ABSTRACT

Lewis Ferebee, COMPARATIVE ANALYSIS OF DEMOGRAPHIC AND STUDENT ACHIEVEMENT OUTCOMES OF IMPLEMENTATION OF THE NCLB PUBLIC SCHOOL CHOICE PROVISION (Under the direction of Dr. Lynn Bradshaw), Department of Educational Leadership, December, 2009.

Expanding schooling options for children in low performing schools is one of the major principles of No Child Left Behind (NCLB) policy, representing two reform initiatives for public education school improvement that have dominated the conversations among public education policymakers, test-based accountability and school choice. Given their focus on NCLB policy, both may likely permeate discussions concerning the reauthorization of the Elementary and Secondary Act and public education reform efforts in years to come and to have enduring effects on public education in America. One effect of NCLB has been the expansion of school choice by mandating Title I schools in need of improvement for consecutive years of failing to meet adequate yearly progress (AYP) targets and also requires school districts to provide free transportation for students who choose to transfer to an identified school eligible to receive choice students in the district.

In this study the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB were explored. Based on the schools and district in this study, results suggest that more middle school and African American students have participated in NCLB public school choice. Results from this study suggest that NCLB public school choice participation has been considerably low compared to

the number of students eligible to participate. Another set of analysis for this study focus on the effects of the NCLB school choice provisions on district and school achievement outcomes based on NCLB AYP standards. This study suggests NCLB public school choice has had a limited impact on AYP achievement outcomes for sending and receiving schools as a function of NCLB public school choice implementation. For future research, it will be important to examine the impact of NCLB public school choice implementation on individual student achievement outcomes. It will be important to determine if there is a positive benefit of improved test scores for students who participate in NCLB public school choice. If there is a positive benefit, it will be helpful to identify patterns by demographic and achievement characteristics.

COMPARATIVE ANALYSIS OF DEMOGRAPHIC AND STUDENT ACHIEVEMENT OUTCOMES OF IMPLEMENTATION OF THE NCLB PUBLIC SCHOOL CHOICE PROVISION

A Dissertation Proposal

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Lewis Ferebee

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by

Lewis Ferebee

APPROVED BY:

DIRECTOR OF DISSERTATION:_____
Lynn Bradshaw

COMMITTEE MEMBER:_____
Lane Mills

COMMITTEE MEMBER:_____
Marjorie Ringler

COMMITTEE MEMBER:_____
Kermit Buckner

COMMITTEE MEMBER:_____
William Rouse, Jr.

INTERIM CHAIR OF THE DEPARTMENT OF EDUCATIONAL LEADERSHIP:

_____
William Rouse, Jr.

ACTING DEAN OF THE GRADUATE SCHOOL:

_____
Paul J. Gemperline

DEDICATION

I dedicate this dissertation to my grandparents the late Roxie Alston and Willis Ferebee and my parents Charlotte and Lewis Ferebee. Thank you for your fervent prayers and many sacrifices. You modeled and inspired expectations for excellence.

ACKNOWLEDGEMENTS

Many provided support and guidance to me in this journey. There are too many to mention them all; but there are few who merit special acknowledgment. First, I thank God for the health, strength and knowledge to complete this journey. I want to thank my wife Edye for the love, support and patience that she exhibited during this journey. I also wish to thank my son Bryce who challenged me to model excellence. I love each of you more than you will ever know.

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CHAPTER 1: INTRODUCTION

Equality in educational opportunity has been a longstanding goal of the United States. However, America continues to grapple with the effects of poverty as it relates to educational equity. Local public schools in the United States have been striving to promote educational equity by eliminating the achievement gap between their economically disadvantaged students and economically advantaged peers. This is a moving target as the number of American families living below the poverty line continues to grow. For example, according to the most recent Census Bureau statistics, roughly 37 million Americans lived in poverty in 2006, an increase of close to 1.3 million from 2002 and a 4.4 million increase from 2000 (U.S. Census Bureau, 2006). The Census Bureau defines poverty as an individual earning $11,393 or less and $16,079 or less for a family of three. Despite more than a decade of strong national economic growth, many of America's communities are falling far behind the median national measures of economic health (U.S. Census Bureau, 2006). As the socioeconomic divide in the United States widens, there are major implications for public education policy. Children living in poverty, disproportionately children of color, tend to be concentrated in schools that have been deemed inadequate. According to Schleicher (2006), while progress has been made in closing achievement gaps among disadvantaged racial and ethnic groups, poverty continues to play a major role in determining student achievement as the achievement gaps among

students from families with varied economic resources have remained wide and stable.

The federal Title I section of the Elementary and Secondary Education Act (ESEA) of 1965 provides additional funds to high poverty schools aimed at eliminating the achievement gap and promoting educational equity. While progress has been made, after nearly four decades of minimal signs of diminishing the poverty gap, policymakers continue to call for evidence that the federal investments in education programs such as Title I funds to high poverty schools yield tangible measurable results in terms of student achievement and success (Hastings & Weinstein, 2008). More recently in January of 2002, President George W. Bush and Congress amended ESEA to increase accountability for our nation's schools with the highest levels of poverty with the No Child Left Behind (NCLB) Act of 2001. In recent years, school choice has emerged as a promising strategy for closing the achievement gap using the dynamics of consumer opportunity and competition to improve educational equity and access. As a result of the push for choice, thousands of students across our nation who once attended a high poverty school that was identified as inadequate could opt to begin the school year in a new school. Many of these students began the school year in a new school because their old school was identified as low performing based on NCLB standards. Under the school choice provision of the NCLB legislation, when a high poverty school fell into the category of a school in need of Title I School Improvement under the federal

NCLB law for two successive years of low test scores on state standardized tests, students had more options. Students in these schools with sanctions could attend another school outside of their prescribed attendance zone. These options are referred to as mandated public school choice. To exit Title I School Improvement a school must meet 100% of their NCLB Adequate Yearly Progress (AYP) targets in the area(s) identified in need of improvement for two consecutive years. The public school choice provision of NCLB is intended to provide better options to lower socioeconomic students in low-performing schools by allowing them to transfer to more positive school environments, in hopes of increasing student performance for those who transfer. The public school choice provision of NCLB is also intended to pressure high poverty low-performing schools to improve as students transfer out. Ideally, the public school choice provision of NCLB will result in improved outcomes for all students thus reducing, and eventually eliminating the perpetual achievement gap. As the nation's call for increased accountability and rigor in public education intensifies, there is potential for increasing the number of students to be eligible for public school choice and for the expansion of school choice in public education. However, it is questionable whether the public school choice mandate under NCLB will work to press schools and districts to improve (Hess & Finn, 2004). Early evaluations of NCLB public school choice have documented minimal signs of diminishing the poverty gap (Kim & Sunderman, 2004). There is some evidence that such accountability programs increase academic achievement at marginal schools;

however, it is uncertain as to whether the findings are generated by true gains in academic achievement or simply by gains in test score performance (Cullen & Reback, 2006; Jacob, 2005). There are also questions concerning the benefits, unintended outcomes and practicality of NCLB public school choice implementation.

It is important to examine current outcomes from the implementation of the choice provisions of NCLB as new versions of the law are being considered. This assessment is particularly important as participation in NCLB public school choice and the achievement outcomes of the schools sending and receiving students who elected to participate in this option are examined. There is little empirical evidence to date on the impact of NCLB public school choice on district and school achievement outcomes. Because the regulation is so recent and information on student choices is often not available, researchers have focused on the impacts of state accountability systems on academic achievement (Figlio & Rouse, 2006; Hastings, Kane, & Staiger, 2006a; West & Peterson, 2006).

Hasting and Weinstein (2008) suggest that the purpose of public school choice within an accountability program is two-fold. First, the choice provision offers parents the immediate option to send their child to a higher-performing school. Second, the threat of expanded parental choice may give schools a greater incentive to avoid regulation by improving student learning to reach stipulated academic achievement goals. This study explores the effectiveness of public school choice and sanction-based accountability systems on

accomplishing these two goals. This will be achieved by examining the impact of the NCLB public school choice provision in a school district in central North Carolina on the number of students transferring out of low performing schools and on district and school achievement outcomes based on NCLB Adequate Yearly Progress (AYP) standards. NCLB AYP standards are standards for the expected academic progress to be made toward a defined proficiency goal for each grade level and subject area determined by the state measurement for NCLB within one year with appropriate instruction.

Statement of the Problem

With many school districts now employing the mandated NCLB public school choice provision as a means for narrowing achievement gaps and improving educational opportunities for students from poverty in low-performing schools, intended and unintended outcomes are beginning to surface. According to the NCLB implementation timeline, schools were required to offer public school choice beginning with the 2004-05 school year. Since the 2004-05 school year the number of schools required to offer NCLB public school choice has increased locally, state-wide and nationally (Hess & Finn, 2007). In the school district studied in central North Carolina, the number of schools required to NCLB public school choice has increased from five schools during the 2004-05 school year to eighteen schools during the 2009-10 school year.

With the rise of districts and schools participating in public school choice, there have been unintended outcomes. For example, the limited number of

schools eligible to receive students who elect to transfer under the NCLB school choice provision has resulted in some overcrowding (U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, Policy and Program Studies Service, 2009). In addition, as more students transfer under the NCLB choice provision, demographic shifts could have adverse effects on schools' NCLB AYP achievement outcomes. For example, a school participating in public school choice could potentially lose a significant number of subgroups of students while receiving schools could gain subgroups of students. Since the public school choice provision of NCLB was enforced in 2004, the Guilford County School District has been required to offer public school choice in several schools and the number of public school choice transfers has increased each year (see Figure 1).

Schools in the Guilford County School District are managing the complexities of the intended and unintended consequences of implementing the required sanction of the public school choice provision of NCLB. Federal law requires that any school with 75% or more of its students qualifying to receive federal meal subsidies must be classified as a Title I school. However, boards of educations can establish lower levels of federal meal subsidies ratios, with a minimum of 40%. In the Guilford County School District, the Guilford County Schools Board of Education has exercised that option for elementary and middle schools. Currently, the board has established lower federal meal subsidies ratios

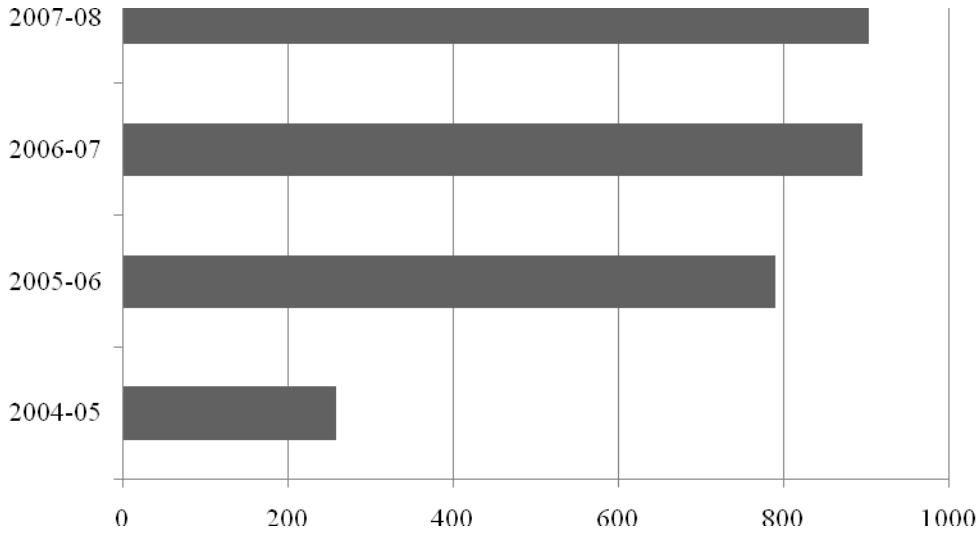

Figure 1. Guilford county schools NCLB public school choice transfers.

for elementary schools (60%) and middle schools (67%) as standards for the Guilford County School District schools to be designated as Title I schools. Currently, 25 or 61% of the district's 41 Title I supported schools are required to offer NCLB public school choice. Federal law requires the district to identify a minimum of two schools not in Title I School Improvement as schools of choice for each school required to offer public school choice. Thus, 25 schools in the Guilford County School District are required to offer public school choice and, 31 schools have been identified to receive choice students. Therefore, 56 or 47% of the district's 120 schools are impacted by NCLB public school choice in some fashion.

The Guilford County School District has one Title I school targeting newcomers to the United States with limited language proficiency covering grades 4 through 12. Currently, this school has not been designated as a Title I school in Title I school improvement. Coupled with a higher ratio for federal meal subsidies and the fact that high schools in the district tend to have lower percentages of students applying for federal lunch subsidies, the aforementioned ratios for Title I funding eliminates high schools in the district from NCLB sanctions. Thus, the implications for the NCLB public school choice sanction at the elementary and middle school level is heighten with 56 or 60% of the district's 93 (67 elementary and 26 middle) elementary and middle schools impacted by NCLB public school choice in some form. Table 1 describes the Title I schools in the Guilford County School District in greater detail.

Table 1

Title I Schools in Guildford County Schools

Level	Number of Schools	Number of Title I Schools	Number of Title I Schools Required to offer Public School Choice	Number of Schools Designated as Receiving Schools	Total Schools Impacted by Public School Choice
Elementary	67	35	22	25	47
Middle	26	5	3	6	9

While the accountability and sanctions of NCLB have shown promising signs of narrowing the poverty gap, a particular area of concern is the "mixed" level of participation in the school choice option and its effect upon the NCLB AYP achievement outcomes of schools losing students and schools receiving students participating in this option.

Purpose of the Study

The purpose of the study is to explore the grade level, gender, ethnicity and achievement (characteristics) of the students who have chosen to transfer under the school choice provisions of NCLB and the effects of the NCLB school choice provisions on district and school achievement outcomes based on NCLB AYP standards. While sanctions associated with the NCLB legislation are intended to improve opportunities and learning for students, it is important to determine the extent to which the intent of the legislation is being achieved and to describe any unintended outcomes.

Significance of the Study

This study has implications for educational leaders and politicians as they continue to examine the potential of public school choice to reduce achievement gaps. This study will inform local and state discussions of the impact of the NCLB public school choice provision on students, schools, and districts. There are many questions regarding the practicality and potential impact of the school choice provision in NCLB, particularly public school choice, which has grown into a major policy debate. Some positives for the school choice provision of NCLB

have been the unwavering commitment to improve the quality of education for all students and communication to parents regarding school performance. Those arguing against the school choice provision have suggested that the provision is not as effective as hoped noting limited options for students electing to transfer, mixed participation and insufficient data on impact of achievement outcomes. This study will also help educational leaders anticipate the effects of a "school of choice" designation. With states across the nation being held accountable for NCLB public school choice implementation, numerous school districts, superintendents, principals and school board members will benefit from this study. The current study will also provide information that informs the aforementioned policy debate and the future of the public school choice provision. Those in favor of NCLB are standing on the argument of improved standardized test scores while others are disputing the positive effects of the Act with criticism of unrealistic, hammer-down sanctions and mandates including public school choice. Despite strong arguments for and against the Act, there is limited research on the school choice provisions of NCLB even though it has been in effect for 6 years. This study narrows the focus to mandated public school choice and the effects of this policy on student, school characteristics, and performance outcomes for schools and the district.

Research Questions

Overarching Question: What is the effect of the public school choice provision of NCLB on student and school characteristics and NCLB AYP achievement outcomes?

Major Inquiry Areas within the Research Question

1. What are the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB?
2. What was the impact on AYP outcomes for sending and receiving schools as a function of offering NCLB public school choice?

Operational Definitions

AYP - This acronym stands for Adequate Yearly Progress, which is the amount of academic progress that students are expected to make for each grade level and subject area within one year with appropriate instruction. For students with disabilities, even when they do not meet criteria for state-mandated standardized assessments, schools must show that all students, despite disability designation, are meeting established goals for academic progress during one academic year (The Elementary and Secondary Education Act as reauthorized by the No Child Left Behind Act of 2001, 2001).

Achievement gap - The disparity in academic performance on standardized tests and graduation rates between groups of students. It is most often used to describe the performance gaps between many African-American

and Hispanic students, at the lower end of the performance scale, and their non-Hispanic white peers, and the similar academic disparity between students from low and high income families on standardized tests.

"Highly Qualified" Teachers - According to No Child Left Behind Act (2001), to be deemed highly qualified, teachers must have: (1) a bachelor's degree, (2) full state certification or licensure, and (3) prove that they know each subject they teach. Existing teachers can achieve "highly qualified" status by going through a state-approved alternative method (HOUSSE).

Mandated Public School Choice – Required choice options for students in public schools receiving Title I funding where the school has failed to meet adequate yearly progress for two or more consecutive years in the same content area.

Opt out eligibles - Students attending a Title I school in "school improvement" and eligible to apply for a transfer under the provisions of the No Child Left Behind Act.

Opt out enrollees - Students attending a Title I school in "school improvement" and applying for transfer and then transferring under the provisions of the No Child Left Behind Act.

Other eligible schools - Schools eligible to serve as receiving schools but in which no transfers may have occurred according to the eligibility requirements of the No Child Left Behind Act

Receiving schools - Schools *to* which students have transferred under the provisions of the No Child Left Behind Act.

Sending schools - Schools *from* which students have transferred under the provisions of the No Child Left Behind Act.

Title I Schools - Schools that receive additional funding from their particular school districts because of student economic levels that are below that of the district mean. When a school has 40% of its students below its district's socioeconomic mean, a school will be designated as Title I and will be given additional funding by its district to organize, fund, and facilitate programs that will benefit all students in attendance at the school (U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service, 2007).

Title I School in need of "school improvement" - Any Title I school not making AYP in the same subject(s) for two consecutive years. As schools in "schools improvement," schools must take many actions to improve their performance, including the development of a school plan and funds expended for professional development. When schools continue not to meet AYP, sanctions continue from school choice and/or supplemental educational services to corrective action and restructuring, where drastic action is taken at the school, including the replacement of staff members contributing to the failing scores.

Organization of Dissertation

The purpose of chapter 1 was to provide an introduction to the study. In addition, this chapter provided the reader with a definition of key terms that will be used throughout the study, and, finally, to provide an overview of the next four chapters which comprise this study. Chapter 2 of this study provides a synthesis of the literature on the socioeconomic achievement gap, the federal role in narrowing the achievement gap, and an overview of school choice and NCLB public school choice, including outcomes from public school choice. This chapter is organized by four themes prevalent in the literature: (1) local public schools in the United States continue to struggle with eliminating the persistent achievement gap between their economically disadvantaged students and economically advantaged peers; (2) there have been several federal investments in public education in the United States targeting the achievement gap, such as Title I funding to high poverty schools and provisions of NCLB; (3) in recent years, school choice has emerged as a promising solution for the achievement gap using the dynamics of consumer opportunity and competition to improve educational equity and access; and (4) while the accountability and school choice of NCLB have shown promising signs of narrowing the poverty gap, a particular area of concern is the "mixed" level of participation in the school choice option and its effect upon schools losing and the quality of the schools receiving students participating in this option. Chapter 3 presents the research design and methodology for the study. The research design for the study will be quantitative

in nature. The use of quantitative research will be using a case study approach. A description of the school district used for this case study as well as the database will also be presented. Chapter 4 consists of the presentation of the data collected for this study. Chapter 5 presents conclusions and recommendations with regard to the four themes from the research. Included in this chapter will be implications for public school choice and potential areas for further study.

CHAPTER 2: REVIEW OF LITERATURE

Since the outset of the United States Department of Education in 1867, America has been reforming public education in the name of a free and quality education for all (Sunderman, 2006). Horace Mann, the father of public education in the United States, believed that it was the local communities that should carry the accountability for helping their less fortunate children. Decades later, the National Defense Educational Act was created during the Cold War Period to provide federal funds for economically disadvantaged youngsters to further their education. The idea of expanding educational opportunities to enhance the global competiveness of United States surfaced during this time period. Falling short of this ambitious goal, there have been a number of waves of public school reform over the decades aimed at reshaping public education in the name of educational equality for all. However, one with good memory and extensive experience in the field would argue that things have changed but remained the same (Kober, 2001; Lee, 1998). While progress has been made in closing achievement gaps among disadvantaged racial and ethnic groups, poverty continues to play a major role in determining student achievement, as the achievement gaps among students from families with varied economic resources have remained wide and stable (Barrow & Rouse, 2006; Barton, 2003; Chubb & Loveless, 2002; Lee, 2002).

Achievement Gap

The disparity in academic performance between students from poverty (low family income level) and more well-off families continues to show up in grades, standardized-test scores, course selections, dropout rates and college-completion rates and remains a focal point of education reform efforts. The achievement gaps are evident even as early as kindergarten (Lee, 2002). In 2000, the U.S. Department of Education released data showing that African American and Hispanic kindergartners already trailed their White and Asian-American counterparts on tests of general knowledge and early-reading and math skills (Chambers, Lieberman, Parrish, Kaleba, Van Campen, Stullich, & et al., 2000). According to data from the U.S. Department of Education's Early Childhood Longitudinal Study, the average cognitive score of pre-kindergarten children in the highest socioeconomic bracket was significantly higher than the average score of students in the lowest socioeconomic bracket. The composition of these socioeconomic brackets was closely tied to race; 34% of African American children and 29% of Hispanic children were in the lowest socioeconomic bracket, compared with just nine percent of White students (Barton & Coley, 2008; Lee & Burkam, 2002). In addition to this relationship, the number of students from lower socioeconomic families continues to rise, but the numbers are unbalanced for minority children. According to the U.S. Census Bureau, of all children younger than 18 living in families, 27% of Hispanic children and 30% of African American children live in poverty, compared with

about 13% of White children (Proctor & Dalaker, 2002). Recent census estimates reveal that the population percentage considered severely poor has reached a 32-year high. Between 2000 and 2005, the percent living at half of poverty-level income increased by 26%.

The racial and ethnic connections to the socioeconomic achievement gap are clearly a serious national, state and local issue. The achievement gap for African American and Hispanic students narrowed some during the 1970s and 1980s, while the achievement of white students changed slightly during this period (Stearns, 2002). The racial and ethnic achievement gap has stayed about the same for some subjects and ages and widened for others since 1988 (Stearns). Despite gains in some subjects by black and Hispanic students, the achievement gaps have not narrowed as these gains did not exceed those made by other subgroups (Kober, 2001). For example, supporting evidence for gaps in fundamental math and reading skills for American children can be found in National Assessment of Educational Progress (NAEP) reporting and state assessment data. Student achievement on state assessments represents the primary criterion the NCLB statue employs to measure school success, but these data cannot be aggregated across states to examine national trends, because they vary in both the content and difficulty of test items as well as in the level that is labeled as “proficient.” The NAEP reporting provides a more accurate assessment that is consistent across states, but is not aligned with individual state content and achievement standards, so it may not specifically measure

what students are expected to learn in their states. For instance, achievement gaps in eight grade math and reading skills is evident in recent NAEP reporting. The national percentage of White, non-Hispanic male students scoring at or above the Basic level was 78% in 2007 while the percentage of African American, non-Hispanic male students scoring at or above the Basic level in Grade 8 was 46% (NAEP, 2007). On the 2007 assessment of math skills for eighth-graders, the national percentage of White, non-Hispanic male students scoring at or above the Basic level was 82% while the percentage of African American, non-Hispanic male students scoring at or above the Basic level in Grade 8 was 46% (NAEP, 2007). In addition, in 2005 close to 50% of children living in poverty had scores below the threshold for basic competency compared with just 21% of non-socioeconomic disadvantaged students (NAEP, 2005). A recent report from the U.S. Department of Education examining student achievement trends for fourth-grade and eighth-grade reading and mathematics from 2004–05 to 2006–07 for 30 states that had consistent state standards and assessments in place during this period showed similar achievement gaps (Stullich, Abrams, Eisner, Lee & Office of Planning, 2009). Analogous reports found similar patterns in student achievement trends on state assessments for 23 states for the period from 2000-01 to 2002-03 and for 36 states for the period from 2002-03 to 2004-05 (Stullich et al., 2006). Table 2 highlights gains from various subgroups on state tests from 2004-05 to 2006-07; however, Figure 2

Table 2

Percentage of States Showing an Increase in the Proportion of Fourth- and Eighth-Grade Students Performing at or Above Their State's Proficient Level From 2004–05 to 2006–07, by Student Group

	Grade 4		Grade 8	
	Reading	Mathematics	Reading	Mathematics
Low-income	85%	81%	93%	96%
Black	70%	81%	78%	93%
Hispanic	74%	81%	81%	85%
White	70%	85%	74%	85%
LEP	74%	89%	67%	63%
Migrant	57%	81%	80%	70%
Students with disabilities	76%	84%	76%	84%
"All students" group	74%	78%	74%	89%
Average proportion of student groups with achievement gains	73%	83%	78%	84%

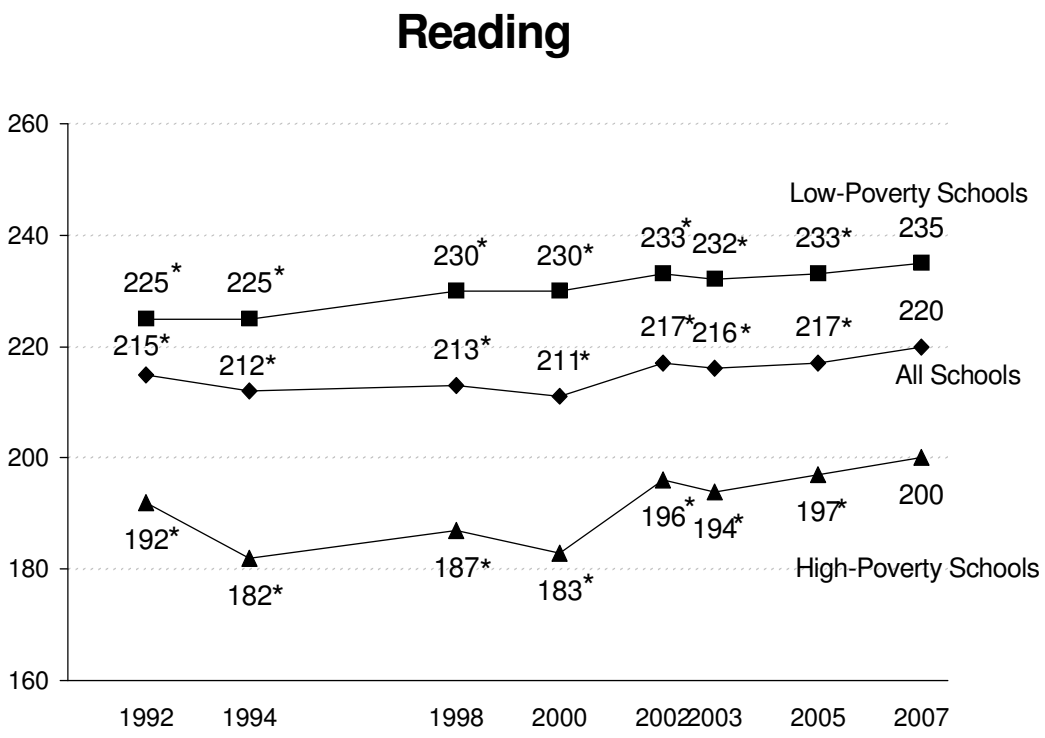

Figure 2. Average reading NAEP Scale Scores for fourth grade public school students by school poverty level from 1990-2007.

and 3 illustrate the socioeconomic achievement gaps between public school students on NAEP assessments.

These skewed results of proficiency of basic skills have a high impact on graduation rates for poor and minority students. Slightly above half of African American and Hispanic students are likely to earn high school diplomas (Balfanz, Legters, West, & Weber, 2007). The differences in their mathematics and reading skills not only influence high school graduation rates but may drastically limit future earning potential, thus narrowing the gateways out of generational poverty or promoting criminal activity, incarceration and delinquency among minority and poor youngsters. Contributing to the low graduation rates and educational inequity, other important considerations in graduation rates and educational achievement such as suspensions, expulsions and Special Education classifications, and participation in Gifted/Talented programs students are disproportionately impacting economically disadvantaged and minority students. For example, the Schott Foundation for Public Education (2008) national summary of educational achievement in America, which collects data from the U.S. Department of Education Office for Civil Rights, highlights African American's over representation in suspensions, expulsions and Special Education classifications and under representation in Gifted/Talented programs.

As it relates to advanced courses, data from the U.S. Department of Education indicate that approximately 62% of White, African American, and Hispanic high school graduates each were enrolled in an Algebra 1 course in

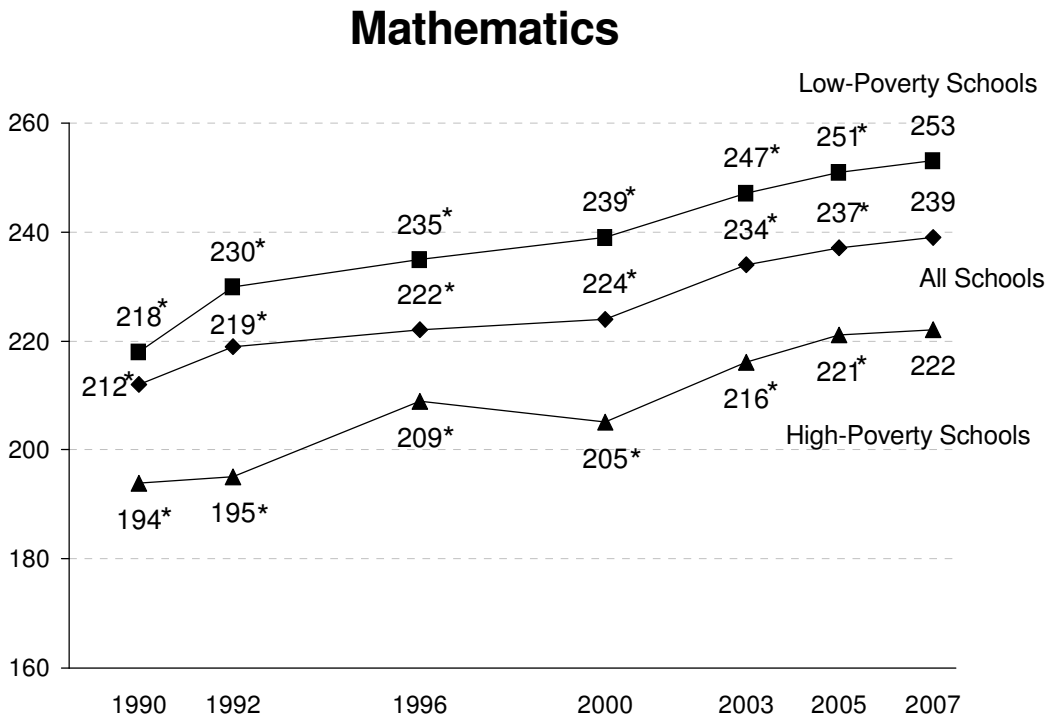

Figure 3. Average math NAEP Scale Scores for fourth grade public school students by school poverty level from 1990-2007.

high school in 1998. But that pattern did not hold for higher-level math courses. While 64% of White students took Algebra 2, only 55% of African American and 48% of Hispanic students were also enrolled. Even larger gaps appear in honors-course enrollments: 7.5% of white students, 3.4% of African American students, and 3.7% of Hispanic students took Advanced Placement calculus (Chambers et al., 2000).

The United States achievement gaps may impose on the United States economy an imperceptible yet recurring economic down turn. Providing equality of educational opportunity and enhancing the education of children living in poverty are crucial to improving their life outcomes (Murnane, 2007). Addressing the challenge of socioeconomic achievement gaps may become more important as the number of families living in poverty continue to grow. Moreover, the magnitude of the ethnic achievement gaps between and among African American and Latino student performance and white student performance may rise in the years ahead as well as demographic shifts result in African American and Latinos becoming a larger proportion of the American population and workforce. The economic prosperity of America and its global competitiveness may heavily reside in the progress made with the achievement gap.

Federal Interventions

There have been several waves of reform in public education in the United States targeting the achievement gap. Reform periods in American education are typically times when concerns about the state of the society or economy spill

over into demands that the public schools drastically improve. During a time period when social services for the poor was a chief priority for the federal government to boost the American economy, the first attack on the educational poverty gap was initiated in 1965 when President Lyndon B. Johnson signed into law the country's first general aid program for education, the Elementary and Secondary Education Act (ESEA), whose Title I section aimed to improve the education of the nation's poorest students. During this time period, the Office of Economic Opportunity launched project Head Start to assist with preparing economically disadvantaged 4 year olds for school readiness.

These actions would ignite the nation's largest attack on the War on Poverty in America. For many decades, several presidents have amended ESEA, changing the law's name and funding formulas. For example, President Bill Clinton signed into law the Improving America's Schools Act (IASA), a reauthorization of ESEA. This required states to create content and performance standards in mathematics and language arts for all schools, kindergarten through grade 12. These standards became the underpinnings of state accountability systems and tests aligned to state standards. IASA required that these tests be administered in grade spans 3-5, 6-9 and 10-12. The law also requires periodic benchmarks to monitor students' progress toward meeting standards which were called Adequate Yearly Progress (AYP).

Title I law of ESEA has been our nations' primary compensatory education program, distributing funds to schools on the basis of a formula that weights

heavily the number of students living in poverty (DeBray-Pelot & McGuinn, 2009). ESEA has provided federal funding to the neediest students and schools for over 40 years. It has been reauthorized eight times, usually every five or six years since 1965. ESEA created for the first time a partnership among federal, state, and local governments to address part of the larger national agenda of confronting poverty and its damaging effects by targeting federal aid to poor students and schools (Brademas, 1987). Since 1965, DeBray (2005) suggests that ESEA has evolved in three major phases: phase one, from 1965 to 1980, the reauthorizations of ESEA focused on whether Title I (providing the bulk of ESEA funds for targeted help to poor students and high poverty schools) was to be considered truly targeted funding or whether it was cleverly disguised as general aid to education (today over 90% of school districts receive Title I funding). Phase one was also marked by evolving lists of "allowable uses" of Title I funds, from equipment to professional development to health services; phase two, 1980 to 1990 saw no significant increases, when adjusted for inflation, in funding for the Act, and President Ronald Reagan block-granted and consolidated several ESEA programs. Also during this time, the *Nation at Risk* report in 1983 was released and catapulted education onto the national political scene as an important issue to voters (Tanner, 1993). The report linked the state of America's schools to the nation's economic productivity. In the 1988 reauthorization of ESEA, the first significant shift in the distribution of Title I dollars occurred, conditioning the states' receipt of the funds upon some accountability for

improved outcomes. Congress allowed Title I funds to be used for schoolwide programs (to support systemic improvement in schools where 75% of students were in poverty) as a way to respond to the urgent call for more wide-sweeping reform outlined in the *Nation at Risk* report in 1983. In phase three, from 1990 to the present, the education debate has been dominated by the desire of policymakers to see evidence that federal investments in education programs yield tangible, measurable results in terms of student achievement and success. The two main examples of this approach occurred in 1994 and in 2001, with the passage of President Clinton's Goals 2000 and the Improving America's Schools Act (IASA) and President George W. Bush's No Child Left Behind Act of 2001(P.L.107-110) (The Elementary and Secondary Education Act as reauthorized by the No Child Left Behind Act of 2001, 2001).

No Child Left Behind Act of 2001 Sets New Standards

After nearly four decades and minimal signs of diminishing the poverty gap, policymakers called for evidence that the federal investments in education programs, such as Title I funds to high poverty schools, yield tangible, measurable results in terms of student achievement and success. To codify this demand and state of crisis, new national education goals, set in the height of a historic education summit convened by the President of the United States of America and attended by nearly all the nation's governors in 1989, called for all students to attain proficiency in challenging subject matter by the year 2000 (Commission on No Child Left Behind, 2007). This gallant move marked the

underpinnings of the NCLB Act of 2001. NCLB Act of 2001, the latest version of ESEA signed into law by President George W. Bush and Congress in 2002, has heightened accountability in public education to record levels; thus promoting raising academic standards for all and narrowing longstanding achievement gaps between the wealthy and the poor, hence the new name, No Child Left Behind. Congress was very specific about NCLB's objectives. On the cover of the Act, it is termed as "An Act to close the achievement gap." Prior to President Bush, President Bill Clinton was the first president to require states to test academic performance, the Improving America's Schools Act (IASA). President Bush and Congress (Sunderman, 2006) took things further by adding sanctions in 2002 with NCLB, which requires states receiving federal education funding to submit plans for every student, regardless of race, income, or native tongue, to be proficient at reading and math by 2014. Schools whose students do not make academic progress toward that goal two or more consecutive years for the same subgroup of students in the same content area as measured by state tests are subject to sanctions such as public school choice. Prior to versions of (1994 and 2001) ESEA, the federal government provided funds for public education without setting standards for what it expected in return. NCLB took close aim at the achievement gap by requiring states to disaggregate student achievement data by racial subgroups of students, including African American and Hispanic students, so that performance gains for all groups of children can be tracked. The law also contains a host of accountability measures that sanction schools that

are unable to show achievement gains by all subgroups of students. The hope is that these strict accountability measures will spur across-the-board gains in achievement. However, the primary strategy for improving public education and closing achievement gaps has been standardized test-based accountability. Table 3 captures the key provisions of NCLB.

As public education reforms begin to shape, it is always important to evaluate the potential effectiveness of the reform in relation to its goal. The goals of the provisions of NCLB are clear: increase student achievement for all students and offer parents more options to low-income and minority students for a higher quality education. However, the question still remains. Will this work or is it working? Ladner and Brouillette (2000) claim that rules based reforms, often associated with NCLB, such as public school choice, teacher certification changes and school accreditation requirements all sound promising but have shown marginal improvements and have failed to achieve large scale turnarounds.

Although progress has been slow, there is growing evidence that NCLB is producing some results in improved student achievement. NCLB appears to be meeting its objectives: narrowing achievement gaps from the bottom up. Low-achieving students, defined as the 10% with the lowest scores on the NAEP, made big strides from 2000 to 2007, gaining sixteen points, on NAEP's 500-point scale, in fourth-grade reading, eighteen points in fourth-grade math, and thirteen points in eighth grade math (Loveless, Parkas, & Duffet, 2008). The academic

Table 3

Key Provisions of the No Child Left Behind Act of 2001 (P.L.107-110) (Title I, Section 1116[b])

Provision	Description
State assessments	States must implement annual state assessments in reading and mathematics in grades 3-8 and at least once in grades 10-12, and in science at least once in each of three grade spans: 3-5, 6-9, and 10-12. Assessments must be aligned with challenging state content and academic achievement standards. States must provide for participation of all students, including students with disabilities and limited English proficient (LEP) students. States must provide for the assessment of English language proficiency of all LEP students.
Adequate yearly progress (AYP)	States must set annual targets that will lead to the goal of all students reaching proficiency in reading and mathematics by 2013-14. For each measure of school performance, states must include absolute targets that must be met by key subgroups of students (major racial/ethnic groups, low-income students, students with disabilities, and LEP students). To make AYP, schools and districts must meet annual targets for each student subgroup in the school, and must test 95 percent of students in each subgroup. States also must define an "other academic indicator" that schools must meet in addition to proficiency targets on state assessments.
Schools identified for improvement	Title I schools and districts that do not make AYP for two consecutive years are identified for improvement and are to receive technical assistance to help them improve. Those that miss AYP for additional years are identified for successive stages of interventions, including corrective action and restructuring (see below). To leave identified-for-improvement status, a school or district must make AYP for two consecutive years.
Public school choice	Districts must offer all students in identified Title I schools the option to transfer to a non-identified school, with transportation provided by the district.

Table 3

Key Provisions of the No Child Left Behind Act of 2001 (P.L.107-110) (Title I, Section 1116[b]) (continued)

Provision	Description
Supplemental educational services	In Title I schools that miss AYP for a third year, districts also must offer low-income students the option of supplemental educational services from a state-approved provider.
Corrective actions	In Title I schools that miss AYP for a fourth year, districts also must implement at least one of the following corrective actions: replace school staff members who are relevant to the failure to make AYP; implement a new curriculum; decrease management authority at the school level; appoint an outside expert to advise the school; extend the school day or year; or restructure the internal organization of the school.
Restructuring	In Title I schools that miss AYP for a fifth year, districts also must begin planning to implement at least one of the following restructuring interventions: reopen the school as a charter school; replace all or most of the school staff; contract with a private entity to manage the school; turn over operation of the school to the state; or adopt some other major restructuring of the school's governance. Districts must spend a year planning for restructuring and implement the school restructuring plan the following year (if the school misses AYP again for a sixth year).
Highly qualified teachers	All teachers of core academic subjects must be highly qualified as defined by NCLB and the state. To be highly qualified, teachers must have a bachelor's degree, full state certification, and demonstrated competence in each core academic subject that they teach. Subject-matter competency may be demonstrated by passing a rigorous state test, completing a college major or coursework equivalent, or (for veteran teachers) meeting standards established by the state under a "high, objective uniform state standard of evaluation" (HOUSSE).

Table 3

Key Provisions of the No Child Left Behind Act of 2001 (P.L.107-110) (Title I, Section 1116[b]) (continued)

Provision	Description
Use of research based practices	Schools must use effective methods and instructional strategies that are based on scientifically-based research.

gains in math scores took place from 2000 to 2003. For both low and high achievers, the bulk of the gains of the NCLB era were attained in the very first interval of NAEP testing—from 2000 to 2003. The achievement gap between high and low achievers narrowed immediately after NCLB was passed, but then stabilized (Loveless et al., 2008). Gaps are narrowing because the gains of low-achieving students are outstripping those of high achievers by a factor of two or three to one. There are several implications to consider from the data on characteristics of high achievers. High achievers tend to possess socioeconomic advantages and more advantaged schools and teachers (Loveless et al.). What was the trend in NAEP assessment prior to the NCLB era? Loveless et al. propose the following:

> Prior to the NCLB era the data are mixed. The NAEP score gap between high and low achievers widened in fourth-grade reading and eighth-grade math. State NAEP data from the 1990s bolster the theory that accountability systems in general are related to narrower achievement gaps. This is different from the pattern uncovered for the NCLB era, in which the gap in eighth-grade math shrank. In addition, in eighth grade reading, the constant outlier in these NAEP data, the gap expanded in accountability states and stayed the same in non-accountability states. (p. 20)

According to NAEP assessments, scores in mathematics increased nationwide for 4th and 8th graders from 2003 to 2005, and average scores improved for 4th

graders in 31 states. Mathematics scores for African American and Hispanic students improved significantly during that period. In reading, the national average of 4th graders' scores improved from 2003 to 2005. The achievement gap between White and African American and Hispanic 4th graders closed slightly during that period. Although these results come from the early years of NCLB and may have also been influenced by other factors such as curriculum changes and teacher development opportunities at the state and local levels, achievement trends are moving in the right direction (NAEP, 2005). State test results also show some improvement since NCLB has taken effect. A recent survey found that 78% of districts reported that scores on tests used for NCLB had risen from 2003 to 2005, and 35 states reported that scores improved in reading and 36 reported scores improved in mathematics (Loveless et al.). More than two-thirds of the states reported that in mathematics, test score gaps based on race/ethnicity, income, disability status or language background have narrowed or stayed the same (Jennings & Rentner, 2006). However, despite these promising signs, there are also concerns that NCLB has not been enough to ensure that all students reach proficiency in reading and mathematics. The NAEP scores, while showing progress, have moved up only slightly, and reading achievement seems to have stalled.

The number of schools eligible for the federal Title I funding that did not make AYP has risen, from 6,094 in school year 2002–03 to 9,028 in 2004–05, which may suggest that increasing numbers of schools are struggling to bring all

students to proficiency (Stullich, Eisner, McCrary, Roney, & Institute of Education Sciences, 2006). In the massive state of California, more than 200 schools have fallen short of meeting AYP achievement targets for seven years, and the number of schools facing the highest level of sanctions, restructuring, rose to over 700 schools in 2006-2007 (Jacobson, 2007). Nationally, the number of schools subject to sanctions, such as public school choice and supplemental (tutoring) services, for not making AYP for two consecutive years has begun to level off to about 10% of all Title I schools; however, urban school districts report greater proportions of their schools in this category than do suburban and rural districts (Center on Education Policy, 2006). One counter to this fact has been the argument that the U.S. Department of Education has permitted states to modify their NCLB accountability systems so that it is easier for schools and districts to make AYP.

The U.S. Department of Education recently proposed NCLB regulations that would add more requirements for school districts in data management, administration of school choice and supplemental educational services. The proposal was published in the Federal Register on April 23, 2008 (http://www.ed.gov/legislation/FedRegister/other/2008-2/042308a.html). Table 4 outlines some of the proposed changes on public school choice and supplemental educational services.

One particular area of interest has been the wide range of state thresholds used to justify the minimum number of students required in a subgroup to yield

Table 4

Proposed Changes to NCLB Public School Choice and Supplemental Educational Services

Current Issues	Proposed Changes
Current Issues	Proposed Changes
Lack of parent notification for public school choice options has been noted as a potential barrier for participation	Require districts to provide notice to parents of their public school choice at least 14 calendar days before the start of school
Public school choice and supplemental educational services participation has been questionable	Before districts can release unspent set-aside funds for choice and supplemental educational services, they must demonstrate that they have: (1) partnered with community organizations to inform students and parents of choice; (2) allowed eligible students to sign up for supplemental educational services throughout the school year and (3) ensured that supplemental educational services providers are given equal access to school facilities as available to other groups. If districts are unable to show evidence of these activities, they must carry over unspent set-asides to next year
Public school and supplemental educational services participation has been questionable	Require districts to publish on their website the number of students eligible for and participating in choice and supplemental educational services and list of approved supplemental educational services providers and schools available for choice

Table 4

Proposed Changes to NCLB Public School Choice and Supplemental Educational Services (continued)

Current Issues	Proposed Changes
The school choice requirements for parent notification can be costly for districts	Allow districts to count costs for providing outreach to parents on choice and supplemental educational services toward the 20 percent set-asides, capping at 0.2 percent of the district's Title I, Part A allocation
Assessment of graduation rates does not address specific subgroup performance	Starting 2008-09, require districts and states to disaggregate graduation rates by subgroups for reporting and AYP determination: schools must disaggregate graduation data only for reporting until 2012-13. No later than 2012-13, schools must also use disaggregated graduation data for AYP
Schools entering restructuring for consecutive years of not meeting AYP targets required interventions tend to yield minimal change in achievement outcomes	Require schools in restructuring to use interventions that are "significantly more rigorous" than that in corrective action
Particular historically challenged subgroups such as students with disabilities have significantly contributed to schools being identified for improvement for failing to meet AYP for two consecutive years	Prohibit states to identify schools for improvement based on the same subgroup failing to meet AYP for two consecutive years

Table 4

Proposed Changes to NCLB Public School Choice and Supplemental Educational Services (continued)

Current Issues	Proposed Changes
The N-size for measuring subgroup AYP achievement can be too small where specific students can be identified or too large where a large subgroup of students are excluded from AYP calculations	Requires states to justify their N-size and other measures they use for statistical reliability

statistically reliable results for reporting subgroup data for AYP calculations. As part of their AYP definition, states must set the minimum number of students ("n" size) that constitutes a subgroup. The "n" size must be large enough to ensure statistically reliable information and prevent personal information from being revealed. Table 5 captures a sample of state minimums for the number of students required for AYP reporting. Concerns have been raised over the wide variation in state subgroup numbers, the extensive use of confidence intervals and whether the U.S. Department of Education has allowed too much flexibility with accountability plans and under other NCLB provisions (Center on Education Policy, 2006). Another area interest has been how proficiency is measured through annual state-level tests in reading and math. States have employed different methods of setting performance standards (or achievement levels) that have yielded different meanings for proficiency. In addition, there are differences in performance standards between grade levels and content areas. In most states, proficiency is determined by a cut score (number of questions correct out of the total number of questions) on a test. The cut score is often converted to a performance standard or achievement level. Table 6 illustrates the differences in sample state cut scores in seventh and eighth grades for proficiency in reading and math.

Title I Funding

Not all schools are impacted by the provisions of NCLB. Although states may apply similar sanctions, only schools receiving Title I dollars are subject to

Table 5

Minimum Number of Students for a NCLB AYP Subgroup for Reporting

State	Minimum Subgroup Size 2003	Minimum Subgroup Size 2006
Alabama	40	40
Arizona	30	40
Colorado	30	30
District of Columbia	25	25
Idaho	34	34
Kansas	30	30
Louisiana	10	10
Maryland	5	5
New York	40	30
South Dakota	10	10
Utah	10	10
West Virginia	50	50
Wisconsin	40	40

Note. (U.S. Department of Education, 2006). Retrieved DATE, YEAR, from http://www.ed.gov/admins/lead/account/stateplans03/index.html

Table 6

Differences in Reading and Mathematics Percentile Cut Scores for the Proficient Level of Performance – Grade 7 or Grade 8

State	Cut Score Percentile Math	Reading	Difference
Arizona	75	47	28
Colorado	31	12	19
Wyoming	89	74	15
South Carolina	80	68	12
Idaho	46	32	14
Washington	78	67	11
Texas	35	24	11
Minnesota	42	32	10
Illinois	40	32	8
Indiana	42	35	7
California	59	54	5
Montana	36	35	1
Oregon	50	58	-8

Note. (Kingsbury et al., 2003). Retrieved November 5, 2009, from http://www.nwea.org/research/statestudy.html.

NCLB sanctions such as public school choice. While AYP data is reported for all schools, only Title I schools are sanctioned for low performance. The Title I program provides financial assistance to Local Education Authorities (LEAs) and schools with high numbers or high percentages of economically disadvantaged children to help ensure that all children meet challenging state academic standards.

Federal Title I funds are currently allocated through four statutory formulas that are based primarily on census poverty estimates and the cost of education in each state (see Table 7).

Once a state's funding allocation is determined, funds are allocated (using a weighted count formula that is similar to Targeted Grants) to LEAs in which the number of poor children is at least 10 and at least 5% of the LEA's school-age population. LEAs target the Title I funds they receive to schools with the highest percentages of children from low-income families. For target assistance schools, the school must focus Title I services on children who are failing, or most at risk of failing, to meet state academic standards. Schools in which poor children make up at least 50% of enrollment are eligible to use Title I funds for schoolwide programs that serve all children in the school. LEAs also must use Title I funds to provide academic enrichment services to eligible children enrolled in private schools. The law makes many specific requirements of schools implementing schoolwide programs, including that: schools use reform strategies based on effective means of improving the achievement of children; schools have an

Table 7

Forms of Title I Grant Funding

Types of Grants	Description
Basic	Provide funds to LEAs in which the number of children counted in the formula is at least 10 and exceeds 2 percent of an LEA's school-age population
Concentration	Flow to LEAs where the number of formula children exceeds 6,500 or 15 percent of the total school-age population
Targeted	Based on the same data used for Basic and Concentration Grants except that the data are weighted so that LEAs with higher numbers or higher percentages of poor children receive more funds. Targeted Grants flow to LEAs where the number of schoolchildren counted in the formula (without application of the formula weights) is at least 10 and at least 5 percent of the LEA's school-age population
Education Finance Incentive (EFIGs)	Based on factors that measure: (a) a state's effort to provide financial support for education compared to its relative wealth as measured by its per capita income, and (b) the degree to which education expenditures among LEAs within the state are equalized

effective and accelerated curriculum; students are taught by highly qualified professional staff members who have the appropriate professional development opportunities they need to provide effective instruction to Title I students; Title I is coordinated with other programs; and schools provide individual assistance to students within a schoolwide program who need extra assistance to meet the State standards. Without a vision and research based reform strategies on the part of entire school communities to ensure that these requirements are met, Title I funds in schoolwide programs have the potential to become general aid to existing mediocre programs.

Planning for schoolwide programs is a detailed process for which the law also spells out specific requirements. The law requires that a school implementing a schoolwide program conduct a needs assessment and develop a comprehensive plan to meet the needs of various constituencies in the school. The law prescribes an important role for parents in the schoolwide planning process; parents must jointly develop the plan with school staff. The schoolwide program planning process is used as an opportunity for entire school communities to engage in a substantive dialogue about the needs of low-income students, and to determine collectively how to meet those needs. Targeted assistance and schoolwide Title I schools are subject to Title I sanctions.

School Choice and NCLB Public School Choice

Forms of school choice for public school students have the potential to allow students attending low performing high poverty schools such as schools in

Title I sanctions alternatives for schooling using the principles of competition of a free market (Coleman, 1992). Literally interpreted, “public school choice” is an extremely broad concept. It would include choice of courses, of individual teachers, and of schools within or even between districts (Lieberman, 1989). This means public school choice gives parents the power and opportunity to choose the school their child will attend. Public school choice is one of several ways of providing students with optional schooling opportunities (e.g., Henig & Sugarman, 1999; Ravitch & Viteritti, 1997). Other opportunities include publicly funded vouchers, tax credits, or tax deductions that can be used for public or private schools; privately funded school choice; dual enrollment; home-schooling; and privately operated public schools (e.g., Betts & Loveless, 2005; Education Commission of the States, 2001; Fuller & Elmore, 1996; Greene, 2002; Heritage Foundation, Center for Education Reform, and the Education Commission of the States, 2001; Hill, Pierce, & Guthrie, 1997; Moe, 2003). Vouchers provides parents with a portion of the public educational funding allotted for their child to attend school, and allows them to use these funds to send their child to the school of their choice. It gives parents the fiscal authority to send their child to the educational institution that best suits their child. In addition, school choice scholarship programs also provide opportunities for quality by making the excellence of the private sector available to families of lower socioeconomic status. For example, private scholarship programs pay a portion of the tuition for a child to attend a private scholarship school. Publicly and privately funded

vouchers are provided to families or an institution to cover the expenses for a student's attendance at a private or parochial school. Most voucher programs target special populations such as low-income students, low-performing students, and students with special needs, or aim to meet the educational needs of students who live far from a public school. Only a few states have publicly funded voucher programs. Some states allow families that send their children to private schools to take tax credits or deductions. States also offer tax credits and deductions to individuals or businesses that contribute to organizations granting students scholarships to private schools. Some states provide a tax credit for various educational expenses, including books, materials, and sometimes tuition.

After the introduction of vouchers, magnet schools emerged as another viable option for choice and potentially improved educational opportunities for the disadvantaged and low performing by diversifying public schools. Funding for public magnet schools was provided to attract diverse student populations. Often these schools offer specialized instruction and are developed around a curricular theme such as mathematics, science and technology, or the arts. They are designed to attract a variety of students, often with the intention of promoting desegregation efforts in urban areas. Hastings, Kane and Staiger (2006b) report that more than 1 million students attend more than 4,000 magnet schools and magnet programs nationally. Unfortunately, overtime some magnet schools can become quasi private schools with a public school price. Many urban districts have seen thriving magnet schools develop a culture of elitism and further

alienate certain subgroups of students, or the magnet program becomes a school within a school in an undesirable neighborhood where the magnet students are separated from the neighborhood students.

Homeschooling is an additional optional school opportunity. Homeschooling is legal in every state and gives families the opportunity to take their children out of the traditional public- or private-school setting, allowing parents or instructors to teach their children at home. Homeschooling has experienced a significant rise in popularity in recent years. Nearly 3% of school-age children (1.5 million students) were homeschooled in 2007, an increase of 36% since 2003, and an notable 74% increase since 1999 (National Center for Education Statistics, 2008). Homeschooling is one of the fastest-growing schooling trends in the United States, along with the charter-school movement (Burke, 2009). Homeschooling continues to thrive because it provides parents with an additional choice in their children's education. Growth trends suggest that homeschooling will continue to be a popular alternative to traditional public schooling for American families. The ability for parents to provide moral or religious instruction, a safe environment, and to provide instruction that meets their children's needs contribute to the many reasons families cite for choosing to homeschool (Burke).

Charter schools could also be considered as an optional schooling opportunity. Charter schools are publicly funded but operate independently of

school districts and can define their own instructional programs (e.g., Finnigan, & et al., 2004; Loveless, 2002; Miron & Nelson, 2002; Ross, 2005) (see Table 8).

When choice is not limited by district boundaries, public school choice is termed as “interdistrict choice” or “open enrollment” (Lieberman, 1989). Traditionally, children are assigned to a public school according to where they live. People of wealth already have school choice because they can afford to move to an area where the quality of public education is high, or they can choose to enroll their child in a private school. Parents without such means, until public school choice, generally had no choice of school and had to send their child to the school assigned to them by the district, regardless of the school’s quality or appropriateness for their child.

Some assume that school choice provides better educational opportunities because it uses the dynamics of consumer opportunity and provides competition to drive service quality. Coleman (1992) correlates the success of private schools to the free market system of school choice endorsed by private schools. According to this argument, only schools that provide customers with what they want will survive. Competition is supposed to provide a powerful incentive for improvement while expanding the ability of parents to choose the school that best meets the needs of their children (Ladner & Brouillette, 2000). Hoxby (2002) notes that choice is about school supply and points to the fact that the threat of competition matters and can be demonstrated through economic models. Thus, even with a small number of students transferring to schools of choice, all

Table 8

Forms of Optional School Opportunities

Types of School Opportunity	Description
Publicly funded vouchers	A certificate issued by the local, state or federal government by which parents can pay for the education of their children at a school of their choice, rather than the public school to which they are assigned
Tax credits	Tax credits paid directly to taxpayers for private educational expenses
Tax deductions	Tax deductable tuition expenses for private schooling reducing a taxpayers taxable income
Private Schools	Schools not administered by local, state, or federal government, which retain the right to select their student body and are funded in whole or in part by charging their students tuition rather than with public (state) funds.
Public school choice	Schooling options for publically funded schools
Dual enrollment	A student enrolled in a school supported by local, state or federal dollars and a school supported by private funding
Homeschooling	Allows parents or instructors to educate their children at home
Charter schools	Publicly funded schools that operate independently of school districts

schools in a system may still try to improve themselves because of the threat that more students would want to leave in the future, should such improvement not occur. However, System-wide effects are nevertheless not easily detected. The most potent situation may occur when students' tuitions and other costs are transferred directly as a result of students exercising choice (National Working Commission on Choice in K-12 Education, 2004). The Seattle Public Schools has long used a choice arrangement whereby such costs not only transfer but are weighted: Students in special education, as well as in other special categories requiring more schooling efforts, have larger tuitions associated with their transfer than students not in such categories. The weights are deliberately defined so that schools cannot have a balanced budget if they do not attract any such students. Under these circumstances, the Seattle system reports that schools do respond competitively (COSMOS Corportation, 2004). Possibly the most preeminent example of a system-wide response to competition of school choice was reported by Greene (2001) in Florida. Beginning in 1999–00, students attending schools that received two "F" grades in four years were eligible to receive opportunity scholarships to attend other schools. Greene's study showed that schools receiving their first failing grade, facing the prospect of student out-transfers, exhibited exceptionally large gains in the proportion of their students passing the state assessment, to avoid receiving a second "F" designation. While Greene's study highlights a desired school choice systemic effect, Figlio and Rouse (2006) and Nechyba and Heise (2000) reminds us that

such systemic effects from the threat of competition may not always be desirable. For instance, schools may spend more time and money on public relations and the marketing of schools rather than on the needed academic programming (Powers & Cookson, 1999).

Lieberman (1989) posits that public school choice can also serve as a means of fostering racial integration in public education. Public school children are attending government-run schools that force them to attend schools in their home district. Whether it is intentional or not, this produces public schools that are racially segregated. Free from geographical constraints, parents with choice will choose the best school for their child, regardless of racial composition. Ironically, public school choice was initially proposed, enacted, implemented, and struck down by federal courts as a device to racially integrated schools (Lieberman).

According to Lieberman (1989), public school choice leads to a higher level of expertise among teachers. In a choice system, schools have to set extremely high standards for teachers. Public school choice forces schools to set forth clear goals and purposes, hire only teachers who subscribe to these goals, and expect teachers to push students to pursue these stated goals to attract customers (Coleman, 1992). This rationale uses the benefit of competition to increase teacher performance. Given choice, parents will choose the school with the best teachers. Schools with low performance will have to improve or go out of business.

The demand for school choice is growing as policy makers respond to the gut wrenching reports of our nation's ethnic and socioeconomic achievement gaps (Sunderman, 2006). As the gaps widen each year, the call for choice gets louder. Between 1993 and 2003, the percentage of students in grades 1–12 choosing to attend a public school other than their assigned public school increased from 11% to 15%, while the percentage attending assigned public schools decreased from 80% to 74% options (Hastings, Kane & Staiger, 2006b). The percentage of students attending private schools also increased during this period. In 2003 12.5 million children attended schools other than their assigned public school; of those, 7.4 million children chose other public options (Hastings , Kane & Staiger, 2006b). Although only a small percentage of students take advantage of provisions that allow them to attend a school other than their neighborhood school, this percentage is increasing. Further increases are likely as the choice provisions in the federal NCLB motivate states to introduce new choice options and encourage new providers to enter the marketplace. However, research on the effectiveness of choice options in improving student achievement is inconclusive, though some options have been shown to have positive effects on participants' achievement. Wronkovich, Robinson, and Hess (1998) pointed out, research on schools of choice is limited, and there are few well-documented experiences with school choice and how it affects academic achievement of students. Preliminary research suggests that magnet schools, open-enrollment programs, and charter schools experience varying levels of

achievement (Krueger & Ziebarth, 2002). Two documented benefits, regardless of the particular variation in choice arrangement have surfaced. One is that the academic performance for participating students may improve, in part because they have chosen schools associated with high achievement (e.g., Cullen, Jacob, & Levitt, 2005). Student performance also may improve because students are able to choose schools with programs more which closely match their personal and career interests (e.g., Hastings, Kane, & Staiger, 2005, 2006b). From an achievement perspective, the findings appear to be consistent among similar investigations (Belfied & Levin, 2002; Gamoran, 1996; Hoxby, 2002; Poppell & Hague, 2001) using similar variables in that the results show that students' test scores in choice programs are higher than in conventional settings. One drawback has been the very vocal response of middle class and wealthy suburban homeowners with neighborhood schools regarding their displeasure over the potential threat to their property values posed by shifting school enrollments (Nechyba, 2003; Reback, 2005). Many choice programs are either too new to show results or their impact on student achievement has not been studied. Existing research on choice programs have been mixed: school choice options could lead to the benefits its supporters expect, or the harm its opponents fear. If so, the effects, "both positive and negative, are less certain and more situation-dependent than advocates on either side acknowledge" (National Working Commission on Choice in K-12 Education, 2004, p. 23).

Peterson, Wolf, Howell, and Campbell (2002) examined the effects of

vouchers on African American students' achievement in Washington, DC, New York, New York, Dayton, Ohio, and San Antonio, Texas. At the conclusion of a three-year evaluation, test scores of African American students in New York City's privately funded voucher programs were substantially higher than test scores of comparable public school students (Peterson et al., 2002). In Washington, test scores of African American voucher students were 9 percentile points higher than scores of African American public school students after 2 years, but no different after 3 years (Peterson et al.). In both cities, private school parents were much more satisfied with their children's schools than public school parents. Combined data from New York, Dayton, and Washington showed that African American voucher students scored, on average, three percentile points higher than their public school peers in year 1, six points higher in year 2, and seven points higher in year 3 (Peterson et al.).

As proposals for expanding public school are being considered, extending public school choice beyond district lines has surfaced. Hess and Finn (2007) speculate that there should be more inter-district choices and families should be able to choose from high-performing charter schools and academically effective private schools. Inter-district public school choice would require states to develop mandatory school choice options between neighboring districts. To date, such forms of inter-district choice are solely voluntary. One such model in Massachusetts sends low income students from the surrounding urban Boston areas to the suburbs if Springfield, Massachusetts that has been funded since

1966 by the U.S. Department of Education. A similar model exists in St. Louis, Missouri where economically disadvantage students have choice options outside of their home district. Currently, the Massachusetts model enables 3,300 low income Boston and Springfield students to attend public schools in other communities and the St. Louis model 12,000 African American students, 75% of whom are economically disadvantaged, participating (Angrist & Lang, 2004). Both models have proven to beneficial noting encouraging results such as increased reading achievement (Angrist & Lang).

NCLB Public School Choice Provision

The No Child Left Behind Act of 2001 (P.L.107-110) expanded public school choice opportunities for students, particularly for those attending schools in need of improvement amending public school choice requirements in Title I of the ESEA (Title I, Section 1116[b]). The public school choice provision of NCLB is intended to provide better options to poor and minority students in low-performing schools by improving outcomes for students who transfer, and to pressure high poverty low-performing schools to improve, resulting in improved outcomes for all students, thus eliminating the perpetual poverty gap (Sunderman, 2006). In addition, Congress created the Voluntary Public School Choice Program (Title V, Subpart 3, Section 5241) to support the emergence and growth of choice initiatives across the country. The purpose of the program is to assist states and local school districts in the development of innovative strategies to expand options for students, and to encourage transfers of students from low-

performing to higher-performing schools (Stullich, Eisner, McCrary, & Institute of Eduation Sciences, 2007).

Expanded schooling options for minority and disadvantaged children is one of the four major principles of the NCLB, representing the theory that competition will produce better educational opportunities for disadvantaged students and improve the performance of low-performing schools (Kim & Sunderman, 2004). Choice is supposed to offer potential for students in failing schools to leave impoverished schools for schools that have more middle-income students. NCLB depends heavily on districts to design and implement choice programs that give disadvantage students greater access to better performing schools. However, it is important to note that low income and minority families are more likely to choose schools based on their social and economic status rather than their specific educational offerings (Wells & Crain, 1997). Thus, some low income families may not necessarily choose schools with better educational offerings. Furthermore, some studies suggest that increasing ethnic and socioeconomic stratification is associated with school choice (Fiske & Ladd, 2000; Hess, 2002; Witte, 2000). NCLB public school choice has the potential to better diversify schools by ethnic and socioeconomic status. More recent experimental evidence suggests that choice programs, such as vouchers, largely benefit the achievement of minority students (Witte), prompting the research community to encourage more research on the achievement effects associated with school choice (Goldhaber & Eide, 2002; Teske & Schneider, 2001; Witte).

NCLB Public school choice has drawn growing policy attention because of its possible association with desired educational benefits at two fronts. Such benefits may occur regardless of the particular variation in choice arrangement. On one front, the academic performance for participating students may improve, in part because they have chosen schools associated with high achievement (e.g., Cullen et al., 2005). Student performance also may improve because students are able to choose schools with programs which more closely match personal and career interests (e.g., Hastings et al., 2005, 2006b). Although an increasing number of studies have examined the benefits to participating students, no consistent findings have emerged. For instance, small or no gains in student achievement have been reported, and changes in other aspects of student performance, such as dropout and suspension rates, also have been mixed (e.g., Clotfelter, Ladd, & Vigdor, 2003; Cullen et al., 2005). Overall, one review of choice outcomes by a panel of experts concluded that:

> "...Existing research paints a mixed and complicated picture. Choice could indeed lead to the benefits its supporters expect, or the harm its opponents fear. If so, the effects, both positive and negative, are less certain and more situation-dependent than advocates on either side acknowledge" (National Working Commission on Choice in K-12 Education, 2004, p. 23).

On the second front, the presence of NCLB choice options in a system may lead to the improvement of every school in the system. Seemingly, schools will

compete to retain and attract students if their budgets are linked to enrollment levels (e.g., Goldhaber, & et al., 2005). Thus, much of the interest in school choice, including NCLB public school choice, is related to a sensitivity to economic market conditions and greater competition among schools, leading to improved performance or what Hoxby (2001) calls “school productivity” (e.g., Belfield & Levin, 2002; Betts, 2005; Chubb & Moe, 1990; Moe, 2003). Given the potential for a system wide effect from NCLB public school choice, it is important to study current outcomes from the provision.

Early Outcomes from NCLB Public School Choice

While the accountability and sanctions of NCLB have shown varied indications of progress, there are several key areas to consider when evaluating outcomes from NCLB public school choice. For instance, are students who are eligible to participate in public school choice actually doing so. A study of the public school choice participation suggests that while the participation rates are increasing participation is relatively low. For example, nationwide, roughly 1% of the four million students eligible to transfer out of failing schools have used the school choice option (Davis, 2006; Olson, 2005) during the 2004-2005 school year. In 2005-2006, 14% of school districts nationwide were required to offer NCLB public school choice, and 17% of the students in these districts were eligible to change schools, yet only about 1.6% did so (Center on Education Policy, 2006). Only three states: New York, Oklahoma, and Oregon, reported that more than 10% of eligible students transferred to another school (Olson). In

districts that were required to offer the school choice option in 2005–06, 57 percent reported that they had no students participating that year, while 31% reported participation of between 0.01 to 2.0% of eligible students, and 12% reported participation rates of more than 2.0% (Stullich et al., 2007). Based on state-reported data for 2006–07, participation rates for the NCLB public school choice option ranged from 0 to 6% across the states (Stullich et al., 2009). Despite low participation percentages for NCLB public school choice, Stullich et al. (2009) reported an increase in participation from 2003-04 to 2006-07 (see Figure 4). However, with a growing number of schools identified each year for NCLB public school choice for not meeting AYP targets and more students eligible for NCLB public school choice, these numbers are still low. For example, the number of students eligible for NCLB Public school choice increased from 3.3 million to 5.5 million from 2003-04 to 2006-07 (Stullich et al., 2009).

While examining NCLB public school choice participation, it is important to note the characteristics of the students eligible to participate. Most districts required to offer NCLB public school choice reported doing so at the elementary level but were less likely to do so in middle and high schools (Stullich et al., 2009). For instance, Stullich et al. (2009) study of 2006–07 participation revealed that 67% of districts with elementary schools identified for improvement reported that they offered the school choice option at the elementary level, compared with 41% at the middle school level (an increase from 20% in 2004–05) and 22% at the high school level (see Figure 5).

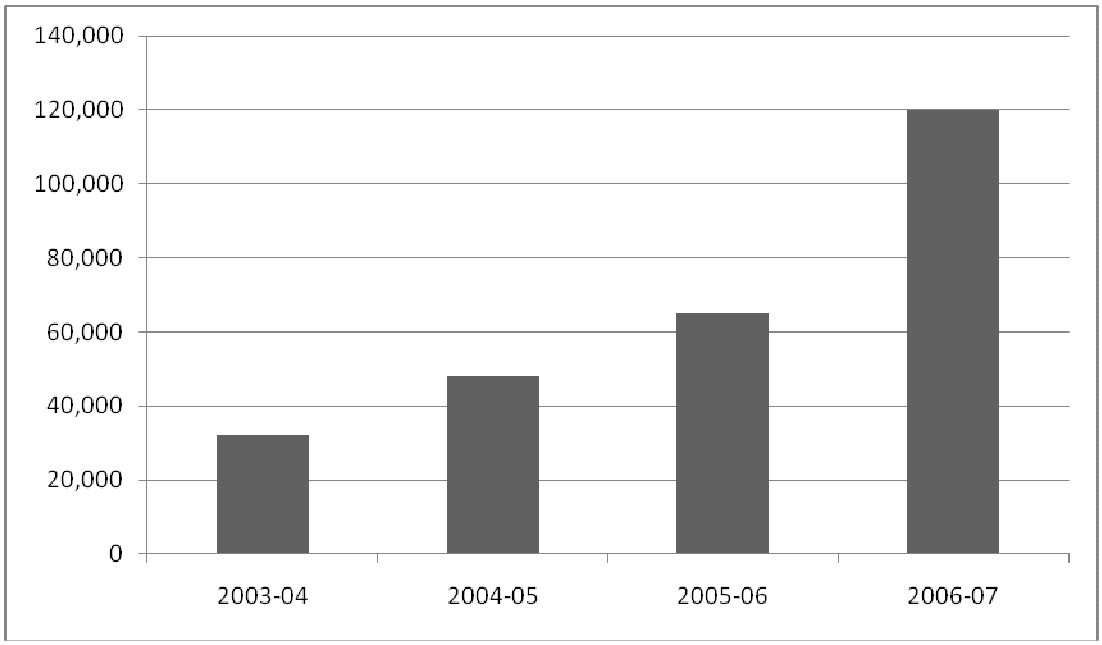

Figure 4. Number of students participating in NCLB Public School Choice, 2003-04 to 2006-07 (U.S. Department of Education).

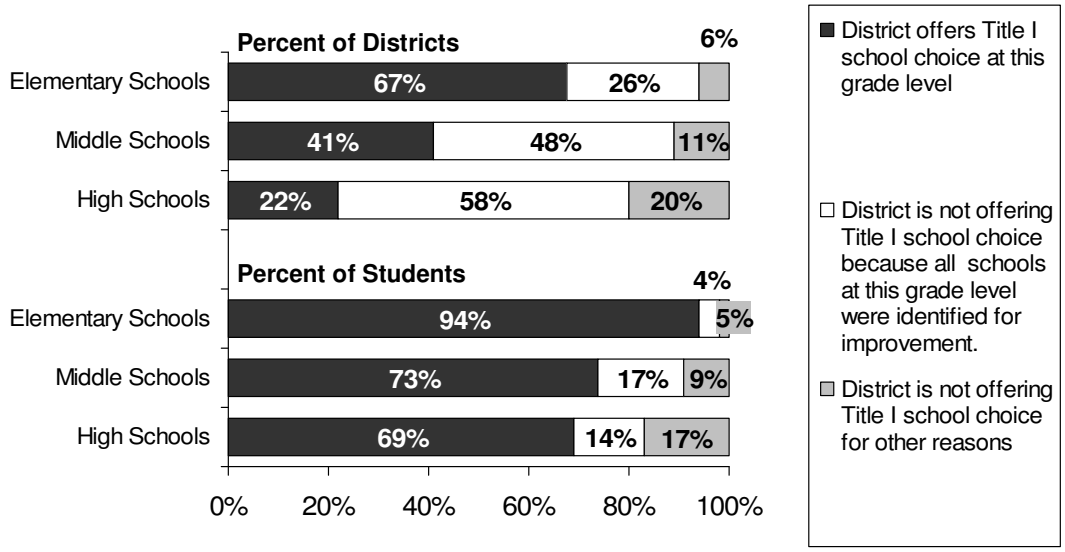

Figure 5. Percentage of districts reporting that they offered NCLB School Choice, by school grade level, and percentage of students in such districts, among districts required to offer school choice, 2006-07 (U.S. Department of Education, 2007).

Early studies of NCLB public school choice participation also revealed trends in the characteristics of the students participating in NCLB public school choice. Much like eligibility for NCLB public school choice participation, the participation rates for NCLB public school choice were the highest for the elementary grades. For example, the average participation rates in grades 2 through 5 were between 0.6 and 1.0%, while high school participation rates were between 0.2 and 0.4% (Stullich et al., 2007). There are also noteworthy participation tendencies across other demographic areas such and ethnicity, language proficiency and learning needs. According to a study NCLB public school choice participation rates by the U.S. Department of Education African American and White students had above average participation rates while Hispanic, limited English proficiency and students with disabilities had relatively low participation rates (Stullich et al., 2007).

With the growing number of students eligible for NCLB public school choice, school districts and administrators have encountered unintended outcomes as a result of NCLB school choice implementation. The number of students eligible for NCLB public school choice has steadily increased since 2002–03 to 6.9 million students eligible for public school choice in 2006-07 (Stullich et al., 2009). Although NCLB public school choice participation has progressively increased, a number of notable issues have and may continue to contribute to the comparatively low participation rates. Among the unintended outcomes and obstacles for NCLB public school choice participation several key

challenges have posed implementation barriers. Capacity constraints, limited schools available to receive choice students, transportation for choice students and parent notification for choice options have surfaced in the literature as significant implementation barriers.

Implementation in High Poverty and Urban School Districts

Beginning with the first year of NCLB public school choice implementation, Kim and Sunderman (2003) study of three high poverty urban school districts- Buffalo Public Schools, NY, Richmond Public Schools, VA, and DeKalb County Schools, GA, highlighted such challenges. In the three districts studied, 50% of the students receive free lunch in each of the three school systems and a large number of the schools in the systems have been identified for Tile I school improvement. All three districts had challenges implementing choice in the first year because of the implementation timelines, conflicts with pre-existing choice programs, lack of capacity at opt out schools and a low response rate from parents to transfer students (Kim & Sunderman, 2003). In each of the three districts in the study, fewer than 3% of eligible students requested to transfer to a different school, no district in the study was able to approve all transfer requests and schools that were chosen to accept transfers did not have substantially higher achievement levels or lower poverty rates, on average, than schools required to offer the NCLB transfer option. As a result, many students who transferred went from one school with low achievement levels to another with similarly low achievement levels. Similar to the earlier study, a later study of 10

other urban school districts, NCLB transfer provisions failed to provide disadvantaged students with a meaningful opportunity to transfer to higher performing schools (Kim & Sunderman, 2006). There were a limited number of higher-performing schools for students to transfer to since most of the receiving schools did not have substantially higher achievement levels or lower poverty rates, on average, than schools required to offer choice. This meant that many students who transferred went from one weak school to another. It is unclear how this will improve under the current law since the number of schools required to offer transfers is likely to increase and the law lacks any mechanism to ensure access to better schooling options. One fundamental problem facing many districts is the limited supply of schooling options within a large urban school burdened by high concentrated poverty (Kim & Sunderman, 2006). Figure 6 highlights a comparison of schools where NCLB public school choice must be offered among low and high poverty Title I schools.

Initial studies of school supply of schooling options for NCLB public school choice appear to have major implications for urban school districts. With larger enrollments and disproportionate poverty levels, our nation's largest school districts may struggle the most with public school choice mandates. Figure 7 summarizes a comparison of schools where NCLB public school choice must be offered among urban, suburban and rural Title I schools.

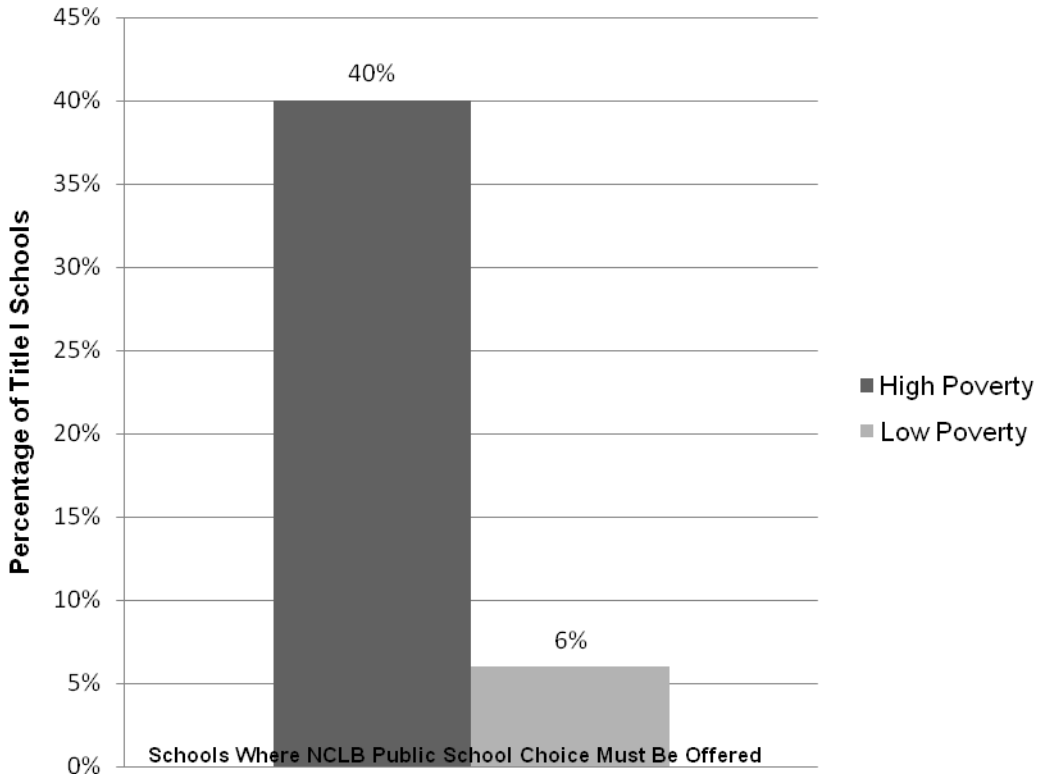

Figure 6. Percentage of Title I schools with students eligible for Title I public school choice by poverty status, 2006–07.

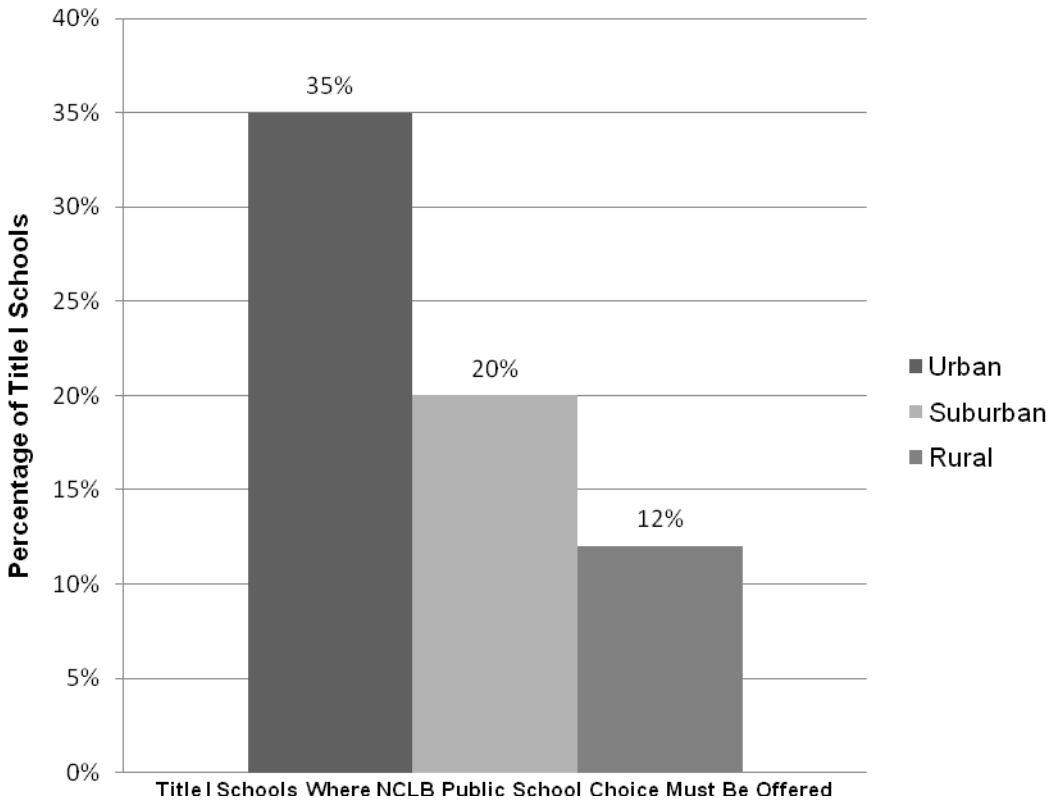

Figure 7. Percentage of Title I schools with students eligible for NCLB Public School Choice by urbanicity, 2006–07.

LEAs are required to use 20% of their Title I allocation to provide NCLB public school choice and supplemental educational services (Wong & Langevin, 2007). In districts where more students are eligible for services than Title I funds will cover, districts must prioritize the needs of eligible students (Wong & Langevin). Large urban school districts have more schools identified for Title I school improvement and less schools not identified for Title I school improvement or higher performing, thus resulting in few transfers. For example, in Chicago and New York, thousands of students were eligible to transfer the first year of NCLB mandated public school choice and only 1.9% of eligible students in Chicago and 2.3% of eligible students in New York requested transfers (Kim & Sunderman, 2004). In Chicago, nearly a quarter of a million students attend failing schools, yet the district claimed to have only 1,035 spaces available for student transfers (Kim & Sunderman, 2006). When students transferred, the receiving school was often low performing but not receiving Title I dollars and exempt from sanctions or the school was performing slightly better than the students' previous school.

School capacity constraints may present added obstacles for implementing and administering public school choice as well (Kim & Sunderman, 2003, 2004). There are potential capacity constraints with fewer schools available to receive choice students. Even though parents are given two schools to choose from, these two schools must have space available to accommodate opt out students. This can be particularly challenging at the middle school and high school level with larger and fewer schools at these levels. According to

Stullich et al. (2009), most districts that were required to offer NCLB public school choice did so at the elementary level, fewer districts did so at the middle school level (41%) and at the high school level (22%). Figure 8 illustrates the percentage of districts required to offer NCLB public school choice that offered this option and percentage of students in these districts, by school level, during the 2006–07 school year.

About half the districts that did not offer school choice at the middle school and high school levels did not offer it because all of their schools at the relevant grade levels were identified for Title I school improvement, which is not unusual in small districts that have only a few schools (Stullich et al., 2009). Among the districts that had schools eligible schools to receive choice students at the appropriate school level, 27% of districts reported they were constrained by lack of space in those schools (Stullich et al., 2009). However, in a U.S. Department of Education (2007) survey of principals, few of the principals of schools that were designated to receive transferring students reported that they needed additional resources to accommodate choice students. Less than 13% of these principals reported that they needed additional books and instructional materials, classroom teachers, instruction specialists or facilities (Stullich et al., 2007). In 15% of districts, a major challenge was an inability to negotiate agreements with other districts for inter-district transfers (Stullich et al., 2009). Further, 10% of districts reported that inadequate funding and an inability to meet the needs of

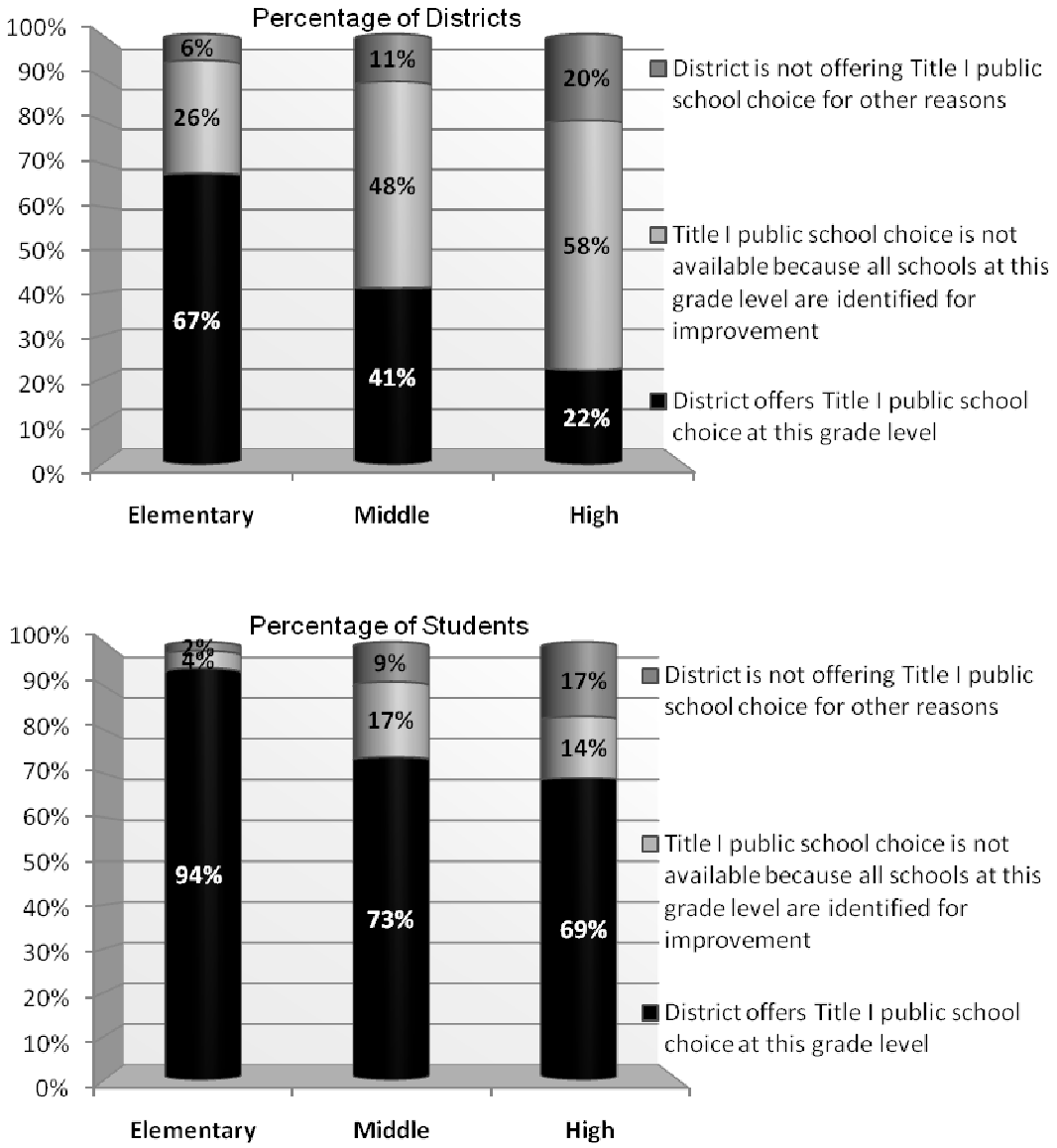

Figure 8. Percentage of districts required to offer NCLB Public School Choice that offered this option and percentage of students in these districts, by school level, 2006–07.

students with disabilities or LEP students were major challenges (Stullich et al., 2009). Some districts with schools identified for improvement reported taking various measures to expand public school choice options for parents of students eligible for transfer. Sixteen percent of districts added teachers or classrooms, 17% negotiated agreements with one or more neighboring districts, and 6.5 % allowed students to transfer to private schools at district expense (Stullich et al., 2009). Finally, other actions such as establishing new schools, schools within schools or charter schools were reported by less than 6% of districts (Stullich et al., 2009). Because eligible students are disproportionately located in large districts, the proportion of students eligible for public school choice who were offered at least two options of transfer schools was substantially higher than the proportion of districts able to offer such options (Stullich et al., 2007).

Parent Notification of Choice Options

Well-timed notification to parents of NCLB choice options has been a test for NCLB public school choice implementation as well. Timely reporting of NCLB AYP results has been a major hurdle for LEAs as they struggle with notifying parents of their options before the school year begins (Howell, 2006). Often times AYP results are not released until mid to late summer which can be a few short weeks to notify parents of their choices and market schools appropriately so parents are making informed choices. Hastings, Kane and Staiger (2006b) compare this process to suddenly being offered a new job by a competitor but having only a few days to decide to move. In 2006–07, 57% of districts did not

notify parents before the first day of school charged it to late reporting of NCLB AYP results (Stullich et al., 2009). It is important to note that districts that notify parents of students eligible for school choice before the beginning of the school year have higher participation rates than those that notify parents after school had started. Although almost all of the districts offering Title I public school choice and supplemental educational services reported that they notified parents of the options available to their children, many parents of eligible students continue to report that they were not aware of these options (Stullich et al., 2009). Drawing from a survey of Massachusetts public school parents completed in the summer of 2003, 18 months after NCLB's enactment, parents claimed to be familiar with NCLB, but the vast majority of those who in fact qualified for the act's choice provisions did not know that their child's school was on the state's list of underperforming schools (Howell). In a more recent study of urban districts sub-sampled for a study, only 20% of parents of elementary students who were eligible for public school choice indicated they had been notified of the availability of the option to move their child to another school in 2006–07, the same percentage as in 2004–05 (Stullich et al., 2009).

Transportation Constraints

Additionally, transportation constraints can potentially present challenges to NCLB public school choice participation (Kim & Sunderman, 2003, 2004). LEAs will not receive any additional funding to transport students to schools identified as opt-out schools for NCLB public school choice students. School

leaders will have to set aside at least 20% of their Title I funding for school choice transportation costs. In some cases, this could not be realistic figure with the rising cost of fuel for school buses. In addition, NCLB does not take in account for proximity when identifying schools for students to opt to that have not been identified for school improvement. The bus ride for students electing to participate in choice options could out weight the benefit of transferring to a higher performing school.

NCLB public school choice policies are embedded with not so practical regulations that compel districts to implement choice by any means necessary even if it puts federal desegregation efforts at risk, diminish the image of high poverty schools, weight school districts with additional costs or strain the capacity of overcrowded schools. Thus, the practicality of public school choice has major implications for school leaders. Furthermore, the degree of success in implementing NLCB public school choice statues was correlated to the policies enacted by the district administration (Kim & Sunderman, 2003, 2004; Stullich et al., 2007, 2009).

Recent research on public school choice illustrates that program design and implementation matter: the quality of parent information, the amounts of money that follow children to schools of choice, and rules governing school admissions all help determine whether disadvantaged children benefit from public school choice (Hill, 2005). Hill asserts that smart program design can also reduce the risk of harm to children left behind in low performing public schools.

School district leaders and principals will need additional help in various ways implementing and administering public school choice, including how to provide information on choice options that can be easily understood by parents and how to provide additional information parents need to make an informed decision. Hess and Finn (2007) asserted that the dismal participation rate in NCLB public school choice are related to a system that is stoutly resisting change and parents have no other sources of information or assistance with regard to their options.

CHAPTER 3: RESEARCH METHODS

The purpose of this study is to investigate the demographic shifts associated with NCLB mandated public school choice implementation and the effects on NCLB AYP achievement outcomes of schools losing students and schools receiving students participating in this option through a case study of one large school district in central North Carolina. This study represents a non-experimental descriptive case study approach to analysis. More specifically, this case study explores the past and current NCLB AYP achievement outcomes of the schools within Guilford County School District sending or receiving students under the NCLB public school choice provision. There are two research questions that guide this particular study:

1. What are the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB?
2. What was the impact on AYP outcomes for sending and receiving schools as a function of offering NCLB public school choice?

Since the summer of 2004, the Guilford County School District has been implementing NCLB public school choice in accordance with North Carolina state regulation that in turn was based on federal requirements. Each year, all schools are required to make AYP. However, only Title I schools face sanctions under NCLB if they fail to do so. As defined by Guilford County Schools, a school is a Title I school (receives federal Title I funds) if 60% or more of its students qualify

for federal lunch subsidies. As defined by North Carolina under NCLB compliance, a school needs to satisfy certain academic targets for up to 9 subgroups of students in order to make AYP (see Table 9). It is possible for a student to be included in more than one subgroup. For example, a student could be a member of the whole school, Black and Student with Disabilities subgroups.

For AYP calculations for a school, a subgroup must have at least 40 students who have been in membership a full academic year (FAY), defined as 140 days in membership as of the first day of End-of-Grade (EOG) testing. If just one target was missed for one subgroup, then the school failed to make AYP. There are 40 possible targets for a school including proficiency and participation targets. Proficiency targets are measured by the percentage of students scoring proficient on North Carolina standardized tests for math and reading for each subgroup (with the percentage needed to make AYP gradually increasing over time in order to meet the federal requirement of 100% proficiency by the end of the 2013-14 school year). Proficiency targets are set by the state and increase every three years. Proficiency targets can also be satisfied for a subgroup if its percent proficient falls within a 95% confidence interval for the target percent proficient or if the percentage of non-proficient students for a subgroup is reduced by 10%. Participation targets are measured by a minimum participation rate in each of the state's assessments for each subgroup (95% in each year or averaged over the prior two or three years), attendance rates for elementary and middle school students (an increase in 0.1% from the previous year or anything

Table 9

North Carolina Student Subgroups for AYP Calculations

Subgroup	Definition
School as a Whole	All Students in membership
American Indian	Race/ethnicity of students is American Indian
Asian	Race/ethnicity of students is Asian
Black	Race/ethnicity of students is African American
Hispanic	Race/ethnicity of students is Hispanic
Multi-Racial	Race/ethnicity of students is Multi-Racial
Economically Disadvantaged	Students who partake in free or reduced priced meals
Limited English Proficient	Students whose primary language is not English and fail to score Superior on all subtests of the State-identified English language proficiency tests within the same test administration
Students with Disabilities	All students with disabilities

over 90%), and graduation rates for high school students (an increase in 0.1% from the previous year or anything over 90%).

At the end of the 2003-2004 school year, the Guilford County School District complied with federal policy and offered public school choice in three elementary schools and one middle school, all were Title I supported schools and had failed to make AYP for the past two years one or more content area. These schools were categorized as Title I schools in “school improvement” and entered regulation under NCLB. The regulation implied that parents needed to be notified of the NCLB status of their school and offered the choice to attend an alternative school. In addition, the district (as part of a federal requirement) was required to supply with this notification information on the academic achievement of the schools that parents could select. The Guilford County School District provided information on the percent of students in the school who made grade level in reading or math. Thus the NCLB legislation provided simplified information to parents on the academic achievement at their school and notification that their school had failed to make AYP and that they therefore had a right to choose to send their child to another Title I school not in Title I school improvement or a non-Title I school indentified by the Guilford County School District as a school eligible (referred to as opt-out school) to receive NCLB public school choice students (referred to as opt-out students) electing to transfer. Table 10 outlines the timeline for NCLB sanctions in the Guilford County School District. Table 11

Table 10

Timeline for Guilford County Schools NCLB Sanctions

Task	Responsible
NC Department of Instruction releases preliminary AYP results.	NCDPI
Preparation of NCLB Sanctions Parent Notification packets.	Superintendent Title I Staff
NCLB Sanction Meetings with principals to provide an overview of NCLB sanctions and requirements. Principals pick up envelopes and NCLB Sanctions Parent Notification packets.	Title I Staff Student Assignment Transportation Principals
Schools assemble NCLB Sanctions Parent Notification envelopes at individual schools.	Principals
The specific schools in NCLB sanctions deliver envelopes to Courier Services.	Principals
Schools offering school choice host Town Hall Meetings for parents.	Principals (sending) Principals (receiving)
School offering Supplemental Educational Services (SES) will host providers fair.	Principals
Parents submit Request for Reassignment and Request for Transportation forms to Student Assignment no later than 5 PM of deadline for applying for school choice. Parents submit SES Applications no later 3 PM to either the Title I Office or the school of deadline for applying for school SES.	Parents
All SES Applications are due in the Title I office.	Principals/SES Coordinators

Table 10

Timeline for Guilford County Schools NCLB Sanctions (continued)

Task	Responsible
Student Assignment Office reassigns students and notifies parents and schools.	Student Assignment
Transportation department schedules routes for choice students.	Transportation

Table 11

NCLB Sanctions for GCS Title I Schools (2005-2009)

School Name	2005		2006		2007		2008		2009		Current Sanction Level
	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	
Alderman Elementary					WL		1		1		1
Allen Jay Elementary							WL	WL	1	1	1
Archer Elementary					WL		1		1		1
Bessemer Elementary		1		1	WL	1	1	2	2	3	3
Cone Elementary							WL		1		1
Fairview Elementary					WL		1		2		2
Falkener Elementary							WL		1		1
Ferndale Middle	1	1	2	2	3	3	4	4	5	5	5
Foust Elementary							WL	WL	1	1	1

Table 11

NCLB Sanctions for GCS Title I Schools (2005-2009) (continued)

School Name	2005		2006		2007		2008		2009		Current Sanction Level
	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	
Gillespie Park Elementary	WL		1		1		2	WL	3	1	3
Hairston Middle		WL		1		1	WL	2	1	3	3
Hampton Elementary			WL		1		2		3		3
Hunter Elementary								WL		1	1
Jackson Middle			WL	WL	1	1	2	2	3	2	3
Kirkman Park Elementary	WL		1		2		3	WL	4	1	4
Montlieu Elementary								WL		1	1

Table 11

NCLB Sanctions for GCS Title I Schools (2005-2009) (continued)

School Name	2005		2006		2007		2008		2009		Current Sanction Level
	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	
Northwood Elementary	WL		1		1		2		3		3
Oak Hill Elementary			WL	WL	1	1	1	1	2	2	2
Oak View Elementary						WL		1		2	2
Parkview Elementary							WL	WL	1	1	1
Peck Elementary								WL		1	1
Rankin Elementary			WL		1	WL	2	1	3	1	3
Union Hill Elementary			WL	WL	1	1	2	2	3	2	3
Washington Elementary	1		2		3		3		4		4
Wiley Elementary	1		2	WL	3	1	4	1	5		5

Table 11

NCLB Sanctions for GCS Title I Schools (2005-2009) (continued)

School Name	2005		2006		2007		2008		2009		Current Sanction Level
	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	
Allen Middle								WL		WL	WL
Bluford Elementary										WL	WL
Brightwood Elementary								WL		WL	WL
Frazier Elementary										WL	WL
Guilford Elementary								WL		WL	WL
Johnson Street Elementary								WL		WL	WL
Murphey Elementary										WL	WL
Sedgefield Elementary										WL	WL
Sumner Elementary								WL		WL	WL

Table 11

NCLB Sanctions for GCS Title I Schools (2005-2009) (continued)

School Name	2005		2006		2007		2008		2009		Current Sanction Level
	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	
Vandalia Elementary							WL		WL		WL

Note. Key: WL: Watch List; 1: Year 1 of School Improvement; 2: Year 2 of School Improvement; 3: Year 3 of School Improvement; 4: Year 4 of School Improvement; 5: Year 5 of School Improvement.

describes the schools that were designated as Title I schools in need of improvement at the end of the 2003-2004 to the 2008-2009 school year.

Research Design

This comparative analysis chronicle patterns in student and school characteristics and the achievement outcomes of the schools within Guilford County School District sending or receiving students under the NCLB public school choice provision from the 2007-2008 school year to the 2009-2010 school year and demographic data of the schools within the Guilford County School District sending or receiving students under the NCLB public school choice provision from the 2007-2008 school year to the 2008-2009 school year. Case study research is used when a case itself is of very special interest (Stake, 1995). Stake expands his explanation of case study by stating that for the most part in education the case study approach is used to observe and understand people and programs (Stake, p. 46). In order to understand the effects of implementing mandated public school choice, results from the NCLB public school choice provision must be studied. The researcher had personally implemented mandated public school choice in a school for the first time when appointed to a school in its third year of NCLB Title I School Improvement. For this reason, this study moved from a more generalized cased study to a specific case study to a specific and personal intrinsic case study (Stake). This happens when a researcher is interested in a particular case, not only because of a

general problem, but also because there is a need to learn about the particular case.

All data were gathered for this comparative analysis by assessing and synthesizing information from district demographic data, student assignment data, and assessment data. Descriptive statistics will be used to organize and describe the characteristics of this collection of data for the case study. Descriptive statistics involve summarizing, tabulating, organizing, and graphing, data for the purpose of describing a sample of objects or individuals that have been measured or observed. In descriptive statistics, no attempt is made to infer the characteristics of objects or individuals that have not been measured or observed (Jaeger, 1993). Thus, using descriptive statistics allows the researcher to represent the characteristics of a large collection of data such as student demographic data and school achievement data.

This study will also involve a secondary analysis of data previously collected for another purpose. The data are school/student demographic and achievement data. This study uses student demographic data provided by the district. Student demographic data for students participating in NCLB public school choice is collected throughout the school year by the district's Student Assignment Office to track NCLB public school choice participation as students transfer. Student demographic data for NCLB public school choice participation is reported to the Guilford County School District administration and Board of Education. This study uses student achievement data provided by the North

Carolina Department of Public Instruction available to the public after state tests are administered. Student achievement data is shared with LEAs and the public to report proficiency of skills from the North Carolina Standard Course of Study. Student demographic data were used to track the demographic characteristics of the students participating in public school choice and the demographic shifts associated with schools sending and receiving transfer students under the choice provisions of NCLB. School and district assessment data provided by the North Carolina Department of Instruction were used to determine the effects of NCLB public school choice on the AYP subgroups, AYP outcomes and proficiency percentages of the schools sending and receiving transfer students under the choice provisions of NCLB. Tables and graphs will display NCLB AYP achievement outcomes of the schools sending and receiving transfer students under the choice provisions of NCLB to illustrate the relationship between NCLB public school choice AYP performance of sending and receiving schools.

Case Study District

In the case study district, NCLB public school choice was offered to students in twelve schools identified as in need of improvement—nine elementary schools and three middle school during the 2007-08 school year and 15 schools identified as in need of improvement—12 elementary schools and three middle school during the 2008-09 school year.

Description of the District

The Guilford County School District is the third largest school district in North Carolina serving more than 71,000 students. The second largest employer in a 12-county area; the Guilford County School District has more than 10,000 full- and part-time employees who share the district's mission: "Guilford County Schools will graduate responsible citizens prepared to succeed in higher education or the career of their choice" (Retrieved March 4, 2009, from http://www.gcsnc.com).

Of the district's 120 schools Guilford County includes two major cities, Greensboro and High Point, twelve municipalities, and a range of suburban and rural areas, 68 are elementary, serving grades K through 5, and in some instances, Pre-K through 5. To assist working parents, after-school care is offered at many elementary schools throughout the county. The district also has 21 middle schools and 25 high schools. In addition, special programs are offered at five additional sites: two special education schools (Gateway and McIver special education centers), two School/Community Alternative Learning Environments (SCALE) sites, which provide an alternative to long-term suspensions and Saturn Academy, which offers high school students a flexible schedule to complete graduation requirements.

Because this is a case study, results are not generalizable to the state or the nation. However, it is important to note the major attributes of the district and how they compare to those of the state as a whole. This comparison allows one

to understand to what extent the district is or is not an outlier in the state. This section provides some general information about the district and its student performance. Table 12 describes the average number of students in schools in the Guilford County School District and the state of North Carolina for the 2007-2008 school year.

Student Demographics and Performance

Table 13 describes the number of schools and average enrollment for the Guilford County School District and its state in the 2007-08 school year that were taken from publicly available state and district documents. The Guilford County School District's average enrollment was relatively similar to those of its state.

The Guilford County School District students' proficiency on state End-of-Grade assessments in reading and math in 2007-08 tended to be comparable to the state. Tables 14 and 15 present state and district student performance relative to the state's End-of-Grade assessments in 2007-08. Table 16 presents state and district student proficiency on state End-of-Grade assessments by subgroup in 2007-08. Subgroup proficiency on state End-of-Grade assessments were relatively similar to those of its state, although the Guilford County School District was 5.0 percentage points or more above the state for the American Indian and White subgroups and 9.1 percentage points below the state for the Asian/Island Pacifier subgroup.

Table 12

Number and Average Enrollment, District and State Comparison, 2007-08

School	Number of Schools in Guildford County	Average Enrollment	State
Elementary	68	492	513
Middle	21	781	662
High	25	821	854

Table 13

Proficiency in Reading on State End-of-Grade Assessments, District and State Comparison, 2007-08

Grade Level	Guilford County Schools	State
Grade 3	52.2%	54.5%
Grade 4	55.9%	59.2%
Grade 5	54.4%	55.6%
Grade 6	60.6%	59.3%
Grade 7	51.8%	51.1%
Grade 8	51.2%	54.2%

Table 14

Proficiency in Math on State End-of-Grade Assessments, District and State Comparison, 2007-08

Grade Level	Guilford County Schools	State
Grade 3	72.8%	73.2%
Grade 4	71.7%	72.8%
Grade 5	71.9%	69.6%
Grade 6	71.1%	68.2%
Grade 7	69.0%	67.3%
Grade 8	66.8%	68.2%

Table 15

Proficiency on State End-of-Grade Assessments by Subgroup, Grades 3-8 Combined, District and State Comparison, 2007-08

Subgroup	Guilford County Schools	State
All students	50.2%	50.9%
Race/ethnicity		
African American	32.5%	29.5%
Hispanic	35.5%	34.6%
American Indian	45.1%	34.6%
Asian/Pacific Islander	56.8%	65.9%
White	71.3%	64.4%
Multi-racial	51.8%	51.7%
Sex		
Male	47.8%	48.6%
Female	52.8%	53.2%
Economically Disadvantaged Status		
Economically Disadvantaged	32.3%	33.3%
Non-Disadvantaged	68.1%	66.9%
Students with Limited English Proficiency	19.6%	19.8%
Students with Disabilities	22.6%	21.3%

Table 16

NCLB School Sanction Sequence for Guilford County Schools Title I Schools

After Year 1 of not making AYP	Watch List	Watch List
After Year 2 not making AYP in the same subject	Year 1 of Improvement • Public School Choice • Improvement Plan • Technical Assistance	Year 1 of Improvement • Supplemental Educational Services • Improvement Plan • Technical Assistance
After Year 3 not making AYP in the same subject	Year 2 of Improvement • Public School Choice • Improvement Plan • Technical Assistance • Supplemental Educational Services	Year 2 of Improvement • Supplemental Educational Services • Improvement Plan • Technical Assistance • Public School Choice
After Year 4 not making AYP in the same subject	Year 3 of Improvement • Public School Choice • Improvement Plan • Technical Assistance • Supplemental Educational Services • Corrective Action	Year 3 of Improvement • Supplemental Educational Services • Improvement Plan • Technical Assistance • Public School Choice • Corrective Action
After Year 5 not making AYP in the same subject	Year 4 of Improvement • Public School Choice • Improvement Plan • Technical Assistance • Supplemental Educational Services • Corrective Action • Plan for Restructuring	Year 4 of Improvement • Supplemental Educational Services • Improvement Plan • Technical Assistance • Public School Choice • Corrective Action • Plan for Restructuring

Table 16

NCLB School Sanction Sequence for Guilford County Schools Title I Schools

(continued)

After Year 1 of not making AYP	Watch List	Watch List
After Year 6 not making AYP in the same subject	Year 5 of Improvement • Public School Choice • Improvement Plan • Technical Assistance • Supplemental Educational Services • Corrective Action • Implement Restructuring Plan	Year 5 of Improvement • Supplemental Educational Services • Improvement Plan • Technical Assistance • Public School Choice • Corrective Action • Implement Restructuring Plan

Description of Database

For the purpose of this study only elementary middle school demographic data were analyzed. Student demographic information was provided by the district's Student Assignment Office. As students were approved for reassignment under the provisions of public school choice, a database of demographic data were updated to track demographic shifts as students elected to attend identified schools of choice outside of their attendance zone. The researcher had secure access to this administrative data from Guilford County Schools including choice form information for every student who submitted a form from the 2004-2005 to the 2008-2009 school year. Students must submit an application form for reassignment and be approved for reassignment by the Student Assignment Office prior to attending the choice school of their choice. As prescribed by NCLB policy, students must be given a minimum of two schools of choice. The researcher also had information on student and school locations. The researcher used the student-level data to construct school characteristics. These characteristics include percent by gender, percent by ethnicity, and by grade level. I focused on elementary and middle schools (students in K-8th grades), since there were no Title I high schools in the Guilford County School District.

School Level Data File

The district provided data on school enrollment, student population demographics, school proficiency percentages on state End-of-Grade

assessments, and school AYP status. The files included the following variables for the 2007-08 and 2008-09 school years: grade span served, AYP status, percentage of students proficient on state End-of-Grade assessments by subgroup, percentage of students in racial/ethnic categories—African American, American Indian, Asian, Hispanic, Multi-racial, and White.

Student Data Files

The district provided two student data files. The first included all students who had transferred under the NCLB public school choice provision for the 2007-08 school year. The second data set included all students who had transferred under the NCLB public school choice provision for the 2008-09 school year. For each student, the files included gender, grade, race/ethnicity, student identification number, school attendance zone, and actual school assignment. In all, 904 students in 2007-08 and 1103 in 2008-09 students transferred under the NCLB public school choice provision.

Methodology

This section describes the methods that were used to investigate the study's research questions:

Research Question One

What are the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB?

When examining NCLB public school choice implementation, it is important to note whether certain types of students are participating in the provision. The available data were used to describe and analyze the characteristics of the students who elected to transfer under the NCLB public school choice provision. Data were used to investigate trends in the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB.

Research Question Two

What was the impact on AYP outcomes for sending and receiving schools as a function of offering NCLB public school choice?

The available data were used to conduct a casual comparative analysis of the NCLB achievement outcomes of the schools required to offer school choice and the schools identified to receive the students who chose to transfer. To employ the casual comparative model, artificial and actual AYP outcomes were compared. Artificial AYP outcomes were created by excluding school choice students from the AYP calculations of the schools receiving school choice students and then recalculating the AYP results for the schools receiving school choice students with the transfer student excluded. Further, artificial AYP outcomes were created by adding the students who elected to transfer under the school choice provision to their attendance zone school AYP calculations and then recalculating the results for transfer student's attendance zone schools.

Table 17 describes the artificial AYP results in detail and the how they compare with actual AYP results.

Using the student level-files provided by the district the student identification numbers from the students who elected to transfer under the NCLB public school choice provision were used to remove these students from the NCLB AYP calculations for the schools who received these students. Then with these students removed from the NCLB AYP calculations from the schools who received public school choice students, NCLB AYP results were re-calculated and compared to the official NCLB AYP results with these students included in the NCLB AYP calculations. Using the student level-files provided by the district the student identification numbers from the students who elected to transfer under the NCLB public school choice provision were used to add these students to the NCLB AYP calculations for the schools slated to receive these students based on their attendance zone school assignment. Then with these students added to the NCLB AYP calculations for the schools slated to receive these students based on their attendance zone school assignment, NCLB AYP results were re-calculated and compared to the official NCLB AYP results with these students not included in the NCLB AYP calculations. Table 18 provides a list of the variables used in the analyses with their definitions for NCLB AYP calculations.

Table 17

Sending and Receiving Schools AYP Artificial and Actual Calculations

Schools Identified to Offer School Choice		Schools Identified to Receive Choice Students	
Students in AYP Calculations		Students in AYP Calculations	
Artificial AYP Results	*Actual AYP Results*	*Artificial AYP Results*	*Actual AYP Results*
Students in tested grade levels assigned to the school based on their attendance zone who elected to transfer under the school choice provision Students assigned to the school in tested grade levels	Students assigned to the school in tested grade levels	Students who elected to transfer under the school choice provision attending the school were excluded Students assigned to the school in tested grade levels	Students assigned to the school in tested grade levels

Table 18

Definition and Values of the NCLB Variables

Variable Name	Definition
Tested Grade Levels	Grade levels where state End-of-Grade assessments are administered
Receiving School	Schools identified to receive school choice students
Sending School	Schools in Title I school improvement required to offer school choice
AYP Targets	Proficiency targets for student groups in the tested grades in reading/language arts and math and each student group must have at least a 95 percent participation rate in the assessments for both subjects
AYP Subgroups	Student groups of 40 or more students
Number of AYP Targets	Number of proficiency targets for student groups
Number of AYP Subgroups	Number of student groups with 40 or more students
Percentage of Students Proficient	Percentage of students proficient on state tests in reading/language arts and math
Number of AYP Targets Made	Number of proficiency or participation AYP targets met
Number of AYP Targets Missed	Number of proficiency or participation AYP targets missed
Percentage of AYP Targets Made	Percentage of proficiency or participation AYP targets met

Study Limitations

Although insightful in capturing a school district's implementation of NCLB Public school choice, this study has limitations that should be noted. First, the study tracked district implementation for only two years. There is potential for the results from NCLB public school choice implementation to change over time as more schools are identified to offer school choice or receive school choice students. Second, the estimated effects on AYP achievement outcomes do not control for school or teacher conditions that may influence student achievement. For example, school conditions such as peer influence and quality of school environment may influence student achievement. Further, teacher conditions such as teacher and student relationship or quality of instruction may influence student achievement as well. Finally, because this is a case study of one district, the findings concerning the impact of the NCLB public school choice implementation may not represent the experience of other school districts. States and LEAs have different policies, procedures and interpretations regarding the NCLB school choice provision. Thus, results are not generalizable to all schools and districts in the United States. The following chapters present the results of the study's analyses.

CHAPTER 4: DATA ANALYSIS

This study examined the grade level, gender, achievement and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB. It also explored the impact on NCLB AYP outcomes for sending and receiving schools as a function of offering NCLB public school choice. The context for the study was the Guilford County School District, a large school district in central North Carolina. The research design was a non-experimental descriptive case study. The data collected on NCLB school choice participation were obtained from the district's student assignment office. The data collected on NCLB AYP achievement outcomes was obtained from the district's student assessment and evaluation office.

The purpose of this chapter is to report the findings from the data analysis. This chapter describes the demographic and achievement levels of students electing to opt-out of their assigned attendance zoned school under the NCLB choice school provision. Under the school choice provision of NCLB, schools receiving federal Title I funding designated as schools in need of Title I School Improvement under the federal NCLB legislation for successive years of low test scores on state standardized tests must offer public school choice. These options are referred to as mandated public school choice. To exit Title I school improvement a school must meet 100% of their NCLB AYP targets in the area(s) identified in need of improvement for two consecutive years. NCLB targets are set at the state level for the number of students to be proficient on state

standardized tests for all subgroups of students. This chapter also describes artificial and actual achievement AYP outcomes for schools required to offer NCLB public school choice and schools identified to receive students who elected to participate in NCLB public school choice.

For this study, schools required to offer public school choice were referenced as sending schools. Students in sending schools with the aforementioned public school choice mandate could attend another school outside of their prescribed attendance zone. When schools are mandated to offer public school choice, the school district must offer parents and guardians the option to choose another school outside of their attendance zone. The attendance zone school is the school the student is assigned to determined by the student's home address in the district. The district must designate two schools with comparable grade levels to receive the students from each school mandated to offer NCBL public school choice. School designated to receive students from sending schools are referenced as receiving schools. The district may designate a receiving school to accept students from more than one sending school. A receiving school cannot be a Title I school in school improvement. Both sending schools required to offer NLCB public school choice and receiving schools identified to receive NCLB public school choice students were described.

NCLB AYP achievement outcomes, both actual and artificial were compared. Artificial AYP results were constructed by including NCLB school choice opt-out students in their assigned attendance zone school AYP

calculations and removing them from the receiving schools' AYP calculations. Opt-out students are students who were assigned to a Title I school required to offer NCLB public school choice and who opted to attend another school identified by the school district as a receiving school for that particular school in Title I school improvement. In other words, this calculation allowed a prediction of the NCLB AYP performance without NCLB school choice. These data were used to investigate another key research question about NCLB public school choice implementation: what is the impact of NCLB public school choice on NCLB AYP achievement outcomes for schools.

Student Participation in NCLB School Choice

Demographic data were collected for three academic school years: 2007-08, 2008-09 and 2009-10. The 2009-10 data reflect NCLB school choice participation on the 20th day of the school year for the 2009-10 school year. The data on student participation included four characteristics- grade level, ethnicity, gender, and achievement level for all students who opted to transfer schools under the NCLB public school choice provision at the time the choice to transfer to a receiving school was made. The data set enabled a comparison between students who transferred and those who were eligible to transfer but did not. These data were used to investigate one of the key research questions about NCLB public school choice implementation: what is the grade level, gender, achievement level and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB.

Table 19 presents the number of students who were eligible to participate in NCLB public school choice, the number of students who elected to participate and the percent of participation for the 2007-08, 2008-09 and 2009-10 school years. During this three school year period an average of 1,128 students participated in NCLB public school choice. The number of students who participated in NCLB public school choice increased slightly from the 2007-08 school year to the 2008-09 school year and decreased slightly from the 2008-09 school year to the 2009-10 school year. However, the number of students eligible increased significantly as more schools were required to offer NCLB public school choice each year during the three year span studied. Further, the percentage of students who participated in NCLB public school choice compared to the number of eligible decreased each year as more students were eligible. For example, the percentage of students who participated compared to the number of students eligible decreased from 22% during the 2007-08 school year to 15% during the 2009-10 school year. During the 2007-08 school year, 22% of the 4,752 students eligible to participate in NCLB public school choice opted to participate and attend an identified receiving school. The following school year, 17% of the students eligible to participate in NCLB public school choice opted to attend an identified receiving school during the 2008-09 school year and 15% for the 2009-10 school year. Table 20 presents the number of students who participated in NCLB public school choice for the first time during the 2008-09 and 2009-10 school years. During the 2008-09 school year, 576 students

Table 19

NCLB Public School Choice Eligibility and Participation

School Year	Number of Eligible Students	Number of Students Who Participated	Percent Participated
2007-08	4,752	1,061	22%
2008-09	6,521	1,122	17%
2009-10	7,389	1,102	15%

Table 20

New Students Who Participated in NCLB Public School Choice

2007-08 School Year	2008-09 School Year		2009-10 School Year	
Number of Students Who Participated	Number of Students Who Participated	New Students Who Participated	Number of Students Who Participated	New Students Who Participated
1,061	1,122	576	1,102	483

participated in NCLB public school choice for the first time while 546 students participated who participated the previous year. During the 2009-10 school year, 483 students participated in NCLB public school choice for the first time while 619 students participated who participated the previous year. There were 308 students who participated in NCLB public school choice all three school years studied.

Grade Level Participation

Table 21 presents the number of students who participated in NCLB public school choice during the 2007-08, 2008-09 and 2009-10 school years. It is important to note that in the Guilford County School District, students in grades kindergarten through eight were eligible to transfer under the NCLB public school choice provision during this three school year span. At the time, there was only one Title I school in the district serving grades nine through twelve and this school was not in Title I school improvement. As a result, all of the students offered NCLB public school choice were in grades kindergarten through eight. In the Guilford County School District students in grades kindergarten through five are served at elementary schools and students in grades six through eight are served in middle schools. Most of the students who participated in NCLB public school choice were elementary aged students. Between the three school year span studied from 2007-08 and 2009-10, over 60% of the students who participated were elementary aged students each year. For example, for the

Table 21

Grade Level NCLB Public School Choice Participation

	2007-08			2008-09			2009-10		
Grade	N Eligible	N Participated	%	N Eligible	N Participated	%	N Eligible	N Participated	%
K	523	86	16%	747	77	10%	914	63	7%
1	568	123	22%	761	106	14%	957	92	10%
2	471	145	31%	756	142	19%	981	122	12%
3	517	144	28%	733	152	21%	1,008	135	13%
4	447	124	28%	709	146	21%	918	140	15%
5	447	128	29%	672	129	19%	894	142	16%
6	629	96	15%	575	126	22%	568	138	24%
7	595	116	19%	588	116	20%	547	132	24%
8	555	99	18%	598	128	21%	575	138	24%
Total	4,752	1,061	22%	6,521	1,122	17%	7,389	1,102	15%

2008-09 school year, approximately 67% of the 1,122 students who participated in NCLB public school choice were elementary aged students. There was minimal variance in male and female participation across all grade levels. During the 2007-08 school year the percentage of students who participated in NCLB public school choice compared to the number of students eligible to participate was slightly higher in grades two through four. During the 2008-09 school year the percentage of students who participated in NCLB public school choice compared to the number of students eligible to participate was comparable in most grade levels except for kindergarten and first grade. During the 2009-10 school year the percentage of students who participated in NCLB public school choice compared to the number of students eligible to participate was significantly higher in grades six through eight. Middle school students had much higher participation rates than elementary students during the 2009-10 school year. Over the three year span, kindergarten and first grade students tended to have much lower participation rates.

Table 22 presents the number of students who participated in NCLB public school choice during the 2007-08, 2008-09 and 2009-10 school years by grade level disaggregated by ethnicity and gender. Across all grade levels, the majority of students who participated in NCLB public school choice were African American. Participation rates for African American students reflected the large percentage of African American students eligible to participate in NCLB public school choice. In most of the schools required to offer NCLB public school choice

Table 22

Number of Students Participating in NCLB Public School Choice by Gender and Ethnic Group

		American Indian			Asian			Black			Hispanic			Multi-Racial			White		
Level	Total N	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
2007-08 School Yr																			
Elementary Total	750	4	3	7	29	31	60	238	253	491	25	31	56	17	20	37	45	54	99
Middle Total	311	1		1	1	5	6	113	121	234	6	21	27	5	5	10	14	19	33
2008-09 School Yr																			
Elementary Total	751	2	7	9	20	17	37	259	249	508	21	25	46	17	21	38	65	48	113
Middle Total	371	1		1		12	12	128	140	268	7	14	21	14	11	25	18	26	44
2009-10 School Yr																			
Elementary Total	694	1	2	3	13	16	29	216	229	445	29	19	48	25	25	50	63	56	119
Middle Total	408	2		2	2	11	13	141	158	299	13	15	28	15	13	28	19	19	38

Note. F=Female, M=Male, and T=Total.

African American students made up at least 80% of the student population. Across all grade levels, there was a slight margin of participation for male students while eligibility for participation was mostly balanced among male and female students. There was a higher margin of participation for African American males across all grade levels. For white students, the second largest ethnic group who participated in NCLB public school choice, there were more female students at the elementary level compared to male students.

Ethnicity

Figure 9 highlights the demographic data for the Guilford County School District during the three school year span examined. During this period of time, the majority of the students in the district were African American and white. Of the students who elected to participate in NCLB public school choice most were African American. For example, during the 2009-10 school year, 68% of the 1,102 students who participated in NCLB public school choice were African American which was reflective of previous years. It is important to note that many of the schools required to offer public school choice had a student population that was majority African American. Figure 10 illustrates the number of students who participated in NCLB public school choice by ethnicity between the 2007-08 school year and the 2009-10 school year. African American students accounted for 68% of all the students who participated in NCLB public school choice from 2007-08 school year and the 2009-10 school year. While African American students accounted for the majority of the students who participated in NCLB

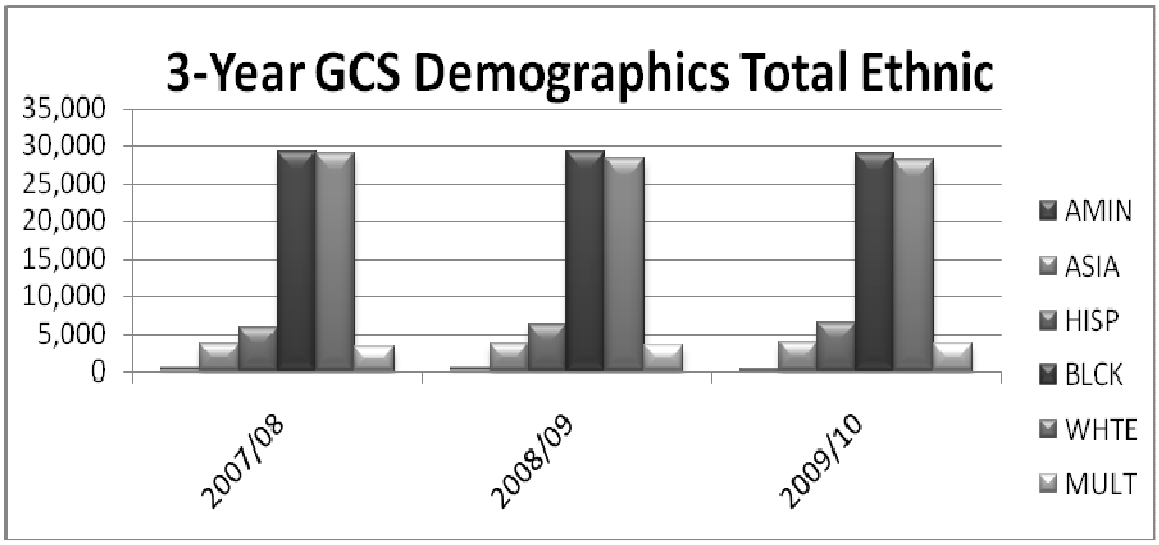

Figure 9. Guilford County School District 3-year demographic data.

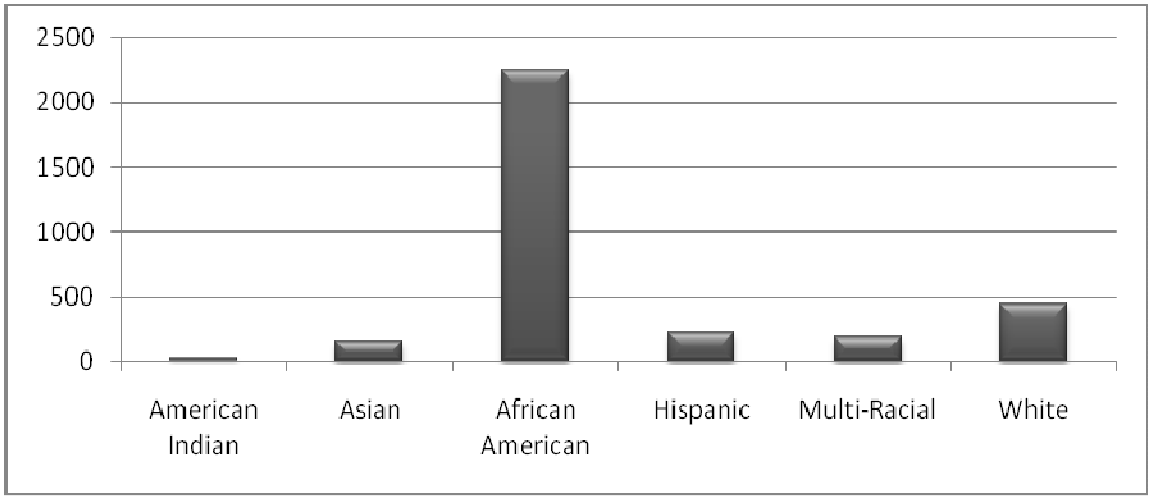

Figure 10. 3-year participation in NCLB Public School Choice by ethnicity.

public school choice, over 85% of the students who were eligible for NCLB public school choice were minority students and over 80% of the students eligible for NCLB public school choice were African American. Table 23 captures the number of students eligible for NCLB public school choice for the 2007-08 school year for each sending school with the percentage of students that were white and minority. NCLB public school choice participation and eligibility for participation was consistent across grade levels by ethnicity. While participation and eligibility for participation were consistent across grade levels by ethnicity for African Americans, the largest participating ethnic group, male participation was slightly higher than female participation.

Gender

Generally, there was a slightly higher margin of NCLB public school choice participation for male students compared to female students. On average, 565 male students participated in NCLB public school choice and 532 female students each school year. Table 24 highlights male and female participation in NCLB public school choice during the three school span studied. At the elementary school level were more students were eligible for participation compared to the middle school level, more female students (51%) participated compared to male students during the 2008-09 school year. More male students (52%) participated the 2007-08 school year and the number of students who participated during the 2009-10 school year were equal among female and male students. At the middle school level, male students participated in NCLB public

Table 23

Students Eligible for NCLB Public School Choice for the 2007-08 School Year for Each Sending School

School	*N*	*N* White	% White	*N* Minority	% Minority
Bessemer Elementary	422	13	3	409	97
Ferndale Middle	662	166	25	496	75
Gillespie Elementary	253	4	2	249	98
Hairston Middle	652	5	1	647	99
Hampton Elementary	292	0	0	292	100
Jackson Middle	465	23	5	442	95
Kirkman Park Elementary	190	17	9	173	91
Northwood Elementary	532	124	23	408	77
Rankin Elementary	570	45	8	525	92
Union Hill Elementary	293	16	5	277	95
Washington Elementary	186	0	0	186	100
Wiley Elementary	235	2	1	233	99
Total	4,752	415	9	4,337	91

Table 24

NCLB Public School Choice Participation by Gender

School Year	2007-08				2008-09				2009-10			
	Females		Males		Females		Males		Females		Males	
Level	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Elementary	358	48%	392	52%	384	51%	367	49%	347	50%	347	50%
Middle	140	45%	171	55%	168	45%	203	55%	192	47%	216	53%
Total	498	47%	563	53%	552	49%	570	51%	539	49%	563	51%

school choice each school year with 55% of the participation the two school years and 53% of the participation for the following school year. With elementary and middle school students combined, more male students participated each school year with 53% of the participation the first school year and 51% of the participation for the following school years.

Student Achievement Levels

Student achievement level data for students who opted to participate in NCLB public school choice were collected for three academic school years: 2007-08, 2008-09 and 2009-10. Student achievement levels reflect the achievement levels of the students when the choice to participate was made. In the Guilford County School District, NCLB school choice options are typically offered late July to early August after the North Carolina State Board of Education releases preliminary NCLB AYP results. Thus, when choice options are made achievement levels for students reflect the achievement on state standardized tests administered in the spring of the previous year. In North Carolina, state standardized test administration begins three weeks prior to the close of school. Students in grades three through eight are administered a North Carolina End-of-Grade (EOG) assessment in math and reading. Students in grades three and five are administered a North Carolina End-of-Grade assessment in science. Table 25 illustrates the content area and grade level EOG test administration for grades 3-8. The North Carolina EOG tests are designed to measure student performance on the goals, objectives, and grade-

Table 25

Content and Grade Level NC EOG Test Administration

	Grade Level					
Content Area	3	4	5	6	7	8
Reading	x	x	x	x	x	x
Math	x	x	x	x	x	x
Science			x			x

level competencies specified in the *North Carolina Standard Course of Study*. The *North Carolina Standard Course of Study* includes the curriculum that should be made available to every child in North Carolina's public schools. The *North Caroline Standard Course of Study* outlines the standards to be mastered at each grade level and content area for the public and charter schools of North Carolina. North Carolina EOG tests in reading comprehension, mathematics, and science are multiple-choice tests given in the final three weeks of school. For the purpose of this study, science results are not examined as science results are not used to calculate AYP performance and science tests are only administered at one grade level for elementary and middle schools. For grades 3–8, the mathematics EOG test is administered in two parts: calculator active and calculator inactive. Students are allowed to use calculators during the calculator active part of the test; students are not allowed to use calculators during the calculator inactive part of the test. After test administration, each student is assigned a scale score for each test. The scale score is determined by the number of questions the student answered correctly which is converted into a raw score. The raw score is converted to a developmental scale score. The developmental scale score depicts growth in reading or mathematics achievement from year to year. It is important to note that the range of reading scores differs from the range of mathematics scores. One of four possible achievement levels are assigned in relation to the developmental scale. Achievement levels are predetermined performance standards that allow the

student's performance to be compared to grade-level expectations. Four achievement levels (levels I, II, III, and IV) are reported in reading and math. Table 26 and 27 present the achievement levels for reading and math during the three school year period examined. It is important to note that scale score ranges were revised during the 2007-08 school year for reading.

For the context of this study, only reading and math North Carolina EOG assessment data were presented. It is important to note that in grades three through eight, North Carolina EOG math and reading assessment data are also used to calculate NCLB AYP performance. While students in grades kindergarten through eight were eligible for NCLB public school choice participation if their assigned attendance zone school was required to offer public school choice, achievement levels were only available for students in grades four through eight from the previous school year on North Carolina EOG tests.

Tables 28 and 29 present the number of students who participated in NCLB public school choice for the 2007-08 school year at each achievement level on the North Carolina EOG tests in reading and math. Achievement levels were calculated using achievement levels from the 2006-07 school year North Carolina EOG testing data. Of the students who opted to participate in NCLB public school choice during the 2007-08 school year the majority were at proficiency, level three, or higher in both math and reading. In reading, 71% of the students who participated scored level three or higher. More of the proficient

Table 26

North Carolina Math End-of-Grade Achievement Levels

	Developmental Scale Scores			
Grade	Level I	Level II	Level III	Level IV
3	311-328	329-338	339-351	352-370
4	319-335	336-344	345-357	358-374
5	326-340	341-350	351-362	363-378
6	328-341	342-351	352-363	364-381
7	332-345	346-354	355-366	367-383
8	332-348	349-356	357-367	368-384

Table 27

North Carolina Reading End-of-Grade Achievement Levels

	Developmental Scale Scores			
Grade	Level I	Level II	Level III	Level IV
3	≤ 330	331-337	338-349	≥ 350
4	≤ 334	335-342	343-353	≥ 354
5	≤ 340	341-348	349-360	≥ 361
6	≤ 344	345-350	351-361	≥ 362
7	≤ 347	348-355	356-362	≥ 363
8	≤ 349	350-357	358-369	≥ 370

Note. Revised 2007-08.

Table 28

2006-07 End-of-Grade Reading Number and Percentage of NCLB School Choice Opt-Out Student Scores at Each Achievement Level by Grade

		I		II		III		IV	
2007-08 Grade	Total N	N	%	N	%	N	%	N	%
Grade 3	5	1	20.0	1	20.0	3	60.0		0.0
Grade 4	108	11	10.2	22	20.4	48	44.4	27	25.0
Grade 5	117	7	6.0	34	29.1	48	41.0	28	23.9
Grade 6	83	2	2.4	15	18.1	45	54.2	21	25.3
Grade 7	103	7	6.8	19	18.4	66	64.1	11	10.7
Grade 8	87	4	4.6	22	25.3	46	52.9	15	17.2
Total	503	32	6.4	113	22.5	256	50.9	102	20.3

Table 29

2006-07 End-of-Grade Math Number and Percentage of Scores at Each Achievement Level by Grade

		I		II		III		IV	
2007-08 Grade	Total N	N	%	N	%	N	%	N	%
Grade 3	5	1	20.0	2	40.0	2	40.0	0	0.0
Grade 4	108	18	16.7	29	26.9	53	49.1	8	7.4
Grade 5	117	15	12.8	42	35.9	50	42.7	10	8.5
Grade 6	83	13	15.7	24	28.9	42	50.6	4	4.8
Grade 7	103	11	10.7	40	38.8	41	39.8	11	10.7
Grade 8	87	22	25.3	28	32.2	33	37.9	4	4.6
Total	503	80	15.9	165	32.8	221	43.9	37	7.4

Note. Reading and math scores were not available for sixty-five (65) students in grades four through eight. Five (5) students repeated grade 3.

students in reading were in grades four and five. In math, the margin was much more narrow with 51% of the students participating scoring level three or higher. More of the proficient students in math were in grades four through six. Tables 30 and 31 present the number of students participating in NCLB public school choice for 2008-09 school year at each achievement level on the North Carolina End-of-Grade tests in reading and math. Achievement levels were calculated using achievement levels from the 2007-08 school year testing data. Of the students who opted to participate in NCLB public school choice during the 2008-09 school year the majority were at proficiency, level III, or higher in math and but below the proficiency level in reading. In reading, 41% of the students who participated scored level III or higher. More of the proficient students in reading were in grades five and six. In math, the number of students who participated scoring level III or higher was much greater with 59% at level III or higher. More of the proficient students in math were in grades four and five. Tables 32 and 33 illustrate the number of students who participated in NCLB public school choice for the 2009-10 school year at each achievement level on the North Carolina EOG tests in reading and math. Achievement levels were calculated using achievement levels from the 2008-09 school year North Carolina EOG testing data. Of the students who opted to participate in NCLB public school choice during the 2009-10 school year the majority were at proficiency, level III, or higher in both math and reading. In reading, 54% of the students who participated scored level three or higher. More of the proficient students in

Table 30

2007-08 End-of-Grade Reading Number and Percentage of NCLB School Choice Opt-Out Student Scores at Each Achievement Level by Grade

		I		II		III		IV	
2008-09 Grade	Total N	N	%	N	%	N	%	N	%
Grade 3	3	3	100.0	0	0.0	0	0.0	0	0.0
Grade 4	132	54	40.9	26	19.7	34	25.8	18	13.6
Grade 5	116	27	23.3	31	26.7	45	38.8	13	11.2
Grade 6	117	31	26.5	37	31.6	41	35.0	8	6.8
Grade 7	103	30	29.1	31	30.1	36	35.0	6	5.8
Grade 8	116	25	21.6	46	39.7	35	30.2	10	8.6
Total	587	170	29.0	171	29.1	191	32.5	55	9.4

Table 31

2007-08 End-of-Grade Math Number and Percentage of NCLB School Choice Opt-Out Student Scores at Each Achievement Level by Grade

		I		II		III		IV	
2008-09 Grade	Total N	N	%	N	%	N	%	N	%
Grade 3	2	1	50.0	1	50.0	0	0.0	0	0.0
Grade 4	132	21	15.9	30	22.7	62	47.0	19	14.4
Grade 5	116	10	8.6	29	25.0	59	50.9	18	15.5
Grade 6	117	14	12.0	36	30.8	51	43.6	16	13.7
Grade 7	103	14	13.6	35	34.0	42	40.8	12	11.7
Grade 8	116	13	11.2	38	32.8	54	46.6	11	9.5
Total	586	73	12.5	169	28.8	268	45.7	76	13.0

Note. Reading and math scores were not available for sixty-two (62) students in grades four through eight. Three (3) students repeated grade 3.

Table 32

2008-09 End-of-Grade Reading Number and Percentage of NCLB School Choice Opt-Out Student Scores at Each Achievement Level by Grade

2009-10		I		II		III		IV	
Grade	Total N	N	%	N	%	N	%	N	%
Grade 3	4	4	100.0	0	0.0	0	0.0	0	0.0
Grade 4	131	39	29.8	24	18.3	54	41.2	14	10.7
Grade 5	129	27	20.9	22	17.1	60	46.5	20	15.5
Grade 6	130	27	20.8	25	19.2	70	53.8	8	6.2
Grade 7	129	31	24.0	39	30.2	44	34.1	15	11.6
Grade 8	127	26	20.5	34	26.8	51	40.2	16	12.6
Total	650	154	23.7	144	22.2	279	42.9	73	11.2

Table 33

2008-09 End-of-Grade Math Number and Percentage of NCLB School Choice Opt-Out Student Scores at Each Achievement Level by Grade

2009-10		I		II		III		IV	
Grade	Total N	N	%	N	%	N	%	N	%
Grade 3	4	2	50.0	2	50.0	0	0.0	0	0.0
Grade 4	131	8	6.1	33	25.2	67	51.1	23	17.6
Grade 5	129	5	3.9	21	16.3	80	62.0	23	17.8
Grade 6	130	7	5.4	29	22.3	69	53.1	25	19.2
Grade 7	129	8	6.2	39	30.2	69	53.5	13	10.1
Grade 8	127	13	10.2	25	19.7	76	59.8	13	10.2
Total	650	43	6.6	149	22.9	361	55.5	97	14.9

Note. Reading and math scores were not available for forty-four (44) students in grades four through eight. Four (4) students are repeating grade 3.

reading were in grades five and six. In math, the margin was much wider with 70% of the students participating scoring level III or higher. More of the proficient students in math were in grades five and six. Overall, more students who scored at proficiency, level III or higher, participated in NCLB public school choice and of the proficient students most were in grades four and five during the three school year period studied. It is important to note that grades four and five are served at the elementary level and there were significantly more elementary schools required to offer NCLB public school choice compared to middle schools which serve grade six through eight only. The trends in participation lean toward math in terms of level III or higher participation. However, it is evident that higher performing students at proficiency or above participated in NCLB public school choice. Among the students scoring below proficiency, level II or below, more students were in the level two range.

Table 34 presents the percentage of students at proficiency on the North Carolina EOG tests in math and reading for the sending schools required to offer NCLB public school choice at the time students made their choice to participate in NCLB public school choice. The proficiency percentages were used to estimate the number of students eligible to participate in NCLB public school choice during the three school year span studied. All students did not participate in EOG testing during this time period for the sending school required to offer NCLB public school choice. For example, students in grades kindergarten through second did not participate in End of Grade testing and some other

Table 34

Sending Schools Reading and Math NC EOG Proficiency

School	Reading 2007	Reading 2008	Reading 2009	Math 2007	Math 2008	Math 2009
Allen Jay E	77.2	29.4	41.3	54.4	53.8	64.7
Bessemer E	60.8	25.5	42.2	46.2	45.5	61.8
Fairview E	63.5	29.0	33.2	50.6	63.7	60.6
Ferndale M	74.0	32.9	53.0	42.0	51.3	68.1
Gillespie Park E	66.1	29.1	38.1	43.0	42.5	59.0
Hairston M	71.6	27.1	38.1	47.4	46.6	58.4
Hampton Academy	69.1	24.2	36.0	38.1	40.3	58.1
Jackson M	69.7	30.8	39.8	34.2	51.8	62.5
Kirkman Park E	62.2	26.5	45.7	35.1	40.2	65.4
Northwood E	68.2	41.3	52.1	50.0	64.1	78.1
Oak Hill E	70.7	15.6	24.1	50.8	32.2	39.2
Oak View E	84.1	48.4	56.8	58.5	65.1	74.4
Parkview E	69.8	30.2	32.1	40.0	45.6	51.2
Peck E	74.8	37.8	51.6	61.3	64.2	70.3
Rankin E	67.7	30.5	43.8	43.1	60.2	66.7
Union Hill E	72.3	36.2	51.6	38.6	61.7	71.6

Table 34

Sending Schools Reading and Math NC EOG Proficiency (continued)

School	Reading			Math		
	2007	2008	2009	2007	2008	2009
Washington E	65.4	30.9	48.0	53.1	70.4	76.0
Wiley E	54.3	20.8	28.8	42.2	55.2	51.9
District	84.0	54.3	65.6	66.5	70.5	80.1
State	85.5	55.6	67.6	66.4	69.9	80.0

exceptional students are exempt from testing. On average, approximately 50% of the students were scoring at proficiency, level III or higher, on the EOG tests in math and reading. Thus, about half of the students tested were eligible for NCLB public school choice were proficient on EOG tests in math and reading and the percentage of students who participated in NCLB public school choice was above 50%. For example, the percentage of students who participated in NCLB public school choice during the 2009-10 school year who were proficient was 54% in reading and 70% at the time NCLB public school choice was offered. For this school year, the percentage of tested students who were proficient and eligible to participate in NCLB public school choice were slightly higher in math than reading. While more proficient students who participated in NCLB public school choice were at the elementary grades the percentage of eligible students who could participate was about half of the student population at the elementary and middle grades.

Sending and Receiving Schools

Data on sending and receiving schools were collected for three academic school years: 2007-08, 2008-09 and 2009-10. During this time period, sending schools were schools there were mandated to offer NCLB public school choice. Sending schools were schools identified by the Guilford County School District as schools to receive students opting not to attend a school required to offer NCLB public school choice. For each sending school required to offer NCLB public school choice, two schools not in Title I school improvement must be identified as

receiving schools. Receiving schools must serve comparable grade levels as the sending school. Transportation must be provided by the school district for students participating in NCLB public school choice.

In the spring prior to the summer when NCLB public school choice options were presented to parents, the Guilford County School Board of Education votes to approve the receiving schools for each sending school. Staff for the school district presents recommended schools to be receiving schools based on school's Title I school improvement status and capacity at schools to serve additional students driven by projected enrollment for the fall and school space. As school enrollment changes from year to year, receiving schools change due to capacity constraints. However, NCLB policy allows students electing to opt-out of attending a sending school under NCLB to remain at a receiving school until completing their highest grade at that particular receiving school. Schools once identified as receiving schools but later removed but still required to receive receiving students under NCLB as a result of the aforementioned policy are categorized as "grandfather" receiving schools. During the three school year span studied, several receiving schools were identified as grandfather receiving schools as students elected to remain in these schools until completing their highest grade level at that school.

Sending Schools

Table 35 presents the schools required to offer NCLB public school choice in the Guilford County School District for each school year studied. Twelve

Table 35

Sending Schools Required to Offer NCLB Public School Choice

School	School Year 2007-08	2008-09	2009-10
Allen Jay Elementary			X
Bessemer Elementary	X	X	X
Fairview Elementary		X	X
Ferndale Middle	X	X	X
Gillespie Park Elementary	X	X	X
Hairston Middle	X	X	X
Hampton Elementary	X	X	X
Jackson Middle	X	X	X
Kirkman Park Elementary	X	X	X
Northwood Elementary	X	X	X
Oak Hill Elementary		X	X
Oak View Elementary		X	X
Parkview Elementary			X
Peck Elementary			X
Rankin Elementary	X	X	X
Union Hill Elementary	X	X	X

Table 35

Sending Schools Required to Offer NCLB Public School Choice (continued)

School	School Year 2007-08	2008-09	2009-10
Washington Elementary	X	X	X
Wiley Elementary	X	X	X
Total Elementary Schools	9	12	15
Total Middle Schools	3	3	3
Total of All Schools	12	15	18

schools in the Guilford County School District were required to offer school choice under NCLB for the 2007-08 school year. Three of the twelve schools were middle schools and nine were elementary schools. Among the twelve schools, 1,061 students opted to leave these schools and attend identified receiving schools under NCLB public school choice. Fifteen schools in the Guilford County School District were required to offer school choice under NCLB for the 2008-09 school year. Three of the twelve schools were middle schools and twelve were elementary schools. Among the fifteen schools, 1,122 students opted to leave these schools and attend identified receiving schools under NCLB public school choice. Eighteen schools in the Guilford County School District were required to offer school choice under NCLB for the 2009-10 school year. Three of the eighteen schools were middle schools and fifteen were elementary schools. Among the eighteen schools, 1,102 students who opted to leave these schools and attend identified receiving schools under NCLB public school choice. All eighteen of the sending schools required to offer NCLB public school choice were majority minority with African American as the largest ethnic group. All three of the middle schools were required to offer NCLB public school choice all three school years studied. There were also nine elementary schools required to offer NCLB public school choice for all three years. To exit NCLB public school choice, a school must meet all of their NCLB AYP targets for two consecutive years in the content area or areas where targets were not met for two consecutive years. Two of the middle schools, Ferndale and Hairston, were magnet schools. Magnet

schools are schools of choice that offer special curriculum or relevant themes and can be attended by any student within the school district at the grade levels offered within capacity of the facility. Four of the elementary schools: Hampton, Kirkman Park, Northwood, Parkview were magnet schools. The mean percent of student proficient on the North Carolina EOG tests for the sending schools over the three school year period studied was 47.1% for reading and 54% for math which was significantly lower than the mean proficiency for the district. The mean student enrollment for the sending schools was significantly lower than the district as well. For instance, for the 2008-09 school year the mean student enrollment for the sending elementary schools was 380 while the district elementary school mean was 497. The mean student enrollment for the sending middle schools was 563, while the district middle school mean was 765. The student enrollment for the sending schools that offered NCLB public school choice for three school years have experienced a fluctuation in enrollment with 4,752 students enrolled in 2007-08, 5,255 students in 2008-09 and 4,790 students in 2009-10. While NCLB public school choice participation increased year as a result of more schools offering choice the enrollment in the sending schools which offered choice over the duration of the study varied.

Table 36 illustrates the number of students who participated in NCLB public school choice by sending school for each school year for the school years studied. The average number of students who participated in NCLB public school choice was 67 students per school. Overall, Hairston Middle School had the most

Table 36

The Number of Students Who Participated in NCLB Public School Choice by Sending Schools

School	Number of Students 2007-08	2008-09	2009-10	Total
Allen Jay Elementary			17	17
Bessemer Elementary	66	90	80	236
Fairview Elementary		13	24	37
Ferndale Middle	102	95	68	265
Gillespie Park Elementary	3	14	14	31
Hairston Middle	121	156	206	483
Hampton Elementary	81	85	71	237
Jackson Middle	82	116	128	326
Kirkman Park Elementary	132	96	63	291
Northwood Elementary	35	43	38	116
Oak Hill Elementary		30	36	66
Oak View Elementary		10	17	27
Parkview Elementary			2	2
Peck Elementary			16	16
Rankin Elementary	50	64	74	188

Table 36

The Number of Students Who Participated in NCLB Public School Choice by Sending Schools (continued)

School	Number of Students 2007-08	2008-09	2009-10	Total
Union Hill Elementary	125	115	72	312
Washington Elementary	43	32	43	118
Wiley Elementary	64	69	73	206

students who participated in NCLB public school choice with 483 students during the three school year span studied. Hairston also had the most students who participated for the 2008-09 and 2009-10 school years. Kirkman Park Elementary School had the most students for the 2007-08 school year with 132 students who participated. Union Hill Elementary School had the most students who participated in NCLB public school choice among the elementary schools ranging from 121 students the first year, 186 students the second year and 206 students the third year. In general, the average number of students who participated in NCLB public school choice per school decreased over the time period examined from 75 to 58 students per year.

Receiving Schools

Thirty-four elementary and middle schools have served as receiving schools for sending schools mandated to offer NCLB public school choice from the 2007-08 school year to the 2009-10 school in the Guilford County School District. Ten of the thirty-four schools were middle schools and the other twenty-four were elementary schools. Schools in the district that were not in Title I school improvement with the capacity for additional students and close proximity to sending schools were considered for receiving schools by the Guilford County Schools Board of Education. Potential receiving schools were preferable closer to sending schools to avoid long bus rides from the sending school's attendance zone and the receiving school and had probable space for additional students. Schools recommended as receiving schools were identified by the district's Title I

office and submitted to the Board of Education for final approval in the spring prior to the summer when NCLB public school choice options were presented to the parents in the summer. Table 37 presents the schools approved by the Board of Education as receiving schools during the three school year span studied and the distance between sending school and the receiving schools. The average distance from a sending school to a receiving school was 7.6 miles. The maximum distance from a sending school to a receiving school was 17 miles and the minimum distance was 1.8 miles. Between the 2007-08 school year and the 2009-10 school year, the number of school years each receiving school served as a receiving school varied by the paired sending school's time as a sending school or changes in receiving schools due to capacity constraints. For example, at the middle school level, Guilford Middle School served as a receiving school for Jackson Middle School for two years while Kernodle Middle School served as a receiving school for Ferndale Middle School for three school years. In addition, both middle schools, Jackson and Ferndale had offered NCLB public school choice for all three years of the study. Table 38 illustrates the receiving school for each sending school required to offer NCLB public school choice for the three school year period examined. Table 38 also identified the receiving schools that were grandfather receiving schools as a result of being removed as one of the two primary receiving schools for a sending school. It is important to note that several of the receiving schools served as receiving schools for more than one

Table 37

Distance from Receiving and Sending Schools

Sending School	Receiving School	Distance in Miles
Ferndale	Kernodlle	17.0
	Southern Middle	11.2
	Southwest Middle	8.2
Wiley	Pleasant Garden	7.3
	Jefferson	7.9
	Sumner	5.4
Kirkman Park	Allen Jay Elem	5.4
	Parkview	1.8
	Colfax	11.3
	Shadybrook	3.3
	Fairview	2.2
Washington	Jefferson	8.0
	Lindley	3.6
	Claxton	6.4
	Sternberger	4.5
Bessemer	Irving Park	4.8
	Sedalia	7.0
	McLeansville	5.2

Table 37

Distance from Receiving and Sending Schools (continued)

Sending School	Receiving School	Distance in Miles
	Gibsonville	12.1
Gillespie Park	Alamnace	5.0
	Pleasant Garden	6.7
Hairston	Eastern Middle	8.6
	Northern Middle	11.7
	Kiser	5.4
	Southeast Middle	11.0
Northwood	Florence	6.6
	Guilford Elem	13.0
	Fairview	3.2
	Parkview	3.6
	Southern Elem	
Hampton	Jefferson	9.4
	Sedalia	8.9
	Gibsonville	14.0
Rankin	Joyner	4.3
	Sedalia	10.4
	Madison	5.5

Table 37

Distance from Receiving and Sending Schools (continued)

Sending School	Receiving School	Distance in Miles
Union Hill	Jamestown Elem	11.4
	Southern Elem	7.3
	Florence	5.2
Jackson Middle	Allen	3.5
	Mendenhall	5.9
	Guilford Middle	5.6
Oak Hill	Florence	8.4
	Southern Elem	12.3
Fairview	Florence	7.2
	Millis Road	7.5
Oak View	Colfax	9.1
	Guilford Elem	11.2
	Jamestown Elem	5.7
Allen Jay	Pilot	10.2
	Pleasant Garden	13.9
Parkview	Colfax	11.9
	Pilot	8.0

Table 37

Distance from Receiving and Sending Schools (continued)

Sending School	Receiving School	Distance in Miles
Peck	Irving Park	3.5
	Joyner	4.9

Table 38

Sending and Receiving Schools from 2007-08 to 2009-10

Sending School	Receiving Schools 2007-08	2008-09	2009-10
Ferndale Middle	Kernodle Middle Southern Middle Grandfather Southwest Middle	Kernodle Southern Middle Grandfather Southwest Middle	Kernodle Southern Middle
Wiley Elementary	Pleasant Garden Jefferson Grandfather Sumner	Jefferson Pleasant Garden Grandfather Sumner	Jefferson Pleasant Garden Grandfather Sumner
Kirkman Park Elementary	Allen Jay Elementary Parkview Grandfather Fairview	Colfax Shadybrook Grandfather: Parkview Allen Jay Elementary Fairview	Colfax Shadybrook Grandfather Parkview Allen Jay Elementary Fairview

Table 38

Sending and Receiving Schools from 2007-08 to 2009-10 (continued)

Sending School	Receiving Schools 2007-08	2008-09	2009-10
Washington Elementary	Jefferson	Jefferson	Jefferson
	Lindley	Lindley	Lindley
	Grandfather	Grandfather	Grandfather
	Claxton	Claxton	Claxton
	Sternberger	Sternberger	Sternberger
Bessemer Elementary	Irving Park	Irving Park	Irving Park
	Sedalia	Sedalia	Gibsonville
	Grandfather	Grandfather	Grandfather
	McLeansville	McLeansville	Sedalia
Gillespie Park	Alamance	Alamance	Alamance
Elementary	Pleasant	Pleasant	Pleasant
	Garden	Garden	Garden

Table 38

Sending and Receiving Schools from 2007-08 to 2009-10 (continued)

Sending School	Receiving Schools 2007-08	2008-09	2009-10
Hairston Middle	Eastern Middle	Eastern Middle	Eastern Middle
	Northern	Northern	Kiser Middle
	Middle	Middle	Grandfather
	Grandfather	Grandfather	Kiser, Northern
	Kiser	Kiser	Middle
	Southeast	Southeast	
	Middle	Middle	
Northwood Elementary	Florence	Florence	Florence
	Guilford	Guilford	Southern
	Elementary	Elementary	Elementary
	Grandfather	Grandfather	Grandfather
	Fairview	Fairview	Fairview
	Parkview	Parkview	Parkview
			Guilford
			Elementary
Hampton Elementary	Jefferson	Jefferson	Gibsonville
	Sedalia	Sedalia	Sedalia
			Grandfather
			Jefferson

Table 38

Sending and Receiving Schools from 2007-08 to 2009-10 (continued)

Sending School	Receiving Schools 2007-08	2008-09	2009-10
Rankin Elementary	Joyner	Joyner	Madison
	Sedalia	Sedalia	Sedalia
			Grandfather
			Joyner
Union Hill Elementary	Jamestown	Florence	Jamestown
	Elementary	Southern	Elementary
	Southern	Elementary	Southern
	Elementary	Grandfather	Elementary
		Jamestown	Grandfather
		Elementary	Florence
			Jamestown
Jackson Middle	Allen	Guilford Middle	Guildford Middle
	Mendenhall	Mendenhall	Mendenhall
		Grandfather	Grandfather
		Allen	Allen
Oak Hill Elementary	NCLB Public	Florence	Florence
	School Choice	Southern	Southern
	Not Required	Elementary	Elementary

Table 38

Sending and Receiving Schools from 2007-08 to 2009-10 (continued)

Sending School	Receiving Schools 2007-08	2008-09	2009-10
Fairview Elementary		Florence	Florence
	NCLB Public	Millis Road	Millis Road
	School Choice		
	Not Required		
Oak View Elementary	NCLB Public	Colfax	Colfax
	School Choice	Guilford	Jamestown
	Not Required	Elementary	Elementary
			Grandfather
			Guilford
			Elementary
Allen Jay Elementary	NCLB Public	NCLB Public	Pilot
	School Choice	School Choice	Pleasant
	Not Required	Not Required	Garden
Parkview Elementary	NCLB Public	NCLB Public	Colfax
	School Choice	School Choice	Pilot
	Not Required	Not Required	

Table 38

Sending and Receiving Schools from 2007-08 to 2009-10 (continued)

Sending School	Receiving Schools 2007-08	2008-09	2009-10
Peck Elementary	NCLB Public School Choice Not Required	NCLB Public School Choice Not Required	Irving Park Joyner

sending school. For instance, Pilot Elementary served as a receiving school for both Allen Jay Elementary and Parkview Elementary during the 2009-10 school year.

It is also important to note that several for receiving schools were mandated to offer NCLB public school choice as well after serving as a receiving school as a result of not meeting NCLB AYP targets for two consecutive years. For example, Fairview Elementary, Parkview Elementary and Allen Jay Elementary Schools were initially receiving schools during the 2007-08 school year but were later sending schools after having to offer NCLB public school choice to their students.

Among the thirty-four receiving schools for the three school year span studied, the impact of NCLB public school choice varied as level of participation for the matched sending schools was mixed. Table 39 highlights the number of students who participated in NCLB public school choice by receiving schools. The range of students received from sending schools from receiving schools was wide with as little over a hundred students to one student for one schools in one year. Jamestown Elementary School had the most students received in one school year with 117 students during the 2007-08 school year. Florence Elementary had the most students received with 104 students during the 2008-09 school year and 92 students during the 2009-10 school year. Combined, there were fourteen receiving schools with a hundred or more students received from the 2008-09 school year to the 2009-10 school year. Four of those fourteen

Table 39

The Number of Students Who Participated in NCLB Public School Choice by Receiving Schools

School	Number of Students 2007-08	2008-09	2009-10	Total
Alamance E	6	14	10	30
Allen Jay E	9	3	3	15
Allen M	37	18	6	61
Claxton E	2	2	1	5
Colfax E	0	13	11	24
Eastern M	27	41	70	138
Fairview E	43	22	11	76
Florence E	15	104	92	211
Gibsonville E	0	0	4	4
Guilford E	0	1	1	2
Guilford M	0	36	40	76
Irving Park E	58	68	85	211
Jamestown E	117	78	70	265
Jefferson E	52	70	74	196
Joyner E	41	49	42	132

Table 39

The Number of Students Who Participated in NCLB Public School Choice by Receiving Schools (continued)

School	Number of Students 2007-08	2008-09	2009-10	Total
Kernodle M	38	52	41	131
Kiser M	60	33	91	184
Lindley E	7	8	15	30
Madison E	0	0	21	21
McLeansville E	3	1	0	4
Mendenhall M	47	63	89	199
Millis Road E	0	5	13	18
Northern M	28	80	46	154
Parkview E	93	27	13	133
Pilot E	0	0	10	10
Pleasant Garden E	47	52	50	149
Sedalia E	84	99	75	258
Shadybrook E	0	53	41	94
Southeast M	8	2	2	12
Southern E	7	8	27	42

Table 39

The Number of Students Who Participated in NCLB Public School Choice by Receiving Schools (continued)

School	Number of Students 2007-08	2008-09	2009-10	Total
Southern M	57	45	27	129
Southwest M	9	0	0	9
Sternberger E	28	15	10	53
Sumner E	1	1	1	3

receiving schools received two-hundred or more students from the sending schools during that time period. Seven out of ten (70%) of the of the receiving middle schools had a hundred or more students received combined while 13 out of 34 (38%) of the receiving elementary schools had received a hundred or more students combined. Collectively, the student population of the thirty-four receiving schools was more diverse than the nineteen sending school required to offer NCLB public school choice. The student population of the receiving schools was more reflective of the entire Guilford County School District population. In addition to being more diverse, most of the receiving schools served a much larger student population when compared to the sending schools and in some cases exceeded the district mean enrollment for a elementary or middle school.

The mean percent of students proficient on the North Carolina EOG tests for the receiving schools over the three school year span studied was significantly higher than the mean proficiency for the sending schools and slightly above the district. For example, in reading the mean percent of students proficient on North Carolina EOG tests was 56.1% for the 2007-08 school year and 66.7 for the 2008-09 school year for the receiving schools while the mean proficiency for the district was 54.3% for the 2007-08 school year and 65.6% for the 2008-09 school year. Table 40 highlights the percent of students proficient on North Carolina EOG tests for all receiving schools from the 2007-08 and 2008-09 school years and the district means. Tables 41, 42 and 43 present the number of students who participated in NCLB public school choice for each school year

Table 40

Receiving Schools Proficiency on North Carolina End-of-Grade Tests

	Reading		Math	
Receiving School	2007-08	2008-09	2007-08	2008-09
Alamance E	58.7	65.8	76.7	82.9
Allen Jay E	29.4	41.3	53.8	64.7
Southern M	43.2	56.1	59.3	71.8
Allen M	38.4	55.7	57.9	73.1
Claxton E	75.5	83.1	86.3	92.6
Colfax E	61.7	74.3	76.5	88.0
Fairview E	29.0	33.2	63.7	60.6
Florence E	78.1	82.0	89.0	89.3
Gibsonville E	54.8	72.1	80.3	87.1
Guilford M	58.4	70.4	77.0	86.2
Guilford Primary	46.4	66.0	69.8	85.9
Irving Park E	52.3	59.9	69.9	75.7
Jamestown E	45.7	59.2	70.7	79.9
Jefferson E	58.5	72.0	77.8	87.6
Joyner E	51.4	56.1	67.4	72.2
Kernodle M	77.5	88.4	88.8	96.3
Kiser M	52.6	62.1	66.3	80.1
Lindley E	55.6	70.4	76.5	87.6
Madison E	67.5	83.1	82.5	95.2

Table 40

Receiving Schools Proficiency on North Carolina End-of-Grade Tests (continued)

Receiving School	Reading 2007-08	Reading 2008-09	Math 2007-08	Math 2008-09
Eastern M	42.9	54.7	54.9	66.5
McLeansville E	42.5	52.1	64.6	64.5
Mendenhall M	62.1	74.0	73.6	83.0
Millis Road E	75.9	88.2	91.5	96.2
Northern M	72.2	80.7	82.6	90.0
Parkview E	30.2	32.1	45.6	51.2
Pilot E	68.5	72.1	84.4	87.4
Pleasant Garden E	57.2	71.1	76.7	87.3
Sedalia E	55.0	63.8	75.5	81.7
Shadybrook E	67.9	78.2	85.4	93.2
Southeast M	62.6	74.7	75.2	84.3
Southern E	56.6	65.7	77.9	87.1
Southwest M	61.8	73.4	76.1	84.0
Sternberger E	78.7	83.3	87.0	90.2
Sumner E	38.0	53.4	64.0	81.1
District Mean	54.3	65.6	70.5	80.0
State Mean	55.6	67.6	69.9	80.0

Table 41

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2007-08 School Year from 2006-07 End-of-Grade Reading and Math Performance

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Alamance Elementary	2			1	1		2		
Claxton Elementary	1			1			1		
Fairview Elementary	18	1	8	7	2		9	7	2
Florence Elementary	4		1		3		1		3
Frazier Elementary	1				1			1	
Irving Park Elementary	11		4	2	5	2	3	3	3
Jamestown Elementary	33	3	5	17	8	4	14	12	3
Jefferson Elementary	18	2	5	10	1	3	4	11	
Joyner Elementary	7	1	2	3	1	2	1	3	1
Lindley Elementary	2		1	1			2		
McLeansville Elementary	1				1			1	

Table 41

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2007-08 School Year from 2006-07 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Northwood Elementary	3			2	1			3	
Oak View Elementary	47		8	22	17	4	14	26	3
Parkview Elementary	22	1	5	13	3	3	8	11	
Pleasant Garden Elementary	13		5	5	3	3	2	7	1
Sedalia Elementary	32	6	9	11	6	7	9	14	2
Southern Elementary	4	2		1	1	2		2	
Sternberger Elementary	11	3	4	3	1	4	3	4	
Allen Middle	33	2	8	19	4	4	11	17	1
Eastern Middle	19		6	11	2	2	8	8	1
Kernodle Middle	23	1	2	10	10	2	7	9	5
Kiser Middle	60	3	15	32	10	12	22	21	5

Table 41

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2007-08 School Year from 2006-07 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Mendenhall Middle	42	4	7	22	9	12	9	20	1
Northern Middle	26	1	2	20	3	8	3	13	2
Southeast Middle	8			5	3	1	4	1	2
Southern Middle	53	2	13	34	4	5	26	21	1
Southwest Middle	9		3	4	2		2	6	1
Total	503	32	113	256	102	80	165	221	37

Table 42

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2008-09 School Year from 2007-08 End-of-Grade Reading and Math Performance

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Alamance Elementary	3	1		2			1	2	
Claxton Elementary	1			1			1		
Colfax Elementary	4	2		1	1	1		3	
Fairview Elementary	9	1	1	7				6	3
Florence Elementary	28	7	9	5	7	2	7	13	6
Guilford Elementary	1	1				1			
Irving Park Elementary	19	5	6	7	1	3	3	9	4
Jamestown Elementary	29	6	6	12	5		7	15	7
Jefferson Elementary	22	12	2	6	2	5	5	11	1
Joyner Elementary	12	7	1	4		2	1	9	
Lindley Elementary	3		3				2	1	

Table 42

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2008-09 School Year from 2007-08 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
McLeansville Elementary	1				1				1
Millis Road Elementary	3	1		1	1	1		2	
Northwood Elementary	1		1					1	
Oak View Elementary	28	5	7	12	4	1	6	15	6
Parkview Elementary	9	1	1	6	1		2	6	1
Pleasant Garden Elementary	21	7	8	3	3	4	5	11	1
Sedalia Elementary	37	19	7	9	2	9	13	11	4
Shadybrook Elementary[1]	8	4	2		2	2	3	1	1
Southern Elementary	3	2		1		1	1	1	
Sternberger Elementary	7	2	2	2	1		3	2	2
Sumner Elementary	1	1						1	

Table 42

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2008-09 School Year from 2007-08 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level I	II	III	IV	Math Achievement Level I	II	III	IV
Allen Middle	18	3	7	7	1	2	3	12	1
Eastern Middle	35	6	13	13	3	3	10	18	4
Guilford Middle	32	12	9	10	1	6	12	11	3
Kernodle Middle	39	6	10	14	9	1	9	17	12
Kiser Middle	33	8	13	10	2	4	9	16	4
Mendenhall Middle	61	14	21	24	2	6	24	25	6
Northern Middle	75	23	23	24	5	10	25	33	7
Southeast Middle	2		1	1		1		1	
Southern Middle	42	14	18	9	1	8	17	15	2
Total	587	170	171	191	55	73	169	268	76

Note. [1]One Student took the reading EOG but did not take the math EOG.

Table 43

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2009-10 School Year from 2008-09 End-of-Grade Reading and Math Performance

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Alamance Elementary	5	1	3	1			1	4	
Allen Jay Elementary	1	1						1	
Claxton Elementary	1			1				1	
Colfax Elementary	5		1	1	3		1	1	3
Fairview Elementary	6	2	1	3				3	3
Florence Elementary	26	6	2	14	4	1	5	12	8
Gibsonville Elementary	2			2			1	1	
Guilford Elementary	1		1				1		
Irving Park Elementary	28	9	3	12	4		5	19	4
Jamestown Elementary	29	4	6	16	3		5	19	5
Jefferson Elementary	30	8	5	12	5	2	8	15	5

Table 43

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2009-10 School Year from 2008-09 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Joyner Elementary	16	4	5	4	3	2	5	8	1
Lindley Elementary	5		1	4			1	3	1
Madison Elementary	8	1	2	4	1		1	5	2
Millis Road Elementary	4	2		1	1	1	1	1	1
Northwood Elementary	1			1					1
Oak View Elementary	24	5	4	11	4	2	4	14	4
Parkview Elementary	5	3		2			3	2	
Pilot Elementary	6	1	1	2	2		2	2	2
Pleasant Garden Elementary	15	7	3	5		1	3	11	
Sedalia Elementary	26	10	5	9	2	2	6	15	3
Shadybrook Elementary	11	4	2	4	1	2	3	5	1

Table 43

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2009-10 School Year from 2008-09 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level				Math Achievement Level			
		I	II	III	IV	I	II	III	IV
Southern Elementary	1			1				1	
Sternberger Elementary	7	2		4	1	2		3	2
Sumner Elementary	1		1					1	
Allen Middle	6	3	3				1	5	
Eastern Middle	64	12	13	34	5	3	22	32	7
Guilford Middle	40	10	5	21	4	4	11	23	2
Kernodle Middle	37	2	9	13	13	1	1	21	14
Kiser Middle	86	24	25	32	5	8	23	43	12
Mendenhall Middle	83	17	22	40	4	7	16	54	6
Northern Middle	46	10	13	18	5	3	12	25	6
Southern Middle	24	6	8	7	3	2	7	11	4

Table 43

Number of Scores at Each Achievement Level for Students Received from Sending Schools for the 2009-10 School Year from 2008-09 End-of-Grade Reading and Math Performance (continued)

Assigned School	Total Students	Reading Achievement Level I	II	III	IV	Math Achievement Level I	II	III	IV
Total	650	154	144	279	73	43	149	361	97

studied at each achievement level on the North Carolina EOG tests in reading and math for each receiving school. Achievement levels were calculated using achievement levels from the previous school year North Carolina EOG testing data for students received. Of the students who attended receiving schools, the the majority scored at proficiency, level three, or higher in both math and reading. Among the students scoring below proficiency, level II or below, more students were at level II. There were receiving schools with more students received that were below proficiency or the number of students below proficiency received equaled to the number of proficient students received. However, the number of receiving schools who experienced the aforementioned was minimal and the number of students received was typically much lower than the average number of students received.

NCLB Public School Choice Impact on Achievement Outcomes

The NCLB AYP data collected for comparison of artificial and actual AYP achievement outcomes were data for two academic school years, 2007-08 and 2008-09. The AYP achievement outcomes were calculated from North Carolina EOG tests in grades 3-8 in the content areas of reading and mathematics. North Carolina EOG test administration typically begins three weeks prior to the last week of school. NCLB policy requires states to administer annual state assessments in reading and mathematics in grades 3-8 and at least once in grades 10-12, and in science at least once in each of three grade spans: 3-5, 6-9, and 10-12. Assessments must be aligned with challenging state content and

academic achievement standards. States must provide for participation of all students, including students with disabilities and limited English proficient (LEP) students. States must provide for the assessment of English language proficiency of all LEP students. For the 2008-09 school year, North Carolina amended the regulations for calculating proficiency on state tests in accordance with federal policy. Beginning the 2008-09 school, North Carolina allowed students in grades 3 through 8 to retake the EOG and for schools and districts to use the best result in AYP determinations. All students who did not score proficient or above on the initial test administration were afforded the opportunity to retake the test. The Guilford County School District was able to determine when students were given their first retest opportunity. The original test scores and the first retest scores from the schools and districts were submitted to the state so that AYP determinations could be made using the higher test scores.

For this study, only North Carolina EOG tests for reading and mathematics in grades 3-8 were used for analysis given that only elementary and middle schools were required to offer NCLB public school choice in the Guilford County School District. In addition, only reading and mathematics results are used for NCLB AYP calculations. NCLB requires states to set annual targets that will lead to the goal of all students reaching proficiency in reading and mathematics by 2013-14. For each measure of school performance, states must include absolute targets that must be met by key subgroups of students (major racial/ethnic groups, low-income students, students with disabilities, and LEP students). In

North Carolina, 40 students must be enrolled in a subgroup for data to be reported for that subgroup. NCLB calls for states to set a minimum number of students needed in a subgroup for AYP results to be reported for that subgroup with the goal of not having the subgroup to small where specific students could be identified. All the students in the school tested are always one subgroup in addition to the other key subgroups of students (major racial/ethnic groups, low-income students, students with disabilities, and LEP students). Subgroup data are reported by content area (reading and mathematics). For the purpose of the comparison of artificial and actual AYP achievement outcomes, target data for subgroups were reported by collectively. To make AYP, schools and districts must meet annual targets for each student subgroup in the school, and must test 95 percent of students in each subgroup. States also must define “other academic indicator” that schools must meet in addition to proficiency targets on state assessments. It is important to note that it is possible for schools to meet all of their achievement targets and not meet AYP. For the comparison of artificial and actual AYP achievement outcomes only annual achievement targets for subgroups were compared. To compare annual achievement target performance for subgroups, artificial and actual AYP outcomes were compared. Artificial AYP outcomes were created by excluding school choice students from the AYP calculations of the schools receiving school choice students and then recalculating the AYP results for the schools receiving school choice students with the transfer student excluded. Artificial AYP outcomes were created by

adding the students who elected to transfer under the school choice provision to their attendance zone school AYP calculations and then recalculating the results for transfer student's attendance zone schools.

For the purpose of the comparison of the artificial and actual AYP outcomes, the number of targets based on the number of subgroups and content areas tested (reading and mathematics) each sending school required to offer NCLB public school choice and each receiving school were reported. Of the number of targets for each school year, the numbers of targets met were reported for each sending and receiving school as well. In addition, the percentage of targets met for each sending and receiving school for each school year were reported. There were some schools that served as both sending and receiving schools during the two school year period examined. There were also schools that served only one year as a sending or receiving school and only the AYP outcomes for that particular school year was reported. The subgroups for schools may change as the artificial were calculated resulting in a change in the number of students in a subgroup which may reduce the number of students in a subgroup reducing the number of students in a subgroup below the required 40 students for reporting. This resulted in missing subgroup data for some schools in their artificial AYP outcomes.

Sending Schools

During the 2007-08 and 2008-09 school years there were twelve sending schools that were required to offer NCLB public school choice that had artificial

and actual AYP achievement outcomes for both school years. Three of those twelve schools were middle schools and the other nine were elementary schools. Fairview, Oak Hill and Oak View elementary schools only offered NCLB public school choice for one year of the study during the 2008-09 school year for a total of fifteen sending schools that year. Table 44 presents the artificial and actual AYP achievement outcomes for sending schools during the 2007-08 and 2008-09 school years.

During the 2007-08 school year, 5 out of 12 (42%) of the sending schools had no change between their artificial and actual AYP results. Seven out of twelve (58%) of the schools experienced a change in their artificial results. Ten out of twelve (83%) of the sending schools experienced no change in their number of AYP targets between their artificial and actual results. One out of twelve (8%) experienced a decrease and 1 out of 12 (8%) experienced an increase. Of the seven sending schools that experienced a change in their artificial results 1 out of 7 (14%) experienced an increase in the number of targets met while 6 out of 7 (86%) experienced a decrease in the number of targets met. Two of the sending schools, Northwood and Union Hill elementary schools, who experienced an increase in the number of targets met, had 100% of their artificial AYP targets met but did not meet 100% of their actual AYP targets. None of the sending schools met 100% of their AYP targets in their actual results for the 2007-08 school year.

Table 44

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Sending Schools

School	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Bessemer	0 (3)	6 (7)	0 (43)	+	6 (6)	6 (6)	100 (100)	No Change
Fairview					2 (3)	6 (6)	33 (50)	+
Ferndale MS	5 (6)	14 (14)	36 (43)	+	16 (16)	16 (16)	100 (100)	No Change
Gillespie Park	0 (0)	6 (6)	0 (0)	No Change	6 (6)	6 (6)	100 (100)	No Change
Hairston MS	2 (2)	12 (12)	17 (17)	No Change	13 (12)	14 (14)	93 (86)	-
Hampton	0 (4)	6 (6)	0 (67)	+	6 (6)	6 (6)	100 (100)	No Change
Jackson MS	6 (6)	12 (12)	50 (50)	No Change	12 (12)	12 (12)	100 (100)	No Change
Kirkman Park	2 (3)	6 (6)	33 (50)	+	6 (6)	6 (6)	100 (100)	No Change

Table 44

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Sending Schools (continued)

	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
School	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Northwood	10 (10	12 (10)	83 (100)	+	8 (8)	8 (8)	100 (100)	No Change
Oak Hill					4 (7)	10 (8)	40 (88)	+
Oak View					8 (8)	8 (8)	100 (100)	No Change
Rankin	7 (6)	12 (12)	58 (50)	-	12 (12)	12 (12)	100 (100)	+
Union Hill	5 (6)	6 (6)	83 (100)	+	5 (6)	6 (6)	83 (100)	+
Washington	3 (3)	6 (6)	50 (50)	No Change	6 (6)	6 (6)	100 (100)	No Change
Wiley	4 (4)	6 (6)	67 (67)	No Change	3 (5)	6 (6)	100 (83)	-

During the 2008-09 school year, 10 out of 15 (67%) of the sending schools had no change between their artificial and actual AYP results. Five out of fifteen (33%) of the schools experienced a change in their artificial results. Of the sending schools that experienced a change in their artificial results 2 out of 5 (40%), experienced an increase in the number of targets met, while 3 out of 5 (60%) experienced a decrease in the number of targets met. Fourteen out of fifteen (93%) of the sending schools experienced no change in their number of AYP targets between their artificial and actual results. One out of the fifteen (7%) of the sending schools that experienced a change in their number of AYP targets. For this one school, there was an increase in the number of targets for that school. One of the sending schools, Union Hill elementary school, that experienced an increase in the number of targets met had 100% of their artificial AYP targets met but did not meet 100% of their actual AYP targets. In addition, another sending school, Wiley elementary school, who experienced a decrease in the of number targets met had 100% of their actual AYP targets met but did not meet 100% of their artificial AYP targets. Twelve out of fifteen (80%) of the sending schools met 100% of their AYP targets in their actual results for the 2008-09 school year. It is important to note that across the state and the school district, more schools met more AYP targets as a benefit of the change of having the first retest scores included in AYP calculations for the 2008-09 school year. Between both school years studied, 3 out of 12 (25%) of the sending schools that had data for both school years had no change in their AYP achievement

outcomes. Of the twelve sending schools that had data for both school years that had a change in their AYP achievement outcomes, 1 out of 12 (8%) experienced a decrease in the number of targets met for two consecutive years. Of the twelve sending schools that had data for both school years, 10 out of 12 (83%) experienced no change in their number of AYP targets for two consecutive years.

Receiving Schools

During the 2007-08 and 2008-09 school years, there were thirty-three receiving schools that were identified to receive choice students from sending schools that had artificial and actual AYP achievement outcomes for both school years. Ten of those thirty-three schools were middle schools and the other twenty-three were elementary schools. Fairview elementary school was a receiving school for the 2007-08 school year and was later removed as a receiving school for the 2008-09 school year due to entering Title I school improvement. Table 45 presents the artificial and actual AYP achievement outcomes for receiving schools for the 2007-08 and 2008-09 school years.

During the 2007-08 school year, 24 out of 34 (71%) of the receiving schools had no change between their artificial and actual AYP results. Ten out of thirty-four (29%) of the receiving schools experienced a change in their artificial results. Two out of thirty-four (6%) of the receiving schools experienced an increase in the number of targets met, while 8 out of the 34 (24%) experienced a results decrease in the number of targets met. Twenty-six out of thirty-four (76%) of the receiving schools did not have a change in their number of targets

Table 45

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Receiving Schools

	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
School	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Alamance	8 (8)	10 (10)	80 (80)	No Change	10 (8)	10 (10)	100 (80)	-
Allen Jay	2 (4)	10 (9)	20 (44)	+	10 (11)	12 (12)	83 (92)	+
Allen MS	10 (10)	14 (14)	71 (71)	No Change	14 (14)	14 (14)	100 (100)	No Change
Claxton	10 (10)	10 (10)	100 (100)	No Change	10 (10)	10 (10)	100 (100)	No Change
Colfax	4 (5)	10 (9)	40 (55)	+	10 (6)	10 (6)	100 (100)	No Change
Eastern MS	4 (4)	16 (16)	25 (25)	No Change	16 (16)	16 (16)	100 (100)	No Change
Fairview	3 (3)	6 (6)	50 (50)	No Change				
Florence	8 (8)	8 (8)	100 (100)	No Change	9 (9)	10 (10)	90 (90)	No Change

Table 45

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Receiving Schools (continued)

School	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Gibsonville	5 (6)	8 (8)	62.5 (75)	+	7 (6)	8 (6)	88 (100)	+
Guilford	8 (8)	12 (12)	67 (67)	No Change	10 (10)	10 (10)	100 (100)	No Change
Guilford MS	18 (15)	18 (18)	100 (83)	+	18 (16)	18 (16)	100 (100)	No Change
Irving Park	5 (5)	10 (10)	50 (50)	No Change	11 (9)	12 (10)	92 (90)	-
Jamestown	9(9)	10 (10)	90 (90)	No Change	9 (8)	10 (9)	90 (89)	-
Jefferson	7 (9)	10 (10)	70 (90)	+	10 (10)	10 (10)	100 (100)	No Change
Joyner	5 (5)	8 (8)	63 (63)	No Change	7 (7)	8 (7)	88 (100)	+

Table 45

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Receiving Schools (continued)

School	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Kernodle MS	13 (13)	13 (`4)	100 (93)	-	16 (14)	16 (14)	100 (100)	No Change
Kiser MS	8 (8)	12 (12)	67 (67)	No Change	12 (12)	12 (12)	100 (100)	No Change
Lindley	8 (8)	8 (8)	100 (100)	No Change	8 (8)	8 (8)	100 (100)	No Change
Madison	8 (8)	8 (8)	100 (100)	No Change	6 (6)	6 (6)	100 (100)	No Change
McLeansville	5 (5)	8 (7)	63 (71)	+	4 (8)	10 (8)	40 (100)	+
Mendenhall MS	12 (12)	16 (16)	75 (75)	No Change	18 (16)	18 (16)	100 (100)	No Change
Millis Road	8 (8)	8 (8)	100 (100)	No Change	8 (8)	8 (8)	100 (100)	No Change

Table 45

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Receiving Schools (continued)

School	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Northern MS	7 (7)	10 (10)	70 (70)	No Change	12 (12)	12 (12)	100 (100)	No Change
Parkview	3 (3)	6 (6)	50 (50)	No Change	6 (6)	8 (6)	75 (100)	+
Pilot	10 (12)	12 (12)	83 (100)	+	10 (10)	10 (10)	100 (100)	No Change
Pleasant Garden	7 (6)	10 (8)	70 (75)	+	10 (8)	10 (8)	100 (100)	No Change
Sedalia E.	8 (8)	8 (8)	100 (100)	No Change	8 (8)	8 (8)	100 (100)	No Change
Shadybrook	10 (10)	10 (10)	100 (100)	No Change	10 (8)	10 (8)	100 (100)	No Change
Southeast MS	10 (10)	10 (10)	100 (100)	No Change	10 (9)	10 (10)	100 (90)	-

Table 45

Effect of NCLB Public School Choice on AYP Achievement Outcomes for Receiving Schools (continued)

	Actual (Artificial) AYP Results for 2007-08				Actual (Artificial) AYP Results for 2008-09			
School	Targets Met	# Targets	% of Targets Met	Effect	Targets Met	# Targets	% of Targets Met	Effect
Southern	6 (6)	6 (6)	100 (100)	No Change	6 (6)	6 (6)	100 (100)	No Change
Southern MS	10 (10)	16 (16)	63 (63)	No Change	16 (16)	16 (16)	100 (100)	No Change
Southwest MS	16 (16)	16 (16)	100 (100)	No Change	17 (17)	18 (18)	94 (94)	No Change
Sternberger	4 (4)	4 (4)	100 (100)	No Change	4 (4)	4 (4)	100 (100)	No Change
Sumner	5 (7)	8 (8)	63 (88)	+	11 (10)	12 (11)	92 (91)	-

between their artificial and actual results. Six out of thirty-four (18%) of the receiving schools had a decrease in their number of targets, while 2 out of the 34 (6%) receiving schools had an increase in their number of targets.

During the 2008-09 school year, 23 out of 33 (70%) of the receiving schools had no change between their artificial and actual AYP results. Ten out of thirty-three (30%) of the receiving schools experienced a change in their artificial. Of the receiving schools that experienced a change in their artificial results 5 out of 33 (15%) experienced an increase in the number of targets met while 5 out of 33 (15%) experienced a decrease in the number of targets met. Nineteen out of thirty-three (58%) of the receiving schools did not have a change in their number of targets between their artificial and actual results. Two out of thirty-three (6%) of the receiving schools had a decrease in their number of targets while 12 out of the 33 (36%) receiving schools had an increase in their number of targets. Seventeen out of thirty-three (52%) of the receiving schools did not have a change in the number of targets for either school year studied. Between the 2007-08 and 2008-09 school years, there were four instances were a receiving school met 100% of their AYP targets in their actual results but not in their artificial results. There were five instances were a receiving school met 100% of their AYP targets in their artificial results but not in their actual results. In these situations, where there was a difference between the artificial and actual results, there was typically a change in the number of targets to be met.

CHAPTER 5: DISCUSSION AND CONCLUSIONS

The purpose of this chapter was to present conclusions and recommendations derived from a study of district data documenting student participation in the public school choice provision of NCLB and the impact on schools and the district. The goal of the NCLB Act (NCLB) is to have 100 percent of America's public school students "proficient" by the year 2014, 12 years from the enactment of the law. To meet this goal, states were charged with developing state tests in reading and math to be administered annually in each of grades 3-8 and at least once in high school to measure whether America's public school students are proficient in their reading and math skills. In accordance with NCLB and to ensure that all of America's public school students will be proficient by 2014, states were required to set annual measurable targets, known as "adequate yearly progress" AYP targets, for state tests in reading and math proficiency and for other academic indicators such as attendance and graduation rates. With pressure for the United States to succeed in the global economy and widening achievement gaps between and among socioeconomic and ethnic groups, the U.S. Department of Education required states to disaggregate student performance toward AYP targets by subgroups of students such as racial subgroups of students and socioeconomic status so that performance gains for all groups of children can be tracked. Schools with any subgroup of students not making academic progress toward the goal of all students proficient by 2014 for two or more consecutive years for the same subgroup of students in the same

content area as measured by state tests are subject to sanctions such as NCLB public school choice. NCLB public school choice requires school districts to offer all students in identified Title I schools failing to meet AYP subgroups targets for successive years the option to transfer to a non-identified school, with transportation provided by the school district. School districts were required to offer public school choice for identified Title I schools failing to meet AYP subgroups targets for successive years beginning with the 2004-05 school year. After a few years of NCLB public school implementation, intended and unintended outcomes have surfaced. The public school choice provision of NCLB was intended to provide more options to students in low-performing Title I schools by allowing them to transfer to more positive school environments, in hopes of increasing student performance for those who transfer. The public school choice provision of NCLB is also intended to pressure high poverty low-performing schools to improve as students are allowed to transfer out. However, as more Title I schools have been identified to offer NCLB public school choice as a result of failing to meet AYP targets and increasing numbers of students have been offered NCLB public school choice, early outcomes from NCLB public school choice have posed intended and unintended outcomes. Because NCLB public school choice is still in the early phases of implementation, limited data to date has been collected on NCLB public school choice district and school outcomes. Researchers have tended to focus on the impacts of state accountability systems on academic achievement (Figlio & Rouse, 2006;

Hastings et al., 2006a; West & Peterson, 2006). The purpose of the study was to explore the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB and the effects of the NCLB school choice provisions on district and school achievement outcomes based on NCLB AYP standards. This study has implications for educational leaders and boards of education for school districts as they anticipate the effects of a NCLB public school choice implementation and the "school of choice" designation. This study also has implications for the U.S. Department of Education, Congress and other policymakers as the impact of the NCLB public school choice sanction is evaluated and as reauthorization efforts for NCLB, the 2002 reauthorization of the Elementary and Secondary Education Act, is expanded.

The first section of this chapter provides a review of the methodology for the study. Then conclusions were presented and questions were raised. In the next section of this chapter, implications for policy, practice, and further research were discussed. The chapter closed with a summary that included a discussion of the challenges of the NCLB choice provisions for schools, districts, and their stakeholders.

Review of Methodology

Case Study School District

The context of the study was a large school district in located in central North Carolina. The Guilford County School District is the third largest school

district in North Carolina serving more than 71,000 students. The Guilford County School District includes two major cities, twelve municipalities, and a range of suburban and rural areas. The district has 68 elementary schools, serving grades K through 5, and in some instances, Pre-K through 5. In this case study school district, of the 120 schools in the district, 46 receive Title I funding (68 are elementary). The district has 27 schools in Title I school improvement. The number of schools required to offer NCLB public school choice had grown from 12 schools the 2007-08 school year to 18 schools the 2009-10 school year. With each of those 18 sending schools required to offer two options for students participating in school choice, the total number of schools directly impacted by the NCLB public school choice provision is currently 52. This study explores patterns in student and school characteristics and the achievement outcomes of the schools within the Guilford County School District as a function of implementing the NCLB public school choice sanction.

Data Collection and Analysis

Data collected for this study were compiled from existing databases from the Guilford County School District. These databases provided school and district demographic data, student assignment data, and assessment data. Descriptive statistics will be used to organize and describe the characteristics of this collection of data for the study. School demographic data and student demographic data for students who participated in NCLB public school choice were collected throughout the school year by the district's Student Assignment

Office to track NCLB public school choice participation as students transferred. This study also used school and student achievement data collected by the North Carolina Department of Public Instruction and provided to the public and the Guilford County School District after the state tests were administered. School and district assessment data provided by the North Carolina Department of Instruction were used to determine the effects of NCLB public school choice on AYP outcomes of both receiving and sending school. Because only elementary and middle schools were impacted by NCLB public school choice for the case study district, only elementary and middle school demographic and achievement data were analyzed. While school achievement data is available to the public, the researcher had secure access to additional achievement and demographic data for every student who submitted a form from the 2007-2008 to the 2009-2010 school year.

The researcher used a casual comparative analysis of artificial and actual NCLB AYP achievement outcomes of the schools required to offer NCLB public school choice and the schools identified to receive the students who chose to transfer. That analysis allowed further exploration of the impact of NCLB public school choice on AYP outcomes. Artificial AYP outcomes were generated by excluding school choice students from the AYP calculations of the schools receiving school choice students and then recalculating the AYP results for the schools receiving school choice students with the transfer student excluded. In addition, artificial AYP outcomes were generated by adding the students who

elected to transfer under the school choice provision to their attendance zone school AYP calculations and then recalculating the results for transfer student's attendance zone schools. The artificial recalculated AYP outcomes were compared to the actual AYP outcomes for the sending and receiving schools to compare the number of AYP targets and the number of AYP targets met.

Limitations

The Guilford County School District provided demographic and achievement data for students who participated in NCLB public school choice for a span of three school years. Further, the Guilford County School District provided school achievement data and AYP outcomes for the schools required to offer NCLB public school choice and the schools identified to receive the students who participated in NCLB public school choice for a two school year span. Therefore, the results from the NCLB public school choice student participation and the comparison of AYP outcomes were not representative of the entire time period when NCLB public school choice was implemented in the Guilford County School District. The estimated consequences of NCLB public school choice on AYP achievement outcomes do not control for school or teacher conditions that may influence student achievement. There are other school and teacher attributes that may influence student achievement which may impact school AYP outcomes. Furthermore, school and district conditions may impact school AYP outcomes as well. A final limitation was that this study was conducted using one school district. Demographic factors for the district in which

this study was conducted are likely to differ from demographics for other school districts. The results of this study may, therefore, not be representative of all schools or school districts and are not generalizable to all schools and school districts in the United States.

Findings

Research Question One

What are the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB?

This study examined grade level, gender, ethnic characteristics and achievement level of the students who chose to transfer under the public school choice provision of NCLB in the Guilford County School District for three academic school years: 2007-08, 2008-09 and 2009-10. The 2009-10 data reflected NCLB school choice participation on the 20th day of the school year for the 2009-10 school year. On average, 1,128 students participated in NCLB public school choice during each of the three school year span studied. Participation in NCLB public school choice increased slightly from the 2007-08 school year to the 2008-09 school year and decreased slightly from the 2008-09 school year to the 2009-10 school year. As participation in NCLB public school choice shifted, the number of students eligible increased significantly as more schools were required to offer NCLB public school choice each year during the three year span studied. The percentage of students who participated in NCLB public school choice

compared to the number of eligible decreased each year as more students were eligible. Nearly half of the students who participated in NCLB public school choice during the 2008-09 and 2009-10 school years were students who did not participate the previous year. There were 308 students who participated in NCLB public school choice all three school years studied. Thus, most of the students who participated only participated for one school year or two school years of this study.

While there were steady increases in the number of students eligible for NCLB public school choice at the elementary level, NCLB public school choice participation decreased over the three school year period studied. Within the elementary grades, kindergarten and first grade students tended to have much lower participation rates compared to other grade levels. At the middle school level, the number of students eligible for NCLB public school choice remained stable but the number of students who participated increased. However, there were fewer middle schools required to offer NCLB public school choice compared to elementary schools (3 middle schools and 9 elementary schools had data for all three school years of the study). Overall, while there was a slight margin of participation for male students, eligibility for participation was mostly balanced among male and female students. In general, the majority of students who participated in NCLB public school choice were African American across all grade levels. Participation rates for African American students reflected the large percentage of African American students eligible to participate in NCLB public

school choice given that African American students made up at least 80% of the student population for all the schools required to offer NCLB public school choice. While African American students accounted for the majority of NCLB public school choice participation and eligibility, male participation was slightly higher than female participation for African American students.

Achievement levels for students who participated in NCLB public school choice were only available for students in grades four through eight from the previous school year on North Carolina EOG tests. Students were tested in reading and math. Four achievement levels (levels I, II, III, and IV) are reported in reading and math with level III representing proficiency. More students, who scored at proficiency (level III or higher) participated in NCLB public school choice, and most of the proficient students were in grades four and five during the three school year period studied. Therefore, higher performing students (scoring at proficiency or above on North Carolina EOG tests) participated in NCLB public school choice. Level II students accounted for most of the students who participated who were below proficiency.

Research Question Two

What was the impact on AYP outcomes for sending and receiving schools as a function of offering NCLB public school choice?

This study compared artificial and actual AYP achievement outcomes two academic school years, 2007-08 and 2008-09. Over the course of the two school year span studied, 18 schools were required to offer NCLB public school choice

and 34 schools were identified to receive the students who opted to transfer under the NCLB public school choice provision. With all attendance zone students who opted to transfer under the NCLB public school choice provision recalculated into AYP outcomes, most (75%) of the schools required to offer NCLB public school choice that had data for both school years experienced a difference in their artificial AYP outcomes when compared to their actual results. The differences experienced rarely resulted in a decrease in the number of AYP targets met or in the number of AYP targets to be met. Nearly half (48%) of the schools identified to receive NCLB public school choice students experienced a difference in their number of AYP targets to be met in their artificial AYP results with school choice students excluded from their AYP recalculations compared to their actual results. However, on average, 70% of the receiving schools experienced no difference in the number of targets met when artificial and actual AYP results were compared. Between the two school spans studied, there were four instances were a receiving school met 100% of their AYP targets in their actual results but not in their artificial results. There were five instances were a receiving school met 100% of their AYP targets in their artificial results but not in their actual results.

Overall, the artificial results were more favorable for sending and receiving schools when compared to their actual AYP results. Sending schools experienced more positive results in their artificial AYP outcomes. On average, the artificial AYP outcomes improved when compared to the actual AYP results

when the number of targets to be met decreased as a result of losing or gaining choice students as a function of NCLB public school choice implementation. Thus, sending schools may have performed better without NCLB public school choice implementation given that there were less sending schools losing students compared to more receiving schools gaining students. Table 46 summarizes the comparison of artificial and actual AYP achievement outcomes for sending and receiving schools for the 2007-08 and 2008-09 school years.

Conclusions and Questions

After an analysis of NCLB public school choice participation for three academic school years, the conclusion was drawn that participation in public school choice was relatively low. While all students assigned to attend a school that was required to offer NCLB public school choice were eligible to participate in NCLB public school choice, a significant number of students elected not to participate by transferring to a receiving school. Of the students who opted to participate there was negligible variance between male and female participation. However, the results of this study suggest that of the students who opted to participate in NCLB public school choice, the majority were African American and performed better on North Carolina EOG tests prior to transferring. Conceivably, the higher participation for African American students may most likely be influenced by the fact that African American students comprise the bulk of the student population of the schools required to offer NCLB public school choice when compared to other ethnic groups. In this study the results suggest that

Table 46

Summary of Sending and Receiving Schools Comparison of AYP Achievement Outcomes

	Sending Schools		Receiving Schools	
	2007-2008 School Year	2008-2009 School Year	2007-2008 School Year	2008-2009 School Year
No Change in Artificial Results	42%	67%	72%	68%
Change in Artificial Results	58%	33%	28%	32%
Increase in % of AYP Targets Met	8%	13%	3%	16%
Decrease in % of AYP Targets Met	50%	20%	25%	16%
No Change in the Number of AYP Targets	83%	93%	76%	58%
Change in the Number of AYP Targets	17%	7%	24%	42%
Increase in the Number of AYP Targets	8%	7%	6%	36%
Decrease in the Number of AYP Targets	8%	0%	18%	6%

participation rates were higher at the middle school level than the elementary school level for all students who participated. It may be that NCLB public school choice was less attractive to elementary aged students and parents because of perceived challenges for younger students in transferring to a different school.

Following the comparison between the artificial and actual AYP outcomes for the schools mandated to offer NCLB public school choice and the schools identified to receive students who opted to transfer for two academic school years, the conclusion was drawn that in this study the results suggest NCLB public school choice has had a limited impact on AYP achievement outcomes for sending and receiving schools as a function of NCLB public school choice implementation. Therefore, in this study the results suggest that NCLB public school choice had minimal impact on the number of AYP targets met, the number of AYP targets met or progress toward satisfying the goal of meeting 100% of AYP targets. One possible reason that the results in this study suggest that NCLB public school choice had a limited impact on AYP achievement outcomes may be the wide range in the number of students received at the receiving schools. Another possible reason could be that the majority of the students who participated in NCLB public school choice were African American which has implications for only one to two subgroup AYP achievement outcomes. Conversely, the fact that the majority of the students who participated were proficient on previous North Carolina EOG tests could have resulted in receiving schools receiving a considerable number of higher performing students and

sending schools losing more of their higher performing students which could have significant implications for AYP achievement outcomes for sending and receiving schools. Conceivably, losing a significant number of higher performing students coupled with having to offer NCLB public school choice could motivate staff in sending schools to improve efforts to raise student achievement for historically lower performing students.

Implications

While several major conclusions emerged from this study, this study suggests a number of areas for future research. In addition, this study suggests implications for educational policy and practice. Because this is a case study of one school district and is not generalizable to the nation or a state, this study cannot be used to offer definitive policy and practice recommendations. However, there are a few issues that policymakers and practitioners may want to investigate or consider based on this study. The following implications are based upon the findings and conclusions of this study.

Implications for Policy and Practice

1. The results of this study suggest that NCLB public school choice implementation could pose more challenges for already challenged sending schools in Title I school improvement.

The results of this study suggest that NCLB public school choice implementation may not result in improved school achievement for schools in Title I school improvement. With a growing population of schools in Title I school

improvement and Title I schools required to offer NCLB public school choice it will be important for these schools to improve student achievement and exit Title I school improvement. However, given that students scoring at or above proficiency on state tests are more likely than lower performing students to leave schools in Title I school improvement through NCLB public school choice, schools in Title I school improvement mandated to offer school choice may experience even more challenges with moving the number of students to proficiency needed to exit Title I school improvement. Policymakers at all levels may want to consider different policies that will address this challenge.

2. The results of this study suggest that policymakers should recognize that NCLB public school choice is unlikely to close achievement gaps, and, in fact, may create additional inequities in terms of the capacity for high-poverty schools to attract high performing students.

Given that in this study higher performing students elected to transfer under the NCLB choice provision, Title I schools required to offer choice may be stripped of the few higher performing students in their student population resulting in a less diverse student population in regards to achievement levels on prior state tests. This may create further challenges for these schools in their attempts to keep the high performing students they have and to attract additional higher performing students. Policymakers at all levels may want to consider different policies that will address these inequities.

3. The results of this study suggest that identifying schools to receive NCLB choice students may become problematic as more schools enter Title I school improvement and as a result more schools are required to offer NCLB public school choice.

With growing numbers of schools in Title I school improvement and required to offer NCLB public school choice, it will be important to address the need for more schools to be identified to serve as receiving schools. Policymakers at all levels may want to consider different policies that will address how receiving schools are identified. Particular areas to be considered could be the potential for limited capacity for additional students at schools eligible to serve as a receiving school, small school districts with fewer schools at each level, and the distances between receiving and sending schools.

4. The results of this study suggest that equity in the transfer of human and capitol resources may become problematic at all levels as more schools are required to offer NCLB public school choice and more students participate.

The results of this study suggest that NCLB public school choice transfers will require school districts to modify how they manage resources. It will be important for policymakers at all levels to address the management of key school resources such as personnel, books, other instructional materials and per pupil funding as students transfer between schools within and among school districts under the provision of NCLB public school choice.

Implications for Further Research

Based on the findings and conclusions of this study, the following recommendations for future research were indicated.

1. Further research on the student achievement outcomes as a function of NCLB public school choice transfers should be conducted to determine if improved student achievement is a benefit of NCLB public school choice implementation. North Carolina EOG developmental scale scores for each student who participated in NCLB public school choice could be tracked to measure individual student growth. NCLB policy suggests improved student achievement for students who transfer.

As more students participate in NCLB public school choice it will be important to collect achievement data on students who participate in this choice option to report student achievement findings. These findings will help determine if NCLB public school choice student achievement findings are consistent with the findings on the benefits of other school choice options on student achievement.

2. Future research on possible reasons for parents to participate or not at the elementary and middle school levels should be conducted.

It would be interesting and informative to know how parents make decisions regarding NCLB public school choice options. What factors have the most influence on parental decisions? How do parents collect the information

they need to make the decision? This study suggests that NCLB public school choice options were more attractive for parents of middle grade students than for parents of elementary aged students. Travel time has been found to be a major factor in school choice research. However, in this study, there was no significant correlation between NCLB participation and distance from schools of choice.

3. Similar research on NCLB public school choice using multiple school districts and various states should be conducted with larger school samples.

One of the limitations of this study was that the sending and receiving schools examined were limited to one school district. Educational leaders and public education policymakers may benefit from future research to determine if the results of this study are supported when a larger number of schools and school districts are included in the study.

Summary

The purpose of the study was to explore the grade level, gender, and ethnic characteristics of the students who chose to transfer under the public school choice provision of NCLB and the effects of the NCLB school choice provisions on district and school achievement outcomes based on NCLB AYP standards. Based on the schools and district in this study, results suggest that more middle school and African American students have participated in NCLB public school choice. Results from this study support the findings that NCLB public school choice participation has been considerably low compared to the

number of students eligible to participate. This study also suggests NCLB public school choice has had a limited impact on AYP achievement outcomes for sending and receiving schools as a function of NCLB public school choice implementation. Future research is needed to determine if the results of this study are supported when a larger number of schools and school districts are included in the study. Future research will also determine if improved student achievement is a benefit of NCLB public school choice implementation. Since the results of this study suggest that the distance from sending and receiving schools was not a factor in NCLB public school choice participation, future research is needed to determine other possible reasons for parents to participate or not participate in NCLB public school choice.

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APPENDIX: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

EAST CAROLINA UNIVERSITY

University and Medical Center Institutional Review Board
East Carolina University • Brody School of Medicine
600 Moye Boulevard • Old Health Sciences Library, Room 1L-09 • Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb
Chair and Director of Biomedical IRB: L. Wiley Nifong, MD
Chair and Director of Behavioral and Social Science IRB: Susan L. McCammon, PhD

TO: Lewis Ferebee, 503 Tigard Ct., Stoney Creek, NC 27377

FROM: UMCIRB

DATE: June 26, 2009

RE: Expedited Category Research Study

TITLE: "Comparative Analysis of Demographic and Student Achievement Outcomes of Implementation of the NCLB Public School Choice Provision"

UMCIRB #09-0520

This research study has undergone review and approval using expedited review on 6.19.09. This research study is eligible for review under an expedited category because it is a research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.)
The Chairperson (or designee) deemed this **unfunded** study **no more than minimal risk** requiring a continuing review in **12 months**. Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The investigator must adhere to all reporting requirements for this study.

The above referenced research study has been given approval for the period of **6.19.09** to **6.18.10**. The approval includes the following items.

- Internal Processing Form

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

The UMCIRB applies 45 CFR 46, Subparts A-D, to all research reviewed by the UMCIRB regardless of the funding source. 21 CFR 50 and 21 CFR 56 are applied to all research studies under the Food and Drug Administration regulation. The UMCIRB follows applicable International Conference on Harmonisation Good Clinical Practice guidelines.