such a supporting family with me for the ride as I try to achieve my goals.

First and foremost, I would like to thank my wife and best friend Jennifer. Jen, since we have been together you have shown an incredible ability to believe in me, and in turn shown me how to believe in myself. Your honesty, and consistent encouragement are the only reasons why I am able to achieve this goal. You are the hardest worker I know and I hope that your work ethic rubbed off on me in writing a great dissertation. Thank you for blessing me with three beautiful children, Bailey, Colby, and Ty. By practicing what you preach, our children have learned the value of a good education and hopefully will strive for the stars. Lastly, Jen, you taught me to dream and then take action to achieve our dreams. This dream is coming true because of you! I love you and feel I am the luckiest man in the world to be able to share our lives together!

To my children, Bailey (age 9), Colby (age 7), and Ty (age 2) as our favorite movie actor Rocky said: “I DID IT!” You three are the reason I wake up so early in the morning (4 a.m.) to work on my dissertation. I hope that in my completing the dissertation it will enrich your lives. As Pop once told me “Value education, It will be the key for achieving anything you want in life!” Bailey, Colby, and Ty I thank you for your patience with Dad as I went through this process. You three have taught me so much more than I can ever teach you. I love you, and you “I know you know!”

To my family thank you for your continued support. I hope this inspires you to realize with hard work anything is possible!
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Superintendent leadership and student achievement are five words that have become synonymous with our current educational system since the inception of the 2001 No Child Left Behind Act (NCLB US Department of Education, 2002, p. 5). The NCLB Act has fostered accountability. The word accountability is synonymous with standardized tests like the New Jersey Assessment of Skills and Knowledge (NJASK) for grade 3 students in language arts. The reason for my focus on the New Jersey Assessment of Skills and Knowledge for grade 3 in language arts is that under the 2001 No Child Left Behind Act, is “to support states in making every child a proficient reader by the end of the third grade” (Helf, Cooke, & Flowers, 2008, p. 13). The question that I am are looking to answer is does the relationship between New Jersey Superintendent tenure, continuity, and longevity at the district level impact student achievement on the 2009 New Jersey Assessment of Skills and Knowledge (NJASK) for grade 3 in language arts?

The belief of many is that the superintendent has little impact on the success of students. In (School Leadership That Works: From Research to Results), Marzano, Waters, & McNulty reported that there is a significant relationship between the principal and average student achievement in school with a correlation of .25. This positive correlation at the building level gives me hope that a positive impact at the district level may be found. In my research study, I will look to find out if district level superintendent tenure has a positive impact on student academic achievement.
Background of the Study

The history, evolution, as well as the ever changing roles of the superintendency in American education, on how demographics like tenure, longevity, and continuity may impact student achievement are worthy of rigorous research. The role of the superintendent in today's educational climate is controlled by measures of accountability and standards on which their job performance is judged. Examining the impact of superintendent longevity, tenure, and continuity on student achievement is one area of study that would be of great value to the overall efficacy of the superintendent on student achievement. Research shows that the average superintendent tenure is 5 to 7 years and is much better than the perceived tenure of 2 1/2 years (Marzano & Waters, 2009 p. 114). “For various reasons the superintendency may be evolving into a temporary position” (Clark, 2001, p. 40). In examining the extant literature, a goal is to see if there is a relationship between superintendent tenure, longevity, and continuity on student achievement that limits perceived superintendent turnover in the position. The rapid turnover of superintendents leads to a break in the continuity of the academic environment, which, more often than not, leads to additional turnover (Yee & Cuban, 1996).

In 2006, Marzano and Waters published School District Leadership That Works: The Effect of Superintendent Leadership on Student Achievement; A Working Paper. In this study, the Mid-Continent Research For Education and Learning (McREL) research team looked at a meta-analysis involving a range of quantitative techniques for synthesizing research regarding a specific topic (Marzano & Waters, 2009). This working paper was turned into a published book in 2009 called District Leadership That...
Works: Striking the Right Balance. This became the framework of my study. In their research McREL examined 2,817 districts, 3.4 million students, and conducted examinations of 27 studies that met their criteria (Marzano & Waters, 2006). From their quantitative examination four major findings emerged: Finding 1: District Level Leadership Matters, Finding 2: Effective Superintendents focus their efforts on creating goal oriented districts, Finding 3: Superintendent Leadership is positively correlated with student achievement, Finding 4: Defined Autonomy Matters.

Synthesis. The literature suggests that district level leadership at the top matters in terms of impacting student achievement. Although there are limited studies on this topic, there is a positive relationship between superintendent longevity, continuity, and tenure on student achievement based on the study conducted by Marzano and Waters in 2009. If principals are to create the conditions that lead to improved student learning, districts must consider the research on school leadership practices that are correlated to student achievement (Marzano & Waters, 2006, p. 14).

Statement of the Problem

In the state of New Jersey, success at the elementary level is defined by student achievement on the New Jersey Assessment of Skills and Knowledge (NJ ASK) in language arts for grade 3. As a researcher, the problem I chose to focus on is the New Jersey Assessment of Skills and Knowledge in 2009 for language arts in grade 3 because one of the foundations of the No Child Left Behind Act of 2001 is “to support states in making every child a proficient reader by the end of third grade” (Helf, Cooke, & Flowers, 2008, p. 13). According to Tienken 2008a: “school district leaders and administrators place great emphasis on state standardized test results to make what is
believed to be informed decisions regarding future student placement and overall academic standings (p.2). Evidence indicates the NJ ASK and similar tests “have technical limitations and flaws that call into question the use of results from those tests as high-stakes evaluative and decision-making tools” (Tienken, 2008b, p.4). Under President George W. Bush by 2014 100% of all third graders should be literate in language arts as evidenced by scoring proficient or advanced proficient on the high stakes assessments each state administers (The New Jersey Assessment of Skills and Knowledge). There is evidence that exists that superintendents impact student achievement through the “promotion, support and development of principals as instructional leaders” (Cudiero, 2005, p. 16). In examining the most current research little is known about how superintendents impact student achievement, other than by their developing strategic plans and their establishing of district goals. The accountability requirements of the No Child Left Behind Act (NCLB, 2001) will be in full effect through 2014, so, as educators, we must take the necessary actions and steps to ensure that we address the challenges in district level leadership and student achievement that come with the No Child Left Behind Act accountability regulations. In this study, the findings should provide a connection to improve student achievement in any DFG school district, especially those located in districts within the A-CD DFG in New Jersey.

“Research increasingly points to the relationship between effective leadership and increased student achievement” (Marzano & Waters, 2006, p. 12). The role of superintendent has changed greatly since public education began. In the early days, the superintendent had the responsibility of overseeing a district. This has changed in that the superintendent is now a professional who has the responsibility of making sure every
student in his/her care makes and meets the requirements of No Child Left Behind (2001) in terms of academic achievement. By meeting the federal mandates of the No Child Left Behind Act, public school superintendents will ultimately take on more significant responsibilities and duties. Research shows that by fulfilling their duties in a responsive manner, the superintendent positively impacts student achievement (Marzano & Waters, 2006, p. 14). The students of any school district in New Jersey, regardless of District Factor Grouping and socio-economic status, will benefit greatly from the educational achievement opportunities that a superintendent with tenure, longevity, and continuity can bring to a district.

Purpose of the Study

The purpose of this study is to examine the impact of the length of superintendent longevity, continuity, and tenure in New Jersey School Districts on student achievement as evidenced by students scoring proficient in 2009 on the New Jersey Assessment of Skills and Knowledge in grade 3 for language arts. My study will look at predictive variables from the percentage of students who scored at or above the proficient level on the third grade Assessment of Skills and Knowledge Language arts in 2009 for grade 3 and other district demographic information.

As the extant literature is examined, it is my wish that the knowledge and insights gained in this study will further enhance opportunities for those who wish to join the rank of superintendent in the state of New Jersey to achieve longer tenure, longevity, and continuity in their careers. The insights gained in my investigation may provide opportunities for those who have not yet committed to the position of superintendent due
to the uncertainty of the No Child Left Behind Act, the current political climate and the 
state of education with the governor of New Jersey, and the current accountability rules.

Examining and identifying the practices of superintendents who have met 
accountability standards and Adequate Yearly Progress by having their students in grade 
3 pass language arts on the New Jersey Assessment of Skills and Knowledge at the 
proficient level will provide great insight for future superintendents on how their 
longevity, continuity, and tenure may positively impact student achievement. Examining 
superintendents in lower socio-economic district factor groupings and their ability to 
achieve Adequate Yearly Progress, as evidenced by scoring proficient or better on the 
2009 language arts New Jersey Assessment of Skills and Knowledge in grade 3, will 
enable future educational leaders to greater understand their roles as they work to 
positively impact student academic achievement.

Significance of the Study

This study is significant because much of the research data adds to the extant 
literature on superintendent tenure, continuity, and longevity relative to student 
achievement on the New Jersey Assessment of Skills and Knowledge (NJASK) for grade 
3 in language arts. Currently, greater emphasis is being placed on New Jersey 
superintendents because of their greater accountability since the No Child Left Behind 
Act of 2001. New Jersey’s achievement scores have been raised each year since the 
inception of the No Child Left Behind legislation, with a 100% proficiency level 
expected by the year 2014. With the knowledge gained from this research, districts may 
be better able to retain their superintendents and may be more apt to offer longer tenure, 
continuity, and longevity as long as there is a positive correlation to increased student
achievement. Information can be drawn from this research that would help school districts maintain quality superintendents. The findings of my research should enable school superintendents to assist one another in maintaining and achieving student academic achievement on the 2008-2009 New Jersey Assessment of Skills and Knowledge in language arts for grade 3.

Research Questions

The following questions guided this research:

What is the relationship between New Jersey Superintendent’s district continuity (i.e. length of tenure as a superintendent), and their longevity (i.e. years of experience as a superintendent), and the total number of years in education as they relate to student academic achievement as evidenced on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

What is the relationship between New Jersey Superintendent’s district demographics relative to student academic achievement as evidenced by the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Conceptual Framework

The Mid-Continent Research for Education and Learning (McREL, 2001) analyzed and conducted a meta-analysis (combining data from separate studies into a single sample of research) on the influence of district leaders and student performance. The goal of the study was to determine the characteristics of effective schools, leaders, and teachers. McREL took the findings from 27 studies that were conducted since the 1970’s and analyzed the data. Each study examined used rigorous quantitative methods to examine the influence school district leadership on student academic achievement.
(Marzano & Waters, 2006). From the study conducted by Marzano and Waters (2006), the following four major findings emerged:

Finding 1: District-level leadership matters

Finding 2: Effective superintendents focus their efforts on creating goal-oriented districts which include the following:

1. Collaborative goal-setting.

   “Researchers found that effective superintendents include all relevant stakeholders, including central office staff, building-level administrators, and board members in establishing goals for their districts” (Marzano & Waters, 2006 p. 3).

2. Non-negotiable goals for achievement and instruction.

   “Effective superintendents ensure that the collaborative goal-setting process results in non-negotiable goals (i.e. goals that all staff members must act upon) in at least two areas: student achievement and classroom instruction. Effective superintendents set specific achievement targets for schools and students and then ensure the consistent use of research-based instructional strategies in all classrooms to reach those targets” (Marzano & Waters 2006 p. 4).

3. Board alignment and support of district goals.

   “In all districts with higher levels of student achievement, the local board of education is aligned with and supportive of the non-negotiable goals for achievement and instruction. They ensure these goals remain the primary focus of the district’s efforts and that no other initiatives detract attention
or resources from accomplishing these goals" (Marzano & Waters 2006 p.4).

4. Monitoring goals for achievement and instruction.

“Effective superintendents continually monitor district progress toward achievement and instructional goals to ensure that these goals remain the driving force behind a district’s actions” (Marzano & Waters 2006 p.4).

5. Use of resources to support achievement and instruction goals.

“Effective superintendents ensure that the necessary resources, including time, money, personnel, and materials, are allocated to accomplish the district’s goals. This can mean cutting back on or dropping initiatives that are not aligned with district goals for achievement and instruction” (Marzano and Waters 2006 p.4).

Finding 3: Superintendent tenure is positively correlated with student achievement.

“McREL found two studies that looked specifically at the correlations between superintendent tenure and student achievement. The weighted average correlation in these two studies was a statistically significant .19, which suggests that the length of superintendent tenure in a district positively correlates to student achievement. These positive effects appear to manifest themselves as early as two years into a superintendent’s tenure” (Marzano & Waters 2006 p.4).

Finding 4: Defined autonomy.

“One set of findings from the meta-analysis that at first appears
contradictory involves building-level autonomy within a district. One study reported that building autonomy has a positive correlation of .28 with average student achievement in the district, indicating that an increase in building autonomy is associated with an increase in student achievement. Interestingly, the same study reported that site-based management had a negative correlation with student achievement of -.16, indicating that an increase in site-based management is associated with a decrease in student achievement. Researchers concluded from this finding that effective superintendents may provide principals with 'defined autonomy.' That is, they may set clear, non-negotiable goals for learning and instruction, yet provide school leadership teams with the responsibility and authority for determining how to meet those goals” (Marzano & Marzano, 2006 p.4).

Synthesis. The literature suggests that district level leadership matters. Effective superintendents focus their efforts on creating goal oriented districts. Superintendent tenure is positively correlated with student achievement. Defined autonomy at the principal level by the superintendent will lead to an increase in student achievement. The theoretical framework of this study references McREL's four major findings from “School District Leadership that Works; The Effect of Superintendent Leadership on Student Achievement; A Working Paper” (Marzano & Waters, 2006).

Design and Procedures

This research study used a non-experimental exploratory multiple-regression design. This study involved the review of data from the New Jersey School Report Card and Data Universe to determine which school districts in the District Factor Grouping of
A-CD made adequately yearly progress by achieving proficiency on the 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) grade 3 in language arts. “Non-experimental research is frequently an important and appropriate mode of research in education” (Johnson, 2001, p. 3) due in part to the inability to perform randomized experiments and quasi-experiments. The purpose of this descriptive, non-experimental, cross sectional, explanatory study is to examine if the length of a superintendent’s tenure, longevity, and continuity impact student academic achievement on the 2008-2009 New Jersey Assessment of Skills and Knowledge for grade 3 in language arts. The correlational study only collected data from one point in time. The researcher used a multiple-regression process exploring the relationship of predictive variables as they relate to the dependent variable in this quantitative study of student academic achievement as defined by scoring proficient on the 2008-2009 New Jersey Assessment of Skills and Knowledge in language arts for grade 3. In this research study academic achievement is defined as the percentage of students who score “Proficient” or better on the 2009 New Jersey Assessment of Skills and Knowledge in language arts for grade 3.

Information for three of the predictive variables came directly from the New Jersey School Report Card and Data Universe (www.datauniverse.com). The most important of these predictive variables was the superintendent’s time spent in education, no matter which positions in education were held.

The predictive variables used in this study include the following: (a) experience in district length of tenure as a superintendent, (b) educational experience in New Jersey, (c) the total number of years of experience in education.
In examining the extant research the researcher chose to include descriptive data for inclusion into the study because of the relationship that each variable had on student academic achievement. The researcher also had a strong interest in seeing the correlation of these predictive variables with student achievement.

The other predictive variables that were used in the study related to district demographics. These predictive variables were chosen for inclusion in the study to show a district's characteristics and will enable the researcher to be able to determine the best resources and programs to advance student achievement. The variables taken from the New Jersey School Report Card 2008-2009 Enrollment Summary include the following: (a) total students population for each school district, (b) the district percentage of students who qualify for free lunch, (c) the district percentage of students who qualify for reduced lunch, (d) the district percentage of students who are limited English proficient (LEP), (e) the district percentage attendance rates.

I chose to separate free and reduced lunch to two separate predictive variables because of the separation in the 2008-2009 New Jersey School Report Card Enrollment Summary. Most of the time, in New Jersey people refer to free and reduced lunch as one thing. As a researcher this needs to be mentioned to provide further clarity to my study.

The New Jersey Department of Education School Report Card website (http://education.state.nj.us/ezcleb09/reports/27/2380/27-2380-0/) and the website Data Universe (http://php.app.com/edstaff/details2.php?recordID=2135590) were used to compile the demographic data for this study. The New Jersey Department of Education School Report Card for 2008-2009 website describes the percentage of "Proficiency" of third grade students along with the predictive variables.
Assumptions

Assumptions for this study were that if a superintendent has a long standing tenure, longevity and continuity in a district, they would be more apt to have a high level of student achievement as defined by scoring proficient or better on the 2008-2009 New Jersey Assessment of Skills and Knowledge in grade 3 language arts.

Limitations of the Study

The extant literature that was analyzed serves to add to the current research on superintendent leadership and the impact on student achievement. However, caution must be exercised when making generalizations based on the findings of this study, as delimitations and limitations both apply to this quantitative analysis. Some superintendents retired and left their positions mid-year prior to students taking the 2008-2009 New Jersey Assessment of Skills and Knowledge for grade 3 in language arts. The study only focused on one year’s data. The study only focused on one academic area language arts.

Delimitations of the Study

Delimitations for the study were as follows: (a) data was only analyzed and collected during the 2008-2009 school year, (b) the study only focused on districts within the DFG range of A-CD, (c) the research only focused on one year and one subject area.

Definition of Terms

In this study some of the following terms have been specifically defined by me; others are defined in the literature and these sources are cited.
Academic Achievement (student) is the percentage of students in third grade who score “Proficient” or better on the 2008-2009 New Jersey Assessment of Skills and Knowledge in language arts.

Adequate Yearly Progress (AYP) is the target set by each state, based on meeting the No Child Left Behind Act’s overall goal that all students be proficient in reading and math curriculum standards by 2014. As we look at how schools make AYP, the most important factors are scores on high-stakes reading and mathematics assessments administered to children annually. To make AYP, a school must meet achievement guidelines for its student population as a whole, as well as each demographic subgroup. These groups included racial and ethnic minorities, students with disabilities, and those who are eligible for services as English-language learners (ELL).

Blob is an acronym for “bloated educational bureaucracy” coined by the Secretary of Education William Bennett in 1987. Bennett (as cited in Walker 1987) defined the blob as “people in the education system who work outside of classrooms, soaking up resources and resisting reform without contributing to student achievement (p. 1).

Characteristics are those specific factors and variables to be explored, which contribute to the longevity of the superintendent in a district. Variables such as school size, socio-economics, length of tenure, years in district, and other various demographic information.

Continuity is an uninterrupted succession while working in an educational capacity.
Defined autonomy is when the superintendent expects building principals and all other administrators in the district to lead within the boundaries defined by district goals. (Waters & Marzano, 2009, p. 8).

Failing schools are schools not making adequate yearly progress (AYP).

Longevity is the length of a superintendent’s life span in a school district totaling 10 years or more.

Mid-continent Research for Education and Learning (McREL) is a nationally recognized nonprofit organization created to help educators bridge the gap between research and practice.

New Jersey Assessment of Skills and Knowledge (NJASK) is the annual testing process utilized by the state of New Jersey to test student competence in reading, math, and science.

No Child Left Behind (NCLB) is legislation that was signed into law in 2001 by President George W. Bush. Its main objective is “to close the achievement gap with increased accountability, flexibility, and choices so that no child is left behind” (Public Law 107-110, 107th Congress, 2002). NCLB articulates a precise formula for ensuring “that all groups of students including low-income students, students from major racial and ethnic groups, students with disabilities, and students with limited English proficiency reach proficiency within 12 years” (U.S. Department of Education, 2002, p.5).

Percentage of students who qualify for free and reduced lunch are the percentage of the total student population who, based on family income levels, meet federal guidelines for reduced prices for school lunches/meals.
*Proficient* is the student academic achievement mark that represents adequate knowledge in a given subject area.

*School boards* are the corporate bodies that derive their legal authority to organize and operate a school district for the state with statutory responsibilities for policy, budget, and programs (Blumberg & Blumber, 1985).

*School district* refers to the geographic boundaries that are governed by a Board of Trustees that includes schools in single areas which serve the population of the community.

*Superintendent* is the chief administrator of a school corporation responsible for the actions of the school corporation.

*Superintendent leadership* is the ability of superintendent to lead a school district in the capacity of Chief Executive Officer (CEO).

*Tenure* is defined as the characteristics influencing a superintendent to remain in a New Jersey School District for a multiple year period.

*Total student population* is the total number of students in a school district.

*Total years experience in district* is the total number of years a person has served in the same school district in the capacity of superintendent.

*Total years experience in New Jersey* is the total number of years served working in education in the state of New Jersey.

*Total years experience* is the total number of years in education, regardless of positions held.

*Turnover* is the amount of movement that occurs in and out of an organization due to resignations, discharges, retirements, and deaths (Shields, 2002).
Uninterrupted tenure is the number of consecutive years a superintendent stays in the same position within a school district.

Summary

The role of the superintendent, since the inception of the No Child Left Behind Act of 2001, has faced increased pressure. Today's superintendents face higher levels of accountability to achieve adequate yearly progress and "Proficiency" on high stakes assessments like the New Jersey Assessment of Skills and Knowledge. In Chapter I, the background of the study, specifies the problem, significance of the study, and presents a brief overview of the methodology that will be implemented in examination of superintendent tenure, longevity, and continuity relative to student achievement were presented. Definition of terms, limitations, and delimitations were presented. A review of the research and literature is presented in Chapter II. In the literature review, the history, evolution, and ever changing roles of the superintendency are examined. Chapter II will examine critical stages in history and their impact on the role of the superintendent in American education. Chapter II will also examine the impacts of the No Child Left Behind Act, increased accountability, and the Board of Education Superintendent relationships. Chapter III will provide a description of the research design, methodology for data collection, and analysis used in the present study. Chapter IV will present the results and findings of the investigation. Chapter IV will also present a detailed statistical analysis of the data and an interpretation of the descriptive findings that link to the research questions. Chapter V will provide a summary of the research, its limitations, and the implications for further study. Chapter V will conclude with the connections made between prior research, current findings, and future research that can be examined.
Chapter II

REVIEW OF RELATED LITERATURE

The Historical Perspective of the Superintendency

The history, evolution, and ever changing role of the superintendency in American education and how demographics like longevity and continuity may impact student achievement is a topic that is fascinating to study. In looking at the research of the superintendency from a historical perspective, its evolution over the last 400 years, and the constant and changing roles that it faces today makes me intrigued and motivated to study the many different phases of the superintendency and how the job continues to evolve and change. With greater accountability since The No Child Left Behind Act (2002), including districts needing to achieve Adequate Yearly Progress (AYP), the superintendency has become much more difficult. This research paper will show how the evolution of the superintendency has changed most dramatically since the inception of the 2002 No Child Left Behind Act. This research will analyze school district demographics and the superintendent’s longevity and continuity relative to student achievement.

The role of superintendent in today’s educational climate is controlled by measures of accountability and standards on which their job performance is judged. As the role of the superintendent has evolved and grown in responsibility, those that hold these positions have also had to change and evolve. Twenty first century superintendents are far different from the first superintendents of the early 1600’s. In this chapter, I will look to provide information about the history of the superintendency, explore how the
position has evolved, and investigate today’s current superintendents and the many changing roles they now fill.

Purpose of the Review

In reviewing the literature on the topic of superintendent longevity and continuity relative to student achievement, research based philosophical and theoretical articles relating to this topic were examined. Although there is some literature, significant research studies on the topic are lacking. The current amount of literature on superintendent longevity and continuity and its impact on student achievement is limited.

The purpose of this review is to identify empirical studies that: (a) examine the history, evolution, and ever changing roles of the superintendency; (b) investigate how the era of accountability under the No Child Left Behind Act impacts superintendent leadership relative to student achievement; and (c) identify the factors concerning school district demographics on superintendent longevity and continuity relative to student achievement.

Research Questions

This review will be guided by the following three research questions:

#1 What is the relationship between New Jersey Superintendent’s continuity; such as length of tenure as a superintendent, and their longevity; such as; years of experience as a superintendent and the total number of years in education as they relate to student academic achievement as evidenced on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?
What is the relationship between New Jersey Superintendent’s district demographics relative to student academic achievement as evidenced by the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Literature Search Procedures

In Chapter I the extant literature that I reviewed was accessed through several on-line data bases including; ERIC, EBSCO host, Pro Quest, Dissertation Abstracts, PsycINFO, AERA online search services, Academic Search Premier, Data Universe, State of New Jersey Department of Education School Report Card website, and Alta Vista. Research was also conducted by looking at print editions of peer-reviewed educational journals, and peer-reviewed educational books. In looking at the review procedure that was utilized the researcher used both meta-analysis and descriptive non-experimental, non-experimental, quasi-experimental studies. The researcher also followed the Boote and Beile (2005) framework for scholarly literature reviews in an effort to effectively and systematically present results of similar studies.

Inclusion and Exclusion Criteria for Literature Review

Studies that met the following criteria were included in this review: (a) peer-reviewed journals, dissertations, or government reports were analyzed. Peer-reviewed adds a layer of academic strength and integrity, (b) experimental, quasi-experimental, non-experimental groups were analyzed, (c) studies that include the following: descriptive, non-experimental, multiple regression, meta-analysis and quantitative research were analyzed, (d) for seminal works and underlying theories, books will need to be consulted and analyzed. Works published from 1950-present unless considered seminal work and
thus older were analyzed, and (e) works that report at least statistical significance were analyzed.

The Evolution of the Superintendency

The history of the superintendency dates back to the 1600s, when the pilgrims landed in America and established a formal educational system. The first public school was started by the 1640s.

"The governance structure of federal involvement accompanied by states delegating considerable power and authority to local communities is unique to the United States. This configuration is rooted in the cherished principles of liberty and equity. In colonial America, public education was governed through town meetings and subsequently schools were placed under the control of town selectmen... Thus long before the creation of state departments of education, communities had been self-determining both the type and scope of education provided" (Kowalski, 2006, p. 10).

In the late 1700's and early 1800's educational institutions started to look like the modern school house and school districts of today. Communities had devised systems whereby a group or individual supervised the running of schools and the type and scope of education provided, long before the creation of state departments of education (Kowalski, 2006). While not yet an official office, the role of superintendent was performed, on a part-time basis, by community volunteers given the authority to develop and enforce policy and the responsibility for all aspects of school organization and functioning (Campbell, 2001; Hodges, 2001).
In the early days of the one room school house, the school was located within walking distance of the students that it served. In rural communities, educational institutions were placed in central locations where students could walk to and from school. The lack of modern transportation and the remoteness of many areas posed special challenges for the first school houses. As a result, there were over 100,000 small school districts consisting of single schools. “This condition gradually changed because of population growth, urbanization, and better transportation; local school districts became larger in land mass, in the number of schools operated, and in student enrollment” (Kowalski, 2006, p. 10).

Many of the first superintendents were scholars and educators who were promoted to the position of superintendent and were unprepared for the position. In fact, many had no training and learned on the job. The responsibilities of the first superintendents were very simple and mundane: they consisted of tasks such as supervising teachers, grounds upkeep, and student testing (Townley, 1992.)

The superintendency, as we have begun to know facets of it today, began in public education during the early 1800’s. The school district superintendency as a permanent, full-time, administrative position began in 1837, as an element of standardizing educational practices for all students in the United States (Sharp & Walters, 1997). American Association of School Administrator’s executive director, Paul Houston, (as cited in AASA, 2007) states:

The history of the school superintendent has been a difficult journey from manager to leader. As conditions have changed over the last 200 years, the role has evolved from an ad hoc response to local needs for school
management, to leading a complex community learning enterprise. Superintendents typically lead one of the largest institutions in the community and they have some of the greatest responsibilities in town, yet little is known about them. It is around the country I am often asked about the condition of the superintendency. Where it is going? What's happening with superintendents and what's happening to them? (p. 37).

The job of the school superintendent has become increasingly complex. We no longer have the one room school house in our most rural areas. This began changing, particularly after the American Civil War, as America became more industrialized and the role of the superintendent became increasingly important as schools divided students into separate grades and educated them in multiple buildings (Kowalski, 1999). As our country became modernized, the school system as we currently know it began to develop and evolve. It was during the great industrial age of the 1800's that the need for an educational leader to organize the school district was identified. Superintendents were now referred to as district superintendents and were responsible for the day to day operations of their districts. In the beginning of the superintendency, many superintendents were charged with writing their districts' curriculums. This meant that the role of the superintendent was to be a teacher to the teachers and it was the beginning of the evolution of the superintendent as instructional leader (Sharp & Waters, 1997).

In 1812, New York became the first state to establish a public education system, resulting in the establishment of the first superintendent position. However, many changes for the superintendency were still to come. The state superintendent was given the responsibility of developing a plan for common schools, reporting on the
management of public funds, and providing school related information to the state legislature (Kowalski, 2006). Between the years of 1830 and the early 1850's the office of state superintendent was established in every northern state and some southern states as well.

Despite its infancy, the superintendency very quickly became more varied and diversified (Kowalski, 2006). This meant that more was going to be expected of each superintendent. The superintendent was seen as the primary leader of a school district. As the district leader, the superintendent has been looked at as a symbol of respect and authority in our nation's communities and social structure. As the nineteenth century was came to an end, many new changes and advancement for the superintendency were taking place (Kowalski, 2006).

"By the end of the nineteenth century, the superintendency had become generally recognized as the only promising solution to the administrative problems facing public education. In a few states, school boards were given statutory authority to appoint superintendents; however, most cases, boards made such appointments without specific legal authority. By 1880, 34 of the 38 states had made provisions for the position of superintendent. As of 1890, all large cities had superintendents; but it was not until well into the twentieth century that superintendents were found in small cities and towns" (Hodges, 2005, p. 28).

The superintendent role became more focused in scope and sequence. "The purpose of the superintendent at the state and local level was to have someone provide standards of best practices for public school administration, communicate elements of the
common curriculum and provide supervision to ensure its implementation” (Kowalski, 2006, p. 12).

There were some problems with states hiring superintendents. The superintendent positions existed largely in name only; rather than hiring a separate individual to fill this position, states often assigned the responsibilities for this office to a state official who already held another position (Butts & Cremin, 1953). The superintendency needed to become more specialized to achieve better core academic results and to establish a better job description for which to hire.

Synthesis. The literature suggests that the position of superintendent has grown from humble beginnings. From the days of the one room school house to present day, the superintendency has evolved and changed, at times rapidly, with the growth of our industrial nation. As the position of superintendent continues to evolve, we will be reminded of the evolutionary process that has brought us to what we expect of a current superintendent in modern day. Some superintendents are hired because they are viewed as instructional leaders, but 60% in a study believe they are hired because they would be change agents (Glass, 2001b)

The Evolutionary Stages in the Role of the Superintendent

Urbanization greatly influenced the role of the superintendent. As the nation became more urban, school districts grew and with them the responsibilities of the superintendent. Superintendents, however, were still few and far between in the early years. The first full-time, local, district superintendent was hired as a school inspector in Buffalo, New York, in 1837 (Brunner, 2002; Butts & Cremin, 1953). From 1837 to 1850, only 1/3 local superintendents of urban districts had been hired and by 1890 most of
the major cities followed this lead (Kowalski, 2006). It should be noted that it was not until well into the twentieth century that small cities and towns hired local school district superintendents (Hodges, 2005).

Many people have broken the superintendency into various evolutionary stages. Callahan (1966) identified four major stages in the evolution of the position of the superintendent, with each stage bringing new roles and responsibility in its evolution.

In the first stage, beginning after the Civil War and continuing into the early 1900’s, the superintendent was seen as a scholarly leader. The position was only held by men and its role was as the teacher of teachers. The superintendents discussed their jobs in educational journals and at professional meetings. The superintendent of the early 1900’s focused on innovations of the day and on the educational needs of each school.

After the Civil War, urban school systems developed rapidly and the position of district school superintendent was created, in part, as a means of dealing with the growth and changes of local school districts and increased administrative duties and responsibilities needed to oversee effectively the daily operations of those schools (Carter & Cunningham, 1997).

In the 1920’s, the second stage of evolution was the superintendent being seen as the business manager (Callahan, 1966). He was in charge of all budgetary matters and expected to be fiscally responsible with tax payer monies. The role of business administrator evolved from the first superintendent’s position.

The third stage (1930-1954), according to Callahan, (1966), had the superintendent as educational leader in democratic school systems. The leading
professors and practitioners advocated that instructional leadership in democratic institutions was the most important responsibility of the superintendent.

The final stage in the evolution of the superintendency put the superintendent in the role of social scientist. From the years of 1955 to 1966 many people believed that economic and political realities required superintendents to understand and apply social science principles to their work in school administration (Callahan, 1966).

As the superintendency evolved to a position of social scientist it resulted in a demand for significantly greater sophistication in communication skills. Superintendents were expected to be excellent public speakers, competent writers, and proficient in the use of technology. Another communication skill that was -and still is- invaluable to the superintendent is the ability to effectively listen to others. Through effective verbal and written communication, as well as the listening skills, superintendents portrayed an image of capability and concern. As these skills developed more stages in the evolution of the superintendent occurred (Callahan, 1966).

When looking at other historians of the superintendency, Griffiths (1966) also saw stages in the historical development of the position. In the first stage (1837-1910), the superintendent was primarily concerned with instruction. During this period much of the time spent by the superintendents was devoted to visiting schools and observing the work of teachers. They tended not to be burdened with many managerial responsibilities. Often the superintendent wrote about education and their position. They wrote about pedagogy, history, and the philosophy of education. Their boards of education were primarily responsible for the management and business of the district (Griffith, 1966).
Griffiths’s second stage occurred from 1910 to 1945. In that time the superintendent became a business manager. During this stage, considerable effort on the part of the superintendents going into the elements of efficiency, mainly influenced by Frederick Taylor’s Scientific Management Theory (1911). The population of the nation was continuing to move in greater numbers to urban areas and employment skills became increasingly important. The move to urban centers was fueled by the desire to find work in industry. The critics of the superintendent as business manager lamented over the belief that schools were inefficient, and because increasing numbers of school board members were drawn from the business community, there was a common perception that the application of Taylor’s theories would be beneficial to school districts (Griffiths, 1966).

The third stage (1945 to present), in the evolution of the superintendency was shared leadership according to Griffiths (1966). Charged with working with local school boards, communities, and businesses, the role of the superintendent has transformed into a more public position. The third stage of development fostered the dawn of the professional school administrator. This era was dominated by administrative theory (Griffiths, 1966).

In the second and third stages of the superintendency, a significant amount of control began to get transferred to superintendents from boards of education. As this occurred, it marked the beginning of the highly centralized structure of school districts that is continued today (Glass, Bjork, & Brunner, 2000). A division of labor and specialization became more prevalent because boards of education ran various committees, such as, the budget committees, policy and planning committees, curriculum.
committees, facilities committees and transportation committees. During this period in education, specialists like the school nurse, social worker, psychologist and other professionals were introduced. Specialization was beginning for teachers as well. Teachers now specialized in teaching in either grammar school or in the high school. In today's educational institution, this basic structure prevails, even though educational research has demonstrated that highly centralized and hierarchical structures are an obstacle to school improvement (Glass, 2000).

The scope of the school superintendency is evolving into one that encompasses a broad array of skills. In describing the modern superintendency, Dr. Ruben Oliverez (2008) of the University of Texas Cooperative Superintendency Program identified 12 functions that a successful superintendent manages as he (she) leads a school district. They are as follows: governance operations, curriculum and instructional services, instructional support services, human resource services, finance/budget operations, administrative/business operations, facilities planning and plant services, accountability, information management, technology services, external and internal communications, and safety and security services (Olivarez, 2008).

Synthesis: The literature suggests that the superintendent has now been empowered by local boards of education to improve overall student achievement. With local school boards giving up power and control, superintendents became the dominant force in creating, and making change in school districts. Callahan (1966) identified four major stages: (a) Superintendent As Scholarly Leader, (b) Business Manager, (c) Educational Leader, and (d) Social Scientist. Today's current literature supports the research that Callahan had 45 years ago.
As a call for reform began in the 1960's, our nation entered into significant changes and began to grow. Schools were being asked to meet the challenges of a diverse population and extensive collaborations with the communities was expected (Shook, 2000). The luxury of time seemed to have evaporated: schools were under pressure on many fronts and the need for change echoed all around them. Superintendents no longer had the time for a deliberative approach. The schools they led were thrown into a constant state of rapid change (Shook, 2000).

As society was changing, so were schools in the area of public school district governance. In looking at the federal level, the administration of public education has been handled by four different agencies: (a) the Department of the Interior, (prior to 1939), (b) the Federal Security Agency (1953-1978), (c) the Department of Health, Education, and Welfare, (1953-1978), and (d) the United States Department of Education (DOE) (1979 to present) (Kowalski, 2006). As the country has evolved over the last century, these agencies have been responsible for the oversight of laws enacted by Congress that have significantly changed the nature of public education. An example of a federal legislative mandate includes “promoting vocational education (e.g. Smith-Hughes Act in 1917); promoting stronger curricula in mathematics, science and foreign language (e.g. National Defense Education Act in 1958); providing supplemental services for disadvantaged students (e.g. Elementary and Secondary Education Act in 1965); mandating special education under civil rights provisions (e.g. Education for All Handicapped Children Act in 1975); and promoting school productivity in relation to enhancing the nation’s economic welfare (e.g. No Child Left Behind Act in 2002)"
All of these departments have greatly shaped and changed the role of the superintendency by making it a position of accountability in an era of having No Child Left Behind.

There is little room for debate on the question of whether the superintendency in America changed during the 1960's, if one consults those most able to examine the question, the superintendents themselves (Marland, 1970). Marland (1920) noted that at the time of his writing the causes and effects of the change were multiple and varied.

"The new expectations demand a larger order of leadership, not the dismissal of the dead and dying order. Broadly, the superintendent's role is one reaching out, now, to those he serves; students, teachers, and citizens- to find new accommodations for rational and creative discourse. The superintendent must learn to be adaptable during times of stress, and rise above the negative personal connotations. He must, with greater compassion than ever, struggle for the minority child and the poor. The superintendent must answer directly the demands for information, for accountability; he must learn the acts of political effectiveness. Furthermore, the superintendent must remain the humane teacher. With all this he must find rest and respite. For this too must be a part of the changing role" (Marland, p. 371, 1970).

The superintendency's organizational structure and the operations of public education have changed greatly in response to legal decisions, changing societal and political conditions, and external sources, including federal and state legislation (Kowalski, 2006). The changing structure of the governance of public education involves federal, state, intermediate, and local levels of government with a superintendent serving
as the chief executive officer at each of these levels, giving the state considerable regulatory power and authority. In looking at our states, the first educational boards were established to oversee the delivery of education in Virginia, South Carolina, Vermont, and Missouri in the late 1700's. Between 1837 and 1880, 24 states had enacted legislation establishing state boards of education (Butts, & Cremin, 1953; Kowalski, 2006). Today, state level superintendents are elected in 15 states and appointed in 35 (Kowalski, 2006). Eventually, all public elementary and secondary school districts were linked under the auspices of state agencies that controlled local schools and formalized government policy implementation within each state’s education system (Spring, 1994).

As American public schools began to experience changes in the 1960’s, so did the superintendency. This era is most known for accountability. By the end of the 1960’s, a new U.S. cabinet level position, secretary of education, had been created to ensure that all students received appropriate instructional programs and met minimum standards, thus affecting the ways superintendents govern. Research studies by the hundreds undertook the difficult task of identifying teaching strategies and of considering factors such as class size and the economic makeup of classes that impacted learning. The most well publicized report of this era came in 1983 with the highly controversial *A Nation at Risk* (Goodlad, 1997).

The role of the superintendency since the Nation at Risk report has changed greatly in our society. Because the A Nation at Risk Report (Education, 1983) generated considerable controversy, many researchers chose to examine the school and the principal. A surprising development was the lack of research done on the role of the superintendent of schools. The role of principal is central to school reform and to
meeting the demands of standards, standardized testing, and curriculum development. However, this does not explain the relative absence of research on the role of superintendent (Berg & Barnett, 1998.)

Synthesis. The literature suggests that the role of the current superintendency, as we know it, has faced rapid change and growth. Schools were being asked to meet the challenges of diverse populations and extensive collaborations with communities were expected (Shook, 2000). Governance of school districts became the primary role of superintendents. The oversight of public school districts was passed on from one organization to another. In looking at the federal level, the administration of public education has been handled by four different agencies: (a) the Department of the Interior (Print, 1939), (b) the Federal Security Agency (1939-1952), (c) the Department of Health, Education, and Welfare (1953-1970) and (d) the United States Department of Education (DOE) (1979-present) (Kowalski, 2006). All of the changes in the organizational structure of school districts led to the superintendent's role in today's current educational system.

The Superintendent in Contemporary Times of Change

The superintendency in the 21st century is more challenging since the attacks of September 11, 2001. The American educational system has become more complex and diverse than ever before. Superintendents in the 21st century assume far more roles than their predecessors ever had. The 21st century superintendent has a high degree of responsibility in the overall function of the school district. These increased responsibilities require a significant investment of time. The average week of work for school superintendents is about 60-75 hours and attending two or three work related
evening meetings. In addition to the time devoted to school district functions, the superintendent is expected to be an active participant on the school board, in the community, and at civic functions (Kowalski, 1995; 2006; Lober, 1993).

In contemporary times, superintendents have to conquer challenging forces that look to disrupt the flow of a school district. Houston (2007) proclaims: "Superintendents at the start of the 21st Century work under intense scrutiny from parents, teachers, board members and elected officials. They are held responsible for the progress and achievements of the students in their districts" (Houston, 2007, p. 7).

Brown, Swenson, and Hertz (2010) provide the following portrait of today's school superintendent:

The role of the superintendent of schools has become a hotbed of political focus in recent years. In New Jersey for example, Superintendent contracts are being capped since Governor Christie took office. No longer is it sufficient for the designated leader of a school district to be an accomplished educator and respected person. In a climate of high expectations, and blame placing, superintendents are expected to be all things to all populations. From adept politicians to visionaries, superintendents are asked to meld the confusion of here and now, while focusing on a future vision of sweeping success for all. Further, school leaders are expected to perform these functions in the context of institutional hierarchies that allow blame for failure to be placed squarely on the doorstep of the superintendent's office. In short, the role of the superintendent is at once complex, difficult and fraught with potential failure.
The responsibilities of our educational leaders have dramatically changed in the last two decades, and will continue to dramatically change in the upcoming decade. Superintendents in the past were expected to possess an in-depth understanding of teaching pedagogy and instructional resources and serve as instructional leaders monitoring instruction and supporting teacher development (Spillane & Louis, 2002).

When looking at how the superintendency has changed and evolved it is easy to see that beginning in the early 1990’s pressures began to mount on superintendents to improve student achievement. The role of urban superintendents in school reform and raising student achievement (as cited in Lunenberg, 1992) was seen as crucial by 1992, just one year after Crowson and Glass reported that only one half of the nations superintendents saw instructional leadership as their most important role. As expectations rise in one area they become higher in many other areas. Political pressures, an expectation of high public visibility, greater instability in school finances, and far greater external demands from state and national departments of education all mean that in a time when expectations were rising for raising student achievement and closing achievement gaps, there was an upshot increase in the time superintendents must spend with other vital duties and responsibilities (Bredeson, 1995).

The ever changing roles of 21st century superintendents have now shifted such that he or she is devoting the majority of his or her time to management and politics thinking about and dealing with issues inside and outside the school districts, rather than as serving as an instructional leader (Cuban, 1998; Hodges, 2005; Howley & Pendarvis, 2002). Glass, Bjork and Brunner (2000) conducted a national study that found that only one fourth of superintendents felt they were hired for their skills and abilities in
instructional leadership. A report by the American Association of School Administrators (ASSA) and the National School Boards Association (NSBA) identified specific responsibilities for superintendents. The following three responsibilities were seen as the most significant changes to the superintendency.

#1 To serve as the school board’s chief executive officer and preeminent educational advisor who keeps board members informed about school operations, programs, and district needs. The superintendent also provides complete background information on policy and procedure recommendations that ultimately assist the school board in assisting the board with the governance role it has.

#2 The oversight and management of district operations and to serve as the primary educational leader for the school system and chief administrative officer of the entire school district and support staff.

#3 Responsible for instituting a process for long-range and strategic planning as well as to inform the board of administrative procedures needed to implement board policy at the public school level. (ASSA, 1994, pp. 11-12.)

Synthesis. The literature suggests that in the past several decades there has been increased pressure for education reform from superintendents to improve student achievement. This is a reaction to the perceived threat that America’s youth would not be able to compete in a global economy (West & Peterson, 2003.) One of the most notable education reform efforts is the Goals 2000: Educate America Act. In the Goals 2000 Act legislation sought to correct the failures by setting national standards and uniform standards, as well as a means of assessment (United States Department of Education, 2000.)
Era of Accountability under Adequate Yearly Progress

One of the most incredible pieces of legislation enacted to affect education in America was the No Child Left Behind (NCLB) Act of 2002. The goal of the NCLB was aimed to improve student and staff performance in primary and secondary schools in the United States, and was eventually re-classified as a federal program. It built on the foundation of increasing the standards of accountability for states, school districts, and local schools. It also provided the parents with more flexibility in being able to choose which schools their children would attend (U.S. Department of Education, 2006). The No Child Left Behind Act focused on setting high standards and establishing measurable goals to improve student achievement.

Federal Requirements of NCLB

The New Jersey Department of Education (NJDOE) (2010) stated: The federal No Child Left Behind Act (NCLB) requires all states to establish standards for accountability for all schools and districts in their states. Furthermore it calls for the inclusion of all students, even students who may have been excluded or exempted from participating in state assessment programs in the past. The foundation for the accountability system is based on a states academic content standards - which define what students should know and be able to do - and assessments to measure whether students have mastered these standards. The accountability system looks at the degree to which students across schools and districts are mastering the state standards. NCLB has set the goal of 100% proficiency by the year 2014 with states setting incremental benchmarks (New Jersey Department of Education Office of Student Achievement and Accountability, 2010).
The NJDOE (2010) stated: In order to meet the federal requirements, New Jersey has adopted the New Jersey Single Accountability System. In the New Jersey Single Accountability System state assessments in language arts literacy and mathematics are based on the New Jersey Core Curriculum Content Standards. All students enrolled in New Jersey Public Schools, plus all student subgroups, must meet the proficiency benchmarks to ensure the goal of 100% proficiency. Students must score either “proficient” or “advanced proficient” on the assessment to be counted toward meeting the benchmarks. The schools are then evaluated using the Adequate Yearly Progress (AYP) indicators. In the state of New Jersey, student achievement is determined by grade span (elementary school – grades 3-5, middle school – grades 6-8, and high school) in each content area. There are 40 indicators that must be met (including participation and proficiency rates) plus a secondary indicator. A safe harbor calculation is applied to measure significant progress if the benchmark is missed. When a school does not meet AYP for 2 consecutive years in the same content area, it is designated as a “school in need of improvement” (United States Department of Education Office of Student Achievement and Accountability, 2010 p.1).

Calculating Safe Harbor

The NJDOE (2010) stated: The calculation of safe harbor is essentially a measure of improvement applied to the total population and each subgroup that has not made AYP benchmark(s). If the percent partially proficient achieved in the previous year is decreased by 10% in the current year, safe harbor is achieved and the total and/or subgroups are deemed to have made AYP. The making of safe harbor is a critical component to the success of superintendent in terms of student achievement.
Instructional Leadership and Student Achievement

The present research on the superintendent’s impact on student achievement is limited. There are few studies that have taken place since the inception of No Child Left Behind that can support or deny the superintendent’s impact on student achievement. The Mid Continent Research for Education and Learning Center released a working paper on the topic in 2006: “School District Leadership that Works: The Effect of Superintendent Leadership on Student Achievement” (Marzano & Waters, 2006). This working paper was developed into a book called District Leadership that Works, or Leadership at the Top. In this meta-analysis study, (Marzano & Waters, 2006) had four major findings that emerged from their study.

In finding 1, Marzano & Waters stated that district level leadership matters. This study found a statistically significant relationship (with a positive correlation of .24) between district leadership and student achievement. In this study Marzano & Waters, 2006 looked at 27 studies from 1976 to today. All together, these studies involved 2,817 districts, and 3.4 million students (Marzano & Waters, 2006). Marzano and Waters were looking at the influence of the superintendent and other district level leadership on school and student achievement.

In finding 2, Marzano & Waters stated that effective superintendents focus their efforts on creating goal oriented districts. They noted five district level leadership responsibilities that have a statistically significant correlation with average student academic achievement (Marzano & Waters, 2006). The five district level responsibilities most used in creating a goal oriented district are:

- collaborative goal setting.
non-negotiable goals for achievement and instruction,
board alignment and support of district goals,
monitoring goals for achievement and instruction,
use of resources to support achievement and instruction goals.

In finding 3, Marzano & Waters (2006) found that superintendent tenure is positively correlated with student achievement. They identified two studies that focused on superintendent tenure and student achievement. The weighted correlation average of these two studies was statistically significant at a .19 level. A .19 suggests that the length of a superintendent’s tenure in a position and experience positively correlates with student achievement (Marzano & Waters, 2006).

In finding 4, Marzano & Waters (2006) identified “defined autonomy” as positively impacting student achievement. This study found a positive correlation of .28 between building autonomy and student achievement. This indicates that student achievement in a district increases when a superintendent has more building level autonomy. As the superintendent’s autonomy increased, there was an increase in student achievement (Marzano & Waters, 2006). This finding appears to be contradicted by the finding in that “site-based” management had a negative correlation of (-.16), indicating that an increase in site-based management is associated with a decrease in student achievement (Marzano & Waters, 2006).

In the “School District Leadership that Works, A Working Paper”, the following research questions were used to guide the study:

- What is the strength of relationship between leadership at the district level and average student academic achievement in the district?
What specific district-level leadership responsibilities are related to student academic achievement?

What specific leadership practices are used to fulfill these responsibilities?

What is the variation in the relationship between district leadership and student achievement? Stated differently, do behaviors associated with strong leadership always have a positive effect on student achievement?

Is there a relationship between length of superintendent service and student achievement? (Marzano & Waters, 2006).

In examining each question, Marzano & Waters (2006) found that district leadership does make a difference. Sound leadership at the district level adds value to an educational system. This belief stands to contrast with the images of superintendents and their impact on student achievement. There are some studies that support the findings of Marzano and Waters (2000), especially those studies that have been done since the inception of NCLB that establish the overall importance of the superintendents instructional leadership on building a strong district culture that focuses on learning and student achievement.

In 2009, Marzano & Waters released their latest book called [District Leadership That Works, Striking the Right Balance]. This book was guided by the focus question: Does district leadership matter? Based on my findings, it does. In 1987 Secretary of Education William Bennet attached the nickname “the blob” to administrators and administrative systems in public schools (Marzano & Waters, 2009, p. 1). The blob is made up of people in the education system who work outside of classrooms, soaking up resources and resisting reform without contributing to student achievement (Walker,
According to Bennett the term blob is an acronym for “bloated educational bureaucracy.” To Bennett the blob includes superintendents, district office staff, and local board members as an amorphous mass. The extant literature on the relationship between district administrative leadership and student achievement will continue to be researched going forward.

Synthesis. The extant literature suggests that there five primary goals that superintendents can engage in to ensure a high level of student achievement. According to Marzano and Waters (2009) The five responsibilities and initiatives that district level leadership should engage in are: (a) ensuring collaborative goal setting, (b) establishing non-negotiable goals for achievement and instruction, (c) creating board alignment with and supporting district goals, (d) monitoring achievement and instruction goals, (e) allocating resources to support the goals for achievement and instruction (Marzano & Waters, 2009, p.6).

Board-Superintendent Relationships

In education, one of the most important relationships is between the board of education and the superintendent. The board of education is a policy making body. Marzano & Waters (2009, p. 75) state that once goals for achievement and instruction have been established through a collaborative goal-setting process, board alignment and support for the goals must be firmly established. Many superintendents do not feel that they are supported by their boards, but they feel that they are accountable.

The accountability movement for superintendents has put school districts and the board in a new, unfamiliar environment. Plecki et al (2006) and others (Conley, 2003; Howell, 2005; & Land, 2002) note that historically, schools boards have not focused on
student achievement. Sell (2006) explains that the accountability movement has decreased the traditional power of school boards. The new accountability has led to a decrease in superintendent longevity. Marzano and Waters (2009) state that the longevity of the superintendent’s leadership in a district has a statistically significant relationship with student achievement. The issues of accountability, student achievement, and longevity sometimes lead to in-district conflict.

Brower and Balch (2006) state that school board conflicts, board politics, and community support were determined to be highly significant contributors to stress and success in a district. According to Brower and Balch (2006), lower salaries, more school board conflicts, greater board politics, less community support, and inexperience created stress for a superintendent which may contribute to their remaining in a district. Networking plays a critical role in school board conflicts. Those who network more, usually have fewer conflicts. “School boards feel intense pressure to recruit superheroes that will improve student achievement, reduce the employee count, implement accountability measures, and guarantee safe haven schools in dangerous neighborhoods” (Jernigan, 1997, p. 4). If we look at society, the lack of longevity in the superintendent mirrors that of society. People are changing careers more often than ever. School board members adopt a “quick-fix, results tomorrow” mentality (Jernigan, 1997, p. 4). School boards think that “we need things to happen now and we believe we need a new person in charge” (Jernigan, 1997, p. 4). In fact, some school superintendents who face a brand new school board composition after an election determine it is easier to obtain another job than it would be to work together with the newcomers. The superintendency may be evolving into a temporary position with lots of board related conflicts (Clark, 2001).
Synthesis. The literature suggests that, since the No Child Left Behind Act of 2001, superintendent accountability has increased ten fold. The goal of leaving no child left behind was to raise the level of student achievement for all students and to reduce the gap in performance of students from different backgrounds (Abrams, 2004). The legislation change of NCLB and its new accountability regulations and measurement requirements were the impetus for driving school improvement and ultimately having all students proficient by 2014. The higher standards placed on all school districts place higher accountability standards on superintendents.

Board Hidden Agendas and Superintendent Relationships

In education both board members and superintendents sometimes have hidden agendas. These agendas can affect the day to day operations of a district and ultimately can impact student achievement. Board members sometimes have hidden agendas, focus on single items, mismanage, or could be corruptly influenced. Board members sometimes look at the issues of the day and get away from their jobs as policy makers. This has resulted in criticism of school board members (Slaten, 1994).

Trust and honesty are needed in a school board and superintendent relationships: Hidden agendas need to be left at the door. Honesty and integrity are among the most identified causes of conflict (Chance, 1992; Capps, 1992; & Malone, 1999). As the CEO of the district the superintendent is expected to be held and live up to the highest possible standards by their boards, staffs, students, and community. Sharp and Walters (1995) stated that 93% of superintendents said they are satisfied with their relationships with their school boards. Sharp and Walter, 1995). Castallo and Natalie (2005) wrote that successful administrators must be perceived to be trustworthy, credible, honest, and open.
The district that gets a superintendent with high integrity and a board of education without hidden agendas will have the greatest chance to positively impact student achievement.

Synthesis. The literature suggests that for a school district to be successful trust and honesty must exist between a superintendent and his/her board of education. Superintendents spend an average of 4 or more hours per week in direct communication with school board members (Glass, 2001b). “Astute school boards and superintendents realize that maintaining sound public relations could mean the difference between success and failure” (AASA, 1994 p. 19).

Board-Superintendent Expectations in Longevity and Continuity

High expectations by board members, community members, teachers, and school staff for superintendents, combined with time and financial constraints add to the stress of the job. High rates of stress related illness lead to individuals vacating the position (Brower & Balch, 2006). Schools are deemed to have high rates of turnover if they have had three or more superintendents in a 5 year period (Chance & Capps, 1992).

There are many reasons that a superintendent would want to stay in one district and have continuity. In most districts there are benefits that school board members could consider that would result in an increase in superintendent longevity. To make a district more attractive, so that the services of a great superintendent could be retained school board members should consider portable retirement plans, 6 year contracts to experienced superintendents, guaranteed buy out or termination clauses, and paid internships for aspiring superintendents (Glass, 2001). Brower and Balch (2006) state that, according to one study, years of experience in the district-level administration showed significant
relationships to maintaining a successful tenure. Continuity can be lost in programming, which results in an unclear mission and direction for the district. "The superintendency is the least stable and secure position in education" (Metzger, 1997, p. 4).

The relationship between the superintendent and the board of education could be a major obstruction in the longevity of a superintendency. Deliberation and decision making are often the major focus of the relationship between the superintendent and school board relationship (Slaten, 1994). Micromanaging or board members attempting to run a district leads to superintendent stress and turnover (American Association of School Administrators, ASSA). The superintendent should be shaping the climate and culture of the school district. It is imperative that school board conflicts not get in the way of moving a district toward its vision and mission. In a recent study, school board conflicts and board politics were noted as highly statistically significant variables that added stress for a superintendent (Brower & Balch, 2006).

Synthesis. The literature suggests that individual board members are not contributing to district success, but in fact may be working in opposition to that end when their interests and expectations distract attention from board adopted achievement and instructional goals (Mazzano & Waters, 2009 p. 7). Having a good relationship with the board of education should help with a superintendent’s longevity and continuity in a district. The board and superintendent’s most important goal in maintaining a sound working relationship is to establish a sound guaranteed and viable curriculum (Mazzano & Waters, 2006, p. 14). Having a guaranteed viable curriculum will contribute to better student achievement and ultimately longer superintendent longevity and continuity in a district.
Summary

The role of the superintendent has evolved and changed greatly during the history of the United States. In Chapter I have reviewed the evolution, the era of accountability (AYP), the impact of the superintendents' leadership on student achievement, along with the historical perspective of the superintendency. The chapter started by looking at the inception of the position of the superintendent starting in the 1600's and how it has evolved into the present day position. Chapter II, began with a description of the superintendent filling the role of instructional leader, evolving into a manager, then falling back into the role of instructional leader of a school district. The second coming of the superintendent as instructional leader has changed greatly due to the new accountability regulations and the passing of the No Child Left Behind Act.

The responsibilities of the superintendent continue to change from the original duties. The first superintendents were originally clerks for the board of education. Today’s superintendents have responsibilities that have shifted from typical management duties, to that of an instructional leader who is expected to "guide, facilitate, and coordinate" (Carter & Cunningham, 1997, p. 238) activities within the educational community that focused on student academic achievement.

The superintendency has been facing difficult times recently that can be traced back to the publication of A Nation at Risk in 1983. When A Nation at Risk was published during President Ronald Reagan's term, the position of superintendent went from that of a manager to that of an educational leader, who still completed all of the managerial aspects of the job. The new age superintendent had to have political savvy that could engage people at the local, state, and federal levels. This put a stronger burden
on superintendents to be instructional leaders who also fulfilled these other roles, all the while seeking success in the area of student academic achievement.

Since the passage of the No Child Left Behind Act (2002), increased pressure has been placed on the superintendent to raise achievement for all students. Under this federal legislation, the goal is to have every student with a 100% proficiency on the state assessments by the year 2014. These lofty goals seemed to be originally welcomed by superintendents, but as we continue in 2011, it is becoming more evident that we will fall short of 100% proficiency by 2014. The fact that each school district is required by federal and state law to make Adequate Yearly Progress is a great thing for superintendents because it has the potential to increase merit based pay incentives for them.

As we look at the position of superintendent from the evolutionary period to the era of accountability and adequate yearly progress, and at the impact of superintendent leadership on student achievement, it has become evident that superintendents have jobs with huge stress loads and pressures for student academic achievement. There has been little research in the area of superintendent leadership and its impact on student achievement. This is interesting because there are several studies on principal leadership and how it impacts student achievement as well as teacher leadership and how they impact student achievement. The superintendency is changing and it will require more emphasis placed on student academic achievement in an era of accountability. It is my hope that future studies on the superintendents’ tenure, continuity, and longevity will enable those aspiring to the position a road map to career success. Chapter III will shed
more light on the role superintendents' play in how their tenure, continuity, and longevity will be able to successfully impact student academic achievement.
Chapter III

METHODOLOGY

As the position of superintendent has grown in scope a number of new responsibilities and duties have emerged. Now, more than any other time in history, as public schools in the United States progress into the 21st century, an extreme amount of emphasis is being placed on student academic achievement. The superintendents of today are being held accountable for their districts' results as evidenced by student achievement. With such an emphasis being placed on student achievement, we need to examine the many complexities of the superintendency. The purpose of this descriptive, quantitative, non-experimental study was to examine the impact a superintendent's length of tenure, longevity, and continuity relative to student academic achievement as measured by the 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) for grade 3 in language arts.

The researcher used a multiple regression process for exploring the relationship of three predictive variables as they relate to the dependent variable of this quantitative study, the academic achievement of students. The researcher focused on the superintendents' time spent in education, regardless of the position they held. The predictive variables, including the primary focus of the study, were used to describe data from the 2008-2009 school year regarding the following: (a) each superintendent's length of tenure in district (experience in district) in New Jersey; (b) each superintendent's experience in New Jersey (total years), (c) each superintendent's total experience in education (total years), (d) each district's student attendance rates, (e) percent of each district's students who were eligible for free lunch, (f) percent of each
districts students who were eligible for reduced lunch, (g) percent of each districts
students who were Limited English Proficient (LEP), and (h) each districts total students.

The researcher chose to focus on New Jersey school districts in the lower socio-
economic groupings of A, B, and CD in the New Jersey State Department of Education
District Factor Grouping Rating Scale (DFG). The researcher chose this population to
study because he wanted to examine if there was a relationship between superintendent
tenure and student achievement as measured by the New Jersey Assessment of Skills and
Knowledge in grade 3 for language arts in lower socio-economic school districts.

The DFG's for New Jersey are broken down into eight different categories by socio-
economics. They are rated: by A (39 Districts in New Jersey), B (61 Districts in New
Jersey), CD (61 Districts in New Jersey), DE (83 Districts in New Jersey), FG (89
Districts in New Jersey), GH (76 Districts in New Jersey), I (103 Districts in New Jersey)
and J (25 Districts in New Jersey). A is the lowest socio-economic class with J being the
most affluent. “The District Factor Groups (DFG’S) were first developed in 1975 for the
purpose of comparing students’ performance on statewide assessments across
demographically similar school districts. The categories are updated every ten years
when the Census Bureau releases the latest Decennial Census data” (New Jersey State

The purpose of this study was to also use the theoretical constructs identified in
the reviewed literature, as well as the practices outlined by the New Jersey State
Department of Education, the NSDC, PROQUEST, Data Universe, The New Jersey
School Report Card, and ERIC to guide implementation, to examine whether or not
superintendent tenure, longevity, and continuity have a relationship with student
achievement as evidenced by the New Jersey Assessment of Skills and Knowledge (NJASK) in language arts for grade 3. This chapter will describe the methods used, including the research design, research questions, and sample population. Chapter III will also present the conceptual framework, instrumentation used, and the data collection methods. Chapter III concludes with a discussion of the data analysis that will determine if there is a relationship between superintendent tenure and student achievement.

Research Questions

This research study addressed the following two research questions:

1. What is the relationship between New Jersey Superintendent’s continuity: such as length of tenure as a superintendent, and their longevity; such as, years of experience as a superintendent and the total number of years in education as they relate to student academic achievement as evidenced on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

2. What is the relationship between New Jersey Superintendent’s district demographics relative to student academic achievement as evidenced by the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Statement of the Problem

In the state of New Jersey, elementary school level success is defined by student achievement on the New Jersey Assessment of Skills and Knowledge (NJASK) in language arts for grade 3. As a researcher, the problem I chose to focus on is the relationship between superintendent tenure, longevity, and continuity relative to the New Jersey Assessment of Skills and Knowledge in 2009 for language arts in grade 3. I examined this area because one of the foundations of the No Child Left Behind Act of
2001 is "to support states in making every child a proficient reader by the end of third grade" (Helf, Cooke, & Flowers, 2008, p. 13). President George W. Bush proclaimed that by the year 2014 100% of all third graders should be literate in language arts as evidenced by scoring proficient or advanced proficient on the high stakes assessments each state administers, such as the New Jersey Assessment of Skills and Knowledge (New Jersey State Department of Education, 2008). There is evidence that exists that superintendents impact student achievement through the "promotion, support and development of principals as instructional leaders" (Cudiero, 2005, p. 16). In examining the most current research, little is known about how superintendents can impact student achievement other than in their developing strategic plans and their establishing of district goals. The accountability requirements of the No Child Left Behind Act (NCLB, 2001) will be in full effect through 2014, so educators must take the necessary actions to ensure that the challenges in district level leadership and student achievement that come with the No Child Left Behind Act accountability regulations are addressed. In this study the findings should provide a link to improve student achievement in any DFG school district A-DE in New Jersey.

"Research increasingly points to the relationship between effective leadership and increased student achievement" (Marzano & Waters, 2001, p. 12). The role of superintendent has been changing greatly since the history of public education began. In the early days of public education, the superintendent had the responsibility of being the over sight for a district. This has changed greatly in that the superintendent is now a professional who has the responsibility of making sure every student in his or her care makes and meets the requirements of the No Child Left Behind (2001) in terms of student
academic achievement. By meeting the federal mandates of the No Child Left Behind Act public school superintendents will ultimately take on more significant responsibilities and duties. By fulfilling their duties in a responsive manner research shows that the superintendent positively impacts student achievement (Marzano & Waters, 2007, p. 14). The students of any school district in the state of New Jersey regardless of District Factor Grouping and socio-economic status will benefit greatly from the educational achievement opportunities that a superintendent with tenure, longevity, and continuity can bring to a district.

Research Design

The research design of this study was a non-experimental, explanatory, cross-sectional design (Johnson, 2001) that used a backward multiple regression analysis to measure the relationships of the predictive variables (superintendent experience in district, tenure; superintendent experience in New Jersey; superintendent total experience), and the dependent variable of student achievement on the New Jersey Assessment of Skill and Knowledge in grade 3 language arts for the 2008-2009 school year. “Non-experimental research is frequently an important and appropriate mode of research in education” (Johnson, 2001, p.3) due largely in part to the inability to perform randomized experiments and quasi-experiments. The researcher conducted a non-experimental, cross sectional, explanatory study. Johnson (2001) advises that an explanatory study must answer the following questions: (a) Were the researchers trying to develop or test a theory about a phenomenon to explain “how” and “why” it operates? (b) Were the researchers trying to explain how the phenomenon operates by identifying the causal factors that produce change in it (p. 9)?
In order to determine which district and school variables had a statistically significant relationship to student achievement, I used simultaneous multiple regression models for my study. This strategy is used when the researcher has no logical or theoretical structure for the data. This method is typically used to explore and maximize prediction (Pedhazur, 1997). Scatter diagrams of residuals and normal probability plots of residuals were constructed to test assumptions.

Given the sample size of the population, 161 school districts within the New Jersey demographics of an A, B, or CD district were examined. The number of schools within each district factor grouping and the number of schools meeting AYP are displayed in Table Ia.

Table Ia Number of School Districts Used in Study (DFG A-CD).

<table>
<thead>
<tr>
<th>District</th>
<th>Number of Schools</th>
<th>Number of Schools meeting AYP</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>39</td>
<td>3</td>
</tr>
<tr>
<td>B</td>
<td>61</td>
<td>14</td>
</tr>
<tr>
<td>CD</td>
<td>61</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL</td>
<td>161</td>
<td>34</td>
</tr>
</tbody>
</table>

TOTAL- % Proficient or better on the NJASK in Grade 3 for Language Arts: 5.1%.

This data was acquired, compiled, and analyzed using Data Universe and the New Jersey School Report Card for the 2008-2009 school year. The 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) for grade 3 in language arts had a raised linked cut score of 182 for proficiency. The percentage for proficiency under the "New Target" for the 2008-2009 New Jersey Assessment of Skills and Knowledge was 59%.

In the data analysis of the New Jersey School Report Card, I looked at all districts that
had less than 41% of its students in the partially proficient category on the 2008-2009 NJ ASK. If a district fell below 41% in the partially proficient category of the 2008-2009 NJ ASK for grade 3 language arts, then this meant that 59% of the students in that district scored a “proficient” or better for “literacy” (New Jersey State Department of Education Adequate Yearly Progress, 2000, p. 2).

I chose to use a multiple regression analysis because, according to Field (2009), “Regression analysis... enables us to predict future outcomes based on values of predictive variables” (p. 198). This methodology allowed for a statistical analysis of the data. It was also an efficient means of gathering data without introducing threats to reliability that can occur with other data collection means (Suskie, 1996). Given the size of the population, 161 districts, observations and personal interviews were impractical to use for this study. Observations and personal interviews would have introduced the potential for bias and inconsistency and the data collected would not have been appropriate for statistical analysis. Specifically, the backward method of multiple regression “calculates the contribution of each predictive variable by looking at the significance value of the t-test for each predictor... If a predictor meets the removal criterion (i.e. if it is not making a statistically significant contribution to how well the model predicts the outcome variable) it is removed from the model” (Field, 2009, p. 213). After this is completed, any remaining variable would then be assessed to determine their contribution to the outcome of the dependent variable.

The two research questions were examined by conducting a descriptive correlational analysis to discover if the predictor variables contribute to the independent variable. According to Field (2009): In a multiple regression analysis it is important for
the researcher to check and ensure that the assumption of no multi-collinearity (heavily related variable) had not been violated by having any variables that were too closely related to one another by checking the Pearson Correlation Coefficient, the tolerance level and the variance inflation factor (VIF) values between the three predictive variables (Field, 2009).

The level of significance was set at $p < .05$, as that is the customary level used when working on significance (Krawthol and Anderson, 2001). To check the statistical significance and relative importance of each predictive variable, I examined the unstandardized coefficient beta weights and the standardized beta weights of each predictive variable. In addition, an $R^2$ was used to examine the relationships between the various predictive variables and the dependent variable.

Sample

The sample for this study was comprised of third grade students, and their achievement scores on the 2008-2009 New Jersey Assessment of Skills and Knowledge from the New Jersey School Report Card and Data Universe in 161 A-CD districts was the data for the study. Of the 549 total districts in the state of New Jersey, I chose to look at those districts that were in the District Factor Grouping ranges of A, B, and CD. Again, this comprised 161 districts in the DFG of A, B, and CD. The criteria for selection was for each district to have a 59% or better proficiency on the 2008-2009 New Jersey Assessment of Skills and Knowledge. In looking at the data on the New Jersey School Report Card for the 3rd grade 2008-2009 NJASK, I was able to find 34 districts out of the 161 total districts for the DFG A, B, CD that met this criteria. The 34 districts whose students achieved “proficient” or better on the third grade language arts NJASK
were examined in the study. The 34 districts equates to 5.1% of the districts making AYP for the 2008-2009 third grade NJASK in language arts.

Conceptual Framework

The Mid-Continent Research for Education and Learning (2009) analyzed and conducted a meta-analysis (combining data from separate studies into a single sample of research) on the influence of district leaders and student performance. The goal of the study was to determine the characteristics of effective schools, leaders, and teachers. McREL took the findings from 27 studies that were conducted since the 1970’s and analyzed the data. Each study that was examined used rigorous quantitative methods to influence school district leadership on student academic achievement (Marzano & Waters, 2006). From the study conducted by Marzano & Waters from “School District Leadership that Works; The Effect of Superintendent Leadership on Student Achievement; A Working Paper” (2006), the following four major findings emerged from this study: (a) finding 1: district-level leadership matters, (b) finding 2: effective superintendents focus their efforts on creating goal oriented districts which include the following, (1) collaborative goal-setting: “Researchers found that effective superintendents include all relevant stakeholders, including central office staff, building-level administrators, and board members in establishing goals for their districts” (p. 4). (2) Non-negotiable goals for achievement and instruction: “Effective superintendents ensure that the collaborative goal-setting process results in non-negotiable goals (i.e. goals that all staff members must act upon) in at least two areas: student achievement and classroom instruction. Effective superintendents set specific achievement targets for schools and students and then ensure the consistent use of research-based instructional
strategies in all classrooms to reach those targets" (p.4). (3) Board alignment and support of district goals "In all districts with higher levels of student achievement, the local board of education is aligned with and supportive of the non-negotiable goals for achievement and instruction. They ensure these goals remain the primary focus of the district's efforts and that no other initiatives detract attention or resources from accomplishing these goals" (p.4). (4) Monitoring goals for achievement and instruction: "Effective superintendents continually monitor district progress toward achievement and instructional goals to ensure that these goals remain the driving force behind a district's actions" (p.4). (5) Use of resources to support achievement and instruction goals: "Effective superintendents ensure that the necessary resources, including time, money, personnel, and materials, are allocated to accomplish the district's goals. This can mean cutting back on or dropping initiatives that are not aligned with district goals for achievement and instruction" (p.4). (e) finding 3: superintendent tenure is positively correlated with student achievement: "Marzano & Waters found two studies that looked specifically at the correlations between superintendent tenure and student achievement. The weighted average correlation in these two studies was a statistically significant .19, which suggests that the length of superintendent tenure in a district positively correlates to student achievement. These positive effects appear to manifest themselves as early as two years into a superintendent's tenure" (Marzano & Waters, 2006, p. 4). (d) finding 4: defined autonomy:

"One set of findings from the meta-analysis that at first appears contradictory involves building-level autonomy within a district. One study reported that building autonomy has a positive correlation of .28 with average
student achievement in the district, indicating that an increase in building autonomy is associated with an increase in student achievement. Interestingly, the same study reported that site-based management had a negative correlation with student achievement of (-).16, indicating that an increase in site-based management is associated with a decrease in student achievement. Researchers concluded from this finding that effective superintendents may provide principals with “defined autonomy.” That is, they may set clear, non-negotiable goals for learning and instruction, yet provide school leadership teams with the responsibility and authority for determining how to meet those goals” (Marzano & Waters, 2006 p. 3-4).

Synthesis. The literature suggests that: district level leadership matters, effective superintendents focus their efforts on creating goal oriented districts, superintendent tenure is positively correlated with student achievement, and that defined autonomy at the principal level by the superintendent will lead to an increase in student achievement. The theoretical framework for this study references Marzano & Waters, (2006) four major findings from “School District Leadership that Works: The Effect of Superintendent Leadership on Student Achievement; A Working Paper.”

The results of this analysis will be presented in Chapter IV in table form as suggested by the American Psychological Association (Field, 2009). Along with the tables, an analysis and interpretation of the data is also included.
Data Collection

The data used in this study was obtained from several sources. Two of the primary sources were The New Jersey School Report Card and Data Universe. Data Universe was accessed using the steps listed below. This provided the data for analysis.

1. Select the website Data Universe. Go to: http://php.app.com
2. Select Public School Teachers.
3. Select Primary Job "Chief School Administrator" for Superintendent.
4. Select Submit.
5. Select Details.

The information on superintendent experience in district, educational experience in New Jersey, and total number of experience in education then appears.

The researcher took the following steps in obtaining the data from the State of New Jersey School Report Card.

2. Click on Data.
3. Click on Enrollment.
5. Click on District.
6. Click on County.
7. Click on Town Preferred.
8. Click on File.
9. Click on Print Preview.
10. Click on Shrink to Fit.

11. Click on 30% for full page view and the ability to see all the predictive variables on one page.

To acquire the attendance data from the New Jersey School Report Card the researcher took the following steps.

2. Select Data.
5. Select County/District.
6. Select a District.
7. Select a School.
9. Select English.
10. Select a County.

The NCLB School Report Card Page for 2008-2009 Attendance Rate appear on the top of the page along with the district Adequate Yearly Progress (AYP) results.

After data for the study was gathered, I entered it into the Statistical Package for Social Sciences (SPSS) version 19.0 software to run the appropriate statistical analysis.

Data Analysis

This study did not use human subjects and therefore did not need to go to the Institutional Review Board (IRB). The data was obtained from an authentic source, New
Jersey School Report Card and Data Universe. Once permission was granted from Dr. Daniel Gutmore (Professor/Mentor Seton Hall University), the data collection procedure began. The method used to conduct this research was web-based.

The two research questions were addressed by conducting descriptive and correlational analyses to discover the significance of the predictor variables in contributing to the dependent variable. Data regarding the dependent variable and the eight predictive variables were compiled and entered into the Statistical Package for Social Sciences (SPSS) version 19.0 software program.

The research design of this study was quantitative and used simultaneous backward multiple regression analysis to measure the relationship of the predictive variables to the dependent variable. According to Field (2009), "Regression Analysis enables us to predict future outcomes based on the predictor variables" (p. 198). The backward method of multiple regression calculates the contributions of each predictive variable by looking at the significance value of the t-test for each predictor. If the predictor meets the removal criterion (i.e. if it is not making a statistically significant contribution to how well the model predicts the outcome variable) it is removed from the model (Field, 2009, p. 213). I then examined the remaining values to assess and determine their contribution to the outcome of the dependent variable. Data regarding the dependent variable and the predictive variables were compiled and entered into the Statistical Package for Social Sciences (SPSS) version 19.0 IBM software program.

Histogram and scatterplots of the data were completed as well as correlation matrices, multicollinearity statistics, and a simultaneous regression analysis with all of the variables. The scatterplots were analyzed and examined to see if a linear line of
strength was present or if the scatterplots were unrelated to the dependent variable. The curvilinear line of the histogram was also analyzed and examined to determine the strength of the results.

I conducted descriptive and correlational analyses to discover the significance of the predictor variables in contributing to the dependent variable. I checked to ensure that the assumption of no multicollinearity had not been violated by having any variables that were too closely related to one another by checking the Pearson Correlation Coefficient, the tolerance level, and the variance inflation factor (VIF) values between the predictive variables (Field, 2009). "The level of multicollinearity can be assessed by looking at the predictor variables. The predictor variables should not have a strong relationship with each other. The stronger the relationship between the predictors, the higher the degree of multicollinearity of the betas" (Walker, 2011, p. 7).

Summary

The accountability movement of the 21st century has taken over in public education. There will be even greater pressure on public schools to produce academically proficient students and this responsibility will fall on the shoulders of the district leader, the superintendent. In today's educational establishment, schools are faced with increasing academic rigor. Schools are responsible for finding adequate programs and resources to meet with the increased accountability measures imposed since The No Child Left Behind Act of 2001. As this is today's modern educational reality, this study is being done to examine the relationship between the length of tenure superintendents have on the student achievement of New Jersey third grade students as evidenced by their proficiency or better scores on the 2008-2009 language arts NJASK. In Chapter IV a
presentation and discussion of the data and interpretations will be presented. The researcher will also present the results of all the analyses that were conducted in Chapter IV.
Chapter IV

ANALYSIS AND PRESENTATION OF DATA

Education in the 21st century is entering a critical time for school leaders. The No Child Left Behind Act (2001) has imposed increased standards for and higher measures of accountability on school leaders, and most notably superintendents. There are mounting pressures for superintendents to lead their school districts in achieving and maintaining Adequate Yearly Progress. The ability to make Adequate Yearly Progress is based on 41 indicators; the most important of which are the high stakes tests like the New Jersey Assessment of Skills and Knowledge (NJASK) in grade 3 language arts.

The purpose of this research was to investigate if the relationship between superintendent tenure, longevity, and continuity at the district level impacts student achievement as evidenced by the 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) for grade 3 language arts. This research determined the impact the length of tenure as a New Jersey superintendent in the DFG’s A-CD had on student achievement as evidenced by students who scored “proficient” of better on the 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts for grade 3. This research looked at 8 predictive variables that included the following: (a) total student population, (b) students who were eligible for free lunch district wide, (c) students who were eligible for reduced lunch district wide, (d) students who were Limited English Proficient (LEP) district wide, (e) student attendance district wide, (f) total superintendent experience in district, (g) total experience in education in New Jersey, and (h) total educational experience.

The dependent outcome variable for this study is student achievement.
This chapter began with an overview of the quantitative data analysis procedures that have been collected from the original population of 142 school districts (Originally 161 because of the exclusion criteria) that represents school districts in DFG's of A-CD in the State of New Jersey. The overview and analysis will include the procedures within the analysis and a description of the demographic characteristics of the sample. The following research questions were examined in this study:

1. What is the relationship between New Jersey Superintendent's district continuity; such as, length of tenure as a superintendent, and their longevity; such as, years of experience as a superintendent and the total number of years in education as they relate to student academic achievement as evidenced on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

2. What is the relationship between New Jersey Superintendent's district Demographics relative to student academic achievement as evidenced by the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Chapter IV will conclude with a summary of the data findings as they relate to the research questions. The outcomes for research questions 1 and 2 were compared to those of Marzano and Waters (2009) to see if there were any possible relationships between superintendent tenure at the district level and student achievement as part of this investigation.
Table 1. Collinearity: Pearson Correlation

<table>
<thead>
<tr>
<th></th>
<th>Student Achievement</th>
<th>Total Student Population</th>
<th>Elig. for Free Lunch</th>
<th>Elig. for Reduced Lunch</th>
<th>LEP</th>
<th>Exp. As Sup. in Dist.</th>
<th>Exp. In New Jersey</th>
<th>Exp. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Achievement</strong></td>
<td>1.000</td>
<td>-2.229</td>
<td>-4.477</td>
<td>-2.071</td>
<td>-.179</td>
<td>-.300</td>
<td>-.141</td>
<td>.284</td>
</tr>
<tr>
<td><strong>Total Student Population</strong></td>
<td>-2.097</td>
<td>1.000</td>
<td>.448</td>
<td>.069</td>
<td>.196</td>
<td>-.210</td>
<td>.162</td>
<td>-.142</td>
</tr>
<tr>
<td><strong>Eligible for Free Lunch</strong></td>
<td>-4.377</td>
<td>1.448</td>
<td>1.000</td>
<td>.242</td>
<td>.376</td>
<td>-.326</td>
<td>.147</td>
<td>-.059</td>
</tr>
<tr>
<td><strong>Eligible for Reduced Lunch</strong></td>
<td>-2.071</td>
<td>.099</td>
<td>2.424</td>
<td>1.000</td>
<td>.041</td>
<td>.033</td>
<td>.163</td>
<td>-.059</td>
</tr>
<tr>
<td><strong>LEP</strong></td>
<td>1.179</td>
<td>-.196</td>
<td>1.041</td>
<td>1.000</td>
<td>.041</td>
<td>-.041</td>
<td>.108</td>
<td>.070</td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>1.134</td>
<td>-3.102</td>
<td>-3.205</td>
<td>-.041</td>
<td>1.000</td>
<td>-.009</td>
<td>-.040</td>
<td>.056</td>
</tr>
<tr>
<td><strong>Experience As Sup. in Dist.</strong></td>
<td>1.121</td>
<td>1.162</td>
<td>1.147</td>
<td>.163</td>
<td>.108</td>
<td>-.008</td>
<td>1.000</td>
<td>.555</td>
</tr>
<tr>
<td><strong>Exp. In New Jersey</strong></td>
<td>2.084</td>
<td>-.142</td>
<td>-.059</td>
<td>.070</td>
<td>-.040</td>
<td>.559</td>
<td>1.000</td>
<td>.814</td>
</tr>
<tr>
<td><strong>Exp. Total</strong></td>
<td>1.100</td>
<td>-.175</td>
<td>-.045</td>
<td>-.033</td>
<td>-.065</td>
<td>.021</td>
<td>.115</td>
<td>1.102</td>
</tr>
</tbody>
</table>

Data Analysis Procedures

The researcher conducted a non-experimental, cross-sectional, explanatory study. The correlational study only collected data from one point in time. Under the auspices of Johnson (2001) notes that an explanatory study must answer the following questions: (a) Were the researchers trying to develop or test a theory about phenomenon to explain...
"how" and "why" it operates? (b) Were the researchers trying to explain how the phenomenon operates by identifying the causal factors that produce change in it (p. 9)?

In order to determine which superintendent and district variables had a statistically significant relationship to student achievement, I used a simultaneous multiple regression model for my study. This strategy is used when the researcher has no logical or theoretical structure to the data. This method is typically used to explore and maximize prediction (Pedhazur, 1997). Scatter diagrams of residuals, partial plots, and normal probability plots of residuals were constructed to test assumptions.

The researcher used data that was collected from the New Jersey School Report Card and Data Universe for this study. This chapter provides an overview of the research questions and examines the results of the analysis performed in the completion of this study. This study did not use any human subjects. This study used a multiple regression analysis to examine the data. Specifically this chapter examined the multicollinearity of the predictive variables, the model summary of the backward multiple regression analysis of the data and how it was produced, and the standardized coefficient Beta weights of the predictive variables. Results are presented both as brief discussions and in table form.

An important step in a multiple regression analysis is to ensure that the assumption of no multicollinearity has been met. Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated (Wikipedia, 2011). As displayed in Table 1 on page 67, Pearson Correlations were calculated among the eight predictive variables. As none of the correlations reached the .80 threshold, the analysis shows that no two variables are closely related.
Table 2. Coefficients and Multicollinearity, Tolerance and Variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-15.465</td>
<td>28.143</td>
<td>-.549</td>
<td>5.84</td>
</tr>
<tr>
<td>Total Student Population</td>
<td>7.610E+5</td>
<td>.900</td>
<td>.030</td>
<td>.344</td>
</tr>
<tr>
<td>Eligible For Free Lunch</td>
<td>-22.823</td>
<td>6.115</td>
<td>-.348</td>
<td>-</td>
</tr>
<tr>
<td>Eligible For Reduced Lunch</td>
<td>-3.827</td>
<td>71.303</td>
<td>-.011</td>
<td>-</td>
</tr>
<tr>
<td>LEP</td>
<td>-9.500</td>
<td>11.738</td>
<td>-.065</td>
<td>-</td>
</tr>
<tr>
<td>Attendance Experience At Superintend ent In District</td>
<td>.728</td>
<td>288</td>
<td>.199</td>
<td>2.525</td>
</tr>
<tr>
<td>Experience in New Jersey Experience total</td>
<td>.036</td>
<td>.094</td>
<td>.336</td>
<td>.383</td>
</tr>
</tbody>
</table>

Table 2 displays two other checks for multicollinearity of the predictive variables. The tolerance levels and the Variance Inflation Factor (VIF). The tolerance levels are not below 1 and the VIF scores are well beneath 10, the relative threshold levels that highlight trouble with the data. The values in Table II show that there is no reason for concern that the predictive variables excessively influence each other.

I chose to utilize the backward design method of multiple regression for analyzing the data. By this analysis summary models were produced. Three predictive variables were shown to be significant at the .05 level (Eligible for Free Lunch .000, Attendance...
.013, and Experience in New Jersey .018), all of the models showed significance levels of $p < .05$. Only data for the third model is included here as it was found to be most parsimonious.

Table 3. Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Std. Error of the Estimate</th>
<th>$R^2$ Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.548</td>
<td>.299</td>
<td>10.9843</td>
<td>299</td>
<td>7.074</td>
<td>8</td>
<td>133</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Experience Total, Eligible For Reduced Lunch, Attendance, LEP, Total Student Population, Experience as Superintendent in District, Eligible For Free Lunch, Experience in New Jersey

b. Dependent Variable: Student Achievement

Table 3 shows the results of the predictive variables in the simultaneous backward multiple regression analysis. Twenty five and six tenths percent of the variance is explained in the predictors of the variables? ($R^2 = .256 \times 100 = 25.6; 74.4 + 25.6 = 100\%$). The predictive variables of the Total Student Population, Eligible for Free Lunch, Eligible for Reduced Lunch, LEP, Attendance, Experience as Superintendent in District, Experience in New Jersey, and Experience Total are displayed in this model.

The $R^2$ in a multiple regression represents explained variance that can be contributed to all the predictors in a progression. The $R^2$ gives explanatory power. In Table 3 the Model Summary shows the $R^2$ of .299 (.299 \times 100 = 29.9\%) or 29.9 of the variance in the dependent variable (Student Achievement), the percentage of students who scored "Proficient" or better on the 2008-2009 Third Grade New Jersey Assessment of Skills and Knowledge in Language Arts was accounted for by the predictive variables in the model. ($F = 7.074; df = 8, 133; p = .000$ or $p < .05$).
The purpose of the study was to discover the relationship between each individual predictive variable and the dependent variable. Using the backward method of simultaneous multiple regression the following predictive variables were examined: Total Student Population, Eligible for Free Lunch, Eligible for Reduced Lunch, LEP, Attendance, Experience in District, Experience in New Jersey, and Total Experience.

Analysis was conducted to test the unique contribution between the predictive variables and the dependent variable by assigning coefficients to each predictive variable.

As displayed in Table 4, the beta weight and statistical significance were analyzed and examined. Based on the results of the beta weights only three of the eight predictive variables showed significance. They are: Eligible For Free Lunch \( B = -0.348 \) \( (p = 0.000) \), Experience in New Jersey \( B = 0.315 \) \( (p = 0.018) \), and Attendance \( B = 0.199 \) \( (p = 0.013) \).

Table 4. Predictive variables used
Figure 1. Histogram

Figure 1 shows the Histogram is a bar-type graph for quantitative data. It was developed from the dependent variable student achievements and the eight predictive variables. The common boundaries between adjacent bars emphasize the continuity of the data, as with continuous variables (Witte & Witte, 2007, p. 39). This graph shows that a dense concentration of the predictive variables has an impact on student achievement. The highest bars on the graph have the greatest impact on student achievement. They are Eligible for Free Lunch (.000), Attendance (.013), and Educational Experience in New Jersey (.018). The equal intervals along the abscissa (x-axis, predictors) reflect the various class intervals relative to student achievement. The
A frequency polygon or line graph shows a curvilinear relationship. The data can best be described with a curved line based on this graph.

*Figure 2. P-plot distribution Observed Cum Prob*

Figure 2 shows the cumulative number of 142 school districts in the DFG A-CD as the population. This scatterplot is misleading. The linear relationship shows that the more closely the predictive variables the stronger the relationship will be with student achievement.
Figure 3. Partial regression plot Total Student Population

Figure 3 for the predictive variable of total student population ($p = .731$) (see table 3) relative to student achievement shows little or no relationship. This dot cluster does not have a strong or weak relationship. The dot cluster reflects little or no relationship based on the scatterplot for total student population.

Research question 1

1. What is the relationship between New Jersey Superintendent's district demographics relative to student academic achievement as evidenced by the 2008-2009 3rd Grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Based on the beta weights, the Total Student Population $B = .030$ ($p = .731$) in New Jersey Schools with DFG's A-CD was not shown to significantly impact the outcome of the dependent variable (student achievement) at the .05 level. This is a very interesting finding. The mean average for the total student population is 2,993. The range is 39,867 (39,991 High, 124 Low). As determined by the multiple regression analysis, what is the impact of the predictive variable, total student population, on the
dependent variable, student achievement? Table 3 shows the results of the multiple linear regression that was conducted (df = 1, 140, F = 6.402, p = .731).

Examination of the regression coefficient reveals that the total student population does not have a statistically significant impact on student achievement. (B = .030, t = .344, p = .731).

Figure 4. Partial regression plot Eligible for Free Lunch

Figure 4 for the predictive variable Eligible for Free Lunch (p = .000) demonstrates a strong linear relationship based on the dot cluster (see figure 4). The scatterplot demonstrates that the dot cluster is strong between students who are Eligible for Free Lunch and student academic achievement.
Based on the relative strength of the beta weights, Eligible for Free Lunch ($B = -0.348$, $p = .000$) was shown to be the most statistically significantly of all the predictive variables to student achievement. What is the relative impact of the predictive variable Eligible For Free Lunch, on the dependent variable, Student Achievement as shown in Table 3? The relative impact indicates that for every unit decrease in students who are eligible for free lunch there is a beta weight of -0.348 increase in student achievement. ($B = -0.348$, $t = -3.732$, $p = .000$).

The R Square (.191) indicates that 19.1% of the variance in student achievement is explained by the predictive variable Eligible for Free Lunch. The simultaneous multiple regression analysis is statistically significant (df = 1, 139, $F = 25.274$, $p = .000$).

Examination of the regression coefficient reveals that: students being eligible for free lunch has a statistically significant impact on student achievement ($B = -0.348$, $t = -3.732$, $p = .000$). Based on the beta the direction of the impact is negative ($B = -0.348$). The results indicate that for every student who is eligible for free lunch there is a negative impact on student academic achievement. Simply put, the more students who are on free and reduced lunch the greater the chance to have lower test scores on the 3rd grade 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts. Based on the beta (-0.348), students who are eligible for free lunch do not perform as well on high stakes tests like the NJASK.
Figure 5. Partial regression plot for the predictive variable of eligible for reduced lunch ($p = .889$)

Figure 5 shows a weak or little to no relationship. This dot cluster reflects little or no relationship based on the scatterplot for total student population.

Based on the beta weights, Eligible for Reduced Lunch ($B = -.011, p = .889$) was not shown to significantly impact student achievement. Students who are Eligible for Reduced Lunch showed the weakest relationship ($8^{th}$) of the eight predictive variables to the outcome variable student achievement. What is the relative impact of the simultaneous multiple regression analysis of the predictive variable eligible for reduced lunch on the dependent variable student achievement as examined in Table 3?
Examination of the regression coefficient reveals that being eligible for reduced lunch does not have a statistically significant impact on student achievement ($B = -.011$, $t = -.140$, $p = .889$). (df = 1,138, $F = .211$, $p = .889$). This data is consistent with the NAEP (2010) research that indicates free lunch matters much more than reduced lunch. This is why when examining extant literature you cannot just look at free/reduced lunch combined, they need to be examined independently.

Figure 6. Partial regression plot Limited English Proficient (LEP)

Figure 6 for the predictive variable of LEP ($p = .429$) (see Table 6) relative to student achievement shows little or no relationship. This dot cluster shows neither a strong nor a weak relationship and appears to be moderate.

Based on the beta weights, the variable Limited English Proficient (LEP) ($B = -.065$, $p = .420$) was not shown to significantly impact the outcome of the dependent
variable student achievement. This is very interesting because an assumption would be that students who are LEP would score lower on the NJASK test of language arts because of a language barrier. What is the relative impact of the multiple regression analysis of the predictive variable LEP on the dependent variable student achievement as shown in Table 3? (df = 1,137, F = .033, p = .420).

Examination of the regression coefficient reveals that the variable: Limited English Proficient (LEP) does not have a statistically significant impact on student achievement (B = -.065, t = -.809, p = .420).

![Partial Regression Plot](image)

Figure 7. Partial regression plot Attendance

Figure 7. for the predictive variable for Attendance (p = .013) (see figure 7) shows a strong linear relationship that can best be represented with a straight line. The scatterplot shows that there is a strong correlation between students who are Attendance and student academic achievement.

Based on the beta weights, the District Attendance of students (B = .199, p = .013) in A-CO DFG's in New Jersey was shown to significantly impact the outcome of the dependent variable, student achievement. Of the eight predictive variables used in
Table 3, the District Attendance in New Jersey had the third strongest effect size on the dependent variable, student achievement. The District Attendance of students, based on the beta weights, was the third most statistically significant predictive variable on the outcome variable, student achievement. What is the relative impact of the multiple regression analysis of the predictive variable, district student attendance, on the dependent variable student achievement as shown in Table 3? The relative impact indicates that for every unit increase in attendance scores there is a .199 increase in the beta weight relative to student achievement.

The model summary shows that the simultaneous multiple linear regression was conducted. The R Squared (.220) indicates that 22.2% of the variance in student achievement is explained by the predictive variable district student attendance. The simultaneous multiple regression analysis is statistically significant (df = 1, 136, F = 6.040, p = .013).

Examination of the regression coefficient reveals that: The district attendance of students has a statistically significant impact on student achievement (B = .199, t = 2.525, p = .013). Based on the beta, the direction of the impact is positive. The results indicate that, for the districts, student attendance had a positive impact on student academic achievement. Simply put, the better the district student attendance percentage the greater the chance to have higher test scores on the third grade 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts. Conversely, based on the beta (.199), poor district attendance may result in lower test scores on the third grade 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts.
Figure 8. Partial regression plot Experience as Superintendent in District

Figure 8 for the predictive variable of experience as a superintendent in district ($p = .702$) relative to student achievement shows a weak or little to no relationship (see figure 8). This dot cluster does not have a strong or weak relationship. The dot cluster reflects little or no relationship based on the scatterplot for experience as a superintendent in the school district.

Research question 2

1. What is the relationship between a New Jersey Superintendent’s continuity (length of tenure as a superintendent) and longevity (years of experience as a superintendent) and the total number of years in education as they relate to student
academic achievement as evidenced on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Based on the beta weights, Superintendent Experience in District ($B = .036, p = .702$) was not shown to significantly impact the outcome variable, student achievement. What is the relative impact of the multiple regression analysis of the predictive variable superintendent experience in district on the dependent variable student achievement as examined in Table 3? The model summary shows that the simultaneous multiple linear regression was conducted. ($df = 1,135, F = 6.040, p = .702$).

Examination of the regression coefficient reveals that the superintendent experience in district does not have a statistically significant impact on student achievement ($B = .036, t = .383, p = .702$).

![Partial Regression Plot](Figure 9 for the predictive variable of Experience in New Jersey ($p = .018$) demonstrates a strong linear relationship that can best be described with a straight line (see figure 9). The scatterplot shows that there is a strong correlation between the
predictive variable, Experience in New Jersey, and the dependent outcome variable, student academic achievement.

Based on the beta weights, the variable Experience in Education in New Jersey (B = .315, p = .018) was shown to significantly impact the dependent variable, student achievement. Of the eight predictive variables used in model III, Experience in New Jersey had the second strongest effect on the dependent variable, student achievement. The superintendent’s experience in education in New Jersey was the second most statistically significant predictive variable on the outcome variable, student achievement. The relative impact indicates that for every unit increase in the superintendent’s experience in education in New Jersey there is a .315 increase in student achievement on the 2008-2009 New Jersey Assessment of Skills and Knowledge.

The R Square (.297) 29.7% of the variance in student achievement is explained by the predictive variable in the superintendent’s experience in education in New Jersey. The multiple regression analysis is statistically significant (df = 1, 134, F = 8.348, p = .018).

Examination of the regression coefficient reveals that superintendent experience in education in New Jersey has a statistically significant impact on student achievement (B = .315, t = 2.386, p = .018). Based on the beta the direction of the impact is positive (B = .315) indicating that the superintendent’s experience in education in New Jersey has a positive impact on student academic achievement. Simply put, the more years of experience a superintendent has in education in New Jersey the higher the test scores on the third grade 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts. Conversely, a lack of experience in education in New Jersey may result in
lower test scores on the third grade 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts. The relative impact indicates that for every unit increase in the superintendent’s experience in education in New Jersey there is a .315 increase in student achievement on the 2008-2009 New Jersey Assessment of Skills and Knowledge.

Figure 10. Partial regression plot Experience Total

Figure 10 for the predictive variable of total experience in education is (p = .609) (see figure 10). Relative to student achievement the scatterplot shows a weak or little to no relationship. This dot cluster does not have a strong or weak relationship. The dot cluster reflects little or no relationship based on the scatterplot for total experience in education.
Based on the beta weights the Total Experience in Education ($B = -0.066, p = 0.609$) was not shown to significantly impact the outcome variable, student achievement.

What is the relative impact of the multiple regression analysis of the predictive variable eligible for reduced lunch on the dependent variable student achievement as examined in Table 3? The model summary shows that the multiple linear regression was conducted. Twenty nine and nine tenths percent ($R^2 = 0.299$) of the variance in student achievement is explained by the predictive variable total experience in education.

Examination of the regression coefficient reveals that Total Experience in Education does not have a statistically significant impact on student achievement. ($B = -0.066, t = -0.512, p = 0.609$).

**RANK ORDER OF THE MOST SIGNIFICANT PREDICTIVE VARIABLES**

The rank order of the most significant predictive variables relative to their beta weights and statistical significance to the outcome dependent variable student achievement is: (a) Eligible for Free Lunch ($B = -0.348, t = -3.372, p = 0.000$), (b) Experience in New Jersey ($B = 0.315, t = 2.386, p = 0.018$), (c) Attendance ($B = 0.199, t = 2.525, p = 0.013$).

Table 5 Descriptive Statistics Model shows the mean averages for dependent variable, student achievement and the eight predictive variables used in the simultaneous multiple regression analysis.

### Table 5. Descriptive Statistics

<table>
<thead>
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Table 6. SPSS Straight Data Output

SPSS Straight Data Output for the Eight Predictive variables plus district factor grouping and the dependent variable student achievement.

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<th>Dist. Name</th>
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<th>Eligible for Reduced Lunch</th>
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<th>Exp. In NJ</th>
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Summary

This chapter continues the purpose of the study, an overview of the examination and evaluation of data analysis procedures, histograms of the data, scatterplots, answers to the research questions, and a chapter summary. Several models of data that were pertinent to research in conducting the backward method of simultaneous multiple regression analysis were examined. Chapter IV presented the results of the data analysis.

The results of the backward multiple regression analysis showed that the variables: total student population, eligible for reduced lunch, eligible for free lunch, LEP, attendance, experience in district, experience in New Jersey, and total experience did predict the percentage of students who scored "Proficient" or better on the 2008 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts.
This chapter showed how the predictive variables impacted the dependent variable. Beta weights were computed to show this contribution. Although included as one of the predictive variables that had an effect on the percentage of students who scored "proficient" or better on the 2008-2009 New Jersey Assessment of Skills and Knowledge for grade 3 in language arts, the primary focus of this study which was to examine whether the superintendent's length of tenure ($B = .036$) has on student academic achievement proved to have weak relative impact, according to the beta weights.

The insights gained by this research will contribute to the quantitative data in existence regarding superintendent tenure, longevity, and continuity relative to student achievement as defined by the 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in language arts for grade 3. This study will hopefully provide insights to districts as to how they can best keep their superintendents for a longer period of time in an effort to increase student academic achievement.

Chapter V will provide an interpretation of the data and the conclusions of the research study. Findings will be presented in a manner that extends the knowledge base contained within the accompanying literature review. In addition, suggestions for policy, practice, and further research will be discussed.
Chapter V

CONCLUSIONS, RECOMMENDATIONS FOR PRACTICE,
RECOMMENDATIONS FOR POLICY

Introduction

This research was conducted to discover if superintendent's tenure, longevity, and continuity have an impact on student academic achievement as evidenced by the 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) in grade 3 language arts. Identification of the variables that would most impact student academic achievement were sought for this study. Insights gained by this investigation may provide opportunities for future or aspiring superintendents and help them make the leap into central office positions with the knowledge of knowing the most significant factors impacting student achievement on the NJASK. In addition, these findings may have significance in helping districts form strategic plans of action that will address areas of weakness identified in this research paper, assist in tailoring appropriate professional development plans based on student demographic needs, aide new lawmakers with developing more rigorous standards for superintendents that will positively impact student achievement, and aid institutions of higher education in establishing top notch administration and preparatory programs for aspiring superintendents.

This chapter presents a summary of the variables and includes conclusions, recommendations for practice, and recommendations for policy. This chapter also presents a summary of the purpose of the research, a summary of procedures, recommendations for future research, a summary of the findings, and conclusions. This chapter will only focus on the three most significant predictive variables and their impact.
on student achievement. They are: students who are eligible for free lunch, superintendent experience in New Jersey, and the percentage of student attendance in district. The other five predictive variables were not statistically significant and were discussed in Chapter IV.

Eligible For Free Lunch Variable

Conclusions

The percentage of students who were Eligible For Free Lunch was the most significant predictor of student achievement on the third grade New Jersey Assessment of Skills and Knowledge in Language Arts. The results of this study showed that this variable had a positive relationship with student achievement. This is consistent with the literature. Lee and Wong (2004) reported that after reviewing the extensive literature available regarding the potential attainment of educational equality among students it is evident that enacting accounting policies, providing additional funding, using high stakes consequences, using the results from tests of major indicators of student academic success, and providing an increased number of education resources to struggling schools will not, in and of themselves, lead to a successful bridge of existing achievement gaps at the state and national testing levels (Lee & Wong, 2004). This supports the literature in that socio-economic status plays a major role in the degree to which most students achieve on the third grade New Jersey Assessment of Skills and Knowledge in Language Arts. Coleman reported in 1966 that the greatest influence on student performance was socioeconomic status (SES), followed by teacher characteristics and class size. Students who were Eligible For Free Lunch did not perform as well as students who were not receiving Free Lunch. If this is an indicator of future performance, then the issue of the
disparity in socio-economic status must be addressed. Students' future academic achievements are influenced and can be predicted by past academic achievements (Adelman, 2006; Dossett & Munoz, 2000; Ingels et al., 2002; Smith, 2006). The findings of this study support that conclusion.

Recommendations for Practice

Based on the findings of this study the variable, Eligible for Free Lunch, predicted the most significant impact on student achievement. Aspiring and current superintendents need to address the socio-economics of their districts and how it impacts high stakes tests like third grade New Jersey Assessment of Skills and Knowledge in Language Arts. In looking at why students qualify, are eligible, and receive free lunch, districts need to look at federal programs like the Race to The Top Application to see if they can level the playing field for their students. Superintendents may look to share more services between districts. By sharing services between affluent and non-affluent districts superintendents may be able to offset some of the socio-economic disparity between your poorer and wealthier districts.

Recommendations for Policy

Based on the findings of this study and a review of the literature, I believe it is imperative to make sure that superintendents are addressing the issues associated with students who are qualifying for free lunch. The evidence collected from this study suggests that the allocation of funds from local, state, and federal agencies should be reconsidered to try and bridge or remove the achievement gap that we currently have in our educational system. Through policy development schools could be made to host career fairs for parents so that they can get and retain quality jobs. If a parent is gainfully
employed there is a greater chance that their children will not need or be eligible for the free lunch program. Efforts need to be made on the part of school leaders to ensure that early interventions are in place for those students who qualify for free lunch. Morning programs that take place before the start of the school day could provide disadvantaged students with additional academic support that would assist them in better succeeding on high stakes tests like the third grade New Jersey Assessment of Skills and Knowledge. Also local, state, and federal agencies need to look at the outcomes of putting so much value on state mandated tests that are administered only once a year. It is unfortunate that some students may be labeled throughout their educational years because of the results of a high stakes assessment that is only administered once per school year.

Experience in Education in New Jersey Variable

Conclusions

The variable Experience in Education in New Jersey significantly predicted student achievement on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge in Language Arts. The superintendent’s continuity of leadership was evidenced by the data in this research. Superintendents remaining in the state of New Jersey was a significant predictor of student achievement on the New Jersey Assessment of Skills and Knowledge. The role of the board of education becomes critical when talking about superintendent experience in education in New Jersey. As the hiring body for the district, the board of education needs to make sure the superintendent they are putting at the helm of the district understands the socio-economic climate of the students he or she services. By having a superintendent with experience in education in New Jersey the board of education gets an individual who is more likely to understand the
politics and culture than it would be if no superintendent were from outside New Jersey. This will ultimately impact student achievement through the way instruction is delivered and through the way that services are provided. The board of education needs to make sure that the superintendent feels supported. By creating board alignment with district goals and by supporting these goals, the superintendent will have a better chance of improving student achievement in their school district. Marzano and Waters (2009) reported that in effective school districts, the local board of education is aligned with and supportive of the nonnegotiable goals for achievement and instruction (Marzano & Waters, 2009, p. 7). Simply stated, this means that for a superintendent to be effective he or she needs to have a strong board alignment and be supported in achieving district goals. By hiring superintendents with educational experience in New Jersey districts will be better able to achieve its goals.

Recommendations for Practice

Based on the findings of this study and a review of the literature it is important for boards of education to make sure that they hire the right person for the job. The role of the board of education is to ensure that the candidate they hire as superintendent is the best fit for the district. Boards of education can ensure that they retain experienced educators in New Jersey by doing several things. Boards of education can foster a climate that ensures collaborative goal setting between the superintendent and the board of education. By involving all relevant stakeholders, from central office to teaching staff, boards of education will be tapping into a wide array of educational experience in New Jersey that could enable a superintendent to establish and achieve non-negotiable goals for the district. Boards of education need to make sure that they allocate their financial
A way to retain New Jersey's best and brightest superintendents is to make sure they are fairly compensated. This has become more difficult since the superintendent salary cap has gone into effect. But, in order to keep our best superintendents and not lose them to nearby states like New York and Pennsylvania, boards of education are going to have to find a way to fairly compensate outstanding superintendents.

Recommendations for Policy

To retain and attract experienced educators for the position of superintendent in New Jersey boards of education need to allocate resources to support goals for achievement and instruction. Districts need to apply and win grants like the federal Race To the Top Grant. Boards of education need to allow the superintendent to monitor the achievement and the instructional goals of the district. The board of education needs to create policies that will foster board alignment with the superintendent and show demonstrated support of the superintendent's district goals. The superintendent needs to establish non-negotiable goals for the district that are aligned with the districts policies. These goals should reflect student achievement outcomes as well as the results of evidenced based teaching instruction. Superintendents need to make sure they continue to emphasize training for school board members in proper boardmanship. Boards of education need to make sure that they are offering continuing professional development so their superintendents so that they can be retained. Boards of education should send their superintendents to local, state, and national conferences in an effort to foster best practices in their districts. In an era of high stakes accountability for the superintendent, the board of education should allow the superintendent to be part of a research based,
superintendent mentoring program. In this era of increased accountability and high-stakes testing, school district administrators continue to search for ways to meet expectations and ensure students have the skills they will need to be successful (Fleming, 2004).

Attendance Variable

Conclusions

Attendance was the third strongest predictor of student achievement on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge in Language Arts. As evidenced by the data in this research, poor district attendance negatively impacted student achievement on the New Jersey Assessment of Skills and Knowledge. An important factor to note in this study was that the districts that were analyzed in New Jersey were from the lower socio-economic groups in the DFG classification range of A-CD. The findings suggest that when socio-economic status is not a factor students perform better. The findings show that poor district wide student attendance is associated with poor test scores on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge. Conversely, the findings in my study show that high district wide attendance results in higher test scores on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge in Language Arts. Caldas (1993), Roby (2004), and Sheldon (2007) reported and confirmed that student attendance has a statistically significant relationship with student achievement on standardized tests. The better the district wide attendance percentage, the better the student performance scores on high stakes assessments.
Recommendations for Practice

Based on the findings of this study, school districts need to identify students who have poor attendance in their primary years. A daily attendance report is recommended to be used by all districts in New Jersey. Districts can purchase very well developed attendance recording software to better track student attendance district-wide. Technology integration programs like Real Time, Systems Technology Information (STI) and SASSI can be used to better track district-wide student attendance percentages. An attendance committee should be established at every school to monitor student attendance. Once a student is showing an attendance problem, the committee should notify and meet with the parents regarding improving the students overall attendance. Home visits can be conducted by the principal or guidance counselor in an effort to improve student attendance. Building-based student attendance should be posted so that teachers can see how their students compare to other classes.

Recommendations for Policy

Based on the findings in this study, school districts need to examine their attendance policy. Is their policy antiquated? When was the last time their attendance policy was updated? In terms of the policy revision cycle, when is the attendance policy going to be revised? Parents and students should be made aware of the attendance policy through a student handbook. An attendance committee should establish the policy that the board adopts. The attendance committee should bring a chronically absent student’s parents to court as a last resort in an effort to assist the student in improving his or her attendance. Schools should also look at what they are doing in terms of greetings students at the door, starting the day off with a “Do No Problem,” providing a breakfast
program for those who may not or are unable to eat breakfast at home, and looking at their transportation to see if they can better service students in need. School administrators need to be proactive with regard to student attendance. Superintendents and district leaders need to put measures in place to make sure that no student falls behind due to excessive absences. Attendance interventions should take place prior to the student hitting his or her maximum number of absences or tardies. In the event that a student is unable to attend school, the New Jersey State Code needs to be followed and home bound instruction needs to be provided. These recommendations should assist any superintendent in improving their district-wide student attendance percentage.

Summary of Purpose

As the American education system of the 21st century is ever changing, the role of the superintendent becomes more significant. Superintendents are faced with increasing accountability and greater demands from the public to produce results that would be on the "Advanced Proficient" level. Superintendents at one time served as clerks for their school districts and boards of education. Their primary role was to take care of the day to day operations of the school system (Carter & Cunningham, 1997). As we have entered the 21st century the role of the superintendent has changed.

The superintendent is no longer just responsible for the day to day operations of the district, but ultimately he or she is responsible for the districts academic achievement levels as defined by the No Child Left Behind Act of 2001. The No Child Left Behind Act focused on increased accountability measures, and that dictated the performance of a superintendent. Instead of using the test "accountability system" as a diagnostic tool to
assist educators in differentiating and driving academic instruction, tests became the primary indicator of a school’s performance status (Rogers, 2006).

The shifting of responsibilities has placed more and more pressure on the superintendents of the nation as they strive to meet the obligations set before them while navigating the highly political world of the superintendency (Parker, 1996). The increased pressure has had a negative impact on superintendent longevity. Clark (2001) states that the superintendency has evolved into somewhat of a temporary position.

The No Child Left Behind Act mandates that all states focus on improving student academic standings while bridging the achievement gaps for all students. Four principles steer the education reform policy in the United States: stronger accountability for results, increased flexibility and local control, expanded options for parents, and an emphasis on teaching methods that have been proven to work (NJDOE, 2006). Under the No Child Left Behind Act, states have to meet 100 percent proficiency by the year 2014. The NCLB Act mandates that each state measure the adequate yearly progress (AYP) attained toward this goal for all students in language arts. Each state individually implements AYP targets or benchmarks, to ensure this goal is achieved by 2014. Districts that fail to meet AYP targets are held accountable under the NCLB Act. This is why, in my opinion, the role of the superintendent in impacting student academic achievement is critical; because, in the eyes of the public, whether the district makes AYP is the only thing they want to know. Superintendent turnover will continue to increase.

According to Glass (AASA, et al., 2000) the exact number of superintendents is not known because, in hundreds of very small districts, the superintendent is also the principal and is not counted when frequencies are tabulated. With this qualification
noted, the AASA estimates the number to be 13,728. This is down from the 14,000 to 14,500 estimated in 1990 because small districts are moving toward consolidation. The average superintendent is 52, and most superintendents spend about 14 to 17 years on the job in about two or three districts. The average length of stay is about 5 to 7 years in one district. This is in contrast to the perception that the tenure of superintendents is about 2 1/2 years (Glass et al., 2000).

Based on the findings of this study, the researcher sought to examine the most essential superintendent variables associated with improving student achievement. In addition to investigating the possibility of relationships between superintendents and district demographic information that would impact student academic achievement, the following research questions guided the study:

1. What is the relationship between New Jersey Superintendent’s continuity; such as length of tenure as a superintendent, and their longevity; such as; years of experience as a superintendent and the total number of years in education as they relate to student academic achievement as evidenced on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?
2. What is the relationship between New Jersey Superintendent’s district demographics relative to student academic achievement as evidenced by the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge (NJASK) in language arts?

Summary of Procedures

The researcher used the backward method of simultaneous multiple regression to complete the data analysis. The research design of this study was a non-experimental, explanatory, cross sectional design and used a backward simultaneous multiple
regression analysis to measure the relationships of the predictive variables (superintendent experience in district, tenure, superintendent experience in New Jersey, and superintendent total educational experience), and the dependent variable, student achievement on the New Jersey Assessment of Skills and Knowledge in grade 3 language arts for the 2008-2009 school year. “Non-experimental research is frequently an important and appropriate mode of research in education” (Johnson, 2001, p. 3) due largely in part to the inability to perform randomized experiments and quasi-experiments. The researcher conducted a non-experimental, cross sectional, explanatory study.

In order to determine which district and school variables had a statistically significant relationship with student achievement, I used simultaneous multiple regression models for my study. This strategy is used when the researcher has no logical or theoretical structure for the data. This method is typically used to explore and maximize prediction (Pedhazur, 1997). Scatter diagrams of residuals and normal and partial probability plots of residuals were developed to test assumptions.

This data was acquired, compiled, and analyzed using Data Universe and the New Jersey School Report Card for the 2008-2009 school year. The 2008-2009 New Jersey Assessment of Skills and Knowledge (NJASK) for grade 3 in language arts had a raised linked cut score of 182 for proficiency. The percentage for proficiency under the “New Target” for the 2008-2009 New Jersey Assessment of Skills and Knowledge was 59%. In the data analysis of the New Jersey School Report Card, I looked at all districts that had less than 41% of their students in the partially proficient category on the 2008-2009 NJ ASK.
The two research questions were examined by conducting a descriptive correlational analysis to discover if the significance of the predictor variables contribute to the independent variable. This research design set the level of significance at $p < .05$, as that is the customary level used in research when working on significance. To check the statistical significance and relative importance of each predictive variable, I examined the unstandardized coefficient beta weights and the standardized beta weights of each predictive variable. In addition an $R^2$ was used to examine the relationships between the various predictive variables and the dependent variable.

Recommendations for Future Research

The following recommendations for further research can be made based on the findings from this research study.

1. This study was limited to school districts that fell in the categorical District Factor Grouping (DFG) of A-CD based on my interest. Perhaps future research could examine all of the 549 school districts in New Jersey to see if superintendent tenure, longevity, and continuity have significant impacts on student achievement regardless of socio-economics as opposed to just the 161 districts that were analyzed in the A-CD schools.

2. Further research should examine the impact of superintendent tenure, longevity, and continuity on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge in mathematics. As with the present research the examination should use the same 2008-2009 data. It would be interesting to see if superintendent tenure has a more significant impact on mathematics, than it did on language arts. A comparison between the results of such a study with those of the present study could be done and the results shared with all the districts in the A-CD DFG’s.
3. The leadership responsibilities identified by Marzano and Waters (2009) on district level leadership issues matters, emphasizes effective superintendents focus their efforts on creating goal-oriented districts which include the following: collaborative goal-setting, non-negotiable goals for achievement and instruction, board alignment and support of district goals, monitoring goals for achievement and instruction, using resources to support achievement and instruction goals, correlating superintendent tenure positively with student achievement, and defining administrative district level autonomy in increasing student academic achievement.

4. It is recommended that future research include a longitudinal study of the impact the length of a superintendent’s tenure, longevity, and continuity have on a school district in significantly impacting student academic achievement on the 2008-2009 3rd grade New Jersey Assessment of Skills and Knowledge for language arts. In conducting a longitudinal study significant patterns should emerge over a period of time. By conducting a longitudinal study many smaller factors that influenced this study would be minimized greatly thus causing far less negative impact on the overall data.

5. It would be of great interest to further disaggregate the collected New Jersey School Report Card and Data Universe data to compare how different predictive variables could influence student academic achievement on the 2008-2009 New Jersey Assessment of Skills and Knowledge in grade 3 language arts.

6. It is recommended that future research look at superintendent behaviors and attitudes as they impact student achievement on the third grade New Jersey Assessment of Skills and Knowledge in language arts. The proposed study could focus on the day to
day operations of superintendents. This study could be conducted over the course of a year and could add to this study's existing data.

7. The last recommendation for further research would be to examine the relationship and impact school boards have with superintendents that influence student academic achievement on the 2008-2009 3rd Grade New Jersey Assessment of Skills and Knowledge in language arts. School boards ultimately determine a superintendent's tenure in the district, their longevity in the district, and their continuity. Maintaining the right district level leader of superintendent is critical in our educational system as we go forward and this would make for a phenomenal future research study.

**Conclusion**

Since the inception of the superintendency in the 1640's by the pilgrims, the role of the superintendency has faced constant change and evolution. The superintendent in today's modern era is measured by standards of accountability that have never been seen before in history due to the No Child Left Behind Act of 2001. The fact that 100% of all students have to make Adequate Yearly Progress (AYP) to be proficient or better by 2014 has put an increased pressure on the position of superintendent. The superintendent's role started off as "the teachers and this was the beginning of the superintendent as an instructional leader" (Sharp & Walters, 1997, p. 39). I feel that with the increased pressures of accountability the superintendnecy has become more of a jack of all trades manager than an instructional leader (teacher).

In looking at the literature pertaining to the superintendency in American education, little research has been done to examine the superintendent's impact on student academic achievement. It is to this end that I conducted a non-experimental,
explanatory, cross sectional design, that used a simultaneous backward multiple regression analysis to measure the relationship of the eight predictive variables (district students eligible for free lunch, district student attendance, educational experience in New Jersey, student limited English proficiency (LEP), total experience in education, experience in superintendent in district, total district student population, and students eligible for reduced lunch) to the dependent variable (student achievement). By examining the role a superintendent's tenure, longevity, and continuity has on student academic achievement, as evidenced by the 2008-2009 grade 3 New Jersey Assessment of Skills and Knowledge in language arts for students in the DFG of A-CD, greater strides could be made in making sure that no child is left behind when it comes to attaining AYP and achieving a status of proficient or better.

Although a great deal of research has been conducted on the impact the classroom teacher and the building administrator has on student academic achievement that has not been the case with superintendents. In examining the literature, most studies have focused on the stress and changes related to the position of superintendent, high turnover rates associated with the superintendency, and perceptions of the expected characteristics of the superintendent. To this point, the research examining the impact the superintendent has on student academic achievement has mainly related to the superintendent's ability to promote and support quality building level instructional leaders (Cudeiro, 2005) and has shown that it is important that the superintendent acts in a responsive manner that includes employing a "comprehensive goal-setting process to develop board-adopted non-negotiable goals for achievement" (Waters & Marzano, 2007, p. 4). It is to this end that I chose to focus on the present study, to examine the
relationship between the length of tenure of the superintendent and student academic achievement.

The results of this quantitative study using the backward method of simultaneous multiple regression, confirmed that the remaining three predictive variables used to produce the model summary did account for 29.9% of the variance of the dependent variable, the percentage of students who scored "Proficient" or better on the 2008-2009 grade New Jersey Assessment of Skills and Knowledge in language arts. While this model accounted for less than 30% of the variance of the dependent variable, meaning that over 70% of the variance of the dependent variable is attributed to other factors, this study does reveal that the superintendency does play a part in student academic achievement, specifically those students who are Eligible for Free Lunch, the Superintendents Experience in New Jersey and Student Attendance. This information is important as the focus on individual student academic achievement will continue to be emphasized in the next few years. It is essential to examine all contributing factors. In looking at the research, one factor to examine is the overall role the superintendent plays in impacting student academic achievement.

The results of the data in this study revealed that those students who are Eligible for Free Lunch had the strongest relationship to the dependent variable, student achievement on the 2008-2009 New Jersey Assessment of Skills and Knowledge in grade 3 language arts by scoring "Proficient" or better. In looking at the data, as the number of students in a district were Eligible for Free Lunch declined, the percentage of students who scored "Proficient" or better increased. Superintendent Experience in New Jersey showed that the more experience a superintendent has in New Jersey, the greater the
increase in the number of students who scored “Proficient” or better on the 2008-2009 Grade 3 New Jersey Assessment of Skills and Knowledge in language arts. As the student attendance rate increased, the students who scored proficient or better also increased. An interesting discovery in this research is that even though students who were Eligible for Free Lunch showed a lower percentage of students who scored “Proficient” or better on the 2008-2009 Grade 3 New Jersey Assessment of Skills and Knowledge in Language Arts, the student who were Eligible for Reduced Lunch did not show a significant impact on the study. This may be because of the way New Jersey dummy codes its classifications relative to other states. In most states Free and Reduced Lunch are combined on their state report cards. In New Jersey they are separated into those who receive Free Lunch and those who receive Reduced Lunch. The data also showed that as districts have decreases in those who are on Reduced Lunch, they have increases in students who score “Proficient” or better on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge in Language Arts.

In conclusion it is interesting to note that only 29.9% of the variance in the dependent variable, the percentage of students who scored “Proficient” or better on the 2008-2009 third grade New Jersey Assessment of Skills and Knowledge in Language Arts assessment, should not be discounted as insignificant because the research that examines the impact of the superintendent and district level leadership on student achievement is severely lacking. It is important to remember that as the superintendency changes and evolves, a superintendent’s tenure, longevity, and continuity will impact the overall academic achievement of the students in the district that he or she lead.
References


Department of Education Office of Student Achievement and Accountability. (2010).


Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: from research to results*. Aurora, CO: Mid-continent Regional Educational Laboratory.


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**Note:** The table above represents the income distribution across different countries for the year 2009.
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*Note: All values are in units.*
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**Note:** This table contains information about various compounds, including their molecular weights, CAS numbers, and descriptions.