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# The Relationship between Mandatory School Uniforms and Attendance 

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# THE RELATIONSHIP BETWEEN MANDATORY SCHOOL UNIFORMS AND ATTENDANCE 

by

## JESSICA MAYWEATHER

Under the Direction of Russell Mays


#### Abstract

The purpose of this study is to determine whether a relationship exists between the implementation of a mandatory uniform policy in an urban public middle school and student attendance rates (as measured by the schools yearly progress report collected by the state Board of Education). Four schools serving students in grades 6-8 in an urban school district in Georgia were included in this study.

Three comparisons were used to determine whether or not and, if so, the extent to which the relationships existed. Some qualitative and quantitative measures were utilized in the design of this mixed method study. These methods were used as control for other plausible explanations for improvements in school attendance rates; to measure a school without an implemented mandatory uniforms policy; and to measure the schools with employed mandatory uniform policies' attendance rates. Analyses employed ANOVA and t-tests with Z-Score tests for small sample size.

Through these three comparisons, a pattern emerged that indicated the implementation of mandatory uniforms in public schools has a positive relationship with student attendance rates.


INDEX WORDS: Student Attendance, Dissertation, Thesis, NCLB, Uniforms, Middle Schools, Relationship, Correlation, Exploratory, Georgia

# THE RELATIONSHIP BETWEEN MANDATORY SCHOOL UNIFORMS AND ATTENDANCE RATES 

by

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# THE RELATIONSHIP BETWEEN MANDATORY SCHOOL UNIFORMS AND 

ATTENDANCE RATES
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## DEDICATION

This doctoral dissertation is dedicated to my husband Jonathan Mayweather and my baby boy Maximus Mayweather. There is no doubt in my mind that without my husbands continued support, tolerance, patience, enthusiasm, and love that I could have completed this process.

I would also like to dedicate this doctoral dissertation to my parents Mr. and Mrs. Vibert and Pamela DeFreitas for their constant encouragement and support through out my entire life. With out the love and motivation from my family I would not be where I am today. I would like to thank my siblings, Gavin DeFreitas, Fiona Thomas, and Vibert (VJ) DeFreitas Jr. for their motivation and advice throughout this process.

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## CHAPTER 1

## INTRODUCTION

## Background

In recent years, student attendance has been declining, and students are not coming to school (Center For Mental Health In Schools At UCLA (2008). It is reasonable to assume that students who are not in school are not learning the materials being presented in the schools (Stanca, 2006). To address attendance problems many reforms have been implemented over the years to attempt to rectify the student attendance issues our nation's public schools face. Many states, for example, changed their compulsory attendance age for students in an attempt to increase attendance. For example, school attendance is now mandatory for children in Alabama between the ages of 7 and 16 ( 3 to 21 for special needs students). Children in Georgia must attend school between the ages of 6 and 16 and in California, attendance is mandatory between the ages of 6 and 18. In addition, legislators in Florida implemented a reform changing the ending age for mandatory school attendance from 16 years to 18 years of age (Bridgeland, DiIulio, \& Streeter, 2007). However, in a 2005 study, Draa noted that there were no consistent procedures or guidelines regarding schools' and school systems' accountability in reporting attendance to the states or for the states in reporting attendance to the federal government. Reporting procedures have improved since the U. S. Congress passed the No Child Left Behind Act of 2001(NCLB). The NCLB reform states that schools must meet certain attendance rates in order to achieve Adequate Yearly Progress (AYP); these rates are the average daily attendance rates at the elementary and middle school levels (U.S. Department of Education, 2002). With
these mandates in place, attendance becomes not only necessary for student success, but a critical factor for the success of individual schools and school systems as well.

Compulsory attendance laws in all states are mandated by the No Child Left Behind Act (U.S. Department Of Education, 2002). In Georgia, the (Official Code of Georgia Annotated) on mandatory attendance states,
(a) Mandatory attendance in a public school, private school, or home school program shall be required for children between their sixth and sixteenth birthdays. Such mandatory attendance shall not be required where the child has successfully completed all requirements for a high school diploma. (Georgia Department Of Education, 2012)
(b) Any parent, guardian, or other person residing in Georgia having control or charge of a child or children and violate GA Code Section O.C.G.A. §20-2-690.1 shall be guilty of a misdemeanor and, upon conviction thereof, shall be subject to a fine of not less than $\$ 25$ and not greater than $\$ 100$, imprisonment not to exceed 30 days, community service, or any combinations of such penalties, at the discretion of the court having jurisdiction (Justia, 2010, para 3).

Schools and school districts have implemented many reforms with the hope of acquiring a method that is suitable to increase student attendance rates as student dropout rates have been increasing. In Kentucky, a reform was implemented starting in the 2007-2008 school year, which enabled students' driver's license to be revoked due to unexcused absences (Bridgeland, DiIulio, \& Streeter, 2007). In Georgia, a minor's permit or driver's license will be suspended or application for a permit or license will be denied for ONE FULL YEAR or until age 18 if the minor:
(a) Has dropped out of school without graduating and has remained out of school for 10 consecutive school days;
(b) Has more than ten (10) school days of unexcused absences in the current academic year or ten (10) or more school days of unexcused absences in the previous academic year;
(c) Has been suspended from school for:

1. Threatening, striking, or causing bodily harm to a teacher or other school personnel.
2. Possession or sale of drugs or alcohol on school property or at a school sponsored event.
3. Possession or use of a weapon on school property or at a school sponsored event.
4. Any sexual of offense prohibited under Chapter 6 of Title 16 or
5. Causing substantial physical or visible bodily harm to or seriously disfiguring another person, including another student (Georgia Department Of Education, 2012, section 160-4-8-.14, para 1).

The Department of Driver Services (DDS) will notify the licensee (student) by certified mail, return receipt requested, that a Certificate of Non-Compliance has been received, and that his or her instruction permit or driver's license is suspended. Upon receiving the Certificate of Non-Compliance, the minor may request in writing a hearing within 10 business days from the date of receipt. Within 30 days after receiving a written request for a hearing, the Department of Driver Services (DDS) shall hold a hearing as provided for in Chapter 13 of Title 50, of the Georgia Administrative Procurement Act. Many other reforms have been implemented to address attendance issues; however, the current study will focus on the implementation of mandatory school uniform policies and their impact on student attendance.

Bridgeland, DiIulio, and Streeter (2007) described school attendance issues as a dropout epidemic in the United States. In their research, they found a correlation between the rising decrease in students' attendance rates and an increase in student dropouts from school. They wrote,

The United States has a dropout epidemic. Almost one-third of all public high school students - and one-half of African Americans, Hispanics, and Native Americans - fail to graduate from high school with their class. Most students drop out within just a few years of finishing school and often enter a life of poverty, crime, prison, and broken homes. Society also suffers from the loss of productivity and the higher costs of increased incarceration, health care and social services. (Bridgeland, DiIulio, \& Streeter, 2007, p. 1) Despite the fact that most dropouts hold themselves responsible for failing to graduate, there are things schools can do to help individuals considering dropping out of school reconsider. Johnston (2010) suggested that schools teach curricula that connect what students do in school to what they are expected to do as employees, provide more help for students who are having difficulty with school work, provide a safe learning environment, improve relationships between students and staff, and improve communication with parents. Some researchers (Murray, 1997; Yeung, 2009) have connected mandatory school uniform policies with increasing the safety of schools and improving the relationships students have with staff members. This implementation of mandatory uniforms in schools, in turn, provides a more stimulating place for student learning and increases students' desire to attend schools. The implementation of mandatory uniforms in public schools, therefore, may have an impact upon increasing student attendance.

Attendance policies are many and varied and result in varying degrees of success. Johnston (2005) provided a list of factors known to be common among attendance policies that
are effective. Those factors include policies that are, "clear and easy to understand ... are part of a strong, student focused school climate ... provide rewards and incentives ...clearly articulate the importance of good attendance ... [and] incorporate strict penalties for truancy" (pp. 2-3). In order to maintain the schools attendance rates, effective attendance policies must be implemented. If a school is deciding to implement mandatory uniforms as a means of increasing students' desire to attend school, then the policy must include the features of effective policies. The policy should have strict and direct rules, which leave little to be interpreted. Attendance policies and programs in use in the school should be clearly communicated and straightforward in order to effectively improve student attendance rates. Furthermore, policy and program information should be in constant distribution to parents and students. Johnston (2005, p.1) stated that policies should be brought to everyone's attention (students as well as parents) with great frequency and recommended inclusion in "parent newsletters, on websites, during 'on-hold' telephone recordings, and even in arts and sporting event programs" (p. 2).

With the increased emphasis on student attendance, increasing numbers of schools and school systems are enacting new attendance policies and procedures, including mandatory school uniforms, in order to bring about better student attendance. One of the contributing factors for the need of mandatory uniforms is school and student safety. Data provided as part of a report entitled, "Indicators of School Crime and Safety: 2010" by the National Center For Education Statistics (2009) showed a steady increase in requiring the wearing of uniforms by students from $11.8 \%$ during the 1999-2000 school year to $17.5 \%$ during the 2007-2008 school year, an increase of $5.6 \%$. A slightly larger increase was reported in the "enforcement of a strict dress code" with an increase from $47.4 \%$ during the 1999-2000 school year to $54.8 \%$ during the 2007-2008 school
year, an increase of $7.4 \%$. With an increase in the use of mandatory uniforms to increase school safety, there may be an increase in student attendance if there is a sense of school safety.

More schools and school systems currently require school uniforms than required them in the past. Some do so in order to impact student behavior, academic achievement, or attendance. While some have found no correlation between uniforms and behavior or uniforms and attendance, and even a negative correlation between uniforms and achievement (Brunsma \& Rockquemore, 1998) others have noted mixed results (Pate, 1999), others (Draa. 2005; Gentile \& Imberman, 2009) reported positive effects on school attendance.

## Purpose of the Study

In an effort to increase attendance rates in schools, many reforms have been implemented.
These reforms include, but are not limited to, attendance policies, programs that work with parents to reduce absenteeism, alternative learning initiatives, and the implementation of mandatory uniforms. Results of research regarding the impact of school uniforms have been mixed. The purpose of this study is to determine whether a relationship exists between the implementation of mandatory school uniforms and school attendance. Specifically, it attempts to ascertain what effects, if any, the implementation of mandatory school uniform policies have on school attendance rates.

Relying on data secured annually by the state board of education for attendance rates, seven schools in an urban school district in Georgia made up the population for the current study. Three schools not currently enforcing mandatory uniforms were used as control schools. The remaining four schools have recently implemented mandatory uniform policies. The attendance rates of the newly implemented mandatory uniform policy schools were compared to those of the schools without uniforms, and to themselves prior to their implemented mandatory uniform
policies. The selection of the schools was based on compatibility factors ensuring that the demographic characteristics of the schools and student populations were comparable. The teachers and administrative staff in the schools were randomly selected, and were asked to complete a survey about their students' attendance rates and their perceptions of the relationship between the attendance rates and the implemented school uniforms. A detailed explanation of the methods employed, including the full sample size, and data sources, can be found in Chapter 3.

## Research Questions

The data collected were used to answer the following research questions:
Does a relationship exist between the implementation of mandatory school uniforms and school attendance rates?

If such a relationship exists, is there a significant relationship between the implementation of mandatory uniforms in public schools and student attendance rates?

Does a relationship exist between school attendance rates pre and post-uniform implementation for schools that mandated uniforms?

Does a relationship exist between school attendance rates for the observed periods of pre and post-uniform implementation for schools that did not mandate uniforms?

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the pre-uniform implementation years?

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the post-uniform implementation years?

What are teachers' and administrators' perceptions of the relationship between the implementation of mandatory school uniforms and school attendance rates?

Do the perceptions match the data?

## Statement of the Problem

This study addresses the student attendance rates and the relationship between this variable and the mandatory uniform policy of selected Georgia public middle schools. A student's attendance in school is essential to that student's successful attainment of subject matter being presented in school. School attendance is critical to academic achievement, preparing students for post-secondary options, and personal success. One study (Johnston, 2010) found that "students who have low attendance rates in school for reasons other than illnesses are more likely to drop out of school" (p.3). Johnston (2010) also found that students who are constantly absent from school are more likely to fall behind their peers in the classroom and "this, in turn, leads to low self-esteem and increases the probability that these at-risk students will drop out of school" (Johnston, 2010, p. 3). If students are not in school, they cannot benefit from the information being taught by teachers in classrooms. The implementation of mandatory uniforms is possibly a necessary ingredient in increasing student attendance rates and decreasing dropout rates. Uniforms were defined as a prescribed set of clothing mandated by the school or school district serving as a means of identification (Merriam-Webster, 2010). The research examined the use of school uniforms as a factor in student attendance rates.

## Significance of the Study

Since the 1994-95 Long Beach Unified School District (LBUSD) initiative, there have been many research efforts published about the benefits and detriments of school uniform policies (Draa, 2005). However, the considerable debates on the advantages and disadvantages of school uniforms are still inconclusive.

This study investigated the relationship between the implementation of mandatory uniforms and student attendance rates in schools. This study contributes to the field of education
by exploring whether or not the implementation of uniforms can address the issue of student attendance. For example, although LBUSD school personnel reported that their mandatory uniform policy lead to higher attendance rates, studies by researchers such as Brunsma (2005) have not supported this claim. Upon completion of this study, the researcher of the current study was able to provide support for LBUSD's claims by studying schools in a school district similar to that of Long Beach. The information generated through the current study also proves useful to school districts, particularly urban districts in Georgia where school uniform policies may be under consideration as a solution to their particular schools and or district problems. The current study is a stepping-stone in the pursuit of the improvement of student attendance rates in public schools.

Though research has been conducted that addresses uniforms and their effects on student behavior and school moral, little research has been conducted on whether uniforms impact school attendance. This study utilized the perceptions of teachers and educational staffing in the selected schools, in addition to assembled and analyzed empirical data regarding student attendance rates rather than merely reporting perceptions, as most of the previous studies have done. It examined results in multiple schools and used quantitative data and qualitative data as well. In addition, the study compared schools with mandatory uniforms to schools without mandatory uniform policies over the same period.

## Limitations and Delimitations

There were some limitations to this study: (1) If data, as reported by the Georgia state department of education, the school districts, or the individual school buildings is inaccurate or fails to conform to state established definitions, it may be difficult to establish reliable relationships or lack thereof; (2) Information about certain years for certain schools may not be
available, or some schools may have more data available than other schools (3) If other unforeseen factors in or near the school environment are or were present for a time, such as extreme weather circumstances like floods and school closings, a change in school leadership or faculty, or a change in the makeup of the student population due to redistricting of neighborhoods, then measuring the effectiveness of the implemented policy may be affected; (4) If the educators in the building are unwilling to participate in the surveys, data analysis could be skewed and prevent accurate depictions of a relationship between the aforementioned variables.

The delimitations of this study were as follows: (1) It focused on urban middle schools in one of the largest urban school districts in Georgia from 2006-10; (2) Indicators of a relationship between variables in this study were only those school performance measures of student attendance and recollection of faculty at the schools.

## Methods

To complete this study, the researcher used an exploratory mixed methods research design (Plano-Clark \& Creswell 2006). The sample for this study was four middle schools in an inner city urban county in Georgia. For the purpose of this study, middle/junior high schools encompassed grades 6 through 8 and included all registered students who have attended the school involved in the study for at least one grading period. Attendance records that were considered for this study were in the form of an official report; printed and virtual. The records were reported and recorded by the proper administration or designated authority. The chosen schools populations have approximately 1200 students each. These schools were noted as title one schools, and were majority African American. Four of the selected schools have been implementing mandatory school uniforms for at least two years. The remaining three have not
been utilizing a mandatory uniform reform. The research consisted of a review of two years of data from the schools Adequate Yearly Progress report and a review of the two years that the mandatory uniforms have been in place by surveying the faculty and staff of the selected schools. The research also compared the schools with implemented mandatory uniform policies to themselves at least 2 years prior to their implemented uniform policies. A survey of staff members was conducted to retrieve information on their perceptions about the implementation of the mandated uniforms and their perceived effects on attendance. The selected schools Adequate Yearly Progress data were compiled, and analyzed for correlation results.

## Definition of Terms

Some terms need to be defined for the purpose of clarification in this study.
Attendance rates are measured by the average daily percent of the school enrollment. This is attendance as reported to the GaDOE in the school system data analysis section.

Compulsory attendance refers to state legislative mandates for attendance in public schools (or authorized alternatives) by children within certain age ranges for specific periods of time within the year (Cave, 2009).

Demographics are statistical data that describe the makeup of a given user base. This includes information such as age range, gender, education levels, and average household income.

Demographic indicators were used in this study to ensure compatibility among schools. These demographic indicators were consistent with those used by the Georgia Department of Education (GaDOE).

Implementation year refers to the year in which the school executed the requirement that the students wear uniforms to school.

Mandatory Uniform Policy or School Uniform Policy refers to a written policy adopted by the governing body of a school district requiring students to wear a prescribed set of clothing, or permitting the individual school to adopt a dress code which requires a prescribed set of clothing during regular school day hours (Draa, 2005).

Middle School refers to a school at a level between elementary and high school, typically including grades 5 through 8 . Middle schools do not include junior high schools, which generally includes the seventh, eighth, and sometimes ninth grades. For the purpose of this study, middle/junior high schools encompassed grades 6 through 8 .

Non-uniform schools refer to schools included in this study that did not implement a mandatory school uniform policy.

Qualitative research is a generic term for investigative methodologies described as ethnographic, naturalistic, anthropological, field, or participant observer research. It emphasizes the importance of looking at variables in the natural setting in which they are found. Interaction between variables is important. Detailed data are gathered through open-ended questions that provide direct quotations.

Quantitative research refers to the systematic empirical investigation of quantitative properties and phenomena and their relationships. Quantitative research follows a deductive research process and involves the collection and analysis of quantitative (i.e., numerical) data to identify statistical relations of variables. In essence, quantitative research is a collection of numerical data with the purpose of describing, explaining, predicting, and/or controlling phenomena of interest.

School Uniform refers to a prescribed set of clothing that the governing body of a school requires students to wear during the regular school day. For each of the schools in this study
where a uniform is mandatory, the clothing consists of: collared shirts or blouses and black, dark blue, or khaki slacks or skirts, belts worn at the waist, shirts and blouses tucked in at the waist and plain dress shoes.

The No Child Left Behind Act of 2001 is a United States Act of Congress that attempts to improve performance of American K-12 schools by increasing the standards of accountability for states, school districts, and schools, as well as providing parents more flexibility in choosing which schools their children will attend. It is a complex piece of legislation that includes higher standards for teachers and yearly assessments to demonstrate progress for individual students by requiring $100 \%$ of students (including special education students and those from disadvantaged background) within a school to reach the same set of state standards in math and reading by the year 2014.

Uniform Schools refers to schools that adopted and implemented a mandatory school uniform policy.

## Summary

This chapter set forth the concerns regarding the relationship between the implementation of mandatory school uniform policies and school attendance rates in urban middle schools. Uniforms were taken into consideration as a means to address student attendance rates in schools. According to Draa (2005), mandatory uniform policies within the larger framework of laws and policies intended to reform schools makes schools higher achieving places. This chapter also addressed laws and reforms that have been implemented or reviewed in reference to the implementation of mandatory uniforms in schools. School districts nationwide have various systems for allocation of their middle schools or junior high schools. In the state of Georgia and for this study, junior high school was determined to be grades 6 through 8 . A definition of what
this study used for mandatory uniforms was given, and terms that were utilized throughout the paper were defined. The significance of the study was given and the methods that were utilized in this study were summarized as well. The entire study was summarized and explained briefly in order to introduce the research study. The limitations and delimitations of the study were also discussed. Because this study was conducted in one particular area of Georgia, this study can be elaborated upon by future researchers and utilized on a larger scale. As educational leaders, it is important to address policies that can improve student knowledge attainment and success in the classroom while upholding policies implemented by reforms and "No Child Left Behind".

## CHAPTER 2

## Review of the Literature

In an effort to understand the magnitude of policies regarding school uniforms in our culture it is helpful to first examine the history of this policy in the United States. According to Anderson (2002) the aphorism "Dress right, act right" was heard often in schools in the 1950s and 1960s during campaigns to curb "juvenile delinquency." In the 1950s, many school dress codes forbade girls from wearing slacks (Anderson, 2002). "In the 1960s, many school administrators stipulated the length requirements of school girls' skirts. Blue jeans, motorcycle boots, and black leather jackets were considered dangerous attire on boys and linked to gangs" (Anderson, 2002, Fashion Show section, para. 2). According to Brunsma (2004), in the 1980s uniform policies progressively grew to become an area of concern for education policy makers under the Regan administration after a disturbing shooting at a Baltimore public high school.

The first public school to heavily publicize its uniform policy was Cherry Hill Elementary School in Baltimore, Maryland, in the fall of 1987 (Brunsma, 2004, p. 16). The initial policy was put into practice based on the original idea that uniforms would relieve economic pressures on parents by reducing clothing costs and reducing the social pressures their children would face on a daily basis in school (Brunsma, 2004). According to Mathison and Ross (2008, p.14), the first documented discussion regarding school uniforms as an option for public schools came from the Barry administration when the Washington DC mayor Marion Barry began the discussion for a mandatory uniform policy. Barry proposed that a school wide policy would foster school spirit and deter infiltration from unwanted outsiders. By 1989, five Baltimore Public schools had enacted a uniform policy. "In 1996, at the direction of President Clinton, the U.S. Department of Education published and disseminated a Manual of School Uniforms to all 16,000 school
districts in the United States encouraging the establishment of a school uniform policy" (Morris \& Wells, 2000, Differing Perspectives section, para. 2).

While the greater part of the student population may agree with adults' ideas of what is suitable to wear, there are always those who will push the limits on what is acceptable and unacceptable. According to Lumsden and Miller (2002), some students may go to school in tshirts that display slogans or images endorsing drugs and or alcohol, or that exhibit a variety of messages that diverge from the values the schools are trying to encourage. Others may parade around the halls in gang-related attire. Still others may show up in sexually provocative clothing (Lumsden \& Miller, 2002). These issues, as well as a desire to minimize socioeconomic tensions between the "haves" and the "have nots", have lead some schools to adopt more unyielding dress codes or to require students to wear uniforms (Drakeford, 2010).

## School Uniform Policies

In the past, school uniforms have generally been associated with private and parochial schools. According to Lumsden (2001), uniforms seemed to begin as a way of separating these private school and parochial school students from public schools. Over time, it was found that school uniforms provided unity and a sense of belonging for schools and helped lower class, disadvantaged students feel more comfortable in their school setting and surroundings (Lumsden, 2001). Those who could not afford to buy the newest fashions, expensive, and designer school clothes throughout the year could afford reasonably priced uniforms. In addition to the school climate change, those schools with implemented mandatory uniforms were found to have achieved higher test scores and have fewer problems with behavior referrals than schools with no uniform policy in place (Lumsden, 2001).

Those individuals and special interest groups who challenge school uniform policies also have convincing arguments, questioning the prudence or supposed benefits associated with such policies. District leaders and parent/guardian anxieties about school safety and the climate of which students will learn in have incited interests in strict dress codes and the implementation of mandatory school uniform policies in schools (Lumsden \& Miller, 2002). According to Lumsden and Miller (2002) many believe that when institutions mandate the attire students are allowed to wear to school, they are infringing upon the students constitutional rights to freedom of expression. While there are many standing legal decisions in relation to uniforms, and those decisions have been mixed; some predict that courts will be more forthcoming toward the implementation of mandatory uniform policies in schools, as judges and lawmakers become more aware of the safety concerns and disciplinary issues schools face on a daily basis (Lumsden \& Miller, 2002).

Substantial controversy has engulfed the implementation of school uniforms in public schools. Over the years, the implementation of mandatory uniforms in the public schools has collected a great deal of support from school faculty and community stakeholders. "Empirical research into the effects of public school uniform policies in the United States almost always begins with the case of Long Beach, California, though selected schools ... had already required them as early as the 1980s" (Yeung, 2009, p.4). The Long Beach case drew national headlines when President Bill Clinton in 1996 declared,

If it means that the schoolrooms will be more orderly and more disciplined and that our young people will learn to evaluate themselves by what they are on the inside, instead of what they're wearing on the outside, then our public schools should be able to require their students to wear school uniforms. (as cited in White, 2000, para 17)

In 1994, Long Beach, California became the first large urban school district in the United States to require all students from kindergarten to eighth grade (all together 58,500 students) to wear uniforms. After the mandatory implementation of those uniform policies, the overall school crime in schools decreased by $36 \%$; sex offenses fell by $74 \%$; fights between students dropped by $51 \%$; assault and battery offenses fell $34 \%$; school suspensions dropped by $32 \%$, and vandalism decreased by $18 \%$ (Yeung, 2009, p.5).

Brunsma (2005) looked at achievement trends for Mount Carmel Elementary School (MCE) in Mount Carmel, Pennsylvania from 1996-1997 to 2001-2002. In his research, he found that in the first year of the implementation of a mandatory school uniform policy at MCE, achievement in reading, mathematics, and writing took a turn for the worse and the average test scores in the school no longer emulated the general trends of similar area schools and achievement had actually decreased. However, Brunsma (2005) acknowledged that the results found in his study in no way suggest a causal relationship between the policies and discovered changes in the school.

Draa (2005) conducted another quasi-experimental study in Ohio to determine the impact of implemented mandatory school uniform policies on academic achievement. Employing the time-series nature of her data, she made four comparisons: same school comparison over time, an intra-district comparison between schools that had school uniforms and schools that did not over time, an intra-state comparison, and comparisons between matched schools (Yeung, 2009). Draa's results suggest significant positive effects on attendance, with little significant effects on graduation rates, and incoherent effects on reading and mathematics achievement (Yeung, 2009, p. 7).

According to Daugherty (2001), when considering the implementation of mandatory uniforms, about $60 \%$ of schools that adopt uniform policies make them mandatory and the other $40 \%$ opt for voluntary wearing of uniforms. While school boards or school officials are typically the motivators to start mandatory programs, voluntary programs are often commenced by parents: "At Traner Middle School in Reno, Nevada, the parent/teacher organization voted to begin a voluntary school uniform program in November 2000" (Daugherty, 2001, para.2). To proceed with the proposed implementation of mandatory uniforms program, the principal acquired the board's permission, and though the principal had board permission, the school district did not officially endorse or fund the pilot program. According to Daugherty (2001), the students participated in the voluntary program by actually selecting the style, color, and design of their proposed uniforms. The students were allowed to choose the color of their uniforms as long as it was school colors. The tops were in red or white (the school colors) and khaki-colored pants, skirts, or shorts. As with the general norm of business organizations, Fridays were reserved as "casual days," when students could dress as they chose as long as the attire was appropriate and followed board policy on acceptable school attire. When the program began, the majority of the student body and about $70 \%$ of the faculty and staff wore the mandated uniforms, however, as the school year came to an end, the involvement by the student body had dropped from majority to about $50 \%$ (Daugherty, 2001). Although the implementation of the voluntary uniform policy program only achieved some of its initially set goals of improving school safety, enhancing academics, and attendance, the school principal recommended that the school board adopt a policy of mandatory uniforms.

When the issue of implementing mandatory uniforms in public school was first reviewed, there was a lack of inclusion of the principals' opinions on the issue. Legislation was passed requiring mandatory uniforms in public schools and the voices of the nation's principals were chiefly missing from the debate over dress codes in public schools. Because of this, DeMitchell, Fossey, and Cobb (2000) surveyed 240 principals who were selected at random from a national directory and similarly grouped in elementary schools, middle/junior high schools, and high schools, to find what the principals input on requiring mandatory uniforms in schools would be. Just about two-thirds of the contacted principals responded and some principals even sent copies of their dress-code policies for the researchers to analyze (Lumsden \& Miller, 2002, p. 32). The principals who responded to the surveys articulated strong support for school dress codes and implemented mandatory uniforms (DeMitchell et al., 2000); with 85\% of those principals reporting that dress codes were needed at their schools. The majority voiced the belief to DeMitchell et al. (2000) that dress codes "improve student behavior, reduce peer sexual harassment, prepare students for the work world, and are worth the trouble that it takes to enforce (p. 40)." DeMitchell et al. (2000, p. 40) noted that the surveyed principals' opinions fluctuated somewhat with their schools' grade levels and locations. It was also noted that though high school principals seemed to express the greatest amount of support for dress codes in general, they seemed to take a dim view of school uniforms; whereas middle school principals displayed the strongest support for mandatory school uniforms (DeMitchell et al., 2000, p. 40). It was also apparent that the principals in rural areas showed greater support for dress codes than the principals in suburban areas and urban schools. According to DeMitchell et al. (2000) the reverse was true for mandatory uniforms. Urban principals showed greater support for mandatory uniforms, followed by suburban principals and then rural principals.

DeMitchell et al. (2000) found that more than half the surveyed principals reported that their schools had formal dress-code policies that usually prohibited halters, low-cut tops, tank tops, low-riding pants, wallet chains, sunglasses, headgear, and exposed undergarments. Many of the submitted school codes also repeatedly prohibited clothing with advertisements or illustrations of drugs, alcohol, and tobacco products, or exhibits of distasteful messages (DeMitchell et al., 2000, p. 45). Some of the school codes contained requirements that student's hair should be clean and well-groomed, and that clothes be clean, neat, and appropriately fastened. It was clear to DeMitchell et al. (2000) that though the principals preferred dress codes, they acknowledged having some uncertainties about the constitutionality of limitations on student's dress and attire. In response to this concern, DeMitchell et al. explain that the nation's courts have frequently given school the authority to enforce dress codes that maintain order in their schools as the presiding principal sees fit. According to DeMitchell et al., a principal's interest in enforcing dress-code policies that teach the students values and promotes school discipline while ensuring a safe and functional learning environment takes precedence over a student's right to wear whatever clothing they desire (DeMitchell et al.).

In Texas, in the case of Littlefield v. Forney, parents challenged a school uniform policy adopted by the Forney, Texas Board of Education (United States Court Of Appeals, Fifth Circuit, 2012). The implemented policy made it mandatory that students wear polo shirts, oxford shirts, or blouses in any of four specified solid colors chosen by the school; with blue or khaki pants, shorts, skirts, or jumpers (Dowling-Sendor, 2002). According to Lumsden and Miller (2002) any clothing that was outside of the required clothing, including denim, leather, suede, vinyl, and spandex clothing, was off-limits, as well as baggy clothes and specific types of shoes. The
individuals who filed suit were the parents who applied for exemptions from the policy for their children and had been denied the right to wear what they wanted.

The parents disputed the district's policy and decisions and declared that the policy violated their rights as parents to control the upbringing and education of their own children (Dowling-Sendor, 2002). The parents also declared that the implemented policy interfered with their students' freedom of expression rights and forced them to express ideas and dress codes with which they may not agree. In addition, the parents emphasized that the districts stated procedures for opting out of the policy violated their religious freedom by permitting school officials to judge the sincerity of individuals' religious beliefs (Dowling-Sendor, 2002). Lumsden and Miller (2002) reported that the federal district court dismissed the suit instantaneously without a trial.

Following the dismissal, the parents petitioned to the 5th Circuit Court, where the ruling of the lower court was upheld. In its decision, the 5th Circuit Court indicated that student's freedom of speech right to select their own clothing is "not absolute," and that this right must be balanced against a school board's stated interests in adopting a dress code or uniform policy (Dowling-Sendor, 2002). The court also ruled that a parents' right to control their children's rearing, including their education, cannot take priority over school rules that are considered "reasonable" to maintain an appropriate educational environment. In this case, the court's final decision stated that the uniform policy was reasonably related to the interests of the school board in supporting education, maintaining student safety, increasing attendance, decreasing dropout rates, and reducing socioeconomic tensions among students (Dowling-Sendor, 2002).

To address attendance issues in schools, some schools have decided to implement mandatory uniforms in hopes of introducing stability into the environment, and thus encouraging student attendance (Lumsden, 2001). With the enforcement of mandatory uniforms, according to Caruso (1996), school districts should first understand the validity of each advocate's arguments, and, more importantly, consider the question, Does the implementation of mandatory uniforms make a difference? Furthermore, when thinking about mandatory uniforms and the proposed difference they can make, is there a significant relationship between the implemented policy and attendance?

## Attendance Rates

Components of compulsory attendance laws include admission and exit ages, length of the school year, enrollment requirements, alternatives, waivers and exemptions, enforcement, and truancy provisions (Cave, 2009, para. 1). "The No Child Left Behind Act requires schools and districts to have an overall attendance rate of at least $92 \%$ to be categorized as making "adequate yearly progress" (Coleman, 2005, para. 6).

The importance of students regularly being in the classroom to learn from their teachers has been documented in numerous studies. Because academic success has been linked to regular attendance (Gump, 2006), the United States federal government made tracking attendance a requirement for primary and middle school students through the U.S. Department Of Education (2002). The individual states have the rights to determine how to fulfill this NCLB requirement. For example, the Minneapolis Public School District's attendance policy includes improving existing attendance practices; working with families of students to increase attendance, and improving student curricula and relationships with staff (Center for Mental Health in Schools at UCLA, 2006, p.7).

Some school districts have implemented zero tolerance policies that include detentions and suspensions for absent students (Railsback, 2004, p.13). These are considered ineffective in changing student attendance patterns (Center for Mental Health in Schools at UCLA, 2006, p.7)

## Attendance and Academic Success

Many conducted studies about the link between attendance and academic success found by researchers are based on the attendance rates of undergraduate students (Gump, 2006; Newman-Ford, Fitzgibbon, Lloyd, \& Thomas, 2008). According to the National Center For Education Statistics (2009), students' absenteeism from classes and school due to reasons other than illness and cutting individual classes increases with each grade level, starting in the eighth grade. Therefore, it is important to study effective reforms for absenteeism and implement attendance-increasing initiatives that work, especially in middle schools, since absenteeism seems to increase beginning at that level.

A survey of 172 undergraduates of a large American Midwestern research university found that "attitudes are correlated with attendance" (Gump, 2006, p.45). The more important class attendance was perceived to be by a student, the more likely that student was to regularly attend classes. In Gump's (2006) study, "Students' answers to the survey question on attitudes towards attendance were subsequently compared to their actual attendance rates for the semester" (p.40). A positive/significant relationship between attitudes about class attendance and actual attendance was found. Furthermore, Gump (2006) concluded:

If attitudes are correlated with attendance, as this study has shown, and attendance has repeatedly been shown to be correlated with grades (Friedman et al., 2001; Clump et al., 2003; Gump, 2005), students should be encouraged early in their academic careers to develop positive attitudes towards the importance of class attendance,
assuming that doing well in school is desired. (p. 45)
Gump's (2006) research demonstrates that when students are encouraged to attend classes early in their educational career, it can immensely influence a student's perception of class attendance as a positive behavior that should be maintained for academic success.

A study of 748 students at the University of Glamorgan found a "strong, statistically significant correlation between learning event attendance and academic attainment" (NewmanFord, et al., 2008, p.699) Because Newman-Ford et al. (2008) acknowledge that attendance can be considered a "measure of students' motivation for learning, and, therefore, it is the motivation of the student that ensures that they attend, that they complete their assignments and prepare for examinations to their full capability" (p. 713), they link attendance (student motivation) to academic performance and attainment. Although the researchers point out through this study the "importance of reliable attendance monitoring systems for the quick identification of persistent absentees, and indicate that action to increase attendance will help to retain students and improve their chances of academic success" (Newman-Ford et al., 2008, p. 715), their research also provides "quantitative emphasis on the importance of class attendance for academic success has been shown to improve both the attendance and educational performance of some students by emphasizing the empirical relationship between attendance and grades" (Newman-Ford et al., 2008, p.715). The importance of student attendance in performing well on school tests and receiving high grades is supported by this examination of college students.

Gottfried (2010) explored the relationship between student attendances to both grade point average (GPA) and standardized testing outcomes in elementary and middle schools in the Philadelphia School District. His study of 223 elementary and middle schools, and 86,000
students concluded that there is a relationship between attendance and student-level achievement: "Students who attend school have higher GPAs" (p. 458).

Research conducted by Roby (2004) about the relationship between attendance and student achievement was mainly focused on the standardized test scores of students in 3,171 elementary, middle, and high schools in Ohio. Roby's findings confirmed a "strong, positive" relationship between frequent school attendance and high test scores (p.15). When he examined this relationship for elementary schools in the six largest Ohio urban school districts, four school districts reflected high attendance rates at schools with high test scores.

Sheldon (2007) focused on the effect of an initiative to increase attendance in elementary schools in Ohio. From Sheldon's research, he found that school, family, and community partnership programs were associated with improved student attendance rates. Studies by Alexander, Entwisle, and Horsey, (1997); Barrington and Hendricks, (1989); and Ensminger and Slusarcick, (1992) show how the attendance rates of elementary school students and the individual student attendance patterns can predict which students will graduate or which students will become dropouts. Sheldon (2007) concluded that
schools implementing a school-wide approach to family and community involvement may help students perform better on standardized achievement tests, decrease the likelihood of students dropping out of school, and reduce the likelihood that students use tobacco, alcohol, or illegal drugs. (p. 272)

Sheldon (2007) found that a program that includes the community and families in an effort to increase attendance rates works.

## Reasons for Non-Attendance

Sheppard (2009) investigated pupils' perceptions of legislated parental involvement in their school attendance and participation in schoolwork. According to Sheppard (2009), parents of students with poor attendance can be mandated to attend parent-training classes, all based on the assumption that improved parenting leads to improved school attendance. Sheppard's research focused on the viewpoints of 57 eighth grade students and confirmed the importance of parental support in improving school attendance rates.

In a 2008 study, Reid revealed three main reasons for non-attendance by primary and secondary students: reason number one was the observance of pupil's display of a dislike for coming to school; reason number two was based on the pupils who experience difficulties at home; or reason number three included observance of students who have psychological problems. Attendance is an international problem. Focus groups comprised of 281 school staff members and social workers in the United Kingdom who have been working to improve attendance rates helped Reid develop tables explaining reasons for non-attendance and reported, in answer to his question regarding why pupils miss school, that reasons included "lack of vocational courses; bullying; poor relationships with teachers and other staff; peer pressures (e.g. having few friends); and communication problems between school staff and parents" (p. 348).

Many of the reasons for student non-attendance in Reid's (2008) study are also given by American students in studies by Clement, Gwynne, and Younkin, (2001); Wagstaff, Combs, and Jarvis, (2000); and Railsback (2004): Students reported that they

- Viewed classes as boring, irrelevant, and a waste of time
- Did not have positive relationships with teachers
- Did not have positive relationships with other students
- Did not feel safe at school
- Found classes not challenging enough (worksheets and reading with lectures were the predominant activities), and students can miss class days and still receive credit This suggests that reasons for non-attendance are universal for most countries and school districts.

Davies and Lee (2006) interviewed students, parents and teachers to learn why some students attend school and others do not. Thirteen secondary students who were regularly absent revealed:

- the content of the curriculum is not a problem for them
- They perceive teaching as an individual, rather than a group, activity and see teaching as explanation rather than instruction.
- The male students reported that relationship problems were mainly with the staff of schools (as opposed to peers).
- Peer relationships are more significant for female students.
- Bullying and intimidation by other students was seen as a problem for many of those interviewed and often precedes the decision not to attend school.
- Interviewees tended not to come from families within which there is a history of nonattendance.
- Transition from primary school to secondary and from Year 9 to 10 is problematic and for many, may lead to non-attendance. (p.205)

Further conducted research by Davies and Lee (2006) revealed that parents agreed that school attendance was important, but that parents did not feel school systems or social workers
were supportive. They also indicated that bullying was a problem and that alternative education strategies work. Teachers seemed to be the only ones in this study who reported that the curriculum contributed to non-attendance. Many students connected problems with the school environment (bullying, and poor relationships with teachers and staff) to their non-attendance. On some issues, school staff and students agree: relationships with peers and interest in what is being taught are related to non-attendance.

## Strategies for Increasing Attendance Rates

Research suggests that numerous strategies may be effective in increasing student attendance. Railsback (2004) places these strategies in the following categories:

- Sound and reasonable attendance policies with consequences for missing school
- Early interventions, especially with elementary students and their families
- Targeted interventions for students with chronic attendance problems, such as truancy reduction programs-both school and community based.
- Strategies to increase engagement and personalization with students and families that can affect attendance rates: family involvement, culturally responsive culture, smaller learning community structures, mentoring, advisory programs, maximization and focus on learning time, and service learning (p.12)

Some research summarized in this section explored perception of some of these strategies (Davies \& Lee, 2006; Sheldon, 2007; Sheppard, 2009). Problems ascertaining the effectiveness of these strategies seem related to the guidelines established for implementing initiatives and whether they address a diversity of reasons for student non-attendance.

Although school uniform policies have existed since the 1980s, a connection between uniform policies and increased attendance rates was not made until school officials in Long

Beach Unified School District in Long Beach, California reported the relationship in 1996 (Nash \& Bhattacharya, 2009). Brunsma (2005) has studied the connection between school uniform policies and numerous outcomes of their implementation such as decreasing student behavioral problems, increasing self-esteem, and increasing attendance rates. Overall, Brunsma has found through his studies dating back to 1996 that school uniform policies have not been effective in improving issues they were enacted to combat.

In 2004, Brunsma used the National Educational Longitudinal Study of 1988 to research the following hypotheses using data about eighth graders:

- Student uniforms decrease substance use.
- Student uniforms decrease behavioral problems.
- Student uniforms increase attendance.
- Student uniforms increase academic achievement. (p. 54)

Brunsma (2004) was unable to establish a relationship between uniforms and behavioral problems or uniforms and academic achievement in this study. No support was discovered for an increase in attendance due to an implemented mandatory school uniform policy. However, Brunsma (2005) offered an interesting supposition in his conclusion: "An omission from the discourse on school uniforms is the possibility that, instead of directly affecting specific outcomes, uniforms act as a catalyst for change and provide a highly visible opportunity for additional programs" (p. 60).

## Summary

Upon conclusion of my review of literature, I have found that there are many reforms that have been implemented to address the attendance issue we are facing nation wide. School
systems are implementing mandatory uniform policies to address various issues in their schools in an attempt to ultimately increase their attendance rates. Some school systems are hoping the implementation of the mandatory uniforms will decrease violence in the schools, thus creating a safer environment that will increase student attendance rates; while others are implementing mandatory uniform policies with the hope that school moral and student desire to come to school will increase attendance rates. Upon completion of this research study, the researcher will seek to find relationships, if any exist between the implementation of mandatory uniforms and attendance rates in an urban school district in the state of Georgia.

## CHAPTER 3

## METHODS

The purpose of this study is to determine whether a relationship exists between the implementation of mandatory school uniform policies and school attendance rates. "The classification by many scholars of numerical research processes as quantitative and other research techniques as qualitative has prompted the construction of a third category, that of 'mixed methods', to describe studies that use elements from both processes" (Symonds \& Gorard, 2010, Abstract section, para. 1). To complete this study, the researcher used an exploratory mixed methods research design, defined by Plano-Clark and Creswell (2006) as "a method that focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies" (p. 5). Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either of the approaches alone (Plano-Clark \& Creswell, 2006).

In the social sciences, mixed methods research has become increasingly popular and may be considered a legitimate, stand-alone research design (Creswell, 2002, p. 224). Mixed methods research may be defined as:

The collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research. (Creswell, Plano, Gutmann, \& Hanson, 2003, p. 212)

In a study conducted by Hanson, Creswell, Plano-Clark, Petska, and Creswell (2005) it was found that when both quantitative and qualitative data are included in a study, researchers may enrich their results in ways that one form of data does not allow. According to Hanson et al.,
(2005) using both forms of data allows researchers to simultaneously generalize results from a sample to a population and to gain a deeper understanding of the phenomenon of interest. It also allows researchers to test theoretical models and to modify them based on participant feedback (Hanson, et al., 2005, p. 212).

Today when analysts are researching information, the perception and conclusion drawn by former researchers is that the use of multiple methods in a single research study is advisable in order to take advantage of the representativeness and the ability to generalize that of quantitative findings and the in-depth, contextual nature of qualitative findings (Greene \& Caracelli, 2003). In recent mixed-methods research studies conducted by Commander and Ward (2009) it was discovered that with a mixed-methods research study the researcher(s) are allowed the opportunity to look at the data being studied much more comprehensively than they could if the researchers merely relied on only one research method. By utilizing quantitative and qualitative research methods, the researchers are more able to achieve a better-rounded investigative conclusion. Commander and Ward (2009) stated that a mixed-methods research approach would allow them to use one method to verify findings stemming from the other method and probe further into the data to understand their meanings (p.25).

Green, Caracelli, and Graham (1989) presented five purposes that may be served by combining quantitative and qualitative research.

1. Triangulation: seeking convergence and corroboration of findings from different methods of studying the same phenomenon
2. Complementarity: using findings from one method to elaborate, illustrate, enhance, and clarify results from the other method
3. Development: using findings from one method to help inform the other method for different inquiry components
4. Initiation: discovering paradoxes and contradictions that lead to reframing the research question
5. Expansion: seeking to expand the breadth and range of inquiry by employing different methods for different inquiry components. (as cited in Commander \& Ward, 2009, p. 28)

Commander and Ward (2009), employed three of those purposes; triangulation, complementarity, and development (p.28). Commander and Ward found that if they had relied only on the numbers or only on the focus group reports, their "research framework and understanding of outcomes would have been considerably more limited" (p. 28). They also found "that researchers employ a pragmatic lens, by using both quantitative and qualitative techniques, rather than a single lens, as mono-method studies do" (Commander \& Ward, 2009, p. 28). Commander and Ward (2009) went on to note, "the pragmatic lens allows researchers to zoom in on details and zoom out to the broader picture, with opportunities to combine macro and micro levels of a study" (p.28). Onwuegbuzie and Leech (2004) call the use of mixed-methods researching techniques for data analysis the "gold standard" for studying phenomena (p. 770). In their study, Commander and Ward (2009) found that "By incorporating a qualitative data component, they enabled knowledge to become dynamic; that is, the multiple layers of narrative meaning hidden by the numbers are revealed" (p. 28). For if the researcher utilizes multiple levels of researching techniques, the researcher can thus provide more rich data giving the final reader of such research a clearer understanding of the investigation that took place.

## Survey Population and Sampling Frame

Four schools that have adopted a mandatory uniform policy and three schools that have not adopted a mandatory uniform policy were identified from the Georgia Department of Education data reporting system. The researcher developed a list of the seven schools from an urban school district in Georgia. Schools that contain similar demographics and population characteristics were identified for the purposes of this study. Faculty information was obtained from each chosen school's staff directory available on the official school system website. The selected school district was founded in the late 1800s and is one of the largest school districts in the state of Georgia. There are over 100 schools and over 100,000 elementary, middle, and high school students enrolled in the system. According to the National Center for Education Statistics (2009), the student composition is predominately white (over 60,000) followed by over 35,000 black or African American, 8,000 Hispanic or Latino , 4,500 Asian, 190 American Indian or Alaska Native, and 40 Hawaiian or other Pacific Islander students. The researcher selected this school district because of convenience, familiarity with the school system, and current school improvement issues.

The population available for use in this study's sample selection was the directory of schools maintained by the Georgia Department of Education, and the school districts reported data of schools with implemented mandatory uniform policies. The sampling frame also included the directory of schools in the district that have not implemented a mandatory uniform policy. The sample size used for the study was set at 480 faculty members and seven schools' recorded attendance rate data. After selecting the schools, the recorded faculty and staff found on the Georgia Department of Education website were counted. All recorded faculty and staff members received a survey. After the sample was selected, each school's information was printed and the
e-mail address of all selected faculty and staff was recorded in preparation of the administration of school surveys.

## Description of Participating Schools

For the purpose of this study, participating schools encompassed grades 6 through 8 and the attendance records reviewed encompassed all registered students who have attended the school involved in the study for at least one grading period. Attendance records considered for this study were in the form of an official report and were printed and virtual. Attendance records were measured by the Georgia Department of Education Adequate Yearly Progress (AYP) report cards for the selected schools.

In this study, the quantitative method consisted of gathering information available from the Georgia Department of Education about the attendance rates of selected middle schools and performing statistical analyses on the retrieved data. The quantitative research consisted of comparing the attendance records of middle schools with mandatory uniform policies in place to that of the attendance rates of middle schools with no implemented mandatory uniform policy. Furthermore, the middle schools with implemented mandatory uniform policies were compared to themselves prior to their implemented mandatory uniform policies. The researcher analyzed collected data within groups and between groups. The researcher determined 1) if there was a difference in attendance rates between schools who had adopted a mandatory uniform policy and the selected group of schools who had not adopted such policies, and 2) whether there was a difference within the group of schools who had adopted a mandatory uniform policy.

To complete the qualitative research portion of this study the researcher used an edited version of Edvantia's Perceptions of School Culture (POSC) (Cowley, Voelkel, Finch, \& Meehan, 2005) survey which was distributed to the faculty and staff of the selected schools to
evaluate the effect of mandatory school uniform policies on school attendance. The edited version of the POSC survey contained open questions addressing the relationship if any exists between the implemented mandatory uniform policies and the student attendance rates. The participating teachers were asked to voice their opinions and observations of the changes if any exist, they have witnessed since the implementation of the mandatory uniform policies in their schools. By combining these two research methods, the researcher was able to produce data that measured multiple variables and was supported on more than one researchable level.

First, the researcher determined which middle schools in the selected school district had implemented mandatory school uniform policies and when such policies were implemented. The researcher then compiled demographic data for each school to ensure their comparability for the study. Once comparability factors, which include the type of school (public), the population, the demographics of the student population, whether mandatory uniform policies were being implemented or not, the average household income of families in the school, the percent of parents of students in the school that had achieved high school diplomas, the percent of parents of students in the school that had achieved college degrees or higher, whether or not the school is Title-I, the percentage of students in the school that receive free or reduced lunch, and percentage of families in the schools living below the poverty level in Georgia; were established, the researcher sought IRB approval. Then, by using data indicating attendance rates from the state's department of education and the National Center for Education Statistics, three comparisons were made through Z-score analysis:
(1) Comparing intra-district schools with mandated uniform policies: the first phase of the researchers' methodology was establishing a "control group" using the interrupted timeseries design (Creswell, 2007) in order to compare each of the schools that have the
policy with those that do not have the policy within the same school district during the same period of time.
(2) Comparing matched schools: the second phase of the researchers' methodology was utilizing a time-series design and carefully matching "control" schools (Creswell, 2007) to each of the schools with a uniform policy to determine plausible and rival hypotheses. For purposes of comparison, school administrators and faculty were surveyed about school improvement strategies implemented in addition to mandatory school uniform policies during the time period of the study's constraints.

Same school, intra-district and matched school comparisons empirically demonstrated whether mandatory school uniform policies had a relationship with attendance rates in middle schools.

Schools and faculty were selected randomly from the school listing of faculty and staff members to respond to the surveys based on their school's reported demographics, use of an implemented mandatory uniform policy, demographics, and location in an urban school district in Georgia. Respondents included faculty at four public schools in an urban school district in Georgia. The population was divided into specific strata (schools that had implemented mandatory uniform policies and schools that had not).

The Edvantia's Perceptions of School Culture (POSC) survey was selected as the method of survey data collection. The survey measured the faculty's perception of the school's attendance rates and if there were any perceived relationship to the implemented mandatory uniform policies. Because the cost of an internet based survey was lower and more convenient than telephone or person-to-person interviews, the researcher chose to use Survey Monkey to distribute and record responses to the survey. The selected method for survey distribution was also a more timely method choice as the rate of completed survey responses was likely to
increase given the convenience of online surveys. In addition, the predominantly quantitative and standardized highly structured design of the survey was more compatible with this approach. The data were analyzed and reported at the group level, no individual respondents were identified in any way.

## Research Questions

## Question 1

Does a relationship exist between the implementation of mandatory school uniforms and school attendance rates?

This overarching research questions was designed to determine if there is a relationship between the implementation of mandatory uniforms and school attendance rates. To address this question, the researcher analyzed the data from eight selected schools from one urban school district in Georgia. The researcher distributed surveys containing qualitative (open-ended) and quantitatively formatted questions to teachers in the selected schools. The questions being asked about attendance rates were quantitative in nature and the questions being asked about the relationship of the implemented mandatory uniform policies were qualitative in nature. In addition to the distribution of surveys and interviews, attendance data from the selected schools were collected from the Georgia Department of Education.

Sub-Question 1. If such a relationship exists, is there a significant relationship between the implementation of mandatory uniforms in public schools and student attendance rates?

To address research sub-question 1 the researcher analyzed attendance data found on the Georgia Department of Education's data collection site. This data were then subjected to a series of Z-Score and T-Score tests and analyzed to see the actual average attendance rates before the implementation of mandatory uniform policies and the attendance rates after the implementation
of mandatory uniform policies. To do this, the data gathered from the GaDOE were gathered from 2 years prior to the implementation of mandatory uniform policies in the schools and 2 years after the implementation of the mandatory uniform policies in the schools.

Sub-Question 2. Does a relationship exist between school attendance rates for uniform and non-uniform schools during the pre-uniform implementation years?

To address research sub-question 2 , the researcher will examine the proportion of students absent more than 15 days in schools with uniforms versus that same proportion in schools, using a weighted average, without uniforms for the uniform and non-uniform schools before uniforms were implemented.

Sub-Question 3. Does a relationship exist between school attendance rates for uniform and non-uniform schools during the post-uniform implementation years?

To address research sub-question 3 , the researcher will examine the proportion of students absent more than 15 days in schools with uniforms versus that same proportion in schools, using a weighted average, without uniforms for the uniform and non-uniform schools after uniforms were implemented.

Sub-Question 4. Is there a relationship between the difference of absentee rate of nonuniform mandatory schools and uniform schools with respect to pre and post implementation years?

To address research sub-question 4 , the researcher will examine the proportion of students absent more than 15 days in schools with uniforms versus that same proportion in schools without uniforms, using a weighted average, for the uniform and non-uniform schools before and after uniforms were implemented.

## Question 2

Does a relationship exist between school attendance rates pre and post-uniform implementation for schools that mandated uniforms?

To address this research question, the researcher will run a Two-portion Z-test on the selected schools that have implemented mandatory uniform policies at least two years prior to the implemented uniform policy and two years after the implementation of the policy. The researcher will use the data available on the Georgia Department of Educations' website.

## Question 3

Does a relationship exist between school attendance rates for the observed periods of pre and post-uniform implementation for schools that did not mandate uniforms?

To address this research question, we will be using a Two-portion Z-test on the selected schools that have not implemented a mandatory uniform policy at least two years prior to the implemented uniform policies of schools that did implement mandatory uniform policies and two years after those schools implementation of the policy. The researcher will use the data available on the Georgia Department of Educations' website.

## Question 4

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the pre-uniform implementation years?

To address this question we will be running a Two-portion Z-test to compare the attendance rate data for schools that have implemented uniform policies prior to the implementation with the data for the selected schools that have no implemented mandatory uniform policy during the same time period.

## Question 5

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the post-uniform implementation years?

To address this research question we will run a Two-portion Z-test to compare the attendance rate data on schools that have implemented mandatory uniform after the uniform policy had been implemented for 2 years to selected schools that have no implemented uniform policy during the same time period.

## Question 6

What are teachers' and administrators' perceptions of the relationship between the implementation of mandatory school uniforms and school attendance rates?

To address this question, the researcher analyzed district data and official school reported data prior to and following the implementation of mandatory uniforms in selected schools.

## Question 7

Do the perceptions match the data?
To address this research question, the researcher analyzed the collected survey data from each school and compared the findings from said data to the findings from the official reported data the school system shows.

## Data Analysis

Instruments to used in the study included: a) an edited Edvantia's Perceptions of School Culture surveys (POSC) (Cowley et al., 2005), and, b) Georgia Department of Education report card reported statistical data compiled by the researcher. Z-Score analyses were utilized to summarize collected data. Graphical representation of all information were generated based upon

Z-Score conclusions. The selected schools Adequate Yearly Progress (AYP) data were compiled, and analyzed for correlation results.

The POSC Survey (Cowley, Voelkel, Finch, \& Meehan, 2005, 2006) has a 62-item, machine-scannable instrument that helps school professional staff focus on various components of their school's culture, including teachers beliefs, teachers observations of student behaviors, and teachers understanding of school structures. Subscales include:

- Collaborative Working Relationships reflects the extent to which faculty work together, have open channels of communication, and share leadership and responsibility.
- Student-Centered Vision, Mission, and Policies indicates the degree to which the school's vision, mission, goals, and policies are clear and consistent with each other and incorporate high expectations for all students.
- Student Responsibility for Learning measures faculty perceptions of their students' intrinsic motivation, persistence, awareness of their own learning strengths, and control over their own learning.
- Teacher Responsibility for Learning reflects the degree to which faculties strive to improve teaching and learning and share responsibility for high levels of student learning.
- Inviting Physical Environment indicates the extent to which the school's physical environment is perceived as clean, safe, and attractive.
- Students and Parents as Decision Makers assesses the degree to which students and parents participate in planning and decision making that affects the school program.

The administration of the instruments package results in a POSC ${ }^{\text {TM }}$ School Profile-a summarizing report that compares schools' mean scores to those of other similar schools. The
results helped the researcher understand the strengths and weaknesses of the selected school's cultures, and knowledge that can be used to compare the school cultures and determine if there is a relationship between the implementation of mandatory uniform policies and the school culture. Because this research is focused primarily on the relationship of mandatory uniforms to attendance rates, the POSC surveys were edited to be more relevant to the researchers study.

Once the Institutional Review Board (IRB) approval was obtained, the researcher contacted the principals of the selected middle schools to establish communication and to obtain consent from the school leaders to include their schools in the study. The researcher then administered surveys to the staff of the school through the use of an online surveying site to gain insight on what the staff feels about the implemented mandatory school uniform policies and the relationship, if any existed of such implemented policy to school attendance rates. The researcher also requested the administrative staff complete surveys regarding leadership using the contingency theory, the school attendance rates, and the relationship of the latter to the implementation of mandatory school uniforms.

## CHAPTER 4

## RESULTS

To collect the data necessary for this study, the researcher went online to the Georgia Department of Educations site to acquire all of the attendance rate data pertaining to the selected schools. The selected schools are as follows:
(1) School number one had 808 students enrolled. There are 420 male and 388 female students. Thirty-six White, 8 Asian, 669 Black, 94 Hispanic, and 1American Indian/Alaskan students enrolled. There was a mandatory uniform policy in place at this school. The average household income for this school was $\$ 33,679$. Eighty percent of the parents in this school's range had achieved a high school diploma or higher, and 20.2\% of the parents in this school's range had achieved a college degree or higher. Seventy-one percent of the students in this school were on free or reduced lunch. This school was a Title-I school and $6.5 \%$ of the families in this school's population were below the state's poverty level.
(2) School number two had 987 students enrolled. There were 505 male and 482 female students. Seven White, ten Asian, 952 Black, and 18 Hispanic students enrolled. There was no mandatory school uniform policy, but a dress code was enforced and included in the student handbook. The average household income for this school was $\$ 32,000$. Eighty-five percent of the parents in this school's range had achieved a high school diploma or higher, and $22.9 \%$ of the parents in this school's range had achieved a college degree or higher. Eighty-six percent of the students in this school were on free or reduced lunch. This school was a Title-I school and $6.5 \%$ of the families in this school's population were below the state's poverty level.
(3) School number three had 1,265 students enrolled. There were 686 male and 579 female students. Twenty-three White, 7 Asian, 1,146 Black, 88 Hispanic and one American Indian/Alaskan students enrolled. There was a mandatory school uniform policy. The average household income for this school was $\$ 31,158$. Eighty percent of the parents in this school's range had achieved a high school diploma or higher, and $20.2 \%$ of the parents in this school's range had achieved a college degree or higher. Seventy percent of the students in this school were on free or reduced lunch. This school was a Title-I school and $6.5 \%$ of the families in this school's population are below the state's poverty level.
(4) School number four had 994 students enrolled. There were 475 male and 519 female students. Five White, 9 Asian, 851 Black, and 129 Hispanic students enrolled. There was a mandatory school uniform policy. The dress code was enforced and included in the student handbook. The average household income for this school was $\$ 29,651$. Seventysix percent of the parents in this school's range had achieved a high school diploma or higher, and $17.6 \%$ of the parents in this school's range had achieved a college degree or higher. Eighty-four percent of the students in this school were on free or reduced lunch. This school was a Title-I school and $17.5 \%$ of the families in this school's population were below the state's poverty level.
(5) School number five had 412 students enrolled. There were 269 male and 143 female students. Forty-six White, 16 Asian, 226 Black, 110 Hispanic, and 14 students were of two or more races students enrolled. There was a mandatory school uniform policy. The dress code was enforced and included in the student handbook. The average household income for this school was $\$ 52,638$. Forty-nine percent of the students in this school were
on free or reduced lunch. This school was a Title-I school and $17 \%$ of the families in this school's population were below the state's poverty level.
(6) School number six had 1143 students enrolled. There were 659 male and 484 female students. Fifty-seven White, 9 Asian, 925 Black, 112 Hispanic, and 40 multi-racial students enrolled. There was no mandatory school uniform policy, but a dress code was enforced and included in the student handbook. Eighty-six percent of the students in this school were on free or reduced lunch. This school was a Title-I school and $18.5 \%$ of the families in this school's population were below the state's poverty level.
(7) School number seven had 1273 students enrolled. There were 678 male and 595 female students. Twelve multi-racial, 1133 Black, and 128 Hispanic students enrolled. There was no mandatory school uniform policy, but a dress code was enforced and included in the student handbook. Eighty-nine percent of the students in this school were on free or reduced lunch. This school was a Title-I school and $19 \%$ of the families in this school's population were below the state's poverty level.

In this research there were two control factors. Some schools were tested against themselves before and after, and there were schools used with and with out mandatory uniform policies. The information was gathered and placed in an Excel file to be analyzed and compared with surveyed perception results. An e-mail was then sent out to the necessary parties in the selected school districts board of education for permission to conduct research in the selected county. The e-mail consisted of a brief description of the study, a copy of the survey to be utilized in the analysis of the selected schools faculty and staff's perceptions, and the benefits the selected county could obtain by participating in the survey and the study. The IRB information and authorization was also divulged to the necessary parties in order to obtain permission to
conduct the study in the selected school district. Upon receiving permission from the selected county's board of education, the researcher e-mailed the selected schools' principals to obtain permission to distribute the survey to their faculty and staff by e-mail. Once all principals agreed, the surveys were disbursed to the selected schools faculty and staff. Of the 480 faculty and staff members who received the surveys, 179 completed surveys were received representing a response rate of $37 \%$. Two weeks after the first email was sent to the participating schools, a follow-up email was sent thanking those who had already participated and encouraging those who had not to please do so. Though the response level was low, there were enough respondents to acquire information on the subject matter.

## Responses to Research Questions

There were three research questions assessed to conduct this study. The results for each research question are as follows:

## Question 1

Does a relationship exist between the implementation of mandatory school uniforms and school attendance rates?

In order to determine a relationship between school uniforms and attendance rates, I examine the proportion of students absent more than 15 days in schools with uniforms versus that same proportion in schools without uniforms. To further validate and provide comparisons I examined the rate of absentees before and after uniform implementation in both uniform and non-uniform schools. Therefore, in total, there are six research questions relating to attendance and six 2-proportion z tests performed to assess these relationships of mandatory uniforms and attendance rates in relation to these test. Since I performed six tests, I chose to control the
overall Type I error rate by using a Bonferroni adjustment. So the significance level used will be $0.05 / 4=0.0125$ instead of the traditional $5 \%$.

## Sub-Question 1

If such a relationship exists, is there a significant relationship between the implementation of mandatory uniforms in public schools and student attendance rates?

To determine statistical significance of the relationship observed between the use of mandatory uniforms or not, and attendance rates, a two-proportion z test was performed. A twoproportion Z test is one of the most basic statistical hypothesis tests. Since the researcher had large samples, the sampling distribution of proportion of absences follows a normal distribution (or Z distribution when you have the standard normal distribution). The researcher was comparing two proportions from different populations, the populations of urban Georgia schools with and without mandatory uniforms, so the researcher must use a two-proportion test. In summary, the two- proportion Z test provided the most straightforward and appropriate analytical data necessary to answer the research question of whether uniforms had any impact on attendance rates.

## Hypothesis

The researcher hypothesized that there would be a correlation between the implementation of mandatory uniforms in the selected schools and the student attendance rates. The researchers hypothesized that the selected schools would show differences in attendance rates.
$H_{o}=$ The proportions of students absent more than 15 days a year for schools with uniforms are equal pre and post uniform implementation

## $H_{a}=$ The proportions are unequal

## Assumptions

Several assumptions must be satisfied in order for the results of the z test to be generalizable to the population of interest, urban middle schools in Georgia. These conditions include the use of a "Simple Random Sample," "Normality," and "Independence" according to Yates, Moore, and Starnes (2008).

1. Simple Random Sample (SRS). "The data are an SRS from the population of interest" (Yates, Moore \& Starnes, 2008 p. 666). In order to utilize this method, the sample of students used must be randomly selected from all urban middle schools in Georgia. As noted earlier, here lies a limitation of the study. Since the students came from the same school, other confounding variables could be the reason for the observed relationship.
2. Normality. " N (the number of observations) is so large that both the count of successes and the count of failures are 10 or more" (Yates, Moore, \& Starnes, 2008, p. 666). The $z$ test statistic is assumed to come from a normal distribution. Given the large sample size of this study, this condition for normality is met. It was determined that both the counts of those students absent more than 15 days and those students that were not are greater than 10 for schools with and without uniforms. This is the conservative condition for the normality assumption of the two-proportion z test.
3. Independence. "Individual observations are independent. When sampling without replacement, which the researcher is doing, the population is at least 10 times as large as the sample" (Yates, Moore, \& Starnes, 2008, p. 664). The sample is assumed to be
independent of other potential samples of the population since the population is large (429 middle schools in Georgia).

## Definition of Terms

"Uniform School" is a school that implemented mandatory in the school year 2009-2010.
"Non-Uniform School" is a school that does not mandate uniforms and is used as a control group.
"Pre- Uniform" refers to the time frame of 2006-2009 that constitutes the three schools years prior to mandatory uniform implementation in both uniform and non-uniform schools.
"Post-Uniform" refers to the time frame of 2009-2011 that consists of the two school years after uniform implementation in both uniform and non-uniform schools.
"Absent Student" is a student who is excessive absent as defined by AYP who is absent more than 15 days in a single school year.
"Present Student" is a student who is not excessive absent.

Table 1 displays the counts and rates of absent students for the two periods and uniform statuses discussed (Georgia Department of Education, 2012). This table shows a comparison of the schools with respect to total students, number of days absent, and whether or not the school had a mandatory uniforms policy in place. In addition, the number of excessive absent students in this display gives a picture of chronically absent students in each school. The students are presumed to be chronically absent because they have missed more than 15 days of school. The absentee statuses are provided so that accurate comparisons can be made between different sized schools. These statuses were the main vehicle for comparison between schools with and without mandatory uniforms in the current study.

Table 1.

## Individual School Results

|  |  |  |  | Abs | Status |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniform S | tatus | Present | Absent $>15$ |  |
|  |  | Pre Uniform | Count | 9874 | 1095 | 10969 |
|  | Time |  | \% within Time Frame | 90.0\% | 10.0\% | 100.0\% |
| Non- | Frame | Post Uniform | Count | 6118 | 669 | 6787 |
| Uniform |  |  | \% within Time Frame | 90.1\% | 9.9\% | 100.0\% |
|  |  | Total | Count | 15992 | 1764 | 17756 |
|  |  |  | \% within Time Frame | 90.1\% | 9.9\% | 100.0\% |
|  |  | Pre Uniform | Count | 9916 | 750 | 10666 |
|  | Time |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
| Uniform | Frame | Post Uniform | Count | 6465 | 489 | 6954 |
|  |  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
|  |  | Total | Count | 16381 | 1239 | 17620 |
|  |  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
|  |  | Pre Uniform | Count | 19790 | 1845 | 21635 |
| Total | Time |  | \% within Time Frame | 91.5\% | 8.5\% | 100.0\% |
|  | Frame | Post Uniform |  | 12583 | 1158 | 13741 |
|  |  |  | \% within Time Frame | 91.6\% | 8.4\% | 100.0\% |
|  |  |  | Count | 32373 | 3003 | 35376 |
|  |  | Totar | \% within Time Frame | 91.5\% | 8.5\% | 100.0\% |

Figure 1 provides a visualization of Table 1 by collapsing the information provided in
Table 1 so that the effect of uniforms on attendance rates can be more clearly seen. Note that the
differences appear to be small. Also recall that the Pre-Uniform represents three years of data while Post Uniform contains two. The researcher still observes a difference in sample size for the two groups, those with and without mandatory uniforms. Therefore the rates of excessive absences must be compared for valid comparisons to be made. The difference in absences is small but since I have large samples sizes, statistically significant differences may be found.


Figure 1. Overall Absentee Counts

## Two-Proportion Z Test Results 1

For each proportion tested, there are modeling assumptions that must be satisfied in order to generalize results to the population of interest. These conditions include the using a "Simple

Random Sample," "Normality," and "Independence" according to D. Yates, D. Moore and D. Starnes (The Practice of Statistics).

1. Simple Random Sample (SRS). "The data are an SRS from the population of interest" (Yates, Moore and Starnes). The sample of students used must be randomly selected from all urban middle schools in Georgia. As noted earlier, here lies a limitation of the study. Since the students came from the same school, other confounding variables could be the reason for the observed relationship.
2. Normality. " N (the number of observations) is so large that both the count of successes and the count of failures are 10 or more" (Yates, Moore and Starnes). The z test statistic is assumed to come from a normal distribution. Given the large sample size, this condition is met. Both the counts of those absent more than 15 days and those that were not are greater than 10 for schools with and without uniforms and for pre and post uniform implementation. This is the conservative condition for the normality assumption of the two-proportion z test.
3. Independence. "Individual observations are independent. When sampling without replacement (which I am), the population is at least 10 times as large as the sample" (Yates, Moore and Starnes). The sample is assumed to be independent of other potential samples of the population since the population is large.

## Interpreting SPSS Output

SPSS provides a Pearson $\chi^{2}$ test statistic when comparing proportions. This is a generalization of the 2-proportion z test for two or more grouping variables. The z test statistic desired is obtained easily since "it is well known that Pearson's chi-square test for a 2 X 2 table is
identically equal to the square of the z test for the difference between two proportions" (Allison \& Liker, 1982, p. 395).

## Question 2

Does a relationship exist between school attendance rates pre and post-uniform implementation for schools that mandated uniforms?

To address this research question I will utilize pie charts of formatted data for the two groups of schools, those with a mandatory uniform policy implemented, and those without.

Figure 2 visually depicts the information from table 1 and figure 1 . The counts of total students for the mandatory uniform is larger than the total for no uniforms. However, the counts of excessive absent students are very similar for both groups of students. This further illustrates the minimal difference in the absentee rates between schools that have implemented a mandatory uniform policy and schools that have not. It is not clear for the seven schools sampled if the implementation of mandatory school uniforms reduces the rate of students absent more than 15 days. The schools that have larger quantities of students still have very similar absenteeism as those schools that have smaller amounts of students. There is no clear discovered data proving that the students under the mandatory uniform policies are attending school more often than their counterparts that are not under an implemented mandatory uniform policy are.


Figure 2. Overall Absentee Counts - Pie Charts

From Table 2 it is clear that the proportion of excessive absent students is nearly identically (7.0\%). This would indicate that uniform implementation has little effect of the pre and post excessive absentee rates.

Table 2.
Pre and Post Uniform Absentee rates

|  | Uniform Status |  | Absentee Status |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Time | Pre-Uniform |  | Present | $\begin{gathered} \text { Absent }>15 \\ \text { Days } \end{gathered}$ | Total |
|  |  | Count | 9916 | 750 | 10666 |
|  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
| Frame | Post Uniform | Count | 6465 | 489 | 6954 |
|  |  | \% within <br> Time Frame | 93.0\% | 7.0\% | 100.0\% |
|  | Total | Count | 16381 | 1239 | 17620 |
|  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |

Based on $\chi^{2}=0.000$, I can calculate the $z$ test statistic of $z=\sqrt{\chi^{2}}=\sqrt{0.000}=0$. The associated p value is then 1.00 . Therefore the null hypothesis cannot be rejected.

Table 3.
Chi-Square Tests

|  |  |  | Asymp. Sig. | Exact Sig. | Exact Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Value | df | (2-sided) | (2-sided) | (1-sided) |
| Pearson Chi-Square | $.000^{\mathrm{a}}$ | 1 | 1.000 |  |  |
| N of Valid Cases | 17620 |  |  |  |  |

## Two-proportion Z Test Results 2

The data obtained for this analysis came from seven schools; four in which mandatory uniform policies had been implemented and three in which mandatory uniform policies had not been implemented. Analysis of the data obtained for this study reveals that the two-proportion Z test obtained for sub-question 1 was $z=3.478$ with an associated $p$-value of 0.000505 .

## Research Question 2 Conclusion

At the $\alpha=0.0125$ level of significance, there is not enough evidence to conclude that there is a difference in absentee rates pre and post uniform implementation for uniform schools.

## Question 3

Does a relationship exist between school attendance rates for the observed periods of pre and post-uniform implementation for schools that did not mandate uniforms? The difference in absentee rates for the non-uniform schools appears to be small (figure 3).


Figure 3. Absentee Rates for Non-Uniform Schools

From Table 4 it is clear that the proportion of excessive absent students is nearly identically ( $9.9 \%$ to $10.0 \%$ ). This would indicate that there was little change in the pre and post absentee rates for non-uniform schools.

Table 4.

Pre and Post Uniform Absentee Rates


## Two-Proportion Z-Test Results 3

$$
H_{o}=\text { The proportions of students absent more than } 15 \text { days a year for non-uniform }
$$

schools equal pre and post uniform implementation
$H_{a}=$ The proportions are unequal

Based on $\chi^{2}=0.074$, I can calculate the z test statistic of
$z=\sqrt{\chi^{2}}=\sqrt{0.074}=0.272$. The associated $p$ value is then 0.786 . Therefore, I have little evidence against the null hypothesis.

Table 5.
Chi-Square Test

|  |  |  | Asymp. Sig. | Exact Sig. (2- | Exact Sig. (1- |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value | df | $(2-s i d e d)$ | sided) | sided) |  |
| Pearson Chi-Square | $.074^{\mathrm{a}}$ |  | 1 | .786 |  |  |
| N of Valid Cases | 17756 |  |  |  |  |  |

## Research Question 3 Conclusion

At the $\alpha=0.0125$ level of significance, there is not enough evidence to conclude that there is a difference in absentee rates pre and post uniform implementation for non-uniform schools.

## Question 4

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the pre-uniform implementation years?

From the researched data and completed data analysis, there appears to be more excessive absent students for non-uniform schools during the pre-implementation time period (figure 4).


Figure 4. Absentee Rates for Pre-Implementation Years

From Table 6 I see that the non-uniform schools have 3\% more excessive absent students then uniform schools prior to implementation.

## Two-Proportion Z Test Results 4

$H_{o}=$ The proportions of students absent more than 15 days a year during the preimplementation years for non-uniform and uniform schools are equal $H_{a}=$ The proportions are unequal

Table 6.
Comparing Absentee Rates during Pre-Uniform Years

|  |  |  | Absentee Status |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Present | Absent $>$ 15 days | Total |
|  | Non- | Count | 9874 | 1095 | 10969 |
| Uniform | Uniform | \% within Uniform Status | 90.0\% | 10.0\% | 100.0\% |
| Status |  | Count | 9916 | 750 | 10666 |
|  | Uniform | \% within Uniform Status | 93.0\% | 7.0\% | 100.0\% |
|  |  | Count | 19790 | 1845 | 21635 |
|  | Total | \% within Uniform Status | 91.5\% | 8.5\% | 100.0\% |

Based on $\chi^{2}=60.370$, I can calculate the z test statistic of
$\mathrm{z}=\sqrt{\chi^{2}}=\sqrt{60.370}=7.770$. The associated p value is less than 0.001 . Therefore I have strong evidence against the null hypothesis (Table 7).

Table 7.

Chi-Square Test

|  |  |  | Asymp. Sig. | Exact Sig. | Exact Sig. (1- |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Value | df | (2-sided) | (2-sided) | sided) |
| Pearson Chi-Square | $60.370^{\mathrm{a}}$ | 1 | .000 |  |  |
| N of Valid Cases | 21635 |  |  |  |  |

## Research Question 4 Conclusion

At the $\alpha=0.0125$ level of significance, there is enough evidence to conclude that there is a difference in absentee rates during the pre-uniform implementation for uniform and nonuniform schools. The absentee rate was higher for the non-uniform schools from 2006-2009.

## Question 5

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the post-uniform implementation years?

There appears to be more excessive absent students for non-uniform schools during the post-implementation time period.


Figure 5: Absentee Rates for Post-Implementation Years

From Table 8 I see that the non-uniform schools have $2.9 \%$ more excessive absent students then uniform schools after implementation.

Table 8.
Comparing Absentee Rates during Post-Uniform Years

|  |  | Absentee Status |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Non- | Count | Present 6118 | Absent > <br> 15 days 669 | Total 6787 |
| Uniform | Uniform | \% within Uniform Status | 90.1\% | 9.9\% | 100.0\% |
| Status | Uniform | Count | 6465 | 489 | 6954 |
|  |  | \% within Uniform Status | 93.0\% | 7.0\% | 100.0\% |
| Total |  | Count | 12583 | 1158 | 13741 |
|  |  | \% within Uniform Status | 91.6\% | 8.4\% | 100.0\% |

## Two-Proportion Z Test Results 5

$H_{o}=$ The proportions of students absent more than 15 days a year during the post-
implementation years for non-uniform and uniform schools are equal
$H_{a}=$ The proportions are unequal.

Based on $\chi^{2}=35.524$, I can calculate the z test statistic of $\mathrm{z}=\sqrt{\chi^{2}}=\sqrt{35.524}=5.96$. The associated p value is less than 0.001 . Therefore, $I$ have strong evidence against the null hypothesis (Table 9).

Table 9.

## Chi-Square Test

|  |  |  | Asymp. Sig. | Exact Sig. | Exact Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Value | df | (2-sided) | (2-sided) | (1-sided) |
| Pearson Chi-Square | $35.524^{\mathrm{a}}$ | 1 | .000 |  |  |
| N of Valid Cases | 13741 |  |  |  |  |

## Research Question 5 Conclusion

At the $\alpha=0.0125$ level of significance, there is enough evidence to conclude that there is a difference in absentee rates during the post uniform implementation for uniform and nonuniform schools. The absentee rate was higher for the non-uniform schools from 2009-2011.

In order to determine a relationship between school uniforms and attendance rates, I examined the proportion of students absent more than 15 days in schools with uniforms versus that same proportion in schools without uniforms. To further validate and provide comparisons I examined the rate of absentees before and after uniform implementation in both uniform and non-uniform schools. To complete this validation, I added three sub-questions to the research data set. Therefore, in total, there are three research sub-questions relating to attendance and three 2-proportion z tests that were performed to assess these relationships. Since I was
performing three tests, I chose to control the overall Type I error rate by using a Bonferroni adjustment. So the significance level used was $0.05 / 3=0.0167$ instead of the traditional $5 \%$.

## Data Description

Table 10 displays the counts and rates of absent students in for the two time frames and uniform status. I will perform specific tests to see any sample differences are statistically significant (Georgia Department of Education, 2012).

Table 10.

## Data Description

| Uniform Status |  |  |  | Absentee Status |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Present | Absent >15 |  |
| Non- <br> Uniform | Time <br> Frame |  | Count | 9874 | 1095 | 10969 |
|  |  |  | \% within Time Frame | 90.0\% | 10.0\% | 100.0\% |
|  |  |  | Count | 6118 | 669 | 6787 |
|  |  |  | \% within Time Frame | 90.1\% | 9.9\% | 100.0\% |
|  | Total |  | Count | 15992 | 1764 | 17756 |
|  |  |  | \% within Time Frame | 90.1\% | 9.9\% | 100.0\% |
| Uniform | Time <br> Frame |  | Count | 9916 | 750 | 10666 |
|  |  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
|  |  |  | Count | 6465 | 489 | 6954 |
|  |  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
|  | Total |  | Count | 16381 | 1239 | 17620 |
|  |  |  | \% within Time Frame | 93.0\% | 7.0\% | 100.0\% |
| Total | Time <br> Frame | Pre Uniform | Count$\%$ within Time Frame | 19790 | 1845 | 21635 |
|  |  |  |  | 91.5\% | 8.5\% | 100.0\% |
|  |  | Post Unifom | Count | 12583 | 1158 | 13741 |
|  |  |  | \% within Time Frame | 91.6\% | 8.4\% | 100.0\% |
|  |  |  | Count | 32373 | 3003 | 35376 |
|  |  |  | \% within Time Frame | 91.5\% | 8.5\% | 100.0\% |

Figure 6 provides a visualization of Table 10. Note that the differences appear to be small. Also recall that the Pre-Uniform represents three years of data while Post Uniform contains two.


Figure 6. Overall Absentee Counts

## Performing Two-Proportion Z Tests

For each proportion tested, there are modeling assumptions that must be satisfied in order to generalize results to the population of interest.

These conditions include the using a "Simple Random Sample," "Normality," and "Independence" according to D. Yates, D. Moore and D. Starnes (The Practice of Statistics).

1. Simple Random Sample (SRS). "The data are an SRS from the population of interest" (Yates, Moore and Starnes). The sample of students used must be randomly selected from all urban middle schools in Georgia. As noted earlier, here lies a limitation of the study.

Since the students came from the same school, other confounding variables could be the reason for the observed relationship.
2. Normality. " N (the number of observations) is so large that both the count of successes and the count of failures are 10 or more" (Yates, Moore and Starnes). The z test statistic is assumed to come from a normal distribution. Given the large sample size, this condition is met. Both the counts of those absent more than 15 days and those that were not are greater than 10 for schools with and without uniforms and for pre and post uniform implementation. This is the conservative condition for the normality assumption of the two-proportion z test.
3. Independence. "Individual observations are independent. When sampling without replacement (which I am), the population is at least 10 times as large as the sample" (Yates, Moore and Starnes). The sample is assumed to be independent of other potential samples of the population since the population is large.

## Interpreting SPSS Output

SPSS provides a Pearson $\chi^{2}$ test statistic when comparing proportions. This is a generalization of the 2-proportion z test for two or more grouping variables. The z test statistic I desire is obtained easily since "it is well known that Pearson's chi-square test for a 2 X 2 table is identically equal to the square of the z test for the difference between two proportions" (Allison \& Liker, 1982, p. 395).

## Sub-Question 2

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the pre-uniform implementation years?


Figure 7. Absentee Rates for Pre-Implementation Years

There appears to be more excessive absent students for non-uniform schools during the pre-implementation time frame.

From Table 11 I see that the non-uniform schools have $3 \%$ more excessive absent students then uniform schools prior to implementation.

Table 11.
Comparing Absentee Rates during Pre Uniform Years

| Uniform Status | Non-Uniform |  | Absentee Status |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Present | Absent > <br> 15 days | Total |
|  |  | Count | 9874 | 1095 | 10969 |
|  |  | \% within Uniform Status | 90.0\% | 10.0\% | 100.0\% |
|  | Uniform | Count | 9916 | 750 | 10666 |
|  |  | \% within Uniform <br> Status | 93.0\% | 7.0\% | 100.0\% |
|  |  | Count | 19790 | 1845 | 21635 |
| Total |  | \% within Uniform Status | 91.5\% | 8.5\% | 100.0\% |

## Two-Proportion Z Test

$H_{o}=$ The proportions of students absent more than 15 days during the pre-implementation years are equal for uniform and nonuniform schools
$H_{a}=$ The proportions are unequal
Table 12.
Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) | Exact Sig. <br> (2-sided) | Exact <br> Sig. (1-sided) |
| :--- | :--- | :--- | :---: | :--- | :--- |
| Pearson Chi-Square $60.370^{\mathrm{a}}$ 1 .000 |  |  |  |  |  |
| N of Valid Cases | 21635 |  |  |  |  |

Based on $\chi^{2}=60.370$, I can calculate the $z$ test statistic of $z=\sqrt{ }\left(\chi^{2}\right)=\sqrt{ } 60.370=7.770$. The associated $p$ value is less than 0.001 . Therefore, I have strong evidence against the null hypothesis.

## Sub-Question 2 Conclusion

At the $\alpha=0.0167$ level of significance, there is enough evidence to conclude that there is a difference in absentee rates during the pre-uniform implementation for uniform and nonuniform schools. The absentee rate was higher for the non-uniform schools from 2006-2009.

## Sub-Question 3:

Does a relationship exist between school attendance rates for uniform and non-uniform schools during the post-uniform implementation years?

There appears to be more excessive absent students for non-uniform schools during the post-implementation time frame.


Figure 8. Absentee Rates for Post-Implementation Years

From Table 13 I see that the non-uniform schools have $2.9 \%$ more excessive absent students then uniform schools after implementation.

Table 13.
Comparing Absentee Rates during Post Uniform Years

| Uniform Status | Non-Uniform |  | Absentee |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Status |  | Total |
|  |  |  | Present | Absent > |  |
|  |  |  |  | 15 days |  |
|  |  | Count | 6118 | 669 | 6787 |
|  |  | \% within |  | 9.9\% |  |
|  |  | Uniform Status | 90.1\% | 9.9\% | 100.0\% |
|  |  | Count | 6465 | 489 | 6954 |
|  | Uniform | $\%$ within Uniform Status | 93.0\% | 7.0\% | 100.0\% |
|  |  | Count | 12583 | 1158 | 13741 |
| Total |  | \% within |  |  |  |
|  |  | Uniform Status | 91.6\% | 8.4\% | 100.0\% |

## Two-Proportion Z Test

$H_{o}=$ The proportions of students absent more than 15 days during the post implementation years are equal for uniform and nonuniform schools
$H_{a}=$ The proportions are unequal

Table 14.
Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) | Exact Sig. <br> (2-sided) | Exact Sig. <br> (1-sided) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Pearson Chi-Square | $35.524^{\mathrm{a}}$ | 1 | .000 |  |  |
| N of Valid Cases | 13741 |  |  |  |  |

Based on , $\chi^{2}=35.524$, I can calculate the z test statistic of $z=\sqrt{\chi^{2}}=\sqrt{35.524}=5.96$. The associated $p$ value is less than 0.001 . Therefore, I have strong evidence against the null hypothesis.

## Sub-Question 3 Conclusion

At the $\alpha=0.0167$ level of significance, there is enough evidence to conclude that there is a difference in absentee rates during the post uniform implementation for uniform and nonuniform schools. The absentee rate was higher for the non-uniform schools from 2009-2011.

## Sub-Question 4:

Is there a relationship between the difference of absentee rate of non-uniform mandatory schools and uniform schools with respect to pre and post implementation years?

The difference in rates appears to be small and relatively equal size for both pre and post years.


Figure 9. Difference (Non-Uni) for Post and Pre Years

Table 15.
Comparing Differences (Non - Uniform) for Pre and Post Years

| Absentee Status | Present | Count \% within | Time Frame |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Pre Uniform | Post Uniform | Total |
|  |  |  | 10474 | 6701 | 17175 |
|  |  |  | 96.8\% | 97.5\% | 97.1\% |
|  | Absent > 15 days | Count \% within Time Frame | 345 | 174 | 519 |
|  |  |  | 345 | 174 | 519 |
|  |  |  | 3.2\% | 2.5\% | 2.9\% |
| Total |  | Count | 10819 | 6875 | 17694 |
|  |  | \% within Time Frame | 100.0\% | 100.0\% | 100.0\% |

The positive rates indicate that the non-uniform schools have higher excessive absentee rates for both pre and post years. The change in difference is about $0.7 \%$. This means that the
discrepancy between the schools actually decreased after implementation. A statistical test will indicate if this is due to sampling error or indicative of the populations of interest.

## Two-Proportion Z Test

$H_{o}=$ The difference in absent rates for non uniform and uniform is not affected by time frame.
$H_{a}=$ The proportions are unequal
Table 16.
Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) | Exact Sig. <br> (2-sided) | Exact Sig. <br> (1-sided) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Pearson Chi-Square <br> N of Valid | $6.391^{\text {a }}$ | 17694 | 1 | .011 |  |
| Cases |  |  |  |  |  |
| a. 0 cells $(0.0 \%)$ have expected count less than 5. The minimum expected count is 201.66. <br> b. Computed only for a $2 \times 2$ table |  |  |  |  |  |

Based on $\chi^{2}=6.391$, I can calculate the z test statistic of $z=\sqrt{\chi^{2}}=\sqrt{6.391}=2.528$. The associated p value is 0.00982 . Therefore, I have strong evidence against the null hypothesis.

## Sub-Question 4 Conclusion

At the $\alpha=0.0167$ level of significance, there is enough evidence to conclude that there is a significant difference in the difference between non-uniform and uniform schools for pre and post years. The gap between the schools was actually decreased after uniform implementation.

Though there appears to be a slight difference between the excessice absence rates for uniform and non-uniform schools, where non-uniform schools appear to have a higher excessive
absenteeism rate that uniform schools. There could be an explanation for this deviation. The collected data set for this research was from the years of 2006 to 2011. In the 2006-2007 school year there appeared to be a great deal of absences in some of the uniform schools. These absences created a skew in the data set causing a statistical result that showed an insignificant difference in the attendance rates of uniform and non-uniform schools. By including all of the researched years, the researcher was still able to see a difference in the excessive absentee rates, even though miniscule, there was an observed difference. However, the researcher does acknowledge that if the 2006-2007 school year was dropped, the data set would reflect differently, and wouldn't show much difference in the excessive absence rates for uniform and non-uniform schools.

## Question 6

What are teachers and administrators' perceptions of the relationship between the implementation of mandatory school uniforms and school attendance rates?

Though the survey contained 16 questions, all of the questions were not relevant to the research questions of the current study. These questions were excellent indicators for the culture and atmosphere of the selected schools, and served as informative information for the researcher of this study. These additional questions also added validity to the questions that had direct relevance to the hypothesis and research questions posed in this study. For example, question three asked if the school's policies were consistent with state policies. This is relevant to establishing the validity of this study. If the teachers in the school feel or are able to acknowledge that the school policies are consistent with state policies, then for the purpose of this study, when compared to other studies there is a constant and validity is established. If the schools were deemed not consistent with state policies, then there could have been numerous
contributing factors that were affecting the attendance policies. However, because of question three the researcher of this study was able to establish normality with the district policies and eliminate some of the outside factors that could be unexplained if the schools were not following district policies. Though the chosen instrument for this study had many questions that were not in direct relation to the research questions, it was chosen because the few questions that it contained that were related to the research questions in this study were exactly what was needed to complete this study. The questions that this instrument contained that were relevant to the research were essential in making this study complete and valid.

Upon conclusion of the analysis of the perceptions survey, the researcher found that the majority of the faculty and staff who responded agreed that the mandatory uniform policy improved student attendance. The teachers and administrators indicated that the implementation of mandatory uniforms was a large contributing factor in the attendance rates of their students. According to the results from question number 14 on the school perceptions survey, $69.14 \%$ of the faculty and staff surveyed perceived a positive impact on attendance with the implementation of mandatory uniforms and only $18.52 \%$ believed the impact was negative.

## Question 7

Do the perceptions match the data?
This study sought to determine whether the perceptions of the faculty matched the results of the data analyzed comparing student attendance and the implementation of mandatory uniform policies. The perceptions of the faculty and staff match the collected data indicating that there is a positive relationship between the implementation of mandatory uniforms and the student's attendance rates in the schools.

## Faculty and Staff Perception Survey Results

The researcher asked several questions via an internet based survey pertaining to the research questions of interest: (1) what are teachers' and administrators' perceptions of the relationship between the implementation of mandatory school uniforms and school attendance rates? (2) Do the perceptions match the conclusion from research question 1?

For these questions, the faculty and staff responded to a Likert scale response, which is an ordinal number. The fourth question analyzed had a nominal response. "Likert scales fall within the ordinal level of measurement" (Jamieson, 2004, p. 1217). According to Jamieson (2004), researchers must take care when analyzing ordinal responses.

Jamieson (2004) stated that it is "clear that for ordinal data one should employ the median or mode as the measure of central tendency because the arithmetical manipulations required to calculate the mean (and standard deviation) are inappropriate for ordinal data" (p. 1217). In light of this, the median and mode were considered for the Likert scale responses received in this study. In addition, pie charts displayed as "ordinal data may be described using frequencies or percentages of response in each category" (Jamieson, 2004, p. 1217). This provides the reader an impression of the variability of the responses without giving a misleading standard deviation statistic. Since the survey was administered to all faculty and staff via the internet, but only responded to on a voluntary basis, inferential statistics would be inappropriate. Voluntary response bias and lack of random selection seriously violate the conclusion from any statistical hypothesis testing. Instead, the research questions were addressed for those who responded. A limitation of the study is that those individuals with strong opinions tend to answer voluntary response surveys, thus skewing the statistical information.

Responses to question 6 of the perception survey reveal faculty and staff's perceptions of the implementations of mandatory uniforms' impact on student comfort in the learning environment. This comfort level could be a factor in whether or not a student will attend school regularly. Figure 10 displays the percentages for the responses on the Likert scale for question 6. From the pie chart it is clear that almost of all $(97.58 \%)$ of those surveyed indicated their perception that uniforms impact student comfort at least to some degree. More than half, $56.62 \%$, indicated that uniforms affect the student comfort much or very much.


Figure 10. Teacher Perception Survey Responses to Question 6.
Question 11 of the perception survey pertains to the faculty and staff's perception of mandatory uniform's impact on classroom disruptions. This could be a factor in whether or not a student will attend school regularly and could seriously impact student achievement. Figure 11 displays the percentages for response to question 11. From the pie chart, it is clear that a small percentage (4.82\%) of those surveyed indicated that uniforms reduce the number of classroom
disruptions very little. More than half, $55.42 \%$, reported that uniforms reduce classroom disruptions much or very much. Table 10 displays a summary of the counts, percentages and cumulative percentages for question 11.


Figure 11. Teacher Perception Survey Responses for Question 11.

Table 10.
Question 11 Analysis

|  | Frequency | Valid Percent | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| Very Little | 2 | 2.4 | 2.4 |
| Some | 34 | 41.0 | 43.4 |
| Much | 36 | 43.4 | 86.7 |
| Very Much | 11 | 13.3 | 100.0 |
| Total | 83 | 100.0 |  |

Question 10 gives insight into the faculty and staff's perceptions of whether wearing mandatory uniforms impacts attendance rates. Here the researcher is only concerned with the perception of any impact. This perception is critical to addressing the research question of what the faculty and staffs' perceptions of the relationship between the implementation of mandatory school uniforms and school attendance rates. Figure 12 displays the percentages for the responses to question 10. By viewing the results from the pie chart, it is clear that a small percentage ( $3.61 \%$ ) of those surveyed believe that the implementation of mandatory uniforms impact attendance rates very little. A total of $62.65 \%$ reported that the implementation of mandatory uniforms reduce the impact on attendance rates much or very much. Table 18 displays a summary of the counts, percentages and cumulative percentages for question 10.


Figure 12. Teacher Perception Survey Responses to Question 10.

Table 18.
Question 10 Analysis

|  | Frequency | Valid Percent | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| Very Little | 4 | 4.8 | 4.8 |
| Some | 33 | 39.8 | 44.6 |
| Much | 38 | 45.8 | 90.4 |
| Very Much | 8 | 9.6 | 100.0 |
| Total | 83 | 100.0 |  |

Question 14 examines the faculty and staff's perception of whether or not wearing uniforms positively or negatively impacts attendance rates. The response for this question differs from the previous three as it is not a Likert scale response. The responses have no natural order and therefore are regarded as nominal data. Figure 13 displays the percentages for each category in the response and Table 19 displays a summary of the counts, percentages and cumulative percentages for question 14. Some teachers indicated that the mandatory uniforms made students feel safer in the school, thus encouraging attendance. While others indicated that the implementation of mandatory uniforms gave students a sense of belonging and could possibly be reducing the bullying in their schools. Very few teachers perceived the implementation of mandatory uniforms negatively. For the few that responded that they did view the implementation of mandatory uniforms negatively, some felt that the implementation of the mandatory uniforms infringed on the students' rights to wear what they wanted to wear, and
generally didn't think the way students dressed had anything to do with the students wanting to attend school on a regular basis.


Figure 13. Teacher Perception Survey Responses to Question 14.

Table 19.
Question 14 Analysis

|  | Frequency | Valid Percent | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| Very Little | 3 | 3.6 | 3.6 |
| Some | 28 | 33.7 | 37.3 |
| Much | 44 | 53.0 | 90.4 |
| Very Much | 8 | 9.6 | 100.0 |
| Total | 83 | 100.0 |  |

For question 14, the center of the response distribution was "Yes, in a Positive Manner." The median and the mode match each other. Thus, the mode is the most frequent response, and it matches the median, which is the middle value. So then, the center of distribution summarizes the mindset of the entire surveyed group into one value, which is Yes, in a Positive Manner". In a small contrast to question 10 , here we see that $12.3 \%$ now believe that the implementation of mandatory uniforms do not impact attendance rates. Before we saw only $3.61 \%$ thought the implementation of mandatory uniforms had very little or no impact on attendance rates. A large majority of the respondents ( $69.14 \%$ ) perceived a positive impact and only $18.52 \%$ believed the impact of mandatory uniforms was negative. Note that two respondents answered in more than one mutually exclusive category and I removed them from the analysis.

Table 20

## Question 14 Summarization

Frequency Valid Percent Cumulative

Percent

| Yes, in a Positive Manner | 56 | 69.1 | 69.1 |
| :--- | :---: | :---: | :---: |
| Yes, Negatively | 15 | 18.5 | 87.7 |
| No | 10 | 12.3 | 100.0 |
| Total | 81 | 100.0 |  |
| Missing System | 2 |  |  |
| Total | 83 | 100.0 |  |

For the current study, Table 21 has been constructed to compare the appropriate measures of central tendency for each of the questions analyzed above. When conducting the study, all
surveyed individuals did not answer all questions. To account for this, "Valid" responses are those responses that were answered. This procedure accounts for missing information. For all Likert scale questions on the faculty and staff perception survey the mode response equals the median response. As evident in the pie charts and tables above, for questions 6, 10, and 11 the "much" response was the center of the distribution of responses.

Table 21
Central Tendency of Questions 6, 10, and 11
$\left.\begin{array}{lcc}\hline & \begin{array}{l}\text { Students seem } \\ \text { comfortable in } \\ \text { the school due to } \\ \text { the implemented } \\ \text { uniform policy }\end{array} & \begin{array}{l}\text { The implementation of } \\ \text { uniforms has influenced } \\ \text { attendance rates } \\ \text { in the classroom }\end{array}\end{array} \begin{array}{l}\text { There are less classroom } \\ \text { disruptions since uniforms } \\ \text { have been implemented }\end{array}\right\}$

## Summary

In this chapter, the researcher utilized Z-score test to analyze received data, and summarized what was discovered. The researcher explained the findings of each of the relevant surveyed questions and pulled data from the chosen school district. The researcher found that the majority of the teachers surveyed responded in a positive manner in relation to the implementation to mandatory uniforms in public schools. It was also discovered that there is
very little correlation between the implementation of mandatory uniforms and the attendance rates of the selected schools. Research Question 1 results showed that the implementation of a mandatory uniform policy had no effect on excessive attendance rates for mandatory uniform schools. Research Question 2 results showed there was no change in the attendance rates during the pre and post uniform implementation time periods for non-uniform schools. Research Question 3 showed that prior to the implementation of a mandatory uniform policy the nonuniform schools had higher rates of excessive absent students. Research Question 4 showed this trend continued into the post implementation years. Based on these results the attendance patterns did not show any significant changes based on uniform implementation. Conclusions and recommendations based on these results are presented in Chapter 5.

## CHAPTER 5

## CONCLUSION AND RECOMMENDATIONS

The results of the research and analysis exemplify the strength of the proposed study. There was a discovered relationship between the implementation of mandatory uniforms in public schools and the attendance rates of the students in those schools in the viewpoint of the surveyed teachers. There was also a perceived relationship between the implementation of mandatory uniforms and students comfort levels in schools. It was apparent that students were more attentive in the classroom and were more willing to attend school after a mandatory uniform policy was implemented in the schools. The logic behind these findings was that with the implementation of mandatory uniforms, there was a level of comfort that the students felt in coming to school, and thus an increase in attendance was prevalent. Other explanations for the increase in attendance rates due to the implementation of mandatory uniforms could be that students are able to concentrate more on what is going on in the classrooms and teachers are stopping their lessons less due to a lack of classroom disruptions. If students are less distracted and can concentrate more on class work and succeeding in school, then the implementation of mandatory uniforms is a useful strategy in bettering our public schools. This could be a groundbreaking method for increasing attendance rates and decreasing classroom disruptions, but additional studies on a larger scale would be required to strengthen these findings. The research that was conducted in 2009 by Nash and Bhattacharya found no relationship between attendance and the implementation of mandatory uniforms. With my conducted research, there is no data to support the relationship between the implementation of mandatory uniforms and attendance rates in schools. To add to Gottfried (2010) findings of the relationship between
attendance and increased grade point averages, I have found a way that may increase attendance. Thus one can tie the implementations of mandatory uniforms in the public school system to an increase in students grade point averages. Though the teachers surveyed believed there was a correlation between the implementation of mandatory uniforms and student attendance rates, the actual data did not reflect a significant correlation. The attendance rates at schools with mandatory uniform policies and schools without mandatory uniform policies were very similar. Even the conducted research for the schools that had implemented mandatory uniform policies, when compared to themselves years prior to the uniform policy implementation the correlation numbers were underwhelming. The attendance rates did not fluctuate much after the implementation of mandatory uniforms in these schools.

## Limitations of the Study

As with all studies, this study is no exception and is subject to limitations, which can potentially influence the conclusions that have been gained from the dataset. Because this study was comprised of selected schools from an urban school district, and responses to the surveys were given on a voluntary basis, the results of the school perceptions could be biased. Also, the use of a particular county and not all counties in the state of Georgia could create bias. "Common Method Bias (CMB) is another possible limitation of the study" (Schuessler, 2012, para. 7). "CMB refers to the fact that potential respondent biases might constitute a systematic error" (Schuessler, 2012, para. 7). CMB is generally a bias in your dataset due to something external to the measures taken by the researcher. "This bias is common when using survey responses from the same source because a single respondent for each survey can only yield one perspective" (Schuessler, 2012, para. 7). In addition, for this study only excessive absences were used. Students who had less than 15 absences were not taken into consideration in the data set.

## Research Contributions and Implications

The research conducted in this study contributes to the field of education in several ways. First, it frames the use of the implementation of mandatory uniforms into the public school system as a means to increase attendance rates. Such a finding should allow future researchers and individuals seeking information on attendance more accurate classifications on what factors are actually affecting attendance rates in schools. Secondly, it allows for the interpretation of faculty and staff's perceptions of their schools after the implementation of mandatory uniforms. Another research contribution is that the current study extends the research conducted by Newman-Ford, Fitzgibbon, Lloyd, and Thomas (2008), which suggested that an increase in attendance rates would also increase student's academic success. Lastly, the methodology used in this research study can be duplicated by future researchers to further the findings of this study. Such an approach could be used to assess reforms that are being implemented in the school systems that simple data is not sufficient to display relationships and correlations. While care should be taken with regard to bias as discussed above when using this approach, the ability to eliminate such biases do exist, and can make for an extremely powerful study.

## Practical Implications

The results of this study are very relevant to education practitioners and leaders. First this research model can be used as an assessment tool to help schools compare their attendance rates to others in their district, and on a greater scale, the model can help school officials compare their district and or state to other school districts and states. Upon completion of the study, results showed that there was no significant relationship between the implementation of mandatory uniforms in schools and student attendance rates. Because the surveyed teachers perceived there was a relationship between the two, the researcher believes that comparing
schools based upon their attendance rates could be done using this research model, as it compares schools with implemented mandatory uniform policies and their attendance rates. If one school district utilizes this research model in their district and has results, then a research study utilizing this model can be done on another school district and the two districts can be compared based on attendance rates and possibly student performance. As it was discussed previously in this study that many researchers have found that there is a direct relationship between student performance and grade point averages and student attendance rates. Furthermore, if this research model can be utilized to compare district to district, then it can be utilized on an even larger scale to compare states to states. Because this research does not limit the researcher in any way, the sky is the limit. For, as long as the attendance data is available and permission is granted to survey the faculty and staff of the desired subject group, this research can be conducted. This study can also be utilized by school systems prescriptively to introduce mandatory uniforms in their schools as a means of increasing attendance rates or teacher moral. Because if a district wanted to introduce mandatory uniforms for every school, and wanted to run a test on selected schools in their system, then this study would be essential in formulating the necessary data to decide whether or not to introduce a mandatory uniform reform to the district. Based on their findings after conducting this research in their districts, many school systems could move to implement mandatory uniforms across the board to increase attendance rates.

## Recommendations for Future Research

In order to conduct this study and reduce the biases included one must include more randomization in the study. An increase in sample size will just increase the biases. To reduce the bias with randomization would make for better generalization to the population more
effectively. For example, in this study I sampled from an urban school district in the state of Georgia. To increase randomization, one could include samples from rural areas as well as urban areas. In addition, for future research, the researcher could use all absences and evaluate attendance rates based on general absences rather than just excessive absences. The researcher would have preferred having more responses and making the survey mandatory. If the district the researcher was utilizing permitted the researcher to infiltrate the schools and observe the students in the environment and meet with the faculty and staff the researcher could have had a more indepth perception of what was really going on in the selected schools. The researcher would have also preferred having a discussion with the faculty and staff about their perceptions of their schools about the implementation of mandatory uniforms. The researcher would have also preferred more randomization in the selection of schools and systems. Because surveys are voluntary, by using randomization and making sure each participant answers the survey by making the survey mandatory, the survey bias would be decreased significantly. This bias could have also been reduced if the researcher was permitted to observe the faculty and staff in their regular settings, and observe the students in their regular settings prior to the completion of the study. The researcher would have been able to gain a deeper insight on what was really occurring in the schools, and would have been able to attain a more in-depth understanding of why the faculty and staff responded the way that they did to the survey. The researcher would have also liked to examine other factors in the schools that may have contributed to the faculty and staff's perception of the schools. For, depending on the leadership styles, the culture of the schools, the seniority of the faculty and staff, and other reforms that may have been implemented in the schools, there could be more to the perceptions and the answers received in this research study.

Therefore, by taking away the voluntary aspect of the surveys we can eliminate the bias and use randomization to get a better measure of the faculty and staff's perception of their schools.

## Conclusions

The goal of this research was to find whether a relationship exists between the implementation of mandatory uniforms and attendance rates. In this research there were two control factors. Some schools were tested against themselves before and after, and there were schools used with and with out implemented uniform policies. The results of the research study suggest that once mandatory uniforms are introduced to a school, there is no great increase in attendance rate, and no proof that because of an implementation of mandatory uniform policies that attendance rates would increase. Though the results state there wasn't a significant difference in excessive absences, it should be observed that there were some outliers that could have possibly skewed the data causing this result. Students seem to want to come to school more often when mandatory uniforms are in their schools, according to surveyed teachers. Though the data results show differently, this may be due to the fact that only excessively absent students data were used for this research. In the classroom the faculty \& staff have access to students who may not be excessively absent, thus influencing their views of the effects on attendance rates in general. Faculty and staff felt that with implemented mandatory uniforms, students were more willing to participate in school and are more likely to show up to classes on a regular basis.

School systems can use this research finding to not only increase attendance rates, but also increase class participation, as this research paired with research conducted by Newman-Ford, Fitzgibbon, Lloyd, and Thomas (2008) suggests that students perform better with the implementation of mandatory uniforms in their schools. Furthermore, if a school system wanted to use this study and had the ability to study all students including those not falling into the
excessive absence range; the system may find different results than this study. The methods used in this research study can be used by members of the educational society to explore the numerous complex phenomena that exist in the world of education and the many reforms that are implemented on a yearly basis.

## REFERENCES

Alexander, K. L., Entwisle, D. R., \& Horsey, C. (1997). From first grade forward: Early foundations of high school drop out. Sociology of education, 70(2), 87-107.

Allison, P., \& Liker, J. (1982). Analyzing sequential categorical data on dyadic interaction: A comment on Gottman. Psychological Bulletin 91(2), 393-403.

Anderson, W. (2002). School dress code and uniform policies. Educational Management, 4, 1315.

Barrington, B. L., \& Hendricks, B. (1989). Differentiating characteristics of high school graduates, drop outs, and nongraduates. The Journal of Educational Research, 82(6), 309-319.

Bridgeland, J. M., DiIulio, J. J., \& Streeter, R. (2007). Raising the compulsory school attendance age: The case for reform. Civic Enterprises, (DEC2008), 1-36.

Brunsma, D. L. (2004). The school uniform movement and what it tells us about American education: A symbolic crusade. Lanham, MD: Scarecrow Education.

Brunsma, D. L. (2005). Uniforms in public schools: A decade of research and debate. Lanham, MD: Rowman \& Littlefield.

Brunsma, D. L., \& Rockquemore, K. A. (1998). The effects of student uniforms on attendance, behavior problems, substance use, and academic achievement. Journal of Educational Research, 92(1), 53-62.

Caruso, P. (1996). Individuality vs. conformity: The issue behind school uniforms. NASSP Bulletin, 80(581), 83-88.

Cave, C. A. (2009). Compulsory school attendance. Retrieved from http://www.education.com/reference/article/compulsory-school-attendance/

Center for Mental Health in Schools at UCLA (2006). School attendance problems: Are current policies \& practices going in the right direction? Los Angeles, CA: Author.

Center For Mental Health In Schools At UCLA (2008 updated). School attendance problems: Are current policies \& practices going in the right direction? Los Angeles, CA: Author.

Clement, R., Gwynne, T., \& Younkin, W. (2001, April). Attendance waivers evaluation report. Retrieved from http://www.broward.k12.fl.us/research_evaluation/Evaluations/Attendwaiveeval.pdf

Coleman, S. (2005, May 5). No child left behind. The Boston Globe. Retrieved from www.boston.com

Commander, N. E., \& Ward, T. (2009). Assessment matters: The strength of mixed research methods for the assessment of learning communities. About Campus, 14(3), 25-28.

Cowley, K. S., Voelkel, S., Finch, N. L., \& Meehan, M. L. (2005). Perceptions of school culture (POSC) user manual and technical report. Charleston, WV: Appalachia Educational Laboratory at Edvantia.

Cowley, K. S., Voelkel, S., Finch, N. L., \& Meehan, M. L. (2006). School performance diagnostics: Edvantia. Retrieved from http://www.edvantia.org

Creswell, J. W. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative approaches to research. . Saddle River, NJ: Merrill/Pearson Education.

Creswell, J. W. (2007). Qualitative inquiry and research design: Choosing among five approaches (2nd ed.). Thousand Oaks, London: Sage.

Creswell, J. W., Plano, C., Gutmann, M. L., \& Hanson, W. E. (2003). Advanced mixed methods research designs. In A. Tashakkori \& C. Teddlie (Eds.),Handbook of mixed methods in social and behavioral research, (pp. 209-240). Thousand Oaks, CA: Sage.

Daugherty, R. (2001). School uniforms: Can voluntary programs work? Experimenting in an atrisk school. Paper presented at Education Law Association 47th Annual Conference, Albuquerque, New Mexico, November 15-17, 2001. ED 461181.

Davies, J. D., \& Lee, J. (2006). To attend or not to attend? Why some students choose school and others reject it. Support for Learning, 21(4), 204-209.

DeMitchell, T. A., Fossey, R., \& Cobb, C. (2000). Dress codes in the public schools: Principals, policies, and precepts. [Abstract]. Journal of Law and Education, 29(1), 31-49.

Dowling-Sendor, B. (2002). School uniforms redux. American School Board Journal , 47, 38-39.
Draa, V. A. (2005). School uniforms in urban public high schools. (Doctoral Dissertation) Retrieved from ERIC database. (ED497409).

Drakeford, L. (2010). What's race got to do with it?:A historical inquiry into the impact of colorblind reform on racial inequality in America's public schools. (Doctoral dissertation, Antioch University, Keene, USA). retrieved from http://etd.ohiolink.edu/sendpdf.cgi/Drakeford\ Lillian\ Dowdell.pdf?antioch1286127101

Ensminger, M. E., \& Slusarcick, A. L. (1992). Paths to high school graduation or dropout: A longitudinal study of a first-grade cohort. Sociology of Education, 65(2), 95-113.

Gentile, E., \& Imberman, S. (2009). Dressed for success: Do school uniforms improve student behavior, attendance, and achievement? Retrieved from http://www.uh.edu/econpapers/RePEc/hou/wpaper/2009-03.pdf

Georgia Department of Education (2012, August). Georgia Department of Education. Retrieved from http://www.doe.k12.ga.us/Pages/Home.aspx

Gottfried, M. A. (2010). Evaluating the relationship between student attendance and achievement in urban elementary and middle schools: An instrumental variables approach. American Educational Research Journal, 47(2), 434-465.

Greene, J. C., \& Caracelli, V. J. (2003). Making paradigmatic sense of mixed methods practice. In A. Tashakkori \& C. Teddlie (Eds.),Handbook of mixed methods in social and behavioral research, (pp. 91-110). Thousand Oaks, CA: Sage.

Gump, S. E. (2006). Guess who's (not) coming to class: Student attitudes as indicators of attendance. Educational Studies, 32(1), 39-46.

Hanson, W. E., Creswell, J. W., Plano-Clark, V. L., Petska, K. S., \& Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. Journal of Counseling Psychology, 52(2), 224-235.

Jamieson, S. (2004). Likert scales: How to (ab)use them. Medical Education, 38, 1212-1218.
Johnston, H. (2005). Research Brief: Student attendance: Research and strategies. E.P.I. Educational Partnerships Inc., 1-8.

Johnston, J. H. (2010). Retaining students in school and dropout prevention: An EPI research brief [Online forum comment]. Retrieved from http://www.educationpartnerships.org website:
http://www.educationpartnerships.org/pdfs/Retaining\ Students\ in\ School.pdf
Justia (2010). US law. Retrieved from http://law.justia.com

Lumsden, L. (2001). Uniforms and dress-code policies. ERIC Digest, 148. Retrieved from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true\&_\&ERICExtS earch_SearchValue_0=ED454568\&ERICExtSearch_SearchType_0=no\&accno=ED4545 68

Lumsden, L., \& Miller, G. (2002). Dress codes and uniforms. Research Roundup, 18(4), 1-5.
Mathison, S., \& Ross, E. W. (2008). Battleground: Schools. Westport, CT: Greenwood Press.
Merriam-Webster. (2010). Merriam-Webster Dictionary. Retrieved from http://www.merriamwebster.com/info/index.htm

Morris, B., \& Wells, D. (2000). Dress codes and uniforms. Retrieved from http://www.cepi.vcu.edu/policy_issue/school/dress_codes.html

Murray, R. K. (1997). The impact of school uniforms on school climate. NASSP Bulletin, 81(593), 106-112.

Nash, N. W., \& Bhattacharya, K. (2009). Urban middle school principals' perceptions of a school uniform policy. Research and Practice in Social Sciences, 4(2), 46-64.

National Center for Education Statistics, \& U.S. Department Of Education (2009). Indicators of school crime and safety. Retrieved from http://nces.ed.gov/fastfacts/display.asp?id=50

Newman-Ford, L., Fitzgibbon, K., Lloyd, S., \& Thomas, S. (2008). A large-scale investigation into the relationship between attendance and attainment: A study using an innovative, electronic attendance monitoring system. Studies in Higher Education, 33(6), 699-717.

Onwuegbuzie, A. J., \& Leech, N. L. (2004). Enhancing the interpretation of "significant findings": the role of mixed methods research. The Qualitative Report, 9(4), 770-792.

Pate, S. S. (1999). The influence of a mandatory school uniform policy. Paper presented at the Annual Meeting of the Association for Career and Technical Education, Orlando, FL, December, 1999. Retrieved from http://www.eric.ed.gov/PDFS/ED458695.pdf

Plano-Clark, V. L., \& Creswell, J. W. (2006). Designing and conducting mixed method research (1st ed.). Los Angeles, CA: SAGE.

Railsback, J. (2004, June). Increasing student attendance: Strategies from research and practice (ED-01-CO-0013). Portland, OR: Northwest Regional Educational Laboratory.

Reid, K. (2008). The causes of non-attendance: An empirical study. Educational Review, 60(4), 345-357.

Roby, D. E. (2004). Research on school attendance and student achievement: A study of Ohio schools. Educational Research Quarterly, 28(1), 3-16.

Schuessler, J. (2012, September). Information Systems. Retrieved from http://joseph.schuesslersounds.com/

Sheldon, S. B. (2007). Improving student attendance with school, family, and community partnerships. Journal of Educational Research, 100(5), 267-275.

Sheppard, A. (2009). School attendance and attainment: Poor attenders' perceptions of schoolwork and parental involvement in their education. British Journal of Special Education, 36(2), 104-111.

Stanca, L. (2006). The effects of attendance on academic performance: Panel data evidence for introductory microeconomics. The Journal of Economic Education, 37(3), 251-266.

Symonds, J. E., \& Gorard, S. (2010). Death of mixed methods? Or the rebirth of research as a craft. Evaluation \& Research in Education, 23(2), 121-136.

United States Court Of Appeals, Fifth Circuit (2012). Find law. Retrieved from http://caselaw.findlaw.com/us-5th-circuit/1408648.html
U.S. Department Of Education (2002). No child left behind policy. Retrieved from http://www2.ed.gov/nclb/landing.jhtml

Wagstaff, M., Combs, L., \& Jarvis, B. (2000). Solving high school attendance problems: A case study. Journal of At-Risk Issues, 7(1), 21-30.

White, K. A. (2000). Do school uniforms fit? School Administrator, 57(2), 36-40.
Yates, D., Moore, D., \& Starnes, D. (2008). The practice of statistics (3rd ed.). New York, NY: W. H. Freeman.

Yeung, R. (2009). Are school uniforms a good fit? Results from the ECLS-K and the NELS. Educational Policy, 23(6), 847-874.

## APPENDIX A

## Perceptions of School Culture (POSC) (Edited)

Instructions: Please read each item and then rate the extent to which it occurs at your school.
Completely fill in the bubble for each selected response.

1. Data in my school is used to determine the level of student achievement.
2. Students are persistent in completing difficult tasks.
3. School policies are consistent with state policies.
4. Students respect different kinds of intelligences.
5. Students are intrinsically motivated to learn.
6. Students seem comfortable in the school due to the implemented uniform policy.
7. Students exercise control over their own learning.

| $\begin{gathered} \text { Not } \\ \text { At All } \end{gathered}$ | $\underset{\text { Little }}{\mathrm{A}}$ | Some | Much | Very <br> Much |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 0 | 0 | $\bigcirc$ | 0 | 0 |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 0 | $\bigcirc$ | 0 | $\bigcirc$ | $\bigcirc$ |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | 0 |

14. Do you think the implementation of mandatory uniforms affects student attendance rates? If so, How?
$\qquad$
$\qquad$
$\qquad$
15. In addition to the mandatory uniforms in your school, are there any other implemented reforms that may affect student attendance rates?

## APPENDIX B



After a review of your proposed research project numbered $\mathbf{H 1 2 4 9 4}$ and titled "The Relationship Between Mandatory School Uniforms and Attendance," it appears that your research involves activities that do not require full approval by the Institutional Review Board according to federal guidelines.

According to the Code of Federal Regulations Title 45 Part 46, your research protocol is determined to be exempt from full review under the following exemption category (s):

B2 Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (I) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (II) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

B4 Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify
you that your research is exempt from IRB approval. You may proceed with the proposed research you that your research is exempt from IRB approval. You may proceed with the proposed research.

Please notify the IRB when you have completed the project by emailing irb(a)georgiasouthern.edu. Include the date of completion, the number of subjects (records) utilized and if there were any unexpected events related to the subjects during the project. (If none, state no unexpected or adverse events occurred during the conduct of the research.)

Sincerely,


Eleanor Haynes
Compliance Officer

