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Student Mobility on the Rise: A Case Study of Strategies to Support Mobile Students

Alisha J. Cloer
Gardner-Webb University

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By
Alisha J. Cloer

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Abstract

Student Mobility on the Rise: A Case Study of Strategies to Support Mobile Students.
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Transience/At-Risk Students/Strategies for Schools

Extensive literature on the problems in our country's education system exists; however,
little attention has been given to high classroom student turnover at the state and federal
levels (Hartman, 2002). Largely, research suggests mobility as being one of several
interrelated factors which have an effect on students and the level of success experienced
in school. Poverty is a prevailing factor in much of the student mobility research.
Children in poverty are most likely to be mobile because their parents are moving from
place to place to avoid rent, and they often become homeless. Some researchers say
poverty is the cause of lower student success because these students grow up with less
language exposure and less life experiences (Ashby, 2010; Kerbow, 1996; Nelson,
Simoni, & Howard, 1996; Robertson, 1999; Xu, Hannaway, & D'Souza, 2009). In
analyzing the variables surrounding mobility, Rumberger (2002) acknowledged studies
have found mobility to be "more of a symptom than a cause of poor school performance"
(p. 2).

When considering documented research and the relationship between poverty and student
mobility, it is unclear to what extent each factor may independently affect a student's
academic career. With mixed results throughout the research examining the relationship
between student mobility and school success, analyses have shown a correlation between
mobility and levels of student academic achievement.

The purpose of this study was to examine the relationship of student mobility and other
factors such as behavior and attendance on student achievement. In this study, student
mobility is defined as official student enrollment and attendance at more than one school.
This study inspected historical data of mobile and nonmobile students in Grades 4 and 5
in school years 2011-2012 and 2012-2013. The researcher compared the data between
students who were mobile and those who were nonmobile in an effort to raise awareness
of the possible effects of students attending multiple schools. Interviews of classroom
teachers were conducted to assess trends in teacher perceptions on the effects of mobility.
The study resulted in recommendations of processes and strategies for implementation to
assist mobile students as they enter and exit the school in this study.

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Chapter 1: Introduction

Introduction

It is the goal of the United States education system to ensure that all children are prepared to be globally competitive by promoting achievement and ensuring students have access to education ("Elementary and secondary," 2010). The United States has one of the highest student mobility rates of all developed countries (Heinlein & Shinn, 2000). However, the government has not given student mobility a great deal of attention (Chang & Romero, 2008). To some degree, mobile students have been helped through programs initiated by the federal government to ensure equal access to education for at-risk students. Legislation has been enacted over many years with the Elementary and Secondary Education Act (ESEA) of 1965 being the largest fiscal source of support for at-risk students. The ESEA was created to provide equity in educational opportunities for America's disadvantaged students with the goal of increasing academic achievement and helping students reach proficiency in their appropriate grade level. Since this legislation was enacted, amendments, including guidelines and stricter regulations for schools and districts, have sought to ensure educationally disadvantaged students gain extra assistance in education (Neuman, 2009; Popp, Stronge, & Hindman, 2003; Thomas & Brady, 2005).

Years after ESEA was established, the focus on at-risk students continued while accountability for student academic progress began to increase. In 1991, the legislative initiative America 2000 pushed for national standards and national testing which laid the groundwork for educating all children and demonstrated mastery through achievement testing (Thomas & Brady, 2005). North Carolina testing data required by the legislation to analyze student academic achievement was used in this study.

The ESEA was reauthorized and renamed No Child Left Behind (NCLB) in 2002.

The intention of NCLB was to close the achievement gap between groups of students. All children were expected to reach proficiency by the 2013-2014 school year, including demonstration of progress for students in subgroups. Schools and districts were to meet states' standards for all students including subgroups such as low-income students, minority students, students with disabilities, and limited English-speaking students (Thomas & Brady, 2005). Students in these subgroups are often mobile (Black, 2006a; Kerbow, 1996; Rumberger, 2003).

Most recently, the Obama administration proposed another reauthorization of the ESEA, called A Blueprint for Reform. In A Blueprint for Reform, states are being asked to work towards all students graduating from high school prepared to attend college in order to have a career. Emphasis is being placed on the use of effective instructional materials, improving teachers' knowledge and skills, comprehensive literacy programs, language and text-rich classrooms, and high-quality literacy instruction (Aldeman, 2010; Strauss & Perin, 2010). A Blueprint for Reform has created accountability systems to measure student growth and progress and reward high-poverty schools and districts that show improvement ("Elementary and secondary," 2010).

The ESEA has evolved over 4 decades with the focus remaining the same, moving toward increasing student achievement and grade-level proficiency. Adequate resources and support for educational research are critical for closing achievement gaps in American public education (Thomas & Brady, 2005). In response to the brief historical legislation discussed in this report, high-stakes testing and the increased emphasis on accountability have been the large focus for schools over the last 20 years. Schools and districts are continuously working and seeking strategies to close achievement gaps of student groups. One such group, mobile students, has been widely

studied but not highly recognized in our schools as a low-performing group (Hartman, 2002). The lack of attention given to mobile students may be due to difficulties in tracking mobility. Students who are mobile may go unnoticed since they move before a district realizes an issue with attendance. As students move in and out, enrollment numbers remain relatively consistent (Chang & Romero, 2008).

Researchers have suggested mobility is one of several interrelated factors which have an effect on students and the level of success experienced in school. Characteristics and variables that are common among highly mobile students include students living in poverty, students living in single-parent homes, minority students, students from military families, homeless students, and students from immigrant families. These students often have higher incidents of discipline and lower rates of attendance (Alexander, Entwisle, & Dauber, 1996; Black, 2006b; Kerbow, 1996; Nelson et al., 1996; Popp et al., 2003; Rumberger, Larson, Ream, & Palardy, 1999). In addition to the impact mobility has on individual students, high mobility can disrupt and impact a whole school (Chen, 2008; Hartman, 2002; Kerbow, 1996; Rumberger et al., 1999).

Background

This case study examined a rural elementary school located in the foothills of North Carolina during 2 school years, 2011-2012 and 2012-2013. The population of the county was almost 163,000 in July 2012, increasing 2% since April 2010. In comparison, the population of the State of North Carolina grew 2.3% during the same time. Between 2008 and 2012, the percentage of adult residents in the county who graduated from high school or beyond was 84.9% and those with a bachelor's degree or higher was 23%. Also between 2008 and 2012, 87.5% of residents had lived in the same house for over 1 year, and 5.4% of residents were born outside of the United States. In 2012, almost

70,000 housing units existed with 73.9% of residents owning their homes. The median household income for residents between 2008 and 2012 was $50,058 with 13.5% living below the poverty level. The county is over 573 square miles with 277.8 persons per square mile (U.S. Census Bureau, 2013).

In 2012, the school system reported an 87.1% graduation rate, a 96% attendance rate, and 192 short-term suspensions per 100 students; and 64% of classes were taught by highly qualified teachers. The largest percentage of teachers in the system, 78%, had over 10 years of experience. At the elementary level, 100% of classes were taught by highly qualified teachers with 49% of teachers having over 10 years of teaching experience (retrieved January 2, 2014, from http://www.ncreportcard.com/src/).

The school being studied is a newer school made up of two previously existing schools in the county. When the schools combined and the new school was opened, it was considered a magnet school and students throughout the county could apply to attend. Serving students in kindergarten through fifth grade, the enrollment exceeded projections and the school was overcrowded. Since the school opened, the attendance rate has slightly decreased but remained similar to the district and state averages.
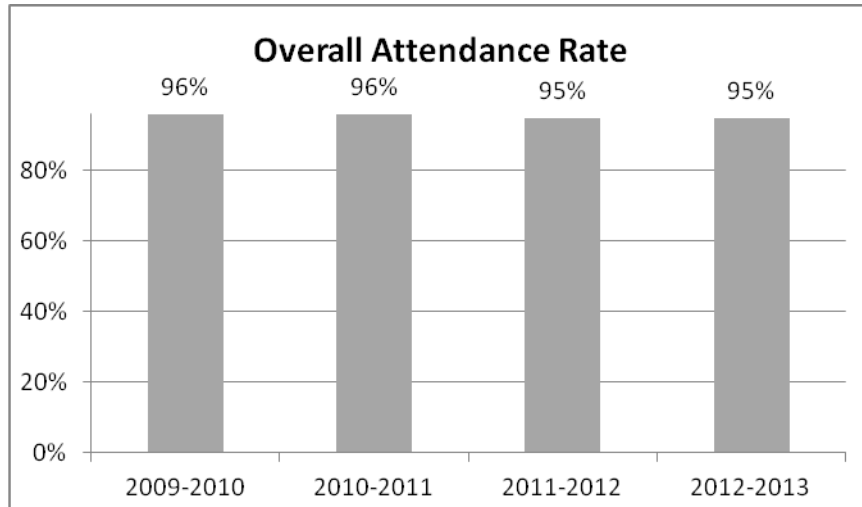
Figure 1. Overall Average Percentage of Students Who Attended School During the School Years 2009-2010, 2010-2011, 2011-2012, and 2012-2013.

The school's demographics fluctuated minimally during the 2 years being studied with White students making up the majority of the student population and African Americans being the next largest in membership (retrieved January 2, 2014, from http://www.ncreportcard.com/src/).
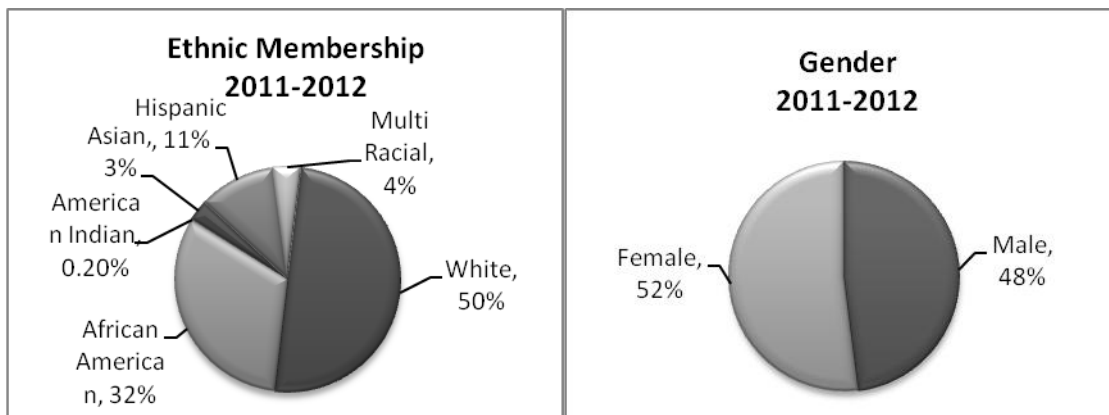
Figure 2. Demographics of Rural Elementary School in 2011-2012.
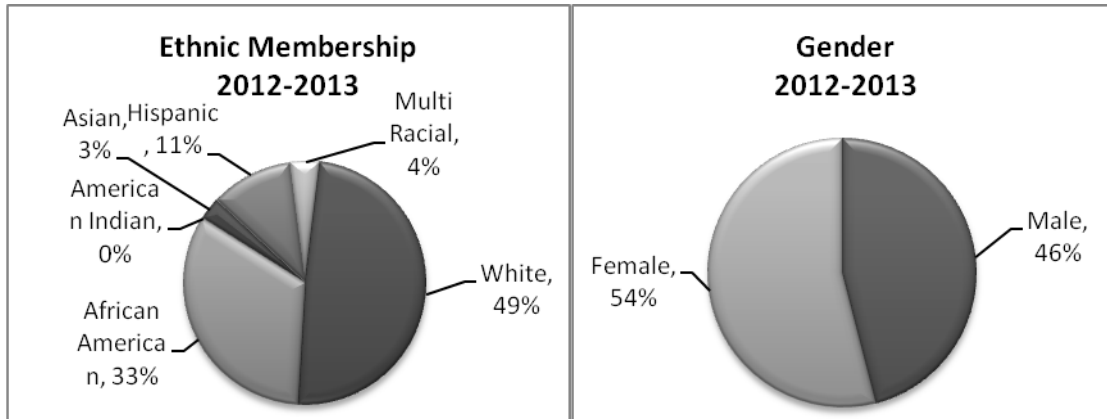
Figure 3. Demographics of Rural Elementary School in 2012-2013.

Since 2009, reported discipline incidents have decreased by almost one-third of

the opening year's occurrences (retrieved January 2, 2014, from

http://www.ncreportcard.com/src/).
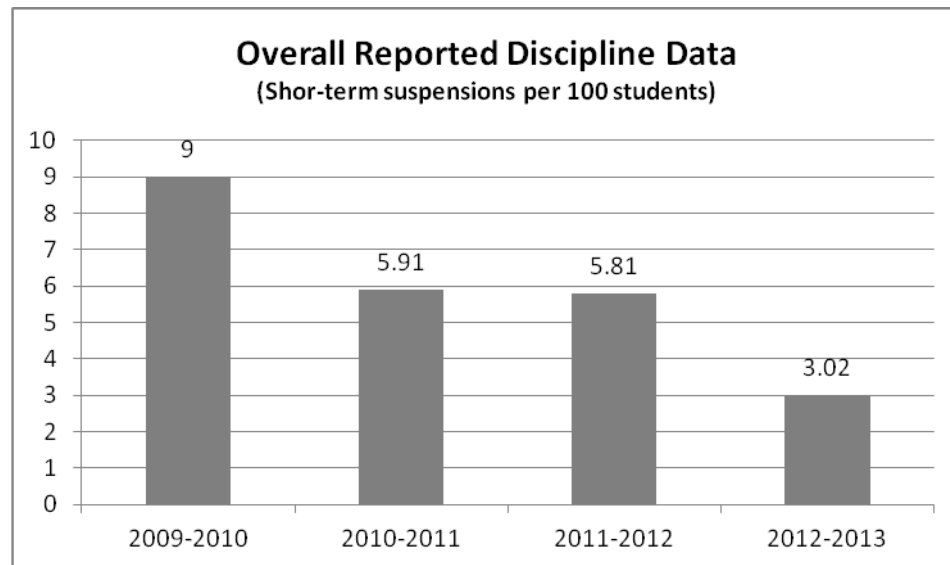
Figure 4. Overall Reported Discipline Data. A short-term suspension is defined as 10
days or less. Schools use suspensions for recurring, deplorable, or illegal offenses
committed by students. In-school suspensions or detentions are not required for state
reporting.

Student academic achievement fluctuated slightly in the first 3 years the school

was open. In the 2012-2013 school year, testing across the state changed with the

adoption of Common Core State Standards (CCSS). The standards were adopted to help

students increase critical thinking skills, and the end-of-grade (EOG) test format changed

as a result. Therefore, students across the district and state experienced a drop in test

scores with the expectation that scores would rebound over time (retrieved January 17,

2014, from

http://www.ncaccountabilitymodel.org/SASPortal/mainUnchallenged.do?unchallenged=y

es and http://www.dpi.state.nc.us/accountability/reporting/).
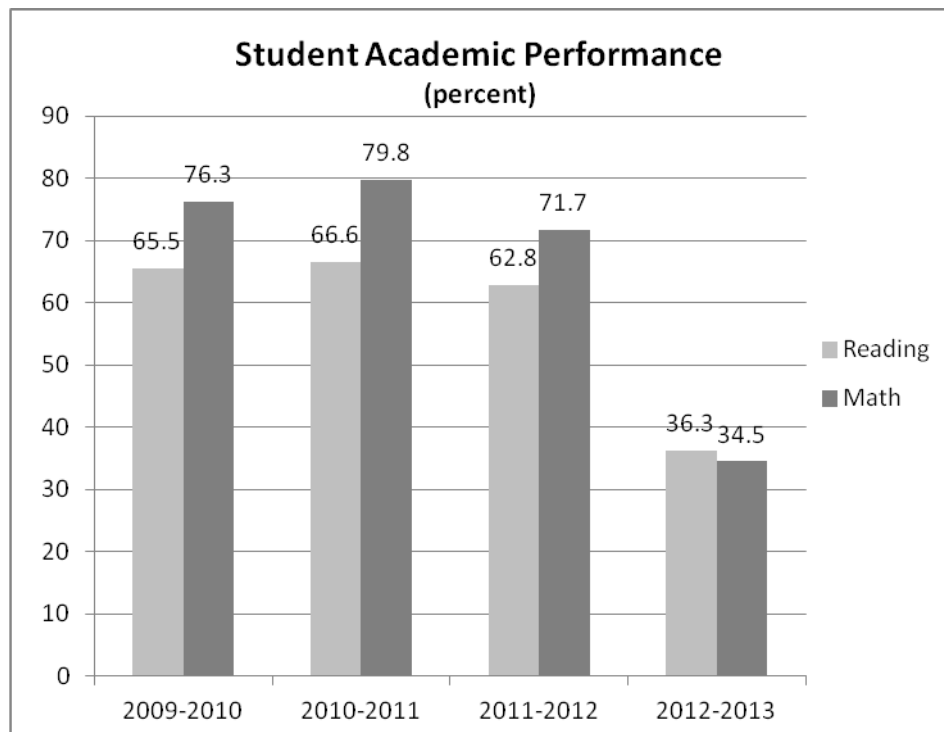
Figure 5. Overall Academic Performance by Percent for Students in Grades 3-5.

For several years, the school was classified as a Title I school, meaning financial

assistance was received because of a high percentage of students who came from low-

income families as measured with the free and reduced lunch program (retrieved January

2, 2014, from http://www.ncpublicschools.org/program-monitoring/titleIA/).

Title I Eligibility Percentage

School Year	Percentage
2009-2010	65%
2010-2011	56%
2011-2012	57%
2012-2013	61%
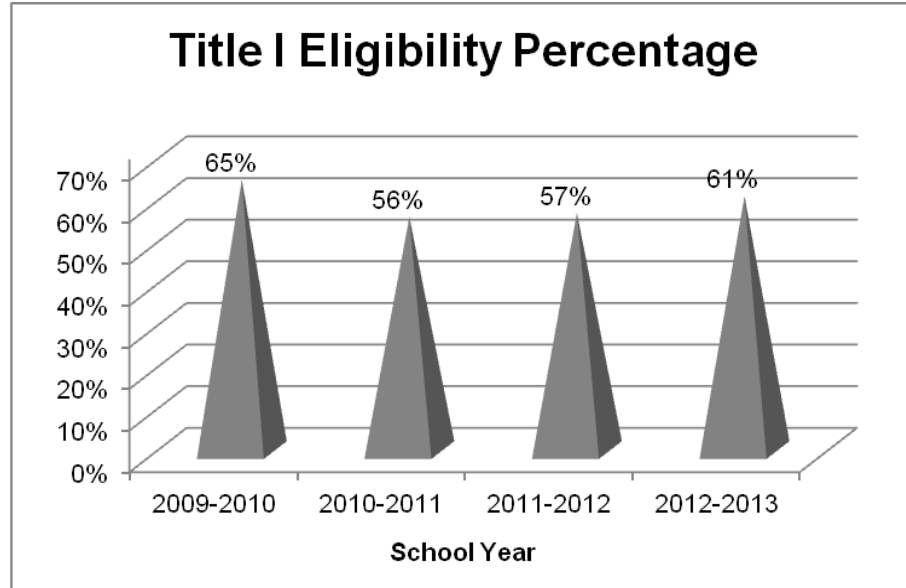
Figure 6. Title I Eligibility by Percent for Rural Elementary School.

If a school has an enrollment of at least 40% of students coming from low-income homes, the school is eligible for Title I funding (Brown, 2013). Regulations come with being labeled a Title I school, such as maintaining a highly qualified staff. Teachers working in a Title I school must be certified by the state and have a minimum of a bachelor's degree. Elementary teachers must specifically demonstrate competence in teaching reading and math, while teachers in other grades must demonstrate competence in the subject they teach. Paraprofessionals must also demonstrate competency in their ability to assist in the classroom by demonstrating proficiency on a test of reading, writing, and math skills or obtaining a 2-year degree (Thomas & Brady, 2005). In 2011-2012, 100% of teachers were highly qualified and 35% had advanced degrees. In 2012-2013, 100% of teachers were highly qualified and 28% of teachers had advanced degrees. Additionally, the majority of teachers had over 10 years of experience (retrieved January

2, 2014, from http://www.ncreportcard.com/src/).

The school district ranks among the 20 largest school districts in North Carolina and offers a wide variety of programs to meet the needs of the student population. The system allows school choice when possible and has alternative schools, magnet schools, and International Baccalaureate programs (retrieved January 2, 2014, from http://iss.schoolwires.com/page/5). With the allowance of choice and the closing of school choice when a school reaches capacity, enrollment numbers in the studied school have fluctuated since opening in 2009. The percentages of children who moved into and out of the school during the school year were similar from 2011-2012 to 2012-2013.
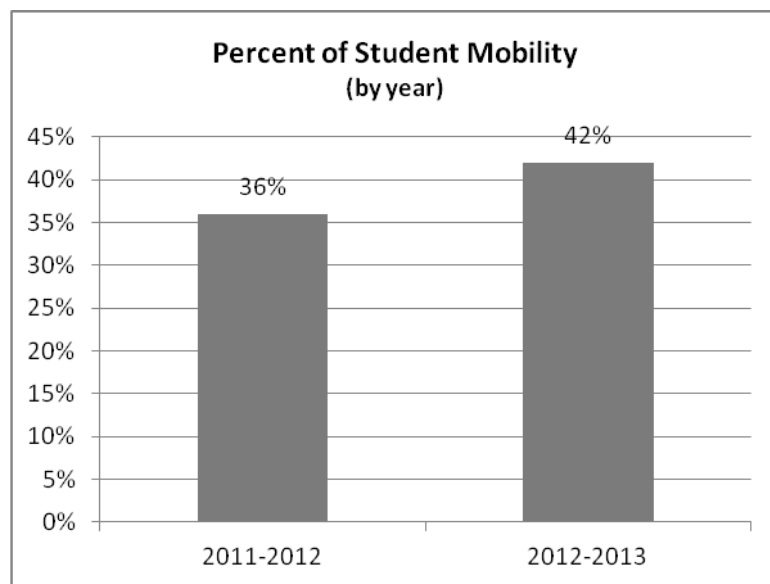
Figure 7. Percentage of Students, Kindergarten through Fifth Grade, Who Moved into and/or out of the School During the School Year in the Rural Elementary School Years 2011-2012 and 2012-2013.

Statement of the Problem

The rural elementary school studied is in the foothills of North Carolina. The school experienced student mobility with students moving into and out of the school

during each school year. The percent of mobile students in the school remained steady during the 2 years being examined, 2011-2012 and 2012-2013. The percentages of mobility for each school year include students who enrolled and/or left the school at any time from the beginning of the school year through the end of the school year. In a few instances, students moved and returned more than one time during a single school year. More specifically, during the 2011-2012 school year, 332 or 36% of the students moved into and/or out of the school. During the 2012-2013 school year, 349 or 42% of students moved into and/or out of the school.

Student mobility can occur in any area. Brent and DiObilda (1993) said that while it is believed that urban schools have a more highly mobile student population, suburban districts are also seeing increased student mobility. This study examined the impact of student mobility in a rural elementary school in North Carolina.

Purpose of the Study

The purpose of this study was to determine the impact of student mobility on student academic success as measured by the growth component of the North Carolina EOG testing in reading and math and by perceptions of classroom teachers. Student growth was investigated as it related mainly to mobility and also as it related to the variables of discipline rates, attendance rates, gender, and ethnicity. In this study, student mobility is defined as official student enrollment and attendance at more than one school in a school year, specifically examining Grades 4 and 5. Data from state standardized tests and school reporting systems were used to determine the strength of the relationships of the variables with mobility and student achievement. Interviews were also conducted to gain teachers' perspectives and perceptions of the effects mobility has on students and schools. The researcher hopes to raise awareness of the effects of

students attending multiple schools and provides recommendations and strategies to increase the success of mobile students throughout their educational experience.

Research Questions

      1. What is the relationship of student discipline incidents, attendance rates, gender, and ethnicity to student academic growth when analyzed with student mobility?

      2. What strategies are being implemented by the school to support the success of mobile students?

Factors and Limitations

      The research was designed to study the possible effects of student mobility in elementary-aged students in fourth and fifth grades. The data reported in this study were based on information that was collected from sources that report state data and from teacher interviews. It was possible for variables inside and outside the school to affect the results of this study; however, these limitations were outside the control of the researcher. Limitations that cannot be controlled for in this study included environmental factors such as socioeconomic status as measured by the school lunch program, levels of perceived poverty, living arrangements such as single-/double-parent homes, absences of students as they move between schools, number of school moves in other locations, level of parent education, and teacher quality.

Organization of the Study

      This study is organized into five chapters. Chapter 1 provides a brief discussion of historical legislation in education as it pertains to achievement gaps among student groups along the theoretical framework of the case study. The study is framed through Maslow's theory of needs recognition and satisfaction. Background information about the school and county in which the study took place is included along with specific data

in the form of graphs to show the demographics and information about the school. Also included is the statement of the problem, research questions, and factors and limitations of the study.

Chapter 2 provides a review of the literature related to mobile students. The researcher discusses the definition of a mobile student and provides examples of mobile students and the possible causes of mobility. Numerous studies and concluding results about mobile students and potential effects on achievement are provided along with variables that affect mobility. Additionally, the chapter contains information concerning possible effects on schools and classrooms, studies showing little to no effects of mobility, and other researchers' recommendations for schools with mobile students.

Chapter 3 outlines the research methodology used for gathering and analyzing the data. The testing design used to show the relationships of the independent variables to the dependent variable is discussed in greater detail along with the process of interviewing teachers to gain perceptions of the effects of mobility and possible strategies to mitigate these effects.

Chapters 4 and 5 summarize the results of the research as it relates to the study, to other studies, and findings of prior research. Limitations of the study are presented, and recommendations for the teachers, the school, and the district in the study are offered. Finally, suggestions for further research are proposed.

Chapter 2: Literature Review

Overview

Literature concerning the education of our youth in the United States is plentiful, and many studies have taken place to analyze the causes and proposed solutions for achievement gaps in school-aged children. One such gap that is becoming a larger issue for today's youth is the gap between nonmobile students and students who are mobile, or move from school to school (Carger, 2010). The researcher for this study explored some of the issues revolving around student mobility and the effects a growing rate of mobility are having on a rural elementary school in North Carolina.

The purpose of this chapter is to examine research for students who move from school to school. An overview of Maslow's hierarchy of needs is tied in with cognitive development as they relate to mobile students' school experiences, motivation, and academic success. Mobility is defined, along with the possible causes of mobility and the effects student mobility has on achievement, discipline incidents, and attendance rates. A large amount of the mobility research and studies in this chapter establishes the connection between poverty and student mobility. Therefore, this chapter also illustrates the relationship that low-income and poverty has on students' educational experience. Although the researcher did not include socioeconomic status as a part of this research due to federal confidentiality laws, it is an integral part of most available research and significant to the overall examination of student mobility.

Human Needs and Cognitive Development

Basic Needs, Motivation, and Learning

For many years, psychologists have researched and reported on various theories and types of motivation. Ray (1992) studied theories of motivation as it relates to

learning from well-known psychologists such as Freud, Adler, Skinner, and Maslow in an attempt to understand the role motivation has in learning. Ray presented Abraham Maslow, a humanistic psychologist who in 1954 introduced his theory of needs recognition and satisfaction, known as Maslow's hierarchy of needs. In the hierarchy, people follow levels of need in sequence, starting with basic physiological needs such as food, water, and shelter. Maslow introduced the concept of prepotency, when a person cannot recognize or pursue the next need in the hierarchy until the current need has been completely satisfied (Gawel, 1997). Basic needs must be met in order for motivation and learning to take place (Ray, 1992).
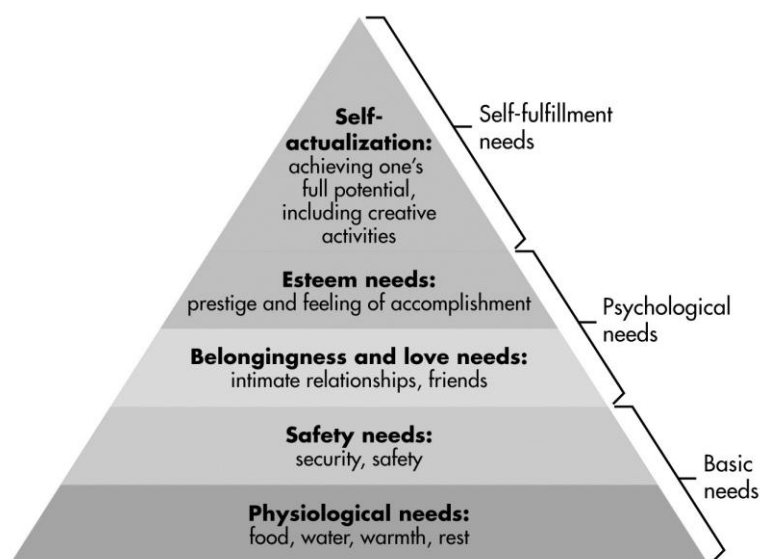
Figure 8. Maslow's Hierarchy of Needs (1943). Retrieved from
http://datadesign.wordpress.com/2011/01/14/maslows-pyramid/

According to Carger (2010), mobile families often have limited access to basic nutritional needs and healthcare, which is the first level of needs identified by Maslow. Also noted by Carger is the association of these needs with gaps in achievement and student success. Carger discussed the broken peer and teacher relationships that develop

with mobile children and the importance of strategies to help these students feel accepted, meeting the social need of belonging. Ray (1992) further discussed the importance of the teacher-student relationship that is built during a school year and how this relationship is linked to a student's motivation to learn. The first time a child enters a classroom, he or she will have positive or negative feelings about the environment. Student mobility, therefore, could have serious implications for a child's motivation and learning as they fit into Maslow's hierarchy of needs. Costley (2012) said it is best for a student to attend one school for as long as possible due to the social need of love and belongingness that comes from staying in one place. According to Costley, a sense of security is an innate need for humans as well as being an integral part of a group, especially for children.

Cognitive Development

In an attempt to provide schools with suggestions for helping students who are at-risk due to high rates of poverty, Jensen (2009) discussed how the brain works in relation to a person's environment. He proposed that brains reflect their environment and can and do change for the better. Jensen cited neuroplasticity as the quality that allows the brain's structure and organization to change as a result of experience. A person's intelligence is measured by IQ tests and is highly inheritable, but not 100% genetically determined. Jensen said individuals can reverse inherited gene function through exposure to environmental factors such as stress, nutrition, and learning.

In a follow up of children who were studied in the 1930s, Skeels (1966) conducted a study which mirrors Jensen's theory of the influence of the environment on brain development. In the original 3-year study in the 1930s, 13 children designated as mentally retarded moved into an institution with caring adults and increased developmental stimulation. These children made connections and built relationships with

older children in the institution. A contrast group of 12 children who initially had higher

intelligence were exposed to a nonstimulating orphanage environment during the study.

The focus of the study was to determine if the environment would have an effect on

intelligence. In this early study, Skeels found the developmental trend of the 13 children

designated as mentally retarded was reversed through the planned interventions during

the experimental time. Thirty years later, Skeels tracked the subjects and found the

intellect gained by the children had been maintained into adulthood. The relevant

implications of this study show that the environment matters to a child's learning, which

could be impacted when a student moves to one or multiple new schools and/or

classrooms with varying environments. The findings also support Maslow's theory of

needs recognition and satisfaction.

Mobility: Who and Why

Opinions and parameters to define highly mobile students as compared to students

who are not highly mobile are similar among researchers. Likewise, the causes and

opinions about why students are mobile are only slightly varied between authors and

researchers. Black (2006a) defined students as mobile if they move from school to

school for reasons other than promotion to a higher grade. Mobile students have

consistently similar backgrounds and are predominately in minority urban school districts

(Rumberger, 2003). National data on third graders reveal that 500,000 students attended

three schools between first and third grades (Walls, 2003). Walls (2003) and Black

(2006a) considered students to be highly mobile when they have moved six or more times

during their K-12 education career. These students are often from migrant working

families, families experiencing domestic violence, single-parent homes, military families,

homeless families, immigrant families, or low-income families with unstable living

arrangements and work situations (Black, 2006a; Kerbow, 1996).

Student mobility occurs predominantly with younger children and at the elementary school level (Rumberger, 2003). This early mobility is more disruptive to a child's achievement than moving later in the school career (Alexander et al., 1996; Heinlein & Shinn, 2000). Alexander et al. (1996) reported moves in a child's early years can cause problems in a child's transition into school. The transition from living at home with parents to starting school is a special challenge in the lives of children. Patterns of work habits and school performance are shaped during the elementary years and have a significant role in a student's development. Success is much more likely when children get off to a good, stable start (Alexander et al.).

Contrary to much of the research where student mobility is a result of the need for families to change residences, Hartman (2002) said students sometimes change schools to secure a more appropriate school environment or to leave an unsatisfactory environment. According to Rumberger (2003), 30-40% of student transfers are deliberate. Rumberger and Costley (2012) provided reasons families move, such as choosing a magnet school, escaping poor instruction or overcrowding, evading suspension and expulsion policies, exercising school choice options, and choosing different academic and social climates. Schools can actually contribute to student mobility through policies such as allowing school choice, lowering class size, enforcing suspension policies, and offering varying academics (Rumberger). The majority of these reasons for mobility affect more high school level students than younger children (Rumberger). Additional reasons for chosen mobility include a parent's need to move due to diplomatic, military, missionary, or business career moves (Carger, 2010).

Transitions during a school year can be difficult for a student's adjustment (Chang

& Romero, 2008; Rumberger et al., 1999). Alexander et al. (1996) concurred that transitions are difficult; however, when considering transitions between elementary, middle, and high school, these moves are usually geared towards the breaks in the curriculum and teachers make allowances to help prepare for the move. These types of transitions are not generally considered in the research for mobile students.

Migrant Families

Migrant families move based on work availability, thus the children of migrant families seem to be the most obvious group classified as mobile. To assist these highly mobile students, students are served through Migrant Education Programs (MEP) funded through Title I. The purpose of this program is to ensure migrant students receive necessary support such as transferring student records in a timely manner, providing additional academic support, and making health and social services available to migrant students (Popp et al., 2003).

Hoffman (2002) said it is difficult to accurately report the number of migrant students enrolled across the United States. Hoffman's analysis of a report by the National Center for Education Statistics (NCES) of the 2000-2001 school year summarized information about public schools and local education agencies in the United States. Hoffman determined it is not possible to accurately estimate the number of migrant students since migrant students may enroll in several schools during the school year. The inaccuracy of reporting comes from duplicating the count of migrant students as they are moving. According to the NCES report, over 426,000 students in the United States received migrant services during the 2000-2001 school year (Hoffman).

Popp et al. (2003) described how migratory students experience many challenges while trying to attend school. In addition to poverty having a large impact on the

children and their families, other challenges include a lack of resources and school

supplies, inadequate clothing, differences in cultural experiences and background

knowledge, possible language barriers, inadequate healthcare, and lack of sufficient

living space. Migrant students have delays and gaps in their academics each time the

family settles into a new area, especially if language barriers are present. Cultural

differences and language barriers often pose challenges for parental involvement in a

migrant student's education (Popp et al.).

Military Families

Military employees have the potential to move during their service time whether

the duty is short- or long-term. Approximately 1.1 million school-age children in the

United States have parents in the armed forces (Scott, 2011). Some military families

attend schools located on military bases while others attend schools in surrounding

communities. Like nonmilitary families, these students experience similar challenges

such as qualifying for free or reduced lunch and parents without advanced education

(Popp et al., 2003). One different factor Popp et al. highlighted is the presence of two

parents in these homes. However, long-term deployment can quickly create a one-parent

home for 6 months or longer.

Popp et al. (2003) shared a previous study that led to strategies for supporting the

children of military families. The 2-year study examined the transition challenges in the

education of military-connected children in high school. Recommendations for school

systems to support students in their adjustment and academic achievement during

military family moves resulted from the study. Some practices for the schools included

strong communication between the sending and receiving school and ensuring the

students know the receiving school will value the good work done in the previous school.

Although this study was originally conducted for high school students, it has since been applied to earlier grades and has expanded to over 200 worldwide participants (retrieved December 3, 2013, from http://fortbraggmwr.com/sls/the-memorandum-of-agreement/).

Students from military families are generally strong academically. Achievement of these students is consistently equal to or exceeds the national average for public schools. Popp et al. (2003) attributed this strength to the supports the various branches of the military offer to families, especially during deployments. The military recognizes that personnel need to focus on the mission of the job and, therefore, provides supports for their families. For example, the Air Force works with family stress, addresses the academic success of the children, and provides a mentoring program. Military parents are expected to attend parent meetings and be involved in their children's education which helps attribute to the academic success of these children.

The Office of Military Community Outreach offers support for military families through a website with applications, links to other websites, and e-publications. One such publication is titled Military Youth on the Move. This publication offers advice and information about moving, social life, and school for military families. In a link for kids for example, tips for making new friends and finding fun things to do are offered for students who are moving. One noteworthy tip is for children to get involved in sports or other community activities such as youth centers to help in making new friends after a move. One student was quoted as saying,

I've been to eight different schools in the last ten years. But I'll tell you what, soccer is what has kept me sane. Most places play it year-round, so no matter when I move, I can find a team. With every team, I've been able to meet at least 15 new people. And those 15 people lead to other new friends. (Retrieved from

http://apps.militaryonesource.mil/MOS/f?p=MYOM:HOME2:0)

Another child commented that her dad helped to make business cards with their new address and email address to help her friends stay in touch when she left a school. As evidenced, this website presents resources to help military children cope with social issues when they have to move (retrieved from http://apps.militaryonesource.mil/MOS/f?p=MYOM:HOME2:0).

Another resource to help military children with socialization is the school counselor. The counselor can encourage acceptance of a student into clubs and teams to help increase involvement in student activities. Counselors are trained to assist students of military families, especially during the transition into high school where social relationships have great importance (Popp et al., 2003).

In August of 2008, The Interstate Compact on Educational Opportunity for Military Children came into effect with 10 states formally adopting the agreements. The Compact addresses perceived inequities for military children when they are required to move across state lines. The Compact allows the educational laws of the *sending* state to apply to the schools of the *receiving* state. For example, graduation requirements, advanced placements, and age for enrollment follow the student to the new school. Since the Compact began, the number of states that have joined has grown to 35, including North Carolina ("Interstate compact on," 2010).

Popp et al. (2003) suggested perceptions of military families are positive. They are given a different level of respect that does not often exist with poverty-related mobile families. Popp et al. said that although characteristics of military families are not easily duplicated for others, many of the strategies used for these families could be implemented for other mobile students.

Socioeconomics and Mobility

Low-income and poverty are two characteristics recognized in much of the available research pertaining to mobile students. In 2003, Walls reported 30% of children in low-income families between first and third grades changed schools versus 8% of children well above the poverty line. Vail (2003) also discussed the causes of mobility, sharing low-income families move for reasons such as high rent, substandard housing, evictions, spousal abuse, and lack of decent paying jobs. Some examples of low-income family moves provided by Vail included moving to avoid paying rent or to have heat in colder months due to the change in seasons. Moving to a less expensive, nonheated apartment when the temperature is higher during the summer is more cost effective. A Minneapolis study on mobility cited by Vail resulted in one in four students from poor families moving one or more times compared to only one in 10 students from more affluent families. According to Vail, a move is more stressful for lower class families than it is for middle- to upper-class families. Whereas lower-class families likely move due to necessity as their living conditions change, middle-class family moves are likely planned and not related to housing instability. Therefore, the children in middle-class families are more prepared for a new home and a new school and have less stress.

Likewise, Hartman (2002) cited housing instability as the cause for student mobility, saying that low-income students are more likely to switch schools in the middle of the year than middle-income students. Hartman believed housing instability is the main reason for school changes and offered housing reform as a solution to help the negative effects of student mobility.

Since 2007, the year before our nation entered into an economic recession, the

median household income declined 8.3%; and the poverty rate in the United States

increased to 11.8%, the highest since 1993 ("U.S. Department of," 2011; "U.S.

Department of," 2013a). With the economic downturn in recent years, the number of

highly mobile families has increased. Families have been searching for employment and

affordable housing (Ashby, 2010). The U.S. Census Bureau reported in 2010 that 15.8%

of the population had not lived in the same residence during the previous year ("U.S.

Department of," 2011). More recently, American's mobility between 2012 and 2013

decreased to 11.7% ("U.S. Department of," 2013b). In 2013, the U.S. Census Bureau

reported the most transient group was people living below poverty. The most common

reasons for moving were housing related, followed by family- and employment-related

moves ("U.S. Department of," 2013b).

Government Assistance

Through laws and mandates, and often Title I funds, the United States

government has made attempts to assist at-risk students and raise their academic

achievement. For example, students who are considered homeless are protected under

the McKinney-Vento Homeless Assistance Act (Hartman, 2002). This act was

reauthorized and signed into law in January 2002 to provide homeless children and youth

with rights to equal access to public education as it is provided to nonhomeless children

(Hartman, 2002). In some instances, homelessness has been the result of the downturn in

the economy, and home foreclosures have increased the number of people who are

homeless. Families with children are one of the fastest growing homeless populations;

however, the number of homeless persons is uncertain because studies are limited to

counting those who are in shelters or on the street (retrieved December 7, 2013, from

http://nationalhomeless.org/issues/families/).

For students considered homeless, state and local agencies must remove barriers to enrollment, attendance, and success in schools. Schools are obligated to keep a student in their school of origin, even if the student is living outside of district boundaries. If a parent decides to enroll in a more convenient location, a school must enroll the child even if records and proof of residence are unavailable. If the child remains at the school of origin, the school is required to provide and pay for transportation to and from the school. If the child attends a different school, the transportation obligation falls on both the new school and the school of origin (Hartman, 2002).

Another example of attempted government assistance is NCLB. Under NCLB, Congress intended for schools to use federal funds to assist in closing the achievement gap and demonstrating progress for students in subgroups. Sanctions were to be imposed on schools that did not meet set standards within a given timeframe (Thomas & Brady, 2005). Because NCLB gave students the option to transfer from lower performing schools, this act actually resulted in student mobility. However, there was less mobility than originally expected. Only 31,500 of the 3.3 million students who were eligible to transfer schools due to low achievement invoked their right to transfer (Black, 2006a).

A great deal of federal education funds, including Title I, stem from ESEA. The government designates Title I funds to be used for disadvantaged students, including low-income families, limited-English proficient students, migrant students, and students with disabilities. These funds are frequently used for tutoring, additional teaching positions, technology purchases and upgrades, staff development, parental involvement, and addressing the diverse needs of the student population in a school. Mobile students are often eligible for programs such as after-school tutoring that use Title I funds (Ashby, 2010).

Hartman (2002) believed the various levels of government have not taken enough responsibility to deal with the issue of mobility. Funding does not support the needed educational services, and there is no specific focus on the problems caused by high student mobility. Hartman stated,

> There is a great deal that can and should be done to reduce damaging mobility and to handle mobility in the most constructive way when it is unavoidable. A crucial threshold step is making policymakers in a variety of areas, as well as the general public (parents in particular), aware of the prevalence and severity of the problem and the ways it may inadvertently be caused or exacerbated by various public policies. Policy changes are needed at all levels of government, and in far more areas than just the sphere of education. (p. 234)

Hartman called for changes at all levels of government such as education, welfare, and housing policies to protect the educational rights of highly mobile students. Hartman believed the changes should be strictly enforced to help in the reduction of undesirable school changes.

Academics, Discipline, and Attendance

Research has established that incidents of student discipline and poor attendance impact student achievement. Student mobility compounds these issues as moves between schools can attribute to poor behavior and absences; thus, student mobility can negatively impact student achievement and can be an indicator of a student's academic future (Alexander et al., 1996; Black, 2006a; Kerbow, 1996; Nelson et al., 1996; Rumberger et al., 1999). This case study provides findings on the impact of student mobility along with the impact of student behavior and attendance rates as they are associated with mobile students. Prior research and multiple studies were examined throughout this report. The

following sections include information regarding mobility, incidents of discipline, and low attendance rates as they impact a student's academic career.

Academic Achievement

A relationship between mobility and poverty has been evidenced by researchers in past years. Similarly, research for the relationship between poverty and a child's lower academic achievement is also abundant (Hartman, 2002; Vail, 2003; Walls, 2003). In conjunction with Maslow's hierarchy, it was established that basic needs such as food, shelter, medical care, and safety must be met for students to function at higher levels academically (Jensen, 2009). More recent studies concerning the effects of mobility on student achievement have controlled for variables such as poverty to eliminate the effects of poverty on achievement. It is difficult to separate mobility from poverty since mobile students are likely to live in poverty (Kerbow, 1996; Nelson et al., 1996; Xu et al., 2009). The results of the effects of mobility on academic achievement are mixed throughout the literature.

In Marzano's (2004) research on building students' background knowledge to increase academic achievement, he discussed numerous research studies relating students' background as it is connected to their socioeconomic levels and academics. Marzano explained how a student's lower socioeconomic status can limit his or her ability to achieve academically due to a lack of access to resources during childhood. Additionally, these students do not have as much exposure to outside experiences or interactions with others as those from more affluent families. In one study, Marzano cited the findings of Rolfhus and Ackerman (1999) who administered intelligence and knowledge tests in many different subject areas. It was found that knowledge was highly associated with learned intelligence. Thus, Marzano concluded learned intelligence has a

stronger correlation to a student's success in school.

Combining findings and conclusions of various studies, Marzano (2004) built the case for the negative effects of poverty on academics and how poverty can be damaging to a child's education. Most of the studies to be discussed in this report have low-income students in common and mobility that is associated with socioeconomic status. With the breaks in curriculum between moves, it is questionable whether a student gains enough learned intelligence and can build on those concepts to be successful academically (Jensen, 2009; Kerbow, 1996, Nelson et al., 1996; Rumberger, 2002; Xu et al., 2009).

Ruby Payne (2005), a leading U.S. expert on economic classes, also provided insight into students living in poverty and their academic success. Like Marzano, Payne said students living in poverty come to school without background knowledge and concepts. They do not have the cognitive skills to be as successful as their counterparts. According to Vail (2003), students are entering school less ready to learn and are behind their classmates in their ability to learn. Parents in poverty may not read or talk to their children as much as parents in affluent families. Sparks (2013) concurred that students in poverty lack the background to be successful, citing students in poverty enter school knowing 10,000 fewer words than their peers from higher-income families. This lack of vocabulary impedes a student's ability to close the gaps they bring to school as a kindergarten student. Vail stated, "Children in poverty's grip do not leave the miseries of their home lives behind when they go to school" (p. 46). These students are more likely to have difficulty paying attention because of not eating breakfast and often have not had dinner the night before. Children of poverty are behind before they even start school and are more likely to drop out of school and become pregnant at an early age (Vail).

Wright (1999) and Isernhagen and Bulkin (2011) presented research on the effects

of low family income and high mobility on students' academic achievement. From Wright's examination, it was concluded that risk factors such as low family income in addition to student mobility may be linked to the risk of academic failure. Isernhagen and Bulkin conducted a mixed-methods study on the impact of student mobility and teacher practice in Nebraska for students in fourth, eighth, and eleventh grades from 2007-2009. The results of the study showed highly mobile students had a persistent pattern of lower achievement scores on criterion-referenced assessments. Qualitative data from the study suggested factors outside of school, such as socioeconomic status, had an impact on the students and their achievement. Teachers and staff explained the need to demonstrate empathy for mobile students in situations where they may not be able to complete homework or have parent involvement in the child's education. The teachers get frustrated and feel like they are always working to help mobile students catch up with the rest of the class (Isernhagen & Bulkin).

Consistent with other researchers, Rumberger (2002) looked at student achievement before a move, citing studies where low academic achievement before a student moves for the first time indicates mobility as a symptom and not as a cause of poor performance. In other words, mobility is often a symptom of poverty, which is strongly associated with school or individual failure (Rumberger, 2002).

In his research on student mobility, Schafft (2006) focused on schools experiencing student turnover as a consequence of poverty. Schafft presented a case study of student mobility within a rural New York school district, examining the enrollment data over a 1-year period and conducting 22 interviews to compile the 5-year residential histories of economically disadvantaged parents of mobile students. Evidence from this study suggested that mobility exists within impoverished rural communities.

The majority of the parents interviewed attributed their mobility to inadequate access to safe and affordable housing or employment-related issues. Thus, high mobility in this case is a consequence of poverty.

Tough (2012) searched throughout the United States for answers about childhood success and failure. Tough argued that a child's success should not be measured by those who score highest on tests, but character qualities such as perseverance, curiosity, having self-control, and being conscientious matter the most, even more than IQ. In his research, Tough cited researchers and educators who are linking childhood stress to life success and examined how hardship in the early years affects the physical development of a child's brain. Living in stressful conditions and stressful relationships with adults impact a child's brain development. When looking at the effects of poverty, the conventional information portrayed by most is that these children do not get enough cognitive stimulation and are therefore unable to achieve. This information is being used to help children overcome the constraints of poverty and grow up to achieve as adults. Tough argued that teachers, coaches, and mentors can help teach the skills that parents are teaching their children; however, few schools are equipped to help students learn about character. Tough's research could have implications for mobile students since mobile students are often living in the stressful conditions of low-income families (Isernhagen & Bulkin, 2011).

Because some schools in low-income areas with poor children are successful, Engec (2006) made the argument that poverty alone does not cause failure. However, environmental factors of poor children, including lack of parental involvement, lack of educational stimulation in early years, and high student mobility can lead to low performance. In Engec's study of Louisiana public school students, test performance was

analyzed and the data showed a correlation between mobility and student performance. Students who were mobile had lower results in academic performance than their nonmobile peers.

Much of the research has shown a relationship between student mobility and academic achievement. One interesting finding relates to specific subject matter and mobility. Kerbow (1996) and Strand (2002) both found a greater effect on math achievement over reading achievement. The explanation given for this finding attributed lower math achievement to the building of previous knowledge year after year. Therefore, multiple moves may especially affect math since the progression of the subject is relatively logical (Kerbow).

Discipline Concerns

Mobility studies have also included student behavior and the frequency of discipline incidents for students who move. The following section cites findings of research on mobility as it relates to student behavior.

In addition to the academic effects in Engec's (2006) study of Louisiana public school students, suspension data were analyzed. A correlation was present when comparing suspension data and mobile students. Students who enrolled in schools four or more times within the school year had a higher in-school and out-of-school suspension rate.

As in Engec's (2006) study, additional research has shown as children move often, they are more likely to have behavior problems. In the Kids Mobility Project research for attendance and suspension rates and mobility factors showed stability as an important indicator of student success and achievement (Craig, 1998). In the study, mobile students demonstrated poor adjustment and were suspended more often. The

suspensions lead to a reduction in the students' time in class for learning. Researchers in this study say students must be present for critical learning opportunities. Additionally, outside of the school, parents of mobile students interviewed by the researchers reported problems with their children's behavior, emotions, and self-esteem (Craig, 1998).

In alignment with the effects of mobility on behavior, Wood, Halfon, Scarlata, Newacheck, and Nessim (1993) studied the conduct of a national representative sample of students and found the rate of behavior issues more than doubled for children who moved frequently. These students were 77% more likely to have four or more behavioral issues and 35% more likely to have failed a grade than their nonmobile counterparts (Wood et al., 1993).

In yet another national sample, Chen (2008) conducted a study of 712 secondary schools from communities with varying crime levels. The results of Chen's study showed poverty, mobility, and larger school size were associated with school disorder. There was a significant correlation between school and community crimes, minority student percentage, school size, and student mobility. High mobility of the school population prevents students from bonding with the school, which affects the culture of the school. Since school culture was shown to be closely associated with crime and mobility, schools with higher levels of student mobility may have a higher rate of disorder. These findings have shown mobility to have a correlation with school crime and also with student bullying and classroom disruption.

Chen (2008) said mobility can predict school disorder and disrupts classroom activities, thus impacting the whole school. Chen maintained mobile children are often living in poverty and only know one method of resolving a problem, thus these students learn behavior from being on the street and bring the behavior to school. Chen

recommended policies and programs to enhance the school climate and social skill programs targeted towards at-risk students.

A common theme of the consequences of misbehavior has been the loss of instructional time. Hartman (2002), Nelson et al. (1996), and Rumberger et al. (1999) also related increased misbehavior to student mobility where students who are mobile are more likely to report incidents of misbehavior and are less engaged with the school. For example, mobile students participate less in extracurricular activities than their nonmobile peers and often miss classes due to behavioral problems. Numerous studies have shown a direct positive link between student behavior problems and a reduction of positive academic achievement (McEvoy & Welker, 2000).

Attendance Rates

According to researchers, thousands of young children are at risk academically because of extended absences, which can be associated with student mobility. Nationally, one of every 10 children is chronically absent during their first 2 years of school (Alexander et al., 1996; Chang & Romero, 2008; DeKalb, 1999). Some researchers have shown connections between poverty and student attendance.

Attendance, poverty, and migrant students. Chang and Romero (2008) created a report for the National Center for Children in Poverty to address the importance of student attendance in the elementary years. In the report, chronic absence was defined as students missing 1 month or more of school in one school year. The data collected for the report included the examination of local attendance patterns in nine mostly urban school districts, an analysis of national data, a literature review, and interviews and electronic exchanges with practitioners.

Chang and Romero's (2008) report cited a correlation between chronic absences

and poverty. Children from families in poverty were four times more likely to be chronically absent than their peers. Families in poverty cope with serious life events and move frequently, which impacts school success since children gain their basic social and academic skills during their early elementary years (Chang & Romero).

Likewise, Jensen (2009) said absences occur often when families are living in poverty. In linking children from lower-income families to school absences, Jensen contended incidences of health issues from living in poverty lead to increased absences and tardiness. Health issues can also affect middle- and upper-income students but not as frequently as lower-income students who face the challenge of accessing adequate healthcare.

Walls (2003) also connected poor attendance to poverty and migrant children, with three-fifths of migrant children living in poverty despite having parents with full-time jobs. Walls attributed lower attendance rates for these families to inadequate healthcare. Large numbers of chronically absent students in a community could indicate issues that will affect the healthy functioning of the entire community. Migrant children generally experience high rates of absences and are highly mobile. Sometimes, migrant workers move in an effort to avoid U.S. Citizenship and Immigration Services (Chang & Romero, 2008). In Chang and Romero's (2008) report, chronic absences were the most prominent for Latino students who are often English Language Learners and highly mobile due to migrant work. The kindergarten students in the study had significantly lower reading scores than their peers of other ethnicities with similar numbers of absences. Since language barriers likely affect these students, attendance is especially important and parents may not be aware of the effects of extended absences (Chang & Romero).

Effects of absenteeism. Researchers in the Kids Mobility Project along with Alexander et al. (1996) and Heinlein and Shinn (2000) said mobility in the early years is more disruptive to a child's achievement later in school. Stability is most important in primary grades since students must be present for critical learning opportunities (Alexander et al.; Craig, 1998; Heinlein & Shinn; Nelson et al., 1996). DeKalb (1999) also said absenteeism is detrimental to student achievement and extends the effects to promotion and graduation. Absenteeism is one of the top 10 major problems in schools across the country. Tracking absences is difficult since students who are chronically absent often move before the issue is identified. Being in school consistently is important to students gaining the strong foundational skills they will need. If students do not attain the skills by third grade, they will require extra help and are at risk for dropping out (Chang & Romero, 2008).

Students who are mobile experience high levels of stress which can lead to increased student absences (Johnston-Brooks, Lewis, Evans, & Whalen, 1998; Schafft, 2006). Johnston-Brooks et al. (1998) conducted a study to show the effects of stress on students in the fifth and sixth grades. In the study, measurements of heart function, such as blood pressure, and student absences were analyzed. Data implied a relationship between chronic stress and poor health. Over 50% of the students' absences were linked to chronic stress, and students who are mobile generally have increased stress (Chang & Romero, 2008).

The lower attendance rate of mobile students directly affects academic achievement which can cause an achievement gap between mobile and nonmobile students (Costley, 2012; Vail, 2003). Black (2006b) cited a 2003 student mobility study by Ohio's Columbus Public Schools which revealed serious attendance problems for

mobile elementary-age students. These students also failed proficiency tests in the fourth grade at a higher rate than their nonmobile peers. Blazer (2011) also suggested chronic absences of mobile students have negative consequences on academic achievement. In addition, mobile students also have an increased risk of dropping out of school, disruption of classroom instruction, and an increased likelihood of future risk-taking behaviors such as alcohol and drug use.

Mobile students' rationale for absences. In addition to a lack of parental understanding and inadequate access to healthcare, other reasons mobile students have low attendance rates include a lack of transportation, parents working long hours, and unstable housing (Chang & Romero, 2008). After working long hours or multiple jobs, it may be difficult for parents to get their children up and ready for school in the mornings. Some students sleep at different places each night and may have difficulty getting to school from various neighborhoods. Additionally, children miss school while they are in the process of moving or finding a new home. For children who move multiple times, school may be intentionally avoided because of the lack of relationships with peers and adults, new curriculum, new teaching strategies, and simply having to constantly adjust to new schools. Students who move midyear are most likely to experience adjustment difficulties (Black, 2006b; Blazer, 2011; Chang & Romero, 2008).

As evidenced in the research, students who are mobile are affected physically, socially, and emotionally which in turn negatively affects their ability to fully function in the school setting. In alignment with Maslow's hierarchy of needs, humans need to have their basic needs met, feel safe, belong socially, and experience accomplishments in order to attain personal growth (Gawel, 1997; Ray, 1992). This case study analyzed data and teacher perceptions of a small rural elementary school in order to present strategies to

help schools overcome the obstacles associated with student mobility.

The Noneffects of Mobility

Much research about the negative effects of mobility on students has been presented; however, there are studies which show mobility has little to no effect on students. Isernhagen and Bulkin (2011) said it is difficult to conclude a high level of mobility is the direct cause of underachievement. Many findings attribute poor performance and lack of student success to other variables in the studies. When Adduci (1990) used data on family structure, language spoken, and socioeconomic status as control variables, it was determined the achievement of mobile students in a small urban city in New Jersey was not affected by mobility. Only 1.8% of the variance in student achievement was attributed to mobility. Strand (2002) presented a substantially reduced effect of mobility on student achievement due to the fact that the mobile students studied were more likely have free lunch, need support in learning English, have special education needs, and have higher absences. Likewise, Alexander et al. (1996) studied Baltimore's public schools and found mobility alone did not cause poor academic performance. This research team established the effects of mobility to be insignificant when they set up controls for prior achievement and factors of a student's background. In yet another example, Nelson et al. (1996) found mobility is not the sole cause of poor academics. Instead, academic failure is likely to be related to students identified at-risk with a low socioeconomic status. These are variables related to students who are mobile.

The studies presented in the review of literature thus far have shown varying results for the success of mobile students. Academic achievement, incidents of discipline, and attendance rates have generally been affected by mobility and affect school success. However, an emerging theme in the most recent literature has related to

poverty, and researchers have begun controlling for outside variables to negate mobility as the sole source of student difficulty in school (Ashby, 2010; Carger, 2010; Isernhagen & Bulkin, 2011; Schafft, 2006). Some of the studies reported next provide examples of support for the effects of mobility and some show the effects of outside variables as they are related to mobility and achievement.

Related Studies and Reports of Student Mobility

Researchers across America have studied and reported findings concerning student mobility and the effects mobility can have on a child's educational experience. Negative effects on academic achievement, discipline issues, and attendance rates have been associated with a child's level of mobility (Blazer, 2011; Chang & Romero, 2008; Engec, 2006; Kerbow, 1996; Rumberger et al., 1999; Strand, 2002; Walls, 2003; Wright, 1999). According to Hartman (2002), mobile children are subject to social and emotional stress because of the lack of lasting relationships. They experience lower achievement levels and slower academic pace in the classroom than their stable peers. Over a 6-year period, students who have moved more than three times can fall a full academic year behind their peers. Popp et al. (2003) reported that research indicates as student mobility increases within the school year, test performance on criterion-referenced tests and norm-referenced tests decreases. Student moves not only affect the mobile student but can also affect the students, teachers, and whole school where mobile students attend (Costley, 2012).

Mobility significantly diminishes a student's possibility of graduating from school (Blazer, 2011; Black, 2006a; Chang & Romero, 2008; Costley, 2012; DeKalb, 1999); Hartman, 2002; Rumberger, 2002). According to Hartman (2002), students who moved high schools at least two times were greater than 30% less likely to graduate than the

students who remained in the same high school.

Nelson et al. (1996) examined the mobility of 2,524 early elementary-age students over a 3-year period. Students in kindergarten and first grade were from 24 elementary schools in a large urban school district. During the 3-year period, 5% of students changed schools more than one time. The participating schools reported an average of 84% of the student population participated in the free lunch program.

Nelson et al. (1996) analyzed many factors as they relate to mobility. Students from two-parent households were less mobile than single-parent homes or students who were living with other relatives. Schools that were overcrowded and had the highest percentages of low-income families experienced significantly higher student mobility. When reporting on behavior and grades, students who moved one time or not at all were rated as above average in behavior; however, there was no difference found in academic performance. Students who were less mobile were absent less than one time per month, and there was no relationship between mobility and tardiness. Teachers from the schools reported mobile students to have the poorest school adjustment during their time in school. Although the researchers did not find significant differences in academic performance, a suggestion was made to implement intervention programs for mobile students to prevent them from dropping out as they age (Nelson et al., 1996).

Kerbow (1996) had similar findings when he used data from Chicago public elementary school sixth graders to report on the effects of student mobility. In the urban setting of the study, only 38% of students in the sixth grade enrolled in 1994 had attended the same school throughout their elementary school career. Thirteen percent had attended four or more schools. Generally, White and more advantaged students were less mobile than their counterparts. Students who did not receive subsidized meals and had

families with both parents in the home were less likely to be mobile. Most mobile students were from disadvantaged homes and families with nontraditional household arrangements.

The Chicago study showed little impact on achievement in students who only move a single time, since students are likely to recover from the effects of one school change. However, as students move multiple times, the academic gap becomes larger over time. More specifically, Kerbow (1996) found if a student changes schools four or more times, the student loses one full year of academic growth. The adjustment period extends over several years and several schools. Since students build on previous knowledge year after year, multiple moves may especially affect math since the progression is relatively logical (Kerbow).

Kerbow (1996) said that student mobility creates negative consequences for instruction and schools as a whole. Long-term instructional planning is time-consuming for teachers; however, with students missing pieces of the instruction, this becomes more difficult. The exchange of students also makes it difficult for teachers to assess the impact of their instructional practice. Lessons become more review-oriented, slowing the pace of introducing new topics and disrupting the flow of instruction for all students. For the school as a whole, the instructional sequence and curricular pace is affected from grade to grade. The students leaving a grade may not be the students entering the next grade (Kerbow).

When reporting the results of the Chicago study, Kerbow (1996) also discussed the data trend across years, looking at achievement levels before student mobility was a factor of the students studied. Kerbow indicated that other issues associated with mobility may independently affect achievement since the comparison of achievement

between mobile and nonmobile students across years showed a gap.

In a neighboring state, close to the same time, a group of planners and researchers in the Minneapolis, Minnesota area wanted to learn more about the effects of student mobility on student achievement and adjustment. The Kids Mobility Project was published in 1998 and included results from interviews of families experiencing mobility, a quantitative analysis of mobility and achievement, and a research review on student mobility (Craig, 1998).

In Minneapolis Public Schools, residential mobility affects one in five students. Many families move because of the need for affordable housing or other threats to stability such as chemical dependency, death, or divorce. Researchers noted poverty, single-parent homes, and lack of social support in the community also contribute to the instability of the families. For the data analysis, researchers used a random sample of about 25% of the county's population of students in first through sixth grades. The racial/ethnic mix for these students was similar to all students in the area. Mobility was tracked for a portion of the 1994-1995 school year with 21% of the students in the study moving into or within the district. Eight and a half percent of students moved out of the district during this time (Craig, 1998).

It was reported in the study that students of color, low-income students on free meals, and students of one-parent homes moved more often than other students. In the analysis of the study, the more moves a student made, the lower the average reading score. Students in the free/reduced price meal program scored 20 points lower on the California Achievement Test than those paying for lunch. Also, students of color were 20 points lower than White students. Two-parent homes had higher scores overall and made higher gains over 1 year (Craig, 1998).

Attendance was also analyzed, showing that students who moved less had better attendance rates. In the research, attendance proved to be a strong predictor of performance. Students who were absent 20% of the school year scored 20 points lower than students who were at school nearly every day. Students who had almost perfect attendance made significant gains in reading achievement (Craig, 1998).

Further west, Rumberger et al. (1999) published a study from California examining student mobility, especially as it applies to students at the secondary level. Extensive data were collected through surveys of over 1,000 eighth-grade students followed over a 6-year period, surveys of tenth-grade students in 56 schools, interviews with 19 mobile high school students and their parents, and interviews with 32 educators. Rumberger et al. shared important findings about the mobile population of California students and schools. First, California students generally have a higher mobility rate than other students in the nation. During the study, approximately 75% of students in California changed schools between first and twelfth grades as compared to 60% of the rest of the nation. In addition, mobility was related to family income and socioeconomic status with lower-income students having a higher mobility rate. Single-parent and nontraditional families were more mobile than two-parent households.

Rumberger et al. (1999) also shared findings about the educational consequences of mobility. First, students who moved three or more times scored 20 points lower in reading achievement than students who did not move. Next, it is difficult for mobile students to adjust to new school settings. Their personality or psychological well-being was affected as they reported lower self-esteem and were less likely to be involved in extracurricular activities. Finally, reports of lower levels of involvement were said to be due to poor attendance. Students and teachers also reported higher incidences of mobile

students getting into trouble in school.

Research conducted by Rumberger et al. (1999) revealed high school mobile students were sometimes placed in classes that did not contribute to graduation or were different than previous schools. Results of test scores of tenth-grade students were lower, but only two of four subjects showed a statistically significant difference. The most intense effect of mobility found at the high school level was the graduation rate. Students who changed schools were much less likely to complete high school. Ninety-three percent of students who did not move received a high school diploma, while 76% of students who moved one time received a diploma, and only 59% of students who moved more than one time received a diploma.

At the high school level, students sometimes move in search of better educational placement. Therefore, the effects of mobility on academic achievement are difficult to predict. When students make a strategic move, positive academic impacts are reported. When students move due to reasons other than seeking better placement, they are more likely to report negative impacts on academics (Rumberger et al., 1999).

Overall, Rumberger et al. (1999) reported their findings are consistent with prior research showing students suffer psychologically when changing schools. Mobility is detrimental to students' school engagement and graduation, but it also hurts nonmobile students due to the chaos of the disruptions in a class with constant student turnover. Schools are impacted overall with the time it takes to process students as they move in and out, the climate shifts that take place as the student population fluctuates, and the fiscal effects of students coming and going.

In a more recent study, mobility rates for North Carolina elementary and middle school students were studied by Xu et al. (2009) from 1997 to 2005. These researchers

attempted to show the effects of mobility on the performance of different groups of students. Four cohorts of students in third grade were followed for the duration of the study.

The Xu et al. (2009) study found students of parents with lower levels of education were more mobile than their peers. Mobility was also higher for minority, low-income, and Limited English Proficient (LEP) students. Student performance in math was observed to be affected for African American, Hispanic, and low-income students who moved three or more times, with the largest gap in achievement occurring during the initial move. No effect was observed on reading performance for these groups of students; however, for White and more advantaged mobile students, reading performance improved. The researchers attribute this outcome to the White students being more likely to move to a higher quality school (Xu et al.).

In much of the latest research on student mobility, authors have referred to reports by the Government Accountability Office (GAO). In 1994, the GAO published a report of student mobility and the characteristics and successes of the students as compared to their nonmobile peers. Data on 15,000 third-grade students in 235 elementary schools were collected along with information from their parents, teachers, and school principals. Literature on issues related to frequent school changes along with the effects on students were reviewed.

The report concluded low-income, inner city migrant, and LEP children were the most likely students to be mobile. These students were more likely to be below grade level in reading and math, repeat a grade, and exhibit behavior problems. Recommendations were made to use federal funding to make success for these students a higher priority (Morra, 1994). Much of the research conducted after the release of this

report makes reference to the conclusions of the report.

More recently, a 2010 report was published from the GAO to analyze students in kindergarten through twelfth grade who changed schools frequently. To gather research for the report, information was collected through interviews of school officials and federal and state education officials, external studies were reviewed that measured the effects of student mobility, and interviews of school officials and parents were conducted at site visits of a sample of eight schools across six school districts in three states: California, Michigan, and Texas (Ashby, 2010).

In the GAO report, mobile students were described as those who changed schools four or more times. The mobile students scored lower in math and reading and were more likely to have to repeat a grade. These students were disproportionately African American, had family income below the poverty level, did not own their home, and did not have a father present in the home. The study indicated that highly mobile students are largely affected by socioeconomic status and parental education and are likely to have higher dropout rates. The schools in the report were comprised mostly of low-income, disadvantaged students (Ashby, 2010).

According to teachers and administrators interviewed for the study, meeting the needs of mobile students was difficult since the pace of instruction was affected when students moved in and out. Also, students entered school without their cumulative record or the records were incomplete. Because of the lack of records, it was difficult to make adequate placement decisions and identify possible special education needs. Interviews also revealed that mobile students felt like they did not belong, exhibited poor attendance, and sometimes dropped out of school. Students who had difficulty fitting in socially could be disruptive to the class or school (Ashby, 2010).

Consequences for Schools

While mobility has been shown to have negative effects on students individually, authors and researchers have stated mobility has broader effects. The more straightforward of these effects on the overall school is made evident by Sanderson (2003). The school office is impacted due to the amounts of paperwork it takes to create new cumulative files and forward existing ones. Class lists are continuously changing and placement of students can be difficult due to the lack of knowledge about new students. The safety of the students could be compromised as the school waits for the cumulative record. Often, the school does not know if a mobile child has a learning disability, behavioral issue, or medical problems (Sanderson).

Kerbow (1996) discussed more complicated school-wide effects of mobility, saying schools that are improving lose their accomplishments because of students transferring and losing continuity of services. The other students in these schools and the overall school system are at a disadvantage. Mobile students and the schools become unstable as learning difficulties intensify due to students entering the classrooms at different points in the curriculum. Instructional routines are interrupted, disturbing the overall school organization.

Hartman (2002) and Rumberger et al. (1999) also found adverse effects of student mobility on the overall school. Rumberger et al. stated,

> Mobility not only impacts students; it impacts schools. In fact, the reason that mobility has negative consequences on students is, in part, because it has negative consequences for schools. This is especially the case in schools that have high rates of student mobility. Of course, this does not mean that all schools with high mobility rates have low test scores or that all schools with low mobility rates have

high test scores, as the data clearly show. But, in general, schools with high

mobility rates had low test scores. (p. 50)

Hartman (2002) made similar statements saying high mobility places a noticeable strain

on classrooms, schools, and resources. Teachers have to repeat and review lessons,

introduce new students often, and experience the sudden departure of moving students

while maintaining the classroom environment. Teachers are faced with not knowing

what each child knows which impacts how a teacher organizes instruction. High mobility

interrupts curriculum pacing and decreases social attachments between students. Vail

(2003) ascertained mobility hurts teacher morale.

Even more specific to the overall school effects, student mobility can affect

personnel and staffing, resource utilization, program planning and budgeting, and

building relationships with the community (Hartman, 2002; Kerbow, 1996). Kerbow said

a stable school has a base from which to build and modify successful programs. Kerbow

went on to say, "Without a certain level of stability, it is unclear how school-based

educational programs, no matter how innovative, could successfully develop and show

long-term impact" (p. 26).

Recommendations of Authors and Researchers

Historically, some schools with students at risk for failure have demonstrated

success (Costley, 2012; Engec, 2006; Rumberger et al., 1999). It is questionable whether

these students are more successful because they stay in the same school unlike mobile at-

risk students, or whether the school is using strategies that help these students succeed.

Authors suggest schools can make a difference if resources and specific strategies are

utilized for mobile students to minimize risk of failure. In addition to procedures that can

be implemented within schools, changes can be made at the district and state level. The

following is a compilation of recommendations from authors and researchers of mobility.

Enrollment in a New School

Upon enrollment in a school, records are not always readily available for a new student. Therefore, until the student's records arrive, short assessments should be conducted to help determine appropriate classroom placement and curriculum needs (Isernhagen & Bulkin, 2011; Kerbow, 1996; Popp et al., 2003; Rumberger et al., 1999). Plans should be in place to have school supplies and materials ready for students who may need them when they enroll in a new school (Rumberger et al., 1999). To assist in helping teachers provide support to mobile students, administrators must provide moral support and ensure classrooms have necessary resources to maintain instruction (Isernhagen & Bulkin, 2011). Lower student-teacher ratios would be ideal to help meet the needs of mobile students (Rumberger et al., 1999). Class size is a significant predictor of achievement for students, especially those from low-income families as is often the case with mobile students. Reduced class size has been found to be equivalent to receiving three additional months of schooling (Whitehurst & Chingos, 2011). Quality interactions between teachers and students, classroom management, and depth of instruction are all affected by class size and have been linked to academic gains (Merritt, Rimm-Kaufman, Berry, Walkowaik, & Larsen, 2011).

School Counselor

Students are more successful if they are in a supportive environment (Kendricks, Nedunuri, & Arment, 2013). School counselors have an integral role in working with and supporting mobile students. The American School Counseling Association (ASCA) proposes school counselors lead a data driven, comprehensive school counseling program that addresses students' academic and behavioral concerns (Ocerman, Mason, &

Hollenbeck, 2012). Since mobile students often have adjustment issues, academic struggles, and issues with behavior, the counselor must provide extra support for mobile students (Engec, 2006). Programs that incorporate cognitive, behavioral, and social skills should be developed to assist mobile students (Chen, 2008). Research shows when a comprehensive school counseling program is implemented, students feel better about school, despite their socioeconomic status. An organized counseling program with increased student contact has been associated with increased academic achievement in math and reading and an improved graduation rate. Mobile students have been shown to struggle in all of these areas. In addition, positive social behavior and lower suspension rates are affected by added contact with school counselors (Carey & Dimmitt, 2012; Sink & Stroh, 2003). A counselor should consider Maslow's hierarchy of needs in the counseling program in order to help mobile students attain the basic needs in the hierarchy.

Collaboration between school counselors, school psychologists, and school personnel via email, web tools, conferences, and teacher workshops can help with identifying academic and social needs of mobile students. As a part of this effort, counselors should assist in organizing supportive peer groups and mentors for the mobile students (Ocerman et al., 2012; Sink & Stroh, 2003). Grouping strategies and enrichment programs are important to meeting the needs of all students, especially mobile students (Sanderson, 2003).

Mentors

For new enrollees, a group of students should be appointed and trained to serve as student coaches and social support (Black, 2006a; Isernhagen & Bulkin, 2011; Nelson et al., 1996; Popp et al., 2003; Rumberger et al., 1999; Sanderson, 2003). Mentoring

programs led by the school counselor to welcome and assist new students help create a sense of belonging to a new environment and new social groups. Students from low-income families generally have less favorable attitudes towards school, and the counselor usually has knowledge of students' socioeconomic needs. Mentoring programs have been shown to increase academic performance for at-risk students. Since mobile students are considered an at-risk group, a mentoring program will benefit these students (Curtis, Drummond, Halsey, & Lawson, 2012). Pairing or grouping students with peers who are similar provides a strong social network and fosters positive academic performance (Kendricks et al., 2013). Mentoring along with tutoring mobile students should be provided as needed with students who share similar interests (Black, 2006a; Isernhagen & Bulkin, 2011; Rumberger et al., 1999; Sanderson, 2003). In addition, staff members should be assigned to tutor and mentor new students who have academic or social difficulties. Periodic appointments with students are necessary to discuss and monitor the mobile student's progress in the new school (Isernhagen & Bulkin, 2011; Popp et al., 2003; Rumberger et al., 1999).

Classroom Teacher

Teacher quality can impact student success. In order to help mobile students succeed, teachers should be trained in specific procedures, such as welcoming new students into the class for a smooth adjustment to the new environment. Another example includes training on cultural expectations and language barriers to help students from migrant families (Black, 2006a; Heinlein & Shinn, 2000; Nelson et al., 1996; Neuman, 2009; Popp et al., 2003; Rumberger et al., 1999; Sanderson, 2003; Walls, 2003). Teachers should read the cumulative records of students to assess grades, attendance, and important background information (Popp et al., 2003; Rumberger et al.,

1999). To become better acquainted with mobile students, teachers would benefit greatly

from communicating with the teachers at their previous schools (Kerbow, 1996). Also,

creating assignments such as a writing journal for students to provide information would

help the teacher get to know the students better (Popp et al., 2003; Rumberger et al.,

1999). To help students become acclimated to the classroom, a learning packet should be

developed for the classroom that gives important background information on what has

been taught along with rules and procedures (Popp et al., 2003; Rumberger et al., 1999).

Teachers and staff should demonstrate empathy to mobile students' home situations. For

example, parents might work night jobs and not be available to help with homework

(Isernhagen & Balkin, 2011). Procedures should be prepared and utilized for students

who must depart one school to enroll in another. This would ensure a smooth as possible

transition as mobile students need opportunities for closure (Popp et al., 2003).

Social and Behavior Expectations

Misbehavior is detrimental to an entire school culture (Lake et al., 2012). Upon

arrival to the new school, an orientation video and/or information packets about the

school, including the school's behavior expectations, would help students have a better

start and inform parents (Isernhagen & Bulkin, 2011; Rumberger et al., 1999).

According to Lake et al. (2012), communicating and maintaining high student behavioral

expectations would improve teaching and learning. School-wide behavior programs can

create a culture of shared norms for behavioral and social interactions. Lake et al. (2012)

said having a school-wide structure in place will create a feeling of belonging for

students. They will take pride in the school. Aligning with Maslow's hierarchy of needs,

students must feel safe. They must know that respectful behavior will support their

learning. Modeling desired behavior and reinforcing actions will support efforts to create

a positive culture. Parent buy-in is important to maintain the overall behavioral support system (Lake et al.).

Parent Involvement and Extracurricular Activities

Meeting with parents of mobile students is a good way to ensure a smooth transition and help streamline the transfer of student records for informed placements and necessary services (Black, 2006a; Engec, 2006; Isernhagen & Bulkin, 2011; Popp et al., 2003; Rumberger et al., 1999). Staff should counsel parents and schools about the advantages and disadvantages of mobility in order to help students transition well (Black, 2006b; Engec, 2006; Hartman 2002; Kerbow, 1996; Popp et al., 2003; Rumberger et al., 1999). When parents maintain frequent contact with their child's school, the child will achieve at higher levels (Bempechat, 1990). It is important to follow up with parents after the move and offer additional parent conferences (Popp et al., 2003; Rumberger et al., 1999). Regardless of a student's background in ethnicity or socioeconomic status, parent involvement at home and in school has a positive effect on student grades, attendance, and behavior (Walker, 2003). Parents are also teachers; however, the instruction they provide is not explicit (Bempechat, 1990).

Parents can also be involved with activities outside of academics. Schools should consider providing extracurricular activities and programs, such as before- and after-school care, which can help parents maintain employment, thus reducing the possibility of mobility (Nelson et al., 1996). Extracurricular activities such as sports, dance, music, and clubs engage children and parents in school. Children involved in extracurricular activities learn responsibility and have positive grades, higher test scores, and fewer behavioral issues (National Center for Homeless Education at SERVE, 2010; Simoncini & Caltabiono, 2012). Encouraging new students to join extracurricular activities will

help them make friends and give them a sense of belonging (Black, 2006b; Rumberger et al., 1999).

State, District, and Community Support

School districts can implement strategies that will help prevent unnecessary moves and ensure mobile students stay in school. Attempts should be made to resolve problems before initiating a transfer from one school to another (Kerbow, 1996; Rumberger et al., 1999). Districts should make boundaries flexible and provide transportation to help families remain in their home schools (Black, 2006b; Kerbow, 1996; Nelson et al., 1996; Xu et al., 2009). Whenever possible, moves should be made between semesters or school years (Hartman, 2002; Rumberger et al., 1999).

A community school uses partnerships to align resources in an effort to produce successful students. Community resources are very important since low-income families experience hardships in housing, utilities, healthcare, and childcare. Schools and districts should work with community groups such as health and mental services, family support agencies, and landlords to reduce disruptive moves and help children succeed in school (Blank, Jacobson, & Melaville, 2012; Heinlein & Shinn, 2000; Kerbow, 1996; Neuman, 2009; Popp et al., 2003).

Districts should collect annual yearly reports from schools on student mobility (Black, 2006a; Rumberger et al., 1999). Districts should monitor students who leave school to insure they are enrolled in another school in a timely manner and should require that schools transmit student records within a defined timeframe (Rumberger et al., 1999). A standardized curriculum should be considered where instruction and programs are similar to ensure students have been exposed to similar topics at each grade level (Hartman, 2002; Kerbow, 1996; Xu et al., 2009). To ensure schools and districts are able

to put supportive programs in place, the State Department should provide funds that are designated specifically for the purpose of helping students transition between schools (Rumberger et al., 1999).

Synopsis

As discussed in this literature review, a large body of student mobility research suggests mobility as being one of several interrelated factors that has an effect on students and the level of success experienced in school. Throughout this study, lower academic achievement has emerged mostly for low-income, minority, single-parent homes, homeless children, and mobile students. In looking at trend data throughout the country and recent research, which controls for outside variables, it is unclear whether mobility is the sole cause of poor performance and lessened school success for students in America.

Researchers who have conducted repeated studies have found varying results. Despite earlier findings, Rumberger (2002) acknowledged that other studies have found mobility to be "more of a symptom than a cause of poor school performance" (p. 2) since at-risk family traits such as single-parent homes and low-incomes are related to poor school functioning and mobility (Nelson et al., 1996).

In considering the research and the relationship between poverty and student mobility, it is unclear to what extent each factor may independently affect a student's academic career. With mixed results throughout the research examining the relationship between student mobility and school success, the overall analyses shows a relationship between variables of mobility and student success in academic achievement, discipline incidents, and attendance rates.

Hartman (2002) described how extensive literature on the problems in our

country's education system exists; however, not enough attention has been given to high classroom turnover at the state and federal levels. If classrooms have revolving doors, improvements such as smaller classes, trained teachers, better buildings, and better equipment will have only a minimal impact (Hartman, 2002). Costley (2012) believed that continuity in instruction, emotional stability, positive social relationships, and better learner outcomes will all result when students stay in one town and one school district.

Chapter 3: Methodology

The purpose of this research was to determine the relationship student mobility and factors related to student mobility may have on student growth on the North Carolina EOG tests in a rural elementary school. For purposes of this study, student mobility is defined as official student enrollment and attendance at more than one school in a given school year. In the 2 years of data being studied, information was included for students in fourth and fifth grades who enrolled in the school at any time from the start of the school year through the end of the school year and participated in the North Carolina EOG test.

Findings on the impact of mobility on student success have varied; therefore, the researcher has shown the extent the relationship factors of student mobility have on student achievement in the research. For this study, mobility, discipline incidents, attendance rates, gender, and ethnicity have been researched. Because early grades are critical to a student's long-term school success (Heinlein & Shinn, 2000), the researcher analyzed data in Grades 4 and 5 and investigated the perceptions of educators who worked with the mobile and nonmobile students. This chapter describes the instruments and procedures that were used in the study of student mobility as it relates to student demographics, academic achievement, discipline incidents, and attendance rates.

Participants

The target population studied included students in Grades 4 and 5 who entered a rural elementary school during the 2 years being studied, 2011-2012 and 2012-2013. Two groups, a nonmobile group and a mobile group, were used to determine relationships between selected variables; and each year was analyzed independently for students moving between schools.

Random sampling is used when a researcher wants to generalize the findings of the research and simple random sampling is used to give each subject an equal chance of being selected (Trochim, 2006). In this study, simple random sampling was used to select students for the groups being studied. Each group, the nonmobile group and the mobile group, had a similar number of students for the study.

In addition to the student data for the statistical analysis, teacher interviews were conducted. A written request for an interview was produced and distributed to 26 teachers in the school. These teachers were employed at the school during the 2 years being studied. The researcher hoped to have at least 50% or 13 teacher commitments for interviews; however, 10 yielded to an interview. Teachers were interviewed based on willingness to participate in the study.

Instruments

A Factorial Analysis of Variance (ANOVA) was used in this study to examine the relationship between the dependent variable, student academic growth, and the independent variables: mobility, nonmobility, incidents of discipline, attendance rate, gender, and ethnicity. The ANOVA is used for comparing the mean scores of two or more groups based on two or more categorical independent variables (Lane, 2014). Variables are analyzed to determine the relationship between the dependent variable and one or more of the independent variables and if there are interactions among the independent variables. In order to identify group differences and establish relationships between variables, statistical tests were conducted using Statistical Product and Service Solutions (SPSS).

For the statistical analysis, archival data were gathered from the North Carolina student data reporting program used during the years studied, North Carolina Window of

Information on Student Education (NCWISE). Each year, schools create end-of-year reports which include the enrollment, discipline, attendance, and demographic data used in this study. Once collected, the data were reviewed and relevant information from each report was entered into a spreadsheet for ease of entry into SPSS.

The North Carolina Department of Testing and Accountability has established that the EOG tests utilized in Grades 3-8 are valid and reliable. There are six different forms of each grade-level tests used, which are lettered A-F. These forms were analyzed using the EOG_SCAL.LSP program. The differences between the mean scores are at or near zero and less than the standard error of measurement for the test. For student scores within one standard deviation of the mean, the standard error is typically two to three points. All reliability coefficients are reported at over .85, which is the minimum number for a test to be considered reliable (North Carolina Department of Public Instruction, 1996).

When reporting results of the North Carolina EOG test, schools receive information about the students who participated in the test. The results include a student's developmental scale score and the level of achievement. The number of questions a student answers correctly is the student's raw score, which is converted to a developmental scale score. The scale score is used to measure growth in reading and math from year to year. A student's score is expected to increase each year. The student's achievement level is based on the scale score and is indicated with a 1, 2, 3, or 4. A score of a 1 or 2 is considered not proficient, and the student is not working at grade-level expectations. Students who receive a 3 or 4 are considered proficient and are meeting grade-level expectations (retrieved December 6, 2013, from http://www.dpi.state.nc.us/docs/accountability/uisrs/eogisrback13.pdf). The information

about each student's scale score on the test is not available in NCWISE. Therefore, the researcher worked with district personnel to gather individual student scale scores, the state mean, and standard deviation in order to determine each student's c-score. The c-score was used next in a calculation to determine each student's academic change in testing between school years. The c-score was then used to determine student growth with the following formula: $AC = CS_{c\text{-}scale} - (.92 \times ATPA_{c\text{-}scale})$, where AC = academic change; CS = current score; ATPA = average of two previous assessment scores. In the event two previous assessment scores were not available, the following formula was used: $AC = CS_{c\text{-}scale} - (.82 \times PA_{c\text{-}scale})$, where AC = academic change; CS = current score; PA = previous assessment score.

In addition to the statistical analysis, interviews were conducted with teachers in the school. A predetermined set of interview questions related to the research questions were used during each of the interviews. The open-ended interview questions were asked by a proxy in order to obtain probable answers to the questions. Teacher responses were recorded and transcribed. Next, emerging topics were recorded and coded according to teacher responses. These topics were grouped into themes to be analyzed further. The responses by theme were recorded in a Microsoft Excel spreadsheet and analyzed for the results in Chapter 4.

Research Design

This is a case study of an elementary school where 2 years of student data were analyzed, 2011-2012 and 2012-2013. The superintendent of the school district granted permission for the study. The researcher obtained archival student data from the school district to use in SPSS. The data retrieved included student demographics, North Carolina EOG test results, incidents of student discipline, and student attendance.

Students used in the study were identified with numbers in order to maintain

confidentiality and anonymity. There was no direct contact with students; therefore, no

student informed consents were necessary.

A factorial analysis of variance was used to test for statistically significant

differences between the means of the scores in reading and math during each of the years

studied. The dependent (Y), or outcome variable for this study, was student academic

growth. The independent (X) variables for this study were mobility, discipline,

attendance, gender, and ethnicity. The researcher analyzed the results from the EOG tests

for mobile and nonmobile students. The variables in the design are shown in Figure 9.
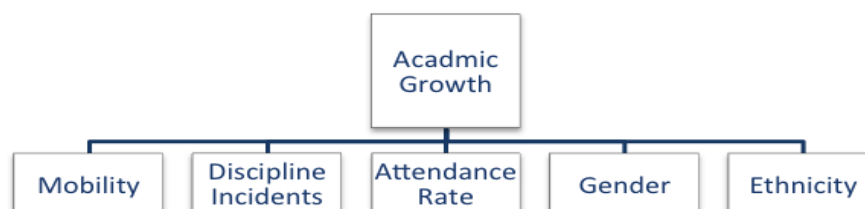
Figure 9. Dependent and Independent Variables as They Were Included in the Research
Design.

The end result of the analysis indicated if the dependent variable, student growth,

was significantly affected by the independent variables of mobility, discipline incidents,

attendance rates, gender, and ethnicity. Each student has either made expected growth or

not made expected growth, and the significance of the relationship of the variables is

shown with the p value.

Student mobility was classified as a categorical variable as the students were

classified into two categories, mobile or nonmobile, using numeric indicators. The other

categorical variables, gender and ethnicity, were also assigned a numeric indicator. Discipline and attendance data were identified with three ranges of data. Each range of data was assigned a numerical value for the designated range of numbers. Classifications of ranges were labeled low, moderate, or high. The operational definitions of the ranges to be included for measuring discipline and attendance data are included in Table 1 of the next section describing the research procedures.

A letter explaining the study and the need for teacher dialogue on the subject of student mobility was forwarded to 26 teachers of the rural elementary school in the study in anticipation of obtaining at least 50% participation (see Appendix A). The researcher had a 39% participation rate, or 10 teachers who volunteered to be interviewed. The interviews were designed to last 30 minutes or less and focused on topics and questions surrounding the research questions for the study. A proxy asked the questions and recorded the answers in order to obtain probable answers for the study. At the conclusion of the interview process, the recorded responses were transcribed for analysis of emerging themes. The themes were entered into a chart to display the frequency of occurrence for each theme. The researcher used the themes and quotations from the interviews to show connections to the research and findings.

Procedures

Statistical Analysis

Archival data for students in Grades 4 and 5 were gathered from the North Carolina student data reporting program NCWISE and district personnel. The students' data were entered into a spreadsheet, identified with numerical representations to protect confidentiality, with the collected individual student testing data, along with mobility status, discipline incidents, attendance rates, gender, and ethnicity.

The dependent variable was student academic growth for two subjects, math and reading. The independent variables in this case study included mobility, student discipline, student attendance, gender, and ethnicity. The categorical variables, mobility and gender, were assigned a value of 0 or 1 to indicate the presence or absence of the variable for each student. A 0 entry indicated the variable was not present, and a 1 entry indicated the variable was present. For example, in the column labeled mobility, 1 represented students who are mobile, and 0 represented students who are nonmobile. The variable of ethnicity was also assigned a numeric value ranging between 1 and 6. The ethnicities reported were Asian, African American, American Indian, Hispanic, Multi-racial, and White. The variables of discipline incidents and attendance rates were assigned values for the range of occurrence. For reporting purposes, the ranges were referred to as low (1), moderate (2), and high (3) as shown in Table 1.

Table 1

Operational Definitions of Continuous Variables

Variables	Low (1)	Moderate (2)	High (3)
Discipline Incidents	0-1	2-3	>3
Absences	0-5	6-10	>10

At the conclusion of the data entry, the researcher conducted a simple random sampling to select students for the two groups being studied, mobile and nonmobile students. Each group had a similar number of students for the study. A factorial analysis of variance was used to test for statistically significant differences between the means of the scores in reading and math as these differences related to the independent variables

during each of the years studied. Again, the dependent (Y) or outcome variable for this study was student academic growth. The independent (X) variables for this study were mobility, student discipline, student attendance, gender, and ethnicity.

The end result of the analysis of variance showed the level of statistical significance each independent variable had on the dependent variable reported by the p value. Using the information produced from the analysis of variance, the researcher made predictions regarding factors related to student growth for future students.

Teacher Interviews

A letter explaining the study and the need for teacher dialogue on the subject of student mobility was forwarded to 26 teachers of the rural elementary school in the study. The researcher anticipated at least 50% or 13 teacher commitments for the interviews. However, 39% or 10 of the teachers volunteered to participate in the interviews. Those interviewed were based solely on willingness to participate in the study. The interviews were designed to last 30 minutes or less and focused on topics and questions surrounding the research questions for the study. Each interview was informally structured as a conversation and the interview questions, shown in Appendix B, were open-ended. Questions were asked by a proxy in order to obtain probable answers to the questions. The proxy recorded each teacher's responses as the conversation was guided by the interview questions. At the conclusion of the interview process, the recorded responses were transcribed for analysis. The answers to the questions were coded into topics which showed emerging themes across the interviews. The topics and themes were entered into a chart to display the frequency of occurrence for each theme. The researcher used the themes and quotations from the interviews to show connections to the research and findings.

Chapter 4: Results

The rural elementary school in this research experienced student mobility during

the 2 years examined, 2011-2012 and 2012-2013. Student mobility is defined as official

student enrollment and attendance at more than one school, with this study exclusively

examining students in Grades 4 and 5 who entered during the school year and

participated in the end-of-year testing. During the 2011-2012 school year, 46 students in

fourth and fifth grades were new to the school and completed North Carolina EOG

testing at the school. During the 2012-2013 school year, 42 students in fourth and fifth

grades were new to the school and completed North Carolina EOG testing at the school.

In the analysis of the fourth and fifth grade students in both years, the mobile students

who moved out of the school were not included in the study as their testing data were not

available for the analysis. The following table shows the number of students who moved

into and out of the school for both years being studied.

Table 2

Mobile Students Who Enrolled and Withdrew in Fourth and Fifth Grades During 2011-
2012 and 2012-2013

	2011-2012	2012-2013
Total 4th & 5th Grade Students New to the School	52	56
Total 4th & 5th Grade Students Withdrawn From the School	52	57
4th & 5th Grade Students – New to the School and then Withdrawn from the School – No EOG Data	6	14
Total 4th & 5th Grade Students with Available EOG Data	46	42

The purpose of this study was to determine the impact of student mobility on

student academic success as measured by academic growth on the North Carolina EOG

testing in reading and math and by perceptions of classroom teachers. More specifically,

student academic growth was investigated as it related to the variables of mobility,

discipline rates, attendance rates, gender, and ethnicity. Data from state standardized

tests and school reporting systems were used to determine the strength of the

relationships of the variables with mobility and student achievement. Interviews were

conducted to gain teachers' perspectives and perceptions of the effects mobility has on

the students and school. From the information gained in the study, the researcher raises

awareness of the effects of mobility and provides recommendations and strategies to

assist schools and districts in increasing the success of mobile students throughout their

educational experience.

In discussing the findings of the study, an analysis of the data is explained to

show the relationship of the variables of student growth, mobility, discipline rates,

attendance rates, gender, and ethnicity. Also, selections from teacher interviews from

questions based on research are discussed to further illustrate recurring themes that are

present in the literature.

Research Questions

1. What is the relationship of student discipline incidents, attendance rates,

gender, and ethnicity to student academic growth when analyzed with student mobility?

2. What strategies are being implemented in the school to support the success of

mobile students?

The Relationship of the Variables on Academic Performance

The data gathered for this study included student academic growth for fourth- and

fifth-grade students who participated in the North Carolina EOG tests for school years

2011-2012 and 2012-2013. Each year was analyzed independently. Students in fourth

and fifth grades for each of the years were coded as either mobile or nonmobile. Discipline and attendance data, along with demographic data including ethnicity and gender, were collected and analyzed. Additional information about each student such as enrollment in the Exceptional Children's (EC) Program or LEP status was also included. The random sample of fourth- and fifth-grade students in 2011-2012 contained 45 nonmobile and 31 mobile students who had complete testing data. The random sample of fourth- and fifth-grade students in 2012-2013 contained 40 nonmobile and 31 mobile students who had complete testing data. The sample sizes were smaller than expected, which limited the generalization of the results for the data analysis. Using the demographic data, a statistical process called cross tabulation was conducted in order to gain summary statistics about the mobile and nonmobile groups. The results are reported in Tables 3 through 6.

Table 3

Cross Tabulation for Mobility by Gender and Ethnicity in the 2011-2012 Samples

Ethnicity	Nonmobile		Mobile	
	Male	Female	Male	Female
Asian	1	1	1	0
African American	7	6	12	7
American Indian	0	0	0	0
Hispanic	2	2	2	2
Multi-Racial	0	0	5	1
White	13	14	9	7

In the 2011-2012 student samples, male students represented a larger population of mobile students with 56% of male students being mobile versus 42% of females being mobile. The largest ethnic groups represented in the sample were African American and White. The African-American group had a larger percent of mobility with 59% being mobile in comparison to 37% of the White group being mobile. Therefore, the typical mobile student in this sample is likely to be African American and likely to be male.

Table 4

Cross Tabulation for Mobility by EC Status and LEP Status in the 2011-2012 Samples

		Nonmobile	Mobile
Non-LEP	Nonexceptional	32	33
	Exceptional	8	9
LEP	Nonexceptional	2	1
	Exceptional	0	0

When comparing nonmobile and mobile students in relation to being labeled exceptional and/or LEP, there is not a large difference between the groups. The majority of students are nonexceptional, and non-LEP and about half of these are nonmobile and half are mobile.

Table 5

Cross Tabulation for Mobility by Gender and Ethnicity in the 2012-2013 Samples

Ethnicity	Nonmobile		Mobile	
	Male	Female	Male	Female
Asian	1	0	0	1
African American	4	8	6	9
American Indian	0	0	0	0
Hispanic	1	1	4	3
Multi-racial	1	2	2	2
White	11	13	4	12

In the 2012-2013 student samples, female students represented a larger population of mobile students with 53% of female students being mobile versus 47% of males being mobile. The larger ethnic groups represented in the sample were African American and White. The African-American group had a larger percent of mobility with 56% of the group being mobile in comparison to 40% of the White group being mobile. Therefore, the typical mobile student in this sample is likely to be an African American and likely to be female.

Table 6

Cross Tabulation for Mobility by EC Status and LEP Status in the 2012-2013 Samples

		Nonmobile	Mobile
Non-LEP	Nonexceptional	36	34
	Exceptional	7	8
LEP	Nonexceptional	3	3
	Exceptional	0	0

When comparing nonmobile and mobile students in relation to being labeled exceptional and/or LEP, there is not a large difference between the groups. The majority of students are nonexceptional, and non-LEP and about half of these are nonmobile and half are mobile.

An ANOVA was used to test for statistically significant differences between the means of the scores in reading and math during each of the years studied. Due to small sample sizes for discipline and attendance, no inferential analysis was done because the power analysis would yield an extremely low power level. Discipline incidents and attendance are reported in Appendix C and Appendix D to show the frequency of incidents and absences for the students in the samples. Additionally, no inferential analysis was done with student growth and ethnicity, EC, or LEP status due to small sample sizes in each of the categories.

The sample contained enough students to conduct an analysis of student growth, mobility, and gender. Each year was analyzed independently with reading results presented first and then math results presented second. Tables 7 and 8 show the means and standard deviations for reading during each year for gender and mobility combined. Tables 9 and 10 show the means and standard deviations for math during each year for

gender and mobility combined.

Reading Results

Table 7

Descriptive Statistics for Fourth- and Fifth-Grade Mobile and Nonmobile Students in Reading During 2011-2012

Mobile/Nonmobile Students	Gender	Mean Growth	Standard Deviation	N
Nonmobile	Male	.0518	.62862	23
	Female	.0868	.47907	22
	Total	.0689	.55447	45
Mobile	Male	-.1580	.45191	19
	Female	.0530	.66459	12
	Total	-.0719	.54283	31
Total	Male	-.0399	.55867	42
	Female	.0749	.54180	34
	Total	.0115	.55053	76

The mean growth and the standard deviation, reported by gender, were used in calculating c-scores for student growth. Academic change between school years was then calculated using the following formula: $AC = CS_{c\text{-scale}} - (.92 \times ATPA_{c\text{-scale}})$, where AC = academic change; CS = current score; $ATPA$ = average of two previous assessment scores. In the event two previous assessment scores were not available, the following formula was used: $AC = CS_{c\text{-scale}} - (.82 \times PA_{c\text{-scale}})$, where AC = academic change; CS = current score; PA = previous assessment score.

Table 8

Results of the Factorial Analysis of Variance for Mobility and Gender in Reading During 2011-2012

Source	Df	F	p
Mobility	1	.812	.371
Gender	1	.828	.366
Mobility * Gender	1	.413	.522
Error	72		
Total	76		
Corrected Total	75		

The data from the results of the factorial analysis of variance show no significant interaction or difference between student mobility and gender when analyzing student academic growth in reading. A factorial analysis of variance is used to identify interactions. Therefore, mobility and gender were analyzed. In 2011-2012, for the mobility category, $F_{(1,75)} = .812$, $p = .371$. For the gender category, $F_{(1,75)} = .828$, $p = .366$. For mobility and gender combined, $F_{(1,75)} = .413$, $p = .522$. None of the categories was statistically significant at the alpha = .05 level, specifically with the F ratios being less than 1.

Table 9

Descriptive Statistics for Fourth- and Fifth-Grade Mobile and Nonmobile Students in Reading During 2012-2013

Gender	Mobile/Nonmobile Students	Mean Growth	Standard Deviation	N
Male	Nonmobile	-.0934	.43949	17
	Mobile	-.2242	.50260	12
	Total	-.1475	.46250	29
Female	Nonmobile	.0722	.47656	23
	Mobile	-.1316	.50933	19
	Total	-.0991	.48646	42
Total	Nonmobile	-.08121	.45549	40
	Mobile	-.1674	.50037	31
	Total	-.1189	.47407	71

The mean growth and the standard deviation, reported by gender, were used in calculating c-scores for student growth. Academic change between school years was then calculated using the following formula: $AC = CS_{\text{c-scale}} - (.92 \times ATPA_{\text{c-scale}})$, where AC = academic change; CS = current score; ATPA = average of two previous assessment scores. In the event two previous assessment scores were not available, the following formula was used: $AC = CS_{\text{c-scale}} - (.82 \times PA_{\text{c-scale}})$, where AC = academic change; CS = current score; PA = previous assessment score.

Table 10

Results of the Factorial Analysis of Variance for Mobility and Gender in Reading During 2012-2013

Source	Df	F	p
Gender	1	.235	.630
Mobility	1	.654	.421
Gender * Mobility	1	.092	.762
Error	67		
Total	71		
Corrected Total	70		

The data from the results of the factorial analysis of variance show no significant interaction or difference between student mobility and gender when analyzing student academic growth in reading. A factorial analysis of variance is used to identify interactions. Therefore, mobility and gender were analyzed. In 2012-2013, for the gender category, $F_{(1,70)} = .235$, $p = .630$. For the mobility category, $F_{(1,70)} = .654$, $p = .421$. For gender and mobility combined, $F_{(1,70)} = .092$, $p = .762$. None of the categories was statistically significant at the alpha = .05 level, specifically with the F ratios being less than 1.

The factorial analysis of variance indicated student growth on North Carolina EOG tests in reading was not significantly affected by student mobility or gender in either 2011-2012 or 2012-2013. In other words, the amount of academic growth attained by students in reading during each of the school years studied was not affected by mobility or gender. Figures 10 and 11 show the mean scores of males and females.
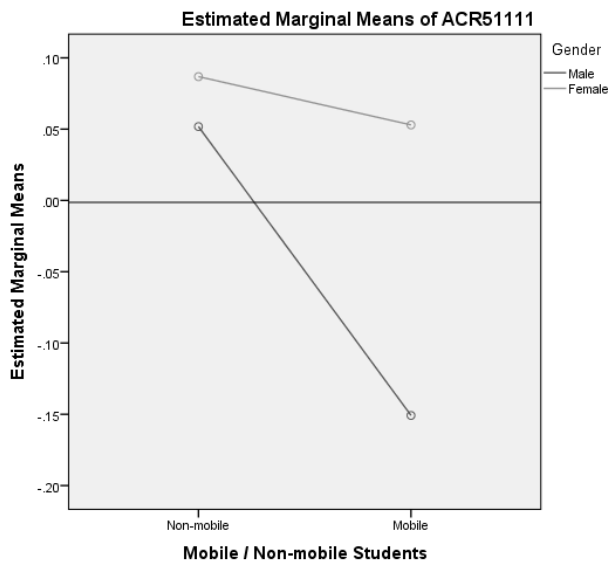
Figure 10. Mean Reading Scores Comparing Male and Female in 2011-2012.

Although no interaction was reported, it is plausible that a larger sample size may have yielded an interaction. As shown in Figure 10, both male and female mobile students' mean scores were lower than their nonmobile peers. In reading, the mean scores of both nonmobile and mobile males are lower than the mean scores of the nonmobile and mobile females.
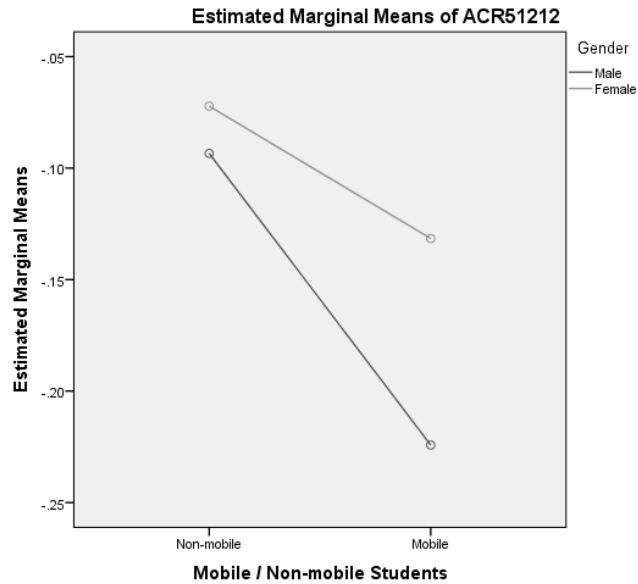
Figure 11. Mean Reading Scores Comparing Male and Female in 2012-2013.

Although no interaction was reported, it is plausible that a larger sample size may have yielded an interaction. As shown in Figure 11, both male and female mobile students' mean scores were lower than their nonmobile peers. In reading, the mean scores of both nonmobile and mobile males were lower than the mean scores of the nonmobile and mobile females. Mobile males had lower mean scores than mobile females.

Math Results

Table 11

Descriptive Statistics for Fourth- and Fifth-Grade Mobile and Nonmobile Students in Math During 2011-2012

Mobile/Nonmobile Students	Gender	Mean Growth	Standard Deviation	N
Nonmobile	Male	.0799	.52926	23
	Female	-.0447	.29478	22
	Total	.0190	.43069	45
Mobile	Male	.0527	.70951	19
	Female	-.0754	.57034	12
	Total	.0031	.65218	31
Total	Male	.0676	.60951	42
	Female	-.0555	.40491	34
	Total	.0125	.52822	76

The mean growth and the standard deviation, reported by gender, were used in calculating c-scores for student growth. Academic change between school years was then calculated using the following formula: $AC = CS_{c\text{-scale}} - (.92 \times ATPA_{c\text{-scale}})$, where AC = academic change; CS = current score; ATPA = average of two previous assessment scores. In the event two previous assessment scores were not available, the following formula was used: $AC = CS_{c\text{-scale}} - (.82 \times PA_{c\text{-scale}})$, where AC = academic change; CS = current score; PA = previous assessment score.

Table 12

Results of Factorial Analysis of Variance for Mobility and Gender in Math During 2011-2012

Source	Df	F	p
Mobility	1	.052	.820
Gender	1	.991	.323
Mobility * Gender	1	.000	.989
Error	72		
Total	76		
Corrected Total	75		

The data from the results of the factorial analysis of variance show no significant interaction or difference between student mobility and gender when analyzing student academic growth in math. A factorial analysis of variance is used to identify interactions. Therefore, mobility and gender were analyzed. In 2011-2012, for the mobility category, $F_{(1,75)} = .052$, $p = .820$. For the gender category, $F_{(1,75)} = .991$, $p = .323$. For mobility and gender combined, $F_{(1,75)} = .000$, $p = .989$. None of the categories was statistically significant at the alpha = .05 level, specifically with the F ratios being less than 1.

Table 13

Descriptive Statistics for Fourth- and Fifth-Grade Mobile and Nonmobile Students in Math During 2012-2013

Gender	Mobile/Nonmobile Students	Mean Growth	Standard Deviation	N
Male	Nonmobile	.1260	.62495	17
	Mobile	-.1469	.65024	12
	Total	.0131	.63874	29
Female	Nonmobile	-.1231	.62694	23
	Mobile	-.2278	.44237	19
	Total	-.1704	.54736	42
Total	Nonmobile	-.0172	.63047	40
	Mobile	-.1965	.52350	31
	Total	-.0955	.58901	71

The mean growth and the standard deviation, reported by gender, were used in calculating c-scores for student growth. Academic change between school years was then calculated using the following formula: $AC = CS_{c\text{-scale}} - (.92 \text{ x } ATPA_{c\text{-scale}})$, where AC = academic change; CS = current score; $ATPA$ = average of two previous assessment scores. In the event two previous assessment scores were not available, the following formula was used: $AC = CS_{c\text{-scale}} - (.82 \text{ x } PA_{c\text{-scale}})$, where AC = academic change; CS = current score; PA = previous assessment score.

Table 14

Results of Factorial Analysis of Variance for Mobility and Gender in Math During 2012-2013

Source	Df	F	p
Gender	1	1.327	.253
Mobility	1	1.738	.192
Gender * Mobility	1	.345	.559
Error	67		
Total	71		
Corrected Total	79		

The data from the results of the factorial analysis of variance shows no significant interaction or difference between student mobility and gender when analyzing student academic growth in math. A factorial analysis of variance is used to identify interactions. Therefore, mobility and gender were analyzed. In 2012-2013, for the gender category, $F_{(1,70)} = 1.327$, $p = .253$. For the mobility category, $F_{(1,70)} = 1.738$, $p = .192$. For gender and mobility combined, $F_{(1,70)} = .345$, $p = .559$. None of the categories was statistically significant at the alpha = .05 level, specifically with the F ratios being less than 1. The factorial analysis of variance indicated student growth on North Carolina EOG tests in math was not significantly affected by student mobility or gender in either 2011-2012 or 2012-2013. In other words, the amount of academic growth attained by students in math during each of the school years studied was not affected by mobility or gender. Although no interaction was reported, it is plausible that a larger sample size may have yielded an interaction. As shown in Figures 12 and 13, both male and female mobile students' mean scores in math were lower than their nonmobile peers.
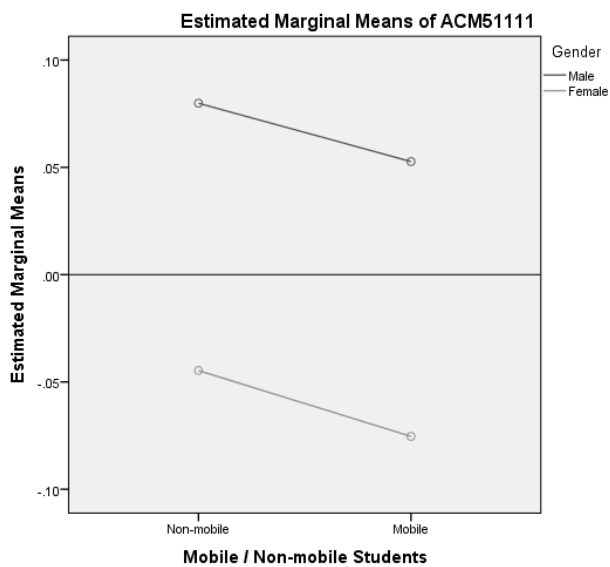
Figure 12. Mean Math Scores Comparing Male and Female in 2011-2012.

Although no interaction was reported, it is plausible that a larger sample size may

have yielded an interaction. In Figure 12, both the male and female mobile students had

a lower mean score than their nonmobile peers. It was also noted that the mean math

scores of both nonmobile and mobile females were lower than mean scores of nonmobile
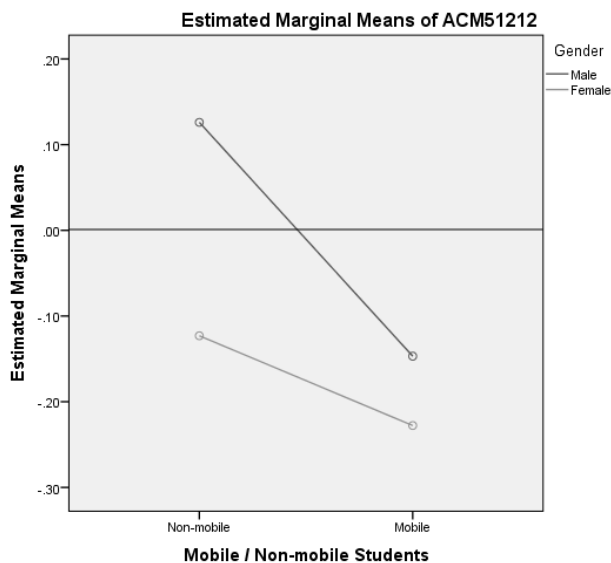
and mobile males.

Figure 13. Mean Math Scores Comparing Male and Female in 2012-2013.

Although no interaction was reported, it is plausible that a larger sample size may have yielded an interaction. In Figure 13, the mean scores of both nonmobile and mobile females are lower than the mean scores of nonmobile and mobile males. When comparing the difference in the mean scores between nonmobile and mobile students, the mobile male students had a larger difference.

Teacher Interviews

The teachers interviewed for this study were employed at the elementary school during the 2 years being studied. They have varying levels of experience, mostly with elementary-aged students. The demographic data of the 10 teachers interviewed are summarized in the table below.

Table 15

Teacher Interview Participants' Experience, Gender, and Ethnicity

	Years of Experience	Grades Taught	Gender	Ethnicity
Teacher A	1.5	5th	Female	Caucasian
Teacher B	9	1st, 5th	Female	Caucasian
Teacher C	17	K-12	Female	African American
Teacher D	10	4th, 5th	Male	Caucasian
Teacher E	30	4th, 5th, 8th	Female	Caucasian
Teacher F	10	1st, 2nd, 3rd	Female	Caucasian
Teacher G	11	2nd, 3rd, 5th	Male	African American
Teacher H	2	2nd, 1st	Female	Caucasian
Teacher I	14	3rd, 4th	Female	Caucasian
Teacher J	24	K-8	Female	Caucasian

Participation in the interviews was voluntary and a proxy was used to conduct each interview in order to obtain probable answers to the questions. The research questions were developed to solicit teacher perceptions about the success or failure of mobile students and to help develop strategies believed by educators to be effective in assisting mobile students as they move into a new school. The teachers shared their perceptions of mobile students and discussed actual experiences and strategies they have practiced in their teaching careers. Teacher responses were examined through thematic analysis which involved coding the responses, then segregating the data into themes (Glesne, 2006). Through the analysis of the interviews, several themes emerged, including obtaining information with parent involvement, planning and instruction, support structures, mobility effects, and community resources. The tables below illustrate the thematic analysis and the emergence of the themes according to the teacher responses.

Table 16

Coded Topics and Emergent Themes

Coded Topics	Themes
Parent Contact	Student Information & Parent Involvement
Student Contact	
Initial Paperwork	
Cumulative Records	
Parent Involvement	
Previous Teacher/School Contact	
Parent Conferences	
Background	
Assessment	Planning & Instruction
Grouping	
Pacing/Planning/Instruction	
Review/Reteach	
Counselor	Support Structures
Buddy/Like Peer	
Grouping (other than buddy)	
Introduction by Teacher	
Rules/Procedures/Routines	
Introduction to Adults	
Overall Effects	Mobility Effects
Social Effects	
Academic Effects	
Discipline Effects	
School/Classroom Effects	
Teacher Effects	
Aware of Resources	Community Resources
Not Aware of Resources	

Table 17

Teacher Responses to Topics and Themes

TEACHER	A	B	C	D	E	F	G	H	I	J
Student Information/ Parent Contact										
Talk with parent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Talk with student	✓	✓	✓				✓	✓	✓	✓
Enrollment papers		✓		✓	✓		✓			
Cumulative record		✓	✓	✓	✓	✓	✓	✓	✓	✓
Parent Involvement	✓		✓	✓					✓	✓
Previous school/teacher			✓			✓				
Parent conferences			✓	✓						✓
Background Info								✓		✓
Planning/ Instruction										
Assessment	✓		✓		✓		✓	✓	✓	✓
Grouping	✓		✓	✓		✓			✓	
Pace/Plan/Instruct	✓	✓		✓	✓	✓	✓		✓	✓
Review/Reteach	✓							✓	✓	✓
Support Structure										
Counselor						✓	✓			
Buddy/Like Peer	✓	✓	✓	✓	✓	✓	✓	✓		✓
Grouping – other than buddy		✓						✓	✓	✓
Intro by teacher	✓			✓		✓				
Rules/Procedures/Routines				✓		✓		✓		✓
Intro to adults	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Community Resources										
Know			✓		✓	✓	✓		✓	
Do not know	✓	✓		✓				✓		✓
Mobility Effects	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M	N/M
Overall effects	+/			/-	-/		+-/	/-	-/	
Social effects	/-	-/-	-/-		/-	/-	-/-+		-/	/-
Academic effects		/-			/-	/-	+-/+	-/	/-	/-
Discipline effects			/-			-/-		-/		
School/Classroom effects		/-				/-				
Teacher effects		/-		/-	/-	/-				

Note. Mobility Effects is coded with a + or – meaning a positive comment or negative comment. In the coding, N = nonmobile students and M = mobile students.

The outcome of the teacher interviews was a comparison of teacher perceptions among the teachers as they relate to the literature on student mobility. Selected quotes

from the teacher interviews further illustrate the themes and connections with the literature in the themed sections that follow.

Student Information and Parent Involvement

Upon the arrival of a new student, all teachers interviewed said they would make an effort to obtain information about the new student. Four of the 10 teachers look at the initial enrollment paperwork, and seven teachers discussed learning about the new student through talking with or interviewing the student. One teacher converses with new students at lunch to gain knowledge about the student and his or her background. Two teachers shared the benefit of talking with the child's previous teacher when possible. Nine teachers cited the cumulative record as a way to learn about mobile students, although the cumulative record is not always readily available and sometimes takes a while to arrive. Teacher I shared an experience where the delay of the cumulative record prevented the mobile student from receiving academic services.

> We actually had a kid to come in new. We didn't know she was in the Exceptional Children's Program because mom didn't tell us. It wasn't until her cumulative folder came over a marking period long that we found out she was EC.

When continuing to discuss ways to find out information about mobile students, all the teachers interviewed shared their interest in talking with parents when a new student arrives to the classroom; however, the parent does not always come to the classroom with the child. Teacher B stated,

> We try to talk with the parent especially if the parent is coming down the hall with the child on the first day of school. I make the initial introduction of who I am, where we are, what we are about, and what we are going to do. Then, I will

definitely give them the opportunity to state if there is anything I need to know

right away before I have a chance to speak with them again.

In the event a parent does not walk to the classroom with the student on the first day, teachers stated they would make a parent contact. Two teachers expressed the desire to learn more about the student's family and school background. Teacher H stated,

If I haven't met the parent, when a new student comes in, I make a phone call or

email to introduce myself and see where they come from. I'll ask about siblings

and the parents, if they are separated, or other pertinent information such as

allergies or medication.

Teacher J stated, "I'd like to know about their personal family background. I would love to know which schools they have attended before and how many schools they have attended." Some teachers said they make a parent contact by phone in a day or two, while others would make parent contacts in writing by sending home an information packet or sheet with class rules and procedures.

While all teachers expressed the desire to talk with the parents, three explicitly stated they would contact parents at a later time. Teacher C stated, "I try to get the parent involved so they can feel an attachment to the classroom. I try to meet or call the parent within a week or two. The first contact should be positive." Few teachers discussed parent involvement outside of the initial meeting and information gathering. Teacher A shared how she solicits parent involvement in school activities. "I will talk to parents and maybe invite them to some functions that are happening such as PTO programs to make them aware of those things in the very beginning and welcome them to the building." In talking about the school's current enrollment procedures, Teacher A said she was impressed with the way parents of new students are walked through the building on the

day they enroll. Teacher J shared an idea of how she gets the parent back into the

building after the initial meeting.

> At that first meeting where the parent escorts the child to the class, understandable
>
> the class is going on and it has to be a brief meeting. But, at that time, before the
>
> parent leaves, I get a date on the calendar that the parent can come back for an
>
> orientation of the class and a conference time. Minimally, I schedule a time to
>
> have that conversation on the phone.

While most teachers discussed talking with the parent, one-third of the teachers

specifically mentioned inviting parents back for a conference.

Planning and Instruction

In all interviews, the teachers expressed the effects of student mobility on

planning and instruction. Teacher B stated,

> It can be difficult to understand where to continue planning simply because when
>
> you have new students coming in and you have to accommodate for what they do
>
> know and what they don't know, what they bring to the table, but they have yet to
>
> learn what we've already passed, there's a lot of dancing that occurs.

Most of the teachers agree it is difficult to plan since they do not know what the mobile

student has learned. Seven teachers expressed the need to assess mobile students so they

would know where to start with instructing the student. Teacher C said, "The first week

with the new kid is kind of tough because you are constantly assessing to see where

they're at or trying to contact the previous teacher if you can."

Teachers plan lessons based on North Carolina standards and school district

pacing guides. Teacher I stated,

> You may plan a lesson and you can plan small groups and then by the end of that

cycle, with that set of small groups, you may have two kids who have left and two
to three new ones. If you have a kid from another county that doesn't follow the
same scope and sequence that we do, then you may have to go back and reteach
. . . you'd better play mad catch up.

As teachers use small groups to meet the varying needs of the students, mobility can
affect the planning and the grouping as shown in the previous quote by Teacher I. When
discussing student grouping, Teacher C also said, "Trying to place them in the right
group or trying to reach the right gap is hard until you figure out how to correctly place
the child." Teacher F does assessments from the beginning to try to figure out where to
start with her mobile students. She stated,

It is constantly changing when you have new children. You work with these kids
who have gotten to point B and then you have to go back to point A for the new
child. You have to do more differentiation, more small groups; you may have to
have a focus group for that child. It's hard to plan because you usually don't know
until the day before so you have to constantly change what you are doing.

Support Structures and Community Resources

As mobile students enter a new school and classroom, they usually do not know
anyone in the unfamiliar surroundings, which can be difficult. Teacher A shared her
personal experience as a mobile student.

I moved around a lot as a child so I know what it's like to be the new kid. It's
difficult. It's difficult for them so I can easily put myself in their shoes and know
what it's like to not have familiar surroundings. So I kind of have a soft spot for
mobile students. For that reason, I try to make the transition as easy as possible. I
try from the very beginning to have all the books ready for them and their desk

ready when they get here. Whatever they don't have, I many times will try to

provide for them as far as notebooks and folders. I have a soft spot for them.

Three teachers mentioned introducing the mobile student to the class upon arrival. All 10

teachers introduce the mobile student to other adults in the school as they travel between

areas of the school throughout the day. Teacher I ensures the enhancement teachers, such

as the music or physical education teacher, are informed of any special needs the mobile

student may have. She said, "If you need to whisper anything special in their ear, you

know, mom says he has trouble with this or she has glasses. You need to make sure she

wears them. Otherwise, she can't see squat." In addition to the initial introduction to the

class, four teachers discussed ensuring the mobile student is made aware of the class

rules, routines, and procedures. The students are either given a packet similar to the

students who began at the beginning of the year or the teacher asks a buddy student to

assist with communicating this throughout the day.

All the teachers felt it was important to assign a student to a buddy or group of

students to help welcome the mobile student. Teacher B tries to "edge someone towards

another student since you know their similarities." She also sits mobile students beside

the same sex child. Teacher C picks a student who rides the same bus to be the mobile

student's buddy. This buddy can help the student throughout the day as they navigate

through the school building. Teacher J gives the mobile student a job in the classroom

"where they can feel like they are a part of the classroom" along with various buddies

depending on the objective of an activity. Teacher J said, "Their classroom buddy might

be different than their reading group buddy, helping them understand the protocol and

procedures for how the reading group operates." Three other teachers also use grouping

strategies to assist the mobile student.

The school counselor can have an integral role in working with and supporting mobile students. Two of the 10 teachers mentioned the school counselor as a support for mobile students when asked about community resources. Teacher F said she had worked with the school counselor before when she had a student enroll who lived in a foster home. Teacher F said the counselor helped her figure out how to help the student. Teacher G also mentioned the school counselor, citing the backpack program as a community resource along with the counselor. As for community resources, half, or five, of the teachers interviewed did not know of any community resources to assist mobile students. Of the other five teachers, the two mentioned above cited the school counselor as a community resource. The other three teachers discussed two after-school programs in the area and a local church. Specifically, Teacher I said, "if the move can be postponed with a financial intervention, then we have used community partners like the church."

When discussing community resources, the teachers did not explicitly discuss their perceptions of the effect of socioeconomic status of mobile students. However, two teachers alluded to the likelihood of a mobile student coming from a low-income family. Teacher C specifically mentioned seeing mobile students in an after-school program.

I work at an after-school program. The ones who move around within the district are in the program. The ones who are really mobile usually move to certain schools because that is the area they can afford to live. I will usually see them again.

Teacher I talked about the two schools she has worked in since moving to North Carolina having similar demographics.

We share clientele with my last school. I know these kids. It's almost like we

need some type of parent education thing. We do parent nights and support the

kids, but there has to be some type of infrastructure between the parent and the

community so they begin to see what their lifestyle is doing to the kids. But, do it

in a way that is proactive, not reactive and not punitive to parents.

Mobility Effects

Aside from the effects of mobility that have already been revealed, the teachers

were asked about their perceptions of how mobility affects both nonmobile students and

mobile students. In analyzing the answers to this question, mostly negative effects were

coded. Overall, 34 coded responses were negative with most of the negative effects

being coded for mobile students and only some coded for nonmobile students.

All teachers ensure some type of social support for mobile students. As new

students arrive, three teachers mentioned introducing the mobile student to the class

while all 10 teachers said they introduced the mobile student to adults in the building

such as the music or computer teacher.

The majority of teachers believe students are negatively affected socially by

mobility. In referring to mobile students, Teacher D said, "I know they have to move and

it's the decision of the parents. I think it's hard for them to find a buddy or a true friend

and stick to them." Teacher B said relationships suffer for both mobile and nonmobile

students. She believes it is especially difficult for girls to deal with being apart after a

friendship has formed.

Teacher J links social concerns to student academics in the following statements.

If they don't do well as soon as they come into the classroom, do they not do well

because they don't understand the material, or are there other things that are

getting in the way? Are there social concerns that are prohibiting them from

showing their best work? It winds up being a guessing game about where exactly that child is if they are not performing well when they very first come into the classroom. . . . They might be a little excited, but at the same time they are overwhelmingly nervous. Even if they don't act like it, they are.

In Chapter 2, the literature review established a connection between mobility and academics along with other variables such as students living in low-income families. Teacher C said students are affected by mobility, specifically stating, "It depends on the reason for moving. If it's a financial thing because they got put out of their house and are uprooted, the kids become on autopilot. They have a hard time adjusting." Teacher C also alluded to mobile students living in low-income areas, stating, "The ones who are really mobile usually move to certain schools because that is the area they can afford to live. I will usually see them again." Seven teachers referred to the negative effects mobility has on academic achievement. Teacher B said mobile students are behind academically, citing the effects of multiple moves.

> It's very overwhelming because in some cases where I have a student that moves multiple, multiple times, he is easily a couple of years behind. You lose out on some of the academics. As he continues to move, he continues to get farther and farther behind. It's just pitiful.

Teacher I also stressed the negative effects of multiple moves on mobile students.

> They fall through the cracks. It depends on the degree of mobility. This year, I had a kid arrive in November and told me this was her third school and we started in late August. Third school this school year! That child's instruction retention is going to be minimal. The kid has already moved three times and is anticipating another move.

Teacher E thinks mobility can have a negative effect on mobile students, giving a specific example of math facts.

> They are affected by it a lot. If they are in and out of different schools, I think that hurts a child. Sometimes they come in and it's hard for them to learn. They are already behind. Some have moved in and are fine, but the majority of them are behind. They might not know their multiplication tables and it is hard.

Teacher G also mentioned math, stating, "Mobility affects math more than reading because you might have to put more building blocks in place." In discussing the effects of mobility on academics, Teacher G was the only one with a positive coded response. When discussing planning and instruction, Teacher G stated a mobile student may be a little ahead academically.

As evidenced in the literature review, stability was shown as an important indicator of student success and achievement. Four teachers specifically discussed behavior as it relates to mobility.

> We get a lot of recycle students. I call the ones who leave and come back and leave and come back recycle students. Two years ago, I had a child who started the year with me. I had him for a month. He left and came back and he was placed back in my classroom. Then he left again. While he was gone, I had three more students placed in my room so when he came back, there was no more room in my class so he was placed in another room. It was hard for him to establish a relationship with another teacher. He was constantly appearing in my room. He would get in trouble just to come to my room. I was already accustomed to his learning styles. It was just really hard on him.

Teacher F shared her thoughts on the behavior of nonmobile and mobile students. When

talking about nonmobile students, she said class procedures are already set and a new child in need of attention may act out and interrupt what is already set for the class. She said it takes some time to have the cohesion they had before the mobile student arrived. When talking about mobile students, Teacher F stated,

> They feel like an outsider. They are coming in to people who know what is going on and people who have a relationship and a tie together. Sometimes they will act out or shut down. It is hard to get to them. I haven't built a relationship with them yet and sometimes it's hard to get them into the grove of what we are doing.

When asked about nonmobile students, Teacher H said mobility might not impact the classroom unless the child has issues with poor behavior. She said, "the whole dynamic of the classroom can change. You have rules and routines and procedures in place and someone comes in and it's a whirlwind." Teacher G pointed out what he perceived as being a positive aspect of student mobility with discipline issues, citing a situation when a student in the class moved and due to his misbehaviors, the majority of the class was relieved to see him leave.

Six codes were in response to negative effects mobility has on the teacher, classroom, and school. These codes did not include changes to pacing, planning, and instruction, which were categorized into their own theme due to the questioning and vastness in which they were mentioned. Eight teachers mentioned challenges with pacing, planning, and instructing when mobile students move into the classroom.

Teacher D discussed how nonmobile students get used to having the same students and the same routine. He said, "When you throw a kink in that, it messes them up. As a revolving door, it messes them up. It's not fun for the teacher or the student when it's a revolving door." Teacher I also alluded to the effects on nonmobile students

saying,

> They are always getting new kids in their group. Kids are great about helping
> each other, but they lose a little bit because you add a new kid to the group and
> you take a little bit of instructional time to catch that kid up. Or if the kid is way
> behind, you have them do an activity while you play catch up. So they are losing
> instructional time. They are always the ones that are training the new kids.

In regards to teacher and school effects, two teachers mentioned grades or scores.
Teacher B stated she would like to see how mobility affects grades and rates of mobility
in the whole county. She mentioned how students moving four and five times may affect
how the teacher and school are graded. This teacher was referring to the accountability
reporting in North Carolina. She asked, "Where does this figure into the magic
formula?" Teacher F also worries about what mobile students do to her scores. She
stated,

> You have worked with these students all year and then here comes an outsider. I
> can't control what the teacher before me did or did not do. They come in and they
> have all these things that might affect what they do. They might be worried about
> being in a new place or they have missed the instruction I have given. Maybe they
> have missed things if they have come from another state where they have already
> learned fractions, or not. They have learned different things. I think the scores are
> big, other than how they feel. You don't want the student to feel like just a
> number.

Teacher H said as a teacher she does not know what mobile students have had before.
When speaking of a recent new student, she said, "There is a big dynamic change when
they first come in." Teacher J talked about the time it takes to figure out a starting point

for mobile students. She said she did not have the same data points for mobile students as she has for nonmobile students. Therefore, it is difficult to gage where the child is academically. For instruction, she said she is "looping back continuously to see where kids are and trying to ascertain where exactly the child is performing." Likewise, Teacher F stated, "It takes a while to get the cumulative records and it's not usually complete. I usually have to dig to fill the holes because they have moved from here to there." Contrary to the majority of responses about how mobility affects nonmobile students, Teacher A responded positively, stating,

> I think it's a good experience for them in that they get to meet students as they're in the same building day in and day out. I think it's a good experience for them to meet other students from North Carolina and from other countries even. I think it's a good experience for them to encounter different people.

Citing similar situations as the ones presented in the interviews, Vail (2003) believed mobility hurts teacher morale. Many of the comments provided by the 10 teachers interviewed support a negative effect on teacher morale.

While teachers were concerned about working with mobile students and doing their job well, they also showed concern for the mobile students. Current practices, ideas, and suggestions for both students leaving and arriving to the school were offered throughout the interviews. When students leave the school to move to another school, Teacher A tries to make the move a positive experience. She makes sure the student knows her email address so they can keep in contact with each other. She thinks it would be good for the school to conduct exit surveys to find out why students leave the school. Teacher B also tried to make exiting students' experiences positive by putting a note inside their papers as they leave. Teacher B wants these students to know they will be

missed and allows them an opportunity to say goodbye to the class if she knows about the move before they leave. Teachers C and E suggested sending a data or exit sheet with the student to help the next school and teacher with the student's academic placement.

For students moving into the school, Teacher B suggested using a new school packet with items such as a map to make it easier for the student to move around the school. She also suggested a welcome letter for the classroom that includes the class mission and what the class is about. The letter "would be something we could keep up in the office and as a class is assigned, you can hand out that paper." Teachers G and I also suggested a welcome packet. Teacher G suggested the packet include resources such as a book bag if necessary. The package needs to say to the student, "You're a {named the mascot} now." Teacher I suggested the welcome packet be colorful with fast facts about the school to help parents quickly know basic information instead of trying to read the whole handbook. Teacher C said we need to help students feel ownership in the school. She suggested an orientation program to help the mobile student establish pride in the school since "a lot of them never feel ownership with being so transient." Teacher D suggested giving incentives to help students want to stay at the school, even though he recognized the school does not have control over the decisions of the parents. Teacher I recommended parent education about the effects of mobility, stating, "There has to be some kind of way for them to understand, the longer you can stay in this school, the greater the benefit you will have for your child." Teacher J recommended a school-wide protocol where teachers have a "menu of strategies for when a student is brought down to the classroom" so the teacher does not have to think about what to do when a new student enters the room. She discussed making the process easy for teachers so they would not have to come up with ideas at the moment a new student walks in the room.

Summary

In this chapter, the statistical analysis and teacher interviews have attributed to the next steps for the school being studied. An ANOVA was used to test for statistically significant differences between the means of the scores in reading and math during each of the years studied. The quantitative data showed no statistical significance of mobility or gender on student growth on the North Carolina EOG tests in reading or math. Although no interaction was reported, it is plausible that a larger sample size may have yielded an interaction. Overall, females had a higher mean score in reading than males for both nonmobile and mobile students. Males had a higher mean score in math than females for both nonmobile and mobile students. Mobile male mean scores showed a steeper drop than mobile females in both subjects. In regard to the remainder of the variables to be analyzed in this study, the small sample sizes for discipline and attendance did not allow an inferential analysis to be completed because the power analysis would have yielded an extremely low power level. Discipline incidents and attendance are reported in Appendix C and Appendix D to show the frequency of incidents and rates of absences. A relationship between student growth and ethnicity, EC, or LEP status was also not able to be determined as there were not enough subjects in each of the categories for an analysis.

The teacher interviews provided responses which were coded and categorized into themes. These themes were illustrated through direct quotes from the participants. Overall, the teacher interviews illustrated the difficulties teachers face when trying to meet the needs of mobile students as they described the steps they take to help mobile students succeed both socially and academically. Learning background information about mobile students was largely in all the interviews. Teachers learn about mobile

students' backgrounds mostly through paperwork, cumulative records, and parent

contacts. For instructional insight, most teachers discussed assessing mobile students and

working with them to gain knowledge about the mobile students' prior learning so they

can set curricular goals and provide appropriate assignments. Social effects were also

largely discussed as an issue for mobile and nonmobile students. For mobile students,

teachers pair them with like buddies and use grouping strategies to acclimate the new

student to the classroom and school. Teachers perceive mobility as having more negative

effects than positive effects. Mostly, teachers were similar in their responses about the

effects of mobility. The majority reported difficulties for mobile students socially and

academically and also had concerns for their own teaching, the classroom, and the school.

Chapter 5 provides a summary of the quantitative and qualitative findings as they relate

to prior research and Maslow's hierarchy of needs, limitations of the study,

recommendations for practice, suggestions for further research, and conclusions.

Chapter 5: Conclusions

The purpose of this case study was to determine the impact of student mobility

and related factors such as attendance and behavior on student academic success.

Individual student data were collected and used in the statistical analysis to determine the

relationship of the variables of mobility, discipline incidents, attendance rates, gender,

and ethnicity. To gain additional insight into the impact of mobility on student success

and the school, interviews were conducted with teachers who were employed by the

school during the 2-year period being studied, 2011-2012 and 2012-2013. Student

growth, a component of the North Carolina EOG testing in reading and math and

perceptions of classroom teachers were used to form the conclusions about the impact of

mobility. This chapter also provides an interpretation of the findings of the qualitative

and quantitative results, an overview of mobility as it relates to a student's motivation for

learning through Maslow's theory of human needs, a discussion of the limitations to the

study, recommendations for schools and districts, conclusions, and suggestions for

further research. The study was framed around the following research questions:

1. What is the relationship of student discipline incidents, attendance rates,

gender, and ethnicity to student academic growth when analyzed with student mobility?

2. What strategies are being implemented by the school to support the success of

mobile students?

Summary of Results

The following sections include the summary of results for the quantitative and

qualitative analysis conducted for this study. Following the results gathered by the

researcher, Maslow's hierarchy of needs is presented as it relates to a mobile student's

motivation to learn along with prior research on student mobility.

Quantitative Results

A statistically significant relationship was not established when student growth on the North Carolina EOG tests in reading and math were analyzed with student mobility and gender. The amount of academic growth attained by students in reading and math during each of the school years studied was not affected by mobility or gender. Although no interaction was reported, it is plausible that a larger sample size may have yielded an interaction. Although a significant relationship could not be established, it was noted that mobile students' mean academic growth in both reading and math was lower than their nonmobile peers. Additional variables–attendance, discipline, and other demographic data–were to be included in this study; however, no results were reported due to the limited sample size of students when the data were divided into the groups. Although no statistical relationship could be established for student academic growth with mobility and discipline incidents or attendance in this study, researchers from prior studies have found mobile students tend to have higher rates of discipline incidents and lower rates of attendance which negatively impacts academic growth (Ashby, 2010; Blazer, 2011; Black, 2006b; Cheng & Romero, 2008; Costley, 2012; Engec, 2006; Hartman, 2002; Nelson et al., 1996; Rumberger et al., 1999; Walls, 2003; Wood et al., 1993).

The more mobility a student experiences, the higher the rate of in-school and out-of-school suspensions and absenteeism. Even the parents of mobile students have reported problems with their children's behavior. When students miss instruction due to incidents of discipline, academic achievement suffers (Engec, 2006; Craig, 1998; Johnston-Brooks et al., 1998; Schafft, 2006; Wood et al., 1993). Students must be present for critical learning opportunities in order to gain the strong foundational skills they need. Therefore, stability is important, mostly in the primary grades (Alexander et

al., 1996; Heinlein & Shinn, 2000; Nelson et al., 1996). Likewise, absenteeism is detrimental to a student's academic achievement (DeKalb, 1999). Students who are mobile experience increased absences which can be attributed to the achievement gap between mobile and nonmobile students (Costley, 2012; Johnston-Brooks et al., 1998; Schafft, 2006; Vail, 2003).

Qualitative Results

The conclusions drawn from the teacher interviews were categorized by the themes that emerged in the research analysis. Through the analysis of the interviews, several themes emerged, including obtaining information with parent involvement, planning and instruction, support structures, community resources, and mobility effects.

Student information and parent involvement. According to Popp et al. (2003) and Rumberger et al. (1999), teachers should read the cumulative record of students to assess grades, attendance, and important background information. When a new student is added to the class roster, all teachers interviewed want to find out more information about the new student. Mostly, the teachers used the initial paperwork provided during the enrollment process, the student's cumulative record, and initial conversations with the parents to learn about the background of the student. In some instances, the teachers tried to contact the child's prior teacher to learn additional academic information. Kerbow (1996) cited contacting the prior teacher as a way to become better acquainted with a mobile student and learn important background information. Some teachers cited a delay in receiving records from the previous school which can impede the continuity of services offered by the new school. When discussing the paperwork involved in a mobile student's enrollment, Sanderson (2003) said the constant changes for the mobile student impact the school's knowledge of the student, including not knowing whether or not a

mobile student has a learning disability. This was the case in an interview as a teacher

shared her experience of a child who did not receive services from the EC department

until weeks after the student was enrolled.

Some teachers discussed another way to learn more about a mobile student is to

contact the student's parents. The parent contact was important to the teachers as some

stated they were interested in knowing about the child's personal family background and

helping to make the move a positive experience. In addition to learning information

about the student, meeting with parents is a good way to ensure a smooth transition for

the mobile student (Black, 2006a; Engec, 2006; Isernhagen & Bulkin, 2011; Popp et al.,

2003; Rumberger et al., 1999). Popp et al. (2003) emphasized the importance of

following up with parents after a move to offer additional parent conferences. Most

teachers interviewed discussed talking with the parents, while three teachers specifically

mentioned inviting parents to school for a conference. A couple of teachers talked about

using the initial parent contact as a means to gain parent involvement in the school.

Bempechat (1990) said parent involvement is critical for increased student achievement.

When parents maintain frequent contact with their child's school, academic achievement

will be higher. Walker (2003) also said parent involvement at home and in school has a

positive effect on student grades, attendance, and behavior.

Planning and instruction. All teachers discussed the negative effects mobility

has on planning lessons and teaching, saying it is difficult to plan for instruction since the

teachers do not know what the mobile student has learned prior to arriving in their

classrooms. Therefore, assessments are necessary to know where to start instructing a

mobile student. Hartman (2002) said the unknown academic abilities of mobile students

impact how a teacher organizes instruction and place a strain on classrooms, schools, and

resources. If a student is moving within the same state, the content is often the same; however, the sequence of lessons may vary from school to school. Mobility interrupts curriculum pacing, and teachers have to repeat and review lessons often (Hartman). The teachers discussed how they often have to reteach information that has already been taught to the rest of the class to the mobile student. Grouping students for activities and assignments can also be difficult since the teachers want to place the new student in the correct group to meet their learning needs. Teachers say they lose instructional time due to conducting additional assessments with mobile students to determine where to begin teaching the new student.

Support structures and community resources. In an effort to help a mobile student feel more comfortable upon his/her arrival and to help the student form friendships, teachers assign at least one buddy student who may be similar to the mobile student. The buddy student helps the new student know what will be going on during the school day. Kendricks et al. (2013) said pairing or grouping students with peers who are similar can provide a strong social network and fosters positive academic performance. In addition to introducing the new student to the other students in the class, the teachers ensure they introduce a mobile student to other adults in the building as they travel to various places during the school day.

Teachers also provide a mobile student with a packet that outlines the classroom information which may be similar to the information teachers give to the students at the beginning of the school year. The teachers want to make sure the mobile student is aware of the class rules, routines, and procedures. Popp et al. (2003) and Rumberger et al. (1999) recommended the use of a packet for new students in order to provide important background information about the classroom, such as rules and procedures, along with

what has been taught.

Half of the teachers interviewed did not know about community resources to assist mobile students and families; however, the other half discussed the school counselor, after-school programs, and a local church as resources. An organized counseling program in schools that includes large amounts of student contact has been associated with increased academic achievement in math and reading. In addition, positive social behavior and lower suspension rates are affected by added contact with a school counselor (Carey & Dimmitt, 2012; Sink & Stroh, 2003). One teacher discussed how the counselor helped her work with a student who was in a foster home. Another teacher specifically talked about a food program and the counselor as a way to help mobile students.

Three of the teachers interviewed discussed after-school programs and churches as community partners. When discussing community resources, one teacher talked about seeing mobile students in an after-school program and shared how these students move between certain schools because of the affordable housing. None of the participants explicitly discussed their perceptions of the effect of economic status on mobile students. Nelson et al. (1996) believed when schools offer before- and after-school care programs, it can reduce the possibility of mobility since parents can maintain employment. Other extracurricular programs such as sports, dance, music, and clubs engage students in school. Children involved in these types of extracurricular activities learn to be responsible and have higher test scores and fewer behavioral issues (National Center for Homeless Education at SERVE, 2010; Simoncini & Caltabiono, 2012). Additionally, when new students join extracurricular activities, they acquire new friends and feel a sense of belonging (Black, 2006b; Rumberger et al., 1999).

Effects of mobility. The majority of teachers believe students are negatively affected socially by mobility. As students have made friendships, these relationships suffer for both mobile and nonmobile students when students move. Teachers believe mobile and nonmobile students also suffer academically, with one teacher questioning whether the social concerns have a direct effect on academic success. According to Ray (1992), students are motivated to learn when relationships are built during a school year. Hartman (2002) also said that relationships affect learning and that the lack of lasting relationships will result in lower levels of achievement for mobile students. Some teachers discussed multiple moves and how a student can become more than 1 year behind in academic growth. Kerbow (1996) found as students move multiple times, their academic gap becomes larger. In the interviews, teachers felt mobile students can fall through the cracks when they move multiple times. Two teachers specifically mentioned mobile students being affected academically in math since the background information may not be in place. Likewise, in a Chicago study, Kerbow found multiple moves to mostly affect math since the progression is relatively logical.

In addition to the effects of mobility on teacher planning and instruction and the impact on the academic success of the students, some teachers feel mobility affects the outcome of the teacher's overall performance rating for the school year and the performance of the school. With increased accountability and reporting on teacher effectiveness at the district, state, and federal levels, the teachers are concerned and feel the academic effects of mobility are out of their control. Citing similar situations as the ones presented in the interviews, Vail (2003) believed mobility hurts teacher morale. Many of the comments provided by the teachers interviewed support a negative effect on teacher morale.

Teachers also expressed the concern for increased behavior issues, stating that once class procedures are set, a new student may act out and interrupt the flow of the class. One teacher shared how a mobile student may not impact the classroom unless the child has poor behavior. A specific example was given of a student who moved in and out of the school three times. This student displayed behavioral issues on the third move back into the school. Engec (2006) found as children move often, they are more likely to have behavioral issues. More specifically, in Engec's study, students who enrolled in schools four or more times within the school year had a higher in-school and out-of-school suspension rate. Similarly, Wood et al. (1993) found the rate of behavior issues more than doubles for children who move frequently. Generally, mobile students demonstrate poor adjustment and have higher incidences of behavioral issues, resulting in a loss of instructional time and less stability (Nelson et al., 1996; Rumberger et al., 1999). Despite the negative effects of behavioral issues that may arise, the teachers discussed the need to build a relationship with a mobile student and how it takes time for the class dynamic to get back to normal when a new student is enrolled.

Conversely to the majority of the participant statements, one teacher felt a mobile student has potential to be ahead academically; and another teacher felt student mobility may be positive for the student. This teacher discussed how a mobile student has the advantage of seeing various areas and encountering new people. Overall, the participants were similar in their responses about the effects of mobility, perceiving mobility as having more negative effects than positive effects. The majority reported difficulties for mobile students socially and academically and also shared concerns for their own teaching, the classroom, and the school.

Mobility Research and Maslow's Hierarchy of Needs (1943)

The United States has the highest rate of mobility of all developed countries (Heinlein & Shinn, 2000). Research on student mobility has been conducted across the United States with the highest rate of mobility being found in California (Rumberger et al., 1999). Many researchers have concurred that mobility affects a student's achievement; however, factors outside of mobility have also been shown to negatively affect achievement. Namely, students from low-income families are often mobile and have, therefore, been associated with research on mobility (Alexander et al., 1996; Kerbow, 1996; Nelson et al., 1996).

Mobile students change schools for a variety of reasons. Some changes are by choice in search of a better education or increased course offerings, and others are due to factors outside of a student's control, such as socioeconomic factors that force a family to change residences (Hartman, 2002; Rumberger, 2003). No matter the reasons for student mobility, environmental factors can affect how a student functions in school (Jensen, 2009; Skeels, 1966).

In 1954, Abraham Maslow introduced his theory of needs recognition and satisfaction. This theory is widely known as Maslow's Hierarchy of Needs. In an effort to show the role motivation has in learning, Maslow described how people follow levels of need in sequence and cannot recognize or pursue the next need in the hierarchy until the current need has been completely met (Gawel, 1997; Ray, 1992). Maslow's hierarchy begins with basic physiological needs such as food, water, and shelter, followed by safety needs, belonging needs, esteem needs; and it concludes with self-fulfillment needs or achieving to one's full potential (retrieved January 2, 2014, from http://datadesign.wordpress.com/2011/01/14/maslows-pyramid/). Maslow's hierarchy

has implications for a student who is mobile, especially since mobile students are often from low-income families who are more likely to lack the fulfillment of the lower levels of the hierarchy.

Many researchers over the years have shown the connection between a student's environmental factors and a student's ability to learn. Mobile students tend to be members of families who are struggling financially and are enrolled in lower performing schools (Kerbow, 1996). Mobile students often lack the basic physiological and safety needs prescribed in Maslow's hierarchy which must be met in order for motivation and learning to occur (Gawel, 1997; Jensen, 2009; Kerbow, 1996; Ray, 1992; Skeels, 1966; Vail, 2003). According to Carger (2010), Kerbow (1996), and Schafft (2006), mobile families often have limited access to basic nutritional needs and healthcare and have less stable households, including nontraditional living arrangements such as single-parent homes. Half of the teachers interviewed were not aware of community resources that could assist new families, and only two teachers discussed the guidance counselor as a resource. The teachers want to help the students to feel comfortable in their new surroundings, including one teacher who makes sure a new student has the materials needed for the classroom. Another teacher seeks out a student who rides the same bus to ensure the new student knows someone on the bus. The lack of having one's basic needs met is associated with gaps in achievement and, therefore, lowers a student's chance of success (Carger, 2010).

In the third level of the hierarchy, Maslow prescribed the need for belongingness, love, and friendships. During the interviews, several teachers discussed the need for students to feel secure and have a sense of belonging. Teachers were concerned with the student's social well-being as well as their academic well-being. Carger (2010) discussed

how mobile students often have broken peer and teacher relationships and the need to help these students feel accepted, meeting the social need of belonging. Ray (1992) also shared the importance of a mobile student building relationships and how this relationship is linked to the student's motivation to learn. One strategy shared by most teachers in the interviews was the need to assign the mobile student a buddy to help acclimate the student to the new environment. The teachers also discussed strategic grouping for academic assignments and formal introductions to the adults in the school building.

During the teacher interviews, the teachers often discussed the importance of a new student building relationships with their peers. Costley (2012) said it is best for a student to attend one school for as long as possible due to the social need for love and belongingness that comes from staying in one place. According to Costley, humans have an innate need to be an integral part of a group as well as the need for a sense of security, which is especially true for children. One teacher specifically discussed how mobility hurts the relationships of students because when a student moves, it breaks the bonds they have developed. Providing an example, the teacher described the departure of a student who moved to Florida and how difficult it was for her friends in the class. The students were very close and remained in contact but were no longer with each other every day. The teacher shared how the students had planned to remain friends even though they were states apart; however, the students did not deal well with the move.

More recent studies of mobile students have begun accounting for the economic variable when analyzing student achievement data. Connections have been made between lower socioeconomic status and increased mobility, thus calling into question whether mobility or characteristics of families of lower socioeconomic status are the

causes of academic struggles. While studying mobile students and their socioeconomic status both before and after a move, Kerbow (1996) noted that achievement levels of mobile students compared to nonmobile students were lower even before the students experienced a change of schools. Rumberger (2002) acknowledged that his and other studies have found mobility to be "more of a symptom than a cause of poor school performance" (p. 2). In other words, studies suggest factors associated with mobility are independently affecting student achievement. In this study, the researcher was unable to account for the students' socioeconomic statuses. Although the academic data used in this study did not show a statistically significant relationship between achievement and mobility, overall, the mobile students' mean scores in reading and math were lower than their nonmobile peers. In addition, the teachers shared perceptions of academic difficulties for mobile students, saying mobile students do not have the necessary academic background knowledge when compared to their nonmobile peers. In Marzano's (2004) studies of socioeconomic levels and academics, students of lower socioeconomic status did not have the experiences that more affluent families experienced. Two teachers were concerned with obtaining information about mobile students' family backgrounds and most were concerned about mobile students' prior learning. The lack of background knowledge and prior learning of mobile students have affected the teachers' lesson planning and pacing. Seven teachers expressed the need to assess mobile students so they could know where to begin with instruction. In addition, student grouping for instruction is more difficult with mobile students.

Although the results are varied throughout the research as to whether mobility or factors associated with mobility and poverty more directly affect a student's academic success, the association between mobility and socioeconomic status has been established.

A vast number of mobile students come from lower economic households and have indicated higher incidents of discipline and lower rates of attendance. Mobility is largely considered a contributing factor to a student's academic struggles (Blazer, 2011; Chang & Romero, 2008; Chen, 2008; Engec, 2006; Kerbow, 1996).

Limitations of the Study

This study was designed to analyze the effects of student mobility in elementary-age students in fourth and fifth grades. The data reported in this study were based on information collected from state reporting sources and teacher interviews. It is possible that variables both inside and outside the school that were not accounted for in this study could have had an effect on the results and are discussed as limitations. The researcher could not control for the limitations.

As the research unfolded, the most prominent limitation was the inability of the researcher to study the socioeconomic status of the students in the study as measured by the school's free and reduced lunch program. Further limitations that were not controlled for in this study include students' environmental factors such as levels of perceived poverty, living arrangements including single- or double-parent homes, absences of students as they moved between schools, number of school moves in other locations, level of parent education, and teacher quality. Some of these factors and their effects have been included in prior research discussed in Chapter 2. Additionally, the results of the data in the statistical analysis were limited due to the small sample size of students during the 2 years being analyzed. Student growth was only analyzed with the variables of mobility and gender, which limited the discussion of the quantitative findings. The qualitative findings helped the researcher to develop recommendations specific to the school in the study; however, using a proxy to conduct the interviews limited the amount

of information collected from the teachers as the researcher could have asked additional questions to find more depth in the answers.

Recommendations for Practice

The topic of student mobility is one that is not highly recognized in schools. The first step toward assisting mobile students is to create awareness by presenting the mobility rates of a school and having open conversations with the school staff. The school leader should bring the issue of mobility to the forefront in order for school-wide action to occur. The teachers in the studied school are already using a variety of strategies to assist mobile students. From the information gained in this case study, the researcher provides additional recommendations to assist the school and district in increasing the success of mobile students throughout their educational experience.

Recommendations for the School Office

As a student and the family members walk into the school to enroll, the office staff should greet them, helping the family to feel welcome. A welcome packet containing basic facts about the school and the community will assist the family in their arrival and acclimation to their new surroundings. A school handbook should be provided as well to inform the family of more details of the school procedures. The school office should request the student's records from the previous school as promptly as possible to ensure teachers and staff have necessary information pertaining to the student's needs and academic history. If records are not received in a reasonable amount of time, the school's office personnel should check with the sending school to ensure the records are sent. As the student is taken to the new classroom, the parent or guardian should also be invited. This allows the classroom teacher the opportunity for a brief introduction. After the enrollment process is completed with the parent, the office

personnel should notify the counselor and administrator of the enrollment of the new

student if one or both have not been involved in the enrollment process.

Recommendations for the Classroom Teachers

During the initial parent or guardian meeting, the teacher should provide the

parent with contact information, inform the parent of the desire for a conference and, if

time permits, schedule a date. If there is not enough time to schedule a conference, the

classroom teacher should contact the parent within 1-2 days of the student's arrival. This

helps to ensure a smooth transition for the student and parent. Through parent-teacher

conferences and contacts, the teacher can learn more about the student's background and

more readily attend to the student's needs. For example, if the student lives in a homeless

shelter, completing homework may be more difficult and the teacher should be

empathetic to this situation. In addition to learning about the student by means of the

initial parent contact, teachers should read the student's cumulative folder and contact

teachers from previous schools if possible. Kerbow (1996) and Rumberger et al. (1999)

described these strategies as beneficial for the student and teacher.

Parent involvement from the beginning will have a positive effect on the student's

grades, attendance, and behavior (Walker, 2003). Frequent parent contact between the

parent and school should continue even after the student is no longer the new student in

the class. The majority of teachers interviewed did not talk about hosting parent

conferences after the student's enrollment. This additional parental contact should occur

as it will help the child achieve at higher levels overall (Bempechat, 1990). When the

mobile student arrives in the new classroom, the classroom teacher should provide

welcome papers to the student that include the class rules and procedures as provided to

the students at the beginning of the school year. Providing the information will also help

the student become acclimated to the classroom and likely help prevent potential

behavioral issues.

Recommendations for the Counselor and Administration

When a new student is enrolled, the counselor and an administrator should be

notified by the school office in order to make an initial contact with the student, welcome

the student, and work to build the relationships the new student needs to feel a sense of

belonging. As part of the comprehensive school counseling program recommended by

ASCA, the school counselor should maintain frequent checks on the student for

academic, behavioral, and social concerns (Ocerman et al., 2012). With the number of

mobile students reported in the school, the counselor should hold group sessions with

these students to allow them to address the issues mobile students face in a new

environment. The counselor should collaborate with other counselors in the school or

district, psychologists, social workers, and any other personnel who can assist these

students and their families. The counselor can also specifically assist low-income mobile

students with school supplies and refer these families to community resources as may be

needed.

Students who are mobile often have increased incidents of discipline and are

absent more often, both of which can result in a loss of instructional time (Hartman,

2002; Nelson et al., 1996; Rumberger et al., 1999; Schafft, 2006; Walls, 2003). The

entire school can be affected when students miss instructional time as the overall school

performance can decrease (Chen, 2008). As school administrators visit classrooms

during the school day, they should give extra attention to students who are new and check

on academic and social progress. Additionally, mentors should be assigned to mobile

students since mentoring programs can increase academic performance for at-risk

students (Curtis et al., 2012).

In the primary grades, students must be present for critical learning opportunities; thus, absenteeism affects the strong foundational skills they need to be successful later in life (Alexander et al., 1996; Chang & Romero, 2008; Heinlein & Shinn, 2000; Nelson et al., 1996). To prevent loss of instructional time, classroom teachers, school administration, and counselors should work with the school social worker and parents to ensure students are in school, contacting parents when absences begin to be excessive or discipline incidents are repeated. These contacts and parent involvement will help to prevent future misbehavior and keep the student in class. The school administration and counselor should maintain documentation of their attempts to assist mobile families with these issues in the event the parent is not in compliance with the compulsory attendance law for North Carolina.

Recommendations for the School

Extracurricular activities and after-school programs can help mobile students in a variety of ways. As students become involved in sports or clubs, their parents will likely become more involved in the school. The school should promote these activities when possible. As students are involved in extracurricular activities, they learn to be responsible, have higher grades and achievement, and have fewer behavioral concerns (National Center for Homeless Education at SERVE, 2010; Simoncini & Caltabiono, 2012). Extracurricular activities will help the mobile students make friends and give them a sense of belonging to a group (Black, 2006b; Rumberger et al., 1999). In addition to extracurricular activities for the students, the school can promote the on-site before- and after-school care program. The interviewed teachers mentioned after-school programs as a resource for mobile families. As parents are able to utilize this childcare

service, it will enable them to maintain employment and remain in the area, thus reducing

the likelihood of moving again (Nelson et al., 1996).

As the school has notification of students moving between schools, school

personnel should work to educate the parents about the effects of mobility on a child's

social and academic well-being and help the family, if possible, to avoid a school change.

In one of the teacher interviews, a teacher discussed educating parents on the facts of

mobility. She wants the parents to know the benefits of keeping their children enrolled in

one school. If the move is within the same school district, the school should advocate for

the student to be allowed to remain in the school when transportation is feasible.

Recommendations for the District

As gleaned from the teacher interviews, the district participates in common pacing

of curriculum. Common pacing helps to eliminate curriculum gaps for students who

move between schools in the district. Continuing the continuity of curriculum pacing

will help future mobile students. One teacher discussed how she sees mobile students in

the after-school program where she works in the afternoons. This teacher told how these

students are moving between certain schools in the district due to the type of homes in the

areas the families can afford. The district should analyze these areas and the amount of

mobility that exists between these district boundaries due to the living situations of these

families. The district should work to reduce transfers between schools in these areas as

much as possible and reach out to the community to align resources to assist these

families and students.

Federal funds exist for schools with various needs such as schools with a high free

and reduced lunch program. The district should collect annual reports from schools on

student mobility as part of the overall data analysis. Then, district planning should ensure

that the schools with highly mobile populations are receiving financial assistance to work with the needs of the mobile population. Extra attention given to schools with highly mobile populations could include human resources such as counselors and teachers, psychologists, and/or social workers. The school in this study has one guidance counselor to serve over 800 students. Other resources can include material and facility needs to ensure a clean and healthy learning environment.

Suggestions for Further Research

Indicated as a limitation of this study, student socioeconomic status is a large part of the current research regarding student mobility as it relates to academic success. As evidenced in studies such as the Kids Mobility Project (Craig, 1998) and by researchers such as Adduci (1990), Kerbow (1996), and Rumberger (2002), socioeconomic status and other factors of ethnicity, family structure, and language spoken have been associated with mobile students. Variables such as these, independent of mobility, have shown to have an effect on student achievement. Therefore, the achievement of mobile students was not affected solely by mobility. Due to these findings in prior research, it is recommended that further research on mobility of either the school in the study or any other school include the socioeconomic status of students, if possible, and related environmental factors and demographics associated with mobile students.

Research also indicated that the number of times a student moves is significant in determining the size of the academic gap between mobile and nonmobile students. Kerbow (1996) found a single move had little impact on achievement over time; however, multiple moves caused a larger academic gap over time for mobile students. More specifically, four or more moves resulted in 1 full year of academic loss. The mobile student's adjustment period extends over several years and several schools.

Therefore, it would be significant to analyze students with one or two moves between schools compared to those who have moved multiple times.

Since students must be present for instruction in order to learn the content being taught, an analysis of actual time in the classroom would be a useful comparison between the nonmobile and mobile population (Craig, 1998). Mobile students living in poverty are more likely to be chronically absent from school and, thus, miss critical instruction (Chang & Romero, 2008; Jensen, 2009). Being absent from the classroom does not necessarily mean a student is not present for school. Another reason mobile students may miss instruction is due to misbehavior in the classroom. As children move often, they are more likely to have behavioral problems (Engec, 2006). A more in-depth analysis of actual classroom time for mobile students may yield different results on the academic success of these students.

Conclusions

From the information gained in the study, the researcher raises awareness of the effects of mobility and provides recommendations and strategies to assist the school and district in increasing the success of mobile students throughout their educational experience.

Statistical analysis did not show a significant difference in the academic growth for mobile students versus nonmobile students; however, the mean scores in reading and math were lower for mobile students than nonmobile students. Themes emerged from the teacher interviews that are believed to have an impact on achievement for mobile students. Teachers focused much conversation around learning about each student in an attempt to meet their academic and social needs. Teachers also expressed concerns of how mobility affects teaching, the classroom, and the school. The main

recommendations for the school in this study are to increase awareness of student mobility at the school and district level, increase counselor and administrator support for mobile students, increase student involvement in extracurricular activities, and increase parent communication and involvement throughout the school.

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Appendix A

Teacher Invitation Letter for Interviews

January 13, 2014

Dear Classroom Teacher,

      I am conducting research about student mobility and its possible relationship with student achievement, discipline incidents, and attendance rates. In an effort to gain insight into a teacher's perspectives of how mobility affects students, the classroom, and the whole school, I am requesting to interview you. There are eight interview questions and it should take less than 30 minutes to complete the interview. A proxy, or person other than the researcher, will be conducting the interviews while recording the responses. The recorded responses will be given to a transcriptionist so the responses will be in writing. These written responses will be used and or directly quoted in the report of the research to share teacher perspectives on mobility. The superintendent of the school system has granted permission for this research. No participant names or identifying information will be included in the research report.

      Thank you for considering this request. Participation in this interview is strictly voluntary. Your experience with mobile students and perspectives of its effects will contribute to recommendations for helping students in their academic achievement. Sincerely,

Alisha Cloer
Candidate for Degree of Doctor of Education
Gardner-Webb University School of Education

Appendix B

Teacher Interview Questions

Teacher Perception Concerning Mobile Students

Years of Teaching Experience: Grades Taught: Gender: Ethnicity:

1) As a new student enters your class, how do you learn about the student's background and needs?

2) Describe how mobility affects your instruction and planning?

3) When new students enter the class, how do you integrate them with other students in the class? What do you do when a student moves out of your class?

4) How do you help mobile students develop relationships with peers? Adults?

5) In what ways do you feel mobility affects your nonmobile student? Mobile students?

6) Are there community resources you utilize to help mobile students?

7) What can the school do to help mobile students?

8) Is there anything else you would like to add concerning mobile students?

Appendix C

Student Information 2011-2012 Sample

Student	Grade	Mobility	Discipline	Attendance	Ethnicity	Gender	EC	LEP
158	5	0	0	0	3	0	0	0
162	5	0	0	0	3	1	0	0
166	5	0	0	0	6	1	0	0
167	5	0	3	4	6	0	0	0
168	5	0	0	0	6	1	0	0
169	5	0	0	0	6	1	1	0
179	5	0	0	0	6	1	0	0
181	5	0	0	0	3	1	0	0
191	5	0	0	0	3	0	0	0
193	5	0	0	0	6	0	1	0
194	5	0	0	0	6	0	1	0
196	5	0	0	0	3	1	0	0
206	5	0	1	2	3	0	0	0
224	5	0	0	0	2	0	0	1
235	5	0	0	0	6	1	0	0
238	5	0	0	0	6	1	0	0
246	5	0	2	3	3	0	0	0
275	5	0	0	0	4	0	0	1
295	5	0	1	2	3	0	0	0
305	5	0	0	0	6	0	0	0
310	5	0	0	0	6	0	0	0
318	5	0	0	0	6	1	0	0
321	5	0	0	0	6	1	0	0
170	5	1	0	0	6	1	0	0
175	5	1	0	0	3	0	0	0
180	5	1	0	0	3	0	0	0
182	5	1	0	0	4	1	0	0
183	5	1	0	0	5	1	0	0
203	5	1	0	0	6	0	0	0
221	5	1	0	0	3	0	0	0
226	5	1	0	0	3	1	1	0
236	5	1	0	0	6	0	0	0
240	5	1	0	0	3	1	0	0
247	5	1	0	0	3	0	0	0
249	5	1	0	0	6	1	0	0
252	5	1	0	0	2	0	0	1
255	5	1	1	1	3	1	0	0
256	5	1	0	0	3	0	0	0
259	5	1	0	0	6	0	0	0
261	5	1	1	2	3	0	0	0
262	5	1	1	1	5	0	1	0
263	5	1	0	0	5	0	0	0
265	5	1	0	0	6	1	0	0
274	5	1	1	1	3	0	0	0

(continued)

Student	Grade	Mobility	Discipline	Attendance	Ethnicity	Gender	EC	LEP
304	5	1	1	1	3	1	1	0
316	5	1	0	0	3	1	0	0
2	4	0	1	2	6	0	0	0
4	4	0	1	1	6	1	0	0
6	4	0	0	0	6	1	0	0
21	4	0	0	0	3	1	0	0
23	4	0	0	0	4	1	0	0
27	4	0	0	0	6	1	0	0
28	4	0	0	0	6	0	0	0
32	4	0	0	0	3	0	1	0
45	4	0	0	0	6	0	0	0
52	4	0	0	0	3	1	1	0
67	4	0	0	0	6	0	0	0
80	4	0	1	2	3	0	1	0
88	4	0	0	0	4	1	0	0
89	4	0	0	0	6	1	0	0
92	4	0	0	0	4	0	0	1
95	4	0	1	1	6	0	1	0
99	4	0	0	0	6	1	0	0
114	4	0	0	0	6	1	0	0
118	4	0	1	1	6	0	0	0
120	4	0	0	0	6	0	0	0
131	4	0	0	0	6	0	0	0
137	4	0	0	0	3	1	0	0
151	4	0	1	1	2	1	0	0
3	4	1	0	0	6	1	1	0
5	4	1	0	0	6	1	0	0
7	4	1	0	0	5	0	0	0
15	4	1	0	0	3	0	1	0
26	4	1	0	0	6	0	1	0
36	4	1	0	0	4	1	0	1
42	4	1	0		6	1	0	0
44	4	1	0	0	6	0	0	0
47	4	1	0	0	3	1	1	0
64	4	1	0	0	3	0	0	0
65	4	1	1	2	4	0	0	1
68	4	1	1	1	3	1	0	0
73	4	1	0	0	6	0	0	0
75	4	1	0	0	5	0	0	0
84	4	1	0	0	6	0	0	0
98	4	1	0	0	6	0	0	0
107	4	1	0	0	3	0	0	0
111	4	1	0	0	6	1	0	0
121	4	1	0	0	3	0	0	0
128	4	1	0	0	5	0	0	0
139	4	1	0	0	6	0	0	0
143	4	1	0	0	3	0	1	0
155	4	1	0	0	4	0	0	0

Appendix D

Student Information 2012-2013 Sample

Student	Grade	Mobility	Discipline	Attendance	Ethnicity	Gender	EC	LEP
158	5	0	3	5	3	1	0	0
164	5	0	0	0	3	1	1	0
167	5	0	1	1	3	0	1	0
171	5	0	1	2	6	0	1	0
172	5	0	0	0	6	1	0	0
184	5	0	0	0	6	1	0	0
193	5	0	0	0	3	1	1	0
198	5	0	0	0	6	1	0	0
201	5	0	0	0	6	1	0	0
206	5	0	0	0	3	0	0	0
207	5	0	0	0	4	0	0	1
208	5	0	0	0	6	1	0	0
222	5	0	0	1	6	0	0	0
224	5	0	0	0	6	1	0	0
227	5	0	0	0	4	1	0	0
228	5	0	0	0	6	1	0	0
232	5	0	0	0	3	1	0	0
242	5	0	0	0	6	0	0	0
250	5	0	0	0	6	1	0	0
267	5	0	0	0	3	1	0	0
281	5	0	0	0	6	0	0	0
288	5	0	0	0	6	0	1	0
146	5	1	0	0	6	1	1	0
147	5	1	0	0	6	1	1	0
148	5	1	0	0	3	1	0	0
152	5	1	0	0	5	1	0	0
166	5	1	0	0	4	0	0	0
175	5	1	0	0	6	0	0	0
177	5	1	1	1	3	0	1	0
178	5	1	1	1	4	1	1	0
183	5	1	1	1	6	1	0	0
190	5	1	0	0	6	1	0	0
192	5	1	0	0	3	1	0	0
216	5	1	0	0	3	1	0	0
245	5	1	0	0	6	0	0	0
248	5	1	0	0	6	1	0	0
252	5	1	1	2	3	1	0	0
259	5	1	1	1	5	0	0	0
261	5	1	0	0	4	1	0	0
265	5	1	0	0	4	0	0	1
271	5	1	0	0	3	1	0	0
274	5	1	0	0	5	0	0	0
277	5	1	0	0	3	1	0	0

(continued)

Student	Grade	Mobility	Discipline	Attendance	Ethnicity	Gender	EC	LEP
279	5	1	0	0	6	0	0	0
3	4	0	0	0	3	0	0	0
5	4	0	0	0	6	1	0	0
16	4	0	0	0	6	1	0	0
19	4	0	0	0	6	0	1	0
33	4	0	0	0	5	1	0	0
35	4	0	0	0	6	0	0	0
36	4	0	0	0	6	0	0	0
37	4	0	0	0	6	0	1	0
40	4	0	0	0	3	1	0	0
41	4	0	0	0	3	1	0	0
42	4	0	0	0	6	0	0	0
43	4	0	0	0	6	1	0	0
63	4	0	0	0	2	0	0	1
77	4	0	0	0	6	1	0	0
108	4	0	0	0	6	1	0	0
121	4	0	0	0	3	0	0	0
124	4	0	0	0	3	1	1	0
129	4	0	0	0	6	0	0	0
134	4	0	0	0	5	0	0	0
143	4	0	0	0	5	1	0	0
4	4	1	0	0	4	0	1	0
15	4	1	0	0	3	0	0	0
27	4	1	1	1	3	0	1	0
32	4	1	0	0	3	0	0	0
47	4	1	0	0	6	1	0	0
60	4	1	0	0	3	1	0	0
65	4	1	0	0	6	1	0	0
66	4	1	0	0	6	1	0	0
70	4	1	0	0	3	1	0	0
76	4	1	0	0	6	1	0	0
82	4	1	0	0	6	1	1	0
91	4	1	0	0	6	1	0	0
95	4	1	0	0	2	1	0	0
97	4	1	0	0	4	0	0	0
100	4	1	0	0	4	1	0	0
102	4	1	0	0	5	1	0	0
103	4	1	0	0	3	1	1	0
105	4	1	0	0	6	0	0	0
107	4	1	0	0	6	1	1	0
112	4	1	0	0	3	0	0	0
141	4	1	0	0	3	0	0	0